TRANSNATIONAL PRIVATE AUTHORITY IN EDUCATION POLICY:
A CASE STUDY OF MICROSOFT CORPORATION IN
JORDAN AND SOUTH AFRICA

by

Zahra Bhanji

A thesis submitted in conformity with the requirements
for the degree of Doctor of Philosophy
Department of Theory and Policy Studies
Ontario Institute for Studies in Education of the
University of Toronto

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Doctor of Philosophy, 2009 
Department of Theory and Policy Studies in Education, 
University of Toronto 

Abstract 

This thesis presents a case study of Microsoft Corporation’s Partners in Learning (PiL) program, an example of transnational policy authority in education, with two embedded case studies of PiL in Jordan and South Africa. The constructivist and rationalist approaches highlight the changing nature of governance through the cultural and strategic shifts that led to Microsoft’s policy role in education.

Microsoft’s strategic profit interests and its corporate-social-responsibility aspiration to play a policy role in education influenced its educational footprint. From a top-down perspective, Microsoft used supranational forms of power by implementing its global PiL blueprint through similar PiL programs worldwide. From a bottom-up perspective, Microsoft used “localization practices” by engaging different subnational agents and used different strategies to gain footholds in two very different political and policy contexts. Microsoft’s top-down and bottom-up approaches link the supranational policy arena to the subnational or subgovernmental.

Microsoft’s economic power and strategic engagement gave it entry into education. It gained expert authority from its extensive history and experience in education. Its expert authority was expressed through strategic relationship building through diplomacy and partnerships, policy networks, and the sharing of best practices. The company was however not able to claim absolute legitimacy because of resistance in both countries.
This thesis highlights that at the governmental level, sovereignty does not disappear when transnational corporations become involved in education at the national level. Instead, nation-states become strategic sites for the restructuring of global policy roles. The Jordanian government became a public facilitator, by working with Microsoft to implement a stand-alone PiL program. The South African government became a public integrator, by implementing the PiL program within government policies and programs. Power was also redistributed within both countries, moving away from government education officials towards the monarchy in Jordan and the presidency in South Africa.

The findings of the study highlight the need for corporations engaged in public education to be governed within instituted accountability measures, for appropriate partnership frameworks, and for governance tools that can both effectively engage companies in education and ensure that they work within common goals and values set out by international education organizations.
Acknowledgements

I have been blessed and honoured by the support of so many people. First and foremost, I am grateful to Microsoft Corporation for agreeing to participate in this research. Thank you to all the research participants of this study: Microsoft staff in Redmond, members of the International Advisory Committee of Partners in Learning, and all those I interviewed in Microsoft, government, academia, local corporations, international organizations, and nongovernmental organizations in Jordan and South Africa. This research would not have been possible without your insights and time.

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journey. Thank you for believing in me, for all your love, and support over the years. I couldn’t have done it without you!
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<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>APM</td>
<td>Academic Program Manager</td>
</tr>
<tr>
<td>EMIS</td>
<td>Education Management Information System</td>
</tr>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>CIO</td>
<td>Chief Information Officer</td>
</tr>
<tr>
<td>CSR</td>
<td>Corporate Social Responsibility</td>
</tr>
<tr>
<td>DOE</td>
<td>Department of Education</td>
</tr>
<tr>
<td>EMEA</td>
<td>Europe, the Middle East and Africa</td>
</tr>
<tr>
<td>ERIC</td>
<td>Education Resources Information Centre</td>
</tr>
<tr>
<td>FOSS</td>
<td>Free and Open Source Software</td>
</tr>
<tr>
<td>GCSE</td>
<td>Global Corporate Social Engagement</td>
</tr>
<tr>
<td>JEI</td>
<td>Jordan Education Initiative</td>
</tr>
<tr>
<td>ICT</td>
<td>Information Communication Technology</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>ITN</td>
<td>Innovative Teachers Network</td>
</tr>
<tr>
<td>IDC</td>
<td>International Data Corporation</td>
</tr>
<tr>
<td>MOE</td>
<td>Ministry of Education</td>
</tr>
<tr>
<td>NFIE</td>
<td>National Foundation for the Improvement of Education</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-government Organization</td>
</tr>
<tr>
<td>PC</td>
<td>Personal Computers</td>
</tr>
<tr>
<td>PiL</td>
<td>Partners in Learning</td>
</tr>
<tr>
<td>PPP</td>
<td>Public-Private Partnerships</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>Research and Development</td>
</tr>
<tr>
<td>ROI</td>
<td>Return on Investment</td>
</tr>
<tr>
<td>STIC</td>
<td>School Technology Innovation Centre</td>
</tr>
<tr>
<td>TNC</td>
<td>Transnational Corporations</td>
</tr>
<tr>
<td>WEF</td>
<td>World Economic Forum</td>
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**ABSTRACT**

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Chapter 1 - Introduction

The scope and scale of transnational corporations\(^1\) (TNCs) has increased tremendously in recent years. Of the 100 largest economies in the world, only 49 are countries; the majority are TNCs (Love & Love, 2003). TNCs are increasingly entering the field of education through elaborate programs. They are playing new roles as policy actors and governors of education. Their entrance into these roles is relatively recent, not very well understood, and raises many questions. This thesis is a case study of such a new private-sector education-policy actor, Microsoft Corporation\(^2\) and its worldwide Partners in Learning (PiL) program. The case incorporates a comparative study of two very different contexts, Jordan and South Africa. I study the motivations as well as the policy and governance roles played by Microsoft, its efforts to gain authority and legitimacy, and resulting shifts in government sovereignty and policy making in education.

In this chapter, I provide a background to the study and the research questions. The rationales for choosing Microsoft and its PiL program as a case study, and for selecting Jordan and South Africa as case countries for this study are also provided. This is followed by highlights of the study’s theoretical and conceptual framework, findings, and an outline of areas to be covered in each of the thesis chapters.

1.0 Background to Study

Over the last few years, there has been a convergent realization within several fields of study (including international development, international relations and business) that the private sector needs to become more involved in international development. Increasingly, large international organizations, such as the World Bank, the United Nations, and the World

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\(^1\) Transnational corporations (TNCs) are corporations that have substantial direct investment in foreign countries and are engaged in the active management of the offshore assets in the foreign country (Bartlett & Ghoshal, 2000).

\(^2\) Also called Microsoft in this thesis.
Economic Forum, along with several influential academics and world leaders, are calling for partnerships with the private sector to pursue development efforts (UN General Assembly 2002; World Economic Forum 2004). There are good reasons to suggest that this should occur because of the resources and expertise that corporations bring. Some TNCs have larger budgets than the countries in which they operate. They can potentially be agents for positive change. They can influence development activities in the countries in which they operate through their employees, research, and programs. However, the increasing role of TNCs in development leads to many questions about their motivations, means, and ends.

After working with some of the poorest and most isolated communities in the world, I have been inspired to help improve the lives of people in the developing world. Returning from India after an 8-month stint in a remote rural village, I worked in corporate philanthropy from 1997 to 2003 with Aga Khan Foundation Canada, where I raised funds from corporate Canada in support of international-development projects in Asia and Africa. I not only learned about how to raise funds for international-development causes, but also about the priorities and focus of the corporate world and how to engage corporations in dialogue on international-social-development issues. I soon realized that I wanted to understand and do more.

TNCs are participating to build knowledge-based economies - referred to by Robertson (2008) as efforts to develop new boundaries and opportunities for business, tooled by new information communication technology (ICT) that are the roots of new productivity sources and new formations of the global economy. In the field of education, companies have traditionally sold their products and services directly to governments or donated products locally to schools. This is changing. TNCs from many different sectors, including ICT, are trying to sell a new vision of education to the education sector. They are also exerting their influence on education
in comprehensive and pervasive ways. These new developments raise many questions about the motivations and implications of TNC participation in education systems around the world.

TNCs in the ICT sector, such as Microsoft Corporation, are dispersing their vision and ideas through strategic and elaborate programs that portray the importance of ICT-in-education. The ICT sector is a unique example of how TNCs aim to bridge the international digital divide, the widening gap between countries with and without access to computer-based technologies (Perraton & Creed, 2000), through participating in education policy-making. Henry et al. (1999) argue that:

> At present there is something of a social, cultural and political struggle going on amongst those corporate interests which produce print materials, computer software and hardware and telecommunications technology, and the educational community, including teachers and parents, and governments for influence and control in both state mandated educational systems and within the emergent parallel system. These technological and related developments thus raise questions to do with the state and the provision of education, to do with the very production of school knowledge and who should be mandated to develop and sanction it, and about those institutions specifically designated as having educative functions. (p. 94)

I address some of the important issues raised in the above quote in this thesis, to gain better understanding of the motivations and aspirations of TNCs to gain policy authority in education. Authority relations are shifting in different social sectors, including education. New forms of private authority – individuals or organizations that have decision-making power over a particular issue area and are regarded as exerting power legitimately (Cutler et al., 1999) – are emerging. *Private authority* refers to situations where decision-making power and responsibility for public policy issues are no longer solely held by government. The state is no longer the sole, or in some instances even the principal, source of authority, in either the domestic-policy arena or in the international-policy system (Hall & Biersteker, p. 5).
New forms of private authority that differ from previous forms of private-sector engagement in education are also emerging as a result of globalization (Ball, 1998; Bloom, 2004; Dale, 1999; Lauder, 1991). Bloom explains that:

The need to improve quality [of education] has sometimes interacted with increased globalization by creating the possibility that foreign corporations play a significant role in running the schools in a developing country. The motivations for such a change could be benign and, indeed, beneficial: a poor country can benefit from close contact with developed world practices. Just as likely, however, are the downsides that this phenomenon could present: that foreign investors will be seeking short-term profits and that their interests will clash with the host country. (p. 74)

Very little is known about the motivation, processes, and roles played by new transnational non-governmental policy actors in education, including those from the private-sector. In addition, very little is known about the transformations in government policy-making that result from the expanded role played by the private sector in education.

1.1 Main Research Questions

This is a case study of one TNC, Microsoft Corporation. It presents a striking example of a new private-sector policy actor with a transnational policy reach in education. The thesis focuses on the behaviours of one policy actor and is guided by two main research questions:

1. Why has Microsoft Corporation developed new programmatic activities with a transnational policy reach in education?

2. Why do governments agree to the expanded role played by Microsoft through its Partners in Learning program?

1.2 Why Microsoft Corporation and the Partners in Learning Program?

There are several information-technology corporations, mostly headquartered in the United States, with large, international, education programs that deserve careful study. Intel Corporation’s Teach for the Future Program, Cisco Systems’ Worldwide Academies Program,
and others were possible choices for this study. Microsoft Corporation, however, emerged as my first choice, because it was the most unique and elaborate. Its Partners in Learning program was framed to allow Microsoft to enter the educational-policy arena through a broad set of programmatic activities and networks. The Intel and Cisco programs are narrower in scope and focus mostly on training. Microsoft’s PiL program had both a transnational reach and was already deeply entrenched within public systems of education worldwide when I chose which company to study. Microsoft has entered the education sector by signing over 200 Memorandums of Understanding (MOUs) with ministries and departments of education, NGOs, and other partners around the world.

Microsoft Corporation has been working in the educational arena since 1986. Bill Gates, founder of Microsoft, clearly laid out a personal vision for the work of Microsoft’s promotion of the use of technology in education. Gates sets out his personal vision in his book *The Road Ahead* (1995), which includes a chapter on education titled “Education: The Best Investment”. Gates refined this vision by commissioning research studies, as well as writing subsequent books and making speeches to different educational stakeholders in the U.S. and abroad (Gates, 1995; Microsoft Corporation, 1996b, 1997b).

In this study, I look at one of Microsoft’s largest international efforts in education, the international PiL program. I study this program to gain insights into Microsoft’s emergence as a transnational policy actor in education. The international PiL program is funded by Microsoft to support the innovative and creative use of ICT in schools. Since 2004, Microsoft has developed an elaborate organizational structure for PiL, donated software, invested $150 million per year from its marketing budget, and employed over 100 staff in the PiL program. The MOUs signed with governments, NGOs, and local corporations have built a relationship that enables Microsoft
Corporation to deliver its educational ICT expertise and resources within and through public education systems. PiL’s three central programmatic components are the Fresh Start for Donated Computers Program, the School Agreement Subscription Licensing Program, and the Partners in Learning Grants Program (see Chapter 5).

In January 2008, Microsoft announced that the PiL program’s funding would be renewed for another 5 years. However, the activities of the PiL program were to be narrowed and funded out of the company’s corporate-citizenship budget and not its marketing budget, as was the case in the first phase of the program (Microsoft Corporation, 2008). This will be discussed further in Chapter 5.

The PiL program has reached over 4 million teachers and more than 90 million students (Microsoft Corporation, 2008). The scale and scope of this program is much larger than Microsoft’s engagement in education before PiL and that of other technology companies operating in education.

1.3 Why Jordan and South Africa?

I selected the PiL programs in Jordan and South Africa from among the over 100 countries in which Microsoft run the program for a variety of reasons. My intent was to select two middle-income countries from different continents, to compare PiL programs, and the variability and similarities in Microsoft’s motives and policy roles across continents. Middle-income countries were chosen so that there was at least minimal country-level technological capacity to fully understand Microsoft’s ICT-in-education activities. Given the logistics of implementing an international study, my selection of countries was steered to a great extent by the institutional support made available in each country, through contacts provided by OISE/UT faculty.
The differences between the two country contexts (see Table 1) offer insight into Microsoft’s new policy role and impact in education, and how governments responded.

**Table 1**  
*Country Context Comparison of Jordan and South Africa*

<table>
<thead>
<tr>
<th>Context</th>
<th>Jordan</th>
<th>South Africa</th>
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</thead>
<tbody>
<tr>
<td>Government type</td>
<td>Constitutional monarchy</td>
<td>Republic</td>
</tr>
<tr>
<td>Population</td>
<td>5.5 million</td>
<td>47.9 million</td>
</tr>
<tr>
<td>Gross enrolment rates*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>96% (2007)</td>
<td>95% (2007)</td>
</tr>
<tr>
<td>Secondary</td>
<td>89% (2007)</td>
<td>90% (2007)</td>
</tr>
<tr>
<td>Primary completion rates</td>
<td>98% (2006)</td>
<td>94% (2006)</td>
</tr>
<tr>
<td>(primary to secondary transition rates)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public expenditure on education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As % of Gross Domestic Product</td>
<td>4.9</td>
<td>5.5</td>
</tr>
<tr>
<td>As % of total government expenditure</td>
<td>20.6</td>
<td>17.9</td>
</tr>
</tbody>
</table>

Sources:
a. Gross enrolment is the number of pupils enrolled at a given level, regardless of age, expressed as a percentage of the population in the theoretical age group for that level of education (UNESCO, 2008).
Row 2: Column 2 (CIA, 2008), Column 3 (CIA, 2008)
Row 3: Column 2 (CIA, 2008), Column 3 (Statistics South Africa, 2007)
Row 4: Column 2 (UNESCO, 2008), Column 3 (UNESCO, 2008)
Row 5: Column 2 (World Bank, 2007), Column 3 (UNESCO, 2008)
Row 6: Column 2 (World Bank, 2007), Column 3 (UNESCO, 2008)

Jordan is a constitutional monarchy, and South Africa is a republic based on a constitutional democracy. Jordan’s constitution guides the work of its monarch and, in South Africa, elected representatives vote on legislation (CIA, 2008). At 48 million, South Africa’s population is 10 times that of Jordan (6 million). In addition, South Africa’s per-capita GNI (Gross National Index) is about twice that of Jordan’s US$2,290.
Within education, Gross Enrolment Rate (GER)\(^3\) at the primary level is similar in both countries, with Jordan at 96% and South Africa at 95%. At the secondary level, however, GER varies substantially, with Jordan having a much lower rate (68%) than South Africa (90%) (UNESCO, 2008). Jordan’s and South Africa’s public expenditure on education, as a percent of GDP, is similar (4.9% versus 5.5%) (UNESCO, 2008; World Bank, 2007). Although there are similar (GER) and public educational expenditure in Jordan and South Africa, the two countries differ substantially in size and wealth.

In Jordan, there has in recent years been an erosion of political expression. South Africa, on the other hand, has a vibrant civil society, comprising thousands of NGOs and media outlets (BBC World Service Trust, 2006).

1.4 Study Overview

This thesis presents an exploratory case study of Microsoft Corporation’s transnational activities in education, with two embedded, country case studies of the PiL program in Jordan and South Africa. The study provides an overview of Microsoft’s activity in education at a worldwide level and traces the history and origins of the PiL program. At the country level, I examine the global PiL public-private partnership in two countries, to gain insight into Microsoft’s motivations and new policy authority in education. Historically, governments have funded and provided education, and controlled decision-making about it. In that regard, I look at shifts in government sovereignty and policy-making. A cross-case analysis of the two country’s PiL programs reveals the nature, localization of programs, varied strategies and implications of Microsoft’s private authority.

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\(^3\) GER is the number of pupils enrolled in a given level of education regardless of age expressed as a percentage of the population in the theoretical age group for that level of education (UNESCO, 2008).
The theoretical literature is used as a backdrop, but the study focuses on behaviours of Microsoft, the actor under study in this case. The study draws from three bodies of literature: globalization and education policy, business, and international relations. Scholars in education policy argue persuasively that economic globalization stimulates the privatization and marketization of education (Chubb & Moe, 1988; Levin, 2001; Patrinos, 2000). Education policy literature does not directly address the emerging educational-policy authority of TNCs. In contrast, business scholars studying corporate social responsibility explore the increasing participation of TNCs in the social sector, through the broad spectrum of motivations that integrate philanthropy with self-interest (Martin, 2002; Porter, 2002). Last, international relations scholars recognize the increasing scope and intensity of power held by TNCs is advancing their private authority at an international level (Cutler et al., 1999; Ruggie, Forthcoming). These scholars have not studied the processes through which TNCs come to be seen as policy authorities, nor do they consider how TNCs reshape domestic educational policy arenas. The thesis addresses the above-identified gaps in the literature.

I use rationalist and constructivist approaches (Fearon & Wendt, 2002) from international relations to theoretically frame this study. I use the rationalist approach to examine Microsoft’s strategic, short-term business interests and decision to invest in structures, expertise, and policy-capacity-building through its PiL program. In addition, I use the constructivist approach to examine the behaviour and preferences of Microsoft staff that shape their long-term vision, interests, expertise, and corporate identity.

Drawing from the literature reviewed for the study, I have developed a conceptual framework to study Microsoft’s private authority in education. The first part frames Microsoft’s (a) motives, (b) policy role and governance, and (c) legitimacy. The second part frames
government’s (a) motives and response and (b) sovereignty and policy making. Using this conceptual framework I study shifts in power and authority given Microsoft’s expanded role in education.

1.5 Organization of Thesis

The thesis is organized into nine chapters. In Chapter 1, I provide a background to the study and the research questions. I also explain why Microsoft and the Partners in Learning Program were chosen as a case study and why Jordan and South Africa were chosen as country case studies. Last, I provide a study overview and highlight key findings.

In Chapter 2, I first survey three bodies of literature: (a) globalization and educational policy, (b) corporate social engagement, and (c) international relations. I then present a theoretical framework that bridges constructivist and rational approaches. Finally, I review key concepts to be used as conceptual levers in the study: global governance, knowledge and power, authority, and legitimacy.

Chapter 3 presents a conceptual framework for the study, followed by a discussion of its research design and methodology. The chapter also includes information on access to research participants, data sources, methods and procedures of data analysis, validity and generalizability and, last but not least, ethical considerations for the study.

Chapter 4 is divided into two parts. The first part of the chapter provides a background on Microsoft Corporation and its founder, Bill Gates. The second part covers Microsoft’s history in education from 1986 to 2003 and reviews its corporate social engagement in education.

Chapter 5 provides an overview of Microsoft’s worldwide PiL program. I highlight the origins of the PiL program, its program structure, its PiL Memorandums of Understanding, and shifts in program motives and priorities.
Chapters 6 and 7 present two-in-depth case studies of the PiL program in Jordan and South Africa. I first review the ICT and education-policy contexts and open-source debates in each country. Each chapter includes a discussion of the evolution, key components, partnerships, and shifts in the PiL program. I also review Microsoft’s entrance into the education sector, policy role, governance, and motives in education. Shifts in government sovereignty and policy making are considered. Last, I study Microsoft’s power, authority and legitimacy in each country.

Chapter 8 offers a cross-case comparison of the two country case studies. I compare each country’s ICT context and open source software debates, Microsoft’s policy and governance authority, and the variation in government responses to PiL and Microsoft’s policy roles. Lastly, I compare Microsoft’s power, authority, and legitimacy in the two countries.

In Chapter 9, I summarize the main findings of the thesis. I review Microsoft’s motivation, as well as cultural and strategic shifts within the company. I also study government motivations and shifts in sovereignty. Then, I review Microsoft’s localization efforts in each country and its limitations and implications within the context of global governance and accountability. I review the policy authority in the governance of public-sector activities in education. Last, I discuss theoretical and conceptual contributions of the thesis, its limitations, and avenues for future research.
Chapter 2 – Conceptualizing Globalization and the Rise of Transnational Corporations in Education Policy

In order to develop a conceptual framework for this study, I surveyed three broad and distinct bodies of literature on (a) globalization and educational policy (b) corporate social engagement and (c) international relations. I chose these literatures because they provide critical insight into particular components of this thesis. The literature on globalization and educational policy covers new education-policy processes and the emergence of new policy actors in education. The literature on corporate social engagement (part of the business literature) covers motives driving the work of corporations in social policy. This literature also provides insight into the mechanisms and programs through which transnational corporations (TNCs) operate. Last, literature on international-relations contributes to the debate between rationalist and constructivist approaches to the study of international policy actors. In this thesis, I combine these three approaches to create a theoretical framework.

At the end of the chapter, I discuss specific constructs drawn from the international relations literature that I use as levers in the conceptual framework presented in Chapter 3. These constructs include knowledge and power, authority, legitimacy, and sovereignty. A summary of the conceptual framework is presented in the chapter’s conclusion.

2.0 Globalization and Global Governance

Economic globalization over the last 25 years has progressively integrated national economies into a new global market economy. There has been an enormous reduction in costs of communication and transportation; increasing flows of trade and investment across borders; and increasing flows of knowledge, capital, goods, services, and people (Friedman, 2000; Sandbrook, 2003; Stiglitz, 2003). Alongside economic globalization, collective decision-making is emerging
between the public and private sectors, through expansion of transnational linkages, development of quasi-supranational institutions and intergovernmental organizations, increased world-wide use of information communication technology (ICT), and the creation of new regional alliances (Held, 1991; Held & McGrew, 2000).

Globalization has shifted political processes and structures as well (Robertson, 2007c). The role of the state has shifted, towards a greater focus on international competition and a smaller role for state provision of public services. New forms of non-state governance of previously public service sectors of education have emerged. Non-state actors challenge traditional forms of governmental authority, transforming the governance of key policy issues. Supranational forms of power have emerged as a result globalization, along with greater subnational participation and control of what may have been centralized in the state.

The concept of governance in this study refers to the decentralization of control or authority, away from government, and includes relationships that extend beyond national borders (Finkelstein, 1995). As Smouts (1998) explains,

Governance places emphasis on the multiplicity and diversity of the actors. It makes it possible to consider management of international affairs not as an interstate activity, but as a negotiation/interaction process among heterogeneous participants. (p. 84)

In this new form of governance, there are no longer straightforward hierarchical policy environments but multiple interventions by multiple actors that are not part of a government bureaucracy (Mundy & Ghali, 2009). Decision-making occurs at many levels and modes of organization proliferate (Smouts, 1998). As Smouts further explains,

Governance brings subsystems organized into the famous policy networks into play; linking actors who enjoy neither the same legitimacy nor the same capabilities- ...-Governance-...-involves participation, negotiation and coordination (p. 86).
The phenomenon of globalization and global governance are complex. It has been difficult for policy analysts to grasp exactly how they are reshaping the education sector, although many recent studies have sought to empirically explore the impacts of globalization on educational policy.

2.0.1 Globalization and Education

Since the early 1980s, ministries of education have increasingly focused on the role of education in meeting the growing needs of the global knowledge-based economy for a highly skilled flexible labour force (Dale, 2000; Lauder, 1991; Lingard, 2000; Robertson, 2007a, 2008). Scholars have studied links between the global economy and education as they relate to education. In particular, globalization has placed a premium on ICT skills (Castells, 2000). This demand for ICT skills is stimulated by demands for high productivity. Many countries hope to attract foreign investment and compete in global markets by having a skilled labour force (Bloom, 2004; Robertson, 2008).

States have responded to the pressures of globalization through a common set of management reforms. These have included reforms aimed at improving individual and institutional efficiency, raising education standards, and introducing school choice and accountability mechanisms within education systems (Henry et al., 2001b). In the past, the state was the main regulator, funder, and provider of educational and other public services. However today, nation states increasingly work with other autonomous, or partly autonomous, education-service providers or as the primary regulators of privately provided services (Dale, 1997, p. 465; Hill, 2005). Privatization of aspects of public education has occurred in many countries, through subcontracting to a growing education services industry (Ball, 2007). This education service industry is increasingly transnational: in the United Kingdom, for example, education services are the single largest export industry, valued at approximately £28 billion a year (Catlaks, 2008).
Globalization processes have also stimulated the marketization of public education systems (Chubb & Moe, 1988; Levin, 2001; Patrinos, 2000). In the mid-1980s, governments around the world began to adopt private-sector practices to become more efficient and outcomes based. Choice is a common mechanism in the marketization of public schooling. Choice can be implemented by dissolving school-catchment boundaries to allow greater parental choice among schools, by establishing charter schools, and by providing public funding for private-education providers (as for example, through vouchers). Marketization and public choice are further facilitated by publishing the results of school performance on standardized tests. Privatization of public education also occurs through the education-services industry (Ball, 2007). In the United Kingdom, for example, education-services are the single largest export industry, valued at approximately £28 billion a year (Catlaks, 2008).

2.0.2 New Policy Actors and the Rise of TNCs in Education

The educational policy literature also addresses how economic globalization has weakened the policy options of nation-states (Henry et al., 2001b), pushing responsibility for setting and implementing education policy onto actors both above and below the nation-state. The role of nation-states is shifting, as new actors emerge in world politics (Risee, 2005). Some scholars argue that nation states are still the main determiners of educational policy, but research suggests that nation states increasingly negotiate education policy with new transnational actors, such as foundations (Armove, 1980; Colvin, 2005; Hewlett Foundation, 2007; Lagemann, 1999), non-governmental organizations (Mundy, 2005; Mundy & Murphy, 2001; Weiss & Gordenker, 1995), international organizations (Dale & Robertson, 2008; Henry et al., 2001a; Mundy, 2002; Mundy & Ghali, 2009) and, more recently, private corporations (Ball, 2007; Bhanji, 2008b; Cardosa, 2008). There is a growing need to study the impact of international organizations and
transnational actors in education policy processes (Mundy & Ghali, 2009), and to look more carefully at private-sector actors with a transnational policy reach.

TNCs are increasingly entering the field of education. They now in general comprise roughly 64,000 firms, with more than 850,000 subsidiaries and millions of suppliers and distributors connected through global value chains (UNCTAD, 2004). The sheer scope and size of TNCs and their significant effects on the global economy have resulted in them being asked to partner with governments and other civil-society institutions to solve some of the world’s most pressing challenges (CIDA, 2003; UNDP, 2004). Within the field of education, non-state actors, such as TNCs, are becoming key players in the educational policy process (Bloom, 2004; Lauder, 1991). (For specific mechanisms and processes through which TNCs engage in education, see section 2.1 Corporate Social Engagement, page 19).

2.0.3 Theoretical Approaches to the Study of Globalization in Education

When analyzing transnational policy processes in education within the context of globalization, one of the greatest challenges lies in assessing the impact of transnational policy within individual countries (Ball, 1998). There are three predominant approaches to the study of globalization and education in the literature. Dale (2000) explains that in the “Common World Educational Culture” approach, “the development of national educational systems and curricular categories is explained by universal models of education, state, and society, rather than by distinctive national factors” (p. 428). Under this approach, transnational carriers of common educational ideas create a tendency towards isomorphism across education systems. This approach stems from John Meyer’s sociological institutionalism (Meyer et al., 1987). The second approach, which Dale (1999, p. 438) describes as the “Globally Structured Agenda for Education,” aims to study education within the context of the international political economy.
The focus here is the coercive impact of the world capitalist economy and other global actors (like international organizations and Western states) on education (Dale, 1999, 2000). The third approach focuses on the localization of international policies and stresses “the importance of local politics, culture, tradition and the processes of interpretation and struggle involved in translating these generic solutions into practical policies and institutional practices” (Ball 1998, p. 128). Anderson-Levitt (2003) and Steiner-Khamsi (2004), among others have found that international policies and programs are adapted in local contexts by government and other actors. This third approach is used in this thesis to study how Microsoft’s global PiL program plays out differently in Jordan and South Africa. A focus on localization is most suitable, given the different mechanisms and policy processes used by Microsoft as a strategic actor, to implement the PiL program in two very different country contexts.

2.0.4 Top-down and Bottom-up Policy Processes

The literature on public policy-making distinguishes between top-down and bottom-up policy processes. Top-down policy-making assumes that policy formulators are at the top of a political hierarchy and that there is a clear distinction between the development and implementation of policies (Elmore, 1977; Hill, 2005; Taylor et al., 1997). Alternatively, bottom-up public policy-making focuses on the actors and agencies themselves and their interactions, and [on] an action-centred or “bottom-up” mode of analysis as a method of identifying more clearly who seems to be influencing what, how and why. (Barrett & Fudge, 1981)

Interest in bottom-up policy-making processes is expanding, given recent shifts from centralized, hierarchical, state control of education towards pluralist, decentralized control of policy-making. New policy players, such as TNCs, and policy mechanisms, such as networks, are changing traditional top-down policy processes. Interestingly, TNCs behave like both top-down and bottom-up policy actors. For example, ICT companies are developing corporate
programs for education that are conceived centrally, within American headquarters offices, and then implemented in countries around the world through company subsidiaries. Some of these programs include Cisco System’s Networking Academy program, Intel Corporation’s Teach for the Future program, and Microsoft’s PiL program (Bhanji, 2009). In addition, TNCs participate in bottom-up policy processes by engaging local governments, educators, and other community based organizations through their programs in education.

2.0.5 Transnational Policy Networks

Globalization encourages global flows of ideas that converge into educational policy agendas, at the uppermost levels of international organizations as well as through local grassroots activity among educational policy players. The arena of international-policy decision-making is characterized by an expanding number of policy-making institutions, venues, and processes, all of which are facilitated by policy networks.

Networks of policy communities or policy actors, at the national and transnational level, are developing new ideas, norms, and policies on issues, including education (Ball, 1998; Ham & Hill, 1993; Hill, 2005; Reinicke & Deng, 2000). Policy networks are a new form of governance that focuses on key policy issues (Castells, 2000) and shifts debate from national to global spheres through global communication networks (Castells, 2008). Dahan et al. (2006) define policy networks as

…self-organizing forms that coordinate a growing number of public (decision-makers) and private (interest groups) actors for the purpose of formulating and implementing public policies – [Policy networks are] increasingly formed and accessed by multi-national corporations.

The impact of policy networks on policy outcomes depends on the type of policy network and the density of the network: the number of ties that link actors in the network (Dahan et al., 2006).
Policy networks have transformed policy-making in different ways. First, they reflect a changed relationship between state and society:

There is no longer a strict separation between the two. Instead of emanating from a central authority, be this government or the legislature, policy today is in fact made in a process involving a plurality of both public and private organizations. This is why the notion of policy networks does not so much represent a new analytical perspective but rather signals a real change in the structure of the polity (Mayntz, 1994, p. 5).

Second, policy ideas are debated and converge (Ham & Hill, 1993; Hartley, 2003; Hill, 2005) through issue-specific transnational governance structures (Detomasi, 2002; Ruggie, 2003a).

Some researchers have argued that these globalizing structures create a menu or script of homogenized policy ideas that states adopt to look legitimate (Meyer et al., 1987). Others have argued that, there are more coercive forces at play in the diffusion of global policies (Dale, 1999). In this research, I am interested in exploring how Microsoft builds its expert authority by facilitating policy networks through its Partners in Learning (PiL) program, and will consider both of these arguments.

2.1 Corporate Social Engagement

The emergence of TNCs and their increasing engagement in the social sector provides important insights about the roles and motives of TNCs in education. Drawing from studies on the emergence of TNCs and from the literature on corporate social engagement, I will review the notions of embedded liberalism, public-private partnerships, market multilateralism, and multi-sectoral partnerships in education. Then I will draw from the business literature to discuss corporate social engagement and describe the taxonomy of business social engagement. This review and taxonomy will shed light on the various motives driving the work of TNCs in social development, as well as some of the mechanisms through which they operate.
2.1.1 Embedded Liberalism

Governments in capitalist countries realized, after the two World Wars and the 1930s depression that economic liberalization comes with associated social costs that must be addressed if markets are to remain open and stable. Ruggie (1982) describes this realization using the term *embedded liberalism*, which he drew from Karl Polanyi’s classic (1944) account in his book *The Great Transformation* (p. 71). According to Ruggie (1982), the term embedded liberalism is

…intended to convey the manner by which capitalist countries learned to combine the efficiency of markets with the broader values of community that socially sustainable markets themselves require in order to survive and thrive (p. 381)

The adoption of an “embedded liberal” approach by Western governments after World War II was reflected in the creation of domestic systems to regulate the economy, and in the growth and spread of the institutions of the welfare state. The underlying premise of embedded liberalism is the public and private sectors of society came together after World War II to create stable open markets (Ruggie, 1982, 2005). Globalization has caused a movement away from embedded liberalism in which private and public sectors had distinctive roles in producing the liberal economy and society. Roles for each sector have been disorganized both through economic and political globalization processes.

Globalization has favoured the increasing power of the market, at the expense of social needs. It has created an uneven playing field; less-developed countries have not typically been supported by a social safety net. It has also skewed the allocation of resources between private and public goods, because, although markets are good at creating wealth, they are not designed to primarily focus on taking care of social needs. Finally, global financial markets are crisis prone, and crises tend to hit developing economies harder (Soros, 2002).
The neo-liberal ideal has been that of a self-regulating global market economy, where companies are unconstrained by government regulation (Sandbrook, 2003; Soros, 2002). The opening up of international trade and the liberalization of capital markets has helped some countries grow quickly, leading to higher quality of life and longer life expectancy for their citizens (Stiglitz, 2003). There are, however, more poor and disenfranchised people in the developing world – and growing inequality within rich countries as well (Bloom, 2004; Sen, 2001; Soros, 2002; Stiglitz, 2003).

The theories of embedded liberalism imply that the private sector plays a key role in working with the state to create public goods. Efforts to tame the negative consequence of the market are not new, although the rules that regulate global activity and the norms that condition global behaviour are much looser than those at national and community levels (O’Brien, 2003; Ruggie, 2003). The provision of public goods and improvement of international conditions requires some resource transfer from rich to poor countries. However, this contradicts the ideals of market fundamentalists, who claim that markets, left on their own, will ensure the optimum allocation of resources.

In recent years, multilateral trade agreements, bilateral investment agreements, and domestic liberalization of national economies have resulted in tremendous freedom for TNCs to operate at the global level. Few TNCs have taken on new global responsibilities to match this freedom (Ruggie, 2003a, 2004a), although public-partnerships and ad hoc participation of TNCs in social-engagement activities has become more common. In addition, we have witnessed the emergence of social frameworks that facilitate engagement of TNCs in social sectors within a multilateral context. For example, the United Nations [UN] Global Compact, the world’s largest voluntary initiative in corporate social responsibility began in 1999. It is based on a learning
model and encourages corporations to report their good corporate practices to the UN, practices that follow 10 UN principles (Carnegie Council on Ethics and International Affairs, 2004; Ruggie, 2001, 2002). The World Economic Forum and the International Chamber of Commerce have also led initiatives to clarify where private sector responsibility for social development should end and public responsibility begin (Ruggie, 2004b).

2.1.2 Public-Private Partnerships

Over the past 20 years, there have been significant shifts in world politics towards private-sector involvement in social fields. Governments and international organizations do not have sole authority in problem solving; increasingly, authority is relocated to purely private actors. In addition, there are new modes through which private actors engage in policy making, such as public-private partnerships (PPPs).

PPPs are very relevant to this study. Microsoft’s engagement in the education sector through its PiL program is mediated by a transnational PPP. Schaeferhoff, Campe, and Kaan (2007) define transnational PPPs as “institutionalized trans-boundary interactions between public and private actors, which aim at the provision of public goods” (p. 7). There are two dominant theoretical camps in the transnational PPP literature: (a) those who believe that PPPs create situations where mutual need of the public and private sectors are met through the pooling of resources, skills, and expertise (Reinicke & Deng, 2000) and (b) those who believe that transnational PPPs are privatizing world politics and that PPPs serve the interests of TNCs in furthering neoliberalism. The second group argues that PPPs deepen the North-South divide and hinder Southern countries’ development, because developing countries do not share mutual interests with the corporate sector (Bruhl, 2007).
2.1.3 Taxonomy of Corporate Social Engagement

TNCs are participating in isolated, ad hoc corporate activities that enable them to increase profits so that they can globally reproduce themselves and gain more economic power (Bhanji, 2008b). The business literature explores the motives behind TNC’s increasing social engagement, which range from philanthropy, based on moral and ethical grounds without a clear business rationale (Donaldson & Preston, 1995; Waldman & Sully de Lunque, 2006), to self-interest that aims to link social engagement with business performance and profit (Martin, 2002; Porter, 2002; Rowley & Berman, 2000). Although in many cases there is no clear distinction between these two motives, a taxonomy of corporate interests helps to clarify the different motives of TNCs working in education. Table 2 is a taxonomy of the ways in which corporations work within the social sector, with specific examples of the rising participation of TNCs in education in developing countries. This taxonomy highlights the varying motives of TNC engagement in the social sector. This taxonomy will help show where Microsoft sits along the spectrum of motives that drive its activities in education, and how Microsoft’s philanthropic and business interests are played out in its PiL program. The typology presents distinct corporate motivations; however it is important to note that there is often significant overlap and no clear distinction between the various motivations highlighted in the typology.
### Table 2
**Taxonomy of Global Corporate Social Engagement (GCSE) Activities, Interests and Organizational Structure**

<table>
<thead>
<tr>
<th>Global corporate social engagement activity</th>
<th>Interests (philanthropic or business)</th>
<th>Organizational structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philanthropic donations</td>
<td>Philanthropic</td>
<td>Within company or separate foundation outside of it</td>
</tr>
<tr>
<td>Corporate social responsibility</td>
<td>Primarily philanthropic but may also include business interest</td>
<td>Foundation or corporate-giving department within company</td>
</tr>
<tr>
<td>Corporate citizenship/strategic philanthropic</td>
<td>Business</td>
<td>Within company marketing or other business department</td>
</tr>
<tr>
<td>Business sustainability</td>
<td>Business</td>
<td>Within company: marketing or other business department</td>
</tr>
</tbody>
</table>

Source: Bhanji (2008)

The first form of global corporate social engagement (GCSE), the foundation, is either (a) a philanthropic organization set up by a corporation to distribute grants that support causes in line with the goals of the foundation or (b) a charitable organization that is completely separate from the business. There is a long history of private foundations working in education (Arnowe, 1980; Lagemann, 1999). Recent years have witnessed an increase in wealthy corporate philanthropists who, through their namesake foundations, make substantial grants to educational causes in developing countries, such as the Bill and Melinda Gates, William and Flora Hewlett, and Soros Foundations (Hewlett Foundation, 2006, 2007; Steiner-Khamsi, 2008).

The second form of GCSE, corporate social responsibility (CSR) comprises actions taken by a firm beyond its direct business interests to further social goods, actions that are not required by law (McWilliams & Siegel, 2001). CSR initiatives are usually distinct from business interests and are run by philanthropic foundations or separate corporate-donation departments within companies (Doh & Guay, 2006; Himmelstein, 1997).
The third form of GCSE is corporate citizenship (Murray, 2004; Ruggie, 2003b; Whitehouse, 2003), also called strategic philanthropy (Porter & Craig, 2004). It employs a flexible, consensual scheme, based on completely voluntary social initiatives that also meet the strategic needs of the corporation. It is usually funded through business operating or marketing budgets (Martin, 2002; Porter, 2002; Whitehouse, 2003). Research conducted by the World Economic Forum identifies for business key areas in education where they can locate corporate citizenship initiatives: establishing the basic conditions for effective learning, improving educational content and skill building for students, fostering effective educational management and engaging in advocacy for education (World Economic Forum, 2006). Again, it is important to highlight that there is often no clear distinction between these different motivations.

The final form GCSE is new in the business literature: the business-sustainability model. This model focuses on integrating poor people in developing countries into the firm’s core business-marketing strategies. Prahalad (2005) provides a framework for the active engagement of the private sector at the bottom of the pyramid (BOP), the 4 billion people in the world who live on less than $2 per day. The basic premise of the business-sustainability model is that the BOP can be a market and that poverty alleviation is a market-development task. This is not philanthropy but a GCSE strategy that also makes business sense and can give companies a competitive edge in new markets (Prahalad, 2005; Prahalad & Hart, 2002). TNCs are increasingly targeting the BOP through the direct provision of public goods and services in education (Kaul, 2000; Kaul et al., 2005).

2.2 Insights from International Relations Theory

International relations theory provides insight into how international policy actors can be studied. Traditional theories—realism, Marxism and liberalism provided the backdrop to the study. A more in-depth focus on constructivist and rational approaches to the study of
international policy actors is also offered in the thesis to provide a theoretical lens for this study. Specific constructs developed in international relations theory-knowledge and power, authority and legitimacy are reviewed below and they will be used as analytical levers in this study.

2.2.1 Realist, Marxist, and Liberal Theories

There have traditionally been three schools of thought about international policy actors in the field of international relations: realist, Marxist, and liberal. Central to realist ideas are the “anarchic nature of the international system and the primacy of the state in international affairs” (Gilpin, 2001, p. 16). Realists argue that nation-states maintain and pursue their own interests. These interests are defined in the context of power in an international society. Realists view states as the principal actors in international affairs (Gilpin, 2001).

Marxist argue that capitalists own the means of production and that wealth is created by the labour of others. Marxism is fundamentally an analytical tool to critique capitalism. Marxists argue that TNCs want to grow within and across borders to create a core/periphery economic structure, with advanced capitalists at the core and less developed, exploited economies at the periphery. Marxists also argue that TNCs exercise considerable power in controlling the world to their advantage (Hymer, 1976).

Liberals argue that a viable world economy requires both appropriate political and free-market arrangements. They believe that governments play an important role in protecting both individual and economic freedom. Ceding some power to international organizations and corporations, however, enables many governments to fulfill this role (Keohane & Nye, 1977). Liberals believe that corporations can do well only in a favourable international political environment and that TNCs’ activities cannot be explained by market or economic forces alone (McKinlay & Little, 1986).
Realist, Marxist, and liberal theorists offer different foci for students of international relations. For example, realists focus on material interests and power, and on the nation-state as mediator between different forms of power and nonstate actors. Marxist critique capitalism and its profit orientation. Last, liberals examine whether market actors need to be embedded in broader forms of social community.

More recent approaches to the study of international relations come under the umbrella of *global governance*, a term used to highlight

…the global polity as an evolving set of processes (rather than a fixed rule system and administrative hierarchy) that by definition involves heterogeneous private and public actors at multiple levels or scales of action: local, national, international, and transnational. (Mundy & Ghali, 2009)

Globalization processes discussed earlier highlight shifts in economic and political spaces and the changing nature of governance. The emergence of new policy actors, such as international organizations, NGOs, and TNCs, has created the need for new paradigms through which to study the roles and increased influence of nonstate actors. These actors are not adequately addressed by realist, Marxist, or liberal international relations theories. The new approaches include rationalism and constructivism. What follows is an explanation of these approaches and then a discussion on using rationalist and constructivist theories as a theoretical lens for this study.

**2.2.2 Rationalist Approaches to International Relations**

Within the study of international relations, rationalism assumes that actors are hyperrational, with powerful calculating abilities (Snidal, 2002). Rationalists, in studying international relations, focus on “individual goal-seeking under constraints” (Snidal, p. 74) as well as on material incentives, cost–benefit calculations, and coercion (Checkel, 2000). Rationalists often assume that the “identities of actors, their interests and institutional structures
or rules of the game” are fixed (Snidal, p. 75). Their analysis is characterized by lean arguments and minimal assumptions. Rationalists set aside important questions about how actor identities are determined by assuming that environments and interests are fixed and that self-interest drives motivation. In addition, they make generalizations by using abstract concepts and models that enable them to transcend substantive issues and problems (Snidal, 2002).

2.2.3 Social Constructivist Approaches

In the study of international relations, social constructivists push empirical and explanatory domains of theory beyond the confines of material interests alone, to problematize the identities and shifting interests of actors (Ruggie, 1998a). International relations constructivists highlight how shared ideas and norms reshape the interests, identities, and preferences of different types of international actors through processes of shared meaning-making (Finnemore, 1996, 2003; Finnemore & Sikkink, 2001; Ruggie, 1998a).

Finnemore (2003) explains that,

By creating new social realities – new norms about interventions, new desiderata of publics and decision makers – new beliefs create new policy choices, even policy imperatives, for interveners. (p. 15)

The study of norms is central to the constructivist paradigm. In analytical terms, “the role of norms in social life demonstrates that norms matter in a constitutive, interest-shaping way” (Checkel, 2000, p. 554). Constructivists in international relations (Barnet & Finnemore, 2004; Lumsdaine, 1993) address the common question “What makes the world hang together?” (Ruggie, 1998a) by showing that actor identities and interests evolve (Finnemore, 1996). Constructivists highlight the importance of bureaucratic organization, technical knowledge, legitimacy, and ideas as sources of power and influence for international organizations (Barnet & Finnemore, 2004).
2.2.4 Theoretical Framework: Bridging Constructivism and Rationalism

I began this research intending to use only a social constructivist perspective on international relations (Barnett & Finnemore, 2004), to critically consider how and why TNCs develop new norms and then work hard to mobilize their ideas and expertise in public policy arenas, such as education. However, after gathering data for this thesis, I realized that, while my story is indeed one in which shared ideas and expertise shaped organizational interests and preferences (i.e., a constructivist perspective), material interests also played a pivotal role. Self-interest played a key role in Microsoft’s decision to invest in ICT-in-education expertise and policy-making capacity, and the decision of state and nonstate actors to engage with Microsoft in the education-policy arena. It was clear to me that adopting a rationalist perspective as well would add importantly to this study.

Rationalists and constructivists ask different types of questions, bringing clarity to different aspects of international social relations (Fearon & Wendt, 2002). Fearon and Wendt (2002) conceive of rationalism and constructivism as complementary rather than competitive. They studied changes to organizational norms and incentives, focusing on the mechanisms through which organizational culture is transformed and, by extension, the preferences and behaviours of staff members. Both long-term ideational processes and shorter term strategic issues are important. Similarly, Microsoft’s long-term interests, its corporate identity, legitimacy, and beliefs about the value of education compete with its short-term business interests in education.

In their study on the World Bank, Neilson, Tierney, and Weaver (2006) developed and tested a model of international organizational change that combines rationalism and constructivism. They integrated the top-down logic of rationalism, as well as its focus “on the
transformation of bureaucratic culture” (p. 107) with a bottom-up view of sociological constructivism. Using rationalism, they examined strategic pressures placed on the Bank by its principal members, including nations that fund and sit on its board of directors, and on changes to organizational norms and incentives, to show how the World Bank’s organizational culture changed and, subsequently, the preferences and behaviour of Bank staff were transformed.

Within the context of globalization processes and the changing nature of governance, both of these approaches together provide insight as to how Microsoft’s motivations have been driven by its self-interest (rationalist view), how it has assumed its role as a powerful governor of policy through its expert authority in education, and how its definition of what activities are in its self-interest changed (constructivist view).

2.3 Concepts Used in this Study

Below I define concepts from the international-relations literature that I used to guide analysis in this study. I link these concepts into a conceptual framework in Chapter 3.

2.3.1 Power and Knowledge

International relations scholars have historically had a narrow conception of power, which focused on the ability of states to exert power through the use of material resources. Likewise, rationalists see “brute material forces” as a means through which states pursue self-interest and legitimacy (Baldwin, 2002; Fearon & Wendt, 2002; Wendt, 1999). Though useful, this narrow conception of power is problematic, because it does not consider the social structures and processes, or how actors use their interests and expertise to pursue their priorities.

Both IR constructivists and critical education theorists use the concept of knowledge as power to clarify how organizations gain authority and legitimacy in world politics. Wendt (1999) explains that constructivists view power as “constituted primarily by ideas and cultural context” (p. 99). As authorities, international organizations can use their knowledge-based
power to regulate the social world, altering the behaviour of state and nonstate actors by offering incentives for certain decisions and creating new actors, interests, and social activities to regulate (Barnett & Duvall, 2005; Barnett & Finnemore, 1999; Schmidt, 2008). In education, Robertson (2008) has argued that the knowledge production taking place at supranational scales is often used to overcome blockages as a result of fixed interests at the national scale. For example, the World Bank, by creating development-knowledge databases, such as the Development Gateway (a compilation of development information that can be accessed by anyone through the Internet), has been able to influence what is, and what is not, considered legitimate knowledge about development (Samoff & Stromquist, 2001). In another example, the World Bank, as coordinator of the Fast Track Initiative (FTI), part of its Education for All mandate, chose FTI as a tool to enforce donor coordination and advance evidence- or research-based lending under its power (Steiner-Khamsi, 2007). As global policy-knowledge broker, the World Bank has been able to disseminate knowledge and ideas, and to champion education programs that promote economic globalization and the Bank’s neoliberal worldview (Jones, 2007). In addition, its role as global policy knowledge broker has enhanced and entrenched the Bank as an evermore powerful global policy actor (Samoff & Stromquist, 2001). In this thesis, I study Microsoft’s use of both material power and knowledge power to enhance legitimacy, drawing on constructivism and rationalism.

2.3.2 Authority and Legitimacy

Authority refers to institutionalized forms or expressions of power. There is a subtle difference between power and authority: the legitimacy of authority differentiates it from power (Hall & Biersteker, 2002a). For example, Cutler et al. (1999) define authority as “existing when an individual or organization has decision-making power over a particular issue area and is regarded as exerting power legitimately” (p. 5). Hurd (1999) refers to legitimacy as
The normative belief by an actor that a rule or institution ought to be obeyed. It is a subjective quality, relational between actor and institution, and defined by the actor’s perception of the institution. The actor’s perception may come from the substance of the rule or from the procedure or source by which it was constituted. (p. 381)

In addition to the normative beliefs and expertise studied by constructivists, the laws, principles, formal standards, and rules recognized by rationalists accord legitimacy. In turn, legitimacy affects action by shaping actors’ judgments. It is a matter of degree; it is rarely uncontested or absolute. Actors consciously construct legitimacy by shaping the judgments of others about what actions are legitimate (Finnemore, 2005).

New forms of governance, which encompass authoritative setting and enforcement of collective norms, include a multiplicity of new institutions and organizations that increasingly transcend nation-states (Grande & Pauly, 2007).

They [new actors] set agendas, they establish boundaries or limits for action, they certify, they offer salvation, they guarantee contracts, and they provide order and security. In short, they do many of the things traditionally and exclusively associated with the state. (Hall & Biersteker, p. 4)

Private actors, at the international and domestic level, increasingly make authoritative decisions that were, historically, the exclusive mandate of sovereign states (Cutler et al., 1999, p. 5; Strange, 1996, p. xi). Although it is clear that private actors increasingly wield raw power, the question here is whether and how they come to wield legitimate authority.

Barnett and Finnemore (2004) argue that authority is a “social construction” (p. 20). They outline three broad sources of legitimate authority among international actors. First, delegated authority refers to instances when international organizations represent the authoritative will of their members. Second, moral authority refers to instances when international actors represent a particular community’s interests or values. Third, international actors wield authoritative expertise through specialized or technical knowledge they hold, enabling them to carry out specific tasks leveraged via policy networks (see Section 2.0.5 Transnational Policy Networks,
Each of these forms of authority gives international actors some autonomy and legitimacy to work in areas where their involvement may not have previously been possible (Barnet & Finnemore, 2004). This study focuses on the third form of authority, *expertise*.

One of the key questions raised in the study of international private authority relates to accountability. To who are international private actors accountable? Many organizations do have accountability measures in place. However, they are often accountable to those who delegated power to them and not to the recipients of their activities. For example, the World Bank and the United Nations are accountable to nation-states that fund them, not to the poor who benefit from their work.

Keohane (2006) reviews issues of accountability by studying the strategic interactions between those in power and those to whom they are accountable. He argues that, given that there is no world government, it is important to develop pluralistic accountability measures to manage the power held by private actors. He states that a pluralistic accountability system would include many kinds of accountability: supervisory, fiscal, legal, market, peer, and reputational. The most relevant to this study of Microsoft are peer and reputational accountability measures. *Peer accountability* refers to similar organizations criticizing the operations of another organization, and *reputational accountability* requires behaving in the right ways in order to be accepted in the right “clubs” (Keohane, 2006).

### 2.4 Conclusion

The three literatures reviewed above contribute to the conceptual framework of this study. The business literature illuminates the varying motives and activities of corporations in the social sector. The globalization and education-policy literatures highlight new policy and governance processes, and mechanisms through which new policy actors operate in education policy-making. This helps in conceptualizing Microsoft’s policy and governance role in
education. The international-relations literature sheds light on shifts in authority from the public to the private sector as well as the nature of corporate power, private authority, and its effort to gain legitimate authority.

Studying a private actor through both constructivist and rationalist approaches to international relations allows a broader understanding of Microsoft’s interests and preferences: through its expertise and policy capacity along with its material power. The two theoretical approaches, together, illuminate Microsoft’s effort to gain private authority and legitimacy. The combined approaches also provide conceptual tools for exploring how governments in Jordan and South Africa responded to shifts in their sovereignty over education policy. The literature reviewed and the constructs identified in this chapter will be used in Chapter 3 to develop a conceptual framework for this study.
Chapter 3 – Conceptual Framework, Research Design, and Methodology

This chapter introduces the research questions and the conceptual framework that guide this study. The literature explored in Chapter 2 is used here to link the research questions and research design. This is followed by an explanation of the methodology employed in the study, including a discussion on data sources, methods and procedures of data analysis, validity and generalizability, and ethical considerations.

3.0 Research Questions and Conceptual Framework

This research is an exploratory case study of Microsoft Corporation’s Partners in Learning Program, with two embedded case studies of the PiL program in two countries, South Africa and Jordan (Merriam, 1998; Yin, 2003). The purpose of the study is to explore the motivation, roles, governance activities, and legitimacy of a new policy actor in education, Microsoft Corporation. The study also explores governmental responses to this new actor, and shifts in government policy roles and sovereignty in the context of Microsoft’s expanded role. The overall study frames the PiL program as an illustrative example of private authority in education policy, operating at the transnational level and the national level in Jordan and South Africa.

The study is guided by the following research questions:

1 a. Why has Microsoft Corporation developed new programmatic activities with a transnational policy reach in education?

1 b. How has Microsoft established its policy authority in education?

2 a. Why do governments agree to the expanded role played by Microsoft?

2 b. How do new forms of private authority transform government sovereignty and policy roles in education?
In conceptualizing this study, I decided to focus on two major lines of analysis (see Figure 1). In the first component, I focus on Microsoft’s PiL program, asking questions about (a) motives, (b) changes in Microsoft’s policy roles, and (c) its authority and legitimacy as a policy actor. The second part of the analysis is focused on governmental responses to the PiL in two case countries. Here I explore governmental (a) motives and policies, (b) shifts in policy making and policy roles, and (c) the effect of the PiL on governmental sovereignty. By looking at the motives and responses to both Microsoft and recipient governments the study aims to explore the shifts in power and authority that result from Microsoft’s expanded role.

**Private Authority in Education Conceptual Framework**

**Questions Addressed**

- Why has Microsoft Corporation developed new programmatic activities with a transnational policy reach in education?
- How has Microsoft established its policy authority in education?

**Questions Addressed**

- Why do governments agree to the expanded role played by Microsoft through its Partners in Learning program?
- How do new forms of private authority transform government sovereignty and policy roles in education?

**MICROSOFT**

**Motivations**
- Values, identity, culture
- External norms/forces
- Corporate social engagement agenda (CSR versus business interests)

**Policy Roles & Authority**

**Shifts in Power & Authority**

**GOVERNMENT**

**National Context**
- Values, identity, culture
- External pressures (to compete in global market)

**National Response**

**Shifts in Sovereignty and Governance**
- Shifts in policy role

*Figure 1 Private Authority in Education Policy Conceptual Framework*
3.0.1 Microsoft’s Motives

Corporate interests have traditionally been significantly different from those of public actors in the education sector. Studying corporate motivation provides insight into the extent to which, in this case, Microsoft’s interests are profit driven and/or aligned with the social interests of the public sector in education.

In this study I examine Microsoft’s worldwide organizational behavior and inner workings by reviewing the history of the company’s values, culture, and vision as well as external norms and forces that may have specifically influenced Microsoft’s development of the PiL program. I use Collin’s (2002) notion of social factors (a company’s cultural practices, atmosphere, norms, and management style) and draw on his notion of vision (a company’s core values, purpose, and goals). A historical analysis of these two factors provides the background to a more in-depth analysis of Microsoft’s motivations and behavior in the education sector.

To explore Microsoft’s motivations in education, I review all of its past programs and activities in education and its recent activities through the PiL program. To study Microsoft’s motives, I will use the Global Corporate Social Engagement (GCSE) typology (Bhanji, 2008) presented in chapter 2 to help categorize Microsoft’s motives. Together, Collin’s (2002) notions of social factors and vision and Bhanji’s (2008) GCSE typology help illuminate Microsoft’s inner workings and motivation, broadly at a worldwide level and specifically within its activities in education, including the PiL program.

3.0.2 Microsoft’s Changing Policy Role, Authority, and Governance Roles in Education

This study looks at Microsoft’s policy authority in education through its engagement in the PiL program in two countries with very different political and economic contexts, and different levels of ICT use: Jordan and South Africa. It traces the policy processes (Hill, 2005) that
surround the adoption and implementation of the PiL program, and identifies the changing policy and governance roles played by Microsoft in the education sector. The study looks at the way that traditional functions, such as policy development, funding, and implementation, are being shifted from the state through the emergence of new policy hybrids and private-sector led programs. It explores the mechanisms which allow Microsoft to play a new governance role in education, including its development of a transnational policy network.

3.0.3 Power and Authority

International relations scholars recognize that increasing scope and intensity of TNCs’ power allows them to advance their private authority at an international and domestic level (Cutler et al., 1999; Ruggie, Forthcoming).

Rationalists have traditionally studied only material power (Baldwin 2002). More recently, constructivists have explored the idea that knowledge and ideas are also forms of power (Barnett & Duvall, 2005; Barnett & Finnemore, 1999; Schmidt, 2008). I study both forms of Microsoft’s power—material and ideological—from both rationalist and constructivist perspectives. This study builds on Cutler et al.’s (1999) work on how private authority is established, how it operates, and how it becomes legitimate. It looks in particular at Microsoft’s development of expert authority in education (Barnet & Finnemore, 2004).

3.0.4 Shifts in the Role of State in Education

The study of the PiL program, a public-private partnership, would not be complete if only private authority was studied. It is also important to study public actors to understand the shifts that are occurring within states. The emergence of TNCs in the social sector has resulted in governments no longer being the sole providers and regulators of education. Increasingly, governments share these roles with nonstate actors, including those from the private sector (Dale, 1997, p. 465).
In this study, I explore these issues by asking how and why governments agree to the expanded role played by Microsoft through its PiL program. The responses of the government reveal the extent to which private actors influence the public sector, and allow us to explore the legitimacy of private authority.

I will address government responses by studying the history of their ICT and education policies, governmental motivations for agreeing to Microsoft engagement in the education sector, and shifts in policy-making and governance roles that occurred as a result of the implementation of the PiL program. I also explore the ways governments delegate, negotiate, or enable and allow private authority to emerge. Ultimately, I am interested in the extent to which states are giving up authority to private sector decision-making and engagement, leading to a shift in national sovereignty in education policy.

Scholars who study the localization of international educational policies have argued that policy diffusion and transfer does not occur at the same pace or in the same ways in all countries. In this study, I explore some of this variation by looking at the evolution of the PiL program in two countries.

3.1 Research Design and Methodology

This research is an exploratory case study of Microsoft Corporation, with two embedded case studies (Merriam, 1998; Yin, 2003). The overarching case study is of Microsoft’s PiL program, which is explored as an illustrative case of the changing governance and policy roles played by TNCs in education.

Two embedded case studies, of the PiL program in Jordan and South Africa, are conceptualized as part of a quintain, which Stake defines as “an object or phenomenon or condition to be studied – a target, but not a bull’s eye” (p. 6). In this research, the quintain is Microsoft’s PiL program. The case studies provide detailed information about the PiL program,
and about Microsoft’s efforts to localize its transnational policy and governance roles. Cross case analysis of the PiL programs in Jordan and South Africa allows for an exploration of variations both in the exercise of Microsoft’s private authority in education, and in the responses of different governments.

The overall study frames the PiL program as an illustrative example of private authority in education policy, operating at the transnational level and the national level in Jordan and South Africa.

3.1.1 Microsoft’s Educational History and Organizational Analysis of the Worldwide PiL Program

The research for this thesis included a detailed review of Microsoft’s corporate history, its history in the areas of education and CSR, as well as an overview of the emergence and evolution of the PiL program. Microsoft has had a rich history of experiences in education and in CSR that preceded the PiL program. Both its work in education and in CSR has been shaped by external factors and forces. A historical overview thus provides important background to the study of Microsoft’s PiL program.

To understand how Microsoft developed its interest in educational policy-making and designed its PiL program, I review the PiL program and organizational documents, and conducted interviews at Microsoft’s offices in Redmond and by telephone with PiL International Advisory Committee members. I followed the sequence of education related events, examining key decision points. I also used interviews to explore how external forces shaped the PiL program and how Microsoft staff see the world and make decisions through the PiL program. These interviews, combined with the organizational history described above allowed me to explore the company’s internal values, beliefs, and culture, and to understand how its staff came to create and interpret the new norms that were shaping and defining their work in education.
3.1.2 Country Case Studies of the PiL Program

Research at the country level was designed to provide detailed information about Microsoft’s motivations, new governance and policy roles, and efforts to gain authority and legitimacy. Jordan and South Africa were selected as country cases because they both were reputed to have hosted strategic examples of Microsoft’s PiL program. Both are viewed by corporations, aid agencies, and other actors as hubs of innovation for their continents. For example, because of Jordan’s small population and pro-American policies, corporations view it as an ideal testing ground for new innovations in education. If experiments there are successful, then new methods, products, or innovations are expanded from Jordan to other nearby Middle Eastern countries with larger populations and thus larger corporate markets, such as Egypt (Bhanji, 2008a). Similarly, TNCs view South Africa, with its vibrant IT industry and wealth, as a potential entry point to the African continent. As a result of Jordan and South Africa’s strategic importance, Microsoft’s activities in these two countries were fairly sophisticated.

When I first started the thesis I planned to focus the study on Microsoft as the primary actor under investigation and planned to treat other stakeholders such as governments, NGOs and other local corporations as secondary concerns. I soon realized, however, that it would be important to place greater focus on the government side when studying private authority given the importance of shifts in sovereignty and policy roles. Thus, I altered my conceptual frame and design to study the two governments more centrally in the country case studies.

I studied shifts in governmental sovereignty and policy-making in response to Microsoft’s activities and reviewed the history and status of each country’s information society and ICT-in-education policies as well as the participation of nonstate actors and the status of the open-source software debate within each country. I also conducted interviews with governmental leaders and educational researchers. To provide insight into Microsoft’s motivations, emerging
policy and governance roles, and its aspiration to legitimate authority in education in each country, I reviewed local PiL program documents and interviewed local PiL staff and staff within implementing partner organizations.

Country case studies were first analyzed separately, to explore their complexity and uniqueness (Stake, 2006). I kept a running list of major themes and findings from each case study. The extent of their utility and importance was then compared across the cases (Stake, 2006; Patton, 2002), as I looked for similarities and differences to better understand the quintain.

Comparing the two country cases revealed instances of uniformity and variability in Microsoft’s interventions through the PiL program, given the differing forms of government and educational contexts in the two countries. The comparative analysis exposed the nuances of Microsoft’s policy authority in education and its strategic efforts in education, through localization mechanisms and variations in the implementation of PiL within different contexts. In addition, differences between the two countries in government policy roles and sovereignty allowed deeper understanding of how Microsoft operated in two different contexts.

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3.2 Access to Microsoft Corporation and Research Participants

I first made contact with Microsoft staff in December 2004, at a conference called “Eradicating Poverty through Profits,” organized by the World Resources Institute in San Francisco. At the time, I was doing course work and in the early stage of conceiving my thesis topic. Thus began my journey with Microsoft, which culminated in this dissertation.

I negotiated access to research participants through an information cooperation arrangement. A central contact person at Microsoft headquarters in Redmond was assigned to me, through whom I requested public documents and interview time with Microsoft staff involved in the PiL program. The worldwide PiL director introduced me by email to the Microsoft PiL program managers in Jordan and South Africa, who in turn, identified Microsoft staff involved in the PiL program in their countries. Contacts in the Jordan Ministry of Education, given to me by faculty at OISE/UT, were important to identifying research participants in Jordan. In addition, contact with SchoolNet South Africa, one of Microsoft’s key PiL program partners in the country, came through my funding from Canada’s International Development Research Centre (IDRC).4 The individuals listed above were instrumental in helping me identify potential research participants in Microsoft’s PiL program as well as external PiL partners in governments, international organizations, NGO, and locally based corporations.

3.3 Data Sources

The multiple sources of data for this study included websites, press releases, media clips, research reports, pamphlets, curriculum resources and other documents, interview transcripts,

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4 SchoolNet South Africa was established with IDRC funding.
field notes, and participant observation of international meetings and conferences that I attended from 2004 to 2008.

The first source of data consisted of documents. I collected a wide variety of books and documents on Bill Gates and Microsoft Corporation, including biographies of Bill Gates, and numerous books and articles from business and general magazines on Microsoft Corporation. The primary source of materials on Microsoft’s history in education were Microsoft press releases and a few documents on Microsoft’s website, in addition to chapters dedicated to education in books written by Bill Gates. Microsoft’s press releases dating back to 1996 are archived on its website. I reviewed over 6000 press releases from this archive and downloaded 270 press releases relevant to education. I also searched the ERIC (Educational Resources International Clearinghouse) and Business Primer Source databases and downloaded another 250 articles pertaining to Microsoft and education.

I searched for documents that would help me understand Microsoft’s work in its PiL program, transnationally and within the two case countries. I collected speeches, press releases, policy documents, research reports, scholarly books and journals, newspaper and magazine articles, and downloaded documents from Microsoft’s website. I organized these documents into labeled file folders, stored in a filing cabinet. I coded each document, using themes from my conceptual framework and wrote a brief synopsis based on the themes, which I later used in the thesis.

The second source of data was interviews. See Appendices

Appendix 1 Interview Protocol. In total, I conducted 66 interviews (see Table 3).
Table 3

**Key Informants**

<table>
<thead>
<tr>
<th>Location and Date</th>
<th>Interviewees (number of interviews)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transnational Level</strong></td>
<td></td>
</tr>
<tr>
<td>(1) Telephone interviews with Microsoft Advisory (April 21 – Oct. 10, 2006)</td>
<td>- Microsoft’s International Advisory Committee (in person and Via telephone) (5)</td>
</tr>
<tr>
<td>(2) Redmond, USA Microsoft Headquarters and Telephone (September 13 – 25, 2006)</td>
<td>- Microsoft Senior Executives and Staff (6)</td>
</tr>
<tr>
<td>Total Interviews = 11</td>
<td></td>
</tr>
<tr>
<td><strong>National Level</strong></td>
<td></td>
</tr>
<tr>
<td>(3) Jordan (Jan 7 – Feb 6, 2007)</td>
<td>- Microsoft Jordan Staff (7)</td>
</tr>
<tr>
<td></td>
<td>- Ministry of Education, Jordan (5)</td>
</tr>
<tr>
<td></td>
<td>- Government Consultants (5)</td>
</tr>
<tr>
<td></td>
<td>- Local Corporations (3)</td>
</tr>
<tr>
<td></td>
<td>- International Organizations (7)</td>
</tr>
<tr>
<td>Total Interviews = 28</td>
<td>- Queen Rania’s office (1)</td>
</tr>
<tr>
<td>(4) South Africa (Oct 18 - Nov 27, 2006)</td>
<td>- Microsoft South Africa Staff (8)</td>
</tr>
<tr>
<td></td>
<td>- Department of Education, South Africa (7)</td>
</tr>
<tr>
<td></td>
<td>- Local and Transnational Corporations (3)</td>
</tr>
<tr>
<td></td>
<td>- University Professors (3)</td>
</tr>
<tr>
<td></td>
<td>- Non-governmental organizations (6)</td>
</tr>
<tr>
<td>Total Interviews = 27</td>
<td></td>
</tr>
</tbody>
</table>

The goal of interviews was to more deeply understand why and how Microsoft staff had interpreted the new norms and forces that shaped and defined their work in education. The interview data also helped me to understand the PiL program’s conceptualization and development. In addition, the interviews revealed the mechanisms used by Microsoft to enter the education policy arena and helped me understand Microsoft’s role, motivation, and authority as an educational policy player.

I purposefully selected interview participants from a list of potential interviewees that grew during the field work through snowball sampling (Patton, 2002). I interviewed with Microsoft officials and various policy actors involved with the PiL program. I used a
heterogeneity sampling strategy (Patton, 2002) to seek individuals with contrasting views and opinions who represented different stakeholder groups. In each interview, I asked the respondents about “whom they think may see things differently” to find individuals with different perspectives. With this strategy, a researcher can maximize variation in a small sample by identifying diverse characteristics and criteria for constructing the sample with contrasting views and opinions representing different stakeholder groups (Patton, 2002).

I conducted face-to-face interviews in Canada, the United States, Jordan, and South Africa and telephone interviews with interviewees in Australia, Canada, and the United States. At the transnational level, I interviewed Microsoft staff in Redmond, Washington as well as members of Microsoft’s International Advisory Council. Within Jordan and South Africa, my interviews with government staff and with staff of local corporations, consultants, NGOs, international organizations, and academics provided insight on the preferences for ICTs-in-education policy and programs of national governments and Microsoft partners. The interviews with government officials, in particular, revealed the shifts in government sovereignty and policy-making processes.

In Jordan, I interviewed consultants working for the national government, representatives of Queen Rania’s office and of international organizations, including the World Economic Forum. In South Africa, I interviewed university professors with expertise in educational policy and in comparative and international education.

Each interview was in-depth, semi-structured, and open ended. Each lasted approximately 60 minutes. See Appendices

Appendix 1 for the protocol used for interviews with Microsoft staff in Redmond, Washington and with PiL Advisory Committee members. Interviewees were probed throughout the interview process (Patton, 2002 p. 372). I was very cognizant that my questions covered
sensitive topics and that some individuals may not have wanted to disclose information; in some cases, when they did, it was in confidence. Data collected in confidence was not included in the thesis.

All interviews were audiotaped and transcribed, except those in Jordan. Given sensitivities and the local culture, participants felt more comfortable if I did not tape their interviews. Instead, I took detailed notes during, and soon after, the interviews.

The third source of data was participant observation. I attended several conferences and meetings organized by Microsoft and other organizations (see Appendix 2). The latter included conferences on private sector engagement in development, corporate social responsibility, and on the use of ICT-in-education. The other events were conferences and meetings organized by Microsoft as part of their PiL program. Many of these events were open to the education community. I received permission to attend these meetings as an observer on an event-by-event basis. I did not audiotape the proceedings but took detailed notes during sessions about the context, behavior, and decision-making processes that I observed. See Appendix 3 for the participant observation instrument used. At these sessions, I tried to understand Microsoft’s emerging role as an important policy player in education. I also tried to look for examples of participant behavior and practices that legitimized Microsoft’s new role. After each event, I analyzed it to understand its purpose, who organized it, who participated, and how it contributed to Microsoft’s policy role in education.

3.0 Methods and Procedures of Data Analysis

Throughout the field research, I reviewed my field notes and entered thoughts and reflections in my journal. Each evening after conducting interviews I reviewed my interview notes and listened to certain interviews to identify new questions to ask and issues that needed
clarification or confirmation. This helped me make meaning of the constructs under study and prepare for the next round of scheduled interviews.

In the summer of 2006, I transcribed interviews with Microsoft staff in Redmond and PiL Advisory Committee members. During the fieldwork in Jordan, I typed my handwritten notes from the interviews in Jordan into my computer. During the spring of 2007, after returning from South Africa, I transcribed the interviews conducted in South Africa. All interview data were inputted into the N6 software package, which I used to code and categorize the large amount of narrative from the interviews. Certain key documents and participant observation notes were also entered into N6.

As part of the analysis, I reviewed all 66 transcripts and corresponding interview notes for themes three times. The first time, I analyzed each transcript and its corresponding interview notes individually to pull out key emerging themes and ideas. The second time, I coded the transcripts using high-level and broad codes. The third time, I coded the data with more detailed codes within each of the high-level codes. The research questions and conceptual framework were used to broadly guide the review, coding, and presentation of the data. As well, I allowed for some flexibility, for new themes to emerge from the study. Once coding in N6 was complete, I printed the codes and transcript quotes that fell under each code. On these printouts, I highlighted quotes that represented different viewpoints that I felt were important to include in the thesis. I also wrote notes summarizing the key ideas within each code, which I later used in writing the thesis.

I used data matrices to organize the data (e.g., by chronology, significant event, key decision point, contentious issue) and to map processes and roles. These matrices helped me to identify emerging themes and patterns and to clarify findings. As I began to write and rewrite
sections of the thesis, I was able to clarify and deepen my understanding of Microsoft’s work in
education. I tried to move beyond describing the cases to interpreting my findings in order to
attach significance to what I found and make meaning (Patton, 2002). Patton says that
interpretation involves explaining findings, answering “why” questions, attaching significance to
particular results, and assembling patterns into an analytic framework. I analyzed the data with
the intent of building interpretive case studies (Merriam, 1998; Yin, 2003). Through
interpretative analysis, I was able to understand how Microsoft staff and partners came to create
Microsoft’s new policy authority and the two government’s response to the company’s expanded
role in education.

3.1 Validity, Generalizability, and Ethical Considerations

As discussed in the previous section, I used multiple sources of data, including 66
interviews representing Microsoft and other policy actors. The aim was to collect “multiple
perceptions to clarify meaning, verifying the repeatability of an observation or interpretation”
(Stake, 1995, p. 241). In addition, in obtaining data from multiple sources, I aimed “to clarify
meaning by identifying different ways the phenomenon is seen” (Stake, 1995, p. 241). I
triangulated data sources (Yin, 2003) and made every effort to establish a “chain of evidence”
(Yin, 2003) or “audit trail” (Merriam, 1998), linking the data to the conceptual framework for the
study.

Throughout the research, I endeavored to construct “thick description” (Geertz, 1973)
and draw interpretations from the data about Microsoft’s motivation and new policy role in
education. According to Geertz (1973),

Thin description refers to the action of meaning and thick is the meaning behind it and its
symbolic import in society or between communicators. Social actions are larger then
themselves and speak to larger issues. The generality that thick description contrives to
achieve grows out of the delicacy of its distinctions, not the sweep of its
abstractions...[T]he essential task of theory building here is not to codify abstract
regularities but to make thick description possible, not to generalize across cases but to generalize within them. (pp. 25-26)

Research for this thesis followed the ethical guidelines adopted by the University of Toronto, the 1997 Tri-Council Policy on Research. All participants were volunteers and signed letters of informed consent. They were informed of their right to discontinue their involvement in the study at any time. No participants withdrew from the study. I kept the identities of research participants confidential by assigning codes to the interview transcripts; however, some of the participants may be recognizable, given their positions in industry, government, or civil society. For this reason, when I selected quotes to use in the thesis, I sent each corresponding research participant their quote, to allow them to correct any misrepresentation that may have arisen during the quote extraction process. All of the collected data will remain strictly confidential and will be destroyed 5 years after the completion of the study.

3.2 Conclusion

This study is designed as an exploratory case study of the changing policy and governance roles of TNCs in education, with Microsoft’s PiL program as the central case. It incorporates two embedded country case studies, which are analyzed both singly and comparatively (Merriam, 1998; Yin, 2003). The overall case study frames the Microsoft PiL program as an illustrative example of private authority in education policy, operating at a transnational level.

Microsoft Corporation is a dynamic company that thrives on competition and continuous improvement of its activities and products. Its staff is highly motivated, driven, and hardworking. Many of the staff members I met and interviewed were passionate about teaching and learning. Microsoft Corporation entered the education field to do good work, but it is also strongly driven by profit-making. Reflecting on the early days of the study, I think that I was
naive and overly optimistic about being able to complete a study on one of the most powerful TNCs in the world without any obstacles. There were some significant challenges along the path of this study, which taught me key lessons about conducting research. At the end, however, it is hoped that this research will open the door for many other researchers to also study corporations working in education.
Chapter 4 - Microsoft Corporation and its History in Education

One of the primary aims of this research was to understand how and why Microsoft Corporation developed new programs with a transnational reach in education and how it emerged as a new private authority in public education worldwide. To do this, I studied Microsoft’s flagship program in education, the Partners in Learning (PiL) program (see Chapter 5 – Microsoft Corporation’s Footprint in Education: The Worldwide PiL Program). However, understanding the development of Microsoft’s private authority in education would not be complete without exploring the company’s culture, inner workings, and key transformational moments. In this chapter I describe the history of Microsoft Corporation and its work in education.

The chapter is divided into two parts. In the first, I present highlights of Bill Gates’ life and work, a history of Microsoft Corporation, including the company’s early vision and culture, the people at Microsoft, key successes and challenges, and the company’s cultural shift in the early 2000s. In the second part of the chapter I describe Microsoft’s activities in the education sector, including a brief overview of Bills Gates’ vision, early thinking, and research on the use of technology in education. Then I categorize Microsoft’s work in education through its philanthropic donations, its corporate social responsibility activities, corporate citizenship activities, commercial interests in education, and the Bill and Melinda Gates Foundation’s activities in education. I conclude the chapter by arguing that Microsoft’s power—through its material resources, expertise, and knowledge, were key sources of its legitimacy efforts to enter education. This chapter provides the context for the country cases in Chapters 6 and 7, analysis in Chapter 8 and conclusions in Chapter 9.

5 Microsoft’s purely philanthropic donations refer to philanthropic donations made by Microsoft Corporation. This is separate from the Bill and Melinda Gates Foundation’s philanthropic donations.
4.0 Bill Gates and Microsoft Corporation

In this section, I draw on categories used by Jim Collins in his book *Built to Last* – *Successful Habits of Visionary Companies* (2002). Collins researched 18 companies, comparing each to one of its direct competitors. I review Collin’s notion of social factors as they apply to Microsoft. Social factors refer to the soft items: the company’s cultural practices, atmosphere, norms, rituals, mythology and stories, group dynamics, and management style. I also use Collin’s notion of vision: a company’s core values, purpose, and goals.

4.0.1 Bill Gates

William H. Gates III grew up in Seattle, USA with his two sisters. His father, William H. Gates II, is a prominent Seattle attorney. His late mother was a school teacher, University of Washington regent, and chairwoman of United Way International (Microsoft Corporation, 2007a). Gates attended a public primary school and then went to the private Lakeside School, an all-boys school where teachers were called Master, students wore jackets and ties, and attended chapel every morning (Gates, 2005a). This is where he discovered his interest in software and began programming computers at the age of 13. Gates entered Harvard University in 1973, with the intent of going to law school. While at Harvard, he developed a version of the programming language BASIC for the first microcomputer, the MITS Altair. Gates lived down the hall from Steve Ballmer, now Microsoft’s chief executive officer. Gates dropped out of his sophomore year at Harvard, at the age of 20, and started a software company with Paul Allen, his childhood friend (Hoovers, 2006). Biographies of Gates emphasize that Gates was already forming his core attributes as a young man: being passionate about technology, needing to have control, being competitive, and having the desire to change the world. These attitudes later became the core of Microsoft Corporation’s culture (Slater, 2004, p. 97).
Bill Gates founded Microsoft Corporation in 1975 and has served as its chairman since the company was incorporated in 1981. In 1980, IBM chose Microsoft to write the operating system for its new machines, which initiated the modern PC era. Gates bought QDOS (Quick and Dirty Operating System) for $50,000 from a Seattle programmer and renamed it MS-DOS (Microsoft Disk Operating System). Windows, a graphic-based version of MS-DOS, was introduced in the mid-1980s. It was borrowed from rival Apple Corporation’s Macintosh system (Slater, 2004).

The 1990s was a decade of many milestones and setbacks for Gates. In 1992 he was declared the richest man in the world and, in 1999, became the first person to amass over $100 billion in wealth (Harmon, 1999). Gates’ personal fortune was greater than the economic output of all but 18 of the world’s richest nations (Slater 2004, p. 129). During this period of massive wealth acquisition, the media began to accuse him of monopolistic business practices; Microsoft underwent several lawsuits (see section 4.0.4 Threats: Free and Open Source Software and Lawsuits, page 60).

Gates personified the abuse of market power when he decided to take personal charge of one of the lawsuits, United States vs. Microsoft Corporation, becoming the company’s chief legal strategist (Greene & Hamm, 2002). Reflecting back on this action, Gates told biographers that he regrets spending too much of the 1990s dealing with battling legal charges, instead of being the architect of the company’s software (Slater, 2004). In the early 1990s, the media shifted its attention from Gates’ contribution to the technology sector to his market power and fortune. Media commentators increasingly called Gates a “monopolist” and “predator” (Slater, 2004). There has been tremendous interest about Gates and Microsoft among the media and society at large, and several books have been written (Goldman Rohm, 1998; Lewis; Lowe,
Gates continued to serve the company as CEO from 1981 until January 2000, when he assumed the position of Chief Software Architect (Datamonitor, 2005).

Gates began his philanthropic work in 1994, with the creation of the William H. Gates Foundation to focus primarily on global health. In 1997, Gates and his wife Melinda created the Gates Library Foundation to bring public-access computers with internet connections to libraries across the United States (Bill & Melinda Gates Foundation, 2006a). After reading an exhaustive study of global health issues, Gates donated $17 billion to the two foundations, which merged in 2000 to became the Bill and Melinda Gates Foundation\(^6\) (Bill & Melinda Gates Foundation, 2006a; Schlender, 2002). Since that time, Gates has been actively engaged in global health issues. For example, in 2003 at the World Economic Forum, he met with distinguished scientists for 3 hours to brainstorm ways to fix some of the world’s most pressing public-health dilemmas (BusinessWeek, 2003).

The Gates Foundation has become the wealthiest charitable foundation in the world. As of March 31, 2007, it had an endowment of $33.4 billion\(^7\) (Gates Foundation, 2007), and its annual income equals that of a small country. The Gates Foundation’s most ambitious initiative to date is to free the world of ill health, particularly poor regions (The Economist, 2005). Some believe that Gates will be known more as a philanthropist than for his development of computer software (Howe Verhovek, 1999).

Gates has shifted in recent years from being an authority on technology issues to broader issues of global social concern. He and his wife have made frequent visits to Africa. They visited an AIDS clinic in Lesotho, with Bill Clinton in 2006. In the same year, Gates talked about his long-term search for an AIDS vaccine to an audience of

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\(^6\) Hereafter called the Gates Foundation.

\(^7\) The endowment includes a $1.6 billion gift from Warren Buffet, recorded on August 24, 2006.
24,000 at the biennial International Aids Conference held in Toronto (McLean, 2006). In 2007, in his address after he was given an honorary degree at Harvard University, Gates talked mostly about solving global problems, not about Microsoft Corporation or technology. He urged the Harvard community and graduating class to address global issues through their professional and voluntary work. He said,

Members of the Harvard Family: Here in the Yard is one of the great collections of intellectual talent in the world. What for? There is no question that the faculty, the alumni, the students, and the benefactors of Harvard have used their power to improve the lives of people here and around the world. But can we do more? Can Harvard dedicate its intellect to improving the lives of people who will never even hear its name?

Let me make a request of the deans and the professors – the intellectual leaders here at Harvard: As you hire new faculty, award tenure, review curriculum, and determine degree requirements, please ask yourselves: Should our best minds be dedicated to solving our biggest problems? Should Harvard encourage its faculty to take on the world’s worst inequities? Should Harvard students learn about the depth of global poverty...the prevalence of world hunger...the scarcity of clean water...the girls kept out of school...the children who die from diseases we can cure? Should the world’s most privileged people learn about the lives of the world’s least privileged? (Gates, 2007)

Gates’ increasing involvement in philanthropic activities of the Gates Foundation has, in recent years, recast his image as one of the world’s most generous philanthropists (Slater, 2004). Some critics continue to argue, however, that Gates’ attention to philanthropy is a calculated effort to ward off negative media attention.

4.0.2 An Overview of Microsoft Corporation

Microsoft was established in 1981 and has transformed software and technology worldwide. Microsoft develops, manufactures, licenses, and supports a range of software products for many computing devices. The company has in the past mostly operated in the U.S. The U.S. personal-computer market is largely mature, so Microsoft has moved into new businesses (Greene, 2004b). Microsoft’s business activities include: client, server, and tools;
online platform products and services; business; and entertainment and technology devices (Microsoft Corporation, 2006e).

Microsoft faces intense competition across all of these markets. The company’s competitors range from Fortune 100 companies to small, single-product, specialized companies and open-source software (see section 4.04 Threats: “Free and Open Source Software and Lawsuits” in this chapter). Software piracy is also a major threat to the company. In fiscal year 2006, almost 60 million PCs were sold with pirated versions of Microsoft Windows, which resulted in tremendous loss of potential revenue.

4.0.3 Microsoft’s Vision, Culture, People, Successes, and Sales

Microsoft’s corporate values reflected Bill Gates’ style during the years he led the company: highly aggressive and competitive. According to Steve Ballmer, Microsoft’s current Chief Executive Officer:

The key tenet of Microsoft’s culture has been its passion for technology including a passion for innovation, exploration and creativity, and a belief in the value of software and the difference it can make in people’s lives. Most importantly it is reflected in its staff ability to think analytically, react quickly, pick up trends and instigate or adapt to change as needed. (Ballmer, 2001, cited in Slater, 2004, p. 194)

At the core of the company’s culture was a never-give-up attitude:

Our product history is full of examples where if at first we didn’t succeed, we’d try and try (and try) again! This kind of never give up attitude has meant that we get things done that other companies most likely would have given up on. (Ballmer, 2001, cited in Slater 2004, p. 194)

A third cultural feature was the company’s policy of self-examination:

However tough our competitors and customers are on us, I think most of us are even tougher on ourselves. Our capacity to be honest and self-critical is one of the greatest and most unique things about our company, and has enabled us to self-correct when we get off course or make mistakes. (Ballmer, 2001, cited in Slater, 2004, p. 195)
These cultural norms motivated Microsoft’s early innovation, growth and success and were reinforced and perpetuated with the company’s growth, primarily through strategic hiring practices. As of June 30, 2006, Microsoft employed approximately 71,000 people full time: 44,000 in the U.S. and 27,000 internationally. Of this total, 28,000 were in product research and development, 21,000 in sales and marketing, 13,000 in product support and consulting services, 2,000 in manufacturing and distribution, and 7,000 in general management and administration (Microsoft Corporation, 2006, p. 14).

Microsoft has traditionally hired very competitive, driven individuals. They are recruited from top college campuses in the U.S., including Harvard, Yale, MIT, Carnegie-Mellon, and Stanford (Slater, 2004, p. 175). Microsoft defines the “best and the brightest” as those with a high analytical IQ; that is, those who possess analytical problem-solving abilities, especially in mathematics and computer science. During the company’s first 20 years, it did not consciously seek people with high moral values, although this later changed (see section 4.0.5 Microsoft’s New Culture, Hires, Sales, and Focus on Emerging Markets, page 64). The company wanted employees with a passion to change the world, who would give up sleep to get the job done—people, in short, who liked to win (Slater, 2004, p. 176).

The company’s major strengths have been strong operational performance, returns, and brand recognition; and strong research and development investment (Datamonitor, 2007). In 2006, Microsoft received its 5,000th patent and invested $6.6 billion in research and development (R&D), more than any other company in the technology industry. According to company literature, “past investment in R&D paid off in the form of new products and technologies that are helping us redefine the next generation of information technology” (Microsoft 2006, p. 32).
By 1999, Microsoft had become the first company to exceed $500 billion in market value. In 1993, it had $3.79 billion in revenues, $953 million in profit, and 14,430 employees. In 2000, revenues had soared to $22.96 billion, profits to $9.4 billion, and employees to 39,170 (Slater, 2004, p. 60). Although such profits would be considered highly impressive for most companies, for Microsoft this figure was a significant drop: from its 47% growth from 1995 to 1999 to its 11.5% growth from 2001 to 2005. Microsoft’s declining growth rate has been referred to by the media as “Microsoft’s midlife crisis” (Schlender, 2002).

The company recorded revenues of $44.3 billion during the fiscal year ending June 2006, an increase of 11.3% over 2005. The operating profit of the company was $16.5 billion during fiscal year 2006, an increase of 13% over 2005. Its net profit was $12.6 billion in fiscal year 2006, an increase of 2.4% over 2005 (Datamonitor, 2007). For more detail, see Appendix 4 Microsoft’s Financial Highlights 2001-2006.

Microsoft’s proportion of worldwide sales of personal computers hovered around 11% in 2004 and was expected to fall to 8% in 2008 (Greene, 2004a). The U.S. was Microsoft’s largest geographical market, accounting for 67% of total revenues in fiscal year 2006. Revenues from the U.S. reached $29.7 billion in 2006, an increase of 10.4% over 2005. Other countries accounted for 33% of the total revenues in fiscal year 2006. Revenues from other countries reached $14.6 billion in 2006, an increase of 14.1% over 2005 (Datamonitor, 2007). The future growth of Microsoft is expected to come from worldwide sales, which makes this thesis all the more important, as it provides insight into Microsoft’s motives for expanding its education work around the world.

Microsoft spent approximately 17% to 22% of its revenues on sales and marketing from 2001 to 2006 (see Appendix 5 Microsoft’s Sales and Marketing Expenses). Its customers include
individual consumers, small and medium-sized organizations, enterprises, governmental institutions, educational institutions, Internet Service Providers and application developers. Consumers and small- and medium-sized organizations obtain Microsoft’s products primarily through resellers (Microsoft Corporation, 2006e).

4.0.4 Threats: Free and Open Source Software and Lawsuits

Microsoft’s major threat is its own business model, which is based on customers agreeing to pay a fee to license software developed by the company. Within such a model, software developers (such as Microsoft) bear the costs of research and development (R&D) to convert original ideas into software products. These costs are offset by the revenue received from the distribution of their products. The popularization of the noncommercial software poses a significant challenge to Microsoft’s commercial business model (Data Monitor, 2005). Free and Open Source Software (FOSS) developers have made their source code public and even allow software users to change the source code, modify the software or create new software from it, and then distribute the modified software under the same terms (UNCTAD, 2003, p. 101).

Mozilla Firefox, an open-source Web browser, has 12% of the market share, with more than 185 million downloads (Allen, 2005). The market share of Microsoft’s Internet Explorer has decreased slightly, to 85% (Berman, 2006). FOSS threatens not only to reduce Microsoft’s market dominance but also to drive down the prices of all software (Parloff, 2004; Schlender, 2004). The main reason for the widespread adoption of open-source software is cost reduction. In developing countries, the price of proprietary software in purchasing power terms, even after factoring in software-license discounts, is very high. For example, Microsoft Windows XP and Office XP cost approximately US $560. In South Africa, this represents over 2.5 months of GDP/capita and, in Vietnam, over 16 months. In terms of those countries’ purchasing power,
such a cost equals a single-user license fee of US$7,541 in South Africa or US$48,011 in Vietnam (Ghosh, 2004).

Microsoft’s profit is at risk, because FOSS could attract a sizably share of the market even though Microsoft’s commercial software currently operates approximately 95% of desktop computers (Berman, 2006). An internal memo reflecting the views of some Microsoft senior executives, leaked to the media, revealed their deep concern about the threat of FOSS. The memo explicitly warned that free software can meet or exceed the quality of commercial programs and called the free software movement a “long-term credible” threat. The memo warned that employing a traditional Microsoft marketing strategy known as Fear, Uncertainty, Doubt (FUD) will not fend off the developers of free software (Harmon & Markoff, 1998). In another leaked memo, “Microsoft Confidential,” Orlando Ayala, Microsoft’s top sales executive, directed senior Microsoft managers to dissuade governments around the world from choosing cheaper alternatives to Microsoft Windows. Where software sales to governments or large institutions looked doomed, managers were ordered to draw from an internal company fund to offer the software at a steep discount, or even for free if necessary. Ayala said, “Under NO circumstances lose against Linux”8 (Fuller, 2003).

Many governments have already chosen to switch from Microsoft Windows to FOSS; for example the City of Munich in 2004 (Kirkpatrick, 2004) and in Finland, where there is government support for open-source software (Greene, 2004a). There is also growing preference for the free operating software Linux in developing countries. Information technology companies are looking at China and India as potential future markets. In 2004, a consortium of government-funded companies, the China Standard Software Company, agreed to deploy a million computers using Linux and Microsoft’s Office rival StarOffice, from Sun Microsystems.

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8 A free, open-source operating software for PCs.
To win favour in China, Microsoft pledged to spend more than $750 million between 2002 and 2004 on cooperative research, technology for schools, and other investments (Greene, 2004a). Microsoft has used this strategy to build stronger relationships; as evidence, the President of China has committed to using Microsoft products through special agreements made with the company (Kirkpatrick, 2007).

In 2007, Microsoft claimed that FOSS violates 235 of its patents and revealed a new strategy that would require FOSS distributors and users to pay royalties. FOSS advocates claim “that software is the embodiment of knowledge about technology, which needs to be free the same way that mathematics is free” (Parloff, 2007). In the meantime, Microsoft is negotiating direct-license agreements with Fortune 500 companies that use open-source operating software. However, Microsoft stated that, if its revenue is further threatened by FOSS, it will sue customers for royalties the way the record industry has (Parloff, 2007).

The major threat faced by Microsoft has been antitrust lawsuits. During the last 17 years, Microsoft has been subject to numerous investigations and antitrust lawsuits by governments and private companies because of the dominance of its products in the software market. By 1991, Microsoft’s productivity software and Windows operating system were running on more than 90% of personal computers in the United States. The U.S. government’s antitrust suit against Microsoft began on May 18, 1998, although the government had been investigating the company for almost a decade. The then attorney general, Janet Reno, noted that the government was charging

Microsoft with engaging in anticompetitive and exclusionary practices designed to maintain its monopoly in personal computer operating systems, and attempting to extend that monopoly to Internet browser software (Slater, 2004, p. 26).

Seven months later, on June 7, 2000, Judge Jackson, who had overseen the antitrust lawsuit, ordered Microsoft to break into two companies: one for operating systems and another
for everything else (Slater, 2004). However, on June 28, 2001, a federal appeals court judge ruled that breaking up the company was excessive punishment. Judge Kollar-Kotelly took over the case, encouraging a settlement to be reached by the two sides.

Six months after becoming president, George W. Bush made it clear that “he liked Microsoft, liked big business, and had no desire to pursue antitrust cases. He wanted the Microsoft case dropped” (Slater, 2004, p. 45). A year later, John Ashcroft, Bush’s attorney general, announced that his department would not require the breakup of Microsoft, and the Department of Justice reached a settlement with Microsoft on November 2, 2001. In addition, nine states agreed 4 days later to settle their antitrust lawsuits on similar terms. The District of Columbia and nine other states sued for tougher sanctions. In November 2002, the Microsoft antitrust lawsuit came to an end. The District of Columbia and the still-suing nine states were ordered by Judge Kollar-Kotelly to drop actions against Microsoft, given that their proposed harsher sanctions would benefit Microsoft competitors, not consumers (Slater, 2004).

Microsoft had been through a 4 year turmoil; its annual growth rate, as high as 49% in 1996, had dropped to 12% during the fiscal year ending 2002. The trial had damaged Microsoft’s reputation, and the morale of the company was at an all time low. In fear that the federal government would require the company to split in two, Microsoft affirmed in the settlement that it would not offer different contract terms to different computer manufacturers and that it would not participate in exclusive deals that harm its competitors.

The settlement was reached on November 1, 2002 and motivated Microsoft’s effort in the following years to become a kinder, gentler company. Several lawsuits continue. For almost 29 years, Microsoft rarely shied away from a court fight; however, since the 2002 settlement, Microsoft has aggressively resolved litigation with companies and governments, paying out $5
billion to plaintiffs and settling nearly two dozen cases (Greene, 2004b). As of the beginning of 2007, Microsoft reached settlements with 18 states and the District of Columbia totaling $2.5 billion dollars – a significant portion of which was to be funneled to educational technology for needy schools. These ranged from $4.6 million in South Dakota to $400 to $600 million in funding vouchers to schools in California (Electronic Education Report, 2007). See Appendix 6 Microsoft Settlement Funds Available to U.S. Schools (Electronic Education Report, 2007). Many educators, and Microsoft competitors, have protested these huge sums of money being poured into education technology. During the antitrust hearings, Steve Jobs, Apple Corporation CEO, stated,

> It strengthens Microsoft’s quest for dominance in the school computing market – one of the rare domains where rival software makers have given the giant firm a fight. (Electronic Education Report, 2007)

Even in a fight against the U.S. government, Microsoft was able to snatch victory from the jaws of defeat.

4.0.5 Microsoft’s New Culture, Hires, Sales, and Focus on Emerging Markets

The corporate culture at Microsoft remained, for a long time, like many software companies in their early years: competitive, aggressive, and lacking discipline. These qualities helped Microsoft become successful. However, not altering the culture as the company matured resulted in numerous lawsuits and problems. The company has been criticized for its “market power, monopoly position and predatory tactics” (Silverthrone, 2006). During the antitrust trial against Microsoft, Bill Gates acknowledged that the “company had to change its cultural direction” (Slater, 2004, p. 19). He said,

> This settlement puts new responsibilities on Microsoft, and we accept them. We recognize that we will be closely scrutinized by the Government and our competitors. We will devote the time, energy, and resources needed to meet these new rules. I am personally committed to full compliance. (Slater, 2004, p. 72)

Craig Mundie, a senior Microsoft executive said,
The company is growing up. Microsoft is exiting adolescence. You see the maturation in the management team. The company is growing to accept its real role in society, to accept that it should have corporate social responsibility, and become more sophisticated, that we should deal with more finesse as we deal with global problems. (Slater, 2004, p. 92)

Steve Ballmer became the president of Microsoft in 1998 and CEO in 2000. The leadership change helped the company to soften its internal culture and image. Twelve days after the antitrust trial ended, Steve Ballmer, wrote a memo to employees, directing them to

... forge a new relationship with our customers, our partners, the industry and governments around the world. I believe we are creating an entirely new Microsoft. (Slater, 2004, p. 74)

In 2003, certain longstanding features of the company remained central: expecting employees to work hard, be self-critical, persevere, and exhibit a passion for technology. However, Ballmer wanted Microsoft employees to abandon the attitude of winning at any cost. He had communicated to employees that the company’s excessive zeal had created legal trouble for it in the past. The company’s new aims were communicated in more positive terms; Ballmer encouraged employees to think in new ways, to create a culture that was more open and respectful (Greene et al., 2002).

In a memo to staff titled “Guide to Action,” sent June 6, 2002, Ballmer wrote,

Simply put, our (new) mission is to enable people and businesses throughout the world to realize their full potential. Today, we use software to help people get there. Over time, this will evolve to be a combination of software and software services. But our mission is not just about building great technology. It’s also about who we are as a company and as individuals, how we manage our business internally, and how we think about and work with partners and customers. As an industry leader, we have a unique role in the world – unique in the contribution we make and the responsibility that comes with that. (Slater, 2004, p. 83)

In the same memo, Ballmer wrote,

Excellence was the company’s new goal, not being competitive or winning. Excellence must be at the core of everything we do and is central to everything we value. There are several pillars of excellence to which we must all aspire: excellence in people, excellence in every part of our relationship with customers and partners, excellence in product quality, excellence in how we make decisions
and orchestrate our work internally to be efficient and predictable, excellence in shareholder value. (Slater, 2004, p. 200)

This was the first time that Microsoft’s mission was not just about technology (Greene & Hamm, 2002). The company’s old mission statement, which Gates wrote in 1978—A computer on every desk and in every home—seemed almost fulfilled (Schlender, 2004).

The twin traits of the company—being aggressive and competitive—were to change. Ballmer also established a set of corporate values, which he called “tenets,” which required employees to have personal “integrity and honesty” and be “open and respectful.” The company itself was also to be open and respectful, to find ways to communicate to outsiders what it was doing, early and often (Schlender, 2004). Ballmer hoped to make Microsoft a better corporate citizen. Microsoft’s 5-year antitrust lawsuit put a severe strain on the company’s relationships with the rest of the technology industry. Ballmer, however, believed that Microsoft could regain the industry’s trust by being open with others about its plan:

We’re going to work even harder on these positive relationships, whether that means an investment of time, an investment of energy, or being honest and open and respectful. (Greene & Hamm, 2002)

During performance reviews in 2002, all employees were asked to discuss the company’s values with their supervisors and determine how best to integrate them into their work (Greene et al., 2002).

In addition, Microsoft changed its sales strategy to align it with the company’s cultural shift. This change began in 1999, when Microsoft announced a new worldwide sales-training program, Microsoft® Certified Solution Providers (MCSPs). The aim was for all of Microsoft’s sales staff and 21,000 distributors to speak a common language, based on Franklin Covey’s Helping Clients Succeed™ workshop. The new sales approach was based on the idea of consultative selling, which focuses on developing software solutions to help clients succeed, rather than just selling products (Microsoft Corporation, 1999f).
During the early 2000s, there was growing awareness within the company that, for newer customers, the value proposition for software, referring to the benefits of using software, might differ from market to market. To address this diversity, Microsoft needed to develop business processes that focused on markets and segments, not on individual products. Microsoft had to put managers in place who could manage these markets as if they were stand-alone businesses. These new managers required new skill sets and new metrics to judge performance (Slater, 2004, p. 163).

In 2003, the change in Microsoft’s sales strategy solidified, when it released its *Microsoft Solutions Framework White Paper*. The new framework took a deliberate and disciplined approach to technology projects, based on defined principles, models, disciplines, concepts, guidelines, and proven Microsoft practices. Instead of prescribing methodology, the white paper provided a flexible and scalable framework that can be adapted to the needs of any project (regardless of size or complexity) for planning, building, and deploying software projects. In addition, the white paper stated that no single structure or process optimally applies to the requirements and environments of all projects (Microsoft Corporation, 2003f).

Steve Ballmer urged Microsoft headquarters staff to spend time talking to customers—not just Chief Information Officers (CIOs) but users, schoolchildren, large groups of IT users, and software developers: “All of this work should let people know us better and help them understand more about what we are doing and how to take advantage of it” (Slater, 2004, p. 151).

In the early 2000s, Microsoft also began focusing on emerging markets:

Ballmer wanted the external world (Wall Street, the media, and so on) to understand that Microsoft was preparing itself to tackle a whole new set of emerging markets head on. That in part was what the new reorganization was
about. The company could not afford to miss opportunities in a new, potentially lucrative market. (Slater, 2004, p. 167)

Ballmer said, “If there is a business that emerges over the next ten years that’s got a billion dollars of profit in the software area and we chose not to participate, that’s crazy” (Slater, 2004, p. 167).

In efforts to tap into new markets Bill Gates and Microsoft engaged in different types of activities around the world. At the 2000 Creating Digital Dividends Conference, Bill Gates was asked what he thought of the rural poor in developing countries as a business opportunity for Microsoft Corporation.

He responded,

It’s not a significant economic opportunity. Let’s be serious. Define poor. No, people are just playing around with terms. What do you mean, poor? Poor means you live on less than a dollar a day. That’s what poor means... For us, mostly, those are people that if they happen to get access to the computers we’ll give them the software for free, because we want to, because we think that’s a good thing, not because it’s a business opportunity. (Gates, 2000a)

The year 2006 was significant in the history of Microsoft (see
Appendix 7 Letter from Bill Gates and Steve Ballmer). During that year, the company celebrated its 30th anniversary. On June 16, 2006, Gates announced that he would move out of a daily role in the company to spend more time on global health and education work at the Bill & Melinda Gates Foundation. He planned to continue serving as Microsoft’s chairman and advisor on key development projects after July 2008. The 2-year transition process aimed to ensure a smooth and orderly transfer of Gates’ daily responsibilities (Microsoft Corporation, 2007a).

Gates’ departure from the day-to-day control of the company came when it was no longer America’s most popular corporation (The Economist, 2007). For example, in January 2007, Microsoft released the newest version of its operating system, Windows Vista. The release did not create as much excitement as previous ones. Google is seen as the new thought leader of the Internet Age, and investors are excited about its 92% revenue growth during 2005, to $6.1 billion. In contrast, Microsoft’s revenue increased only 8% in the same year, to $39.8 billion (Greene, 2004a).

4.0.6 Microsoft’s History in Education

Microsoft began its work in education in 1986, 11 years after the company was formed. What follows is a brief review of Bill Gates’ vision, early thinking, and research on the use of technology in education. In addition, I review Microsoft’s work in education using a global corporate social engagement (GCSE) typology (Bhanji, 2008b) that includes purely philanthropic donations made through the Bill and Melinda Gates Foundation as well as separately through Microsoft Corporation. It is important to note that the Foundation’s governance and activities, in general and educational terms, are separate from Microsoft’s. The history of the Foundation’s work in education, however, gives holistic insight to Bill Gates’ activities in education. I also tell the history of Microsoft’s corporate social responsibility, corporate citizenship activities, and commercial interests in education. These activities are
classified in separate categories to better understand the broad spectrum of motivations; however they are not distinct and there is much overlap amongst them. As mentioned in the previous chapter, it is important to unveil Microsoft’s history in education to better understand and contextualize the PiL program.

The primary source materials on Microsoft’s history in education were Microsoft press releases and a few documents on Microsoft’s website, in addition to chapters on education in books by Bill Gates. Microsoft press releases and speeches, dating back to 1996, are archived on its website. I reviewed over 6000 press releases and downloaded 270 that were relevant to education. I also searched the ERIC and Business Primer Source databases and from them downloaded another 250 articles pertaining to Microsoft and education.

4.1 Bill Gates and Education

Bill Gates has a long history of software development and advancing the use of technology in the education sector (see Appendix 8 Key Microsoft Events and Publications Related to Education (1968-2003)). In 1968, Gates wrote his first software, a tic-tac-toe game at Lakeside School (Gates, 1995). In 1972, Gates wrote his first commercial software during a summer job, a program to schedule students’ classes (Gates, 1995).

Gates sets out a vision, within Microsoft and in society at large, for using technology in education in his book The Road Ahead (Gates, 1995). He states, “Corporations are reinventing themselves around flexible opportunities afforded by information technology; classrooms will have to change as well” (p. 184). He continues that bringing technology to the education sector will benefit society at large. He provides examples of computers being used in different ways in schools around the world (Gates, 1995). Also in 1995, Gates commissioned the International Society for Technology in Education to implement the Road Ahead program from proceeds from the sale of his book. Under the program, the National Foundation for the Improvement of
Education (NFIE) selected 22 sites in 15 states to test the Road Ahead model in schools, with a particular focus on student learning, professional development, technology use, and systematic change. Each school was required to form a five-member school-community partnership and was given a $30,000 grant, to
design and implement collaborative, student-centered activities that demonstrate how teaching and learning are facilitated by multimedia and telecommunications technologies and to foster student’s ability and confidence to use information technologies in powerful ways in both formal and informal learning settings. (Bielefeldt T. Moursound D., 1999)

Three conferences were organized. The first, A Capacity-Building Workshop in September 1995 in Washington, DC, emphasized the revision of team plans for using technology in schools. The second, the NFIE Summer Institute in July 1996 in Seattle, concentrated on professional development of teachers in technology and curriculum. The third, The Road Ahead Summer Conference in June 1997, included additional training and sharing of results and planning for the future (Bielefeldt T. Moursound D., 1999). Recommendations from the conferences included:

(1) Let desired learning outcomes guide the use of the technology; (2) allow three to five years for implementation of a program that involves new technology or teaching practices; (3) balance technology access and professional development; (4) enable ongoing teacher-led professional development; (5) enable student-led technology learning; (6) foster students’ higher-order thinking skills; (7) enlist additional educational stakeholders; (8) administrators need to be actively involved in the planning and maintaining technology integration; (9) use the experience of The Road Ahead teams to start or continue systemic planning for technology. (Bielefeldt & Moursound, 1999, p. 17)

In 1996, Microsoft released white paper, The Connected Learning Community: A New Vision for Technology in Education. It charted Microsoft’s vision for a Connected Learning Community, where

The world is an enriched learning environment in which technology used well enhances and expands opportunities for learning while providing practical technology experience needed in today’s society and workplaces. In the Connected Learning Community, new computing devices, powerful software, and
the global explosion in Web Services combine to enable learning without limits – anytime, any place. (p. 2).

The white paper cites research, examples, and best practices of how technology can be used within a new era of education by empowered students, teachers, schools, and communities. Moreover, it outlines Microsoft’s commitment to helping schools build Connected Learning Communities through investment in research and development, new technologies, Windows-platform architecture, a wide range of solutions from Web services to networking to productivity tools, and through education programs and partnerships. The White Paper states,

Through products, programs and partnerships, Microsoft is committed to helping educators use technology to build a modern learning infrastructure, provide anytime, any place access to learning, and integrate technology into all aspects of the classroom learning and school administration. (Microsoft Corporation, 1996b, p. 15)

Bill Gates concludes the White Paper:

This White Paper is designed to share what we at Microsoft have learned about how technology is revolutionizing education, and to explore the technologies that hold the most promise in education. We hope to spark an ongoing dialog that will make learning more widely available to all. (Microsoft Corporation, 1996b)

During the same period that Microsoft introduced its vision for technology in education, it was promoting its products in the education sector. For example, International Data Corporation reported that 56% of new computer purchases during the 1996-97 school year operated with Microsoft Windows (Microsoft Corporation, 1997d).

Gates continued to assert that “the most important use of information technology is to improve education” (Gates, 1996). In 1998, Microsoft’s Anytime Anywhere Learning independent study, nicknamed the Rockman Report was published. It showed that learning improves when students have full-time access to laptops. Microsoft hosted the annual Anytime Anywhere Learning Summit in the same year (Microsoft Corporation, 1998e). New research by International Data Corporation and Microsoft was released, which highlighted the significant
shortage of skilled technology workers, which would leave 510,000 information technology jobs unfilled by the end of 1998 and 1.6 million by 2002 (Microsoft Corporation, 1998d). During the European Information Technology Summit in 1998, Microsoft was a key player in the call for public and private action to close the European technology-skills gap (Microsoft Corporation, 1998a). European Union member states claimed at the Summit that

Educational reform is the most important area in which member states could make a lasting contribution. Technical literacy must become an imperative of the educational process and integrated into the curriculum at all levels. Schools must be given the tools and computers they need, computers and teachers trained to impart to students the skills they need. And member states must encourage vocational schools and public employment agencies to move quickly to place greater emphasis on IT training for the chronically unemployed and those seeking new opportunities. (Microsoft Corporation, 1998a)

Building on Microsoft’s experience in education, Gates included a chapter, “Create Connected Learning Communities,” in his second book, *Business @ the Speed of Thought* (1999). He charts in detail how technology could be used in education:

PCs can empower teachers and students more than any other group of knowledge workers. As I mentioned in describing the Web lifestyle, students are the ultimate “knowledge workers” since learning is all about acquiring knowledge. Teachers will be able to use the Internet to share with each other and to allow students to explore a subject in new ways. PCs can be a catalyst for reaching the educational goals that parents, educators, and government have set forth, such as collaborative learning, critical thinking, and lifelong learning skills. With a solid infrastructure in place, some schools are already benefiting from incorporating PCs in the classroom. (Gates, 1999, p. 386)

He provides examples of how technology is used successfully in schools and universities as well as how schools are able to connect with parents and communities through computers. He also explains how to integrate PCs into the classroom. He concludes,

The PC and the Internet fundamentally change one thing: They provide every student in every school and community with access to information and collaboration that before now was not available even to students in the best schools. (p. 403)
During the same period, Gates spoke about the potential role of technology in education at various venues, including universities, conferences, and education-related events organized by Microsoft (see Appendix 9 Bill Gates Speeches on Education). He elaborated on his vision for technology in education, as laid out in his books and educational studies commissioned by Microsoft. In 1999, he shared the company’s vision with more than 4,500 U.S. public-school superintendents at the American Association of School Administrators' 131st Annual Conference. Gates envisioned a future where school districts would develop digital nervous systems, powerful information and collaboration tools to meet their instructional and administrative challenges. He also shared how school districts can use technology to create more effective and efficient schools and announced a new industry-wide initiative to improve the performance of school software (Microsoft Corporation, 1999c).

Recognizing Microsoft's efforts in technology and education, New York Institute of Technology (NYIT) President Matthew Schure presented Gates with the Institute's President's Medal in 1999, announcing that

Bill Gates' commitment to education and technology is precisely why we are awarding him this medal. Giving classroom teachers not only the latest technological tools but also the knowledge of how best to use them is central to the success of the next generation of students. This is a philosophy we at NYIT share with Mr. Gates. (Gates, 1999)

After receiving the award, Gates spoke about education and the Web:

Today, only 20 percent of teachers surveyed say that they feel prepared to use technology effectively. Corporations, philanthropists, and government must, therefore, invest in massive training to prepare teachers for tomorrow’s classroom. The Internet can be the most incredible learning tool ever created. But we must come together to make the Connected Learning Community a reality – because Generation I is just beginning. (Gates, 1999)

Gates also spoke at international conferences in the U.S., including the ITU Telecom World 2003 (Gates, 2003) and the Digital Dividends conference, where, he addressed business and technology leaders from nongovernmental organizations and international agencies, and
innovators from emerging markets and education industries. He spoke about the importance of continuing society's efforts to bridge the digital divide (Gates, 2000a). He also spoke at universities, including Georgetown University in 1996 (Gates, 1996) and the College of Engineering, University of California at Berkeley (Gates, 2004).

In 2000, Bill Gates began speaking at Microsoft initiated or funded programs and events, including the Washington2Washington Educational Partnership meeting (Gates, 2000c), the Government Leaders Conference (Gates, 2000b), and the Connected Learning Community Technology Summit (Gates, 2001). In 2001, he began rallying support from business leaders for involvement of the private sector in education. At the National Education Summit (in the U.S.) he asked,

So, what is “our” role? I’m not asking from the perspective of a parent but as a businessperson in the private sector. Shouldn’t we be doing more to help fix an outdated scholastic system for our future talent pool and next generation of leaders?...The private sector wins because we’d have a potential hiring base of people who could provide future innovation, and young people win because they would have a chance to actually believe in a future that they richly deserve. (Friedenburg, 2005)

Gates gave the same message about education to business leaders at the Can>Win Summit in 2002 in Toronto. He said that “the track record for technology in education is almost a complete failure” (Schick, 2002).

Between 1998 and 2003, Gates traveled abroad to speak to educational audiences. In 1998, he visited Japan, South Korea, and Taiwan for a week of meetings with customers, business partners, and senior government officials (Microsoft Corporation, 1998c). In 2003, Gates made a speech at the opening of a new broadband school and launch of the Broadband School Consortium, an effort to provide public school students in Japan with broadband Web access (Microsoft Corporation, 2003b). During his address, he again conveyed his vision of
technology in education: “I believe education is the most important investment a country makes. Access to technology opens up new possibilities to students” (Microsoft Corporation, 2003b).

Although Microsoft’s work in education began in 1986, Bill Gates did not clearly lay out a vision, for Microsoft and society at large, on the potential of technology in education until the mid-1990s. This vision was refined through educational research commissioned by Gates as well as the books he wrote and the speeches he made to educational stakeholders in the U.S. and abroad.

4.1.1 Microsoft’s Corporate Social Engagement in Education
As discussed in Chapter 2, TNCs are using new mechanisms to enter the education sector. These mechanisms are driven by new norms: taking responsibility for corporate work and integrating social issues within business activities at the global level (Husted & Allen, 2006). It is through these mechanisms that Microsoft has been able to implement its vision and aim to establish its policy authority in education.

What follows is a chronicle of Microsoft’s work in education. I use a global corporate-social-engagement typology (GCSE) (Bhanji, 2008b) to classify purely philanthropic donations made through both the Bill and Melinda Gates Foundation, Microsoft’s corporate social responsibility, and its corporate citizenship activities in education. I also chronicle Microsoft’s commercial interests in education. (For a review of the typology, see Table 2.) The typology elucidates actors’ positions along the spectrum of interests, from purely philanthropic to those based purely on business. These positions are not distinct and there is much overlap among them.

Table 4 summarizes Microsoft’s Corporate Social Engagement Activities in Education.

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I will now describe each of the mechanisms through which the Bill and Melinda Gates Foundation and Microsoft has engaged in the education sector.

4.1.2 The Bill and Melinda Gates Foundation and Education

The goal [of the foundation’s Education programs is] to ensure that our nation’s students, regardless of race or family income, graduate from high school with the skills they need for college and work. To this end, the foundation supports communities and organizations across the country that are working to improve secondary schools. We also award scholarships to promising students who don’t have the financial means to attend college. (Bill & Melinda Gates Foundation, 2006b)

The work of the Bill and Melinda Gates Foundation is completely separate from that of Microsoft Corporation. It is, however, important to review the Foundation’s work in education as Bill Gates’ work with the Foundation may have also informed his activities in education on the business side through Microsoft.

The Bill and Melinda Gates Foundation is the wealthiest charitable foundation in the world. As of March 31, 2007, it had an endowment of $33.4 billion. The endowment includes $1.6 billion from the first installment of a $30 billion gift from Warren Buffet, recorded on August 24, 2006. Grants made by the Gates Foundation since its inception total $13.6 billion. Within the U.S., the Foundation supports grantees within the District of Columbia and in all 50
states and, outside the U.S., supports efforts in more than 100 countries. Total grants for 2006 were $1.56 billion (Bill & Melinda Gates Foundation, 2006a, 2007b). (See Appendix 10 Gates Foundation Grants Paid by Program Area (2000-2006)).

The Foundation has invested about $1.2 billion to date, to improve high school education for all students. Its aim has been to increase the number of students, particularly low-income Hispanic- and African-Americans, who graduate with the necessary skills to enter college or the workforce. The Foundation has also granted funds to establish small, focused high schools across the U.S. and to split large comprehensive schools into smaller ones. Its support created more than 1,500 high schools in 40 states and the District of Columbia (Bill & Melinda Gates Foundation, 2005). The Foundation has also focused on creating a policy environment supporting innovative schools that demand high achievement and accountability, while also promoting a wide range of high-quality options for secondary students. To this end, the Foundation also supports state governments, school districts, local nonprofit organizations, and partner philanthropists in 40 states to ensure that high-quality schools flourish in an accountability-based and supportive policy environment through, for example, research and leadership programs (Bill & Melinda Gates Foundation, 2006c). The Foundation’s executive director for education initiatives, Tom Vander Ark, and other staff frequently write for education journals, magazines, and newspapers on education topics, such as accountability (Vander Ark, 2004b; Wagner & Vander Ark, 2001), school choice and options (Vander Ark, 2003b, 2003c, 2003d, 2004c), school reform (Vander Ark, 2002c, 2003a, 2004a), small high schools (Vander Ark, 2002a, 2002b; Vander Ark & Wagner, 2000), educational leadership (Vander Ark, 2000), and the Foundation’s education-related projects (Bridgeland et al., 2006; Hubein & Corbett, 2004; Vander Ark, 2005).
The Foundation is trying to revolutionize American secondary education, which, if it were a business as Bill Gates remarked, “would be bankrupt.” During an interview on the Oprah Winfrey show on April 11, 2006, Bill and Melinda Gates pointed to the obsolete education system—built for the industrial age, not the digital age—as key to the problem. Bill Gates pointedly asked, “What good is it for kids to graduate in 2006 from a school system that was designed for 1956?” Gates argued that some students do not value their own education and that … millions of kids are dropping out, of which minorities, half drop out. Overall it’s about a third. There won’t be jobs for those kids. It’s a bad thing for them. It’s a bad thing for the country. (The Oprah Winfrey Show, 2006).

On another occasion, Gates also said,

I’m not here to pose as an education expert. I head a corporation and a foundation. One I get paid for – the other one costs me. But both jobs give me a perspective on education in America, and both perspectives leave me appalled. (Gates, 2005b)

The Gates Foundation does not directly advance the core business activities of Microsoft Corporation through philanthropy. The Foundation’s investments in education are, for the most part, not technology related. However, the Foundation does provide Microsoft Corporation with insights, credibility, and extensive exposure among education stakeholders and decision-makers.

4.1.3 Microsoft’s Corporate Social Responsibility Activities in Education

At Microsoft, we make grants of cash, software, and technical support to nonprofit organisations around the world. Our giving is guided by our desire to help bring the benefits of information technology to under-served people and communities, and to provide support to organisations in communities in which our employees live and work. (Gates cited in Microsoft Corporation, 2000b)

Microsoft has been actively engaged in CSR activities in education. These activities have been primarily philanthropic but also enable Microsoft to pursue its business interests. It has donated software and provided other technology support to schools, libraries, and educational organizations in the U.S. since 1996—and around the world since the late 1990s. A complete list of Microsoft’s CSR activities in education can be found in Appendix 11. First, Microsoft has been donating software for educational purposes. For example, in 1996, Microsoft announced a
special Windows 95 price of $19.95 for any K-12 or higher education institution in the United States (Microsoft Corporation, 1996f). In 2001, it announced a discount for students and teachers on the purchase Microsoft Office XP Standard: a price of $149, almost 70% below the regular price (Microsoft Corporation, 2001f).

Second, Microsoft has made ad hoc donations to libraries and other education related organizations. For example, Microsoft donated $10.5 million to help library systems in economically disadvantaged communities across the U.S. provide public access to the Internet and multimedia personal computers (Microsoft Corporation, 1996e). It donated $1.1 million to bring multimedia computers, software, training, and other support to Los Angeles libraries and schools (Microsoft Corporation, 1996a) and $1 million worth of technology to benefit the District of Columbia Public Library (Microsoft Corporation, 1997e). Microsoft also partnered with other organizations to bring technology to communities. For instance in 1996, Microsoft announced a $110,000 cash and software donation to the Computer Learning Centre at Martha’s Table (Microsoft Corporation, 1996d) and a $4 million gift to Microsoft Canada KidReach, the Canadian subsidiary’s program to encourage computer literacy among Canadian youth (Microsoft Corporation, 1996e).

Third, through a partnership with Intel Corporation, Microsoft announced the single largest software donation in the company's history at the time: software valued at $344 million and program support to the Intel Teach to the Future program, a worldwide technology industry initiative to train more than 400,000 classroom teachers in technology to improve teaching and learning. According to Microsoft, its

…support was in response to the ongoing worldwide focus on improving teacher quality, particularly in the area of technology skills. In the United States, a Department of Education report found that four out of five classroom teachers do
not feel prepared to use technology as part of daily instruction. (Microsoft Corporation, 2000f)

Steve Ballmer, Microsoft’s President and CEO, said,

This donation couldn't be going to a better cause – helping teachers and helping young people. Microsoft is proud to work with Intel to expand the opportunities teachers have to learn how to best use technology to improve student learning (Microsoft Corporation, 2000f).

Last, Microsoft began donating software and cash outside the U.S. in the late 1990s. For example, in 1997, Gates announced a donation of software valued at INR$5 million to the Bharatiya Vidya Bhavan (BVB) computer education centre in India, to further the success of BVB’s efforts to equip unemployed people with the skills needed to find jobs. The announcement took place at the Tata Memorial Hall in Mumbai, in the presence of Prime Minister H. D. Deve Gowda, business leaders, and senior government officials (Microsoft Corporation, 1997b). Gates emphasized that private industry and government both have a role to play in ensuring that the social benefits of personal computers reach the most needy sections of society, and he urged industry to take the lead in ensuring that IT is used to create new job opportunities for India (Microsoft Corporation, 1997b).

4.1.4 Microsoft’s Corporate Citizenship Activities in Education

In addition to the purely philanthropic contributions of the Bill and Melinda Gates Foundation and Microsoft Corporation’s CSR activities in education, Microsoft conceived and developed new corporate citizenship programs. Their aim has been to explicitly develop and support the use of technology in schools and educational systems in the U.S. and worldwide. Corporate citizenship (Murray, 2004; Ruggie, 2003b; Whitehouse, 2003) or strategic philanthropy (Porter & Craig, 2004) employs a flexible, consensual scheme, based on completely voluntary social initiatives that also meet the strategic needs of TNCs and is usually
funded through business operating or marketing budgets (Martin, 2002; Porter, 2002; Whitehouse, 2003).

Gates has emphasized Microsoft’s commitment to giving educators technology tools, training, and resources to help them develop technology-based strategies and curricula to enhance teaching and learning. In 2002, he noted that 42 out of 50 states in the U.S. required new teachers to have technology training (Microsoft Corporation, 2002a). Steve Ballmer added,

And we think this is a decade for software to empower all of us in new ways. When I talk to teachers particularly, I think teachers are still frustrated. Teachers still want to know when it’s going to be easier and easier to have the software empower them to do unique things in the classrooms. When I talk in school districts, people still say, hey, these computers are too hard to manage. They’re too hard to take care of. And I’m spending all of my time on lower-level issues instead of really adding the kind of value that I’d like to add to the educational process. And so in every sense we’ve got to, by the end of this decade, be in a position where more of all of our time is going into the job we are trying to accomplish, the empowerment we’re trying to get, helping us help others realize their potential instead of dealing with low-level plumbing and infrastructure and technology and blah, blah, blah. (Microsoft Corporation, 2002d)

Microsoft’s corporate citizenship activities in education are varied; they include free online tools and lessons for educators; teacher training; and competitions, contests, prizes, and technology grants through partnerships. I will now briefly discuss some of Microsoft’s corporate citizenship work. A complete list of Microsoft’s corporate citizenship activities in education can be found in Appendix 12.

First, Microsoft developed free online tools for education stakeholders. For example, in 1996, Microsoft announced its free software, the Parent-Teacher Connection Server, which provided teachers and parents with electronic-mail and bulletin-board services, their own Home Pages and Internet access (Gates, 1996).

Second, Microsoft trained teachers:

Microsoft Corporation believes that great teachers are key to the successful use of technology in the classroom. The company is committed to providing educators
with professional development tools and resources to help them develop strategies and curricula for using technology to enhance teaching and learning. (Microsoft Corporation, 1999k)

For example, Microsoft organized Summer Technology Institutes for Teachers who participated in hands-on, project-based workshops and learned how to use and integrate Microsoft software (such as Microsoft Office 97, Windows 95, FrontPage 98 and Internet Explorer 4.0) into class projects and learning activities. The teachers in turn shared their newly developed skills by training another 70,000 of their colleagues in their schools that fall (Microsoft Corporation, 1998h).

Third, Microsoft facilitated competitions, contests, and prizes for exemplary use of technology in schools. For example, in 1999 in Bonn, Germany, Bill Gates and Chancellor Gerhard Schroumlder awarded the Road Ahead Prize to three exemplary German schools. Microsoft introduced the Road Ahead Prize in Europe to support lifelong-learning initiatives and innovative use of information technology and the Internet in education (Microsoft Corporation, 1999h). At the ceremony, Bill Gates stated,

We have always believed that education is a key area where computers and Internet access can have a great impact on the quality of learning. The schools that we are honouring today are great examples of the creativity and skills needed to embrace new technologies. Microsoft is working together with many partners in Germany and throughout the world to advance the use of IT in education. (Microsoft Corporation, 1999h)

Last, Microsoft distributed technology grants. For example in 1999, through a public-private partnership with the U.S. Department of Education technology training grant program, Microsoft donated $1.2 million in software and training resources to the Navajo Education Technology Consortium (NETC) and $10,000 in software and training tools to each of 35 national or regional educational consortia that had received Department of Education grants (Microsoft Corporation, 1999k).
In summary, the aim of Microsoft’s corporate-citizenship activities has been to explicitly develop and support the use of technology in schools and educational systems in the U.S. and worldwide. Gates summarized this when explaining that Microsoft’s commitment to education

...includes delivering software as a learning tool and providing instructional materials to go with that software; it also includes creating industry alliances to lower barriers and accelerate the use of technology for learning. (Microsoft Corporation, 2002a)

These activities take Microsoft’s engagement in education to a higher level. Instead of donating only software, Microsoft has set new norms for the use of technology in education, motivated and developed the education sector’s capacity to use technology through direct, focused programming and initiatives. Through donating resources, training, awareness-raising activities and incentives, Microsoft is developing a market for its products and services in education.

4.1.5 Microsoft’s Commercial Interests in Education

Microsoft has also increased the number of its commercial software and products geared toward students, parents, teachers, and school administrators (see Appendix 13 Microsoft’s Products and Commercial Interests in Education). For example, in 2000, Microsoft released Encarta® Class Server, a new school-curriculum-management platform, the first Microsoft® software developed specifically for the education sector. The software was available to customers in the U.S., United Kingdom, Singapore, Australia, and New Zealand. The new platform, for grades K through 12, combined high-quality educational content from leading publishers with anytime, any place access for teachers, students, and parents. During the release of Encarta®, Mark East, worldwide general manager of the Education Solutions Group at Microsoft, announced,

Unlike any other platform available, Encarta Class Server allows teachers to manage online five major teaching areas: curriculum standards, lesson plans, content, assignment and assessment. Encarta Class Server is a powerful technology that is part of the Microsoft Connected Learning Community vision to
help schools build collaborative, content-rich and student-focused learning environments that are available any time and any place. (Microsoft Corporation, 2001g)

In 2001, Microsoft announced that it would bring the “21st Century Classroom to Life” and that “with the appropriate tools, immediate, interactive and accessible learning is a 21st century reality” (Microsoft Corporation, 2001a). Mark East added,

We are fusing the expertise of the technology and education worlds to set the stage for the 21st Century Classroom where students acquire the knowledge and skills necessary to explore endless opportunities throughout their lives. (Microsoft Corporation, 2001g)

Microsoft aligned its products onto the following educational areas: (a) collaborative work and learning, (b) learning any time, any place, (c) active, exploratory learning; (d) hands-on learning; (e) parental involvement; (f) real-world tools, and (g) connected technology to classrooms. It showed how its products could help meet 21st century educational goals (Microsoft Corporation, 2001a) (see Appendix 14 Matrix of Microsoft’s 21st Century Education Goals and Products).

Microsoft’s has promoted its products as technology for educational purposes. It has taken leadership aligning its products to 21st-century educational goals. But why does a TNC have the authority to determine what commercial products are developed to meet 21st century educational goals? Through its extensive research and marketing, Microsoft is promoting the credibility and educational usefulness of its products and services and the idea that Microsoft has the expertise to help students attain 21st century goals in education.

4.2 Conclusion

Bill Gates and Microsoft Corporation have revolutionized the use of technology and have built one of the most financially sound corporations in American history. Bill Gates has a long history in software development and advancing the use of technology in education. By dedicating chapters in his books to education and technology, commissioning research, and speaking to audiences in the U.S. and worldwide, he has developed new ideas and beliefs about
the importance of ICT-in-education. These activities have constructed “new social realities” (Finnemore, 1996) in education that align with Microsoft’s strategic and material interests to develop education markets. These activities have also positioned Microsoft to eventually play an important role in education policy through the PiL program. Bill Gates’ awareness-raising activities contributed to elaborate transnational policy networks through the PiL program.

These education related activities also provided a vehicle through which Microsoft could begin developing relationships with teachers, school administrators, and education officials in departments of education, NGOs, and corporations. In addition, Microsoft’s early work in education since the 1990s helped the company to develop best practices, expertise, and experience in education and technology, with which it was later able to leverage through the PiL program. Both Bill Gates’ vision and awareness-raising activities and Microsoft’s early history in education were key to the development of Microsoft’s policy authority in education through the PiL program. This will be highlighted in Chapters 6 and 7.

The global corporate social engagement (GCSE) typology presented in this chapter provides some clarity around Microsoft’s historical activity and motives for its involvement in education. Microsoft has invested significant financial resources through strategically developed programs and activities in education to further its business interests, and to further its image as a socially responsible TNC operating in education. As demonstrated in this chapter, first, all of Microsoft’s GCSE activities expand Microsoft’s market share in education. Each of the company’s activities has centered on the use of technology in education – currently Microsoft’s core business activity. Second, the sum of these activities has given the company authority to enter the educational landscape, through philanthropic investment that helps schools build their capacity to integrate technology into teaching and learning. Microsoft’s business and
philanthropic interests fertilize each other. In Microsoft’s view, there is no perceived contradiction between pursuing business interests and doing good.

The use of the GCSE typology to examine Microsoft’s activities highlights the immense material power held by Microsoft, given the scale and scope of its initiatives and financial investments. Through this power, Microsoft slowly entered and developed the education sector as a new business market and as a social field as well, by helping to increase the use of technology in schools. Nonetheless, its goal of legitimacy in education was not attained by material power alone: Microsoft’s expertise contributed to this legitimacy. Over 2 decades, the company built on its early success as a leading software company to develop expertise and knowledge in education, which will be called in this thesis *expert authority*. In addition, Microsoft developed a significant corporate citizenship role by building an identity as an important thought leader and representative of public interest in education and ICT. Finally, Microsoft tried to attain legitimacy in education by leveraging its expert authority, and material power, to create new social realities.

As we will see in Chapter 5, new norms and key forces also led to Microsoft’s entrance into education: the emerging international consensus about the importance of bridging the digital divide, public-private partnerships, external expectation of greater corporate social responsibility and leadership, and Microsoft’s shift in its education business strategy from selling to forming relationships. It was the confluence of these norms and forces within the company and from outside it that led to the Partners in Learning program.
Chapter 5-Microsoft Corporation’s Footprint in Education: Worldwide Partners in Learning Program

By 2010, we intend to provide technology training to 250 million people who were previously underserved by technology. (Microsoft Corporation, 2006e)

Microsoft’s elaborate Partners in Learning (PiL) program has enabled the company to entrench itself as a key player in the area of ICTs-in-education around the world. In this chapter, first I review the new norms and forces that led to the PiL program. Second, I examine its origins, structure, and programmatic activities. Third, I show how Microsoft operationalized its authority in education at a transnational level through the PiL program. Last, I discuss the evolution of the PiL program.

Throughout the chapter, I draw on documents including Microsoft press releases, website, brochures, curriculum documents, research reports, and evaluations. I also draw on interviews with Microsoft staff at their headquarters in Redmond, Washington and with the PiL program International Advisory Council members.

5.0 Origins of the Partners in Learning Program

5.0.1 New Norms and Forces that Led to the Partners in Learning Program

The review of Microsoft’s history in education in Chapter 4 shows how Microsoft experimented with different corporate social engagement mechanisms and its commercial activities in education (see section 4.1.1 Microsoft’s Corporate Social Engagement in Education, page 76). Outside the company, new norms were being diffused by international organizations at a transnational level to bridge the digital divide in education. TNCs in the technology sector were increasingly encouraged to bridge the digital divide in education through collaboration with international organizations and individually. Influential reports (Baird, 2002; bridges.org,
2002b), task forces (UN ICT Task Force, 2001), declarations (ITU, 2003a, 2003b; World Bank, 2002), and events organized in the early 2000s (UN, 2000; WSIS, 2005) changed the international education environment. It can be inferred that these norms and new ways of thinking about the participation of TNCs in bringing technology to the education sector in partnership with governments may have influenced the thinking and beliefs of Microsoft executives. As an example, Igor Agamirzian, Microsoft’s University Relations Manager was also an advisor to the UN Information Communication Technology Task Force (UN ICT Task Force, 2001). Jean-Philippe Courtois, president of Microsoft International and senior vice president of Microsoft Corporation (and, prior to June 2005, chief executive officer of Microsoft’s Europe, Middle East and Africa division) was actively engaged in issues pertaining to the digital divide; referring to bridging the gap between those that do and don’t have access to technology. As co-chair of the Global Digital Divide Initiative Task Force, of the World Economic Forum, and member of the South African International Advisory Council on Information Society and Development he was exposed to norms diffused by international organizations about the role of TNCs in bridging the digital divide and about new mechanisms required to engage private corporations in the activities of multilateral organizations—and the social sector more broadly—through public-private partnerships (Microsoft Corporation, 2005).

Interestingly, however, the Microsoft staff I interviewed explicitly said that they felt no pressures from any multilateral organization or governing body (such as the World Bank, OECD, or UNESCO) and that external actors did not in any way influence the creation of the PiL program. Nonetheless, Microsoft did involve some of these organizations in the PiL program after it was developed. As a PiL International Advisory Committee Member told me, Microsoft has
been involved in various initiatives over the years, but they’ve always done it fairly quietly. There weren’t UNESCO and those sorts of people running around saying, ‘What can you do for us?, as best I know. No one certainly made it obvious to me, but, as you know, the program has in turn embraced people like UNESCO and a whole lot of other groups across the globe (Telephone Interview 1B).

During the program development phase, new norms for public-private partnerships (PPPs) were also emerging as a mechanism through which TNCs pursued their interests in the social sector, including education. Several policy reports strongly encouraged a greater number of PPPs (World Bank, 2004).

Although there was no explicit pressure from international organizations for Microsoft to develop an elaborate program in education to bridge the digital divide or to establish PPPs with governments around the world, numerous new policies explicitly underpinned the establishment of Microsoft’s new role in education. From the viewpoints of study participants, two key drivers led to the creation of the PiL program. Outside the company, there was growing expectation that Microsoft should show greater CSR leadership in bridging the digital divide and facilitating PPPs. Within the company, there was growing awareness that Microsoft needed to change its approach to the education market to advance its business interests. The confluence of external and internal pressure led to Microsoft’s decision to enhance its private authority in education.

Another wave of forces during the early 2000s enabled Microsoft to take a significant leadership role in education worldwide through the PiL program. The new forces within Microsoft’s education activities mirrored the general shift in the company’s corporate culture and priorities: from being solely an aggressive technology company to being accountable for its
affairs (see section 4.0.5 Microsoft’s New Culture, Hires, Sales, and Focus on Emerging Markets, page 64). As a PiL International Advisory Committee Member told me,

Yes, I think this is part of the shift at Microsoft… Basically there is more balance between the aggressive side of technology and wanting to be a catalyst for improvement… I think they are much more into the improvement business than they were before as a company, through this project that would not have been possible through normal means. (Personal Interview B2)

Given the company’s history of lawsuits and bad publicity (see section 4.0.4 Threats: Free and Open Source Software and Lawsuits, page 60), there were growing external expectations that Microsoft would show greater CSR leadership. A Microsoft executive at the Corporation’s headquarters told me,

one of the things that we’re hoping is that there will be enough impact to influence the way people look at Microsoft. We looked, at an individual level, in terms of individual institutions seeing Microsoft in a different light in education. So it kind of helps our education business, if you will. But, also at a higher level, you know, hopefully this is something visible amongst government leaders and the communities in which we do business. I think, you know, one of the things that kind of came about, I think, as we realized going through some of our legal issues and so forth, is that people hold us in large market share, and so forth. There is a level of leadership that people are expecting us to have, and they hold us accountable at a very high level. This was a way of showing that we kind of recognize that, and we’re going to step up to that level of leadership. So we, not only from a technology perspective, but we’re going to do more and better from a
citizenship perspective. And so trying to meet the expectations that we realize
people were putting on us from a responsible leadership perspective. (Personal
Interview A3)

Although Microsoft has a history in education, other information technology corporations had
already embarked on much larger, more elaborate initiatives in global education technology. For
example, Cisco Systems established its Networking Academies Program in 1997, with more than
10,000 academies in over 160 countries (Cisco Systems, 2007). Intel’s Train the Teacher
program started in 1996; through it, the company trained about 4 million K-12 teachers around
the world on how to bring technology tools and resources into the classroom (Intel Corporation,
2007). Although Microsoft helped conceive the Intel program and invested heavily in it (see
section 4.1.4 Microsoft’s Corporate Citizenship Activities in Education, page 81), Microsoft was
not able to derive much CSR benefit from this investment. A Microsoft employee explains:

I wouldn’t say there was any pressure that I’m aware of. There was none that I
was aware of, and, as I said, Microsoft’s challenge had been that they’d been
involved in a lot of other initiatives, both in partnership with other companies and,
as I said, behind the scenes at the philanthropic level. (Telephone Interview A5)

In early 2002 it became clear within the company that, as a Microsoft employee told me,

We were doing lots of things in education, but they weren’t aggregating
anywhere. There were small little projects being done in countries around the
world with no coordinated approach. And so the idea was that it would make
much sense to aggregate up the resources and the focus, so you could do
something profound and something that would have global benefit. So the history
was already there of doing work in education and supporting teachers and, you know, developing curricula materials, etc. (Telephone Interview A5)

Another Microsoft headquarters employee noted, “We had been doing stuff around education for a long time, and so there was a driver in trying to bring together at a corporate level a single focus” (Personal Interview A6). There seems to have been an expectation that the company should play a much larger, more focused CSR role in education. Benchmarks for such a role had already been set by other information technology companies, whose education programs predated the PiL program. Hence, the company needed to aggregate its previous CSR activities in education into a single program.

At the same time, Microsoft’s business strategy in education shifted from sales to building relationships. Although Microsoft had been in the education marketplace for two decades, there was growing awareness that Microsoft needed to work differently. New ways of conducting business were needed to build relationships so that sales could follow. Significant investment and capacity building were required to build Microsoft’s relationships in the education market. Philanthropic and CSR activities were seen as an investment in these relationships. A member of Microsoft’s PiL International Advisory Committee explains:

Microsoft does not see its efforts in the area of education as philanthropy. It sees them as strategic investments that make good business sense. (Email Correspondence B4)

Microsoft’s thinking was that investing in development and capacity building in countries where Microsoft had subsidiaries would, in the long run yield new education markets with sales to follow. A Microsoft- headquarters employee commented,
It’s about building capacity and people that are going to use technology, and so forth. Helping to raise the standards, income, and everything else in some of the developing countries you know only makes sense. You’re growing your future market, but that’s a long-term benefit. We think it’s the right thing, and it will pay off. And that’s why, you know, again, we don’t want to pretend that this is philanthropy. But, you know, hopefully it’s the classic win-win, because we think, we do think, we’ll win long term in terms of being successful with our products.

(Personal Interview A3)

The unique needs of the education sector could not be met by traditional sales models alone. Purely philanthropic donations, as well, had not worked in developing Microsoft’s educational marketplace niche. The company realized that education, being in the public sector, had very different needs and that Microsoft had to respond to these needs. Through the PiL program, the company shifted to developing relationships within the education sector. As a PiL International Advisory Committee Member said,

One way to think about it is, it’s a new type of advertising. It isn’t you, know, ‘I’m going to get up in your face on TV and show you a Microsoft product.’ It is simply, ‘I’m going to build a relationship with you as a country and Microsoft.’

(Telephone Interview B5)

In the past, Microsoft’s education marketing focused on showing how its commercial products could be applied in education. A U.S.-based Microsoft employee explained,

Microsoft used to say, ‘This is how we will train your teachers, here are our products.’ And you had to sit and listen, because it was Microsoft. They used to be more focused on Microsoft priorities and not have an education focus. Now it
is more about education priorities – Microsoft has the solutions, lots of resources, smart people that can solve the problem. They don’t come to the education entities directly with the solutions. They need to ask governments about their problems. They will solve the problems, but they first need to understand the problem. (Personal Interview A6)

During the late 1990s and early 2000s, Microsoft’s approach to the education market changed dramatically. Microsoft needed to build a strategy to support its education customers by implementing programs. Microsoft was working with diverse customers within education, with diverse needs (Butler, 2004) Investing in and developing the education sector to advance Microsoft’s business interests emerged often within the interviews for this study.

In addition to the above-described norms and forces, in the early 2000s there was a confluence of pressures within the company. Microsoft subsidiary staff, particularly in developing countries, often told staff at Microsoft headquarters that more investment needed to be made in education sector activities. A key figure to this effort was Jean-Philippe Courtois, former and now president of Microsoft International. He had always focused on education, especially in Africa, and had made large investments in education even before the PiL program, particularly in South Africa. A Microsoft- headquarters employee explains,

So I think our own subsidiaries, or like the leadership that we had was already telling us this was an area that we needed to look at harder. Historically, we had been addressing this phase in some way, you know, so basically, combined with pressure from our senior leadership (and I don’t mean pressure in a negative sense but a positive way) with growing executive concern with growing kind of grassroots from our subsidiaries pushing up. And then from kind of a vertical
perspective, from the leadership within education realizing that, you know, if we want to go to the next level we had to do something to change instead of just business as usual. Those three kinds of pressures came together with this idea of, you know, we need some kind of breakthrough. And then, after that, we started.

(Personal Interview A3)

It was at this point in Microsoft’s history that some senior education staff went off site to conceptualize an elaborate, worldwide education program that Microsoft could create. As a headquarters employee described,

And we just did some brainstorming, and we came up with some ideas, and we kind of bedded down, and I don’t remember all the details. The one thing I do remember is, whatever we came up with, looked nothing like what we ended up doing. But it started a process, and so we then started a process internally, you know, how do we make it better? (Personal Interview A3).

Although discussion about the need to do more in the education sector began in early 2002, it was Bill Gates’ pending visit to India in November 2002 that created a sense of urgency within the company. On his previous visit to India, Gates had been admonished by one of Microsoft’s Indian partners for not doing enough work in education. Gates promised that, the next time he came to India, he would have a plan. A Microsoft-headquarters employee explains,

What that did is served as kind of a deadline for us thinking through some of these things. So that was kind of the first stage of our thinking [; that is,] how can we do things differently from a pricing perspective, but going beyond pricing, what was it that the teachers really needed? What were some of the blocking things? We spent a lot of time talking to our subsidiaries in different countries and community
affairs within our own company. What are they doing? How can what we do compliment this? (Personal Interview A3)

It was the culmination of new global norms about bridging the digital divide and PPPs, external pressures on the company to play a more significant CSR role in education, and concurrent internal pressures to change its approach to the education market activities that led Microsoft to establish the worldwide Partners in Learning (PiL) program.

5.0.2 PiL Program Development

Although Microsoft had been investing in education since 1986, through philanthropic, CSR, and business activities (see section 4.0.6 Microsoft’s History in Education, page 69), the PiL program was very different. The many activities that comprised the PiL program had been going on concurrently in the company, at different levels. The program design was also guided by research that Microsoft had commissioned, which gathered the opinions of a range of educational and governmental leaders in the U.S., Germany, and Brazil. Also, educational leaders around the world had been surveyed about a TNC investing in education. The survey did not name Microsoft as its sponsor to avoid creating market expectations by asking how Microsoft should invest millions of dollars in a potential education program (Personal Interview A3, United States, Microsoft).

The PiL program also addressed the need to synchronize Microsoft’s philanthropic and business interests in education. A Microsoft employee explains,

The company, around the same time, was coming out with the global community affairs initiative called Unlimited Potential, which aimed to provide information technology to disadvantaged citizens outside of the formal school environment. During this time, Microsoft brought in a consultant to help them make sure that
their philanthropic work was consistent with their business activities in education.

(Telephone Interview A5)

In addition to research and the support of consultants, the program’s development incorporated feedback from different parts of the corporation. As one headquarters employee explains,

We went through, I would say, a couple of rounds of development that were done on what I would call kind of a horizontal aspect. In other words, we started talking to all the different groups at Microsoft who would be involved in something like this—from community affairs, worldwide licensing and pricing, product groups, the government vertical, you know—from a sales perspective, the subsidiaries, to seek out different ideas in thinking. And then, once we had kind of gotten the best thinking together from a collaborative perspective, we started escalating it through our organization to some of our senior executives, and eventually ending up with Steve Ballmer being involved in various parts of this.

(Personal Interview A3)

Executive feedback also came from Bill Gates, during PiL’s conceptualization phase. A headquarters employee told me,

He [Bill Gates] meets with people and—keep in mind at this point Bill travels a lot for foundation work as well, right, so he understands the education model from his work with the foundation as well as from an internal Microsoft perspective—so that certainly gives him a, you know, part of an educated view of, kind of, some of these educational issues on a global perspective. (Personal Interview A3)
The best thinking from the company converged to create the principal tenets of the PiL program: feedback from senior education staff, executives including Bill Gates and Steve Ballmer, and staff in Microsoft’s subsidiaries and other corporate headquarter departments. Successive revisions of the program design eventually led to its unique features and guiding principles. It is these that differentiate the PiL program from Microsoft’s previous business initiatives in education as well as other worldwide corporate sponsored education programs. This uniqueness enabled Microsoft to establish itself as a policy player in education worldwide.

5.0.3 PiL’s Unique Features and Guiding Principles

Several unique features and guiding principles differentiate the PiL program from Microsoft’s previous work in education. First, the program focuses on digital inclusion, integration of technologies for educational purposes. As a result of Microsoft’s commissioned research, the company had input from government officials, in the education and broader communities on what its CSR role should be in education. There was consensus that Microsoft should focus on the digital inclusion of K-12 students within formal schooling so that they can develop skills to improve their quality of life (Butler, 2004).

Second, the program is locally driven (at the subsidiary level) and flexible, within the global focuses set by the PiL framework. A headquarters employee explains,

Well certainly, you know, you always want to do a couple of things. You want to make sure that we balance flexibility at the local level to meet needs, but at the same time restrict it to things that, again, we could kind of add value to and that would accrue up to some larger impact—instead of, you know, just throwing money out there and saying, ‘Go help the government.’ You might do some good things, but, again, there’s no unique thing that we add to that. (Personal Interview A3)
Third, the PiL program was envisioned as long term. Within corporations, most programs run on a 12 month sales cycle. The PiL’s 5-year timeframe was exceptional for Microsoft. A Microsoft headquarters employee said,

And somehow we convinced the senior management of the Board that we needed to invest over 5 years. Pretty phenomenal and unique, I think, in lots of ways. Yeah, so the scope in terms of who are the target countries? What were the areas we were going to focus on? How long would it be for? One of the things we found out about education is that it’s [Microsoft] a sales organization, and we tend to have a 12 month mentality. Fiscal year, fiscal programs tend to never run more than 12 months. (Personal Interview A3)

Fourth, the PiL program was to have different pricing in different geographic markets. Before PiL, Microsoft’s software had been equally priced within the same sector and geographic market. However, the company realized that, within education and particularly within disadvantaged communities (in developed and developing countries), schools need low-priced software to increase its use by teachers and students. The World Bank’s Gross National Index (GNI) was used to decide which countries would get special prices on software (see section 5.1.2 Key PiL Program Priorities, page 106). A headquarters employee explained,

We realized that we did not want to, or should not be, the ones determining, kind of, who’s deserving, who’s not, in terms of this kind of investment and special pricing, and so forth. So we want to make sure that, when targeting schools that needed the investment, and which of the schools needed it the most. We also knew that, if we tried to make those decisions—one, we weren’t really uniquely qualified to do that, and second, we would always come under fire for well why
not my country? So that’s when we said we needed an outside standard, and we chose the World Bank Gross National Index criteria. Not that there’s any perfect standard, but using, you know, the GNI index provided as a proxy for us to help where to target our investments. (Personal Interview A3)

This was the first time that Microsoft, at a worldwide level, offered differential pricing for countries, based on their GNI.

Fifth, the program was built on the premise that Microsoft needed to shift its approach in the education market to building relationships, through partnerships with governments. This partnership model differed from Microsoft’s previous relationships with governments, where relationships were driven by Microsoft products, not the partnership. As a Microsoft employee related,

But what this tried to do was bring it up and put more in a partnership approach.

That was pretty critical, because, you know, one of the drivers was that we wanted to use this program as a way to build partnerships. (Telephone Interview A5)

Sixth, the PiL program was to be completely separate from Microsoft’s education sales activities, even though the program was administered by its sales and marketing department. A PiL International Advisory Council member told me,

There is no pressure on selling, because the person who’s building this relationship doesn’t get paid a cent, dependant on what you buy from Microsoft. This person is supposed to help develop a relationship with you for economic development and education. Just, I’ve heard by the wayside that, in fact, a lot of countries go, ‘Wow I really like this! They didn’t try and sell me anything. Send
me your salesman. Maybe I’ll buy stuff from you.’ It’s a different form of human relationships that I like a lot, and I would like to see corporations do more of. (Telephone Interview B1)

Seventh, PiL shifted Microsoft from a solutions provider to a humble learner. Through the program, Microsoft recrafted the way it portrays its experience and expertise in education. For the past 20 years, the company has invested significant resources in research, programs, products, and services for the education market. It has far larger budgets and expertise in ICT applied to education than most of the world’s universities. Microsoft’s past image as an education expert created a backlash from the education community and did not achieve its desired result. In addition, the shift in Microsoft’s corporate values and culture after the 1990s lawsuit influenced the PiL program. As a member of the International Advisory Council explains,

    So, I think, they’ve actually taken a more humble learning oriented approach, and they are listening. And Partners in Learning isn’t all of Microsoft. There are still people that, you know, they’ve got to sell their products, and so forth, but, in general, the Partners in Learning people are given the opportunity to take a very different approach. (Telephone Interview B5)

Another Microsoft headquarters employee adds,

    The PiL program had been led with a sense of humility. This is not about revolutionizing education, nor is it about products. Investments in this space are made with the goal to partner with government and guided by local partners. The program is not software focused. (Personal Interview A2)
It is these seven unique features and guiding principles of the PiL program that demonstrate how radically Microsoft changed its approach to the education market.

5.1 PiL Programs and Organizational Structure

5.1.1 PiL Worldwide Strategic Goals and Program Components

Microsoft’s vision for the PiL program is to

Empower schools to help improve student achievement by applying resources such as services, products and people at the local level. By partnering with schools and government we aim to set a new high standard for digital inclusion for students and work with schools to prepare students for the digital workplace; empower educators to raise the level of ICT literacy in their institution and support teachers and schools in developing innovative cultures (Microsoft Corporation, 2006b).

Microsoft’s PiL program was announced on September 16, 2003. See Appendix 15 for the PiL program press release. During a presentation at the World Bank, Greg Butler (who led the Education Programs team in Microsoft’s Worldwide Public Sector) announced the goals of the program:

The objectives of the initiative are to reduce the digital divide in relation to teacher and school access to ICT; build skills to support ICT use in schools; and encourage the more effective use of ICT in schools. (Butler, 2004)

Microsoft’s PiL program covers over 100 countries. Delivery of the program varies, depending on each participating country’s GDP and average educational levels, and its cultural preferences. The PiL program in any given country could involve any of three core components: the PiL Fresh Start for Donated PCs, the PiL School Agreement Program, and the PiL Grants program (see Table 5). The first two core programs aim to facilitate access to technology, and the third aims to help educators and students use technology in schools and throughout their lives.
Table 5

**PiL Program Components**

<table>
<thead>
<tr>
<th>Program Component</th>
<th>Aim</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PiL Fresh Start for Donated PCs</td>
<td>Facilitate access to technology</td>
<td>Provides schools with licensed copies of Microsoft software and manuals for donated computers when original licenses are not available.</td>
</tr>
<tr>
<td>PiL School Agreement</td>
<td>Facilitate access to technology</td>
<td>Makes Microsoft’s core educational tools more affordable to schools through price discounts.</td>
</tr>
<tr>
<td>PiL Grants</td>
<td>Build capacity by helping teachers and students use ICT</td>
<td>Funds ICT-skills training and curriculum for teachers and students jointly with local governments and education leaders.</td>
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Source: Microsoft Corporation (2004g, 2005b)

The first core component of the PiL program is PiL Fresh Start for Donated Personal Computers (PCs), which assumes that a significant portion of computers in schools throughout the developing world have been donated. These computers often lack licenses for the installed Microsoft Windows software. To remove licensing barriers that prevent schools from using these donated computers, PiL Fresh Start provides primary and secondary schools with free licensed copies of Microsoft® Windows® 98 and/or Windows 2000 when original documentation is not available for donated machines. As described in Chapter 4, a significant threat to Microsoft’s business is pirating of its software. Many schools around the world have been using pirated Microsoft software. By giving licensed copies of its software to schools, Microsoft combats pirated software nonaggressively. Fresh Start requires schools to report the number of donated machines they receive once a year on a website or to the Microsoft support team in their countries. Fresh Start sends each school a copy of Windows 98 or Windows 2000 and a written license. Previously, many schools and other software users were not able to prove that their
donated computers were licensed to run Microsoft operating software (Microsoft Corporation, 2004g, 2005b).

The second component is the PiL School Agreement, which aims to increase schools’ access to software. The Microsoft School Agreement subscription makes Microsoft’s core educational tools more affordable to primary and secondary schools in all countries, through deeply discounted prices. Schools with the greatest economic need can buy Windows XP Professional Upgrade and Office XP Professional for only 5% of the regular price; that is, approximately US$2.50 per annual license (Microsoft Corporation, 2004g). The Agreement reduces the cost of the education desktop, helps schools upgrade and maintain their current technology, and provides an easy-to-administer program for government officials to manage software investments over time (Microsoft Corporation, 2003i).

Microsoft® School Agreement subscription is a clear expression of Microsoft’s commitment to education in all countries worldwide. Microsoft’s School Agreement offers reduced pricing to academic institutions for most of Microsoft’s desktop and server products. Through Partners in Learning, Microsoft is building relationships at the highest levels of government to make Microsoft’s core software tools more affordable to primary and secondary (K-12) schools. (Microsoft Corporation, 2003i)

Each School Agreement is facilitated through a Memorandum of Understanding (MOU) with the national or subnational government, through which eligible schools can sign a PiL School Agreement to receive the discounted price of $2.50 per annual license. Only schools in countries within the low- and middle- income tiers of the World Bank’s Gross National Income (GNI) index were eligible to sign PiL School Agreements. This program was first offered to Brazil, China, India, Russia, and Thailand in 2003 and then offered to remaining eligible countries in 2004 (Microsoft Corporation, 2004g). The program was later extended to developed countries, where the most needy 15% of schools are supported (Butler, 2004).
The third component of the PiL program is the PiL Grants, a joint effort between Microsoft, local governments, and education leaders to provide ICT skills training and curricula to teachers and students. The program assigns 101 Microsoft staff worldwide and directly invested more than $225 million through 70 Microsoft subsidiaries over 5 years (Microsoft Corporation, 2004g). PiL Grants focused on five areas of educational investment: (a) teacher-and-school-leader training to build capacity among people who will implement change within school organizations, (b) development of digital content and curricula, (c) integration of ICT into the learning process through student-assessment and certification tools, (d) partnerships with nonprofit organizations to employ students as technical support to prepare them for industry certification, and (e) evaluation research to analyze the program’s successes and weaknesses (Butler, 2004). These five areas are referred to as “buckets” that enable Microsoft subsidiary level staff around the world to flexibly negotiate country level PiL programs with ministries and departments of education (see section 5.1.4 PiL Memorandums of Understanding, page 117).

5.1.2 Key PiL Program Priorities

The key areas within the PiL Grants component are: (a) curriculum and teacher development, the (b) Innovative Teachers Network, (c) education events and forums, and (d) educational research and evaluation.

Curriculum needs within the PiL program were identified by the PiL International Advisory Council (see section 5.1.3 PiL Organizational Structure, page 111), which collected opinions from governments around the world. The curriculum design and development phase was led by Microsoft staff in Redmond, Washington, with advice from a virtual team comprising PiL partners and academic program managers from around the world throughout the entire development cycle. Team members understood that not all of the content developed by Microsoft in the U.S. would be used everywhere in the world. Local Advisory Councils (see
section 5.1.3 PiL Organizational Structure, page 111) were responsible for reviewing the
proposed curriculum and deciding whether it fit the needs of the education system and education
standards of their countries. Each of the Microsoft subsidiaries was allocated funds that could be
used for translation or customizing the curriculum to the local context. Regional training
sessions were organized, where customization of the curriculum was discussed with local content
developers and country level academic program managers. Once the content was developed and
customized for each local context, the ownership of the content was handed over to each ministry
or department of education or to a local PiL partner (either a local NGO or corporation that may
have been involved in the local curriculum development).

Although software curriculum guides were not specifically developed for the PiL
program, Microsoft made them available to educators (Microsoft Corporation, 2003a, 2003j,
2003k, 2003l, 2003m). The core curriculum, developed and made available through the PiL
program, focused on technology, except for the Leading Change curriculum symposium led by
Michael Fullan, from the Ontario Institute for Studies in Education at the University of Toronto,
and the School Leader Development: Building 21st Century Schools curriculum developed by
John Bransford, from the College of Education at the University of Washington. See Appendix
16 for a description of the PiL curriculum.

The curriculum developed through the PiL program was designed with advice from
leading organizations in the U.S., including the International Society for Technology in
Education, the Institute for Computer Technology, Making Opportunities for Upgrading Schools
and Education (MOUSE), and JES & Co., a non-profit organization dedicated to the education of
youth. The curriculum developed by Microsoft and the International Society for Technology in
Education integrates the American National Educational Technology Standards (NETS) for ICT skills into the curriculum (Microsoft Corporation, 2004d).

The second focus of the PiL Grants component is the Innovative Teachers Network, an online community moderated by Microsoft. The Network brings together teachers as learners, fosters dialogue on best practices, innovation and pedagogy, promotes teacher confidence in integrating technology throughout the learning process, offers high-quality classroom content, professional learning opportunities, and access to technology resources. These resources, available to teachers free of charge, include lesson plans, articles, and projects. Innovative Teachers Network also supports teacher learning with tutorials, guidance on creating inquiry based projects for students, and access to a worldwide community of teachers. Once teachers register online, they receive monthly updates on content and linked resources and can join online professional learning discussion groups (Microsoft Corporation, 2004e).

The PiL Grants’ third component focus is education events and forums. Each year, Microsoft organizes Innovative Teachers Forums at national and regional levels wherever the PiL program operates. PiL Grants sponsors a competition to select the most Innovative Teachers in each country, who then participate in international Innovative Teachers Forums. Teachers are assessed on their innovation and creativity in integrating technology into their teaching practice.

I participated as an observer in the 2005 Microsoft Worldwide Innovative Teachers Forum, which was held July 18 to 19 in Redmond, Washington (see Appendix 17 Innovative Teachers Forum 2005 Press Release and Appendix 18 Innovative Teachers Forum 2005 Agenda for more details). At the forum, 35 teachers, representing countries from around the world, shared how they integrated Microsoft’s products into their teaching (Microsoft Corporation, 2005c). I wrote in my journal:
The event feels like I’m participating in an international event for teachers that is organized by an NGO or UN agency and not a TNC. It is hard to decipher the motivations and role being played by Microsoft as the organizer of what seems to be really important work and collaboration. (July 18, 2005)

The next year, 2006, the Worldwide Innovative Teachers Forum was held on November 9 to 10; 175 educators from around the world gathered in Philadelphia.

To celebrate their successes as innovators and to help other educators understand more about the key themes of the Innovative Teachers Forum: building community, collaboration with colleagues and access to quality content. More than 100 countries participate in this initiative, which brings together education and government leaders to offer schools and administrators a spectrum of education resources—tools, programs, and practices—that empower students and teachers to realize their full potential. (Microsoft, 2006)

At the Forum, 67 educators presented their classroom best practices for technology use. Forum participants also visited the Philadelphia School of the U.S. PiL program (Microsoft Corporation, 2007b).

In 2006, Microsoft also organized a Worldwide Schools of the Future Summit, an event to which ministers of education, presidents of universities, and others working at high levels in education worldwide were invited. For 3 days, they shared ICT-in-education best practices and visited the Philadelphia School of the Future. In addition to these international events, each PiL country or region organizes two or three events each year, based on their country’s or region’s needs.

Part of the PiL overall mandate is to conduct evaluation research in each of the PiL programs around the world. Monitoring implementation of local projects and of each program as a whole allows Microsoft to identify early mistakes and adjust direction and focus as needed. In addition, PiL contributes to the international knowledge base about ICT in education through
documenting innovative practices and improved outcomes (Watson, 2005). A member of the International Advisory Council describes PiL’s multilayered research and evaluation strategy: Firstly, there were simple metrics to capture, for example, how many people are trained and how many programs have been running. There were matrices for other PiL initiatives to cover off-legitimately licensing illegal machines, second-hand machines, and supporting refurbishing machines. At another level, there was need to measure the impact that PiL was having within communities, like the amount of press feedback they were getting. We didn’t want to be working in a country and insensitively initiating something that might have been seen as inappropriate. So they needed to monitor the public voice and, by simply keeping track of clippings and whatever else. The third level, and I think we’d all agree the most important level, is how does it impact on learning and the extent to which that’s been measured. [This] varies from country to country and program to program. (Telephone Interview B1)

According to a Year One Microsoft PiL Worldwide Evaluation report written by an external evaluation team, Microsoft’s academic project managers were provided with a list of possible indicators of PiL implementation and impact. The indicator categories include: access, professional development, teaching, curriculum and assessment, ICT leadership, system impact, research and knowledge building, and integration of ICT (Watson, 2005). Within Microsoft, there was some disagreement about how to best evaluate the PiL program. There was pressure from some Microsoft staff to use only quantifiable measures of program outcomes. Others felt that such measures would not capture some of PiL’s successes, which only qualitative measures could capture. A member of the International Advisory Council explains,
I think that, in the internal schizophrenia of Microsoft these days—which would be some people that would be hard nosed and say, ‘Well, this is a half a billion dollars, what have we got to show for it?’—there would be others that would be more qualitative and [would see] that we have built great relationships here. A lot of things are happening, and the financial side is taking care of itself because of the better relationships we have. We are more influential, and people will be seeing us as valued partners. And it will pay off commercially. (Personal Interview B2)

Each PiL country program was required to commission an external evaluation of its program. In addition, evaluation took place at PiL training sessions, forums, and other events. For example, Microsoft measured how it was perceived by educators after their training and after symposiums. At a symposium held in Southeast Asia, 110 educator participants were asked to indicate on a survey how they perceived Microsoft. Some of the answer options were (a) uninterested in educational improvement, (b) just in it for technology, and (c) a true partner. In addition to measuring educational matrices, an International Advisory Council Member told me that it was important for Microsoft to understand how it was being represented in the media through the PiL program (Telephone Interview B2).

5.1.3 PiL Organizational Structure

When the PiL program was established, it fell under a separate education department within Microsoft. The day-to-day operations of the PiL program were run by Greg Butler, the worldwide director for PiL who reported to David Driftmier, the worldwide director for Education. Shortly after, however, in 2004, Microsoft announced that its education activities
would be integrated into a new global, department to serve the public sector. David Zecher, Microsoft’s U.S. Public Sector business group said,

In the past few years, we’ve stepped up our efforts to align our technology solutions, as well as our partners’ solutions, to better meet the unique requirements of government and education customers. Like any specialized or vertical industry, the public sector has its own unique set of requirements. It needs different marketing and selling models; the appropriate partner expertise; and, most importantly, people who understand the public sector environment. (Microsoft Corporation, 2004j)

He continued,

In creating the global division, Microsoft is recognizing that governments around the world, while unique in many ways, also face many of the same technology challenges, such as integration and interoperability among the various branches of government and education. We hope that by creating this global division we send a strong message that Microsoft is committed to helping public sectors all over the world solve their biggest challenges. (Microsoft Corporation, 2004j)

The Worldwide Public Sector group at Microsoft falls under Microsoft’s Worldwide Sales, Marketing, and Services department. See Appendix 19 Organizational Structure of Microsoft’s Partners in Learning Program. The latter group works

... with governments, educators, and non-governmental organizations to identify key areas where technology programs can make a difference in the delivery of government services, educational outcomes, or other public sector priorities. Microsoft works with public sector agencies to develop technology solutions that are global in scope and local in implementation. (Microsoft Corporation, 2004f)

In 2003, Microsoft formed an independent (from Microsoft), global International Advisory Council (IAC) to ensure that the company addressed the right issues from the perspective of education through the PiL program. In addition to providing credibility and guidance to PiL, the aim of the Council was to ensure the worldwide success of the initiative.

The IAC supports Microsoft and its partners by

Ensuring that the program is presented in an appropriate and educationally-sound context to all levels of government; creating a new, greater awareness of the essential preconditions for successful change programs in education at the national level; and by representing and advising on the initiative by attending
events and activities that are both internal and external audiences. (Microsoft Corporation, 2006c)

The IAC members comprise a cross-section of educators from around the world:

1. John Bransford, co-director, Learning Technology Centre and Centennial Professor of Psychology and Education, Peabody College, Vanderbilt University.

2. Eduardo Chaves, Universidade Estadual de Campinas, Campinas, Brazil.

3. Michael Fullan, former dean, Ontario Institute for Studies in Education of the University of Toronto.


5. Leopoldo González-Echenique, chief of a main directorate for the development of the Society of the Information of the Ministry of Science and Technology, Spain.

6. Jenny Lewis, Australian Council of Educational Leaders, Sydney, Australia.

7. Bruce Dixon, Advisory Board Convener and Chair, Australia. (Microsoft Corporation, 2006c).

For biographies of IAC members, see Appendix 20 International Advisory Council Biographies.

Some of the IAC members had prior associations with Microsoft as consultants or, in some cases, with Microsoft staff leading the PiL program. At the initial meeting of the IAC in Vancouver, IAC members were given a confidential White Paper on expanding access to digital opportunities, which provided the rationale for the development of the PiL program. The paper, grounded in research conducted by academics and multilateral organizations, argued that, despite significant improvements in access to and use of ICT around the world, evidence suggested that the digital divide between and within countries was growing. In addition, the report cited research on the need for new educational paradigms and stated that public-private partnerships were likely to play a role in future programs.
The role of IAC members is somewhat fluid. One member explains it:

Individual members do not have fixed, specific roles. The IAC did receive a charter at the beginning. Basically the committee acts as (a) a reviewer and critic of Microsoft’s proposals in the area of education; (b) an ambassador, to some extent, of PIL in their own region or even worldwide (participating in events, giving interviews, etc.); and (c) a “quality underwriter”, as it were, of Microsoft’s initiatives in the K-12 area. The members are required to sign a NDA – Non-Disclosure Agreement, which is standard practice in the industry. The role of the Council has not really evolved over time – although lately it has come to reflect more on its role and how it can be made more effective. (Personal Correspondence B4, 2006)

Some members feel that the process through which they advise Microsoft is often quite redundant. As one said, “Sometimes the program had gone too far, and there was nothing we could do to stop them” (Telephone Interview B5, 2006). Members of the Council are not paid to act as members of the IAC. But we do certainly benefit from the involvement: first, by being in close contact with the strategic thinking for education of a major technology company; second, by becoming involved in events, all the world over, in the area of technology and education; third, by getting to know interesting people in the area of education worldwide, thus creating a personal network of contacts; fourth, by having access to academic and technical literature and other information that would, otherwise, be of difficult access. (Personal Correspondence B4, 2006)
During the first year of the program, 2003, PiL staff met in person with the IAC twice and through three or four teleconferences and three or four videoconferences. The frequency of meetings and contact with Microsoft has, however, dropped significantly since then.

The International Advisory Council provides oversight and guidance to the initiative worldwide. Microsoft also required local Advisory Councils/Leadership Forums to be established in each country. At the country level, Advisory Councils/Leadership Forums ensure that PiL addresses priorities and needs in their countries. The aim is for council members, from a range of demographic and professional backgrounds, to contribute expertise in education and ICT policy. Each country council works with a full-time Microsoft academic program manager (APM), who has access to Microsoft resources as needed. Local Advisory Councils/Leadership Forums tend to include educational thought leaders or individuals who are well known within the education community of each country. This enhances Microsoft’s credibility when approaching government and other educational stakeholders.

The Worldwide Public Sector group is led by Gerri Elliot, senior vice-president at Microsoft headquarters. Her role is outlined in the following excerpt from a press release announcing her appointment:

As Worldwide Public Sector's new leader, Elliott will be responsible for strengthening customer and partner outreach to governments and educational organizations around the globe, as well as working across Microsoft's business divisions to develop and coordinate products, solutions and programs that address the needs of schools and government agencies. (Microsoft Corporation, 2004f)

An organizational chart of PiL staff in Redmond, Washington and worldwide can be found in Appendix 21. She reports to Kevin Johnson, Microsoft vice-president for worldwide sales, marketing, and services. Microsoft hired 10 regional PiL managers, who manage the 86 country-level PiL academic program managers (APMs). The country-level APMs do not report to Microsoft headquarters but, instead, to their country level or regional Microsoft general
managers or managers responsible for public sector engagement, depending on the country. The educational backgrounds, skills, and experiences of these APMs vary. The regional and country level APMs are not necessarily educators. As a Microsoft headquarters employee explains,

We prefer them to be educators but not essentially. Key was that they had a passion for education. You know, typically, we were hiring outside of the company and were looking for people who had a good contact base with local education systems. Also, they were program manager, so they had to manage the high level activities of the program but also had to do the strategic engagement work, too. Setting up a local partnership is quite a skill. (Telephone Interview A5)

Some PiL managers who were educators lacked the skills necessary to handle large budgets and manage projects. The early role of APMs was to approach governments and local educational stakeholders to develop a PiL strategy for their countries. Thus, the APMs were important to the country level success of the PiL program. A member of the International Advisory Council explains,

A key factor here is whether the chief leadership, that’s influential in PiL country by county; have an education background, as several of them have. This means they know the educational system, they think differently because they are thinking from that experience and are much more able to make a connection. Whereas, if you have another leader who has come up through the business line, even if they are sympathetic to the direction, they wouldn’t quite grasp it. They wouldn’t have the relationships, and they wouldn’t have the instincts to make the connection.

(Personal Interview B2)
The APM positions were new and unique to Microsoft. As a headquarters employee explains,

We didn’t want the same person to go to the Ministry of Education one day saying, ‘Here’s all these great things from the CSR angle that we can do’ and then come in the next day and say, ‘Oh, by the way, will you buy a bunch of software licenses from us?’ Because that wasn’t what it was about, and we didn’t want people thinking that our investments in education were tied to whether, you know, how much software they bought. So we actually created positions that were separate, that were outside of the sales organization, to run these programs and made it clear that we’re going to show up and do the right thing, because we think it’s the right thing to do. And it’s good for us, regardless of what they do on the sales side. So we kind of built the Chinese wall, yeah, the program manager versus the education-solutions people. (Personal Interview A3)

Creating separate APM positions to lead the country level PiL programs helped Microsoft pursue its CSR goals in parallel with its sales efforts in education. However, within the company, there was disagreement among those who felt that Microsoft should focus on traditional sales and marketing instead of investing in the PiL program (see section 5.2 Shifts in PiL Motivation and Priorities, page 121).

5.1.4 PiL Memorandums of Understanding

It is the Memorandums of Understanding (MOUs) that contributed most to Microsoft’s authority in education. The MOUs are not public documents although I was able to access the Jordan and South Africa MOUs. Although they are not legally binding, the MOUs structure and operationalize Microsoft’s activities at the country level. Microsoft presents PiL as a program
with clear global goals and considerable flexibility for local implementation. The PiL programs in each country were designed by the APMs. Their aims were, first, to understand the country’s context and its needs in relation to advancing the use of technology in education. A PiL proposal was designed by each APM, in consultation with the national government and other agencies, guided by the Local Advisory Council. Once there was agreement between Microsoft and the ministry or department of education about what was to be included in the country level PiL program, then an MOU was drafted by Microsoft.

From its beginnings in late 2003 to mid-2005, approximately 200 MOUs were signed. MOUs vary, depending on the priorities of the national and state/provincial governments for the country and the policy context for ICT in education in each jurisdiction (Watson, 2005). MOUs were drafted using a standard template and then locally adjusted. As a Microsoft employee explains,

> We tried to keep them fairly simple and open. An MOU is not meant to be a contract. Business plans providing more detail were then developed by the country program manager, in conjunction with the local country advisory group. There has got to be some shared risk and some shared reward, you know.

(Telephone Interview A5)

A key consideration during the design of country PiL programs was the capacity of the country to implement the program. A headquarters employee states,

> We didn’t just want to shovel money into a country if they’re not prepared to implement. And we wanted to make sure we had people on the ground that can help guide this. Is government willing to partner with us? Do you want to partner with us? Do they have productive programs that we can channel this into? One
of the design criteria of Partners in Learning was that we didn’t want to show up and say we’ve got the answers. (Personal Interview A3)

PiL was structured into “buckets,” key areas (see discussion on PiL Grants Program in section 5.2 Shifts in PiL Motivation and Priorities, page 121) where Microsoft could get involved. This provided flexibility to pursue individual governments’ interests in education, within an overall framework designed by Microsoft. A headquarters employee explains,

There may be some tweaking for local differences, and obviously there is language barriers, and so forth. But it’s 80:20: 80% of what they need would be in the [Microsoft] core curriculum, and they could stretch their money a lot farther if they didn’t spend it in the very expensive process of creating curriculum.

(Personal Interview A3)

A headquarters employee participant explains how a country level PiL program is typically designed:

What would happen often, well, we would go into [what?] say [ing]. ‘We’re going to do this in your country’ and folks there would say, ‘It’s, like, we’ve actually already got a very good program to do digital curriculum. We just need help with that program. We don’t need another program.’ So this allowed us the flexibility to go in and say, ‘Look, there is an existing program to help with digital curriculum? If not, you know we’ve got something we’ve done in other countries we can leverage here,’ and leverage best practice. And, again, that’s something of value that we can provide as well as help to fund it. If they do have a good one, well, let’s see how we can partner maybe to bring some [other] program’s best practices and make yours better. But also provide more funding to do more of
what you have already done, instead of us spitting out a whole new program just so we can come in with ours. (Personal Interview A3)

The MOUs varied country to country. As a member of the International Advisory Council Member says,

Some of those MOUs will be boring. That is to say, it would be mundane. In the normal spread of technology, it is good to do but it is really low-level stuff. Other ones would have that kind of bigger vision of improvement that I’m talking about. If I was looking at the MOUs, I would want to line them [up] and do a content analysis, and ask which one of these are minimum basic, just on the technology, and which ones have beyond ICT vision incorporated in them? (Personal Interview B2)

Ultimately, it is the MOU that structures Microsoft’s authority in education within a particular country. The signing of MOUs launches the PiL program in each country or region and raises Microsoft’s profile there.

Bill Gates and other senior executives signed some of the MOUs. For example, during a tour of the Asia-Pacific region in late June and early July 2004, Bill Gates and Steve Ballmer announced commitments through the new PiL programs in China, Japan and Malaysia (Microsoft Corporation, 2004h). In Beijing, Gates stated, “We believe that technology is one of the most powerful tools that teachers and governments can use to educate and inform people of any age” (Microsoft Corporation, 2004h).

A Microsoft employee comments on the speed at which MOUs were negotiated: “I think the fact that we’ve been able to generate two hundred MOUs [in 1-½ half years] is phenomenal. Some of the partnerships are working, and some of them haven’t worked, but that’s fine.”
(Telephone Interview A5). In 2003, PiL programs were launched in Brazil, Canada, France, Germany, India, Japan, Namibia, Russia, Taiwan, Thailand, and the United Kingdom. PiL programs were launched in other countries throughout the rest of 2003 and 2004.

As MOUs were negotiated and signed in 2003 and 2004, Microsoft received valuable feedback and recommendations from governments and educational stakeholders around the world about the needs of ministries and departments of education. One of the key messages was that Microsoft needs to focus on teachers. Stakeholders recommended that Microsoft support the training of teachers, not in basic ICT skills but how to integrate ICT into different school subjects. A headquarters employee elaborated,

You know, teaching how to use word processors and databases really wasn’t the problem. The problem was how do you make a biology teacher more effective by showing him [sic] how they can use a PC to do experiments, and show you know how to do research in ways they couldn’t do before, and track things. (Personal Interview A3)

Stakeholders also recommended that Microsoft connect teachers virtually with their counterparts around the world, because teachers usually work alone and have little opportunity to connect with teachers outside their schools, let alone outside their countries.

In response to this feedback, Microsoft developed curriculum and training support for teachers through the online International Teachers Network. PiL program staff at Microsoft headquarters developed resources and adjusted the program.

5.2 Shifts in PiL Motivation and Priorities

When the PiL program was conceived, there was great hope that it would make a real difference in the world and bring about new approaches to the education market. Funds for the
program came from Microsoft’s marketing budget, which had been jealously guarded by marketing managers for advertising and promotion, not developing relationships and partnerships. There was no expectation that the $250 million PiL budget would yield greater sales. At the time, Microsoft viewed its involvement in education as an investment, not a sales exercise. As a headquarters employee explains, “PiL is new, different. That’s something we’ve never done before. Financially, it called for new business models that we didn’t currently have in place. Protecting the money, making sure the money got applied” (Personal Interview A3).

An International Advisory Council member told me,

> When we first started and I was first approached, I said several times at the beginning, ‘Are we in agreement that this is not about technology, even let alone sales? Not about technology directly and definitely not about sales?’ The answer was an absolute unequivocal, ‘It’s not about that. It’s about improvement. It’s about investing in the educational system for improvement.’ So that was crystal clear in the first phase. (Personal Interview B2)

About halfway through the PiL program, there was a dramatic shift in staff and funding, although the program’s general activities remained the same. Within the company, this was a time of general cost cutting. In 2004, Steve Ballmer announced that he was planning $1 billion in cuts in the following fiscal year (Hamm, 2004). During 2004, Microsoft had continued paying heavy fines in Europe. A Microsoft employee in South Africa explains, “There was a new CFO who worked in a tight rein and brought in a new phase of financial efficacy: ‘See how you can stretch your dollar to the limit. Maximize what you can do with the budget’ (Personal Interview D15). Around the time of these cutbacks, there were significant changes within PiL. First, the director of the PiL program at Microsoft headquarters was replaced with a person who was not
only in charge of PiL but managed several other worldwide initiatives in education. A member of
the International Advisory Council Member told me,

If you don’t have an educationist in key positions helping to think through this
strategy, it’s inevitable that a technology company would fall back on ICT, which
it knows. Even the basic technology side of it, not the educational side. (Personal
Interview B2)

In addition, this was the first time within PiL’s 3 years that its funding was cut back
rather than expanded. A member of the International Advisory Council Member explains,

It is hard to measure the value for money, and it is a lot of money. They probably
think they can spend their money more effectively elsewhere. I think it is also
partly a reflection of new leadership not having the education vision that the first
leadership had. Of course, the new leadership was appointed by Microsoft, so it
is not an accident that would have occurred. (Personal Interview B2)

Many of the people I interviewed were not surprised by these shifts. They felt that a
corporation such as Microsoft actually being able to pull off the PiL program in the first place
was an impressive feat. The same IAC member explains, “It is probably inevitable [that] a
commercial company that has been as aggressive as Microsoft in the sales side could easily slip
into that mode of recorrecting itself. I think that shift has happened” (Personal Interview B2).

In January 2008, Microsoft announced that it would renew its commitment to the PiL
program over the following 5 years and invest an additional US$235.5 million, bringing the
company’s investment to nearly US$500 million in total over 10 years (Microsoft Corporation,
2008). The new 5 year investment in the PiL program is being funded by Microsoft’s Unlimited
Potential program (the company’s corporate citizenship program), not by its marketing budget.
This shift highlights some of the animosity within the company that had been faced by PiL staff. The PiL program, although a CSR type of program, was initially funded by its marketing budget, with the view that PiL was a long term investment to increase Microsoft’s share of market for using ICT for teaching and learning. However, it has been difficult for PiL staff to justify the program’s continuation within competitive, short term sales cycles.

Microsoft’s post-2008 investment in Phase 2 of PiL focuses on three core components: Innovative Teachers, Innovative Students, and Innovative Schools. The Innovative Teachers program is an extension of the same component in Phase 1 of the PiL program. It is now one of the world’s largest online collaboration portals for educators. In addition, the program includes a series of worldwide conferences that will reward exceptional teaching practices and bring teachers together to share ideas.

The Innovative Students program, a new component, allows qualifying governments to purchase Windows-based PCs at discounted prices for primary and secondary students’ personal use at home. Interestingly, while Phase 1 of the PiL program provided governments with discounted or free software for use in schools, Phase 2 focuses on computers for student use at home.

In the third core component, Innovative Schools, Microsoft will leverage its business expertise in working with governments, educators, and other partners to reform schools. Microsoft will also work with school administrators to plan technology integration, to help schools meet their education objectives (Microsoft Corporation, 2008). In Phase 2, the activities have coalesced, better matching Microsoft’s vision and business interests in education. In the Innovative Schools component, Microsoft offers discounted software, promotes the use of
computers by students at home (furthering Microsoft’s market reach), and provides expert guidance on integrating technology in schools.

5.3 Conclusion

Both external forces and new international norms were at play when the PiL program was conceptualized. They contributed to Microsoft’s self-identity as an important actor in bridging the digital divide through PPPs in education. In addition, within the company, there was growing awareness that Microsoft had to develop new business models to leverage relationships and its expertise in the education sector. For Microsoft, these external and internal forces show that the impetus for development of the PiL program was Microsoft’s CSR and business interests in education. These two influences were not contradictory; indeed, they aligned with Bill Gates’ and Microsoft’s education motivation and with Microsoft’s activities that predated the PiL program (see Chapter 4).

Microsoft’s goals for the PiL program are to provide access to technology for teachers and students and to build capacity to increase the use of technology in education around the world. These goals, and the unique features and activities of the PiL program, highlight Microsoft’s strategic nature and its aspiration to become an actor in education policy making. PiL has created a space for Microsoft to enter the education market and establish authority for itself by developing, implementing, and funding key ICT and education activities. The PiL Memorandums of Understanding operationalize and facilitate Microsoft’s authority in ICT and education policy—terrain that was previously occupied, for the most part, by public authorities alone. In Chapter 6 and 7, I will describe, through two country case studies and analysis, how Microsoft is building its authority as an education policy actor.
Chapter 6 – Microsoft’s PiL Program in Jordan

The Partners in Learning program in Jordan was unique, compared with the PiL program in other countries, in that it was part of the World Economic Forum’s (WEF) Jordan Education Initiative, the first worldwide public-private partnership in education. In addition, Jordan was one of Microsoft’s first PiL sites.

In this chapter, I first review Jordan’s aspirations to become an information society and the state of ICT-in-education in the country. Second, I provide an overview of non-state actors and open-source software debates in Jordan. Third, I study the PiL program in Jordan by reviewing its evolution, partnerships, and criticisms. Fourth, I review Microsoft’s entrance in education, its policy and governance roles, and efforts to influence education policy in Jordan. Fifth, I study government’s response to Microsoft’s expanded role in education and shifts in policy roles. I conclude the chapter with a discussion on Microsoft’s power, expert policy authority, and legitimacy efforts in Jordan.

Field research for this case study took place in early 2007, in Amman, Jordan. I interviewed Microsoft staff, advisors, Jordanian IT corporations, staff in the office of Queen Rania, staff of the Jordan Education Initiative, officials from the Ministry of Education, government consultants, and officials from certain international organizations. Documents and policies from Microsoft, the Jordanian government, the World Economic Forum, other international organizations, and Jordanian corporations were also data sources for this case study.

6.0 Background on ICTs in Jordan

6.0.1 Jordan, the Information Society, and ICTs in Education

In January 2007, the vice-president of Microsoft’s Worldwide Public Sector, Gerri Elliot told an ICT Forum of high calibre ICT experts and entrepreneurs that:
Jordan is unique, special in many ways, particularly in the way it uses ICT. Several significant factors stand behind Jordan’s success in the ICT sector: First, a bold and ambitious course set for the country by the monarch. Second, the tremendous and consistent ambitious commitment and finally, simple execution and Jordanian know-how to execute projects (Robertson, 2007, p.37).

Jordan’s information technology (IT) industry contributes significantly to the economy. The IT sector exports were over $162 million during 2005, an increase from $40 million in 2003. Overall, the ICT sector is growing by 50 percent annually. The income generated from this growth, employs approximately 6000 people and generates 10 percent of the GDP. Revenue from the ICT sector has increased to more than $500 million in 2007 from $60 million in 1999. Int@j, the Information Technology Association estimates that foreign direct investment to Jordan has increased to $93 million in 2005 from $68 million in 2002 (Robertson, 2007b).

The development of the IT sector was selected as a strategic policy when His Majesty King Abdullah II ascended the throne in 1999. King Abdullah II stated that “Jordan will become an IT hub for the region”. This was a rallying call to different sectors, including government agencies and ministries, the private sector, and NGOs. In preparation for this new vision there was a realization that much more focus on human resources was necessary (Ministry of Education, 2007). King Abdullah has embraced human capital as an area of primary action (Ministry of ICT, 2006).

The Hashemite Kingdom of Jordan has the quality competitive human resource development systems that provide all people with lifelong learning experiences relevant to their current and future needs in order to respond to and stimulate sustained economic development through an educated population and a skilled work force (Ministry of Education, 2004, p.1).

His Majesty King Abdullah II’s vision for Jordan as an IT hub of the Middle East has been the basis for ICT in education as follows:

The ICT in education policy for the Ministry and schools was part of the ERfKE project and has four key areas: (1) ICT at the heart of education reform; (2) Education Reform for the Knowledge Economy; (3) Transforming the Way We Learn and (4) Accessibility and Equity (Ministry of Education, 2004).
A government official from the Ministry of Education explains that the draft 2004 e-ICT draft policy:

…was written by Canadian consultants to help manage e-content development, the appropriate use of ICTs in education and to develop a policy around agreements between the Ministry and corporations. A framework was needed to guide gaps in the governance. So much was happening and nothing governing consistency in terms of how MOUs are put together. The e-ICT policy was written with high level managing directors and international advisors who were drafting these policies and this is often the case. The process was more loaded in terms of outside advice and consultants because that’s where the capacity was. That has become more balanced now (Personal Interview C14, Jordan, Government Official).

At the time of this research, the e-ICT policy statement was not finalized and was still in draft form. The Ministry of Education released its National Education Strategy in 2006. The strategy states:

Education is a key factor in encouraging investment in Jordan’s economy, since it is the primary mechanism for upgrading labor market quality. To achieve its goal of becoming an IT hub for the Middle East, the country looks toward new skills and knowledge and a national commitment to life-long learning. The global business environment emphasizes such skills as teamwork, problem solving, and the use of information and communication technology (ICT) in managing information and generating and applying knowledge (Ministry of Education, 2006, p. 7)

The Strategy indicates ICTs as one of its key principles:

A quality education system enables universal access to educational opportunity, equality in the provision of services and to the tools of modern information and communication technology. (Ministry of Education, 2006 p. 14)

In addition, ICTs are integral to the various strategies outlined in the report, including:
• Delivery of low-cost, high-quality, educational systems that will enable all learners to achieve the essential learning outcomes using a variety of methods and resources including ICT (p. 19);

• The use of technology to support the acquisition of essential learning outcomes (p. 21);

• Reform curriculum to balance traditional subject matter with learning process outcomes that make effective use of ICT and that engender knowledge creation and management (p. 22);

• Connecting all schools to a high-speed, broadband learning network to provide increased, low cost access to electronic learning resources within a cost effective financial framework (p. 25);

• Evaluation of variety of ICT options with consideration to both overall student learning effectiveness and affordability, and making fiscally responsible decisions based on carefully assessed data (p. 30);

• The wider use of ICT to support learning, teaching, and administration. (Ministry of Education, 2006, p. 32)

Although there have been significant milestones made in the ICT sector, there remains important concern for Jordan, because of its low Internet penetration. The government predicts that only 10 percent of Jordanians have access to the Internet (Robertson, 2007b). Personal computer (PC) penetration in Jordan is growing annually at 27 percent but it is still behind the government’s desired levels. High PC and Internet service provider costs have been identified as key obstacles preventing the use of the Internet in Jordan (Ministry of ICT, 2006).

According to the Ministry of ICT’s e-readiness assessment of Jordan, there is a severe gap between the skills of graduates in Jordan and the needs of industry. The assessment states,

This gap can be attributed to both the mismatch between the academic curricula and the technological advancements in the IT sector and to the problems that are being faced in the quality of education resulting in insufficient skills of graduates (Ministry of ICT, 2006, p. 16).

In recent years, Jordan has had donor-funded initiatives to bring technology into schools. According to the ICT Directorate of the Ministry of Education, the following are student-to-computer ratios in elementary schools and secondary schools in Jordan (Error! Reference source not found. and Table 7).

Table 6
Student: Computer Ratios and Number of Elementary Schools with Computers
<table>
<thead>
<tr>
<th>Ratio (students/computers)</th>
<th>Number of schools</th>
<th>Percentage of total schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 10:1</td>
<td>272</td>
<td>13%</td>
</tr>
<tr>
<td>10:1 and 20:1</td>
<td>346</td>
<td>17%</td>
</tr>
<tr>
<td>20:1 and 30:1</td>
<td>249</td>
<td>12%</td>
</tr>
<tr>
<td>30:1 and 40:1</td>
<td>255</td>
<td>13%</td>
</tr>
<tr>
<td>Above 40:1</td>
<td>897</td>
<td>44%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2019</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>


Table 7
**Student: Computer Ratios and Number of Secondary Schools with Computers**

<table>
<thead>
<tr>
<th>Ratio (students/computers)</th>
<th>Number of schools</th>
<th>Percentage of total schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 10:1</td>
<td>93</td>
<td>9%</td>
</tr>
<tr>
<td>10:1 and 20:1</td>
<td>371</td>
<td>36%</td>
</tr>
<tr>
<td>20:1 and 30:1</td>
<td>340</td>
<td>33%</td>
</tr>
<tr>
<td>30:1 and 40:1</td>
<td>139</td>
<td>13%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1037</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>


Introducing ICTs to education has been a key priority for Jordan, which aims to be an active participant in today’s information society. The Kingdom’s recent use of technology in education has been implemented without a final e-ICT policy statement and despite the minimal policy and implementation capacity of the Ministry of Education.

**6.0.2 Nonstate Actors and the Open-Source Software Debate in Jordan**

In Jordan, the private sector has supported technology projects to a greater extent than in South Africa (where NGOs have emerged as the main partner in implementation). The most
significant ICT and education project in Jordan is the World Economic Forum’s Jordan Education Initiative (JEI). The World Economic Forum is an independent international organization founded in 1971. The aim of the Forum is to improve the state of the world by engaging leaders in partnerships to shape global, regional and industry agendas although it is tied to no political, partisan or national interests (World Economic Forum, 2007b). The WEF’s JEI was launched at the annual WEF meetings held in Davos, Switzerland in 2003, when Cisco System’s President John Chambers challenged global CEOs to support educational reform in developing countries. Global business leaders from the ICT industry sector, with the support of His Majesty King Abdullah II of Jordan, made commitments that led directly to the foundation of the JEI. The aim of the program has been to promote educational reform through the effective use of ICTs by teachers and students within Jordan, and to replicate the program in other developing countries (World Economic Forum, 2004).

The role of TNCs has been pivotal throughout this project. Corporate support began with a small group of private sector partners including Cisco Systems and Computer Associates working closely with the Jordanian government. This group eventually grew to a large group of global private sector supporters that provided much of the project start-up support including project management expertise and personnel, leadership and resources. The JEI is the first public-private partnership (PPP) of its kind in the world. Over 17 global corporations, 17 local companies, and 11 governmental and nongovernmental organizations are project stakeholders. These and other secondary donors have jointly made investments of over US$22 million for this initiative, of which 50% (US$11 million) come directly from global private sector corporations (McKinsey Corporation, 2005; World Economic Forum, 2004). The JEI consists mainly of the development of Discovery Schools in Jordan that
1. Provide in-classroom technology that fosters new pedagogies in learning through the development of classroom technology models and computer labs with a particular focus on scalability and sustainability;

2. Develop e-curricula through global-local partnerships and to build the local capacity of both the Ministry of Education and Jordan’s e-learning industry;

3. Aim to train 22,000 teachers over three years. (Khatib & Cox, 2005)

Through the JEI, 50,000 students and 2300 teachers have gained access to the Internet in 100 schools (Ministry of ICT, 2006). Technology infrastructure has been deployed to the 100 Discovery Schools as well as five different kinds of e-content curriculum (Math, Arabic, English as a foreign language, ICT and Science) at different stages. In addition, approximately 1,500 teachers have taken the International Computer Driving License (ICDL) training, of whom 1,469 were certified in January 2007 (World Economic Forum, 2007a). ICDL is the world’s largest vendor-neutral end-user computer skills certification and is internationally recognized as the global benchmark in this area. The teachers also have World Links or Intel Teach to the Future qualification (World Economic Forum, 2004). The lessons learned from this Initiative focus around the importance of scale-up and sustainability as well as monitoring and evaluation (Cassidy, 2007).

Other smaller ICT and education projects include the development of Knowledge Stations in Jordan in 2003 at the community level. This project targets mainly poor regions to expand a network of information access centers to allow Jordanians to acquire ICT skills. It aims to enable communities to use ICT in their daily lives as well as access the government electronic information system (Robertson, 2007b). Since 2001, 115 knowledge stations have been established and 70,000 people have been trained through the Knowledge Stations program (Ministry of ICT, 2006). Another project commissioned the Intel Teach to the Future program commissioned by Intel Corporation, has trained 22,000 out of a total of 55,000 teachers in Jordan.
on how to use ICTs in education. The aim is to train an additional 5000 each year (Ministry of ICT, 2006).

Government policies and plans to facilitate ICTs in education are still at an embryonic stage although significant learning has taken place as a result of the Jordan Education Initiative. Private sector participation in education has been encouraged in the Kingdom. As early as 1999, a World Bank report had recommended that private sector participation in education be a priority by calling for the “increase in private sector participation in education through legal, regulatory and accreditation frameworks” (World Bank, 1999, p. 27).

The 2004 ICT in Schools draft policy stated

The MOE will develop and encourage partnerships between government and the private sector (both local and international), development agencies and organizations, schools communities and other partners to share information and training, and gain support for the efficient, effective and successful implementation of ICTs in schools (Ministry of Education, 2004, p. 5)

The 2006 National Education Strategy explicitly encourages NGO and private sector partnership in education.

Partnerships with local communities, non-governmental organizations and agencies, and the private sector can assist in reducing the financial burden of public education (Ministry of Education, 2006, p. 29)

Partnerships between the Ministry and local and international business will provide opportunities for mutual benefit and support (Ministry of Education, 2006 p. 29)

As it has worked towards becoming an ICT hub in recent years, Jordan had been attracting many public-private partnerships as well as international and local investors.

The Open Source movement is worth mentioning within the context of private sector engagement in education in Jordan. There is a small Open Source movement in Jordan. In 2003, a two-day Open Source workshop was organized by the Ministry of Information and Communication Technology (MoICT), the Information Technology Association of Jordan
(Int@j) and the University of Jordan. A pre-conference survey of participants prior to the workshop highlighted that more than a quarter of respondents use a Linux operating system and 35 percent use the Apache web servers. The Workshop was sponsored by both proprietary [including Microsoft] and Open Source companies as well as the USAID (First Jordan, 2003). The event was attended by only 100 people. There were sessions held by IBM raising the awareness of their Open Source project in close collaboration with Jordanian developers (Humeid, 2003).

A participant from Microsoft stated that,

There were Linux threats around 2003. Open source licensing was being offered free of charge to the Ministry of Education. Soon after Microsoft offered free upgrades. Microsoft piloted PCs that were deployed with Microsoft software.

(Personal Interview C7, Jordan, Microsoft)

Debates continued both within government and in educational circles concerning whether to use Open Source or proprietary software. Consultants took both sides in this question. One consultant from outside Jordan advised high levels of government as follows:

The Minister and Secretary General couldn’t care less about Microsoft or Open Source. It’s those that are the third level individuals from the top that are driven by Open Source. Many engineers working at the Ministry of Education are driven towards Open Source. The opposition didn’t come from Minister; it came from directors below such as engineers that were several levels down the organization. It is unique in Jordan that those people way down in the hierarchy are the ones who are actually moving the organization. Those staff are coming from the
tactical end and minister is looking at the issues from a strategical decision-making process. (Telephone Interview C16, Jordan, Government Consultant)

The same consultant highlighted that,

Government was backward and the Ministry of Education was not necessarily working with Microsoft at the time. They were going to work through open source. My first evaluation in Jordan was that it won’t make sense because open source is not free. How do you acquire the expertise to do what you are trying to accomplish in education to support Open Source platforms. Microsoft is so dominant on the application side that I made a recommendation to the Minister to go the Microsoft route. The Ministry of Education was purely looking at it from cost perspective. If they wanted to minimize or simplify how they went on to implement ICTs then they had to do it through Microsoft’s operating system and application software. Given they didn’t have the large number of support personnel and they wouldn’t be able to pay for them and keep them, they needed to use Microsoft as it is the only sustainable model for Jordan. Whatever they say, Microsoft is the 900 lb guerrilla. This discussion took place 6 or 7 years ago. The Ministry of Education was open to Microsoft and looked at how to work with Microsoft. (Telephone Interview C16, Jordan, Government Consultant)

The Ministry of Education decided that it would only allow one platform to run in schools in Jordan. A representative from the donor community stated,

The Ministry of Education and the school districts made a conscious decision about whether they should have more than one platform. They decided one platform would enable technology support in an efficient way. The MOE has
made the decision to go with Microsoft. They see Microsoft as an important partner. It’s in the MOE’s best interest to foster this relationship. They both realize that they are both good for each other (Personal Interview C20, Jordan, International Organization).

Under the procurement and installation section, the ICT education policy reads that “there will be one operating system used across the country for educational purposes to ensure effective connectivity and efficiency” (Ministry of Education, 2004 p. 4). Jordan is using Microsoft products in schools and has made a commitment that only one platform will be used across the Kingdom. A study participant from Microsoft commented that “open source is currently not a big threat in education. Government has committed to Microsoft” (Personal Interview C2, Jordan, Microsoft).

6.1 The Partners in Learning Program in Jordan

6.1.1 Evolution of the Program in Jordan

The PiL program was preceded by important meetings and activities that helped develop Microsoft’s engagement in education in Jordan (Table 8).
<table>
<thead>
<tr>
<th>Date</th>
<th>Key meetings and activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 2000</td>
<td>King Abdullah Bin Hussein and Bill Gates meet at the World Economic Forum</td>
</tr>
<tr>
<td>March 2001</td>
<td>Microsoft’s first office opens in Jordan</td>
</tr>
<tr>
<td>May 2002</td>
<td>King Abdullah Bin Hussein with Emrie Berkin, Microsoft’s deputy director for the Middle East, Europe, and Africa meet</td>
</tr>
<tr>
<td>February 2003</td>
<td>Microsoft signed a 5-year Strategic Partnership Agreement with Jordan (not totally education specific)</td>
</tr>
<tr>
<td>September 2003</td>
<td>The PiL MOU is signed by the Minister of Education and Microsoft</td>
</tr>
</tbody>
</table>

Source: Sawaiha (2003), Microsoft (2003c)

The meeting of King Abdullah Bin Hussein with Bill Gates at the World Economic Forum (WEF) meeting in Davos, Switzerland in January 2000 began their cooperation. During this meeting, King Abdullah Bin Hussein announced his aspiration, in cooperation with Bill Gates, to develop Jordan into an IT center in the Middle East (Sawaiha, 2003). What followed was the opening of Microsoft’s first office in Jordan on March 19, 2001 (Personal Interview C7). Soon after, the government began exploring which software they should buy for 900 secondary schools (Personal Interview C13).

A government consultant explained,

> We sat down with Microsoft and told them what our needs are. Microsoft consultants were instrumental to give us the technical solution and proof of concepts [evidence demonstrating the feasibility of a business model or idea] to see how the software would work. (Personal Interview C13)
In May 2002, the King met with Emrie Berkin, Microsoft’s deputy director for the Middle East, Europe, and Africa. They identified potential areas of cooperation between Microsoft, Jordan’s private sector, and the Ministry of Telecommunications. Berkin appreciated the “investment ambience for the IT industry in Jordan” (Xinhuanet, 2002). In 2003, Microsoft signed a 5-year Strategic Partnership Agreement with Jordan, to help accelerate development of the country’s IT sector. Although this was not primarily an education-related partnership, it included a substantial e-education component, comprised of advanced training for approximately 1000 engineers, establishment of electronic libraries for 50,000 children in rural and remote areas, establishment of IT academies, and disclosure of source code as part of technology transfer in Jordan (Microsoft Corporation, 2003c).

Until the Partnership Agreement was signed, Microsoft’s activities in Jordan had been mostly sales and business related. In 2003, Microsoft’s headquarters office began pushing Jordan to engage with customers to better understand the challenges of the country’s education sector. Concurrently, substantial education reforms were being undertaken in Jordan, and Microsoft wanted to show the value of their products and services in the country (Personal Interview C7).

An employee of Microsoft’s Jordan office told me that discussions about a PiL program for Jordan began when Microsoft staff approached senior staff at the Ministries of ICT and of Education and asked, “What can Microsoft do? How can we engage in this country? We may have solutions for you” (Personal Interview C6). Several discussions took place over several months. A government official told me,

An MOU was prepared by Microsoft first, and then we read, discussed, and commented on the draft. We only sign MOUs when it meets our priorities. Then we’ll sign it. (Personal Interview C8)
As a government consultant put it, “Microsoft listened to our needs, and they tried to come up with a solution” (Personal Interview C13). Several issues arose from the negotiation. A Microsoft employee in Jordan explained

The Ministry of ICT’s main priority was for investment in the 100 Discovery Schools through the JEI program. They wanted to put money where they could get a kick start. We engaged with government, but they wanted the money to be spent their own way. Both the Ministry of Education and the Ministry of ICT ministers discussed that they wanted to work on the vision of the King and focus on JEI. And then that was Microsoft’s focus too. (Personal Interview A2)

The PiL MOU was discussed during a meeting between Khaled Toukan, Minister of Education, Fawaz Zu’by, Minister of ICT, and Microsoft on September 29, 2003. The MOU was, however, signed only by the Minister of Education and Microsoft. The MOU forms a partnership to:

Assist in the development of an ICT strategic plan for the education sector and community centers; work to bridge both the knowledge society and digital divide in Jordan; and help create an ICT literate society. (Microsoft Corporation, 2003h)

The MOU summarizes the strategic aims for the PiL program in Jordan:

To prepare students in the Jordan Education Sector for the knowledge economy;
To significantly raise the level of digital literacy with students, teachers and the wider community;
To help develop a culture of innovators; [and] To assist in building a sustainable ICT model for education. (Microsoft Corporation, 2003h).

Jordan’s PiL program began in 2003 and was one of the first PiL programs in the world. Only a very small amount of money was initially dedicated to PiL in Jordan, because PiL budgets were dependent on sales in a country. Approximately 60% of the Eastern Mediterranean
PiL budget went to the Jordan PiL program. The initial budget for Jordan’s PiL program was US$2.3 million for 5 years. Most was spent in the first and second years (Personal Interview C2).

Microsoft staff was assigned specifically to work on the PiL program in Jordan including a PiL manager, School Technology Innovation Centre (STIC) manager (see Section 6.1.2 PiL Program Components in Jordan, page 140) manager, and an education sector sales manager who was in charge of the business side of education. A Microsoft staff person was also contracted to the Ministry of Education for 2-1/2 years to work on the JEI. Microsoft staff in Jordan received much support from Microsoft headquarters, via visits and twice-weekly conference calls.

6.1.2 PiL Program Components in Jordan

The PiL activities in Jordan were negotiated with the government of Jordan through the WEF’s Jordan Education Initiative. The PiL program’s key components and corresponding description within the PiL MOU are highlighted in Table 9.

Each PiL program component will be discussed below. First, the ICT Training Curriculum was commissioned by Microsoft through the JEI. Microsoft led the development of the National ICT curriculum for grades 1 to 10 in state schools. The ICT curriculum consisted of 520 lessons in Arabic and incorporated multimedia elements in every lesson, to teach IT skills (Microsoft Corporation, 2005e). As part of the JEI, Microsoft and other TNCs worked with Jordanian corporations to fund and design the curriculum. In Microsoft’s case, it funded and worked closely with a local IT company, Menhaj Educational Technologies, in Amman.

Several contentious issues were raised during the interviews I conducted. First, there was conflicting opinion on the development of the e-content. One government employee told me that “the development of the e-content was based on our MOE curriculum” (Personal Interview C10);
<table>
<thead>
<tr>
<th>PiL program</th>
<th>MOU description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ICT training curriculum</td>
<td>As part of the Jordan Education Initiative, provide a K-12 and student ICT training curricula, and work with partners to localize the content to be delivered in Jordanian Schools and community access points (Microsoft Corporation, 2003h).</td>
</tr>
<tr>
<td>2. ICT skills training</td>
<td>Enhance teacher competency in ICT skills through training. Microsoft will work with MOE to build upon existing training resources and define a specific cumulative 160 hour training program and certification mechanism to meet the objectives of the MOE (Microsoft Corporation, 2003h).</td>
</tr>
<tr>
<td>3. Help Desk support centre</td>
<td>Work with Partners to setup a Support Centre “Help Desk” to meet the needs of the schools in Jordan, and train up to 20 Ministry of Education personnel to provide an ongoing Help Desk (Microsoft Corporation, 2003h).</td>
</tr>
<tr>
<td>4. International Teacher’s Network</td>
<td>Build an Innovative Teachers online community to assist with the integration of ICT in the curriculum, develop a virtual digital library for content and environment as a service provided by Eduwave [an e-learning platform] where teachers can share best practices, collaborate and communicate (Microsoft Corporation, 2003h).</td>
</tr>
<tr>
<td>5. School software agreements</td>
<td>Offer affordable software solutions to schools in Jordan through the PiL School Agreement” (Microsoft Corporation 2003, p. 3).</td>
</tr>
<tr>
<td>6. Jordan School Technology Innovation Centre</td>
<td>As part of the Jordan Education Initiative, support the establishment of a Regional Technology Innovation Centre at the Queen Rania Centre to: test new technology for schools; promote innovation amongst teachers and promote additional training for teachers through an IT Academy (Microsoft Corporation, 2003h).</td>
</tr>
</tbody>
</table>

Source: Microsoft Corporation (2003h).
however, another government employee said, “The curriculum is a Microsoft product. It [Microsoft] gave it to Menhaj to customize it to Jordan, but it is ultimately a U.S. product” (Personal Interview C9).

A government consultant asked,

Do we really need an ICT curricula, particularly if it is very much a Microsoft model of e-curricula that was imposed on Jordan instead of it being totally developed locally? Menhaj developed content, but there was lots of influence by Microsoft on how it should be developed…It was an adaptation of what they already had (Personal Interview C14).

Another contentious issue raised was that Microsoft gave ownership of the curriculum to Menhaj, not the MOE. A government consultant explained,

Microsoft has donated curriculum to the government, though they had signed an agreement with Menhaj to digitize the ICT curriculum. Microsoft did not involve the MOE when they signed the contract with Menhaj. The MOE was not involved. They should have signed the contract with MOE, so that the MOE would be able to make changes and update the curriculum through Menhaj. The agreement, however, is with Microsoft, so the MOE is not able to make changes or can’t stop Menhaj from doing anything with it. The MOE can’t make any changes to the content (Personal Interview C15)

In response to those issues, the MOE drafted an e-content policy that would, in future, give it the ability to copyright content developed for the MOE, and the MOE would have the right to alter that content. The contentious issues raised above highlight the complexity of priorities and goals amongst the different actors involved.
The second PiL program is ICT Skills Training. During early deliberation of the MOU, Microsoft informed the MOE that it had already developed PiL curriculum. Microsoft received feedback that it was not relevant for Jordan. Teachers in Jordan had undergone other ICT training, including Intel training and International Computer Driving License (ICDL) training, for a total of 160 hours. During the ICT-curriculum development, Microsoft wanted to know how it was going to fill training gaps in Jordan, given those existing programs. A Microsoft employee in the United Kingdom guided the Jordanian government to find the right kind of consultants and worked with the MOE to find new ways to integrate IT into courses (Personal Interview C6). In the end, Microsoft produced a 24-hour program that trains teachers how to use PowerPoint and integrate pictures and video into it. The training started in JEI Discovery Schools, with the aim of expanding to other public schools. MOE and other government employees were also trained.

The third initiative is the Support Center Help Desk. The STIC in Amman has a Microsoft Support Centre Help Desk, where staff receive calls from throughout Jordan. Software-related calls are dealt with at the Centre, and hardware calls are transferred to a local corporation (Site visit to the Jordan STIC, January 2007).

The fourth program is the International Teacher’s Network (ITN). Jordan was the second country, after Egypt, to host an online community for teachers completely in Arabic. The ITN portal for Jordan was launched at the Dead Sea by Jerry Elliot, Microsoft’s worldwide Vice President for Public Sector, and Queen Rania (Robertson, 2007b). The ITN portal enables teachers to upload materials to the ITN. Approximately 500 teachers had been trained to use the ITN at the time that data was collected for this thesis (Personal Interview C14).
The fifth program is the School Software Agreements. The MOE agreed to “communicate to all participants in initiatives pursuant to this MOU regarding the existence of intellectual property rights in software and the requirement to obtain valid licenses for all software use” (Microsoft 2003, p. 3).

The last PiL program in Jordan is the School Innovation Technology Centre (STIC). A large amount of the Jordan PiL budget is for the STIC (Personal Interview C3). The STIC is located at the Queen Rania Technology Centre, a MOE building that was donated by Queen Rania in Amman (STIC site visit, January 11, 2007). The STIC is a demonstration and learning laboratory for educational institutions in the region. It provides information, training, and equipment for teachers to enhance their use of ICT in their classrooms and to share innovative teaching practices (Microsoft Corporation, 2005g). Microsoft collaborated with Cisco, Intel, and Hewlett Packard. Each of the partners funds one aspect of the STIC’s operations. A Microsoft employee in Jordan said that the company’s vision for the STIC is to:

- serve as a demonstration centre for education institutes to test new technology before making the decision to acquire. It serves as a centre for best practice and innovation in the effective use of ICT in learning for the region. The aim is to have a learning-connected community. (Personal Interview C1)

The PiL program initiatives discussed above highlight the elaborate nature of activities funded and implemented by Microsoft. They also illustrate the tensions Microsoft faced using pre-packaged programs with a strong orientation towards the use of Microsoft’s products. The changing activities and role of the private sector in education is also demonstrated. The PiL program has allowed Microsoft to participate in education and institutionalize ICT-in-education
activities and practices, based on Microsoft’s extensive research and experiences in education software and other products.

6.1.3 Microsoft’s PiL Partnerships in Jordan

The government, Jordanian corporations, and the World Economic Forum each play an important role as Microsoft’s partners. In Jordan, although Microsoft signed an MOU with the MOE, the PiL program was designed to fill gaps in the WEF Initiative. The Ministry of ICT requested that Microsoft’s PiL be administered through the WEF program in Jordan. A senior government official told me that the “involvement of Microsoft has been through the WEF JEI. The WEF was an instrumental partner to help facilitate Microsoft’s role in Jordan. The government had wanted the PiL program to be implemented through JEI” (Personal Interview C8). A Microsoft employee in Jordan added,

JEI put the plan together and was a helping hand for Microsoft to move forward… The JEI did everything for nurturing the MOE relationship and private sector. They talked to the private sector on behalf of the MOE, and then the private sector talked to the MOE, based on what was discussed.

…Mostly everything for the PiL program was rolled out through the JEI. For example, when they [Microsoft] wanted to roll out the International Teachers Network (ITN), they presented to the JEI local board first and then rolled out ITN. (Personal Interview C3)

Although the WEF was heavily involved in Jordan before Microsoft arrived, key government officials supported Microsoft’s PiL program.

Certain senior government staff realized that the MOE needed to become more positive about the use of technology in education. A Microsoft employee in Jordan explained,
The MOE and educators in general need to do more work on the management of change. Whatever innovation you bring, people need to become more aware. The change in attitudes and values of new technology is very crucial to adopt a policy to lead the change. (Personal Interview C9)

To respond to these challenges, the MOE took several initiatives to disseminate new thinking about ICT within the Ministry, which helped Microsoft to build a role in Jordanian education. A government representative explained,

We have raised staff awareness of ICTs through workshops and brochures. We have organized video-conference sessions on the importance of ICT and education for all MOE staff. We have all now reviewed the ICT integration planning in terms of examinations, curriculum, and training. We have a strong relationship with Microsoft that will even further develop. (Personal Interview C11)

Although the PiL program was implemented through the World Economic Forum’s JEI, it was the MOE that facilitated Microsoft’s policy role in education. This is discussed in detail later in this chapter.

Jordanian corporations also partnered with Microsoft to implement the PiL program. Because Microsoft made a concerted effort, through the JEI, to develop the local ICT sector, Microsoft’s new role in Jordan was embraced and supported by companies such as Menhaj Educational Technologies. A CEO from a local IT corporation explained

It is local corporations that have the capacity to do ICT content development work for Jordan and the region, as there is a real shortage of instructional design experts here. Jordanian companies can provide training services and develop more
resources for integrating technology in education. For these companies, they can then support and deploy this to other countries. There is a big market and, because it’s a huge region. (Personal Interview C17)

By partnering with Microsoft, Jordanian corporations helped develop e-content and curriculum resources for schools.

Microsoft’s expertise and financial investments have supported Jordan’s ICT sector. Microsoft has not been able to enter the educational space alone. The Jordanian government, Jordanian corporations, and the World Economic Forum each played an important role as partners and external facilitators of Microsoft’s engagement in education.

6.1.4 Program Shifts in Jordan

After the first year, there was a shift in the PiL program. As discussed in Chapter 5 (Section 5.2 Shifts in PiL Motivation and Priorities, page 121), Microsoft underwent budget cuts in 2005. These cuts had an impact on the PiL program worldwide. Within Jordan, for example, the matrices used to measure PiL had changed. As a Microsoft employee in Jordan explained

The first matrix was to see their involvement with government itself: the number of meetings with government and the meetings at the planning phase with government. Did the government clearly understand the objectives of PiL? How was the budget spent? Conference calls were used to measure these matrixes.

Another matrix was spending. The budget spending plan formed a measurement to see how much was spent monthly. Another matrix was measuring the engagement of NGOs, of funding organizations, and the engagement of local curriculum development companies. (Personal Interview C5, Jordan, Microsoft)
PiL matrices and program funding shifted halfway through the program. The matrices used to evaluate the first PiL manager were not sales focused during the first 2 years of PiL (2003 and 2004). The matrices changed, however, in subsequent years. Microsoft executives focused more on sales in 2005. The PiL program was a five-year program. If the PiL program in a certain country did not spend its entire budget for the first three years, the budget was cut. Microsoft realized that PiL programs in many countries were not able to fully implement their programs by 2005, and thus their budgets were taken away (Personal Interview C5). These changes in PiL matrices and program funding highlights the significant internal tensions within Microsoft, between the company’s shorter term sales goals and longer term philanthropic interests. Microsoft’s motives will be discussed later in this chapter.

6.2 Microsoft’s Entrance and Policy Role in Education

The Partners in Learning program resulted in Microsoft taking on initiatives that had been the sole responsibility of the Ministry of Education, such as curriculum development and teacher training. Central to the PiL program were attempts to institutionalize ICT-in-education practices through, for example, Microsoft-initiated online forums, training, and conferences. These substantial activities provide a window onto how Microsoft entered education, its new policy and governance roles, and its efforts to influence education policy in Jordan.

6.2.1 Entrance into Education Policy

Microsoft strategically entered the education-policy arena through corporate diplomacy and by “doing good”, leveraging the reputation of Bill Gates and Microsoft, and by hiring credible staff for its Jordan PiL program.

First, through corporate diplomacy, Microsoft mediated its way into Jordan’s education-policy arena through innovative strategies reflective of the company’s decision to engage in the education sector through CSR activities. By playing a “doing good” role in education, Microsoft
was able to build trust and relationships with educationalists and government officials. A
government consultant said

They have been able to do this by building trust and relationships. The school
agreement wouldn’t have happened if there wasn’t trust. The Microsoft
management group has been very good in Jordan. Microsoft has good relations
with different players in Jordan. The Education Support Program of USAID
works well with them as well. (Personal Interview C16)

Microsoft enacted its diplomatic role by using corporate-citizenship strategies to
understand and meet the needs of government. Microsoft staff in Jordan asked the government,
“What are your needs?” and said, “We have a possible solution for you. If you are interested,
then we can help.” A government consultant commented that the Microsoft Support Centre Help
Desk and the STIC are examples of the good job done by Microsoft to respond to the needs
outlined by the MOE (Personal Interview C16).

Second, Microsoft leveraged its reputation as a leading software company and the
reputation of Bill Gates. As a World Economic Forum employee in Jordan remarked,
Microsoft has also been able to engage with different stakeholders because of
their role in technology. Everyone is recognizing their brand names. Gates has
come to Jordan, and the King treats him like royalty. Executive visits from Bill
Gates give them a great boost. This has given Microsoft legitimacy that comes all
the way down the line. (Personal Interview C21)

Third, as a World Economic Forum employee in Jordan described, Microsoft hired staff
for its Jordan PiL program who
came with credibility, leadership and innovation. Microsoft came in Jordan in a larger way, because they had an office here. They have hired good people locally, and they are better partners for JEI because of their presence here. There isn’t as great acceptance of corporates, because there is a feeling that they are not here enough to substantiate their credentials as educational people. They fly into the country and say, ‘Try this or try that,’ which is not good enough. Microsoft having staff and working here with an office has given them more credibility, compared to [company name]. (Personal Interview C21)

It is the combination of these activities that enabled Microsoft to enter the educational policy arena in Jordan.

6.2.2 Policy Role and Governance

The PiL MOU and program gave Microsoft the roles of policy developer, implementer, and funder of ICT-in-education. In addition, Microsoft’s policy role moved beyond these usual policy functions to include introducing new policy approaches, and governance processes and structures to education. Microsoft does both top-down and bottom-up policy-making, facilitates policy networks and the sharing of best practices in education. Each of these approaches will be reviewed.

As discussed in Chapter 2, in the top-down policy approach, the policy developer is at the top of a political hierarchy (Elmore, 1977, p. 606; Hill, 2005; Taylor et al., 1997 p. 77). An example of Microsoft’s top-down approach is the company’s implementation of the Jordan PiL program, based on the worldwide program that was conceived and developed at Microsoft headquarters in Redmond, Washington. Through the PiL’s MOU and public-private
partnerships, Microsoft created a supranational policy space, above national government policy processes.

By leveraging its transnational network, Microsoft reached the highest level of educational policy-makers in Jordan. According to Microsoft’s business language, the global PiL framework allows it to play a “thought leadership” and trusted policy advisor role. For example, Microsoft staff meets in person with Jordan’s Minister and Deputy Minister of Education, and with other senior government staff in the Ministry. The meetings are either held at the STIC or at the MOE (Personal Interview C12). Microsoft also assists the MOE in exploring ICT-in-education policies. For example, Microsoft had discussions with the MOE on lessons learned through JEI and the PiL program, and it hosts conferences to share international experiences.

A Microsoft employee commented on the sharing of ICT-in-education documents:

[Name of senior government official] was invited to attend the Philadelphia Global Forum but couldn’t make it, so [he] was sent proceedings of the conference. Microsoft staff share documents, position papers, and articles with senior government officials. (Personal Interview C2)

In addition, Microsoft contributed to strategic thinking on the future of ICT-in-education in Jordan by sharing case studies and evaluations from PiL programs in other countries. The PiL Academic Program Manager in Jordan sends the Deputy Minister case studies and other documents, particularly because the Deputy Minister reads materials sent to him. For example, the Manager shared success stories about the learning gateway initiative in England. Microsoft hoped these shared materials would influence the MOE’s thinking about technology and education (Personal Interview C2).
Microsoft also takes a bottom-up approach to policy-making by engaging with subnational actors. The bottom-up approach focuses on grassroots actors and agencies (Barrett & Fudge, 1981), is decentralized, and has pluralist forms. An employee of a Jordanian corporation told me that Microsoft participated in formal policy-making through its membership in grassroots education boards and organizations, such as the National Agenda for Education and ICTs (Personal Interview C19). As a member of the JEI board, Microsoft has yet another policy platform to share ideas and strategic options, and to influence decisions that eventually reach the Middle East (Personal Interview C3). An employee of the JEI said, “What is important is not just Microsoft and Cisco giving you a few PCs, it’s their ideas that will drive innovation, and it is their perspectives (Personal Interview C26).

Microsoft’s top-down and bottom-up approaches link the supranational policy arena to the subnational or subgovernmental. This means a direct link from global to subnational players. In the past such direct relations were rare and usually mediated by government.

In addition to policy-making through both top-down and bottom-up approaches, Microsoft constructed new governance structures and processes, within and outside public education, and external policy networks. One initiative was Microsoft’s funding and organizing of worldwide PiL conferences and meetings. A government official explained

Global corporations bring leading people in the country, like directors of public and local corporations, to their international meetings in order to get more exposure. Microsoft has good linkages and brings all of their partners together, so that they can exchange ideas. This type of exchange of ideas is more convincing. Educators are difficult, compared to the private sector that moves quickly. It would be easier if my people in government got to see things happening first hand
with Microsoft. This would make my work easier. Educators have to broaden their vision, like corporations that get exposure from international gatherings. (Personal Interview C9)

For example, 25 teachers and policy-makers accompanied the PiL manager from Jordan to the Microsoft International Innovative Teachers conference, held in Paris in 2007. A Microsoft employee in Jordan explained

The forum was to enable teachers to highlight their use of ICT in education. The program included long coffee breaks, so that teachers can network, build relationships, and showcase what they have done. (Personal Interview C2)

Senior government officials from Jordan were also invited, to attend the Microsoft’s Global Summit, held in Philadelphia in 2007. Microsoft’s Government Leaders Forum was yet another high-level summit to which a few Jordanian ministers were invited and exposed to many ICT-in-education issues.

The last key policy role taken on by Microsoft was the facilitation of ICT-in-education best practices. Microsoft’s PiL manager shared much [of their] information, mostly through meetings with educational stakeholders, including government. Approximately 60% of their time was spent in discussion (Personal Interview C2). In addition, Microsoft employees participated in meetings and conferences in Jordan; for example, to discuss how Microsoft works with NGOs to build their capacity (Personal Interview C3). Microsoft employees also presented at World Economic Forum JEI conferences.

Another area in which of Microsoft facilitated the sharing of best practices was through the online International Teachers Network (ITN); teachers not only learned from each other but also learned about new theories in education and Microsoft products (Personal Interview C2).
Another example was through the Jordan STIC’s trainer. Through the learning gained from evaluating the Jordan STIC, the MOE trainer delivered content-authoring courses in Qatar, Bahrain, and Dubai (all in the Middle East) to master trainers (Personal Interview C2).

When all of the above-described activities are put together, it is apparent that Microsoft emerged as an expert policy authority in the education sector. Central to Microsoft’s new policy and governance role in education is its ability to leverage its resources and expertise as one of the most successful and profitable TNCs worldwide. Bill Gates’ ICT-in-education vision, and the company’s history and experiences working in education, built a solid foundation on which Microsoft developed core competencies and expertise, and committed resources to ICT-in-education.

6.2.3 Efforts to Influence Education Policy in Jordan

Microsoft has tried to influence the education sector in Jordan, at various levels and, in various ways, by using its extensive expert power and strategy. Central to these efforts have been the diffusion of Microsoft’s education and ICT vision, and developing the capacity of the education system to use ICT-in-education, more specifically, to use Microsoft’s products and services.

First, given Microsoft’s corporate-citizenship investment in Jordan through the PiL program, the Ministry of Education decided that it will only allow Microsoft software to run in Jordan’s schools. Through the PiL Schools Agreement, Microsoft attempted to influence the MOE to raise awareness of Microsoft’s intellectual property rights, to stop the illegal use of Microsoft software within Jordanian schools and require valid licenses (Microsoft Corporation, 2003h).
Second, Microsoft attempted to influence students and teachers to use technology in schools by providing access to software at discounted rates. A Microsoft employee in Jordan said:

Microsoft, by investing in software in Jordan, is providing access to technology. Approximately 1.5 million students have access to software (three students per PC). (Personal Interview C7)

Third, Microsoft influenced educational policies and practices in Jordan by gaining a seat at the policy table at different levels of the education system. As discussed in section 6.2 (Microsoft’s Entrance and Policy Role in Education, page 148), Microsoft provided “thought leadership” and policy advice to educational stakeholders as well as through formal memberships on educational boards and initiatives.

Fourth, Microsoft’s influence on ICT-in-education extended beyond the traditional policy functions to developing the capacity of Jordanian corporations working in education. For example, by partnering with Menhaj Educational Technologies through the JEI, Microsoft offered project management skills and templates to develop Menhaj’s capacity. Microsoft also promoted Menhaj’s work worldwide. The 50 lessons built by Menhaj were placed on Microsoft’s internal, worldwide, PiL employee portal, called Share. The portal diffuses best practices and information on global PiL activities. Menhaj received wide exposure to markets and customers beyond Jordan through Share. Microsoft also sent Menhaj staff to conferences, and Microsoft staff in the region also mentioned the services of the company at different conferences (Personal Interview C19). Steve Ballmer and Bill Gates promoted the company at meetings and conferences. The CEO of Menhaj met with Bill Gates when he had visited Jordan. Steve
Ballmer mentioned that Microsoft was working in Jordanian education through Menhaj during a speech he made on a visit to Jordan (Personal Interview C19).

Fifth, Microsoft attempted to impact education in Jordan through the PiL, as articulated by a government employee: “Microsoft has been able to implement governmental priorities through PiL activities... At this point, for the MOE; it is the positive outcomes of Microsoft’s work and how they are helping us to achieve our goals” (Personal Interview C12). Microsoft implemented ICT-in-education PiL initiatives that aligned with government priorities. Microsoft also attempted to influence three areas of pedagogy: ICT curriculum and e-content, teacher-training and through the School Technology Innovation Centre (STIC). Central to all of these initiatives, however, were Microsoft’s education and ICT visions and its products. These examples highlight Microsoft’s efforts to influence the education and ICT sectors in Jordan at many levels. However, I was not able to study the outcomes of Microsoft’s efforts to measure the extent of the company’s impact in Jordan.

6.3 Government’s Response and New Policy Role

King Abdullah had a strong desire to develop Jordan into an ICT center for the Middle East. As discussed earlier, the Jordanian government supported initiatives that integrated technology into education and to its commitment to use only proprietary software in schools. The government also encouraged private sector involvement in its education sector.

Research participants raised many issues that help explain the MOE’s acceptance of Microsoft’s roles in Jordanian education. These include benefits of Microsoft’s investments for the Jordanian economy, a path to meeting the King’s ICT vision, the MOE’s changing attitudes toward ICT-in-education, and the MOE’s weak capacity and leadership in bringing ICT to education.
Jordan’s ICT industry stood to contribute much to the country’s economy. A Jordanian corporate employee told me that approximately 11% of GDP came from the ICT sector (Personal Interview C17). Microsoft had committed to substantial technology investment in Jordan. Nadia Saeed, ICT Minister, said, “Under the memorandum, Microsoft will expand its services in Jordan and the region as well as boost the level of investment and cooperation with the private sector” (Barakat, 2005). Microsoft leveraged its economic power through its partnership-based model, in which the investment of funds by Microsoft in local companies benefits the host country. A Microsoft employee in Jordan told me that, according to an International Data Corporation (IDC) study, every dollar invested by Microsoft in its software and services returned almost $14 to the Jordan economy (Personal Interview C6). A government consultant discussed the power of Microsoft’s investments in Jordan.

Microsoft has been able to legitimize its role by giving money. These resources include $1 million worth of data centres, $50,000 for infrastructure and connectivity. When they take their products and services in a donorship way, they develop a lot of credibility, even though they are pretty monopolistic.

(Personal Interview C14)

An MOE employee added,

Large corporations and leaders have a lot of power and influence. It is very hard to say no. It’s something brought to the country to help the country in a broad sense. And the broader feeling is that anything done in education innovation is potentially good. (Personal Interview C8)

Although the Jordanian government was reluctant to embrace Microsoft’s new roles, a government employee explained why the government accepted Microsoft’s PiL program:
If we are talking about education, then all the sectors should be participating and sharing the responsibility of education. The MOE doesn’t have the capacity to carry out these goals independently, and we need the private sector and NGOs. The private sector has lots of experiences and programs. And, in turn, the MOE should help the private sector to develop themselves. We must work with the private sector, as this is part of the King’s vision for private sector. (Personal Interview C10)

An MOE employee commented on challenges involved in changing attitudes within the Ministry toward ICT-in-education:

There are some conservative people in the MOE that don’t want to change their attitudes. There are no problems with corporates. Problems come sometime within, because people resist change. (Personal Interview C12)

A government employee confirmed that Microsoft’s expertise and thought leadership in ICT-in-education were important:

The MOE feels that it’s not the money that we need, but we need the expertise. Both the Minister of Education and the Minister of ICT said that we’ll find ways of finding money, but what are needed are experienced people and thought leadership that Microsoft can provide. This will help us to be in tune with what is going on in the rest of the world. Also, it will help us develop our human-resources capacity in the country and region. (Personal Interview C6)

Another government employee explained some of the benefits of working with Microsoft:

ICT skills have been upgraded to improve the quality of education, and schools have been upgraded, too. Microsoft’s work has led us to shake our mentality a bit
to accept change, although some have been a bit reluctant. Learning to use ICT and its application in education has been good. A new culture has been introduced to education here. We have learnt how to promote our work and make it more competitive amongst others. We’ve also learnt about business transactions and relations. How to write progress reports and evaluation have been important. We now need to compete with the private sector. We can’t feel that we are behind the private sector because they are better than us. We need to improve our own skills. (Personal Interview C12)

Microsoft’s PiL program helped raise awareness of ICT-in-education as well as fill government capacity gaps in the field. Although substantial benefit came with Microsoft’s engagement, MOE staff was still wary and worried. The CEO of a Jordanian corporation elaborated on control issues:

Ministries of education are very sensitive. During JEI, this region also had lots of political problems. The MOE [staff] are like the parents of a girl who [is] going to another country. They are worried about her but still wanting her to get a good education. They want to control her, but also set her free. Similarly, the MOE wants to liberalize some things, but you know they still want to have control. The fact that they [MOE] are listening has been impressive. However the MOE could have done a lot more things better, such as better project management and more planning at the beginning. (Personal Interview C18)

There was also tension within the government about working with Microsoft. A senior government consultant explained
There has been a real dichotomy. You are a big corporation, and you have the power to support us. It is appreciated through the resources you share. This is a good thing. The other part of the dichotomy is ‘I’m not sure what you are doing, how helpful it is, and how much control in terms of services and support—in terms of e-curricula—you are providing.’ The Minister feels that, ‘I’ll accept your resources, but I’m going to be very wary about this and how beneficial it will be.’ There is a healthy understanding of the business world. The Minister understands what is going on, in terms of business and business priorities; there is a constant tension of these priorities. We recognize that this is difficult because of your priorities as a big business. (Personal Interview C14)

6.3.1 State Sovereignty and Shifts in Policy Role

As highlighted earlier in this chapter, the Ministry of Education required Microsoft to channel its PiL resources through the WEF’s JEI. Microsoft was one of many partners working through the JEI, and Microsoft’s relationship was at arms-length from the Ministry. This also shifted power away from the Ministry of Education towards the WEF and the monarchy in Jordan. In the end, Microsoft’s involvement in Jordanian education produced the transformation, rather than replacement, of state sovereignty in Jordan. The King delegated authority to Microsoft through the WEF and ministers of ICT and education to reach his broader goals to further the growth of Jordan’s ICT sector. Concurrently, MOE staff partnered with Microsoft through the JEI. There was a transformation in sovereignty because of Microsoft’s role, power, and the sheer volume of its activities in education. The government was no longer the sole determiner of ICT-in-education policy.
The government’s policy environment changed after Microsoft became involved. The MOE’s policy role in bringing ICT to education shifted: from being sole developer, funder, and implementer to sharing this responsibility with the private sector. As well, the MOE’s policy role became more limited, given that Microsoft directly developed and funded new structures and ICT-in-education activities for public schools. The Jordan PiL program was not based solely on Jordanian priorities, but was closely aligned with Microsoft’s worldwide PiL program and its business interests.

Nonetheless, the MOE was still an important policy actor although its role in this case shifted. It facilitated implementation of the PiL program through its bureaucracy and within public schools. As a public facilitator of ICT-in-education policy, the MOE was limited to implementing externally developed and funded programs within schools. In addition, the MOE was one of many nodes in Microsoft’s Jordan-based and transnational networks, through Microsoft’s new governance role and its PiL program.

6.4 Microsoft’s Motivation in Education Policy

As discussed in Chapter 2, the business literature on corporate social engagement explores the increasing participation of TNCs in the social sector, with their broad spectrum of motives, which integrate philanthropy (Donaldson & Preston, 1995; Waldman & Sully de Lunque, 2006) with self-interest to increase business performance and profits (Martin, 2002; Porter, 2002; Rowley & Berman, 2000). The perceived business interests and corporate citizenship motives driving Microsoft’s new role in education will now be discussed. It was the confluence of these motives that ultimately motivated Microsoft to enter the education sector.

Microsoft’s perceived business motives to enter the education field in Jordan were (a) to encourage the government to respect Microsoft’s intellectual property rights in using software,
(b) to test new ICT-in-education innovations to be later marketed in other regions, and (c) to develop new marketing opportunities by entering the education field and trying to influence government technology choices and purchasing decisions.

Each of the above business motives is discussed. First, in its 2003 partnership agreement with Microsoft, the Jordanian government committed to respecting Microsoft’s intellectual property rights by using legally licensed software. “In return, we made a commitment to help the local ICT economy,” said Bill Gates at a joint press conference with the Minister of Higher Education and Scientific Research, Khalid Touqan (Barakat, 2005). Through the PiL MOU, the MOE committed to insuring that illegal versions of Microsoft’s software were not used by teachers and students in schools across the Kingdom.

Second, unique to the Jordan PiL program, Microsoft channelled its engagement in Jordanian education through the JEI. Through it, Jordan was seen as a test bed for innovations by TNCs, including Microsoft.

A government consultant explained

Jordan has taken a global importance. It is the first country in the world that is fibre connected. It is small enough to do it and large enough to have challenges. It also has centralized e-content. Jordan has become important globally. People will be looking here, because the efforts here can be shared all over. There is one ministry so things are deployed centrally. Since Microsoft is paying them [government] lots of money, it is important for them [government] to keep this market. (Personal Interview C13)
Third, as part of the worldwide PiL program, the PiL program in Jordan gave Microsoft insight into the educational marketplace in Jordan, and opportunities to develop new relationships and to expand sales there. The head of a large donor agency in Jordan told me,

Microsoft’s cash contribution to the MOE is linked with the amount of Microsoft products that the MOE purchases. It is not just about Microsoft largesse, but linked to business. There is that business aspect to it, but it is not in your face.

(Personal Interview C20)

A Microsoft employee explained how the PiL program met Microsoft’s goals:

The PiL program fits into Microsoft’s overall education strategy in Jordan through its spread and reach of students. The licensing through low prices facilitates this. The STIC [School Innovation Technology Centre] also helps Microsoft users and teachers to build the ICT capacity and provides technical support for teachers. (Personal Interview C7)

Last, by the very nature and structure of the PiL program, Microsoft has been able to influence the Jordanian government’s technology choices and purchasing decisions. For example, the School Technology Innovation Centre advises government on what technology it should use. The MOE has bought many products after seeing demonstrations at the STIC. Microsoft also assists the MOE in deploying the software it buys and making sure everything works well (Personal Interview C3).

A Microsoft employee in Jordan explained how the STIC helps Microsoft increase sales:

The STIC, although is not aimed directly at increasing sales, it inadvertently will yield to greater sales in the long run as we build relations with the MOE, develop innovative ways of using Microsoft products for education, and demonstrate and
showcase them to the education sector in Jordan. This will ultimately increase sales over the long run. The technology has been deployed, but no one knows how to maximize its use for the education sector. That’s what STIC is about. The aim of [the STIC] initiative is to find ways to use the STIC in marketing and selling Microsoft products. (Personal Interview C3)

Each of the above-described activities aims to help Microsoft increase its sales in Jordan, although that was not explicitly the primary aim of the PiL program. A Microsoft employee in Jordan explained Microsoft’s motivation in Jordan:

For us, the recognition in terms of education is to build a young generation working on the Microsoft platform is important. This was also a key priority for the King. The sales-tie aspect of PiL was important, too. PiL helped with sales, although this was not explicitly the main aim of PiL. (Personal Interview C3)

A government consultant in Jordan had a different view of Microsoft’s motivation:

Their aim is market capture in the Arab world. They measure everything in terms of business investments and seed money/investment. It’s short-term pain for long-term gain. What is distressing is that it becomes so transparent in terms of the gulf of the two cultures. We don’t see patience for learning about the realities of education. There is too much talk about the solutions by Microsoft that hasn’t been measured in terms of educational terms, and these solutions are more about business. (Personal Interview C14)

Corporate-citizenship has also been an important motivator for Microsoft. The PiL program has made Microsoft a corporate citizen in Jordanian education. Microsoft invested substantially in Jordan by providing discounted software to schools, developing e-content
curriculum for public schools, and training teachers. There has, however, been some tension about Microsoft’s corporate citizenship in Jordan. As a representative of the World Economic Forum in Jordan told me,

There is a big disconnect between global TNCs and their local corporates, in terms of their CSR approach. Microsoft has fantastic people in Redmond; however, executives locally are sales oriented. America gets fantastic CSR value; however, this gets distorted because they get the trickle-down version of CSR in Jordan. It is different on the ground, when compared to sitting with a global innovator. The local deployment methodology and the design of approach have different incentives. (Personal Interview C23)

Although some criticize Microsoft’s corporate citizenship role in Jordan, the company has been able to claim that it is playing an active role in the Jordanian education sector. Microsoft executive Mark East, Senior Director of the Europe, Middle East, and Africa Education Solutions Group said

Microsoft’s alliance with the Jordanian government is an extension of our broader commitment to helping individuals, communities and nations in the Middle East gain access to the technology, tools, skills and innovation they need to realize their full potential. (Microsoft Corporation, 2005g)

During a visit to Jordan in October 2005, Bill Gates attended an iftar9 hosted by King Abdullah. During a keynote address to an audience of more than 600 government officials, decision makers, partners, and customers, Gates reinforced Microsoft’s role in Jordan:

Microsoft has been at the forefront of the local IT sector since it started its operation in Jordan. It has delivered on its commitment through significant investments in knowledge transfer, education, IT developers and solutions to its customers. (Microsoft Corporation, 2005d)

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9 The evening meal that breaks the daily fast during the Islamic month of Ramadan.
Microsoft has gained recognition as a key player in education from Jordan’s highest levels of authority. For example, King Abdullah stated, “The project implemented by Microsoft and initiatives launched by Gates in Jordan helped advance the country’s IT industry” (Barakat, 2005).

A staff member of Queen Rania’s Office told me,

On 7th Dec, Her Majesty launched the ITN [International Teacher’s Network], a virtual network for teachers. The beauty of this network is that it is in Arabic. It started in Egypt and is not a JEI initiative, but a Microsoft initiative. They are hoping to take it into other countries. It is a very good initiative. Microsoft has been generous in terms of rallying support from other donors. They have good leadership here and respect the leadership here, too. (Personal Interview C26)

Khalid Toukan, Minister of Education stated,

Microsoft has listened to the needs of the Jordanian Education sector and delivered a new technical assistance and software support service. It is a strong indication of Microsoft’s commitment to Jordan Education Initiative and the Ministry reform efforts. (Microsoft Corporation, 2007d)

Microsoft’s engagement in education through PiL also raised the company’s profile, as a Microsoft employee in Jordan explained:

We have elevated the perception of the program. Instead of working at the project level, we are working at a strategic level. The Queen is very familiar with what we are doing. She launched the ITN. The amount of PiL work here is less, but it is high impact. We are working on projects that are important to the government here, such as JEI. The perception that Microsoft is working in education has been raised, given we are choosing projects that are important to the government.

(Personal Interview C3)
In summary, the confluence of both market development and corporate citizenship motivated Microsoft to enter the education sector in Jordan. There are no perceived contradictions for Microsoft between its self-interest in pursuing new educational markets in education and its recognition of doing good work in education. The company did not see market and CSR interests as zero sum; although at the same time tensions in the balance of the two emerged.

6.5 Microsoft’s Power, Authority, and Legitimacy in Jordan

Microsoft’s tremendous power as a leading technology TNC enabled it to enter the education sector in Jordan. Microsoft’s market power played an important role in shaping its decision to invest both expertise and policy capacity. The strategic nature of the PiL program gained Microsoft a place in Jordan’s educational landscape. Microsoft developed an elaborate new structure and extensive activities, invested substantial resources, hired staff, and engaged both state and nonstate actors through its Jordan PiL program. Ultimately, Microsoft wielded enough power to play a policy role in education.

It was important for Microsoft to expand its material interests in Jordan; however, it also aimed to be seen as a corporate citizen—a thought leader and representative of public interest in education. It was the use of its expert authority through the PiL program that contributed most to its legitimacy in Jordanian education. The company’s shared ideas and expertise shaped its organizational interests and preferences in education. As an expert authority on ICT-in-education, Microsoft tried to influence ICT-in-education priorities, policies, and programs, so that it could develop Jordanians’ capacity to use Microsoft products and services.

We [Microsoft] and our partners, through the STIC, will reinforce our “thought leadership,” provide a showcase for our products and programs and through effective utilization to help countries and regions effectively harness the power of information communications technology for school administration, teaching and learning. (Microsoft Corporation, 2007e)
Microsoft’s knowledge and expertise was central to its legitimacy in education. Although the PiL program enabled Microsoft to become an expert policy authority in education policy, it was not able to claim absolute legitimacy, as highlighted by research participants. In the end, Microsoft’s substantial effort to legitimize its authority in education was contested.

6.6 Conclusion

The PiL Jordan case study highlights the country’s aspirations to become an information society. In addition, Microsoft’s motives and operations in education, how government responded to Microsoft’s expanded work in education and how authority and power shifted from government to Microsoft are considered in the chapter. In summary, it is apparent that Microsoft’s motives in education included both market interests and corporate social responsibility goals in education. Through the PiL program, the company’s efforts in Jordan combined its self-identity as a leading, profit-driven TNC with social goals to bridge the digital divide in education. For Microsoft, there is no perceived contradiction between developing an education market to gain profit and “doing good” in education, although tensions did emerge when this balance shifted over time.

Microsoft was able to enter the education space in Jordan strategically to pursue its aims. It held high-level meetings, negotiated and signed MOUs, developed elaborate organizational structures and programs, hired local staff, and developed partnerships with government and local corporations. Beyond these strategic activities, Microsoft used its expert policy authority to try to gain legitimacy by leveraging its knowledge, expertise, and experience base to mediate its engagement in ICT-in-education. It governed its expert policy authority through both top-down and bottom-up policy processes, facilitated policy networks, and the sharing of best practices in
Jordan that were also networked transnationally. Although its legitimacy was questioned, as indicated by the criticisms and tensions it faced, the Ministry of Education responded favorably to Microsoft’s expanded role in education by accepting and working with the company to implement PiL in Jordan.

On the government side, there were transformations in state sovereignty and policy roles in education as a result of Microsoft’s expert policy authority. Responsibility shifted from government being the sole provider, funder and implementer of ICT-in-education policy and programs to sharing these roles with the private sector. The MOE’s policy role became more limited as a public facilitator of ICT-in-education policy that was externally developed and funded by Microsoft.
Documents from Micorosoft, the government, and NGOs were also used as data sources.

Staff, advisors, staff at local NGOs, academic, government consultants, and employees from the Department of Education.

Field work for this case study took place in late 2006 in Johannesburg and Pretoria, South Africa. I interviewed Microsoft.

Field work for the PIL program and shifts in its policy role and sovereignty.

To the PIL program, shifts in its policy role and sovereignty.

also examining Microsoft’s motivations, policy role, impact, authority, and legitimacy in education. I look at the government’s response.

South Africa. Fourth, I examine how the ICT-in-education policy landscape in South Africa shaped after Microsoft’s engagement. I

Fourth, I examine how the ICT-in-education policy landscape in South Africa shaped after Microsoft’s engagement. I

of the PIL program, its framework tool for ICT in schools, program components, partnerships, and program shifts that occurred in

the country. Second, I provide a overview of national actors and open source debates in South Africa. Third, I review the evolution in

In this chapter, first I review South Africa’s aspirations to become an information society and the state of ICT-in-education in

expert-policy authority despite much resistance from government, NGOs, and society at large.

and active NGO and corporate involvement in ICT-in-education. This case study shows how Microsoft emerged as an important

The partners in Learning Program was introduced in South Africa within a context of strong support for open-source software


partners from the public and private sectors to support growth and opportunity.

partners from the public and private sectors to support growth and opportunity.

a real deal of work to do and we remain committed to elucidating our resources and investments as we work with

nations can use technology to address the challenges they face and open the door to new opportunities. But there’s still

Il is great to see leaders in government, education and technology come together to identify creative ways that African

Chapter 7 — Microsoft’s PIL Program in South Africa
development. For instance, it is mobilizing public-private partnerships, creating favorable legislation to promote growth and development. It has made concerted efforts to foster a favorable policy environment to promote ICT use and growth.

In order to ensure that South Africa is part of the knowledge economy, it has strongly advocated the use of ICTs to support economic growth. Part of the will not have been a realization of all (Mandela, 1995).

This is a special moment in the world's potential for transition to a truly democratic information age. We cannot address at the opening ceremony of the 7th World Telecommunications Forum. He stated:

"The information society (Mbeki, 1995)." Then-President Nelson Mandela stressed the potential of ICTs for development, underpinning the potential use of ICTs.

Information society, then-presidential deputy Thabo Mbeki invited Western countries to enhance the development of the continent, underpinning the potential use of the information society. Such invitations have also been initiated since the 1994 democratic elections in South Africa. By 1995, the theme of the information society underpins the potential use of ICTs.

The reconstruction and development program base document, which framed the ANC Alliance's election manifesto, ICT-policy.

Although South Africa has significant inequalities, it is a country with a dynamic and ICT-sector. ICTs and their use for development were key priorities even before the country’s first democratic election. The Information Society and ICTs in Education (2011): Background on ICTs in South Africa.
A new wave can successfully introduce ICTs in schools (Department of Education and Department of Communications, 2001). The key

In the early 2000s, the Department of Education focused not on "whether we..." introduce ICT in teaching and learning but

Appendix 22 Overview of Education Technology Policy Processes in South Africa

See policies related to the use of technology in education and strategies both at the national and provincial levels, since 1995. (See enhanced learning policies to the need for a coherent policy on the use of technology in education South Africa has established broad

that the use of ICTs for education became a policy issue in South Africa. A conference held in November 1999 on technology-

E-education is viewed as a crucial strategy for the South African Government in becoming globally competitive. It was in 1999

Aadam, 2007)

ICT Infrastructure and Services and major projects in education, skills development, training, ICT Literacy, and Junior (Cross

ICT Infrastructure and Services and major projects in education, skills development, training, ICT Literacy, and Junior (Cross

including: National Caernis. 10 a professor at communication and author. The Presidential Advisory Council on ISADD has focused on

Information Society and Development (ISADD) was established in South Africa. It comprises international leaders in the ICT sector.

Department of Education and Department of Communications, 2001). In 2001, the Presidential Information Advisory Council on

has said-of-the-theart communications systems in many urban centers and is presently the #1 largest user of the Internet in the world

sectors (Cross & Aadam, 2007). South Africa is making tremendous efforts to establish itself as an ICT leader on the African continent.

ecocommunications and setting up several structures to foster innovation in the implementation of ICTs in the economic and social

University of Southern California
schools in the Eastern Cape do so. A national survey conducted in 2000 highlighted factors preventing schools from using computers as learning tools. Over 60% of the schools in the Western Cape use computers for educational purposes, while only approximately 4% of schools in the Eastern Cape have computers in schools for teaching and learning with adequate use of computers in schools in the Western Cape have computers in schools, but only about 9% of schools in the Eastern Cape have computers in schools. For example, 99.9% of schools in the Western Cape have computers in schools, but only about 9% of schools in the Eastern Cape have computers in schools for teaching and learning. There is a long history of donor aid initiatives in bringing technology into schools in South Africa that has resulted in ICTs being used in schools. (See there is great variation in the number of schools with computers in the country.)

There is a long history of donor aid initiatives to bring technology into schools in South Africa that has resulted in ICTs being used in schools. (See there is great variation in the number of schools with computers in the country.)

The private sector, (Prepaid Interview D23; South Africa, Academic) ICT Leader as well as a response to the ground initiatives related to ICTs in schools by select provinces, NGOs and NPOs.

The White Paper was developed as a response to the pragmatic decision made at the presidential level to become an in teaching and learning practices (Department of Education, 2004b). A participant of the study states: "In teaching and learning practices (Department of Education, 2004b). A participant of the study states: "The White Paper further stresses that the aim for the schooling sector is to leverage ICTs to support the development of literacy skills, access information, and communicate and to combine pedagogy and technology, to ensure effective teaching and learning in schools. This policy is underpinned by assumptions about the potential of ICTs in supporting fundamental change participations in the global community. By 2013 (Department of Education, 2004, p. 17) every South African learner in general and further education and training bands will be ICT capable (that is, use ICTs).

The White Paper, the White Paper explicitly sets a goal that, policy document guiding the government's activities in ICT and education is the National Department of Education's.
<table>
<thead>
<tr>
<th>Province</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>KwaZulu-Natal</td>
<td>11.4%</td>
</tr>
<tr>
<td>Gauteng</td>
<td>16.6%</td>
</tr>
<tr>
<td>Free State</td>
<td>90.5%</td>
</tr>
<tr>
<td>Eastern Cape</td>
<td>25.6%</td>
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<td></td>
<td>4.5%</td>
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</tbody>
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<th>Province</th>
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<tbody>
<tr>
<td>4.5%</td>
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</tr>
</tbody>
</table>

**Computer Availability in Schools by Province**

Trained to integrate computers into different learning areas, and Table 10

Learning: Insufficient funds, inadequate numbers of computers, lack of computer literacy among teachers. Lack of subject teachers.

A national survey conducted in 2000 highlighted factors preventing schools from using computers as a tool for teaching and learning. Specifically, low percentage of computers for educational purposes, while only approximately 4% of schools in the Eastern Cape do so. Over 60% of the schools in the Western Cape have computers, but only about 9% of schools in the Eastern Cape have computers in schools with a country average of 45%. These statistics show the particularly low percentaghe use of computers in schools for teaching and learning. Over 60% of the Cape have computers in schools, but only about 9% of schools in the Eastern Cape have computers in schools with a country average. There is great variation in the number of schools with computers in the country. For example, 99.9% of schools in the Western
education policy. More recently, the E-education strategy laid the framework for the government’s ICT work in education. There is
ICT and their use for development has been a key priority for South Africa. The country has a long history of ICT and
Khoisan, project and the North West Cape through the Community Project (Department of Education, 2004).

Significant progress has also been made with the implementation of ICTs in other provinces as well in the Western Cape. Through the
EDUCATION is getting ahead of itself by investing in technology, instead of the basic infrastructure (Stoppard, 2002).

Many schools in the province do not have basic services — like, water and electricity. The Department of

<table>
<thead>
<tr>
<th>Source: Department of Education, 2004a</th>
</tr>
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<tbody>
<tr>
<td>National</td>
</tr>
<tr>
<td>Western Cape</td>
</tr>
<tr>
<td>North West</td>
</tr>
<tr>
<td>Limpopo</td>
</tr>
<tr>
<td>Northern Cape</td>
</tr>
<tr>
<td>Mpumalanga</td>
</tr>
</tbody>
</table>
The projects have been implemented by donor agencies on a project basis. As a result, these projects remain...
Appendix 23 Select Government, Private Sector and NGO Activities to Bridge the Digital Divide (1999-2004) for some highlights of these initiatives.)

In addition, key TNCs, including Intel Corporation and Cisco Systems, have funded initiatives to support the integration of technology for teaching and learning. Cisco is working in each province to train teachers on ICT Essential courses. There was a study commissioned in South Africa that found that “by 2009 South Africa would need 114,000 networking professionals” [Personal Interview D22, South Africa, Corporation]. Cisco Systems is working with the national government to roll out “local Academies through all its Further Education Training certification institutions and over 30 colleges so that students graduate with government certification and industry certification to have a greater chance of employability” [Personal Interview D22, South Africa, Corporation]. Intel Corporation started its program in 2003 in South Africa. It has trained 43,000 teachers on using ICTs in education and has provided free curriculum and manuals for all educators. It has been a priority for government to ensure that these activities fit within the government’s framework to use ICT in education [Personal Interview D20, South Africa, Corporation].

A government document states,

There are a number of private companies, local and international donor agencies that have committed funds to education. More recently there has been a growth in support of developments in the ICT area. Through this strategy, additional resources will be mobilised and co-ordinated from a central point to ensure equitable distribution of resources to the most needy areas of the country. (Department of Education and Department of Communications, 2001, p. 28)

The document further states:

These developments (the E-education White Paper) were followed by several policy initiatives driven primarily by the desire to establish clear decision-making frameworks at a national level to ensure that educational technology decisions were driven by educational motives and not by the marketing agendas of technology vendors (p. 84)
Although the government’s ICT-and-education policies have played catch up in response to donor-led activities, government has organized many forums and policies that have explicitly encouraged the private sector to engage in this space. The Presidential Task Team on the Information Society and Development, during its first meeting in October 2001, identified public-private partnerships as one of its key areas of focus (Department of Education and Department of Communications, 2001). In the *Strategy for ICT in Education* document, Minister of Education, Kader Asmal stated that:

There is a particular emphasis about the role of the public-private partnership to fund technology investments in schools. Extensive provision of ICT is however beyond the financial resources of the government alone, and partnerships with donors and the private sector will therefore be a critical success factor (Department of Education and Department of Communications, 2001, p. 4).

The Minister of Education, Naledi Pandor, in her forward to the *E-Schools White Paper* stated explicitly that the “White Paper represents a new framework for the collaboration of government and the private sector in the provision of ICTs in education” (Department of Education, 2004, p. 6).

The White Paper further states that:

Given the magnitude of the task and additional resource requirements, investment in ICTs cannot be the sole responsibility of Government. Investment from the private sector and other resources will be required to supplement Government contributions (p. 35)

Although tensions remain about private sector engagement in the ICT-and-education arena, the private-sector has been encouraged to participate in financing technology and programs to further the use of ICTs in South African schools.

### 7.0.1 Open Source Software in South Africa

South Africa also has a long history in promoting and using open source software (see Chapter 4 – Free and Open Source Software Threats). There have been various campaigns and initiatives to raise the awareness of open source software in South Africa. The Go Open Source
campaign was a 2-year campaign that was launched in October 2004 and cost R18 million. The campaign was launched by several organizations, including The Shuttleworth Foundation, Canonical, Meraka Institute and other companies (Gopalakrishnan, 2006). The main argument according to Gobalalakrishnan (2006) is that:

... Open Source Software (OSS) helps retain a large amount of money within the South African economy, which is otherwise paid out as licensing fees to foreign coffers. South Africans spend a whopping R6 billion on software licensing every year! (p. 55)

Mark Shuttleworth, a high-profile South African entrepreneur and founder of The Shuttleworth Foundation, is taking Microsoft head on by “pioneering free computer software he hopes will revolutionise the way computers are used, and make the internet accessible to millions in Africa and other emerging markets” (Reuters, 2006). The Shuttleworth Foundation was established in 2001 with the aim of driving social innovation in the field of education and technology. The Foundation promotes the open source philosophy through the “promotion of open source, open standards and open information access.” It further believes that, in an African context, this open philosophy is an enabler for education and key to progress (Shuttleworth Foundation, 2007). It advocates the use of open source software for the education sector (Gopalakrishnan, 2006). For example, Ubuntu\(^{11}\) is a free Linux-based operating system that can be downloaded from the Internet. Edubuntu aims to bring the Ubuntu operating system to the education environment in schools (Ubuntu, 2007). The Shuttleworth Foundation is testing Edubuntu on a pilot basis in 200 schools in different provinces, with the aim of sharing learnings in 30,000 schools in South Africa [Personal Interview D11, South Africa, NGO]. Another initiative, tuXlabs, is aligned with the *South African E-Education White Paper* that aims to develop solutions for schools based on an open source philosophy (tuXlabs, 2007). Get Open

\(^{11}\) Ubuntu is an ancient African word which means “humanity to others” (Ubuntu, 2007)
Labs is a private-sector initiative and has the highest uptake of computers on open source platforms used specifically in educational systems in Africa (Get Open Lab, 2006).

Like many other countries, the Government of South Africa is the largest user of ICT and is also the largest user of proprietary software. The South African government began debating open source software in 2001 by asking that briefing materials be prepared by the Government Information Technology Officers Council (GITOC). It also commissioned background research to be conducted by the National Advisory Council on Innovation (NACI). The work conducted through these initiatives led to the recommendation that open source platforms be promoted, given the increasing costs for software licenses for employees being paid by the South African government. In 2002, the State Information Technology Agency (SITA), which procures software for the public sector stated that its budget for software licenses, upgrades and support was to be ZAR 9.4 billion and that free/open source software would save the government up to ZAR 3 billion. In 2003, the Cabinet endorsed a Free and Open Source Software policy, which recommend the use of open standards and procurement in cases where a merit-based comparison shows that either solution is suitable (Schmidt, 2005).

Media accounts reported that,

> South Africa - Africa's richest country - says it "firmly supports" open source software but, delighted with Microsoft's pledges for IT centres and computers in schools, has stopped short of rejecting proprietary software altogether. (Reuters, 2006)

The Meraka Institute, a national strategic initiative from President Mbeki’s 2002 State of the Nation Address, aims to facilitate social and economic development through the use of ICTs. The ICT in Education Research Group of the Meraka Institute directly supports the 2004 Education White Paper through the use of open source platforms. The CSIR (Council for Scientific and Industrial Research) and the Department of Science and Technology launched the
CSIR’s Open Source Centre in 2003 as part of the Meraka Institute. The Open Source Centre was an affirmation of the government’s support for open source software (Gopalakrishnan, 2006).

Nhlanhla Mabaso, manager of the Open Source Center at Meraka Institute states:

Open source is about using Africa’s scant resources wisely, and about systems designed for Africans by Africans. We missed the industrial age, now we are in the information age and we don’t want to miss that too. It is not possible for the one dominant company in the office space to customise the solutions needed to empower people in Africa. (Reuters, 2006)

Mabaso further states:

I’d like to point out that from the social, macroeconomic and political angle, free software aligns with the nature of South Africa’s developmental state and its role in contributing to the African renaissance and the collaboration of the developing world to end poverty, disease and other ills. The Freedom Charter, a document adopted in 1955, forming the cornerstone of the country’s democratic constitution states: All the cultural treasures of mankind shall be open to all, by free exchange of books, ideas and contact with other lands. (Gopalakrishnan 2006, pp. 55-56).

The government of South Africa has supported FOSS, more-so than many other African governments however, in 2002 President Thabo Mbeki accepted one of the largest proprietary software donations by Microsoft Corporation. Microsoft offered to make software available to South African schools free of charge. As of 2005, Microsoft had provided free software to approximately 6000 schools in South Africa (Schmidt, 2005). There has been great criticism by NGOs and FOSS supporters of the government’s acceptance of Microsoft’s gift (Personal Interview D26, South Africa, Government).

During question period in the National Assembly on August 16, 2006, Mr. V. C. Gore asked the Minister of Education, “What is her department’s policy with regard to the provision and use of open-source and proprietary software?” Her response was

The Education Department supports the open source movement in principle. However, in practice our position is that schools must be able to choose between proprietary and open source software. Through making agreements with Microsoft and Symantec, for example, we have made it possible for managers,
teachers and pupils to choose whether to use proprietary or open source software. (National Assembly, 2006)

Evidence was found in this study highlighting the internal tensions within government about accepting donations from proprietary software vendors. A participant states:

There is quite a bit of rhetoric about neo-colonialism and multinational corporations in terms of exploitation, strong communist and socialist type of sentiment in the country. Politics have changed, there is a strong voice in government circles some strong opinions that we shouldn’t only be working with Microsoft. (Personal Interview D15, South Africa, Microsoft)

Microsoft’s perspective on the open source issue is explained by a participant as follows:

Government has no open source policy. For Microsoft open source is a threat, but not more so than IBM or Oracle. The key difference is that open source is currently an emotional issue in the country. What is the point of an IT economy if software is free? Who holds ultimate accountability and who holds responsibility if something goes wrong? What is the economic advantage perspective of open source? (Personal Interview D13, South Africa, Microsoft)

Steve Ballmer, Microsoft’s CEO, dismissed arguments that expensive proprietary software can impede the rollout of computer access to poorer communities by arguing that it is about “open choice, not just open source” (Reuters, 2006).

NGOs and the private sector have a long history in South Africa of supporting technology projects in schools. Government has explicitly encouraged the private sector to engage in this space. South Africa also has a long history of promoting and using open source software. In addition, there have been significant internal tensions within government about accepting
donations from proprietary software vendors. It is within this backdrop that Microsoft developed and implemented the PiL program in South Africa.

7.2 The Partners in Learning Program in South Africa

7.2.1 Evolution of the PiL Program

The PiL was developed as a result of several meetings and initiatives (see During Mbeki’s state-of-the-nation address to Parliament, he announced that Microsoft was to provide free software for all of South Africa’s 32,000 government schools (Mbeki, 2002). However, following the announcement, the Minister of Education stated that only 10,000 schools were equipped to benefit from the Microsoft donation (Bridges.org, 2002a). Eventually, the software reached only 4,000 schools, 60,000 teachers, and 2.8 million pupils in all provinces (National Treasury, 2003). Although the software donation preceded the PiL program, it laid the foundation for it. Since then, Microsoft has channelled substantial resources to the education sector in South Africa.

The PiL program in South Africa began in 2004, with negotiation of a 4-year MOU between the national Department DOE and Microsoft South Africa (Personal Interview D16). According to the MOU, the PiL program will help

Empower schools to significantly raise the level of ICT literacy amongst their staff, support teachers and schools to develop an internal culture of innovators, work with schools in preparing students for the digital workplace and empower Provincial Departments of Education to support and raise the level of ICT literacy amongst teachers and students. (Microsoft & National DoE, 2005)

Bill Gates first visited South Africa in 1997 and met with then-Deputy President, Thabo Mbeki. During his visit Gates said,

Microsoft has always taken this region very seriously and we view South Africa not just as a launch pad into the rest of Africa but as one of the most advanced countries in its use of technology... Africa is one of the most exciting continents
we are working in at the moment, and despite its complexities, we see it as one of the fastest growing regions that Microsoft is currently operating in. (Microsoft Corporation, 1997k)
Table 11

Key Meetings and Activities in South Africa

<table>
<thead>
<tr>
<th>Date</th>
<th>Key meetings and activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>Windows 95 launched in South Africa</td>
</tr>
<tr>
<td>1997</td>
<td>Bill Gates visits and meets with Deputy President, Thabo Mbeki</td>
</tr>
<tr>
<td>2002</td>
<td>Bill Gates meets with Nelson Mendela and Thabo Mbeki</td>
</tr>
<tr>
<td>2002</td>
<td>Microsoft donates free licensed software to all schools in South Africa for 3 years</td>
</tr>
<tr>
<td>2004</td>
<td>PiL MOU negotiations began</td>
</tr>
<tr>
<td>2005</td>
<td>PiL MOU signed on March 31 between Microsoft and Department of Education</td>
</tr>
<tr>
<td>2006</td>
<td>2002 free software-licence donation extended for a year</td>
</tr>
</tbody>
</table>

During a meeting with Nelson Mandela and Thabo Mbeki in 2002, Bill Gates asked, “How can we help?” [Personal Interview D13]. This question eventually led to Microsoft donating free licensed software to all schools in South Africa in 2002. The national Department of Education (DOE) signed a 3-year agreement with Microsoft to accept free software with a market value of R83.6 million. It was the largest single corporate donation that the country’s education system had received (National Treasury, 2002).

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Empower schools to significantly raise the level of ICT literacy amongst their staff, support teachers and schools to develop an internal culture of innovators, work with schools in preparing students for the digital workplace and empower Provincial Departments of Education to support and raise the level of ICT literacy amongst teachers and students. (Microsoft & National DoE, 2005)

The PiL program’s aims are:

- to prepare students in South African schools for the knowledge economy;
- to significantly raise the level of digital literacy with students, teachers and also the wider community;
- to help develop a culture of innovative teaching and learning in South Africa’s schools; and
- to assist in building a sustainable ICT model for education in South Africa. (Microsoft & National DoE, 2005)

Discussions between the national DoE and Microsoft highlighted the need to improve access to, and use of, ICT in primary and secondary schools.

Many people were involved in the South African PiL program at different levels, including a small group of staff who were hired to specifically run the PiL program. Local PiL staff hired include Academic Program Managers (past teachers with substantial experience working with ICT-in-education), a manager for the African School Technology Innovation Centre (STIC); and another to process the South African schools agreement for K-12 public schools [Personal Interview D16]. Microsoft also had a National Technology Officer (NTO) in South Africa, whose role was “to ensure the adoption of technology policies by national, regional, and multilateral government
agencies to enable Microsoft to expand market opportunity” [Personal Interview D17]. This individual did not directly take part in the PiL program but attended PiL events. (See Appendix 24 for the roles and responsibilities of the National Technology Officer).

Microsoft attempted to establish a PiL advisory committee (called the Leadership Forum in South Africa). As of November 2006, Microsoft had organized two Leadership Forum meetings. Microsoft was criticized at the second Forum for its efforts to bring together the group and was questioned about its role in organizing such a group. Forum participants felt that the DoE should have organized such forums. No additional meetings were organized by Microsoft.

7.2.2 PiL Framework Tool for ICT in Schools

Microsoft’s negotiation with the government was facilitated by the PiL Framework Tool for ICT in Schools (also called the Pathfinder Blueprint). The Framework, which was not available to the Jordan PiL program, helped Microsoft PiL staff identify gaps in the education system that the government wanted to fill. First, the government identified its objectives in bringing ICT into education and analyzed the system’s current position in relation to those goals. The objectives (targets) and current position (scores) were measured on a percentage scale. The government calculated the gaps between the targets and scores and asked Microsoft to help fill them through its PiL program (Microsoft Corporation, 2005a, 2006f). Gaps were grouped according to the PiL framework critical components and available PiL solutions (programs) that could fill the gaps (see Appendix 25 for Microsoft’s Blueprint for Implementing ICTs in Schools).

In describing the PiL negotiation process, a Microsoft employee explained that
…The discussions included a very high-level overview in terms of Microsoft’s commitment to education and an opportunity to understand exactly what the challenges and the needs are from government’s perspective. We balanced the broad framework from a core Microsoft perspective and the needs for them [government] to localize that, so they [government] would sort of respond to their needs. So government would have had an opportunity to almost devise a wish list of sorts. And the response from the APM would have been to say, ‘Well, these are areas that we are able to respond to in one way or another, even directly or through partners.’ There are certain areas – their infrastructure needs and connectivity needs in education – that are focus areas outside of the Partners in Learning Program. So it was a process, I think, of it almost as a negotiation, as opposed to saying, ‘This is what we are coming to do in your country. We believe this is best for you, and therefore you need to adopt this.’ [Personal Interview D16]

The South Africa PiL program was aligned with the global PiL framework. The latter enabled Microsoft subsidiaries to pick and choose different components of the PiL program, given the needs of their respective country’s ministries of education (see A Microsoft employee told me,

You obviously need to be very cautious about not prescribing, so you work through a process of understanding about what their [government’s] needs are. We probably managed to accommodate 90%, I argue, of government’s needs and priorities. [Personal Interview D15]
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Table 12  
*Microsoft’s Partners in Learning Framework Tool for ICT in Schools*

<table>
<thead>
<tr>
<th>Critical Component</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Leadership</td>
<td>Build leadership forum to provide momentum and harness public-private partnership</td>
</tr>
<tr>
<td>2. Policy</td>
<td>To make clear what government is trying to accomplish</td>
</tr>
<tr>
<td>3. Research</td>
<td>Build national institution with knowledge and ability to measure</td>
</tr>
<tr>
<td>4. Access</td>
<td>Build refurbishment centers, create national PC programs, use satellite broadcasting</td>
</tr>
<tr>
<td>5. Innovative Solutions</td>
<td>National agreements to provide software access to all schools</td>
</tr>
<tr>
<td>6. Curriculum</td>
<td>Get content for immediate use, build national capacity to create local content, adapt existing curriculum</td>
</tr>
<tr>
<td>7. Training</td>
<td>IT Academies in schools and teacher training centers</td>
</tr>
<tr>
<td>8. Community &amp; Partners</td>
<td>Build Innovative Teacher Networks, train partners to implement and support</td>
</tr>
<tr>
<td>9. Support</td>
<td>Education Support Centres, School Helpdesk Program</td>
</tr>
</tbody>
</table>

Source: Microsoft, 2006f

On Microsoft’s side, the PiL negotiation was facilitated by the Academic Program Manager (APM) in South Africa. The final draft of the MOU was signed on March 31, 2005 (Microsoft & National DoE, 2005).

7.2.3 *PiL Program Components in South Africa*

The PiL program’s purpose, according to Microsoft, is to “facilitate progress in terms of the achievement of strategic priorities both at national and local levels” (Microsoft & National DOE, 2005). Representatives of the DoE stated that the PiL program “supports priorities in terms of teacher development, hardware, software, research, monitoring and evaluation” and “allows provincial departments to achieve the
The PiL program’s key components and corresponding description within the PiL MOU are highlighted in Error! Reference source not found..

**Key South Africa PiL Components and Memorandum of Understanding (MOU) Descriptions**

<table>
<thead>
<tr>
<th>PiL component</th>
<th>Description from MOU</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Microsoft IT Academies</strong></td>
<td>Working with the DoE and Education Institutions, Microsoft will facilitate the roll out of Microsoft IT Academy Centres, in order to facilitate low cost training, assessment and certification in Microsoft Technologies. In conjunction with the DoE, Microsoft will help fund the Partners in Learning level IT Academy for Teacher Training Centres, and provide free [on-line] curriculum, aimed specifically at school children and teachers. (Microsoft &amp; National DoE, 2005, p. 3)</td>
</tr>
<tr>
<td><strong>International Teachers Network</strong></td>
<td>Microsoft will work with the DoE to build a community of innovative teachers, with the goal of sharing experience and expertise to improve the quality of teaching and learning by collaboration, innovation, and the sharing of resources that facilitate the integration of ICT into the local curriculum. (Microsoft &amp; National DoE, 2005, p. 3)</td>
</tr>
<tr>
<td><strong>ICT Training Curriculum and Support for Schools</strong></td>
<td>Microsoft will work with the DoE and Provincial Departments of Education (PDoE) to provide a model for low cost training and technical support to schools, enskilling core training units within each PDoE to Microsoft Office Specialist IT Academy level, who in turn will be responsible for training educators within their provinces. Sectors of the core units can further develop skills to provide ICT technical support to their schools. Additionally, Microsoft will assist PDoEs to introduce a Student Helpdesk (Computer Club) model which will enable students within cluster schools to provide first line support to common technological and infrastructural problems. (Microsoft &amp; DoE, 2005, p. 3)</td>
</tr>
<tr>
<td><strong>Fresh Start Program</strong></td>
<td>Microsoft will license all pre-used PC’s that are donated directly to schools in South Africa up to and including Pentium II or equivalent for the use of the Windows 98© or Windows 2000© Operating System, and will donate the required media to load either the Windows 98© or Windows 2000© Operation System. PC’s that are Pentium III or newer and include a Certificate of Authenticity on the machine are covered to re-install the Operating System. For those schools that cannot participate because they have no internet access, Microsoft will authorize education department officials at provincial offices and/or a national NGO to register these schools on their behalf. (Microsoft &amp; DoE, 2005, p. 4)</td>
</tr>
<tr>
<td><strong>Schools Software Agreement</strong></td>
<td>Microsoft commits to continue with the current South Africa Schools Agreement and, as requested, transfer management of the program to PDoEs (Microsoft &amp; DoE, 2005, p. 4)</td>
</tr>
<tr>
<td><strong>African School Technology Innovation Centre</strong></td>
<td>Microsoft in partnership with the DoE and other partners will endeavor to establish a STIC, at a government owned venue. The STIC is a school center for best practice and innovation in the effective use of ICT in teaching and learning. Amongst others, the center will consist of the following: Learning laboratory – area where sponsors are able to showcase technology. Meeting room – area for meeting and hosting VIPs from visiting regional countries or in-country delegations. Training Room – used for Teacher Training for ‘Innovative Teachers’ – these would be</td>
</tr>
<tr>
<td>PiL component</td>
<td>Description from MOU</td>
</tr>
<tr>
<td>--------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Evaluation of PiL</td>
<td>As part of the PiL program, Microsoft had committed to conduct long term research and evaluation on the impact of PiL on the standards of teaching and learning. A prominent consulting company was commissioned to conduct the final year one research and evaluation report on the PiL program in South Africa. (Microsoft Corporation, 2006g)</td>
</tr>
</tbody>
</table>


I describe each of the components below. Where possible, I indicate the extent of Microsoft’s engagement in each particular area, with quotes from research participants about the PiL program and their perceptions of it.

First, Microsoft partnered with Intersoft Corporation to establish Microsoft IT Academies. The aim was to target nodal public schools, to support the national employability and skills development strategy. In fiscal year 2006, 23 sites signed up for this program (Microsoft Corporation, 2006g).

Second is the Innovative Teachers Network (ITN). The ITN aims to complement the national DoE’s Thutong government portal by providing online communication functionality that enables teacher collaboration (Microsoft Corporation, 2006g). Interestingly the ITN in South Africa is hosted on the national DoE’s education portal and not on a Microsoft portal. A consultant commented,

In other PiL countries, Microsoft tends to take an independent approach to how it rolls out educational ICT programs, like ITN for example, which is an independent portal. In South Africa, it’s part of the national education portal.

[Personal Interview D19]

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12 See http://www.thutong.org
The third component is the ICT training curriculum. Microsoft’s original intent was to use four training modules developed by Microsoft UK: Schools ICT Training, ICT Curriculum Integration, Basic Schools Helpdesk, and Advanced Helpdesk. A government employee told me that the materials were not pedagogically sound and omitted leadership training [Personal Interview D3]. Another participant, a consultant, said that the

Basic ICT skills materials from Microsoft were not aligned with the South Africa teacher framework. They were very text-rich documents and procedures. The resources received from Microsoft had lots of assumptions, assumptions about access to ICT and resources that aren’t available in all South African schools. Microsoft’s resources were online, however, we often don’t have access to the Internet, so we have had to transfer materials onto a CD. The picture Microsoft paints about what happens in schools is different for South Africa. Some schools are resource based, but most are not. And thus we needed to make materials relevant. There were also assumptions about the resources we had. We needed more simplicity in our language, and there were lots of assumptions about what happens in schools in South Africa. [Personal Interview D27]

As a result of these concerns, SchoolNet South Africa was commissioned to be Microsoft’s local implementation partner for developing and delivering a range of teacher ICT-integration training. SchoolNet South Africa is a leading NGO involved in professional development programs in ICT integration and school ICT leadership in South Africa. In addition to partnering with Microsoft, SchoolNet is also the national agency for Intel’s teacher development program, Intel Teach to the Future.
Microsoft also engaged LearnThings, a South African NGO working in many African countries. LearnThings was commissioned through the PiL program to give curriculum developers throughout Africa an idea of what kind of digital content is available through Microsoft [Personal Interview D8].

The PiL program also contributed to teacher development in South Africa. As of June 2006, more than 6600 educators, master trainers, and provincial ICT coordinators had received ICT Skills for Teachers training (see A government employee questioned Microsoft’s and SchoolNet’s capacity to train all of South Africa’s 300,000 teachers:

They’ve only trained about 7000 teachers. They started in 2005, so it has been 2 years. We need to train 300,000 teachers in the country in the use of ICT. So it’s a drop in the ocean at the moment. So we have been talking to them and saying, ‘You have to expand.’ [Personal Interview D3]

A substantial part of the PiL program has been localization of training materials and of the teacher-training program.

The fourth PiL component is the Fresh Start program. Microsoft provided free software licenses for computers donated to schools. Fresh Start was at the beginning stage when data for this study were collected. Microsoft had mailed brochures about the program to 500 corporations and government departments to raise their awareness of the program. (Microsoft Corporation, 2006g).
Table 13).

A government employee questioned Microsoft’s and SchoolNet’s capacity to train all of South Africa’s 300,000 teachers:

They’ve only trained about 7000 teachers. They started in 2005, so it has been 2 years. We need to train 300,000 teachers in the country in the use of ICT. So it’s a drop in the ocean at the moment. So we have been talking to them and saying, ‘You have to expand.’ [Personal Interview D3]

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Table 13
*PiL ICT Skills for Teachers Training*

<table>
<thead>
<tr>
<th>Training program</th>
<th>Year to date</th>
<th>Period to date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers – HelpDesk</td>
<td>93</td>
<td>93</td>
</tr>
<tr>
<td>Master Trainers – HelpDesk</td>
<td>126</td>
<td>138</td>
</tr>
<tr>
<td>Principals – ICT Leadership</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Master Trainers – ICT Leadership</td>
<td>51</td>
<td>58</td>
</tr>
<tr>
<td>Teachers – Webquest</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Teachers – Basic (PiL Teacher Training)</td>
<td>5103</td>
<td>6136</td>
</tr>
<tr>
<td>Senior Trainers – Basics</td>
<td>75</td>
<td>131</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>5496</strong></td>
<td><strong>6602</strong></td>
</tr>
</tbody>
</table>

Source: Microsoft Corporation, 2006g

Fifth, under the Microsoft Licensing program, South Africa was the only country in the world to receive free software for its schools. See Appendix 26 School Agreements for Free Software in South Africa shows the number of schools that had signed School Agreements for software as of June 2006.

The PiL program’s sixth component is the African STIC. The STIC is based at Central Johannesburg College. When I was collecting data, Microsoft was beginning to partner with Cisco Systems and Mercer on the STIC project (Microsoft Corporation, 2006g).
The last PiL component is evaluation of the PiL program. An independent consulting firm was commissioned to evaluate the PiL program in South Africa. I was not aware of a formal evaluation of the Jordan PiL program.

Together these seven above-described components comprise Microsoft’s engagement in South African education. These components offer a suite of activities that, together, give teachers and students access to free software and help develop the education sector’s capacity to use technology.

7.2.4 Microsoft’s PiL Partnerships in South Africa

Similar to Jordan, one of Microsoft’s key strategies was to partner with education stakeholders to implement the PiL program. Both the national DoE and NGOs contributed to the legitimacy of Microsoft’s education efforts in South Africa. The DoE worked hard to ensure that the company’s PiL activities fit government priorities and were tightly integrated with governmental initiatives and programs. A consultant explained,

You see, the interesting difference in South Africa, from my understanding from other countries [is that], in other countries Microsoft tends to take an independent approach to how it rolls out educational ICT programs. For example, the International Teachers Network (ITN) in other countries is an independent Microsoft portal. In South Africa, it’s part of the national DOE’s portal … There is tighter governmental integration in South Africa than other countries. [Personal Interview D19]

A second group of Microsoft partners is NGOs. In South Africa, NGOs have a long history of bringing technology to schools and helping to build the ICT capacity of teachers. A Microsoft employee explains,
The NGO movement of ICTs in education in South Africa has had a depth of understanding lacked by the Department of Education, which was all technology and application focused. [Personal Interview D16]

Microsoft partnered with leading NGOs to develop and adapt components of the PiL program to the South African context. A few NGOs represented Microsoft to teachers and educational administrators through their delivery of PiL training and other activities. Microsoft’s partnerships with NGOs were not in the form of donations; rather, Microsoft paid NGOs to provide services. An NGO executive director told me,

So when you say [ask] how much Microsoft has given us, they have never actually given us anything. They have only paid us for services rendered. You know what I mean? Intel paid upfront; they give us money at the beginning of the year, and we get some and use it throughout. And that occurs quarterly. Whereas Microsoft will only pay after we’ve done the work. So it’s amounted to quite a large amount. I haven’t really got the handle on this. I think last year we must have done projects for over 2 million Rand. This year it’s about 3 million Rand. [Personal Interview D10]

TNC relationships with NGOs have shifted, given the PiL program. Microsoft used NGOs as subcontractors, not paying for the NGOs to act on their own missions but rather to carry out the work of Microsoft. NGOs also helped Microsoft enter the education sector in South Africa by partnering with government to implement the PiL program through public schools.
7.2.5 Program Shifts in South Africa

Shifts in the activities of the PiL program occurred as a result of changes in government priorities as well as internal Microsoft issues. One key priority communicated by government for Microsoft was to assist provincial departments of education to ensure ICT skills after secondary school graduation to meet labour-market needs. In Year 1 of the PiL program, Microsoft focused 80% of its capacity-building effort in schools and 20% on the national and provincial DoEs. In fiscal year 2007, Microsoft shifted its focus: 30% in schools and 60% to 70% on DoE trainers (Personal Interview D16). The aim of this shift was to develop the capacity of the DoE trainers.

In response to challenges, needs, strategy, and policy development by the President and the Ministry of Education, as well as feedback from teachers, from fiscal year 2007 onward the PiL program coalesced into three areas: (a) digital inclusion (access to software and innovative solutions), teacher training, DOE capacity building, and deployment of the Digital Literacy Curriculum, (b) employability, furthering the ASGISA@MS strategy\(^\text{13}\), and (c) effective, efficient administration of education through building local capacity for content development as well as Information Worker training for provincial and national DOE staff, and support in building a national, comprehensive, integrated Education Management Information System (EMIS) (Personal Interview D16).

As in the Jordan PiL program, tension within Microsoft led to shifts within the South Africa PiL program. One Microsoft employee in South Africa expressed concern about a shift in PiL leadership at Microsoft headquarters:

\(^{13}\) Microsoft South Africa strategy comprising all initiatives and programs related to education, training and skills development in South Africa.
The new leadership was focused on gains and return on investments [ROI] through PiL. You were required to measure ROI (i.e., how was teacher training in a certain program going to translate that into licenses?) Initially, we were told in Egypt at a meeting that there were no sales pressures. PiL was a fantastic program, and there was no need for Microsoft to push for this [measures sales outcomes from PiL]. The perception of the program changed with the new leadership. There were budget constraints. I was beginning to receive the same message from all the sales and marketing departments from South Africa and, at the same time from Europe, the Middle East, and Africa [EMEA], and Redmond. There was still mixed messages that PiL manager focus was not sales. (Personal Interview D22)

Within South Africa, there was also a shift in PiL priorities in the second year. The same participant told me,

In Year 2, Microsoft was cutting back on CSR activities. If actual commitments were not made, then funds were not dispersed in Year 2. In some countries, if the PiL managers [APMs] did not spend any of their Year 1 budget, then they wouldn’t get it rolled into Year 2, especially if the funds were not committed to government. If an APM could show that the commitment was made, then you got the budget. In South Africa, the 2<sup>nd</sup>-year budget was greater than the Year 1 budget, because they had already committed activities. (Personal Interview D22)

There was also tension between the PiL program and the education sales team in South Africa. A Microsoft employee told me,
Education sales [staff] were envious of the budget PiL had. They would try to tap into the budget wherever possible. The budget was illegally used to hire a temp to do education sales. The temp spent 30% of their time on PiL and the rest of the time on education sales. This was something forced on PiL. We had no choice.

(Personal Interview D15)

In 2008, Microsoft announced that it was renewing the PiL program worldwide for another 5 years – from its CSR budget, not its marketing budget, as was the case during Phase 1. Similar to the Jordan case, this highlights the tension within Microsoft between short-term sales and the long-term goal of becoming a transnational actor in education policy.

7.3 Microsoft’s Entrance and Policy Role in Education

The policy environment in South Africa is vibrant, with a history of civil-society and corporate engagement in the ICT-in-education arena. Government has, to a limited extent, shared responsibility for ICT-in-education with other actors and does not have sole decision-making responsibility in education, as in the Jordan case. The South African case highlights how a powerful TNC entered a policy space filled with many actors, with which the government had already engaged. What makes Microsoft unique among actors in South African education is its extensive resources, expertise, and activities.

7.3.1 Entrance into Education Policy

Microsoft’s entrance into South African education was facilitated by its doing good activities and its engagement of educators. As part of the company’s cultural shift toward doing good work in education, Microsoft worked closely with South African educational stakeholders and tried to intimately understand the country’s education sector. It hired well known, credible
educators who were perceived to be doing good in education, instead of employees with a strictly business background. A Microsoft employee told me,

The PiL program had an agenda from the outset to get educationists on board to drive this particular program, as opposed to taking someone from a sales/account management perspective and almost repurpose them for the PiL program. And I think that’s been their great strategy. (Personal Interview D16)

Another participant, active in the open source software movement in South Africa, was offered a job by Microsoft. The participant, who works for the government, commented, “This was a very lucrative job, the most lucrative I’ll ever be offered in my life” [Personal Interview D26]. The participant decided to not accept the offer.

Microsoft’s hiring of prominent educators enabled it to enter the education sector very quickly and participate in activities to which it would otherwise not have had access.

7.3.2 Policy Role and Governance

Microsoft was able to engage in the education-policy process by offering its ICT-in-education expertise and resources through the PiL program. The DoE had an e-schools policy framework prior to the PiL program, unlike Jordan or other African countries in which Microsoft established PiL programs. In Kenya, for example, Microsoft helped the government develop and implement an ICT-in-education policy. A Microsoft employee explained,

When we engaged almost 3 years ago in Kenya, we were told by the USAID office that ‘You’re wasting your time. We’ve knocked on that door for the past 5 years. It’s never been open. You’re never going to be able to make progress that way.’ I think Kenya is really one of the success stories that I like to reference because, fortunately or unfortunately, we were forced to engage there as part of
the worldwide PiL model at that particular level, at the political level, and with
the Ministry of Education. So, 3 years down the line, what we are seeing now, in
Kenya particularly, is that for the first time, through the PiL engagement, the
Ministry of Education in Kenya is now spearheading ICTs in education. It’s
filtered into their policy, and it’s filtered into their strategy. (Personal Interview
D16)

Microsoft played a policy-development role even though the country already had a
detailed ICT-in-education policy (which was not the case in Jordan). The PiL MOU explicitly
outlined key strategic and programmatic areas of ICT-in-education focus for Microsoft and
government action. The extent to which government priorities were included in the PiL MOU is
questionable, given the alignment of the South Africa PiL program with the worldwide PiL
framework.

Microsoft’s entry into South African policy space was facilitated by the PiL MOU and
public-private partnerships. Similar to the Jordan case, Microsoft’s policy role extended beyond
traditional policy activities such as developing, funding, and implementing policy to include new
approaches and processes. Microsoft aimed to play a top-down and bottom-up policy role,
facilitated policy networks and shared best practices. Microsoft was operating at different levels
or scales: both within and outside the public education system. However, the company’s top-
down and bottom-up policy roles were much more limited in South Africa than in Jordan. From
a top-down perspective, Microsoft was able to implement the worldwide PiL program originally
developed in the U.S. and was able to aggressively promote its software at the presidential level,
despite the government’s preference for open-source software. A Microsoft employee told me
that the company wanted to foster
…“trusted advisor” - relationships with leading technology policy elites, academics, government decision makers, press, and analysts. (Personal Communication D17)

Microsoft’s membership on South Africa’s Presidential International Advisory Council on ICTs allowed the company to advise the government on ICT issues, including those pertaining to education [Personal Interview D13]. Microsoft staff in South Africa also met frequently with the Minister of Education and Deputy President to better understand their challenges.

Microsoft also maneuvered into education policy through a bottom-up policy approach, by partnering and working closely with NGOs, such as SchoolNet and LearnThings (see Section 7.2.4 Microsoft’s PiL Partnerships in South Africa, page 197). Although South Africa had a vibrant grassroots ICT-in-education movement, I found no evidence that the civil-society organizations invited Microsoft to participate in grassroots events and activities, except those Microsoft initiated or funded. I did, however, find that Microsoft used NGOs mainly as subcontractors, rather than “thought partners” or “policy partners.” It also appears that Microsoft’s top-down and bottom-up policy approaches in South Africa were more confined than in Jordan, given that the former had an ICT-in-education policy and many strong actors already engaged in similar activities.

As in Jordan, in South Africa Microsoft facilitated policy networks and shared best practices and its expertise. First, by fostering friendly competition, Microsoft encouraged certain ICT-in-education practices. Within the company, Microsoft awarded the best PiL Academic Program Manager with a prize each year. With its Innovative Teachers Award, Microsoft encouraged teachers to find innovative ways to use technology in schools.
Second, Microsoft rewarded teachers who used ICT in innovative ways through the PiL program. A government employee enthused,

Taking two teachers and flying them over to Philadelphia to go and learn and share ideas and take part in a bigger competition are real incentives. By providing them with laptops, there are incentives for other teachers to also aspire to win. So yes, I would say they’re doing a lot in terms of getting teachers to realize what ICT can do for you and education. (Personal Interview D3)

Third, Microsoft facilitated the sharing of best practices at many levels. Microsoft staff had substantial opportunities for exposure to learnings from different PiL programs.

Each year, the company held One-ed conferences, where all staff, even those with minimal responsibility for education, came together to exchange ideas, solutions, and challenges. The aim was to align all of the company departments that worked on education [Personal Interview D16]. Microsoft staff also participated regularly in regional conference calls to share best practices and had access to a worldwide Intranet that housed information and lessons from PiL programs worldwide.

Through Microsoft’s International Teachers Network (ITN), teachers had access to high-quality resources and were able to share best practices with teachers in other countries. Microsoft organized country-level and regional PiL forums and conferences for education stakeholders. For example, Microsoft’s Global Education Summit, held in 2007, brought together ministers of education, senior government employees, policy-makers, educators, and others to share best practices in creating schools of the future.

Microsoft also played a role that was unique to South Africa. It proactively implemented ICT-in-education by directly engaging with national and provincial
departments of education and ensuring that the company’s activities aligned with
government activities. Microsoft set up its South African PiL program to work through
government. A key role of the PiL Academic Program Manager in South Africa was to
work with provincial departments of government to help develop provincial
implementation plans. A Microsoft employee explained,

What typically happens, in terms of the provincial implementation plan, is
something that’s just emerged recently. So that’s changed in the response, again,
to the feedback from the provinces saying, ‘We’d like a better provincial-focused
plan, as opposed to a national plan.’ So, in a way, from courting countries in
Western, Eastern, and Central Africa, we can focus on one country with 10
independent players [provinces].

Essentially, through this process, Microsoft participated in the implementation of ICT in
education at the provincial level, extending its effort to influence education policy.

Although there was tremendous support for open source software in South Africa, as well
as other civil-society and corporate actors already engaged in bringing technology to schools,
Microsoft emerged as an important policy actor in education. Microsoft’s expertise was
instrumental in positioning itself as a policy authority in education. A Microsoft employee told
me that the company gained a reputation as an “innovation incubator for the continent in ICT and
education” [Personal Interview D16]. A South African NGO report concurred:

The Microsoft donation is an example of a big international company that is
taking concrete action to tackle the digital divide by giving the kinds of things that
is easy for it to give. This gesture by Microsoft sets a standard that other
companies should strive to meet. The initiative will help schools teach pupils
about computers and computing. And the more skills built among the nation's
youth – and especially technology skills – the better for South Africa as a whole.
The hope is that Microsoft’s move will be a catalyst to draw similar support from
other companies, such as offers of hardware, networking equipment and training
courses. The solution to the problems of the digital divide will be founded on effective cooperation among the private sector, government and civil society. (Bridges.org, 2002a)

It was ultimately Microsoft’s expertise and resources that distinguished it from other policy actors and contributed to its expert policy authority in South Africa.

7.3.3 Efforts to Influence Policy

Microsoft’s greatest impact in South Africa, which predated the PiL program by 3 years, was directly changing the government policy favoring open source software. Although the government supported open source software more-so than many other African governments, in 2002, President Thabo Mbeki accepted one of Microsoft’s largest donations of proprietary software (Schmidt, 2005). Microsoft was determined to have its software run school computers in South Africa. Nevertheless, in South Africa, schools chose whether to use proprietary or open source software (National Assembly, 2006); whereas in Jordan the government allowed only Microsoft’s software in schools. Microsoft tried to influence educational policy and practice in South Africa by becoming a policy actor at multiple levels of the education system. Microsoft also tried to influence the spread of ICT-in-education by supporting provincial governments in South Africa and by ensuring that company ICT-in-education activities aligned with provincial-governments’ (Personal Interview D16, Microsoft, South Africa). A government employee explained,

There is an influence from people like Microsoft. I mean, we are shaping our frameworks. There is leeway in how you implement this. You start seeing how provinces actually interpret our policies and implement our policy. So they are open for interpretation. It’s a guideline that points you to the right direction. There are different levels of prescriptiveness of the policy. (Personal Interview D1)
At the PiL program level, Microsoft attempted to have pedagogical influence on ICT-in-education activities. Central to these programs were Microsoft’s vision of ICT-in-education and products. Microsoft funded and implemented IT Academies for Teacher Training Centers and hosted an online curriculum for free (Microsoft & National DoE, 2005, p. 3). The curriculum was based on Microsoft software and other products. Microsoft also attempted to have pedagogical influence through its ICT training curriculum and training by providing its ICT Skills for Teachers training through SchoolNet to more than 6600 educators, master trainers, and provincial ICT coordinators. Also through the PiL program, Microsoft tried to influence the use of technology in education and, more specifically, increase the use of its products. The extent of Microsoft’s influence is unknown, given that I was not able to measure actual outcomes in this study.

7.4 Government Response and Tensions

7.4.1 Government Acceptance and Tensions

Development of the ICT sector was a key priority for South Africa for over 15 years. As discussed in the previous chapter, the door to have computers in schools was opened in South Africa when free software that was donated by Microsoft. However, for Microsoft there was much tension and skepticism even though President Mbeki had accepted Microsoft’s free software before the PiL program. There was resistance from some government departments about the national DoE’s decision to partner with Microsoft through the PiL program. A Microsoft employee explained,

PiL is an agreement with government. There is resistance in government about why are we signing with Microsoft on PiL. There is a strong open source voice in
government. This is also operating in the Department of Education. [Personal Interview D22]

Research participants indicated that the government’s reasons for accepting Microsoft’s greater role in education included the sheer volume and scope of Microsoft’s activities, its resource contributions and expertise, and pressure on the government to be seen doing something in the area of ICT-in-education. A government employee asked,

How can government refuse such investments? If I keep getting gifts from someone with deep pockets, if I’m a policy maker, I wouldn’t want to make them upset. Microsoft has made a strong statement against open source. [We] wouldn’t want to upset Microsoft. [Personal Interview D26]

Microsoft’s contribution to the economy in general terms was also a compelling reason to allow the company to play a greater role in South Africa. Microsoft commissioned BMI-Tech to estimate Microsoft’s direct and indirect contribution to South Africa’s GDP; the figure was more than ZAR9 billion. This includes revenue from distribution partners, such as resellers and training providers, in addition to direct sales (IDC/BMI-TechKnowledge, 2004). According to a Microsoft employee in South Africa, the BMI-Tech study found that

Microsoft’s growth to the economy is, for every $1 spent on Microsoft software, $6 to $7 of revenue is generated that comes back to the South African economy. Microsoft’s growth to the economy by stimulating local partner companies has enabled some of them to become multinational corporations in South Africa.

(Personal Interview D13)

In 2007, an IDC study commissioned by Microsoft found that software revenue grew by 12.2%, compared to 8.7% for the rest of the technology industry in South Africa. In addition, the
study predicted that over 6000 South African companies in Microsoft’s ecosystem\textsuperscript{14} would earn revenue in excess of R23 million and invest millions more in marketing, sales, research development, and support in local economies (Microsoft Corporation, 2007c).

Although the DoE had an ICT-in-education policy (the \textit{E-education White Paper}), it had not actually implemented the integration of ICTs in schools. Microsoft’s program contributed towards the country’s resource, expertise, and implementation vacuum in the area of ICTs and education. Government had access to proper tax revenues in South Africa, but was spending very little on teacher training and curriculum support to use technology in schools at the time of this study. There was also an expertise vacuum in South Africa. An academic told me,

\begin{quote}
The state has lots of money if they want to spend it on this. Government also has good people but not enough of them. Money will be put into ICTs; however, we don’t have the human resources to support this. Those who know how to do education and ICTs get good jobs outside of the country. [Personal Interview D25]
\end{quote}

Within the context of not contributing to ICTs in education, the DoE also felt pressured to be seen as doing something. An academic said, “There was a symbolic acceptance by government to be [seen] doing something” [Personal Interview D25]. According to James (2001),

\begin{quote}
The reasons for this unsystematic approach to making decisions are manifold; well-planned and executed marketing strategies can easily create unrealistic expectations about new inventions. This can lead to political pressure to make investments in such technologies, either at government or institutional levels, as
\end{quote}

\textsuperscript{14} Companies selling products that use Microsoft software, or companies that distribute and service Microsoft software.
decision-maker/s understandably wish to demonstrate their willingness and ability to stay in touch with the latest trends. (p. 128)

It is for all of these reasons together that Microsoft gained entry into the education sector in South Africa, despite much resistance and tension in South Africa.

**7.4.2 State Sovereignty and the Transformation of Policy Roles**

Transformation of state sovereignty also occurred in South Africa: the DoE shared its sovereignty with Microsoft by ensuring that the PiL program’s activities fit within the government’s priorities, frameworks, and programs. Although the government’s acceptance of free proprietary software predated the PiL program, the donation substantially impacted education policy in South Africa. First, it shifted sovereignty within the South African government from the DoE to the presidential level, given the President’s acceptance of Microsoft’s free-software donation. Although there was a clear DoE policy to only use open source software, the President accepted Microsoft’s software donation. The DoE needed Microsoft’s support to develop the capacity of teachers, and the education system in general, to use proprietary software effectively. Even though critics tried to keep Microsoft software out of South African schools, the DoE ended up sharing its sovereignty with this new, powerful actor in education.

The public policy context of South Africa ICT-in-education changed with Microsoft’s involvement. The DoE now shared its policy development, funding, and implementation role with Microsoft. In response to this, the government proactively integrated the key tenets of the PiL program through and into its own education and ICT policies, programs and activities. It aligned the PiL programmatic activities to complement existing programs or fill gaps not met by the DoE. A DoE employee explained,
The whole process [MOU negotiation] was around what we needed in the country. We already had an implementation plan in 2004, and we were looking for partners to actually deliver our educational policies. [Personal Interview D3]

Unlike in Jordan, where PiL was a stand-alone program implemented parallel to public-sector activities, the South African PiL program was tightly woven into DoE programs. Thus, the DoE played a public-integrator policy role. Although, in this case the PiL program was developed and funded by a private actor, at the implementation level, the DoE worked with Microsoft to integrate the program within the DoE’s programs and activities. For example, the basic ICT skills materials were reviewed in light of South Africa’s teacher-development framework [Personal Interview D27], training materials were aligned within the South African teacher framework, and the ITN was hosted on the National DoE’s education portal (Microsoft Corporation, 2006g). These examples highlight the DoE’s new role as a public integrator of ICT-in-education policy.

7.5 Microsoft’s Motivation for Entering Education Policy

Similar to the experience in Jordan, the motives driving Microsoft’s PiL program in South Africa were both business interests and social responsibility. On the business side, the PiL program was an important opportunity for Microsoft to test ICT innovations, through which it was able to enter, participate in, and learn about the education sector. It was also able to build strong relationships with various education stakeholders and test new ways to use technology in schools. Microsoft’s presence in education made the South African government aware of the company and allowed Microsoft to attempt to influence government technology choices and long-term purchasing decisions. The Framework Tool for ICTs in Schools, through which Microsoft negotiated the MOU, also highlights Microsoft’s business interests given that it was
technology focused. The PiL program also focused on proprietary software. For example, the STIC was integral to Microsoft’s ability to pursue its business interests, and Microsoft did not allow open-source software to be used in the STIC. This reinforced the government’s belief that business interests motivated the program. Overall, the PiL program components were tied to Microsoft products and services.

In addition to pursuing business interests, the PiL program was also driven by important social interests. The nature and structure of the PiL program established Microsoft as a corporate citizen of South Africa. Microsoft invested substantially in South African education; for example, by training thousands of educators and government employees. Jean-Phillippe Courtois, Microsoft’s then-CEO for Europe, the Middle East, and Africa stated,

Microsoft has made a long-term commitment to responsible corporate citizenship. As part of that commitment, and as a business with operations across Africa, we want to help advance social and economic well-being and to help address the key societal challenges associated with technology. Our goal is to bring potential benefits of technology to bear on the region in ways that are locally relevant. (Microsoft Corporation, 2004i)

By becoming a corporate citizen, Microsoft was, in a very short time, able to gain external recognition that contributed to its legitimacy in education. A Microsoft employee told me,

Microsoft has gotten CSR mileage through the PiL program. The mileage was tenfold in the public arena and on the Web within a very short period of time. Microsoft is now seen as [a] CSR player focusing on education. [Personal Interview D15]

The company plays a quiet role through its PiL program. Microsoft’s logo and name do not appear on any printed PiL materials. As a government employee commented, “I must say, Microsoft really underplays their contribution. They don’t make a big noise about it” [Personal Interview D6].
Microsoft’s work has been referenced in important government speeches and in press coverage, such as President Mbeki’s state-of-the nation speech to Parliament (Mbeki, 2002). These references to Microsoft gave exposure to the company’s work in education. A senior employee in the national DoE summarized Microsoft’s motivation.

I think Microsoft’s intentions are looking at education per se and how they can uplift the country and help in the economic growth in general. If you look at, obviously, at the other side – the commercial side of it – there is obviously a spinoff for them by introducing Microsoft products in, or getting the brand name into schools. If you put any Microsoft products in the school, and then the name is there, that is what the people see. So that is what people will buy, and that is what people will get used to. So, from a marketing point of view, it's actually a brilliant advantage. So yes, I believe they are doing good work; their intentions are honorable. But I do also believe that it has got great marketing spinoffs for them, as well as great commercial spinoffs for them, in the country and out of the country. I mean, they can say that, they go to another country, that ‘We are providing software for free to schools in South Africa.’ But there’s no such thing as a free lunch. And there's no such thing as a free donation, I believe, from anybody. We talk straight then, obviously for them, it’s marketing. But I think they’re doing a good thing. And I think the people that are doing it are [taking an] honorable approach. And because they [Microsoft PiL staff] are ex-educators, they just want to do the best for their people and in the schools in the country. [Personal Interview D3]
As in the Jordan case, for Microsoft there was no perceived contradiction between short-term profit and its longer term CSR role – as a representative of the ICT-in-education community in education policy making; however, tensions did emerge for staff. The company’s business and social motives helped Microsoft design the PiL program’s components and eventually enabled it to enter the education policy space in South Africa.

7.6 Microsoft’s Power, Authority, and Legitimacy in Educational Policy

Microsoft’s entrance into South African education engendered substantial tension and resistance, given that the country had one of the strongest open source software movements in the world. Microsoft’s market power played a pivotal role in shaping its entrance, partnerships, role in and impact on education. The software donation, the contribution of Microsoft’s business activities to the South African economy, and the structure and activities of the PiL program demonstrated Microsoft’s economic power and facilitated its entry into South African education.

In addition to economic power, Microsoft’s expert authority played a strong role in its entrance to South Africa. First and foremost, Microsoft gained expert authority through the PiL program. It provided Microsoft with a formal mechanism through which to share its expertise and successful practices with South Africa’s education community. According to a government employee, “There is an ICT-and-education vacuum in government that is being filled by Microsoft” [Personal Interview D26]. Jean-Phillippe Courtois, Microsoft’s then-CEO for Europe, the Middle East, and Africa stated,

Education ministries are telling me that they welcome the kind of expertise that Microsoft brings to the table, especially with the teacher training colleges and curriculum development agencies. In a sense, our work here in Africa is not only about the number of students and teachers we’re reaching, but also about the quality of the impact we’re making in the long run. (Microsoft Corporation, 2004i)
Microsoft’s material power and its expertise, together, contributed towards its legitimacy efforts in South African education. Microsoft also aimed to gain legitimacy through recognition and consent (Biersteker & Hall, 2002). Microsoft aimed to establish certain ICT-in-education practices, resources, and processes, which government and other policy actors recognized and adopted. Nonetheless Microsoft’s legitimacy was contested; it was not absolute. In the end, although Microsoft software was being used in public schools across South Africa, at a policy level, Microsoft did not gain complete legitimacy in South Africa’s education-policy landscape.

7.7 Conclusion

Dual motives led to the development of the PiL program in South Africa: both business and CSR interests. For senior executives of the company, there was no perceived contradiction between these two although tensions emerged about the balance between the two amongst staff.

Microsoft’s expert policy authority was central to its entrance and activities in the education space in South Africa. It worked with government to help implement key activities within the DoE’s e-schools policy framework by operating at different levels within and outside the public education system through the PiL program. Its top-down and bottom-up policy roles were, however, more limited, given South Africa’s strong support for open source software and active civil-society organizations that were implementing ICT-in-education activities. The company was still however, able to facilitate policy networks by organizing events and meetings as well as sharing its ICT-in-education best practices as a result of its expert policy authority in education.

The rationale for the DoE’s decision to partner with Microsoft outweighed the resistance it faced from open source software supporters, some departments in the government, as well as from some individuals within the DoE. Microsoft’s financial contributions and its expertise were central to the government’s positive response. This acceptance, however, was confined when the
DoE ensured that Microsoft PiL activities aligned with its priorities and programs; thus the DoE did not totally give up sovereignty, but shared it with Microsoft. ICT-in-education policy authority shifted from the DoE to the presidential level. It was also shared with Microsoft, through the government’s requirement that PiL programs fill gaps or complement DoE-run activities.
Chapter 8 – Cross-Case Analysis: The Jordan and South Africa PiL Programs

In this chapter I highlight key findings from the cross-case comparison of the Jordan and South Africa PiL programs. I kept a running list of major themes and findings from each case study and compared the insights and importance gained (Stake, 2006).

I first compare the ICT and education context and open source debates in the two countries. This is followed by a comparison of Microsoft’s policy and governance authority in Jordan and South Africa, which showed that Microsoft’s activities were directed by centralized, top-down policies and that the company sought authority by leveraging its policy expertise in both countries. In addition, the comparison highlights Microsoft’s very strategic nature, through its localization strategies and varied implementation of the PiL program in the two very different contexts. Next, I discuss the different government responses and shifts in policy authority in education. Lastly, I compare Microsoft’s motives, power, authority, legitimacy and sovereignty in the two different countries. The key comparative insights through this analysis are already set out in the two case studies and are linked to the literature presented in Chapter 2, as a basis for comparison and drawing conclusions in the final chapter.

8.0 ICT Education Policy and Open Source Software Debates

Both Jordan and South Africa used education as a key strategy to equip their citizens with the necessary skills to actively participate in and contribute to the knowledge economy. The policy processes in the two countries differed, given their respective forms of governance. The educational policy landscape in Jordan was dominated by “traditional, hierarchical top-down management” (World Bank, 2006, p. 3) reflecting the country’s constitutional monarchy where power is concentrated in the government. In South Africa, the policy process is more diffuse, with many policy actors involved in a vibrant ICT-in-education policy process. South Africa’s democratic polity and active grassroots organizations may have pressured the government to
respond by developing ICT-in-education policies, whereas, there were no ICT-in-education policies in Jordan.

The open source debate in the two countries also differed widely. It was easier for the Jordan Ministry of Education to allow the use of only one proprietary software platform in schools and no open-source software, when Microsoft offered them at a discounted price (Microsoft Corporation, 2003e). The case in South Africa was, however, highly politicized; in view of the country’s vibrant and active open source civil society. The South African government was able to negotiate free software for all South African schools (Schmidt, 2005) and, at the same time, allowed the use of both open source and proprietary software in schools (National Assembly, 2006). This again reflects the different forms and context of government and policy in the two countries.

8.1 Microsoft’s Policy and Governance Authority

8.1.1 Microsoft’s Centralized Worldwide Policies and Programs

Microsoft participated in transnational policy processes and programs through the worldwide PiL program, which transformed Microsoft’s vision and priorities into tangible activities around the world. In both Jordan and South Africa, MOU negotiations can be seen as policy-making processes incorporating contestation, politics, and resistance (Hill, 2005). By interacting with local educational stakeholders, including government employees, Microsoft showed leadership in trying to understand each country’s ICT-in-education needs.

In response to these needs, Microsoft provided policy solutions in both countries, drawn from its worldwide PiL framework which was primarily focused on the commercial use of its software for educational purposes. Interestingly, the strategic aims for PiL laid out in the MOUs of the two countries were exactly the same:
To prepare students in Jordan Education Sector/South African schools for the knowledge economy; to substantially raise the level of digital literacy with students, teachers and the wider community; to help develop a culture of Innovators; to assist in building a sustainable ICT model for education. (Microsoft Corporation, 2003h)

Table 14 summarizes the PiL global framework and compares the two countries’ PiL programs to the framework. The key tenets of the program were, for the most part, implemented in both countries.

Table 14
PiL Global Framework and Country Programmatic Activities in Comparison

<table>
<thead>
<tr>
<th>PiL global framework for ICT in schools</th>
<th>Jordan</th>
<th>South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership: Advisory Committee, leadership forums</td>
<td>No</td>
<td>Tried but not successful</td>
</tr>
<tr>
<td>Policy (Articulate to make clear what government is trying to accomplish)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Research: Build National institution with knowledge and ability to measure</td>
<td>No (but used a consulting firm with this expertise)</td>
<td>Yes</td>
</tr>
<tr>
<td>Access: Build refurbishment centers, create national PC programs, use satellite broadcast</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Innovative solutions: National agreements to provide software access to all schools</td>
<td>Yes, discounted software</td>
<td>Yes, free software</td>
</tr>
<tr>
<td>Curriculum: Get content for immediate use, build national capacity to create local content, adapt existing curriculum</td>
<td>Yes (commissioned corporation to develop new K-12 ICT-in-education curriculum)</td>
<td>Yes (commissioned NGO to customize Microsoft’s teacher training content)</td>
</tr>
<tr>
<td>Training: IT Academies in schools and teacher training centers</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Community and Partners: Build Innovative Teacher Networks, train partners to implement and support</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Support: Education Support Centres, School Helpdesk Program</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>School Innovation Technology Centre</td>
<td>Opened in 2005</td>
<td>Opened in 2007</td>
</tr>
</tbody>
</table>

Source: Microsoft & National DoE, 2005; Microsoft Corporation, 2003h, 2006f
The similarity of programs in the two countries suggests that Microsoft’s top-down approach in the PiL program was conceived at headquarters in the United States and implemented throughout company subsidiaries around the world. This practice is quite common, and is described as follows by Steiner-Khamsi (2004):

... prepackaged, modularized, and checklisted programs developed at the headquarters of international organizations and subsequently transferred to their field offices are easier to manage than locally developed programs. (p. 206)

Microsoft had developed centralized, top-down policies (McDonnell & Elmore, 1987; Taylor et al., 1997 p. 77; S. Taylor & Henry, 2000; Wise, 1984), which it implements in country-level PiL programs. The existence of the same aims and programs in the MOUs of two very different countries, in Jordan and South Africa, highlights Microsoft’s strategic efforts to pursue its goals uniformly in the PiL program across the world. Microsoft developed tightly controlled and centralized policies and programs, focused primarily on its core competencies and expertise, by providing access to Microsoft’s software and helping to develop the capacity of teachers and students to use Microsoft’s commercial technology for educational purposes in schools.

8.1.2 Globalizing through Localization Strategies and Variation in Implementation

Theories of economic-globalization argue that national economies are integrating into a new world-market economy, resulting in reduced cost, increased use of ICT and increased international travel and trade (Friedman, 2000; Sandbrook, 2003; Stiglitz, 2003). In the field of globalization and education policy, there are those who believe that national education policies are being isophormized by globalization (Meyer et al., 1987). Others argue that, on the contrary, policy is being localized where education ideas and policies are locally mediated by government and educators to meet local needs (Anderson-Levitt, 2003; Ball, 1998; Steiner-Khamsi, 2004).

One of the greatest tensions in transnational education policy-making is balancing the impact of global policies on country level circumstances with awareness of commonalities across
countries (Ball, 1998). Ball stresses “the importance of local politics, culture, tradition and the processes of interpretation and struggle involved in translating these generic solutions into practical policies and institutional practices” (p. 128). Global economics and politics often control the broad parameters in which policy issues arise, but networks and local institutional arrangements must be studied in detail, in order to explain what actually happens in specific countries (Hill, 2005). The Jordan and South Africa case studies reveal that Microsoft was very deliberate in attempting to balance “decisional, top-down perspectives on policy” (Hill, 2005) in its worldwide PiL program with an “action-oriented, bottom-up perspective” (Hill, 2005) through localization.

The PiL program is a global program with standardized features and focuses. In this research, I found commonalities between the PiL program in Jordan and South Africa. However, Microsoft’s approaches and activities were different. Local political systems, policy environments, and, more specifically, the ICT-in-education capacity and maturity differed substantially in the two countries. These differences underscore Microsoft’s strategic role through the varied implementation and localization strategies that it undertook through the PiL program in the two countries. These strategies are discussed and compared below.

First, in Jordan, Microsoft used a more top-down approach, via the World Economic Forum, in which there was no broad consultation about the country’s needs in ICT-in-education with teachers or civil society. In South Africa, however, Microsoft used more participatory approaches. Here, there was wide input into government priorities and policies for ICT-in-education, given the existing active grassroots engagement of teachers and NGOs in bringing computers and technology programs to schools.
Second, Microsoft built flexibility and funding into its worldwide PiL program in order to develop curriculum and and adapt teacher training content to country-level needs. In both countries, Microsoft funded and led an adaptation process. Although in both cases cultural nuances and language issues were factored into the curriculum adaptation, the underlying aim of the PiL program – to develop a worldwide skilled workforce that has the skills to effectively use technology – came from an American worldview.

Third, it engaged different partners in the two countries to assist with curriculum development. In Jordan, a monarchy with a minimal civil society, Microsoft paid a local corporation to adapt its ICT curriculum for K-10 public school students. In South Africa, a democracy with a vibrant civil society and grassroots ICT-in-education movement, Microsoft hired an NGO, SchoolNet, to localize the US-developed PiL teacher-training and ICT curriculum.

Fourth, Microsoft used different levels of corporate social responsibility activities in the two countries. It offered discounted software to the Jordan government and free proprietary software to the South African government, the latter being a country with strong government and civil-society support for open source software.

Fifth, the explicit aim of the STIC in Jordan was to test and showcase new technologies for education which educational institutions could purchase. In South Africa, the STIC was presented more subtly, as a venue for sharing best practices for using ICT in teaching and learning innovation. Given the strong support for open source software in South Africa, Microsoft would not have been able to explicitly present the STIC there as a demonstration centre for new technology.
Last, in Jordan, Microsoft was able to implement the PiL components as top-down, stand-alone PiL activities. Given the lack of ICT-in-education policy in Jordan, it was really the Jordan Education Initiative of the World Economic Forum that guided Microsoft’s engagement in Jordanian education. In South Africa, Microsoft’s PiL activities were integrated into existing government ICT-in-education programs. Although PiL activities were funded by Microsoft, they aligned with government policies and priorities, and with NGO activities.

Variation in the implementation of the PiL program and efforts to localize components suggest that Microsoft’s private authority was flexible and yet very strategic: it aligned its program with government priorities. In fact, the company did whatever was needed to further gain greater legitimacy as a policy authority in education within different contexts.

8.1.3 Private Authority through Policy Expertise in Education

The cross case comparison shows that in both Jordan and South Africa, Microsoft’s expertise was central to its policy authority in education. This role emerged through Microsoft’s ability to leverage its reputation and experience as one of the most profitable and successful ICT companies in the world. Through its work in the education sector since 1986, Microsoft identified substantial gaps in education systems around the world, gaps that prevent the education sector from maximizing the benefits of technology for education (see Section 4.1 Bill Gates and Education, page 70). Microsoft responded to these gaps in both Jordan and South Africa by strategically building relationships with key educational stakeholders, developing knowledge banks, policy networks and sharing best practices in ICTs-in-education. Each of these is discussed in relation to the cross case comparison of the PiL programs in Jordan and South Africa.
Microsoft was able to enter the educational policy space by building strategic relationships and trust through diplomacy and partnerships in both Jordan and South Africa. As Ball (2007) found a similar situation in his research in the United Kingdom:

Education businesses are buying into or making use of established social relationships. Through their appointments they acquire access to and build social networks of influence and information. In effect they ‘buy’ personal relationships, and insider knowledge and trust. The senior personnel who run or work for these companies often have long-standing relationships with government departments and agencies and established personal credibility with civil servants and policy-makers. (pp. 103-104)

Microsoft has gained additional credibility by strategically engaging influential educational stakeholders and hiring PiL staff in both countries. Microsoft fostered these relationships through its diplomatic effort to understand the needs of governments and meet them through the PiL program, not only in Jordan and South Africa but by signing MOUs with over 100 other countries within a year and a half. The discussions leading to the drafting and signing of the MOUs created a space outside of the official education-policy processes in Jordan and South Africa for Microsoft to enter. In Jordan, the World Economic Forum’s Jordan Education Initiative (JEI) allowed Microsoft to enter into a formal partnership with government through “market multilateralism” (Bull & McNeill, 2007), a term describing TNCs working with multilateral organizations and governments to meet joint goals. In both Jordan and South Africa, Microsoft, through its corporate citizenship activities, created a space for its engagement in education policy. Its effort to build relationships and trust through diplomacy and partnerships underpinned these new institutional arrangements, enabling Microsoft’s private policy authority in education to emerge.

Second, Microsoft also developed what Steiner-Khamsi (2007) describe knowledges banks, comprised of educational tools and resources, and research on how to best integrate technology-in-education. Microsoft leverages its in-house technical expertise, acquired through
its core business activities in education. It works closely with teachers and school administrators to develop case studies, lesson plans, and other educational tools, which it places on Microsoft websites and the International Teacher Network portal. The comparative analysis highlights that these knowledge banks position Microsoft as an authority, a key source of high-quality information on the use of technology in education in both countries.

Third, Microsoft’s PiL activities in the two countries also highlight its mobilization of networks. Its international network incorporates a wide range of policy actors, including teachers, NGOs, international organizations, national governments, Microsoft’s PiL International Advisory Committee members, and others. Microsoft employees cross-pollinate ideas and solutions, maximizing the use of ICT-in-education by attending international, regional, and national meetings and conferences, and through online forums. Microsoft also networked top-down and bottom-up policy actors in education in the two countries.

Lastly, the PiL program provided Microsoft with a formal mechanism through which to operate as a broker of best-practices and facilitator of knowledge transfer. In Jordan and South Africa, by sharing best practices, Microsoft diffuses a vision of education that is tied to its products and services.

Together these activities have strategically contributed to Microsoft’s expert policy authority. The worldwide PiL program tightly framed Microsoft’s leveraging of the company’s core competencies, expertise, and resources to stimulate technology use in the education sector. As another indicator of Microsoft’s strategic nature, there was some variability, given the differing contexts and actors in the two countries. Microsoft accommodated these by having the PiL activities localized and varying its implementation strategies through government education agencies.
8.2 Variation in Government Responses to PiL and Policy Roles

Both the Jordanian and South African governments want their countries to be part of the 21st-century knowledge society and believe that ICT-in-education was an important strategy for meeting this goal. In both countries, there was relatively little use of ICT for teaching and learning in schools; each country lacked the expertise and experience to implement ICT-in-education policies and goals, and both encouraged the private sector to participate in financing and supporting ICT in schools. Both the governments of Jordan and South Africa had to make a difficult choice between using open source software or Microsoft’s expanded role through the commercial use of software in schools. They both chose to participate in the PiL program, since they had agreed to mandate the use of Microsoft software in schools, and thus needed to build the capacity of their respective education systems to use that software.

In both cases there was a transformation of sovereignty within each country (Sassen, 2006). In Jordan’s case, where power is distributed by the monarchy, the decision to administer the PiL program through the World Economic Forum, took power away from Ministry of Education staff. In the case of the South African, democracy, despite the policy decision at the governmental level was made to use open source software in schools, the President’s power to accept the free software donations from Microsoft demonstrates again the redistribution of power towards the executive within the country.

Participants in this study raised many issues, highlighting the importance of Microsoft’s expertise in helping to explain why the two governments accepted Microsoft’s expanded role in education policy. However, the two governments responded differently. In Jordan, the MoE shared its authority with the JEI and Microsoft, by facilitating PiL activities within Jordanian public school and in South Africa, government was a public integrator of private-sector activities in education.
These government responses reflect Microsoft’s strategic nature and extensive ability to enter educational policy arenas under any circumstances and through whatever modes particular governments will accept.

8.3 Microsoft’s Motivation in Jordan and South Africa

The ICT industry is one of the most lucrative and robust in the world today. In 2006, the global revenue for ICT was $3 trillion, and will reach an estimated $4 trillion by 2009. Spending on ICT represented 6.8% of global Gross Domestic Product between 2001 and 2005 (WITSA, 2006). TNCs increasingly look for new geographic markets to sustain their current rates of growth. Since its strategic business interests were apparent in both middle income countries, it would appear that Microsoft followed this path in; Jordan and South Africa.

The PiL program in both Jordan and South Africa also aims to help schools in each country bridge the digital divide. Microsoft’s social goals in education are not new. Bill Gates and Microsoft have a long history of trying to bridge the digital divide in education (see Section 4.1 Bill Gates and Education, page 70). This social aim gives Microsoft substantial legitimacy as a responsible corporate citizen when it enters the domain of education policy. In both countries, Microsoft’s business and social interests were the impetus for its PiL activities. There was no perceived contradiction for Microsoft in the two countries between these two goals.

8.4 Comparing Microsoft’s Power, Authority, and Legitimacy

Microsoft’s power as a leading TNC gave it entry into the education sectors of both Jordan and South Africa. More specifically, the company’s large economic contribution and impact, and its strategic engagement through the PiL program’s activities and structure, were critical. Microsoft’s expert authority, gained through its extensive knowledge and experience in education, contributed to its legitimacy in education in both countries. Nonetheless, despite an
active policy authority in both Jordan and South Africa, Microsoft was not able to claim absolute legitimacy in the face of resistance in both countries.

8.5 Conclusion

Microsoft’s motives and PiL program goals were similar in both countries, although different in approach. Comparing the two country PiL case studies reveals the strategic nature of Microsoft’s policy authority, where it used different approaches and worked with different partners in the two different contexts. As highlighted in the above comparision, Microsoft contracted its activities to local corporations in Jordan, but to non-governmental organizations in South Africa. In part, this was shaped by the different politics of each country, Jordan being an authoritarian monarchy and South Africa being a democracy. The different top-down and bottom-up processes used by the company also help explain its localization efforts.

The comparison also highlights the transformation in policy authority illustrated by Microsoft’s expanded role. In both countries, there were internal shifts in sovereignty with greater control in an upward direction. Each government responded differently, given their different political forms and policy environments. In the end, Microsoft was able to successfully enter both contexts through its strategic programs and implementation strategies.
Chapter 9 – Summary and Conclusion

In this chapter I summarize the key findings of the thesis, addressing my central research questions:

1 a. Why has Microsoft Corporation developed new programmatic activities with a transnational policy reach in education?

1 b. How has Microsoft established its policy authority in education?

2 a. Why do governments agree to the expanded role played by Microsoft?

2 b. How do new forms of private authority transform government sovereignty and policy roles in education?

In this chapter, I highlight the key cultural and strategic shifts within Microsoft, its work in education and its Partners in Learning (PiL) program, using this history to understand the emergence of Microsoft’s authority as a policy expert in education. I review the localization strategy used by Microsoft in two countries, Jordan and South Africa examining how these localization strategies enhance Microsoft’s policy reach. I also look at government motivations and reactions, and provide concluding thoughts on the transformation in policy roles and governmental sovereignty that are occurring as a result of Microsoft’s PiL program. I conclude the chapter by considering some of the implications and limitations of Microsoft’s authority, within the context of a shifting system of global governance. Accountability is one of the key issues raised by Microsoft’s emergence as a transnational policy authority in education. Last, I summarize the theoretical and conceptual contributions of the thesis, discuss its limitations and the present possibilities or needs for future research.
9.0 Understanding Microsoft’s Motivations in Education

Microsoft began working in the education sector in 1986, 11 years after the company was formed. Bills Gates’ vision, early thinking, research, speaking engagements, and other activities to promote the use of computers in education drove Microsoft’s work in education. New social norms were also created that aligned with Microsoft’s material interest in developing the education market. These social norms were congruent with its powerful view of itself as an organization that should wield global level expert authority in the field of ICTs-in-education. In Chapter 4, I examined Microsoft’s activities in education through a corporate social engagement typology. This examination revealed that both Microsoft’s business and philanthropic motives in education preceded the PiL program.

Both the company’s business interests and its aspiration to play a policy role in education influenced its educational footprint. The PiL program was a nontraditional way of doing business. It was a strategic mechanism, aimed at creating new education markets, and it used a corporate-social-responsibility (CSR) framework to advance Microsoft’s legitimacy as a transnational education-policy authority. However, the findings of this research also suggested that, for Bill Gates and Microsoft headquarters staff, there was a real sense of Microsoft’s identity as a corporate citizen and no perceived contradiction between the company’s profit motive and its social role as an expert authority in education. PiL activities aimed to deepen Microsoft’s influence and propel its commercial presence and interests through policy networks and sharing best practices. The PiL program also enabled Microsoft to test new ideas, products, and services and to disseminate its values and beliefs in education with a relatively low risk. As a case study of transnational forms of private authority in education, this study of PiL raises
important questions about the alignment between the business and CSR assumptions, and the values of the private sector working in education.

One of the most important findings of this study was that Microsoft’s own approach to PiL shifted away from CSR goals with greater emphasis on short-term profit objectives. In the early days after the PiL program was conceived, there was great hope within Microsoft that PiL would make a real difference in the world. Despite the belief at Microsoft headquarters that market goals and CSR goals aligned, an ongoing tension emerged inside the company between a short-term sales focus and Microsoft’s long-term ambition to become a transnational policy authority in education. Because PiL budgets came from Microsoft’s marketing budgets, and were pegged to country level sales, PiL staff at the country level were far more concerned about market share than were members of the PiL International Advisory Committee or the original leaders of the PiL program at corporate headquarters.

The tension between shorter term business objectives and longer term CSR motives played out in later cuts to PiL budgets and shifts in PiL staff, which occurred about halfway through the program, at a time when company profits were at an all-time low. It proved difficult for Microsoft to sustain the use of a CSR framework for an activity located within its core business activities. PiL program staff were not able to demonstrate the program’s commercial benefit to sustain PiL as an education-marketing strategy. Ultimately, when the company renewed its commitment to the PiL program in 2008, it did so using its CSR budget, not its marketing budget, as was the case 5 years earlier.

Although, Microsoft executives did not see the PiL program as zero sum, these tensions between market and CSR goals suggest that transnational corporations (TNCs) are still at the early stage of reshaping their identities as global corporate citizens. One of the lessons from this
study is that governments need to be aware that the balance between corporations’ CSR and business interests can shift quickly and change the nature of private authority arrangements. This shift also raises important accountability issues, which are discussed later in this chapter.

9.1 Cultural and Strategic Shifts within Microsoft and its Education Policy Role

Globalization forces have resulted in supranational forms of power and subnational participation and control of education. The constructivist and rationalist approaches (Fearon & Wendt, 2002; Nielson et al., 2006) used in this study can help us understand the changing nature of governance through the cultural and strategic shifts that led to Microsoft’s policy and governance role in education. The Microsoft case illustrates the way that TNCs’ identity and role in the education sector can change. The constructivist lens used in the study highlights the cultural shifts that occurred inside Microsoft, shifts that saw the organization reframe its role in education markets around the provision of global policy expertise. The rationalist approach to the study of the PiL program revealed the strategic self-interests of the company that shaped its internal, corporate cultural shifts.

The cultural shifts within Microsoft documented in this thesis resulted from various internal and external forces that pushed Microsoft to aggregate its ad hoc CSR programs into one large international initiative. The company’s aim was to embed its business development activities in the education sector using a broad CSR framework. These forces included Gates’ vision for ICT-in-education, Microsoft’s efforts to erase its negative image as a monopoly (gained through numerous lawsuits), and the growing expectation in the international community that Microsoft should help bridge the digital divide in education by participating in public-private partnerships. These forces resulted in a shift within the company’s educational marketing operations from purely sales towards the use of softer business frameworks, based on CSR practices. Microsoft
used its extensive experience, expertise, knowledge, shared ideas, and discourse on ICT-in-education to enter national education systems through the PiL program.

Strategically, Microsoft developed a new transnational, organizational superstructure outside and inside governmental educational policy processes – which worked through both state and nonstate actors. The company crafted a new organizational frame for its work in education by developing the PiL program. One important aspect of this program was the development of a global-level governance structure for PiL, which included appointments of voluntary international and national advisory-council members, and the hiring of over 100 staff for the worldwide PiL program. Microsoft also solidified its engagement in national education systems by signing over 200 Memorandums of Understanding (MOUs) within 1-1/2 years, with governments and other educational stakeholders in 101 countries.

9.2 Microsoft’s Transnational and National Policy-Expert Authority in Education

Microsoft was ultimately able to become an authority in education policy through its extensive expertise in ICT-in-education. Its expert policy authority operated at both transnational and national levels.

At the transnational level, the company developed an elaborate superstructure through the PiL program, a superstructure that leveraged its corporate power, reputation, and resources in education. It developed centralized, top-down policies and activities in education that were propelled through national-level PiL initiatives worldwide.

At the national level, Microsoft worked hard to further develop its expertise. The Jordan and South Africa country case studies highlight the processes through which the company developed relationships with key educational stakeholders, policy networks, and a knowledge bank of shared ICT-in-education “best practices.” These activities helped the company to build
its image as an important policy authority in education, whose legitimacy centered on its ability to bring both nationally relevant and globally recognized expertise to the planning and implementation of ICT and education programs.

Microsoft leveraged its transnational authority at the national level and used its national-level-expert authority to further its transnational efforts in education. Its transnational and national policy authority interfaced through policy networks, by comparing ICT-in-education policies and activities, and the sharing of resources and best practices within and across countries. In the end, by operating at both transnational and national levels, Microsoft was able to further develop its expertise and gain even more power and authority in education policy worldwide.

Comparing the two country, PiL case studies reveals the very strategic nature of Microsoft’s policy authority. Centralized worldwide PiL policies and programs developed in the United States were balanced to meet country-level needs, through built-in localization funding and attention to features of the local policy environment. In addition, Microsoft strategically varied its implementation strategies to successfully manoeuvre within different political and policy contexts.

9.3 Localization Through Varied Approaches and Actors

Anderson-Levitt (2003) and Steiner-Khamsi (2004) use localization studies in education to explore how global education policies and policy models are mediated by governments and local policy actors. This thesis, however, takes a slightly different tack. It highlights Microsoft’s own efforts to respond to local contexts, using what I describe as localization practices. The Jordan and South Africa case studies reveal that Microsoft was very strategic as it attempted to balance decisional, top-down perspectives on policy in its worldwide PiL program with an
action-oriented, bottom-up perspective (Hill, 2005) through localization. The globally engineered program, PiL, ended up looking very different in the two cases, through Microsoft’s localization efforts.

From a top-down perspective, Microsoft used supranational forms of power, by implementing the global PiL blueprint through similar PiL program activities in the two countries. However, looking at the PiL program from a bottom-up view, it is clear that Microsoft used different implementation and localization strategies in the two countries. It showed itself capable of finding strategic opportunities in two different political systems with different policy environments, including different capacities in ICT-in-education activity. From a bottom-up perspective, Microsoft engaged different subnational agents and used different strategies in each country. Microsoft’s top-down and bottom-up approaches link the supranational policy arena to the subnational or subgovernmental thus creating a direct link between global and subnational players. In the past, such direct relationships were rare and usually mediated by government.

Microsoft showed a strong strategic ability to manoeuvre and gain footholds in two very different political contexts. It focused on private-sector implementation in the monarchic, bureaucratic Jordan. In the more democratic South Africa, which has a vibrant civil-society sector, it succeeded by offering greater material incentives and by working through NGOs. The two case studies highlight the extent to which flexible and strategic localization strategies and the use of its supranational power and subnational engagement enhanced Microsoft’s success as a policy authority in education.

**9.4 Government Motivations and the Transformation of Policy Roles and Sovereignty**

In the country case studies for this thesis, I highlighted the growing pressure for governments in Jordan and South Africa to equip schools with the latest software and computers and to equip teachers and students with ICT skills. The governments studied were under great
pressure to accept Microsoft’s expanded role, not only because of its highly publicized expertise, but also because Microsoft was offering a solution to a strongly identified policy need.

Nonetheless, the Jordanian and South African governments are both actively attempting to regulate and encourage economic processes and activities that are increasingly transnational. Neither government is passive; both are “— deeply implicated in framing and regulating —” (Dale, 1997, p. 465) Microsoft’s engagement in their respective countries.

Transformation in policy authority occurred in both cases, although each government responded differently. In Jordan, the MoE’s policy role became that of public facilitator of private-sector ICT-in-education activities in Jordanian public schools. The Jordanian MoE did not have the agency or capacity to direct Microsoft’s involvement in MoE activities and it was willing to share its authority over Jordanian ICT-in-education policies with the World Economic Forum. Furthermore, by allowing Microsoft to subcontract key aspects of curriculum development and teacher training to private-sector IT firms, the government reduced its authority and sovereignty in the unfolding of its ICTs-in-education policies.

In South Africa, the DoE’s policy role shifted to that of a public integrator of private-sector activities in education. Early on, the South African government decided to subvert its own policies on open-source software in order to gain the resources being offered by Microsoft. However, in contrast to the Jordanian case, the South African government strove to maintain its authority by tightly integrating the PiL activities with its own policies, plans, and programs. Microsoft responded strategically to this situation, choosing to enhance its public legitimacy by working with the politically important nongovernmental sector in South Africa in implementing its PiL programs. The result was that, although the DoE formally maintained its sovereignty and authority over its ICT-in-education policies, in practice its decision-making authority was shared
with Microsoft, which acted as an intermediary between the government and NGO service providers.

A redistribution of power occurred within both countries, with power moving further away from government education officials, towards the monarchy in Jordan and the presidential level in South Africa (Sassen, 2006). Furthermore, although this study was not designed to look in particular at the role played by TNCs and PPPs in shifting subnational relations, this emerged as a major finding of the research. In both Jordan and South Africa, the case studies found evidence of the growth of direct subnational to transnational linkages in education policy making, as well as shifts in relations between governments and their NGO and corporate partners in policy making and implementation.

Overall, the findings of this thesis suggest that changes in sovereignty occurring as part of globalization involve more than the transfer of sovereignty from states to transnational actors. Sovereignty does not disappear, given the emergence of TNCs operating at the national level (Jayasuriya, 1999). Instead, nation-states themselves are strategic sites for the structuring of global policy. As part of this process they undergo foundational change (Robertson; et al., 2002, p. 472).

9.5 Global Governance and the Accountability, Sustainability, and Impact of Microsoft’s Private Authority in Education

I suggest that there has been a shift away from traditional state-centred policy environments in the education sector. Microsoft’s PiL program illustrates new forms of governance emerging in public systems of education, in which transnational policy actors, working through decentralization of local forms of authority, are shifting the traditional sovereign authority of the state (Finkelstein, 1995). Microsoft created a new governance
network for ICT-in-education policies. It did so by signing of hundreds of MOUs establishing public-private-partnerships (PPPs) in which power is not distributed equally, given limited government resources, expertise, and capacity in ICT-in-education. PiL activities also created new national-level policy networks in education, which help to shape policy goals, directives, and decisions favouring the use of commercial software and services in schools.

The combination of global-level leverage and local-level partnerships that characterizes the PiL program raises questions about both the accountability and sustainability of private-sector actors in the governance of public-sector activities. Keohane (2006) suggests that, in the absence of a formal global government, it is important to study the strategic interactions between those in power and those to whom they are accountable. He argues strongly for the development of pluralistic accountability measures to manage the power held by private actors.

In the case of Microsoft’s PiL program, there are gaps in accountability. As is the case for most corporations, Microsoft staff are primarily accountable to the company’s board of directors and its shareholders, whose interests mainly focus on corporate sustainability and the enhancement of profit. As we have seen, Microsoft’s marketing targets in education imply a tension between CSR-and-market development goals, thus between accountability to shareholders and accountability to the public or public good.

Accountability to governments and to citizens is much less developed for TNCs, such as Microsoft. MOUs with governments initiated the PiL program’s PPPs and defined both Microsoft’s and the government goals, roles, and activities. However, these MOUs do not require Microsoft to account for actions, nor are they open to public scrutiny. Furthermore, there appear to be limited accountability mechanisms in place at the national government level to oversee the quality of materials, pedagogy, curriculum frameworks, or teacher training provided
by PiL-programs. Although Microsoft showed some flexibility in adapting the PiL-program to each country’s goals, the core elements of the program were developed at Microsoft headquarters in the United States. There has, to date, been no formal evaluation of whether PiL activities met the pressing needs and priorities of education systems and governments. Only limited research on the PiL program was conducted by Microsoft, and this research focused on the number of software licenses donated to governments or the number of teachers trained, not on how much PiL activities meaningfully improved teaching and learning.

This research does highlight that it is important for Microsoft to ensure that its activities do not undermine its reputation in the education sector. The company works with key educational stakeholders at transnational and national levels to ensure that its work is aligned with the priorities of government. However, reputational accountability (Keohane, 2006) is quite easy to manage for TNCs working in education, because they do not have to formally report to an external organization or meet a set of international policy norms for their behaviour. Rather, as we have seen in the case of Microsoft’s PiL program, TNCs can use informal networks of educational stakeholders to seek feedback and advice, and to give legitimacy to their work. No formal body or organization currently has the mandate to evaluate the extent to which TNC initiatives such as the PiL program undermine or align with global education frameworks, such as Education for All and the Millennium Development Goals. So, for example, questions about the extent to which Microsoft’s PiL program activities at the country level redirect limited government resources for education towards the use of technology, away from other important education priorities, likely remain unanswered.

There is increasing evidence that CSR is often window dressing and that there is a gap between the self-reported socially responsible behaviour of corporations, and their actual
behaviour (Utting, 2000). Only limited research was conducted by Microsoft or other educational stakeholders on the impact of the PiL program. Beyond the number of software licenses donated to governments or the number of teachers trained, how much these activities meaningfully improved teaching and learning is unknown.

Lack of sustainability is another significant limitation of private authority. How much ICT capacity among teachers and government officials was developed by Microsoft’s PiL program is questionable. Meaningful educational change takes many years and requires sustainable programs and funding. Corporations, however, operate on 12-month sales cycles; their funding decisions depend on the growth of sales and profit.

Microsoft’s private authority is also limited by the scale and reach of its activities. Its contribution to education is miniscule, compared with the needs of governments worldwide. For example, at the time I collected data, only 6600 teachers in South Africa out of a total of 330,000 had been trained by the PiL program.

The implications and limitations of Microsoft’s private authority in education are substantial and reach far beyond the scope and lifespan of the PiL program. Microsoft’s private expert policy authority raises many questions about its motives and activities in the education sector. In addition, it is unclear whether at the country level, education systems would face a wider digital divide without Microsoft. Is it better to have Microsoft operating in education than not, given the current resource and expertise gaps faced by education systems worldwide?

9.6 Policy Authority in the Governance of Public-Sector Activities in Education: The Role of the Public and Private Moving Forward

Globalization has resulted in new policy actors in education, including the private sector. The Microsoft case illustrates the way that a TNC’s identity and role in the education sector can change. The motives and policy role of TNCs have changed, and new governance structures and
processes have emerged. Around the world, the governance of education is shifting from state control to more diffuse, plural networks and communities that transcend national borders. In an environment of increased demands on public education systems worldwide, new policy hybrids, funding mechanisms, and partnerships with non-state actors are inevitable. Shifting subnational relations with transnational linkages and the changing structure of polity and authority relations brings into question the role of governments and legitimacy of nonstate actors in education policy.

The role of the state in public education is changing. Governments’ roles are being transformed, and public policy making is becoming enmeshed in private-sector activities in education. These shifting “geographies of power” (Robertson & Dale, 2006, p. 12) have blurred the dividing line between the private and public sectors. As learned from this thesis, government education agencies respond differently to private-sector engagement in education depending on the government form and policy climate. There still remains a very important role for all governments to play. Governments need to continue to develop, fund and implement policies in education. Their policy authority also needs to expand and be flexible enough to respond to and participate in new policy mechanisms and partnerships that are networked with nonstate actors such as TNCs.

Corporate engagement in education is transforming the actors, social relations, and ways in which education is done. Private authority has not replaced state responsibility for ICT-in-education but has, rather, created a new layer of priorities, structures, and processes that operate parallel to and through education systems worldwide. The policy engagement of TNCs brings, for government, an opportunity to test ideas and innovate in areas that are often not on the radar screens of other agencies working in education. In addition, as showcased in this thesis, TNCs
are able to leverage their organizational resources, expertise, reputation, and experience in education from around the world. They can potentially be agents for positive change.

As demonstrated in this thesis, private actors play a very important role and can make substantial contribution to the education sector worldwide. However, their activities need to be governed by public accountability measures. What seems to be needed now are appropriate partnership frameworks and governance tools that can both effectively engage TNCs in education, and hold them accountable for their activities. Private actors should be asked to work within the common goals and values set out by the global education community for example, the Millennium Development Goals. There are many possible policy solutions to the problem of TNC accountability. Initiatives such as the United Nations Global Compact encourage sound, corporate social practices through the creation of common norms and peer pressure (Ruggie, 2004b; United Nations, 2006). A formal process of peer accountability (perhaps under the guidance of a United Nations agency) also has potential because of its likely appeal to TNCs operating in the education sector. The goal of any formal accountability measure would be to ensure that the resources and expertise of TNCs are effectively harnessed in ways that do not compromise the values underlying public-education systems worldwide.

9.7 Theoretical and Conceptual Contributions of this Thesis

This thesis makes several significant contributions in the areas of transnational private policy authority in education, the localization of global policies, global governance, and the accountability issues that attend new governance arrangements.

First, this study broadens our understanding of transnational, private, policy authority by providing a case study of (a) TNC policy motives, (b) the processes that TNCs create and use to gain policy authority, (c) shifts in state policy authority in education. This study suggests that
TNC interests and engagement in education can be best understood by combining constructivist and rational conceptual approaches to explore the cultural and strategic organizational dimensions. In addition, the taxonomy of corporate social engagement presented in this thesis adds some clarity to a field of confusing corporate motivations in education. Very limited research has been done on the processes that TNCs use to gain policy authority in education. The thesis contributes to the field of globalization and education policy by showcasing how a powerful TNC used its commercial resources and expertise to become a policy authority in education. Within the field of international relations, this study of Microsoft’s material power interacting with its expert authority in education makes for a more robust understanding of corporate legitimacy-seeking.

The second major contribution of this thesis is to localization studies in the field of education. There is a growing literature on how global policies are mediated by educators and governments to meet local needs (Anderson-Levitt, 2003; Ball, 1998; Steiner-Khamsi, 2004). This thesis demonstrates this mediation process, showcasing how generic ICT-in-education solutions offered by Microsoft were transformed locally into new institutional forms and practices. The main motor behind the transformation, however, is a highly strategic TNC. Microsoft uses two very different approaches to localization to implement a globally engineered program.

Finally, the Microsoft PiL case shows how policy decision-making has moved away from being a function of nation-states alone. These transformations and shifts in state policy-making roles in education add to a growing literature on nonstate actors in education. The rise of TNCs in education raises important questions about the lack of accountability revealed in TNC initiatives such as Microsoft’s PiL program. Emerging research also highlights increasing CSR
(the growing willingness of corporations to embrace greater social responsibilities) and market multilateralism that aim to fill the governance gap (Bhanji, 2008b; Ruggie, 2003b, 2004b). This thesis, however, confirms the lack of accountability of corporations to the public in world politics (Keohane, 2006) - in this case, a new policy authority in education policy.

9.8 Limitations and Areas of Future Research

One of the limitations of this study is that the data collected may not clearly demonstrate the impact that Microsoft had in the educational-policy landscapes of Jordan and South Africa. One cannot fully evaluate Microsoft’s influence without evidence of the longer term outcome of the PiL program on the policy actions or beliefs of policy makers and educators. It was not possible to collect data on such outcomes, because the PiL program had only been operational for a few years when the data for this thesis were collected.

This thesis was framed as a descriptive, exploratory study of a global actor, focused primarily on Microsoft Corporation, at an organizational level. As a result, I paid limited attention to the broader issues of changing social relations, processes, and power in the world order. Because my examination of globalization in education was descriptive, and not explanatory, the thesis may suffer from a problem referred to by Sassen (2006) as the “endogeneity trap”. Further, the thesis does not address the deeper reasons why education sectors are being drawn into the global economy as opportunities to stimulate new markets and avenues for potential profit growth.

Several avenues for future research may address some of these above limitations. First, research on Phase 2 of Microsoft’s PiL program in Jordan and South Africa could yield further insight into Microsoft’s role as a policy actor in education, particularly given shifts in the PiL program’s focus in 2008. A longitudinal, impact evaluation of the PiL program would allow us to better assess the long-term impacts of Microsoft’s role in educational policy. In-depth case
studies of some of the other 100 countries in higher income and lower income countries involved in the PiL program would increase understanding of Microsoft’s activities and policy role in different contexts.

More broadly, a study of the worldwide education programs of other IT corporations would enable comparison of different corporations’ goals and processes, and their policy roles in education. In addition, very little is known about education programs being developed by companies in the oil, mining, gold, and textile industries, to name a few. Transnational corporate networks, such as the World Economic Forum and corporate think tanks, are also increasingly influencing educational policy. Research is needed to further understand how these new transnational, private-sector, policy actors influence education policy, at international and national levels. In addition, research on corporate-led global education programs, with a focus on shifting relationships between TNCs and NGOs as well as NGOs and governments, would also deepen our understanding of new institutional arrangements and relationships resulting from private-sector engagement in education.

Last, studies using the new International Political Economy theoretical lens might provide insight into some of the broader social processes and issues of world order, thus providing a more robust understanding of private authority in education.
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Appendices

Appendix 1 Interview Protocol

INTERVIEW GUIDE
Microsoft Corporation Headquarters Staff in Redmond, USA
Microsoft PiL International Advisory Committee

VALUES QUESTIONS (Answers Why?)

Beliefs, Values and Goals
1. What is Microsoft’s vision for its participation in the education sector globally? How is this different from the perception of others at Microsoft or that of PiL partner governments and NGOs?
2. How does the PiL program differ from Microsoft’s private sector sales and marketing activities in education? From Microsoft’s previous and current philanthropy work in education? And from the work of the Gates Foundation in education?
3. How have Microsoft’s beliefs and purposes in education changed over time?
4. Why is Microsoft concerned with bridging the digital divide in education? How has this changed over time?
5. What is your understanding about the purpose and goals of the PiL program? Has the program goals changed or evolved from its original mandate? Why?
6. What are the positive and negative outcomes that you anticipate from the program?

DESCRIPTIVE QUESTIONS (Answers How?)

Normative Terrain through which Authority Established
7. What motivates Microsoft’s participation to bridge the digital divide? Has their motivation changed over time? Why?
8. What international organizations have influenced the creation of the PiL program?
9. What cultural forces within Microsoft have influenced the creation of the PiL program?
10. How did the original drivers of PiL within Microsoft conceptualize and propose the program?
11. What major decisions have been made during the history of the program? Were there any differences in opinions during these main decision points within Microsoft?

Structure and Operations of Authority
12. How are country Memorandum of Understandings negotiated and developed with governments and NGOs?
13. What are the main contentious points that have occurred during MOU negotiations?
14. Describe the major components of the PiL program globally? How does it operate?

Authority Established
15. What new partnerships and relations has Microsoft built with international organizations as a result of the PiL program? How is Microsoft influencing the perception and priorities of these partners’ work in education?

15. Describe the education related international meetings and conferences that Microsoft staff attend? To what extent is Microsoft shaping the agenda of these meetings?
16. Describe the education meetings and conferences Microsoft PiL staff and teachers are organizing and/or attending?
17. What new partnerships and relationships has Microsoft built in the education sector within countries as a result of the PiL program? How is Microsoft influencing the perception and priorities of these partners’ work in education?
18. To what extent are government educational policies being influenced by Microsoft’s PiL program? Please provide examples.
19. As a private actor, how is Microsoft able to justify its new role in education that has traditionally been a public sector responsibility?
### Appendix 2 Meetings and Conferences Attended

<table>
<thead>
<tr>
<th>#</th>
<th>Conferences/Meeting</th>
<th>Organizer</th>
<th>Dates</th>
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<tbody>
<tr>
<td></td>
<td>-- Via Webcast</td>
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<tr>
<td>2.</td>
<td>Eradicating Poverty Through Profits: Making Business Work for the Poor Conference</td>
<td>World Resources Institute, San Francisco</td>
<td>Dec 12-14 2004</td>
</tr>
<tr>
<td>3.</td>
<td>2005 Rotman MBA Business &amp; Society Conference on Corporate Citizenship: What’s a CEO to Do?</td>
<td>AIC Institute for Corporate Citizenship, Rotman School of Management, University of Toronto</td>
<td>Apr 8, 2005</td>
</tr>
<tr>
<td>5.</td>
<td>Corporate Citizenship Speaker Series - “Providing an Effective Human Development Strategy for South Africa via Mass-Scale, Quality Higher Education” Speaker: Taddy Blecher, CEO, CIDA City Campus (South Africa)</td>
<td>Rotman School of Management, University of Toronto</td>
<td>Sept 18 2005</td>
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<tr>
<td></td>
<td>-- Via Webcast</td>
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<tr>
<td>#</td>
<td>Conferences/Meeting</td>
<td>Organizer</td>
<td>Dates</td>
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<td>----</td>
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<td>---------------------------------------------------------------------------</td>
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</tr>
<tr>
<td></td>
<td>- Event sponsored by Microsoft and other corporations and foundations</td>
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<tr>
<td></td>
<td>- Microsoft presented a seminar titled e-Readiness: Making the Most of ICT for</td>
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<tr>
<td></td>
<td>Educational Development in Africa: An African Development Bank and Microsoft</td>
<td></td>
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<tr>
<td></td>
<td>Perspective, in conjunction with NEPAD e-Africa Commission</td>
<td></td>
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<tr>
<td>11.</td>
<td>Microsoft Innovative Teachers Awards</td>
<td>Microsoft, Johannesburg, South Africa</td>
<td>Nov 2006</td>
</tr>
<tr>
<td>12.</td>
<td>Rotman Career Fair and Conference on Social Changes and Leadership,</td>
<td>Rotman School of Management, AIC Institute for Corporate Citizenship,</td>
<td>March 14, 2008</td>
</tr>
<tr>
<td></td>
<td>Keynote speaker: Phil Sorgen, President, Microsoft Canada</td>
<td>University of Toronto</td>
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## Appendix 3 Participant Observation Instrument

<table>
<thead>
<tr>
<th>Event name:</th>
<th>Location:</th>
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</thead>
<tbody>
<tr>
<td>Date:</td>
<td>Time:</td>
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</tbody>
</table>

### Event Overview -

- Purpose of event (meeting, conference, training etc)
- Setting – location, context
- Who organized the meeting? Who participated?
- Number of participants

### The human, social environment –

- Characteristics of the participants (e.g., gender, ethnicity, approximate age grouping, style of dress)
- Patterns, frequency, direction of interaction and communication
- Decision making behaviors and processes - who initiates it, what are the key decision points, were there any differences in opinions or perspectives, what were they, who ultimately makes the decision and type/manner of communication regarding the decision

### Roles, activities and behaviors -

- What role did the different participants play?
- Who initiates the activity? In what way?
- What were the participants’ verbal and non-verbal reactions?
- What happens at each step of the activity? Who is involved?
- What is communicated, both verbally and non-verbally?

### Informal interactions and unplanned activities

- Coffee breaks, other free/unstructured time

### Documents Collected – e.g. policy manuals, training materials, minutes of meetings, memoranda, agenda, etc.
### Appendix 4 Microsoft’s Financial Highlights 2001-2006

(In Millions US$)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
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<tbody>
<tr>
<td>Revenue</td>
<td>$25,296</td>
<td>$28,365</td>
<td>$32,187</td>
<td>$36,835</td>
<td>$39,788</td>
<td>$44,282</td>
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<tr>
<td>Operating Income</td>
<td>11,720</td>
<td>8,272</td>
<td>9,545</td>
<td>9,034</td>
<td>14,561</td>
<td>16,472</td>
</tr>
<tr>
<td>Net income</td>
<td>7,346</td>
<td>5,355</td>
<td>7,531</td>
<td>8,168</td>
<td>12,254</td>
<td>12,599</td>
</tr>
<tr>
<td>Diluted earnings per share before accounting change</td>
<td>0.69</td>
<td>0.48</td>
<td>0.69</td>
<td>0.75</td>
<td>1.12</td>
<td>1.20</td>
</tr>
<tr>
<td>Diluted earnings per share</td>
<td>0.66</td>
<td>0.48</td>
<td>0.69</td>
<td>0.75</td>
<td>1.12</td>
<td>1.20</td>
</tr>
<tr>
<td>Cash</td>
<td>-</td>
<td>-</td>
<td>0.08</td>
<td>0.16</td>
<td>3.40</td>
<td>0.35</td>
</tr>
<tr>
<td>Dividends</td>
<td></td>
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<td>Declare per share</td>
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<td></td>
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</tr>
<tr>
<td>Cash and short-term investments</td>
<td>31,600</td>
<td>38,652</td>
<td>49,048</td>
<td>60,592</td>
<td>37,751</td>
<td>34,161</td>
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<tr>
<td>Total assets</td>
<td>58,830</td>
<td>69,910</td>
<td>81,732</td>
<td>94,368</td>
<td>70,815</td>
<td>69,597</td>
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<tr>
<td>Long-term obligations</td>
<td>2,287</td>
<td>2,722</td>
<td>2,846</td>
<td>4,574</td>
<td>5,823</td>
<td>7,051</td>
</tr>
<tr>
<td>Stockholders’ Equity</td>
<td>47,289</td>
<td>54,842</td>
<td>64,912</td>
<td>74,825</td>
<td>48,115</td>
<td>40,104</td>
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</table>

Source: Microsoft Corporation, 2005, p.4, 2006e
### Appendix 5 Microsoft’s Sales and Marketing Expenses

(In Millions, US$)

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</thead>
<tbody>
<tr>
<td>Sales and Marketing</td>
<td>2,539</td>
<td>3,003</td>
<td>3,448</td>
<td>4,141</td>
<td>4,885</td>
<td>5,407</td>
<td>7,562</td>
<td>$8,195</td>
<td>$8,563</td>
<td>$9,818</td>
</tr>
<tr>
<td>% of revenue</td>
<td>21%</td>
<td>20%</td>
<td>17%</td>
<td>18%</td>
<td>19%</td>
<td>19%</td>
<td>23%</td>
<td>22%</td>
<td>22%</td>
<td>22%</td>
</tr>
</tbody>
</table>

### Appendix 6 Microsoft Settlement Funds Available to U.S. Schools

<table>
<thead>
<tr>
<th>State</th>
<th>Est. $ (M) Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona</td>
<td>$60</td>
</tr>
<tr>
<td>California</td>
<td>$400-$600</td>
</tr>
<tr>
<td>Florida</td>
<td>$80</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>$16</td>
</tr>
<tr>
<td>Minnesota</td>
<td>$55.2</td>
</tr>
<tr>
<td>Montana</td>
<td>$10</td>
</tr>
<tr>
<td>Nebraska</td>
<td>$10</td>
</tr>
<tr>
<td>New Mexico</td>
<td>$15.4</td>
</tr>
<tr>
<td>North Carolina</td>
<td>$40.9</td>
</tr>
<tr>
<td>South Dakota</td>
<td>$4.6</td>
</tr>
<tr>
<td>Tennessee</td>
<td>$15.3</td>
</tr>
<tr>
<td>Vermont</td>
<td>$4.7</td>
</tr>
</tbody>
</table>

Source: Electronic Education Report, 2007
Appendix 7 Letter from Bill Gates and Steve Ballmer

A statement by William H Gates, Chairman and Steve A. Ballmer Chief Executive Officer of Microsoft Corporation is given below. This statement has been taken from the company’s 2006 annual report (Microsoft Corporation, 2006e).

To our shareholders, customers, partners, and employees:

Fiscal 2006 was a year of significant achievement and transformation for Microsoft. During 2006, we celebrated the thirtieth anniversary of our founding, reached new records for revenue and operating income, and laid the foundation for future growth through key changes in our organizational structure and leadership. Fueled by strong demand for new and existing products, our revenue in 2006 grew by $4.49 billion, an 11 percent increase, to $44.28 billion. Operating income reached a record $16.47 billion. We also returned $23 billion to shareholders through dividends and by repurchasing our stock.

The past year saw the successful launch of major products including Xbox 360™, Microsoft® SQL Server™ 2005, Visual Studio® 2005, Microsoft Dynamics™ CRM 3.0, and BizTalk® Server 2006. Meanwhile, we continued to prepare for the most important series of product releases in Microsoft history as we readied Windows Vista™, the 2007 Microsoft Office system, and Exchange Server 2007 for launch in 2007.

We also strengthened our commitment to Internet services as we unveiled Windows Live™ and Office Live, our two Internet-based software services offerings. Throughout the year, we rolled out new Windows Live and Office Live services and we continue to invest in the development of new technologies and products that will help ensure that we are a leader in the Internet services revolution.

During 2006, we maintained our focus on research and development, investing $6.6 billion—more than any other company in our industry. Past investment in R&D paid off in the form of new products and technologies that are helping us redefine the next generation of information technology. Along the way, we received our 5,000th patent.

In 2006, we also made a number of strategic acquisitions, including FrontBridge Technologies, a provider of security-enhanced managed messaging services; Teleo, which develops voice over Internet protocol (VoIP) software; mobile search technology provider MotionBridge; and Massive, a pioneer in delivering advertising within video games.

Through our commitment to research and development, and our passion for pursuing innovations that enable our customers to achieve business success and realize their potential, we are in a great position to strengthen growth and increase innovation as we pursue new and expanding opportunities in business solutions, mobile computing, communication, entertainment and more.

Leadership and Organizational Excellence

Great leadership and a strong, agile organization are essential to Microsoft’s future success. During 2006, we took important steps to ensure that the company has the deep roster of leaders and the organizational structure it needs to spur continual innovation and growth. In 2006, we realigned the company into three divisions: the Microsoft Platforms & Services Division led by co-presidents Kevin Johnson and Jim Allchin (who will retire following the launch of Windows Vista); the Microsoft Business Division led by Jeff Raikes as president; and Microsoft Entertainment & Devices Division, where Robbie Bach serves as president. Kevin Turner joined the company as chief operating officer. All of these leaders possess great levels of business experience and technology expertise, combined with a passion for excellence and innovation.

Also during 2006, Bill Gates announced that in 2008 he will reduce his workload at Microsoft to part time. At that time, he will remain as chairman of the company and continue to play a vital role as an advisor on key development projects. To prepare for this transition, two of our top technical leaders—and two of the industry’s leading technical visionaries—will take on new responsibilities. Ray Ozzie assumed Bill’s title of chief software architect and is
working with Bill on technical architecture and product oversight. Craig Mundie, named chief research and strategy officer, is working with Bill on the company’s research and product incubation efforts.

Thanks to these changes, our leadership team is stronger than it has ever been, and our organizational structure is aligned for great execution in the coming years.

Enabling People-Ready Businesses

At our core, we are a software company. But our defining mission is to help people and businesses realize their full potential. We believe that the right software helps companies become people-ready businesses where employees are empowered and inspired to use technology to solve problems, collaborate with colleagues, serve customers, and seize new opportunities. From the infrastructure innovations in SQL Server 2005 to the enhanced business process integration of new Microsoft Dynamics solutions, many of our product releases in 2006 were designed to provide people with tools and resources they need to drive business success.

Product releases in the coming year will strengthen our ability to deliver on our people-ready vision. Windows Vista, the 2007 Office system, and Exchange 2007 will provide powerful new capabilities that enable people to create new levels of business value, fueling further growth for Microsoft.

A Focus on Long-Term Success

Throughout our 30-year history, Microsoft has achieved success by taking a long-term approach to technology. This has enabled us to deliver ground-breaking products that have truly changed the world.

The success of this approach was seen across our businesses in 2006 as we brought many new products to market and added new customers in many segments. In the Platforms & Services Division, the launch of new versions of SQL Server and Visual Studio propelled the Server and Tools business to a 15 percent increase in revenue. The Client group saw revenue grow by 9 percent.

In the Business Division, the launch of Microsoft Dynamics GP 9.0, Dynamics CRM 3.0, Dynamics SL 6.5, and Dynamics AX 4.0 helped drive the Business Solutions group past $900 million in revenue. Meanwhile, our Information Worker business grew 5 percent to $11.76 billion.

The Entertainment and Devices Division saw strong growth as well. With 5 million units sold to date, Xbox 360 is the fastest-selling video game console ever. It helped drive revenue in the Home and Entertainment business to $4.26 billion, from $3.14 billion in 2005. Mobile and Embedded Devices, which saw revenue increase 44 percent, was our fastest-growing division in 2006.

A Strategic Foundation for Growth

In the year ahead—and the years to come—we expect many of our long-term investments to show a significant return in areas ranging from online advertising to digital communications, entertainment, and Internet television, even as our more mature businesses continue to generate significant revenue growth. To help ensure that our investments translate to growth and profitability, we are focusing on our opportunities in three specific ways:

**Strengthening core businesses:** Windows Client, Information Worker, and Server and Tools remain our largest businesses. The 2007 releases of new versions of Windows and Office will drive continued growth for each of these groups. With Windows Vista, growth will come from new PC shipments, upgrades across our installed base, and the availability of new premium versions. The launch of the 2007 Office system and Exchange 2007 will help us grow as the market for business software and services expands.

We also expect growth in the world’s developing countries as their economies develop and they adopt global standards for intellectual property protection. In fiscal 2006, nearly 60 million PCs were sold with pirated versions of Windows. Our Windows Genuine Advantage program and agreements with PC manufacturers in China are just two examples of our commitment to ensuring that we realize the full value of our intellectual property. Meanwhile,
innovative payment options like FlexGo, which enables people to finance their computer use on a pay-as-you-go basis, will help us reach new consumers in emerging markets around the world.

**Succeeding in adjacent businesses:** In 2007, we will deliver a wave of new products, services, and technologies that will position us to take advantage of a wide range of high-growth opportunities. One example is unified communications, our vision for bringing together telephony, e-mail, instant messaging, mobile devices, and Web conferencing, in order to streamline the way we communicate at work. To help make this vision a reality, in June 2006 we created the Unified Communications Group in the Business Division. New enterprise information management tools will help knowledge workers create, find, use, and share business information quickly and effectively. These technologies promise to have a profound impact on productivity, creativity, and collaboration, and we believe they will have a significant impact on our future growth.

In addition, we’ll offer new security capabilities, improved management products, and new development tools. By bridging the gap between business processes and business practices, Microsoft Dynamics products position us to meet the fast-growing demand for better business process management systems. We recently entered the high-performance computing business. And we have new offerings and initiatives in industries such as life sciences and manufacturing.

**Entering new markets:** We are excited by a number of important new opportunities that lie before us. With Xbox 360 and Xbox Live®, our online gaming and entertainment service, we are redefining how people create, deliver, and experience entertainment. We are also poised to see our long-term investment in Internet television begin to bear fruit as leading broadband service providers around the world prepare to deploy IPTV Edition, our digital television technology. Meanwhile, the number of customers using the Windows Mobile® and Windows embedded platforms is growing rapidly.

**Leading the Software Services Transformation**

Internet-based services are transforming the way people create, deploy, manage, and use information technology. We are deeply committed to playing a leadership role through our efforts to create the services platform for the next generation of applications, communications, and commerce. Across the company, software services are at the core of all of our development efforts.

In 2006, we introduced Windows Live, which includes a wide range of personal Internet services and software, and Office Live, which provides small businesses with affordable Internet-based business services hosted by Microsoft. We rolled out new search services, including beta releases of Windows Live Search and Windows Live Academic Search. We introduced new and enhanced services for computer safety and computer maintenance (Windows Live SafetyCenter and Windows Live OneCare), communications (Windows Live Mail and Windows Live Messenger), and entertainment (Xbox Live). We also created Live Labs, an applied research program that targets Internet products and services.

Because software services offer strong opportunities for growth, we will continue to refine and improve adCenter, our advertising engine for Windows Live, MSN®, and other Microsoft online services. We will roll out new service-based solutions, such as Microsoft Dynamics CRM Live, which we announced in July 2006. We will also continue to build out our services infrastructure, providing new tools to help partners and businesses create and host services, and adding new data centers to meet growing consumer demand for services.

**Investing in Our Employees and Our Communities**

The cornerstone of our success has always been our ability to attract and retain the most talented employees from around the world. In May, we announced important changes to help us ensure that Microsoft continues to be one of the world’s best places to work. These changes will enable us to better reward and retain top talent, while providing a workplace that is positive, inclusive, and collaborative.

We also continue to work to foster social and economic advancement for communities in developing nations through partnerships with public- and private-sector organizations. We support a broad range of efforts to expand
access to technology, provide training that can give people the skills they need to thrive in today’s economy, and nurture local software economies that open the door to new opportunities and greater prosperity.

In 2006, community learning centers supported by our Unlimited Potential program reached more than 14.5 million people in 100 countries. Through our Partners in Learning program, we helped provide information and communications technology curriculum and skills training to 42 million primary and secondary teachers and students in 101 countries. By 2010, we intend to provide technology training to 250 million people who were previously underserved by technology.

Incredible Opportunities in the Decade Ahead

In many ways, the founding of Microsoft 30 years ago was a critical catalyst for the creation of the software industry, the popularizations of the PC, and the rise of the information revolution.

Today, it’s not just the PC that is changing the world. Software is everywhere. It is revolutionizing the telephone and transforming the way we watch television. It ties businesses to customers and partners in new ways. It links students to vast collections of information stored around the world. It connects hundreds of millions of people across the globe to incredible economic, social, and cultural opportunities.

As thrilling as the last 30 years have been, we think the next 10 years promise to be the most exciting in the history of Microsoft and our industry as a whole. We believe strongly that everything this company has delivered to date is really just the foundation for the truly profound changes we will see during the next 10 years. Because software is more central every day to the way we work, communicate, learn, and play, we believe no company is better positioned than Microsoft to thrive in the coming decade.

We are deeply inspired by the incredible opportunities that lie ahead for our company. It is your support that enables us to continue to pursue these opportunities. Thank you.

Bill Gates
William H. Gates III
Chairman of the Board

Steven A. Ballmer
Chief Executive Officer
## Appendix 8 Key Microsoft Events and Publications Related to Education (1968-2003)

<table>
<thead>
<tr>
<th>Date</th>
<th>Key Microsoft Events and Publications Related to Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1968</td>
<td>Gates writes his first software, a tic-tac-toe game at Lakeside school in 1968 (Gates, 1995)</td>
</tr>
<tr>
<td>1972</td>
<td>Gates writes his first commercial software in 1972 during a summer job. The software was written for the education sector to schedule student classes (Gates, 1995)</td>
</tr>
<tr>
<td>1995</td>
<td>The book Road Ahead by Bill Gates published which included a chapter on education titled “Education: The Best Investment” (Gates, 1995).</td>
</tr>
<tr>
<td>1995-</td>
<td>Gates commissioned the International Society for Technology in Education to implement the Road Ahead Program (Bielefeldt T. Moursound D., 1999).</td>
</tr>
<tr>
<td>1996</td>
<td>Microsoft releases a white paper titled “The Connected Learning Community: A New Vision for Technology in Education” (Microsoft Corporation, 1996b)</td>
</tr>
<tr>
<td>1997</td>
<td>New market data from the International Data Corporation reports that 56 percent of new computer purchases during the 1996-97 school year will be PCs running Microsoft Windows (Microsoft Corporation, 1997d).</td>
</tr>
<tr>
<td>1998</td>
<td>Microsoft’s Anytime Anywhere Learning independent study published (known as the Rockman Report).</td>
</tr>
<tr>
<td>1998</td>
<td>International Data Corporation (IDC) and Microsoft unveiled research findings highlighting the growing crisis in technology skills in Europe (Microsoft Corporation, 1998d).</td>
</tr>
<tr>
<td>1998</td>
<td>Business @ at the Speed of Thought published by Bill Gates. Gates dedicated a chapter titled “Create Connected Learning Communities.”</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft and 19 other companies work to develop “The Schools Interoperability Framework (Electronic Education Report, 1999).</td>
</tr>
<tr>
<td>1999</td>
<td>The Software &amp; Information Industry Association (SIIA) and Microsoft Corp. today announced the developers release of the first working specification for the Schools Interoperability Framework (SIF), a new technical blueprint for ensuring that software applications in K-12 schools can share information seamlessly (Microsoft Corporation, 1999n).</td>
</tr>
</tbody>
</table>
# Appendix 9 Bill Gates Speeches on Education

<table>
<thead>
<tr>
<th>Year</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>Editorial by Bill Gates based on his speech given at Georgetown University on November 28, 1995 (Gates, 1996).</td>
</tr>
<tr>
<td>1998</td>
<td>Gates visits Japan, South Korea and Taiwan for a series of meetings with customers, partners and top government officials (Microsoft Corporation, 1998c).</td>
</tr>
<tr>
<td>1999</td>
<td>Bill Gates speaks about education and the Web upon receiving the New York Institute of Technology’s President’s Medal Leadership Award (Gates, 1999).</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft Chairman and CEO Bill Gates spoke to 4,500 U.S. public school superintendents at the American Association of School Administrators' 131st Annual Conference (Microsoft Corporation, 1999c).</td>
</tr>
<tr>
<td>1999</td>
<td>Bill Gates spoke to the New York Institute for Technology after being presented with institute's prestigious President's Medal for Microsoft’s contribution to education (Microsoft Corporation, 1999a). Gates delivers keynote to leaders from various business, government and educational agencies at the Digital Dividends Conference (Microsoft Corporation, 2000a).</td>
</tr>
<tr>
<td>2001</td>
<td>Gates speaks at the National Education Summit in the US (Friedenburg, 2005).</td>
</tr>
<tr>
<td>2001</td>
<td>Remarks by Gates at the Connected Learning Community Technology Summit (Gates, 2001)</td>
</tr>
<tr>
<td>2002</td>
<td>Gates speaks about education at the Can&gt;Win Summit to business leaders in Toronto (Schick, 2002).</td>
</tr>
<tr>
<td>2004</td>
<td>Remarks by Bill Gates at the College of Engineering, University of California at Berkeley (Gates, 2004).</td>
</tr>
<tr>
<td>Year</td>
<td>2000</td>
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</tbody>
</table>

Appendix 10 Gates Foundation Grants Paid by Program Area (2000-2006)
### Appendix 11 Microsoft’s Corporate Social Responsibility Activities in Education

<table>
<thead>
<tr>
<th>Year</th>
<th>Microsoft’s Corporate Social Responsibility Activities in Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>Microsoft donated software, tools and training to connect California schools to the Internet as part of NetDays96 (Microsoft Corporation, 1996h).</td>
</tr>
<tr>
<td>1996</td>
<td>Microsoft announced a $110,000 cash and software donation to the Computer Learning Centre at Martha’s Table (Microsoft Corporation, 1996d).</td>
</tr>
<tr>
<td>1996</td>
<td>Bill Gates announced a cash and software donation worth $1.1 million to bring multimedia computers, software, training and other support to Los Angeles Libraries and Schools (Microsoft Corporation, 1996a).</td>
</tr>
<tr>
<td>1996</td>
<td>Microsoft launched “LibrariesOnline” a $10.5 million initiative to help library systems in economically disadvantaged communities in the US by providing public access to the Internet and personal computers (Microsoft Corporation, 1996e).</td>
</tr>
<tr>
<td>1996</td>
<td>Microsoft provided $4 million gift to Microsoft Canada KidReach, a national donations program to encourage computer literacy in Canadian youth (Microsoft Corporation, 1996c).</td>
</tr>
<tr>
<td>1997</td>
<td>Gates announced a donation of software valued at INR 5 million to the Bharatiya Vidya Bhavan computer education centre, to equip unemployed people with the skills needed to find jobs (Microsoft Corporation, 1997b).</td>
</tr>
<tr>
<td>1997</td>
<td>Gates visited science students at the Seoul Science High School and talked to students and donated $80,000 worth of PCs and software from the proceeds of his book, The Road Ahead (Microsoft Corporation, 1997a).</td>
</tr>
<tr>
<td>1997</td>
<td>Microsoft announces $1 million technology donation to benefit District of Columbia Public Library (Microsoft Corporation, 1997e)</td>
</tr>
<tr>
<td>1997</td>
<td>Microsoft launches the first Microsoft Kids Web Camp (Microsoft Corporation, 1997c)</td>
</tr>
<tr>
<td>1997</td>
<td>Microsoft presented to the Republic of the Philippines a licensing grant of $6000,000 on selected Microsoft software products (Microsoft Corporation, 1997i).</td>
</tr>
<tr>
<td>Year</td>
<td>Microsoft’s Corporate Social Responsibility Activities in Education</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td>1997</td>
<td>Gates announced that Microsoft will donate more than $100,000 in software, hardware, training and grants to support the development of a Connected Learning Community in Chicago (Microsoft Corporation, 1997f).</td>
</tr>
<tr>
<td>1998</td>
<td>Microsoft also announced a software donation of $900,000 for computer centers in New York’s United Neighbourhood Houses (Microsoft Corporation, 1998g).</td>
</tr>
<tr>
<td>1998</td>
<td>Gates visited school and announced donations to support technology in schools in Palo Alto California valued at over $1 million in software and cash (Microsoft Corporation, 1998f).</td>
</tr>
<tr>
<td>1998</td>
<td>Microsoft rewarded innovative high school technology education program by giving $1.5 million in state of the art software grants (Microsoft Corporation, 1998i).</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft awarded an additional 18 CLC grants to public and nonprofit organizations in the US (Microsoft Corporation, 1999g).</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft donated $25 million from software piracy recoveries to help disadvantaged communities around the world access technology (Microsoft Corporation, 1999m).</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft supported the National Online Safety Initiative for American Youth (Microsoft Corporation, 1999b).</td>
</tr>
<tr>
<td>1999</td>
<td>The Georgia Department of Technical and Adult Education (DTAE) was the first site to pilot the Microsoft® Academic Professional Development Center program to help schools across the US to deliver in-service faculty and technical staff training in Microsoft operating systems, the BackOffice® family and development tools (Microsoft Corporation, 1999i).</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft announces $1.2 million matching grant to Navajo Education Technology Consortium (Microsoft Corporation, 1999e).</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft’s Southeast District donated 1,000 licenses of Windows 95 to help Georgia’s government recycle and distribute older PCs to schools throughout the state (Microsoft Corporation, 1999o).</td>
</tr>
<tr>
<td>2000</td>
<td>Microsoft Corp. donated more than $70,000 in software to students in Thurston County and the Seattle school district (Microsoft Corporation, 2000e).</td>
</tr>
<tr>
<td>2000</td>
<td>Microsoft Corp. donated software valued at $344 million (estimated retail value) and program support to the Intel Teach to the Future program (Microsoft Corporation, 2000f).</td>
</tr>
<tr>
<td>Year</td>
<td>Microsoft’s Corporate Social Responsibility Activities in Education</td>
</tr>
<tr>
<td>------</td>
<td>-------------------------------------------------------------------</td>
</tr>
<tr>
<td>2000</td>
<td>In the United States, Microsoft has donated $26 million in cash and $187 million in software to nearly 5,000 nonprofit organizations in the U.S. and over $21 million through the company's International Community Affairs program, funding over 95 local, community-based projects in 67 countries outside the United States. (Microsoft Corporation, 2000a)</td>
</tr>
<tr>
<td>2000</td>
<td>The Microsoft Foundation Scholarship Programme, worth RM500,000 over four years in Malaysia was awarded to students (Microsoft Corporation, 2000b).</td>
</tr>
<tr>
<td>2000</td>
<td>Microsoft provided technology to 500 public schools in Mexico through UNETE with a US $1.4 million software donation (Microsoft Corporation, 2000h).</td>
</tr>
<tr>
<td>2000</td>
<td>Microsoft’s International Community Affairs program announced they would work to bring PCs and Internet access to every town in the Philippines (Microsoft Corporation, 2000j).</td>
</tr>
<tr>
<td>2000</td>
<td>Young Minds in Motion part of Microsoft’s International Community Affairs program spent $21 million to fund 95 projects in 60 countries (Microsoft Corporation, 2000j).</td>
</tr>
<tr>
<td>2000</td>
<td>Microsoft donated $1 million to UCLA’s School Management Program (SMP) for the implementation of a Connected Learning Community at the Laguna Nueva Elementary School in Commerce, Calif (Microsoft Corporation, 2000d).</td>
</tr>
<tr>
<td>2001</td>
<td>As a founding partner of Youth at Its Best, Microsoft helped give the program in Costa Rica a running start with a $50,000 grant from the company's International Community Affairs program (Microsoft Corporation, 2001e).</td>
</tr>
<tr>
<td>2001</td>
<td>Microsoft announced the first round of Connected Learning Community (CLC) grants for 2001, supporting technology access projects at 21 nonprofit organizations across the US (Microsoft Corporation, 2001b).</td>
</tr>
<tr>
<td>2001</td>
<td>Microsoft announced a special discount for students and teachers for Microsoft Office XP Standard at a price of US$149 (Microsoft Corporation, 2001f).</td>
</tr>
<tr>
<td>2001</td>
<td>Microsoft used counterfeit software recoveries to benefit Laguna Nueva Elementary in California with donations totaling US$1.35 million (Microsoft Corporation, 2002b).</td>
</tr>
<tr>
<td>2002</td>
<td>Microsoft signed an agreement that provided New Zealand’s government-funded schools with Microsoft software. New Zealand schools received Microsoft software valued at NZ$10 million (US$4.2 million).</td>
</tr>
</tbody>
</table>
## Appendix 12 Microsoft’s Corporate Citizenship Activities in Education

<table>
<thead>
<tr>
<th>Year</th>
<th>Microsoft’s Corporate Citizenship Activities in Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>Microsoft announced it free software: (1) the “Parent-Teacher Connection Server” which provides teachers and parents with electronic mail and bulletin board services, to publish their own Home Pages and provide Internet access and (2) the Global School Net Foundation’s Global Schoolhouse, an Internet site that is a meeting place for teachers and a repository of instructional materials (Gates, 1996).</td>
</tr>
<tr>
<td>1996</td>
<td>Microsoft organizes a Learning with Laptops Summit in the spring of 1996 (Rockman, 1997).</td>
</tr>
<tr>
<td>1996</td>
<td>Microsoft and Toshiba began the Anytime Anywhere Learning Program.</td>
</tr>
<tr>
<td>1996</td>
<td>Microsoft awards $100,000 in technology grants to eight K-12 schools in national web contest. More than 2000 US schools and classrooms registered websites for the contest on the Global Schoolhouse web site (Microsoft Corporation, 1996g).</td>
</tr>
<tr>
<td>1997</td>
<td>Microsoft announced a free collection of Microsoft Communication tools for Schools CD and a collection of communication and Internet tools designed for K-12 schools using Windows NT Server 4.0 (T.H.E. Journal, 1997).</td>
</tr>
<tr>
<td>1997</td>
<td>Microsoft is launched a range of new resources for K-12 educators, including free education technology half day briefings, a free monthly newsletter and a free CD sampler educational titles designed for Windows 95 (Microsoft Corporation, 1997d).</td>
</tr>
<tr>
<td>1997</td>
<td>Microsoft and Compaq sponsor “The Great Computer Round Up” to increase the public awareness of the importance of providing K-12 students with access to up-to-date technology and help schools raise funds to purchase most current computer equipment for classrooms (Corporation, 1997).</td>
</tr>
<tr>
<td>1997</td>
<td>Microsoft announced online campaign to educate parents and teachers on tools available to protect children from inappropriate content on the Internet (Microsoft Corporation, 1997g).</td>
</tr>
<tr>
<td>Year</td>
<td>Microsoft’s Corporate Citizenship Activities in Education</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------------------------------</td>
</tr>
<tr>
<td>1998</td>
<td>Microsoft organized summer institutes for teachers who participated in hands-on, project-based workshops and learned how to use and integrate Microsoft software, such as Microsoft Office 97, Windows 95, FrontPage 98 and Internet Explorer 4.0, into class projects and learning activities. The teachers then shared their newly developed skills by training nearly 70,000 of their colleagues when they returned to school this fall (Microsoft Corporation, 1998h).</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft launched the Microsoft Classroom Teacher Network (CTN) which gives education professionals access to free professional development tools and opportunities (T.H.E. Journal, 1999) (Microsoft Corporation, 1999k).</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft is supported the Intel Applying Computers in Education project, a two week program supported by Intel, Microsoft and HP where more than 3000 teachers in 11 states spent the summer learning how to best use technology in the classroom (Microsoft Corporation, 1999k).</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft supported summer technology institutes to help K-12 teachers develop strategies for integrating technology into teaching and learning (Microsoft Corporation, 1999k).</td>
</tr>
<tr>
<td>1999</td>
<td>In collaboration with the Intel Foundation and the Hewlett-Packard Foundation, Microsoft supported summer ACE workshops. Through this program, 2,150 teachers in nine states learned how to effectively integrate information technology into their existing curriculum (Microsoft Corporation, 1999k).</td>
</tr>
<tr>
<td>1999</td>
<td>More than 420 Illinois teachers participated in a technology training event, &quot;Moveable Feast,&quot; co-sponsored by the University of Illinois at Urbana-Champaign. Geared toward technology novices, teachers attending this Moveable Feast sampled a menu of technology classes, where they learned to create their own Web pages and lesson plans (Microsoft Corporation, 1999k).</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft sponsored more than 200 western Washington educators attended &quot;Teach the Teachers&quot; workshops at the University of Washington campus in Forks, Washington (Microsoft Corporation, 1999k).</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft donated software and training resources to 800 teacher training@microsoft sites that will train more than 450,000 teachers (Microsoft Corporation, 1999k).</td>
</tr>
<tr>
<td>Year</td>
<td>Microsoft’s Corporate Citizenship Activities in Education</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------------------------------</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft collaborated in a public-private partnership with the U.S. Department of Education technology training grant programs. Through this initiative, Microsoft donated $1.2 million in software and training resources and $10,000 in software and training tools to each of 35 national or regional educational consortia that have received Department of Education grants (Microsoft Corporation, 1999k).</td>
</tr>
<tr>
<td>1999</td>
<td>As part of its Anytime, Anywhere Learning laptop program, Microsoft supported yearlong training programs for up to 50 U.S. school districts (Microsoft Corporation, 1999k).</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft provided a wide range of free Teacher Online Resources to help K-12 educators develop strategies for integrating technology into teaching and learning (Microsoft Corporation, 1999k).</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft released self-guided lessons on using Microsoft software in the curriculum and as management tools (Microsoft Corporation, 1999k).</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft hosts the 1999 Anytime Anywhere Learning Summit, Jan 29-31 in Dallas (Microsoft Corporation, 1998e).</td>
</tr>
<tr>
<td>1999</td>
<td>Bill Gates and German Chancellor Gerhard Schrörmlander in Bonn, Germany award the Road Ahead Prize to three exemplary German schools (Microsoft Corporation, 1999h).</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft partners with the Migrant Education Consortium for Higher Achievement program and provides the Microsoft WebTV Network to access a Web site that allows students to stay in touch with their home teachers while they are away from school (Microsoft Corporation, 1999p).</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft joined other Internet companies to form an international organization to protect children and free speech on the Web - The Internet Content Rating Association (ICRA), based in London, UK (Microsoft Corporation, 1999j).</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft piloted its first Academic Professional Development Centre program (Microsoft Corporation, 1999i).</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft launched the Microsoft® Lesson Connection, a new set of free tools designed to help teachers nationwide search for lesson plans matching their local and state curriculum standards for teachers (Microsoft Corporation, 1999j).</td>
</tr>
<tr>
<td>Year</td>
<td>Microsoft’s Corporate Citizenship Activities in Education</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>2000</td>
<td>Microsoft announced the winners of the Technology Achievements in Education Awards at the Florida Educational Technology Conference to showcase independent software vendors (ISVs) and Microsoft Certified Solution Providers (MCSPs) that are helping schools, colleges and universities make the best use of Microsoft technology tools to improve student learning and streamline administration. (Microsoft Corporation, 2000g).</td>
</tr>
<tr>
<td>2001</td>
<td>Microsoft hosts a three-day Connected Learning Community Technology Summit. The summit brought together 750 superintendents, curriculum and technology specialists, principals and teachers to share their successes and learn more about integrating technology into education. (Microsoft Corporation, 2001c).</td>
</tr>
<tr>
<td>2001</td>
<td>Microsoft opened its first IT Academy to empower academic institutions to train and certify students and faculty on cutting-edge technologies (Microsoft Corporation, 2001d).</td>
</tr>
<tr>
<td>2002</td>
<td>Steve Ballmer also announced the innovative new teachers grant program in Association with the American Association of Colleges for Teacher Education which comprised of $50 million of mostly software grants (Microsoft Corporation, 2002d).</td>
</tr>
<tr>
<td>2002</td>
<td>Anytime Anywhere Learning Summit, a four day conference Sponsored by Microsoft, Dell and Toshiba. The summit brought together educators from around the world to share best practices of School Laptop Programs and to share the benefits, Ideas, Strategies for One-to-One Technology Access in Schools (Microsoft Corporation, 2002a).</td>
</tr>
<tr>
<td>2002</td>
<td>Today at the annual National PTA Convention &amp; Exhibition, Microsoft Corp. and National PTA unveiled a special community give-back program that helped support local National PTA activities nationwide, as well as an innovative homework resource Web site for families (Microsoft Corporation, 2002c).</td>
</tr>
<tr>
<td>2003</td>
<td>Microsoft announced at the National Education Computing Conference (NECC) 2003 its collaboration with the International Society for Technology in Education (ISTE) and the Partnership for 21st Century Skills initiative in support of developing 21st-century-quality assessment and guidelines. Microsoft and ISTE will worked together to build a formative, online technology learning assessment tool (Microsoft Corporation, 2003g).</td>
</tr>
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</table>
### Appendix 13 Microsoft’s Products and Commercial Interests in Education

<table>
<thead>
<tr>
<th>Date</th>
<th>Microsoft’s Products and Commercial Interests in Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>Microsoft releases four new CD-ROMs for kids (Microsoft Corporation, 1996i). CD-ROMs are (1) Microsoft Creative Writer 2, (2) Scholastic’s the Magic School Bus, Explores in the Age of Dinosaurs, (3) Nickelodeon; (4) P.J.’s Reading Adventure (Microsoft Corporation, 1996i) (Microsoft Corporation, 1996j)</td>
</tr>
<tr>
<td>1997</td>
<td>Microsoft launches a new product Microsoft Plus for Kids. The product gives parents a central location for controlling which programs and files their children can access on the computer and determines what types of content the PC can access on the Internet (Microsoft Corporation, 1997d, 1997j).</td>
</tr>
<tr>
<td>1997</td>
<td>Microsoft released the Microsoft® My Personal Tutor: Preschool-First Grade, new suite of four learning titles for children ages 3 to 7(Microsoft Corporation, 1997h).</td>
</tr>
<tr>
<td>1998</td>
<td>Microsoft announced the latest addition to its award-winning My Personal Tutor software series, My Personal Tutor 1st &amp; 2nd Grade. The newest suite, containing three full-featured learning CDs, helps first and second graders develop essential math, reading and thinking skills (Microsoft Corporation, 1998j).</td>
</tr>
<tr>
<td>1998</td>
<td>First Lady of Colombia distributed Microsoft’s new Encarta 99 to schools and libraries in Columbia (Microsoft Corporation, 1998b).</td>
</tr>
<tr>
<td>1999</td>
<td>Microsoft and Scholastic Entertainment launched their seventh CD-ROM in their award-winning series of educational software for children (Microsoft Corporation, 1999d).</td>
</tr>
<tr>
<td>2000</td>
<td>A recent quiz given to parents of grade-school children by Market Facts Inc. and Microsoft® Encarta® multimedia encyclopaedia revealed that many parents could not correctly answer questions on history, geography, the arts, science and mathematics -- the very subjects in which their kids most often need homework help (Microsoft Corporation, 2000i).</td>
</tr>
<tr>
<td>Date</td>
<td>Microsoft’s Products and Commercial Interests in Education</td>
</tr>
<tr>
<td>------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>2000</td>
<td>Educators chose Microsoft Windows 2000 as the most complete, powerful platform for learning (Microsoft Corporation, 2000c). Educators nationwide according to a recent report by International Data Corp (IDC). Windows is also the desktop operating system of choice for primary and secondary schools. More than 65 percent of all computers in schools are now Windows-based PCs. During the current school year, 70 percent of the computers that schools plan to purchase will be Windows-based PCs, according to Quality Education Data of Denver (Microsoft Corporation, 2000c).</td>
</tr>
<tr>
<td>2001</td>
<td>Microsoft releases Encarta® Class Server, a new school curriculum management platform, the first Microsoft® software developed specifically for the education community (Microsoft Corporation, 2001g).</td>
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</table>
## Appendix 14 Matrix of Microsoft’s 21st Century Education Goals and Products

<table>
<thead>
<tr>
<th>21st C Education</th>
<th>Microsoft Product/Tool</th>
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</thead>
<tbody>
<tr>
<td>Collaborative work and learning</td>
<td><strong>Microsoft Windows XP</strong> will offer <strong>Windows Messenger</strong>, which is a rich, real-time communications tool allowing students to communicate with one another using text, voice and video. <strong>Office XP</strong> provides a multitude of ways that students and educators can collaborate, including a new <strong>Send for Review</strong> feature and <strong>Reviewing Tools</strong> in <strong>Word</strong>, <strong>Excel</strong>, and the <strong>PowerPoint</strong> presentation graphics program, <strong>SharePoint™ Team Services</strong> Web-based collaborative environment, as well as <strong>MSN Messenger</strong> integration into the <strong>Outlook</strong> messaging and collaboration client. In addition, <strong>MSN Web Communities</strong> makes it easy for students with similar interests to connect anywhere in the world.</td>
</tr>
<tr>
<td>Learning any time, any place</td>
<td>With 21st century technology, students can learn wherever they are and whenever they are ready. The <strong>Pocket PC</strong> and its wireless capabilities make it easy for students to take notes, share their work via e-mail with attachments, and access learning resources beyond the school walls and the school day. Using technology that enables any situation to become an educational opportunity, students of the 21st Century Classroom are always learning.</td>
</tr>
<tr>
<td>Active, exploratory learning</td>
<td>Teachers can empower students to follow their curiosity and interests in an environment that supports inquiry-based learning. Interactive <strong>Office XP smart tags</strong> enable students to access information with a click of a mouse, while <strong>Windows Search Companion</strong> makes it easy and safe for students to find information on the Internet. <strong>MSN Research and Learning</strong> and <strong>Encarta Reference Library 2002</strong> provide students with reliable and engaging learning resources and tools such as <strong>Encarta Researcher</strong> that help students create great reports and projects.</td>
</tr>
<tr>
<td>Hands-on learning</td>
<td>Teachers can put tools in the hands of every student that enable them to apply their knowledge in creative and exciting ways. Students can present their knowledge through rich digital media enabled by the new <strong>Windows Media Player for Windows XP</strong> and Windows Movie Maker in <strong>Microsoft Windows XP</strong>, and rich animation in <strong>PowerPoint</strong> in <strong>Office XP</strong>.</td>
</tr>
<tr>
<td>Parental involvement</td>
<td>Parents can stay informed on how and what their children are doing in school using <strong>Encarta Class Server</strong>, which gives parents access to their child's assignments and allows them to see what has yet to be completed, as well as teacher feedback on work already done.</td>
</tr>
<tr>
<td>Real world tools</td>
<td>In the 21st Century Classroom, real-world tools such as <strong>Office XP</strong> applications, including <strong>Word</strong>, <strong>PowerPoint</strong>, <strong>Outlook</strong> and Excel, as well as <strong>Microsoft Internet Explorer</strong> give students the ability to explore what excites them, apply what they learn and share their learning -- wherever they are, whenever they want.</td>
</tr>
<tr>
<td>21st C Education</td>
<td>Microsoft Product/Tool</td>
</tr>
<tr>
<td>------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Connected classrooms.</td>
<td>Windows XP will make it easier for teachers to set up a small network in the classroom, allowing students on multiple computers to share printers, devices, pictures and other files. Schools even will be able to take the connected classroom a step further, linking classrooms within a single school, sharing the same network with other school districts and networking with schools across the state/country.</td>
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</tbody>
</table>

Source: Microsoft Corporation 2001a.
Appendix 15 PiL Press Release

Press Release

Microsoft Announces Partners in Learning to Provide Much-Needed Technology Access and Training for Education

Critical Resources for Student Access, Teacher Training and Skills Development Worldwide

REDMOND, Wash., Sept. 16, 2003 — Despite real improvements in the availability of information and communication technology around the world, many students and teachers still lack basic access to computers and training. The result is a widening skills gap in information and communication technology (ICT) fields that contributes to disparities in quality of life, economic development and competitiveness.

Microsoft Corp.’s Partners in Learning initiative recognizes the educational value of technology in schools. Global in scope and local in implementation, this initiative provides a significant investment of software and more than $250 million (U.S.) in cash grants worldwide over the next five years to deliver information and communication technology skills training, tailored curriculum development, technical support, and research funds and resources to students and teachers. The Partners in Learning initiative also includes significantly lower prices for Microsoft’s core educational desktop software for students and teachers.

Partners in Learning supports Microsoft’s long-term commitment to empowering teachers and students to achieve their fullest potential by providing greater access to the latest computer technologies and training in how to use them. Already, Brazil, India (State of Uttranchal) and Thailand have signed a Memorandum of Understanding (MOU) or equivalent to participate in some or all of the Partners in Learning programs." Italy will be signing an MOU today, and Malaysia is finalizing discussions to participate in the Partners in Learning programs. More than 10 additional countries are expected to play a part in the initiative before the end of 2003. Partners in Learning will be implemented in conjunction with government agencies in each country, local business and, in some cases, local trade associations. As they implement the components of the Partners in Learning initiative that best meet local needs and challenges, government and education partners in each country will be able to provide additional details regarding their participation in specific programs.

"As an industry leader, Microsoft has a responsibility to help make technology more accessible and affordable to students and teachers," said Maggie Wilderotter, senior vice president of business strategy at Microsoft. "Through feedback from our government customers and educators, Microsoft has developed the Partners in Learning initiative to provide a sustained investment in technology and training to help students focus on learning and teachers focus on teaching. We are excited about working with governments and educators to address local challenges and continue advances in education and learning."

Employing a systemic and comprehensive approach to the challenge of empowering students and teachers, the Partners in Learning initiative consists of three programs. At the heart of the initiative is the Learning Grants program. This program provides an investment of software and more than $250 million worldwide in cash grants over the next five years, to deliver technology skills training to students and teachers and to assist in ICT integration into curricula and learning. Funding will support the establishment of local Microsoft® IT Academy Centers in conjunction with local advisory councils, educational institutions and training providers. The Microsoft IT Academy Centers will use a variety of
training methodologies to deliver student skills certification, leadership and teacher development, curriculum and assessment tools, school-based technology support, and research. The goal of the Microsoft® IT Academy Centers is to empower schools to increase student achievement through teacher leadership.

Donated computers are a foundation of educational programs around the world. Recognizing this, the Partners in Learning's Fresh Start for Donated PCs program will help schools make the most of donated computers, promoting increased access for students through wider deployment of PCs in classrooms. For donated machines received by primary and secondary schools that were originally licensed with Microsoft Windows® operating systems, the Microsoft Fresh Start for Donated PCs program provides, at no charge, a licensed copy of the Windows 98 or Windows 2000 operating system for PCs (Pentium II or older).

In countries where access to the latest innovation in educational software is neither affordable nor accessible, the Partners in Learning initiative will offer further educational discounts through Microsoft's Standard School Agreement Subscription volume licensing program for disadvantaged schools. Through this program, participating primary and secondary schools will receive free upgrades to Windows XP Professional for both new computers and computers already in the classroom, and can acquire the professional version of the Office productivity software suite at a rate significantly below Microsoft's already-reduced education pricing. For more than 10 years, Microsoft has worked with the educational community to foster greater understanding of, and access to, technology tools and training. The Partners in Learning initiative is a long-term commitment to partner with governments, local schools and teachers to establish a foundation for continued advances in education and learning (Microsoft Corporation, 2003d).
Appendix 16 Description of the PiL Curriculum

Leading for Change Symposium and Curriculum

The Leading Change Symposium provides a single two-hour virtual event for policy makers and heads of national and regional organizations. This course is a single event delivered via Microsoft® Live Meeting in which participants are given a high-level overview of the in-depth workshops that their trainers and CCLs can attend. Microsoft states,

The curriculum is designed to help education leaders develop the collective power of their group or agency to affect education by building support with local stakeholders and sharing information. The school/community is the first of these levels; the district or region is the midlevel; and the state or policy level is the third (Microsoft Corporation, 2006d).

The two-day Leading Change Workshop presents in-depth coverage for leaders at all levels of the system responsible for implementation (these leaders are referred to as Country Change Leaders (CCL)). The workshop is geared for policymakers, organization leaders, and other CCL to learn the concepts of Leading Change, led by Professor Michael Fullen from OISE/ University of Toronto. There is also a half-day add-on workshop for CCL facilitators who want to take concepts and leverage the knowledge from the workshop to their region or country (Microsoft Corporation, 2006d).

The School Leader Development: Building 21st Century Schools Curriculum

The School Leader Development: Building 21st Century Schools curriculum guides participants in creating schools that help students develop the essential knowledge, skills and values they’ll need as they enter our changing modern world. The online course shows school leaders how to change schools to prepare students for the 21st century and addresses the need for strong leadership at a policy level in order to make successful changes at a learning institutions. The course was developed by Microsoft and Dr. John Bransford from the College of Education at the University of Washington. The online course combines video challenge questions, discussion and resources focused on issues facing school leaders including: the dimension of change within schools in the 21st century, guiding student learning, strategies for success for all students, innovative approaches for education and strong leadership for all schools (Microsoft Corporation, 2006i).

The Peer Coaching Program

The Peer Coaching Program offers a model that schools can use to foster the integration of technology into classrooms. The program prepares elementary and secondary schools and peer coaches to give teachers the knowledge and support needed to use technology as they engage students in learning. The leadership course specifically addresses how to use technology more effectively in learning institutions. The program was developed by Microsoft in conjunction with the Puget Sound Centre for Teaching, Learning and Technology. As part of the training teachers also bring school leaders into the training to get their commitment and buy-in to support the Peer Coaching Model. The program aims to: train teacher leaders to serve as peer coaches for colleagues, use the Peer Coaching Model to foster systemic integration of technology, assists instructors to integrate technology in ways that engage students in learning and supports schools
as they adopt and sustain the Peer Coaching Model as part of an effective school professional development plan (Microsoft Corporation, 2006h).

**The Integrating ICT Skills into Teaching and Learning**

The Integrating ICT Skills into Teaching and Learning was designed to help teachers successfully weave technology into learning projects. The curriculum was developed in partnership with the International Society for Technology in Education (ISTE). The projects in the curriculum come from practical, teacher-tested strategies – with a particular emphasis on promoting higher-order thinking. Teachers of students aged 10-14 are the target for this resource and can be adapted for use in the teaching and learning of any subject area. After teachers are trained using this curriculum, they should be able to apply a variety of assessment methods and strategies to technology-rich, project-based lessons, as well as provide students with support strategies to enhance their learning (Microsoft Corporation, 2004c).

**The Developing Basic Applications Using Microsoft Visual Basic .NET**

The Developing Basic Applications Using Microsoft Visual Basic .NET curriculum is an online curriculum developed by Microsoft that uses a game-like interface. The intended audience are teachers of students aged 14 to 18 to help them use the curriculum as part of an existing technology class or as self-paced learning for students. The aim is to incorporate the online course to engage students and give them the skills they need to begin developing simple applications (Microsoft Corporation, 2004b).

**The Using Microsoft® Office XP for Learning Projects**

The Using Microsoft® Office XP for Learning Projects is a project based learning curriculum developed by Microsoft and the Institute of Computer Technology. The curriculum is aimed at teachers of students aged 12 to 18 and can be applied to teaching and learning of any subject area. The training aims to help teachers integrate the use of Microsoft Office, Excel, Powerpoint®, Access, and Outlook® into teaching and learning through cross-curricular, project-based units (Microsoft Corporation, 2004l).

**The Deploying Student Technical Support Solutions**

The Deploying Student Technical Support Solutions curriculum is aimed for technical education teachers of students aged 12 to 18. The curriculum was developed by Microsoft in partnership with MOUSE (Making Opportunities for Upgrading Schools and Education). The aim of the curriculum is to prepare teachers and students for establishing and sustaining a student-run, data-driven technical support help desks within secondary schools. In the curriculum teachers learn how to define an appropriate scope for the student-run help desk and gain administrator support for such a model (Microsoft Corporation, 2004a).

**Understanding and Building Basic Networks Curriculum**

Understanding and Building Basic Networks curriculum aims to help educators integrate technology into their schools and curriculum. This is an introductory course that is designed to help students understand the basics of networks and the technology tools that many of them may
already be using, incorporates teacher-tested strategies and hand-on activities to deliver rich, exciting information that focuses on the real-life practices of students. The curriculum is intended for teachers of students aged 14 to 18. Students are introduced to the impact networking technologies have, including how data is exchanged across networks in their home, school and work environments. They also gain skills to create simple networks for collaboration, entertainment and communication to get a better understanding of career paths involving network technologies (Microsoft Corporation, 2004k).
Microsoft Brings Educators Together for Worldwide Innovative Teachers Forum

Teachers gather for two-day event to learn how technology can help them teach in ways that will prepare their students for success. (Second in a series on Microsoft and educational innovation.)

REDMOND, Wash., Aug. 16, 2005 – For many, the teaching profession is a year-round endeavor. In fact, for nearly 100 educators from all corners of the globe, the summer included a journey to Seattle to attend a forum focused on innovative technology and teaching practices – and how the two can be joined in support of a classroom that prepares students for a lifetime of learning.

The Microsoft Worldwide Innovative Teachers Forum, held July 18 and 19, included keynote addresses from leading educators, small group discussions, question and answer sessions, and several opportunities to network with teachers and Microsoft team members from around the world.

The forum was sponsored by Microsoft’s Innovative Teachers Program, which was launched in the U.S. in 2002. The program has since expanded beyond the original charter and is up and running in 35 countries.

Kristen Weatherby, academic program manager with Microsoft’s Worldwide Public Sector Group, currently shepherds the program. “It’s easy to feel isolated in the classroom,” says Weatherby, a former teacher. “In response to that, in order to provide quality content and a forum where teachers can share their experience and inspire one another, Microsoft launched this program.”

Learning from Each Other

Many attendees said one of the forum’s biggest draws were the presentations made by teachers such as Kate Norman from Llanhilleth, Wales, Eric Langhorst from Liberty, Mo., a suburb of Kansas City, and Chua Guat Kheng of Singapore. All three demonstrated to attendees how Microsoft technology has given them the ability to teach in new, improved ways.
Appendix 18 Innovative Teachers Forum 2005 Agenda

Microsoft Worldwide Innovative Teachers Forum
July 18-19, 2005

Monday, July 18

8:30 a.m.  Breakfast
9:15 a.m.  Opening remarks
9:30 a.m.  Keynote address: Professor Eduardo Chaves,
           Universidade Estadual de Campinas, Campinas, SP, Brazil
10:30 a.m. Coffee and small group discussion of key points from keynote address
11:00 a.m. Question and Answer period for Eduardo Chaves and education panel:
           Bruce Dixon
           Michael Furdyk
           Jenny Lewis
           Alex Rusli
11:30 a.m. Presentation of Innovative Teachers research: Kevin Marshall, Microsoft
           Ireland and Victor McNair, University of Ulster
12:00 p.m. Networking lunch and best practice setup/preparation
1:15 p.m.  Best practices sharing
3:15 p.m.  Presentation of key pedagogical issues arising from best practice sharing
3:30 p.m.  Small group discussion on issues arising from the best practices
4:00 p.m.  Group feedback on key issues
4:30 p.m.  Reflections and close of Day 1
4:45 p.m.  Free time
5:45 p.m.  Buses depart for reception at Microsoft Visitor Center
6:00 p.m.  Reception, Microsoft Visitor Center
7:00 p.m.  Buses depart for dinner, The Canal, Seattle
7:30 p.m.  Dinner
9:45 p.m.  Return to hotel
Tuesday, July 19

8:30 a.m.  Breakfast

9:30 a.m.  Keynote address, Dr. Yvonne Caamal Canul, Director of the Office of School Improvement, Michigan Department of Education

10:30 a.m.  Coffee and small group discussion of key points from keynote address

11:15 a.m.  Question and Answer period for Dr. Canul and education panel:
        Eduardo Chaves
        Bruce Dixon
        Michael Furdyk
        Jenny Lewis
        Alex Rusli

12:00 noon  Networking lunch

1:00 p.m.  Presentation by Michael Furdyk of TakingITGlobal

1:30 p.m.  Best practices sharing

3:30 p.m.  Presentation of key pedagogical issues arising from best practice sharing

3:45 p.m.  Small group discussion on issues arising from the best practices

4:15 p.m.  Group feedback on key issues

4:45 p.m.  Closing remarks
Appendix 19 Organizational Structure of Microsoft's Partners in Learning Program
Appendix 20 International Advisory Council Biographies

Retrieved on June 4, 2007 from:
http://www.microsoft.com/emea/education/partnersInLearning/lead.mspx#JohnBransford

<table>
<thead>
<tr>
<th>John Bransford</th>
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<tbody>
<tr>
<td>Co-Director, Learning Technology Centre</td>
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<tr>
<td>Centennial Professor of Psychology and Education, Peabody College</td>
</tr>
<tr>
<td>Vanderbilt University, Memphis, TN, USA</td>
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</table>

Author of seven books and hundreds of articles and presentations, John Bransford is an internationally-renowned scholar in cognition and technology. Early work by Bransford and his colleagues in the 1970s includes research in the areas of human learning, memory and problem solving, and helped shape the "cognitive revolution" in Psychology.

In 1984, Bransford was asked by the Dean of Peabody College at Vanderbilt to help begin a Learning Technology Centre that would focus on education. The Centre has grown from seven people in 1984 to approximately 70.

Bransford and his colleagues have won numerous awards. His Ph.D. dissertation won honorable mention in the national "Creative Talent Awards" Contest; several of his published articles (co-authored with colleagues) have won "article of the year" awards in the areas of science education and technology. The Little Planet Literacy Series, which Bransford helped develop, has won major awards including the 1996 Technology and Learning Award and the 1997 Cody award for Best Elementary Curriculum from the Software Publishers Association. Many of these programs are being used in schools throughout the world.

Bransford is currently co-chair of a National Academy of Science committee on "New Development in the Science of Learning". The goal is to synthesise new findings from research to create a "user friendly" theory of human learning. Issues of using technology to create learning communities are prominent in this work. Bransford has also been elected to membership in the National Academy of Education. Membership in the academy is limited to 125 persons whose accomplishments in the field of education are judged to be outstanding. From September 2003, Bransford will also be based in Seattle, working at the University of Washington, School of Education.

<table>
<thead>
<tr>
<th>Eduardo Chaves</th>
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<tr>
<td>Universidade Estadual de Campinas, Campinas, SP, Brazil</td>
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</table>

Professor Chaves has a Ph.D. in Philosophy for the University of Pittsburgh, in Pittsburgh, Philadelphia, U.S.A. (1972) and is currently the titular professor of Philosophy of the Education of the State University of Campinas (UNICAMP), Campinas, SP, where he has been since July 1974.

Consultant of the Project Your School at 2000 per Hour for the Institute Ayrton Senna, São Paulo, SP, since August of 1999.
Director of the Mindware company: Education and Technology, Campinas, SP. Member of the State Advice of Informática (CONI) of the State of São Paulo. Member of the Managing Committee of Informática (CDI) of the UNICAMP. Titular professor of Management of Systems of Information in the Pontifical University Catholic of Campinas (PUCCAMP).

Consultant of the Worldwide Organisation of Saúde (OMS), Geneva, Whisker, and of the Organization Pan-American of Saúde (OPAS), Washington, DC, U.S.A., in the area of Computer science in Health. Director of the Centre of Computer science in Saúde (CIS) of the Secretariat of the Health of the State of São Paulo. Author of several books including 'Technology and Education: The Future of the School in the Society of the Information, which was published in 1999, Chaves is currently working on a book entitled 'A New Education for a New Age'.

Michael Fullan

Former Dean of the Ontario Institute for Studies in Education of the University of
Toronto, Toronto, Canada

Michael Fullan is recognised as an international authority on educational reform. He has developed a number of partnerships designed to bring about major school improvements and educational reform, and is engaged in training, consulting, and evaluation of change projects around the world. He participates as researcher, consultant, trainer, and policy advisor on a wide range of educational change projects with school systems, teachers' federations, research and development institutes, and government agencies in Canada and internationally.

He has published widely on the topic of educational change. His most recent books are The New Meaning of Educational Change, and Leading in a Culture of Change. He has also published Change Forces: The Sequel, Change Forces: Probing the Depths of Educational Reform, and the What’s Worth Fighting For series.

Fullan is currently leading the evaluation team conducting a four year assessment of the National Literacy and Numeracy Strategy in England. He is also conducting with colleagues training, research and evaluation of literacy initiatives in several school districts, including the Toronto School District Board, York Region, Peel and Edmonton Catholic School District, and well as initiatives in San Diego.

Michael Furdyk

Co-founder Taking IT Global, Toronto, Canada

Born in 1982, Michael Furdyk is the co-founder of TakingITGlobal.org, a global non-profit online community for youth engaging members in over 200 countries. In the past, he has turned his interest of computers into a series of successful online companies, co-founding MyDesktop.com in 1997 (later sold to Internet.com in 1999 for $1-million) and BuyBuddy.com in 1999 (which closed a $4.5-million round of funding in late 2000). Over the last few years, Michael has done work for many large corporations, including Xerox, CIBC, IBM, and recently a six-month consulting engagement with Microsoft in Seattle, Washington.
As one of the "10 entrepreneurs who shaped the year 1999", according to Profit Magazine, and one of Teen People's "20 teens that will change the world (2000)", Michael has shared his experiences as a member of the Net Generation by speaking at many events, including two of Microsoft's Anytime, Anywhere Learning Summits, the Boca Raton gathering of The Business Council, and TED11. He has made numerous media appearances including The Oprah Winfrey Show, Time Magazine, Fast Company, Business 2.0, BusinessWeek, CNN, MSNBC, USA Today, Globe and Mail, and the National Post.

Leopoldo González-Echenique  
Chief of a main directorate for the Development of the Society of the Information of the Ministry of Science and Technology, Madrid, Spain.

Leopoldo González-Echenique Castilán of Ubao was born in September of 1969 in Madrid. He is licensed in Right and Economic Sciences by ICADE and belongs to the Body of Attorney Generals. He started in the Services of the Law of the State in Barcelona and the Departments of the Interior and of Economy and Property. Also he has been assistant director of the Legal Services of the National Commission of the Market of Values and from June of 2000 he was Director of the Technical Cabinet of the Undersecretary of Economy.

He developed his educational activity as Professor of Communitarian Right in the Pontifical University of Comillas Icai-icade. He has published monographic articles in diverse magazines of economy and right. He has also collaborated in the collective work publication- “La Director and the Decree Law of Electro'nica Company. Straight of Internet: electronic hiring and company digital”.

As Head of the Technical Cabinet of the Undersecretary of Economy he has participated in the development of projects of reception of the Society of the Information in the Public Administration. He has also had special involvement with the project CERES (Certificación Spanish Publica) piloted by the FNMT (National Factory of Currency and Timbre) and the implantation of the electronic company signature in the administrative procedures. On 11 October of 2002, the Castilán Cabinet named González Echenique of Ubao, new chief of a main directorate for the Development of the Society of the Information of the Ministry of Science and Tecnologí'a (MCYT).

Jenny Lewis  
Australian Council of Educational Leaders, Sydney, Australia

Ms Jenny Lewis is Principal of Noumea Public School, an Elementary school in New South Wales, Australia, and is National President of the Australian Council for Education Leaders. Jenny has written a number of papers, and has presented at conferences in the UK and across Australia as a keynote speaker in the area of leadership and school reform. She has also designed a teacher productivity software package called SchoolMate, which provides teachers and school administrators with comprehensive student assessment information that allows for better data-driven decisions.

Bruce Dixon  
Advisory Board Convener and Chair prestondixon, Australia

Biography not available
Appendix 21 Organizational Chart of PiL Staff in Redmond and Worldwide

- Gerri Elliot
  - Senior VP
  - World Wide Public Sector

- Ralph Young
  - VP

- Georgio Vanzini
  - Senior Director
  - Government and Education Programs

- Senior Director

- Lauren Woodman
  - Director
  - Market Development

- PiL Regional Managers (10)
  - West Europe, France, Germany, UK
  - Latin America, Middle East & Africa

- PiL Staff (5)
  - Redmond, WA, US

- PiL Country-level Academic Program Mgrs (86)
<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>Need identified for a Technology-Enhanced Learning Investigation (TEL)</td>
</tr>
<tr>
<td>1996</td>
<td>TEL Discussion Document completed</td>
</tr>
<tr>
<td>1997</td>
<td>SchooLS Africa established</td>
</tr>
<tr>
<td>1998</td>
<td>1. Draft curriculum and guidelines for Science and Technology Education at all Education Levels</td>
</tr>
<tr>
<td>2000</td>
<td>Provincial Level Projects</td>
</tr>
<tr>
<td>2002</td>
<td>ICT Forum Launched by the Department of Education and Communications</td>
</tr>
<tr>
<td>2003</td>
<td>DOE Releases National Curriculum (doe and doc)</td>
</tr>
<tr>
<td>2004</td>
<td>White Paper on Education</td>
</tr>
<tr>
<td>2005</td>
<td>Technology Steering Committee of 10-12 Computer Applications</td>
</tr>
</tbody>
</table>

**Source:** Department of Education and Department of Communications (2001). James (2001)

ICT Professional Development

- SCOPE (Finnish Development Support), SchoolNet, SchoolNet SA and the South African Institute for Distance Education have developed 11 Teacher Development Modules for introducing ICTs in schools;
- SchoolNet SA provides online, mentor-based in-service training for teachers on introducing ICTs into the curriculum and management; and
- INTEL “Teach to the Future” Teacher Development Programme provides teacher training in ICT integration into teaching and learning.

Electronic Content Resources

- Mindset develops content resources and makes it available via satellite television;
- Internet Multimedia and print supplements; and
- An Educational Portal initiated by the Department of Education provides digital content resources

Infrastructure and Connectivity

- Microsoft has donated software and provides teacher development and support;
- The Digital Partnership Programme provides 188 000 refurbished computers and 20 000 laptops;
- SENTEC provides 500 with computer labs and teacher development, through licensing obligations;
- Telkom Foundation has established Supercentres in more than 1300 schools, providing computers, software applications, Internet connection, monthly subscription and a rent-free telephone line; and
- Telkom Foundation, together with Telkom’s strategic partner Thintana, has committed over R200m to support education and training in the areas of ICT, mathematics and science.

Appendix 24 National Technology Officer Roles and Responsibilities

National Technology Officer Roles and Responsibilities

Their identified priorities for the fiscal year 2007 included:

* Generate sales leads from the above engagements and assist PS sales teams on identified critical sales opportunities. Provide any gleamed key tactical strategic sales information. * Enhance MS image in the Public sector: Cultivate press and analyst relationships to generate positive coverage. Radio (4), TV (4) and Print media (4)

Education elites are not considered separate, but approached in the same manner as policy elites in the markets that Microsoft serves.

In addition the NTO in South Africa assists government at the policy level in education,

* Through shared collateral and best practices that we have developed globally in different sectors. Sometimes by direct funding of specific policy directed programs.

* I address symposia, participate in government and Microsoft sponsored discussion to promote policy engagements

* Initiate opportunities to engage with universities, educational establishments etc and lobby for changes in regulatory and policy forums.

* Meet with the Minister of Education and with his executive leadership periodically and articulate how technology in particularly can be used to advance and enable the education policy agenda in the country. This is done within the ‘Trusted advisor framework’ which works well because NTOs have latitude to be technology agnostic which means we are not associated with hard core product choices.

[Personal Communication D17, South Africa, Microsoft]
Appendix 25 Microsoft’s Blueprint for Successfully Implementing ICTs in Schools

Source: Microsoft Corporation, 2005a
# Appendix 26 School Agreements for Free Software in South Africa

<table>
<thead>
<tr>
<th>Province</th>
<th>Number of Schools that Received Software</th>
<th>Number of Teachers</th>
<th>Number of Learners</th>
<th>Value of Software (Revised Academic Pricing)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gauteng</td>
<td>1166</td>
<td>17,490</td>
<td>816,200</td>
<td>R 24,019,600</td>
</tr>
<tr>
<td>Mpumalanga</td>
<td>336</td>
<td>5,040</td>
<td>235,200</td>
<td>R 6,921,600</td>
</tr>
<tr>
<td>Free State</td>
<td>366</td>
<td>5,490</td>
<td>256,200</td>
<td>R 7,539,600</td>
</tr>
<tr>
<td>Limpopo</td>
<td>312</td>
<td>4,680</td>
<td>218,400</td>
<td>R 6,427,200</td>
</tr>
<tr>
<td>North West</td>
<td>475</td>
<td>7,125</td>
<td>332,500</td>
<td>R 9,785,000</td>
</tr>
<tr>
<td>North Cape</td>
<td>323</td>
<td>4,845</td>
<td>226,100</td>
<td>R 6,653,800</td>
</tr>
<tr>
<td>KwaZulu Natal</td>
<td>682</td>
<td>10,230</td>
<td>477,400</td>
<td>R 14,049,200</td>
</tr>
<tr>
<td>Eastern Cape</td>
<td>436</td>
<td>6,540</td>
<td>305,200</td>
<td>R 8,981,600</td>
</tr>
<tr>
<td>Western Cape</td>
<td>634</td>
<td>9,510</td>
<td>443,800</td>
<td>R 13,060,400</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>4730</strong></td>
<td><strong>70,950</strong></td>
<td><strong>3,311,000</strong></td>
<td><strong>R 97,438,000</strong></td>
</tr>
</tbody>
</table>

Source: Microsoft Corporation, 2006g