

18 THE IMPORTANCE OF BEING NEAREST: NEARSHORE SOFTWARE OUTSOURCING AND GLOBALIZATION DISCOURSE

Pamela Abbott

*Judge Institute of Management
University of Cambridge
Cambridge
United Kingdom*

Matthew Jones

*Judge Institute of Management
University of Cambridge
Cambridge
United Kingdom*

Abstract

In the idea of the “death of distance,” globalization discourse presents a picture of a world of global social and economic integration, declining cultural differentiation, spatial and temporal disembedding of social practices, and the economic primacy of dematerialized knowledge work. Nearshore software outsourcing, a subcategory of offshore software outsourcing in which the development centers are located outside of the outsourcer’s host country, but in the same, or a similar, time-zone, would appear to provide a prime example of this concept. Drawing on evidence from two Caribbean nearshore software development initiatives and interviews with nearshore practitioners, however, this paper suggests that nearshore software outsourcing reflects, and perhaps extends, many of the features of globalization discourse, while at the same time contrasting with it. In particular, the notion that globalization inevitably leads to placelessness and homogeneity, and that the nation state as an influence on economic activity is disappearing, are questioned.

The original version of this chapter was revised: The copyright line was incorrect. This has been corrected. The Erratum to this chapter is available at DOI: [10.1007/978-0-387-35634-1_28](https://doi.org/10.1007/978-0-387-35634-1_28)

E. H. Wynn et al. (eds.), *Global and Organizational Discourse about Information Technology*
© IFIP International Federation for Information Processing 2003

1 INTRODUCTION

According to its proponents, such as Ohmae (1989) and Quah (1998), globalization involves an increasing level of international economic integration, based on principles of free trade and capital mobility, creating a single global economy dominated by transnational corporations. Lacking any national allegiance, these corporations locate their activities wherever conditions are most advantageous. Individual nation states are powerless to resist these developments, and any attempts they make to manage their economies are futile in the face of the “weightless economy” of this “borderless world.”

With economic integration is seen to come social integration and declining cultural diversity as the whole world becomes a unified market with similar products sought by similarly motivated consumers. Localized “places” give way to timeless, global “spaces” (Harvey 1989).

Information and communication technologies (ICTs) are seen to be heavily implicated in globalization processes as a result both of the central role of information (or knowledge) in the global economy (Reich 1991) and of their effects on the spatial organization of economic and social activity. As Castells (1996, p. 66) puts it,

a new economy has emerged in the last two decades on a worldwide scale. I call it informational and global to identify its fundamental features and to emphasize their intertwining... it is the historical linkage between the knowledge-information base of the economy, its global reach and the Information Technology Revolution that gives birth to a new distinctive economic system.

While the necessity of, and evidence for, these developments has been widely challenged (e.g., Hirst and Thompson 1999), such claims are nevertheless recognized as constituting an influential and highly pervasive discourse.

1.1 The “Death of Distance”

Popular perceptions of the spatial effects of ICTs in globalization processes are neatly captured in the title of Frances Cairncross’s 1997 book *The Death of Distance: How the Communications Revolution Will Change Our Lives*. ICTs are seen to have all but eliminated spatial constraints on economic activity. Other writers, notably geographers, report similar claims. For example, Brunn and Leinbach (1991) talk of space and time collapsing, arguing that “distances

'shrink' with faster and improved communications between places" (p. xvii), while Janelle (1991, p. 49) talks of "space-adjusting technologies" and "time-space convergence." "The spatial dynamics of the whole world" according to Robins and Hepworth (1988, p. 156) "collapse to those of a pinhead."

These ideas have been picked up in popular discussion of the effects of ICTs, especially by those with a vested interest. For example, King (1999a) quotes an outsourcing consultant, "[with] advancements in communications and the Internet, the world has shrunk down to the size of a pea, and the fact that you might be 9,000 miles away is irrelevant once you put the right project management disciplines in place."

More surprising, perhaps, similar ideas are also found in the writings of social theorists such as Giddens and Castells. Thus Giddens (1979, p. 204) states: "modern technologies of communication...no longer allow distance in space to govern temporal distance in mediated interaction," while the significance of time-space distancing and the separation of space from place subsequently became a major strand of his analysis of modernity (Giddens 1990). It is in his recent discussion of globalization, however, that Giddens's "gee-whizz" attitude (Hutton and Giddens 2001, p. x) to information technology has come to the fore. Thus in Hutton and Giddens, he talks of "the information revolution...producing a...quantum leap, forcing a...restructuring of the whole of the capitalist economy...[in which] information and knowledge have become media of production" (pp. 20-24). This "dematerialized...knowledge economy," he argues, "is already a reality....How or where goods are manufactured" is irrelevant.

For Castells (1996), the geography of the "Network Society," characterized by the "space of flows" and "timeless time," is perhaps slightly more differentiated than Giddens's view, but is nevertheless significantly spatially and temporally disembedded. Connection to international communications networks, Castells argues, is now far more significant than geographical location in determining the opportunities for economic and social interaction. Sites connected to these networks are tightly integrated, while lack of connection leads to economic and social isolation. Brunn and Leinbach (1991) make a similar point in arguing that "relative location is more important than absolute location in a tightly connected and integrated world" (p. xvii).

1.2 IS Research and the "Death of Distance"

Despite the claimed connection between IS and the spatial effects of globalization, however, this topic has received relatively little attention in the IS literature. Rather, globalization research in the IS field has tended to focus on the management of global IS in transnational corporations (e.g., King and Sethi

2001). The main exception is the work of Sahay, who has explored the relationship between IS and time and space in a number of papers (e.g., Sahay 1997; Nicholson and Sahay 2001). Issues of cultural diversity in the context of globalization are also discussed by Walsham (2001) and Avgerou (2002).

A significant manifestation of the “death of distance” is seen to be the growth of offshore software outsourcing (Herbsleb and Moitra 2001), especially to India. While Cairncross’s more detailed discussion of the experience of Bangalore’s software industry notes that it illustrates that “the death of distance has limits” (p. 203), the headline claims that “companies will be free to locate many screen-based activities wherever they can find the best bargain of skills and productivity” (p. xi) and that “Developing countries will increasingly perform on-line services and sell them to rich countries” largely support a simplistic interpretation of the title.

In this context, a recent development in offshore software outsourcing represents an apparent exception to these trends. This is the growth of proximity development centers, set up near clients’ offices by offshore software development companies, especially from India, and of “nearshore” software development centers established in developing countries, such as the Caribbean islands, close to client markets. Both of these developments would seem to suggest that distance continues to exert an influence.

The aim of this paper is, therefore, to explore this phenomenon through an examination of the reasons for the emergence of nearshore software development and the experience of companies undertaking it. To this end, the paper describes two Caribbean nearshore software development initiatives and presents evidence from interviews with nearshore software outsourcing practitioners to explore the continuing significance of distance and location. After defining nearshore software development and describing the research methods employed, the empirical evidence is presented. Discussion is focused on differences and similarities between the nearshore practice and the discourse of globalization.

2 DEFINING NEARSHORE SOFTWARE OUTSOURCING

Nearshore software outsourcing is a specialization of the much wider phenomenon of IT outsourcing, in which some or all of the work that comprises the functioning of a company’s IT base is contracted to external organizations. The type of organization to which work is contracted can range from an independent third party contractor to a wholly owned subsidiary and may involve any sort of collaboration or alliance between the parties involved.

As Lacity and Willcocks (2001) report, outsourcing is increasingly occurring on a global scale, with work being carried out offshore, i.e., in a different country from that in which the outsourcing company is located. Apte (1990) identifies two types of services that are being globally outsourced: information systems-related, the operation of IT services/projects such as software development; and IT-related, the use of IT to provide a service, for example, data entry processing

Within global IT outsourcing, nearshore software outsourcing refers specifically to situations in which software development centers are located outside of the outsourcer's host country, but in the same, or a similar, time-zone, and which can be reached by a short-haul flight from the outsourcer's site. Offshore software companies in Mexico, for example, are said to be practicing nearshore outsourcing since their development centers are located close to the United States where the bulk of their customers operate. Most nearshore software outsourcing is of information systems-related services and can take the form of staff augmentation (extending the outsourcer's IT team with the addition of a remote team of developers) or remote project management (management of an outsourcer's software development project from start to finish).

Carmel (1999) identifies Mexico, the Caribbean, and Cyprus (from Israel) as being the main locations for nearshore software outsourcing. For example, the Mexican IT trade association, AMITI, identifies 13 of its 96 registered software companies as software exporters. Reliable data on the overall nearshore software market are difficult to obtain, as most reports are anecdotal (e.g., King 1999b; *Financial Times* 1999), but some estimate of its size may be inferred from claims that India's income from software sales (US \$6.2 billion in 2000/2001) accounts for 60 percent of global software outsourcing (NASSCOM; *Computing* 2001).

While nearshore software outsourcing is a relatively recent development (Carmel 1999) on which there has, as yet, been little research, there is a growing literature on offshore outsourcing that may provide some guidance for understanding this phenomenon. Carmel emphasizes the potential of offshore outsourcing to promote economic development and to connect countries to international networks. Cost savings, downsizing, and filling the software skills gap are identified as key reasons for outsourcing, as Lacity and Willcocks (2001) confirm. Location transparency ("eliminating the perception of distance through technology"; Carmel 1999) and the possibility of 24-hour follow-the-sun production from the exploitation of time zone differences are identified as further potential benefits. While acknowledging that cultural differences do exist, Carmel also suggests that the uniform global software subculture overrides national differences (although Barrett and Walsham [1995] might suggest otherwise).

Nicholson and Sahay (2001) and Heeks (1999) also emphasize the placelessness of offshore outsourcing. Heeks, for example, argues that

computer science graduates need arm themselves with just a PC and a couple of user contacts to become part of the local information economy. Add a modem and they are global “infopreneurs” (p. 15).

Although he presents evidence of the potential economic benefits of offshore outsourcing for developing countries, Heeks also warns of hidden costs, such as the emergence of export “enclaves,” restricting knowledge transfer to the domestic market, and competition from colocated transnational corporations developing local expertise.

Outsourcers’ concerns about doing business in the Third World are identified both by Nicholson and Sahay and by Heeks as a barrier to offshore development. Heeks argues, however, that government support in areas such as financing, education and training, research and development, ensuring intellectual property rights, and development of infrastructure can be vital in establishing successful offshore software centers.

Two studies specifically identify factors to be considered in offshore outsourcing decisions. Smith et al. (1996) recommend that prospective offshore software providers should be assessed from resource (including hardware, software, personnel, intellectual property, and financing), environmental (including firms, government, infrastructure, business environment, and international standards), and project management (project characteristics such as scale, scope, duration, difficulty, and strategic importance) perspectives. Similarly, Ravichandran and Ahmed (1993) propose the assessment of technological (including telecommunications and infrastructure support), geopolitical (including political stability, market entry advantages, and prevailing rules and regulations) and managerial (including communications, cost, and project management capacity) factors.

3 STUDYING NEARSHORE SOFTWARE OUTSOURCING

In the absence of an established body of research on nearshore software outsourcing, data-gathering efforts were focused on primary sources. Semi-structured interviews, typically lasting about 45 minutes, were held with nearshore practitioners and with a small number of outsourcers and offshore practitioners for comparative purposes. Where it was not possible to undertake face-to-face interviews, a combination of telephone and e-mail interviews were carried out. Interview findings are unattributed to protect confidentiality. Table 1 summarizes the interview arrangements.

Table 1. Summary of Interviews Undertaken

Type of Respondent	Number of Interviews by Type		
	E-mail	Phone	Face-to-Face
Nearshore	3	7	21
Offshore	2	4	0
Outsourcer	0	6	0

These interviews were supplemented by observations from a site visit to one company and documents such as official reports, academic papers, company-supplied promotional material, and press reports of specific initiatives, where available.

3.1 Data Analysis

The transcribed interviews and email responses were initially coded using QSR NUD*IST® with a particular focus on themes relating to the relative advantages and disadvantages of nearshore and offshore outsourcing and the remedial processes undertaken to address disadvantages. Responses relating to these themes were then categorized along a second dimension focused on *resources*, human and/or physical assets necessary for the practical realization of the nearshore model; *location*, particular tangible and intangible features of the nearshore location; and *context*, the broader political and social setting.

These categories were compared with the literature on offshore outsourcing, in particular by Ravichandran and Ahmed and by Smith et al. The latter claim their framework is comprehensive in combining intrinsic aspects of offshore work with the external characteristics of the offshore environment. While no direct equivalent for the context category was found in either source and the project management aspects of nearshore outsourcing did not feature significantly in the interview responses, the main features of the nearshore model were considered to be broadly similar to those found in the offshore outsourcing literature.

3.2 Limitations

The small number of nearshore cases restricts the opportunity for generalization of the analysis. The two nearshore companies studied were both small,

with only about 100 employees and thus, perhaps, of limited significance in terms of the international software industry as a whole (despite their considerable importance to the economies of the small developing islands on which they are located).

4 NEARSHORE SOFTWARE OUTSOURCING IN PRACTICE

As an illustration of the way in which nearshore offshore outsourcing operates in practice, two such initiatives in the Caribbean that highlight the problems and opportunities facing companies operating in the sector will be briefly described.

4.1 PRT Barbados

PRT (Barbados) Ltd. (PRTB), was a subsidiary of PRT Group Inc., a U.S.-based information technology solutions integrator. In 1994, Doug Mellinger, the CEO of PRT, after initially investigating outsourcing to India, identified Barbados as a potential site for an offshore development center. In addition to excellent telecommunications infrastructure, low costs, availability of skills, and English being the primary language, “its location made it easy to reach, and customers could work there with a PRT team, undistracted by day-to-day office problems” (*Inc.* 1998). The vision was shared by a number of PRT’s customers, who supported the project with contributions, such as advance payment for future work, and donated design help and construction management expertise to the value of \$12 million (*Inc.* 1998). As *Inc.* described it:

[Mellinger] decided that since the country he needed didn't exist, what he would do is invent it. He would invent a place programmers would want to come to, a place they'd want to stay.... The customers would come because the place had what they needed, was where they wanted to work, and was home to the people they wanted to work with.

PRTB was established in a state-of-the-art facility on a site near to tourist resorts that would be attractive to customers and programmers alike. Because of a shortage of sufficiently trained software engineers in Barbados, PRTB recruited expatriates from various countries including India (King 1999b). Working with the Barbadian government, PRTB also proposed to provide ”training, internships

and jobs to Barbadian computer science students and [helped] to develop an islandwide curriculum for elementary and secondary schools” (King 1999b). As *Inc.* magazine put it at the time:

On an island in the Caribbean, four hours by air from New York City, Mellinger has imported the workers, the customers, the capital, the infrastructure. He’s established a partnership with the island itself that suggests how a tiny developing nation can leapfrog right over the industrial stage of economic evolution into a global, technology-based, knowledge-driven future.

PRTB at first proved to be very successful, attracting blue-chip U.S. clients such as J.P. Morgan and Prudential Insurance (King, 1999b) and growing rapidly to 350 staff. During 1998 and 1999, however, PRTB’s profits fell sharply and by June 1999, staff numbers were down to 80. The problems were attributed to the difficulties of selling the nearshore concept to customers:

More and more it appeared that the challenge of selling the “nearshore” programming alternative... was greater than anyone had expected.... It was hard enough getting companies to send their programming work offshore, to places like India, but that alternative was at least well understood (*Inc.* 1999).

4.2 Indusa, Jamaica

Indusa Global was set up in 1995 by James Ram, an Indian expatriate living in the United States. He initially sought to outsource software development work to India, but found that his clients complained of the remoteness of doing work there:

some of them felt that traveling all the way to India was hard and difficult and even we felt from a control standpoint, it was harder to control a company that was approximately a 30-hour flight away (James Ram, CEO, Indusa).

Believing it would be simpler if the outsourcing operation was located nearer to the United States, he teamed up with U.S. entrepreneur Carroll Rushing to establish a software development presence in the Caribbean. Jamaica was eventually chosen because of its proximity to the United States and the existence of telecommunications infrastructure.

Indusa recognized the need to develop the local skills base by providing computer programming training for Jamaican nationals, initially “incubated” by Indian expatriates. To this end a training school, the Caribbean Institute of Technology (CIT), was established in collaboration with the government of Jamaica (in the form of the Ministry of Trade, Industry and Communications, the Ministry of Education, and the national training agency, H.E.A.R.T.) and academic partners in Jamaica, the United States, and the United Kingdom. The curriculum, developed by the partners, was closely tied to Indusa’s needs and focused on the latest technological areas, such as Web and Java programming. Indusa Global provided start-up money and pledged to hire all of the members of the first graduating class.

We would bring in Indians that had been trained in India, move them to Jamaica, create an offshore business, and use the Indians as the mentors for the students when they graduated... to incubate them and improve their skills (Carroll Rushing, Chairman, Indusa).

The Jamaican government played an active role in the project as part of a deliberate policy decision to “concentrate training efforts on information technology, to get our brighter Jamaicans to upscale into programming” (Alistair Cooke, Chairman of H.E.A.R.T.), providing support through government development bodies and infrastructure and financing for training.

According to Ram, numbers of staff rose from an initial 15 to close to 100, by 2001, 83 of whom were CIT graduates. Very aware of problems experienced by PRT, Indusa’s more gradualist strategy and close integration with the local education and business community appears, so far, to have been more successful, achieving steady growth in turnover and staff. Estimated revenues for 2002 are forecast at US \$3 million.

5 THE CONCEPT OF NEARSHORE SOFTWARE DEVELOPMENT

Interviews with nearshore practitioners suggest that the viability of nearshore software outsourcing, especially compared to the better-established offshore model, depends on the balance between the advantages and disadvantages of nearshore location and the extent to which the latter may be overcome. These advantages, disadvantages, and remedial processes may be considered under three broad headings: resources, location, and broader context.

5.1 Nearshore Advantages

5.1.1 Resources

Perhaps the primary consideration influencing location decisions was cost:

we had the same, similar cost in [the Caribbean] as India.

This could be helped by government tax concessions:

duty-free export, income tax concessions to employees, exemption from exchange controls, no capital gains tax, no withholding taxes on dividends, interest and management fees paid to non-residents.

The availability of appropriate infrastructure, however, was not far behind:

two very key things: telecommunications infrastructure and telecom tariffs. For commerce and intensive business the infrastructure must be good and the tariffs affordable.

Another important consideration was the availability of well-trained staff and/or the existence of a pool of trainable people:

There are a lot of university-qualified graduates of high schools in [the Island] ...who are not able to secure a position for one reason or another ...so we felt there was a large pool of qualified talent there, really, for the development.

5.1.2 Location

One of the most compelling reasons given for the decision to locate in the Caribbean was its proximity to the United States. This translated to convenience for both customers and nearshore managers alike.

There's a reluctance from people in this country to travel for 30 hours to get to India. You can leave Atlanta, Georgia, Charlotte, North Carolina, and be in [the Caribbean] in 2 ½ hours.

Related to the issue of proximity was the ability for customer and nearshore companies to interact in the same or very similar time zones, facilitating communication and management:

[It would be] harder to control a company that was approximately a 30-hour flight away....since our management...are primarily based in the U.S.

The benefits of same-day communication were also stressed:

Same time zone is an advantage – easier to make conference calls, etc.

The physical character of the location itself may also be an attraction, as *Inc.* (1999) put it: “It’s a tropical island. When you’re not working, you can play tennis all winter if you want.” Interviewees also lent support to this notion:

[The Caribbean] is a good holiday destination.

More importantly, perhaps, the Caribbean was seen as a familiar environment, compared to India:

Clientele [are] still not too happy coming to India as they would [be coming] to [the Caribbean; they] still think India is a country of snake-charmers

whose culture was perceived to be very different to that of the United States:

Oriental cultures are very different from the Western cultures. Offshore is traditionally considered to be India, the way of communication there is very different hence if the nearshore is situated in the Western part of the world, these cultural problems might no longer exist.

5.1.3 Context

The advantages of the Caribbean context appeared to be related to the colonial heritage of these islands, such as having English as the primary language and a British-based educational system and telecommunications infrastructure.

The British secondary education system, we felt, would provide very good preparation for students who might come into the training program.

The business environment was also familiar:

You can stay in a Holiday Inn, you can stay in a Ritz Carlton, you can stay in named hotels with good venues while you're doing your business.

It may also be easier to apply a U.S.-type work culture to their organizations:

I think another really, really important point is the fact that we run this very much like a U.S. company in [the Caribbean] as opposed to really a [Caribbean] company.

This could be positive for employees too:

In [the Caribbean], there is a huge difference between management, middle management and workers....the worker is so far removed from the management....On our side...if my team is working...whether it's at three o'clock in the morning, I'm there to support them.

We treat our employees with respect...they know their deadlines. In a lot of these other companies...they start with suspicion on the [Caribbean] workers. We trust people...with our stuff.

5.2 Nearshore Disadvantages

5.2.1 Resources

The primary resource constraint was seen to be a shortage of skilled staff:

Such countries...do not often have the caliber of software professionals that are required, hence, staff relocations are required and that means recruiting from "other" countries.

Such recruitment was seen as creating problems of cultural differences, however:

and with all culture comes the, not distrust, but merely misunderstanding, things that normally, routinely are done in one culture, but not routinely done in another culture, so it creates confusion, gives false signals.

5.2.2 Location

There were doubts about the suitability of islanders for software development work:

The image of the Caribbean certainly does not suggest high tech solutions to your business problems. Folks think of the Caribbean as a place to go and relax on a nice vacation, lay out on the beach

a view shared by the imported software professionals:

our Indian employees were very skeptical about the whole thing, [they told us] many times how this was not going to work.

This was recognized to reflect preconceptions, though, not just about the location itself, but also about the possibility of offshore software development in unfamiliar countries.

People have a lot of preconceived notions. They've come to accept India as a solution provider for software and Ireland and so on, [but] they've never heard of [the Caribbean].

5.2.3 Context

Government bureaucracy was seen to be a barrier:

Initially, this concept...was not well liked...by most of the bureaucrats in [the Island; they were] advised to kill the project and not go forward with it.

The government's reservations, however, were recognized to reflect their prior experience:

In the beginning there was a great deal of mistrust...the [government] have been involved, for example, in...projects that had some similarity. And, frankly they've been stung a time or two.

The project also created conflict between government departments:

While this thing was being posted and sponsored by the Minister of Technology, it had to overlap his authority in going to the Minister of Education. That's the first place that we saw any kind of a conflict or created complexity of organization

and between private and public sector interests:

because [the developer] is a privately owned company and because [the training organization] is currently a not-for-profit company, they have some conflicts in the way those organizations have to be run.

5.3 Remedial Processes

5.3.1 Resources

Staff shortages were to be addressed by developing indigenous resources:

We felt that the way to build it would be to establish a training program, develop our own workforce and then use them to build the company.

This was also seen as a means of reducing staff turnover:

[It is] difficult to retain Indian staff since most [are] intent on running away to the U.S. Not half of these problems with the Caribbean staff. Recruitment would be easier. The skill set can be brought up to speed if it is not yet in place.

5.3.2 Location

Doubts about the suitability of the Caribbean were said to be easily overcome by visits to the site.

Every time that we're able to get an American prospect [to] visit our facilities and have the experience of seeing what we do, it always results in business.

It was also important for a company to be sensitive to, and to seek to surmount, cultural differences, especially where they still had significant numbers of expatriate staff.

Assimilation to the local culture by employees—this is a key issue for a nearshore company to succeed. I met one of the clients who told me about an off-shore branch they opened in [another country], but after less than 2 years, they had to shut it down—all because the expat employees (mainly Indians) could not assimilate or integrate in the...society.

5.3.3 Context

Success was seen to require commitment from both sides

And that's been primarily the two main factors that have lent that tenacity to the project, one is...Minister Paulwell's consistent support of the project....And then the other thing was Carroll Rushing's commitment to hire the graduates, and his follow-through on that

and the selection of suitable projects to exploit locational advantage:

Production support is doable due to the time zone advantage as opposed to India's time zone. Better to do this type of work in [the Caribbean].

Table 2 summarizes the practitioners' views on the viability of the nearshore model.

6 DISCUSSION

The introduction to this paper sought to illustrate how the idea of the death of distance relates to a globalization discourse that envisages the economic primacy of dematerialized knowledge work in a world of global economic integration, powerless nation states, declining cultural differentiation, and spatial and temporal disembedding of social practices. Nearshore software outsourcing,

Table 2. Practitioners' Views on Nearshore Software Outsourcing

	Nearshore Advantages	Nearshore Disadvantages	Remedial Processes
Resources	<ul style="list-style-type: none"> • Cost of labor • Government incentives, e.g., tax breaks • Infrastructure • Availability of educated, English-speaking workers 	<ul style="list-style-type: none"> • Shortage of qualified staff • Cultural problems created by recruitment of expatriates 	<ul style="list-style-type: none"> • Development of indigenous resources
Location	<ul style="list-style-type: none"> • Proximity to Client (United States) • Shared time zones • Physical characteristics, e.g., touristic appeal • Familiarity of the environment, similarity with Western, particularly U.S., culture 	<ul style="list-style-type: none"> • Negative perception of the Caribbean as a high-tech business destination 	<ul style="list-style-type: none"> • Overcoming client misconceptions through first-hand experience of the environment • Assimilation into, and sensitivity to the local environment
Context	<ul style="list-style-type: none"> • British colonial heritage, e.g., language, educational system, telecommunications infrastructure • Business environment made similar to the United States 	<ul style="list-style-type: none"> • Government bureaucracy • Suspicion of foreign investors by local authorities • Conflicts of interest among alliance partners 	<ul style="list-style-type: none"> • Commitment of all alliance partners to achieve shared goals • Selection of projects to exploit locational advantages

as illustrated by the two Caribbean examples and the views of its practitioners, may thus be seen to reflect, and perhaps extend, many of the features of this discourse, but also to set itself in contrast to it.

6.1 Economic Development

The feature of globalization discourse that nearshore software outsourcing would appear to reflect most closely is perhaps its underlying model of economic development, characterized by an emphasis on free trade, the mobility

of capital and the increasing dominance of information and knowledge as the media of production. Software development is clearly centrally implicated in such a knowledge economy and its outsourcing is an important manifestation of the liberalization of international trade and capital flows. Journalistic hyperbole notwithstanding, therefore, it is not difficult to appreciate the possible appeal of the vision of PRTB in such a context as a model for the transformation of economies of Caribbean islands to a global, technology-based knowledge driven future, even if subsequent events suggest a more cautious interpretation may be appropriate.

As the Indusa case illustrated, nearshore outsourcing, if directed toward fostering the local knowledge economy, may have a positive effect on local skills, contributing to increased earning capacity and improved social status for those involved, which, in turn, may feed into a virtuous cycle, increasing competitive advantage for the island as a whole and hence attracting further knowledge work investments. This may be contrasted with PRTB's more export enclave (Heeks 1999) strategy, where the emphasis was predominantly on providing skilled workers at a convenient location. Contrary to claims in some of the literature, therefore, sustainable development through nearshore outsourcing would seem to involve more than attracting footloose satellites of the outsourcing market.

6.2 Economic Integration

Nearshore software outsourcing also presupposes a significant level of global integration. Without companies who perceive the international economy as sufficiently socially and economically interconnected to make extraterritorial outsourcing feasible, the notion of offshore software development, wherever located, would be a non-starter. As the difficulties encountered by PRTB and interviewees in persuading clients of the merits of nearshore outsourcing demonstrated, however, the geography of this global system is highly selective and connecting to it far from straightforward. Thus, even if distance is not as irrelevant, as some authors claim, neither does interaction necessarily increase with proximity.

At the same time, nearshore software outsourcing appears to require a degree of local integration. The alliances built by Indusa with Jamaican government departments and higher education institutions and its development of local skills, rather than relying on expatriate labor, tied it more closely than PRT to the Caribbean context. Contrary to the claims of some globalization proponents, therefore, software development would not seem to be simply transplantable into any environment without reference to local conditions.

6.3 The Role of the State

Caribbean nearshore software outsourcing practice also contrasts with globalization proponents' claims of the "shrinking of the state" (Cairncross 2001). Rather than, as Ohmae (1989) suggests, government policy being ineffectual in the borderless world, the Jamaican government's active role in supporting Indusa, while not without tensions, would seem to have been a significant factor both in the company's initial decision to locate there and in its subsequent development. It would seem, therefore, that, as Lipsey (1997) and Heeks (1999) argue, while globalization and the ICT revolution may cause significant changes in the role of governments they can still have an impact on growth in technological areas, especially in establishing a basis for sustainable development of the technology sector.

6.4 Cultural Diversity

In emphasizing homogeneity (for example, the familiarity and similarity of the work environment in the Caribbean and the United States), nearshore software outsourcing may be seen to support claims of declining cultural diversity. Software development is presented as more or less the same whether it takes place in Jamaica or in Georgia, apart, of course, from the cost and the quality of the leisure opportunities. While this claim is somewhat disingenuous, as this homogeneity is largely manufactured by the firms themselves, that it is made at all suggests that it is considered to have at least some plausibility.

At the same time, however, nearshore companies seek to differentiate themselves, both from their offshore competitors and from U.S. national out-sourcers. This involves contrasting themselves positively with the supposedly alien culture and environment of India while simultaneously differentiating themselves on grounds of their attractively, but safely, exotic environment, from U.S. out-sourcers. Thus, as Appadurai (1996) argues, globalization, rather than inevitably leading to homogenization, may also be a localizing process.

Cultural diversity also appeared to be an issue with respect to the employment and retention of expatriate staff, with similar tensions between expatriates and locals to those discussed by Barrett and Walsham (1995) being reported by nearshore practitioners. Thus, while skill shortages may make importation of expatriates essential in the initial stages of establishment of nearshore centers, it would seem that their cultural integration with local staff may pose considerable difficulties.

6.5 Space and Time

The notion of placelessness and timelessness in globalization discourse may similarly be contrasted with evidence from nearshore practice of the benefits of location and synchrony. Thus, against claims of locational transparency and 24 hour production cycles (e.g., Carmel 1999), nearshore practitioners stress the advantages of accessibility, real-time and face-to-face interactions in facilitating control, and smooth operation of the software development process.

The Caribbean islands are also seen as having a distinctive character, rooted in their specific colonial history, with its educational, linguistic, and infrastructural legacies, and their particular geographical setting, encouraging perceptions of them as attractive locations, if mainly for holidays. While, as this last point suggests, this character may not be wholly positive in promoting the islands as sites for nearshore development, it does suggest that their qualities as places is not irrelevant to their appeal.

While emphasizing the continuing importance of location, these claims may be contrasted with those of writers such as Leamer and Storper (2001), who argue that there are significant agglomeration tendencies even for “intellectual and innovative activities” and that these are likely to be geographically clustered. Nearshore software development, however, appears to a considerable extent to be placeless, operating in sites chosen for their international connectivity and proximity to markets, rather than because of inherent locational advantage or interaction with specific local networks. They could be wherever the necessary connections and conditions are present.

The initial difficulties faced by nearshore developers in gaining recognition for the potential of their model may be seen to provide support for notions of the space of flows (Castells 1996), in which the geographical proximity of the Caribbean islands to the United States market counts for less than their marginal position with respect to established networks of industry relationships. That client’s concerns seemed to be relatively easily overcome by site visits, however, may be seen as evidence of the persistent significance of real space.

Table 3 summarizes the similarities and differences between globalization discourse and nearshore practice.

7 CONCLUSION

This paper uses the concept of nearshore software outsourcing to illustrate how a phenomenon that can be classified as an apparent consequence of globalization both supports some aspects of popular discourse on globalization but challenges others. Thus, nearshore practice appeared broadly to reflect ideas

Table 3. Nearshore Practice and Globalization Discourse

Globalization Trends	Reflects/Extends	Contrasts/Challenges
Economic development through free trade in knowledge goods	<ul style="list-style-type: none"> • Development through participation in global knowledge economy 	<ul style="list-style-type: none"> • Sustainability of development requires fostering of local knowledge economy
Increasing economic integration	<ul style="list-style-type: none"> • Nearshore outsourcing as a manifestation of global knowledge economy • Selective geography of integration 	<ul style="list-style-type: none"> • Need for local integration
Declining role of the state		<ul style="list-style-type: none"> • State support for development can make a difference
Declining cultural diversity	<ul style="list-style-type: none"> • Promotion of familiarity of nearshore culture • Creation of similar work environment 	<ul style="list-style-type: none"> • Differentiation from alien offshore culture • Promotion of safely exotic environment • Cultural differences between expatriate and local staff
Irrelevance of Place and Time	<ul style="list-style-type: none"> • Little evidence of agglomeration effects • Network connectivity critical 	<ul style="list-style-type: none"> • Benefits of location and synchrony • Significance of distinctive history and geography of location • Site visits persuade clients of benefits of proximity

of the emergence of a global knowledge economy and global economic integration, albeit with strong local connections. Notions of the powerlessness of nation states, however, may be contrasted with evidence of active government involvement and of positive outcomes of strategies linking IT and economic development for sustainable growth.

Support for claims by globalization proponents of increasing cultural homogeneity and temporal and locational transparency was more mixed. Thus, while to some extent aligning itself with concepts of homogeneity, placelessness, and timelessness, nearshore outsourcing also manifested significant aspects of differentiation and localization, suggesting that a more nuanced treatment of these issues would be desirable. Finally, and more generally, this analysis of nearshore software outsourcing has drawn attention to a phenomenon, the spatial and temporal dimensions of globalization (in which ICTs are seen to be centrally implicated), that has been relatively neglected in IS research and would appear deserving of greater attention.

8 REFERENCES

- Appadurai, A. *Modernity at Large: Cultural Dimensions of Globalization*. Minneapolis, MN: University of Minnesota Press, 1996.
- Apte, U. "Global Outsourcing of Information Systems and Processing Services," *The Information Society* (7:4), 1990, pp. 287-303.
- Avgerou, C. *Information Systems and Global Diversity*. Oxford, UK: Oxford University Press, 2002.
- Barrett, M., and Walsham, G. "Managing IT for Business Innovation: Issues of Culture, Learning, and Leadership in a Jamaican Insurance Company," *Journal of Global Information Management* (3:3), 1995, pp. 25-33.
- Brunn, S. D., and Leinbach, T. R. "Introduction," in *Collapsing Space and Time: Geographic aspects of communication and information*. London: HarperCollins Academic, 1991, pp. xv-xxi.
- Cairncross, F. *The Death of Distance: How the Communications Revolution Is Changing Our Lives*. Boston: Harvard Business School Press, 2001.
- Cairncross, F. *The Death of Distance: How the Communications Revolution Will Change our Lives*. Boston: Harvard Business School Press, 1997.
- Carmel, E. *Global Software Teams: Collaborating Across Borders and Time Zones*. Upper Saddle River, NJ: Prentice Hall, 1999.
- Castells, M. *The Rise of the Network Society*. Oxford, UK: Oxford University Press, 1996.
- Computing. "Enterprise—India Benefits from the UK's Growing Love of Outsourcing," *Computing*, April 26, 2001.
- Financial Times*. "Inside Track: Nearshore Contracts Flow Mexico's Way," *Financial Times*, May 17, 1999, p. 16.
- Giddens, A. *Central Problems in Social Theory*. London: Macmillan, 1979.
- Giddens, A. *The Consequences of Modernity*. Cambridge, UK: Polity Press, 1990.
- Harvey, D. *The Condition of Postmodernity*. Oxford, UK: Blackwell, 1989.
- Heeks, R. B. "Software Strategies in Developing Countries," *Communications of the ACM* (42:6), 1999, pp. 15-20.
- Herbsleb, J. D., and Moitra, D. "Global Software Development," *IEEE Software* (18:2), 2001, pp. 16-20.
- Hirst, P., and Thompson, G. *Globalization in Question*. Cambridge, UK: Polity Press, 1999.
- Hutton, W., and Giddens, A. *On the Edge: Living with Global Capitalism*. London: Verso, 2001.
- Inc*. "The Antihero's Guide to the New Economy" *Inc*. (20:1), 1998, pp. 36-45.
- Inc*. "Paradise Lost" *Inc*. (21:16), 2001, pp. 66-74.
- Janelle, D. "Global Interdependence and Its Consequences," in S. D. Brunn and T. R. Leinbach (eds.), *Collapsing Space and Time: Geographic Aspects of Communication and Information*. London: HarperCollins Academic, 1991, pp. 49-81.
- King, J. "Exporting Jobs Saves IT Money" *Computerworld* (33:11), 1999a, p. 24.
- King, J. "Sun and Pay Lure Coders to Barbados Outsourcer," *Computerworld* (33:11), 1999b, p. 24.
- King, J., and Sethi, V. "Patterns in the Organization of Transnational Information Systems," *Information and Management* (38:4), 2001, pp. 201-215.
- Lacity, M. C., and Willcocks, L. P. *Global Information Technology Outsourcing*. Chichester, UK: John Wiley & Sons, Ltd., 2001.
- Leamer, E. E., and Storper, M. "The Economic Geography of the Internet Age," *Journal of International Business Studies* (32:4), 2001, pp. 641-665.
- Lipsey, R. G. "Globalization and National Government Policies: An Economist's View," in J. H. Dunning (ed.), *Governments, Globalization, and International Business*. Oxford, UK: Oxford University Press, 1997, pp. 73-113.
- NASSCOM, http://www.nasscom.org/it_industry/sw_export.asp.

- Nicholson, B., and Sahay, S. "Some Political and Cultural Issues in the Globalization of Software Development: Case Experience from Britain and India," *Information and Organization* (11), 2001, pp. 25-43.
- Ohmae, K. "Managing in a Borderless World," *Harvard Business Review*, May-June, 1989, pp. 152-161.
- Quah, D. "A Weightless Economy," *UNESCO Courier*, December 1998.
- Ravichandran, R., and Ahmed, N. U. "Offshore Systems Development," *Information and Management* (24:1), 1993, pp. 33-40.
- Reich, R. B. *The Work of Nations: A Blueprint for the Future*. London: Simon & Schuster, 1991.
- Robins, K., and Hepworth, M. "Electronic Spaces: New Technologies and the Future of Cities," *Futures* (20), 1988, pp. 155-176.
- Sahay, S. "Implementation of Information Technology: A Time-Space Perspective," *Organization Studies* (18:2), 1997, pp. 229-261.
- Smith, M. A., Sabyasachi, M., and Sridhar, N. "Offshore Outsourcing of Software Development and Maintenance: A Framework of Issues," *Information and Management* (31:3), 1996, pp. 165-175.
- Walsham, G. *Making a World of Difference: IT in a Global Context*. Chichester, UK: Wiley & Sons, 2001.

About the Authors

Pamela Abbott is a doctoral student in Information Management at the Judge Institute of Management, University of Cambridge, England. Her research interest is in offshore software outsourcing. For her Ph.D. research she is currently looking at proximity-based models of offshore software outsourcing. She has completed an M.Phil. at the Judge Institute in her previous work on nearshore software outsourcing, looking at specific Caribbean-based initiatives. Her academic background is in Computer Science and she has worked for 8 years in the IT industry, the most recent position being with an offshore software firm in the Caribbean. Pamela can be reached by e-mail at pya20@cam.ac.uk.

Matthew Jones is a University lecturer in Information Management at the Judge Institute of Management and the Department of Engineering at the University of Cambridge. He previously held postdoctoral positions at the University of Reading and the University of Cambridge, where he was involved in the development of computer-based models for public policy decision making. His current research interests are concerned with the social and organizational aspects of the design and use of information systems and the relationship between technology and organizational and social change. Matthew can be reached by e-mail at m.jones@jims.cam.ac.uk.