

Configurations of Global Software Development: Offshore versus Nearshore

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ABSTRACT

We are faced with a bewildering range of offshoring options such as “best-shoring,” “farm-shoring” and many more. One of these options, nearshore outsourcing, has received wide coverage in contemporary popular media and appears to apply to a wide selection of countries. However, the justifications for this have not been examined. We conducted a content analysis of 90 textual sources that refer to nearshoring, so as to determine its global scope and spread, its accepted meaning, and its areas of distinction from offshore. We find 46 such nearshore destinations worldwide and assert that competitive differentiation in the offshoring marketplace appears to be a main objective for the use of this terminology.

Categories and Subject Descriptors

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Computer-supported collaborative work

K.1 [The Computer Industry] *Markets, Standards, Suppliers*

General Terms

Management

Keywords

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Global Sourcing, Global Outsourcing, Global Software
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1. INTRODUCTION

In global software development much of the interest today is in *offshoring*. And, as this offshoring phenomenon has matured we are witnessing segmentation in the marketplace. A range of “shoring” and “sourcing” terms have sprung up: “farm-shoring,” “two-shoring,” “best-shoring,” to list a few. At least one has even been trademarked: “AnyShore.”¹

Of particular prominence among these terms is “nearshore.” Countries and companies that view themselves as nearshore position themselves as offering some of the benefits of offshoring (namely cost reduction), while mitigating other difficulties—especially those imposed by distance.

Nearshore emerged as a reaction to the main offshore destination: India. India, since it is geographically distant from its major clients in the US and Europe, particularly, is reframed as a “farshore” territory, while most other destinations that are geographically closer to their major clients can be labeled “nearshore.” Thus, nearshore and farshore are seen as contrasts: India, as a farshore, very distant destination, represents many hours to travel, many time zones away, and is seen to represent a very different culture; while a nearshore destination is associated with relatively easy travel, similar time zones, and closeness in culture and/or language.

Over the last decade many studies on global software development and distributed software development have documented that distance introduces difficulties [4, 7]. There are many reasons for these difficulties including communication, control and supervision, coordination, creating social bonds, and building trust.

We also observe that -- despite the current ideology of virtuality, in which distance purportedly does not matter -- technology firms create large development centers and locate them within dense agglomerations of other technology firms. We see this in Bangalore, or Silicon Valley, or in the new high tech parks of China.

Based on all this evidence, we argue that *distance still matters*.

¹ “AnyShore” is trademarked by the US-based consultancy BearingPoint.

Consider, for example, that within just a few years, IT providers based in North America and Europe have built many “Offshore Development Centers” (or ODCs) that offer their clients a menu of locations: farshore and nearshore. Similarly, top Indian firms, responding to the competitive threat of nearshoring have been expanding their global presence for some years and are now also including nearshore locations.

Clearly, distance from the client, far from being a non-issue, is re-emerging as important in developing a competitive global strategy. Other authors have made similar claims concerning distance. One such study, for example, advocates sensitivity to distance-related issues such as geographical positioning, cultural differences and a country’s economic development status when assessing the risk posed to undertaking international trade arrangements [6]. The author argues that various aspects related to distance make a difference in the success or failure of these ventures.

Distance is not -- and should not be -- viewed as a binary construct. Rather, distance may be viewed as a continuum: the greater the distance, the greater the difficulty imposed on a collaborative relationship, or conversely, the shorter the distance the less difficulty is imposed in resolving issues.

Ergo, all else being equal, nearshoring is seen as preferable to farshoring.

We are aware of no study that has specifically examined the nearshoring global spread and academic treatment of the topic is sparse [1]. Since one-third of the earth’s population lies in geographic areas that are considered to be nearshore, it is important to examine the concept in more detail.

2. A BRIEF HISTORY OF NEARSHORE

The term “nearshore” made its earliest appearance in the software field in a story about an entrepreneurial software development venture called PRT that was set up in the Caribbean island of Barbados in the years 1995-1998 [8]. The PRT founder was a colorful marketer and emphasized the term Nearshore in promoting his venture. Already in this period, the usage of the word “near” referred to proximity to the US, while “far” related to distance from India.

The innovative business model adopted by PRT involved recruiting Indian software developers to staff the centre so as to produce code of a standard similar to India but in a location nearer to the US.

By the late 1990s the offshoring community began to regularly use the term nearshore².

² Also in the 1990s, we find other mentions of nearshore. A large Israeli software firm, which is now called Amdocs, created a Nearshore subsidiary in Cyprus (a short flight from Tel Aviv). This was described in [3] as an instance of nearshore. Also in the same period we find a Financial Times article that specifically addressed the potential competitive power of nearshore outsourcing (as opposed to traditional offshore outsourcing) titled “Nearshore Contracts Flow Mexico’s Way” [9]. The article promoted geographical proximity, similar time zones, and cultural alignment as advantages held by Mexican

Clearly, nearshoring has lost any connection to an actual (sea)shore and means -- simultaneously -- *foreign* (outside my country) and relatively *close* (proximate). Implicit in nearshore, as with its cousin “offshore,” is the message that it is cheaper. Thus, many companies prefer destinations that are close by, but still less expensive than at home. This is why, for example, Canada, with its relatively lower wages, has become a nearshore destination for US firms.

3. METHODOLOGY: INVESTIGATING NEARSHORE’S MEANING AND SCOPE

Our methodological approach was to assemble a wide range of textual sources relevant to our topic, that is, these texts either: (a) mention Nearshoring explicitly; or in a few cases (b) advocate sourcing destinations based on constructs of proximity. Nearshoring is underrepresented in academic literature, therefore we sought additional sources in the popular and industry media and purposefully chose a broad range of these so as to represent what we felt would be the current industry thinking and understanding of the concept of nearshoring.

90 such texts were located in the following categories: academic articles (6%), company press releases (8%), company promotional material (9%), consulting firm white papers (7%), investment agency promotional material (4%), journal/magazine articles (29%), newspaper articles (12%) and web-based articles (26%). The texts ranged in date from 1998 to 2005, with the majority (nearly three-quarters) being more current (2004 and 2005). This distribution probably reflects the more recent popular appropriation of the term. With regard to level of analysis, 69% of the texts approached the issue of nearshore from a country-based perspective, 28% from the level of the firm and 3% took an industry-level approach. Additionally, we note the following limitation: we were only able to source documents intended for Western English-speaking audiences, thus potentially excluding countries in the Middle East where this type of activity may also be occurring and introducing a US/European geographical bias into our data.

Using the 90 texts, we conducted a content analysis of the language and constructs represented. In the content analysis we sought to answer the following questions: where is nearshoring activity being undertaken? What are the perceived dimensions of the nearshoring construct? Is there evidence provided in various texts to support the assertion of difference between nearshore and farshore?

software developers over their counterparts in “far away” India. Thus, by 1999 the contours of the meaning of the term nearshoring seemed to be already largely formed.

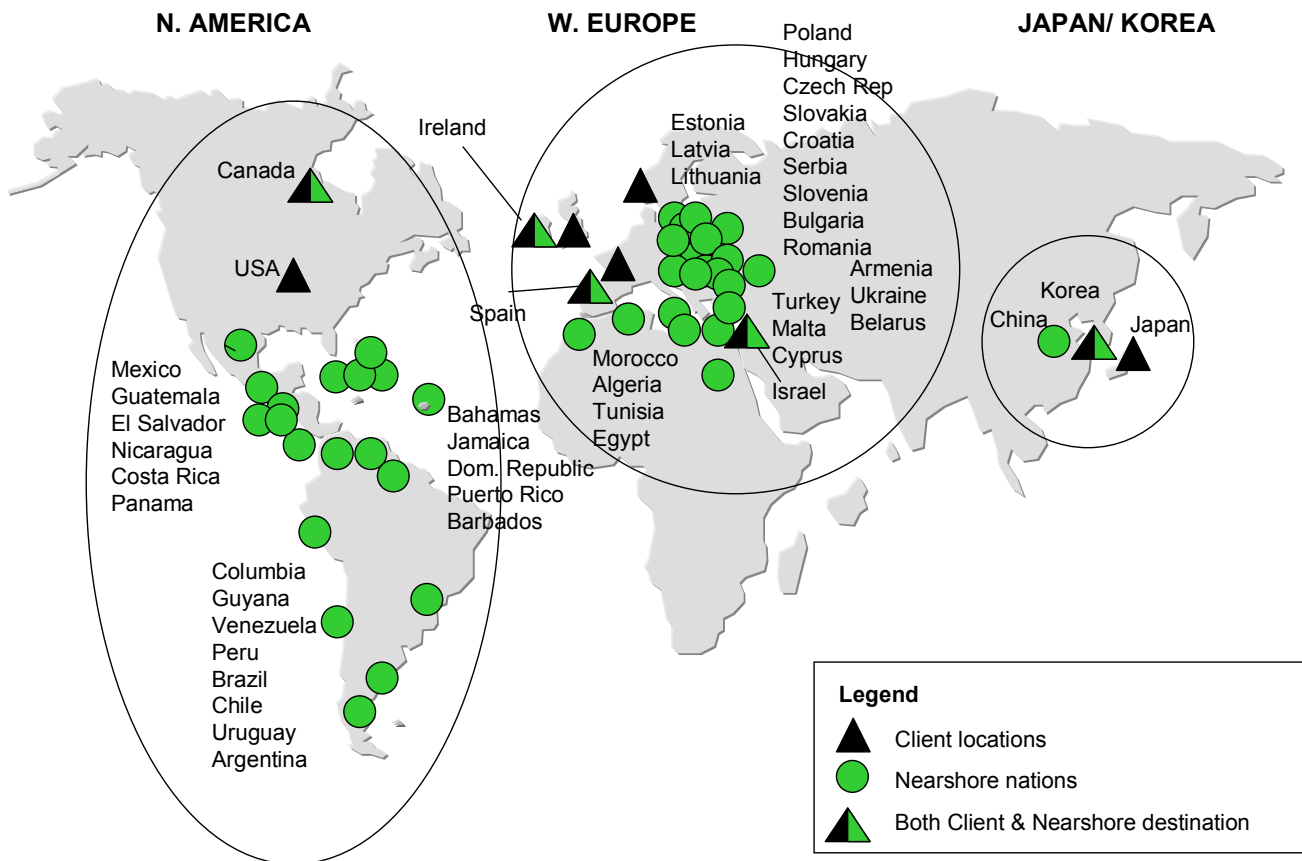


Figure 1 Global Distribution of Nearshore destinations based on dataset analyzed

4. CONTENT ANALYSIS

4.1 Content Analysis: Geographic Findings

From the content analysis we found 46 countries in which nearshoring activity is occurring, as illustrated in the map of Figure 1.³ Emerging from our analysis is that nearshoring is a

³ We note some limitations to the country tabulations. First, we did not find at least one text for every nation that we know to be a nearshoring destination, in part because we only conducted an English-language search. For example we have heard discussions of South Africa as a nearshore destination to Europe, but did not find any texts that were appropriate.

We also note that in the map we did not include smaller nearshoring clusters: the first is the Cyprus-Israel pairing mentioned earlier in the article; the second is the Australia/New Zealand/Singapore cluster that Nearshores to regional nations.

clustered phenomenon. Basically, there are three major global clusters. One cluster of 19 Nearshore nations surrounds the USA and Canada. Another, with 25 Nearshore nations surrounds the wealthy nations of Western Europe. The third cluster services Japan and Korea.

Some countries can be considered dichotomous in that they are both client locations and nearshore destinations. Israel, Canada, Korea, and Ireland are dichotomous in the offshore/ nearshore sense. The attributes of these nations is that they are middle-income nations (due to currency differentials, as in Canada), or nations in which wages have risen quickly, such as Ireland.

Even within the three major clusters there are many subtle pairings of client-destinations. Some nearshore destinations to the US emphasize closeness to Texas or Florida, where Spanish-speaking populations are larger. In Europe, French-speaking Northern African nations are considered nearshore destinations

for France; English-speaking Malta for Britain. German firms nearshore about 60% of their work to Eastern Europe [5]. The Finns nearshore to linguistically-proximate Estonia. The Japanese nearshore to China, particularly to Dalian in northeast China [2]. In the USA, in 2005, there was even a proposal to lease a cruise-ship that would be a nearshore programming center to Los Angeles [10].

4.2 Content Analysis: Dimensions that Constitute Nearshore

Of the 90 texts in our dataset, only 27% defined the term nearshoring. Presumably, most of the texts assumed that the term is well-known or self-evident. Others merely presented it as an alternative to offshoring. Where a definition was given, geographic proximity was by far the most widely used dimension in setting the contours of Nearshore. 46% of the definitions had only a geographical dimension. Cultural and temporal dimensions were either bundled together or included in addition to geographic proximity.

The actual usage across texts also reveals low congruence in the meaning of the term nearshoring. For example, at times nearshore assumes primarily a geographical context as in “[...] moving parts of your work to countries that cost less but are not too far away;” or, sometimes a temporal slant, as in “focus will be on delivering same time zone services to U.S. clients.” In other cases, the term is linked mainly to linguistic factors as in “forty million Americans speak Spanish, [this is] responsible for a new breed of outsourcing company that aims to take advantage of its Spanish origins.” One unusual case notes infrastructure proximity: Canada, a nearshore destination to the USA, has a uniquely US-compatible infrastructure.

Since most texts explicitly advocate nearshore destinations (82%), we found that a surprising few actually refer to travel-time between client and destination (19%), or time zone similarities (31%). When the time zone difference is mentioned it is almost always zero. When there is a mention of travel-time, it ranges from 1 hour all the way to 1 day. The latter case was in the case of Romania to Canada, which was labeled as nearshore in comparison to India which is noted as “two days away.”

Nearly half of the sample texts (47%) noted similarities in languages used at the nearshore location with the main spoken language of the client country. However, out of these, only 40% of the Nearshore destinations were native speakers of the common language. Not surprisingly, English was featured as a language advantage in more than half of these geographical areas.

Almost half the textual sources (46%) noted some form of cultural similarity. Examples include: El Salvador links to the US Hispanic market; the “Romanic” linguistic similarity between Romanian and French; and the description of Dalian, China as “Little Tokyo.”

Another less common theme is the shared business ethic between the client and the nearshore country as in “similar business culture” and “westernized business culture.” Such terms were used in about one-third of the textual sources.

Finally, less common in usage, are several other dimensions: political/economic (27%) and historical (14%) linkages. Political/economic linkages mostly referred to trade agreements such as NAFTA. Of those that did mention historical linkages, colonial ties and Diaspora linkages were most important.

4.3 Content Analysis: Nearshore as Differentiator

Our analysis revealed that Nearshore is often used as a selling point -- accompanied by attractive slogans such as “Bridge between East and West,” “Silicon Border,” or “Silicon Beach.” Significantly, our content analysis revealed that almost three-quarters of the texts (73%) used nearshoring as a differentiator from offshore/farshore outsourcing. 66% of the texts explicitly mention India in comparison/contrast with the nearshore destination.

We also analyzed the texts for explicit and distinctive advantages that were posited for nearshore relative to offshore/farshore (see Figure 2). 61% of the sources claimed nearshore had an advantage over offshore in terms of distance and accessibility of the destination; 47% claimed a cultural/historical advantage; while 41% suggested a temporal advantage.

Table 1. Categorization of nearshore texts claiming advantages over offshore/farshore destinations. Note: N=90; categories are not mutually exclusive.

Advantages Claimed Over Offshore	No. of Texts	% of Total
Distance	55	61%
Cultural/historical	42	47%
Temporal	37	41%
Linguistic	29	32%
Political/economic	26	29%
Other locational advantages	9	10%

Since we were particularly interested in how the texts differentiated nearshore from offshore/ farshore, we compiled selected claims and present these in Figure 2. While some of these are obviously exaggerated marketing claims, they illustrate the elements that are perceived as being important for differentiation in global software development.

1. Nearshore locations provide a politically stable atmosphere as compared to offshore destinations.
2. India is a long way away.
3. India is called “distant lands;” difficulties with long distance management and cultural differences.
4. Indian accents are difficult to understand; India is too distant and has “unilingual” focus on English; Indians only speak English, not other European languages.
5. India is too difficult to manage remotely; too many time zones away. Cheaper, real-time communication relative to India.
6. Nearshore better for outsourcing business-critical work.
7. Nearshore is in the same time zone and a short time to travel; India is 20,000 miles away.⁴
8. Nearshore offers lower costs of communication, shipping and tariffs.
9. Canada offers time overlap to USA; less travel time; none of the difficulties of culture and quality issues associated with offshore.

Figure 2. Selected reasons for nearshoring being superior to offshoring/ farshoring.

All items are rephrased for brevity.

Source: 9 different texts.

5. CONCLUSIONS: DIFFERENTIATION & STRATEGY

Our study reveals, first of all, that in the context of global software development, nearshore is a term used for *differentiation*. It is used to differentiate both firms and nations⁵. The term nearshore represents a way to compete with India, the software superpower.

Of course, India is not the only far-shore destination. Other nations are “far” depending on the location of the client. For example, Warsaw is “farshore” from the USA, but only a few hours by car from Berlin -- and thus nearshore to the latter. However, India is unique as a major software offshoring destination that may be considered “far” from all major client nations.

Distance does present both a tactical and strategic continuum. Software firms recognize this. Global software providers have adjusted rather quickly. Within just a few years, American and European IT providers have built many “Offshore Development Centers” (ODCs). These giant firms then offer their clients a menu of locations: farshore and nearshore, inclusive. Typical is EDS’ global network of ODCs, which the US-based outsourcing company calls “Bestshore”, and which includes 13 centers scattered around the world (besides its centers in the USA).

⁴ We note that the earth has a circumference of approximately 24,900 miles, which means that this statement is an exaggeration.

⁵ Our study revealed a fairly equal distribution across the type of work outsourced to the nearshore locations: BPO (22%), Software Development (28%) IT Consulting Services (21%) Combination of IT Services (29%), thus suggesting no significant differentiation in terms of type of work.

For Indian firms, nearshoring destinations represent one of the competitive threats. As a result, the top Indian firms have been expanding their global presence for some years into nearshore locations. Some of these Indian firms now offer a locational menu of choices to their clients and have even assimilated some of the nearshoring discourse. For example, India-based TCS can now offer its British clients services that are farshore (India), nearshore (Budapest in Hungary), and onshore (from their offices in London and Nottingham).

As the global marketplace for software/ IT services continues to mature, the nuances implicit in the term nearshore will likely stay with us. Locational and geographical differences will continue to play a role. This implies that distance and proximity are not disappearing. To the contrary, *distance still matters*.

REFERENCES

- [1] Abbott, P. Y., and Jones, M. R. The importance of being nearest: nearshore software outsourcing and globalisation discourse. In *Proceedings of the IFIP WG 8.2 Working Conference on Global and Organizational Discourse about Information Technology*, (Barcelona, Spain Dec. 12-14, 2002), 375-397.
- [2] Business Week. Golf, Sushi - And Cheap Engineers. (March 18, 2005), 18-19.
- [3] Carmel, E. *Global Software Teams: Collaborating Across Borders and Time Zones*. Prentice Hall, Upper Saddle River, NJ, 1999.
- [4] Carmel, E., and Tjia, P. *Offshoring Information Technology: Sourcing and Outsourcing to a Global Workforce*. Cambridge University Press, Cambridge, UK, 2005.
- [5] The Economist. More pain than gain: why America wins, but Germany loses. (July 17, 2004), 60.
- [6] Ghemawat, P. Distance still matters. *Harvard Business Review*, 79, 8 (Sept. 2001), 137-147.
- [7] Hinds, P., and Kiesler, S. *Distributed Work*. MIT Press, Cambridge, MA, 2002.
- [8] Hopkins, M. S. The antihero's guide to the new economy. *Inc.* 20, 1 (Jan. 1998), 36-45.
- [9] Lapper, R., and Tricks, H. Inside track: nearshore contracts flow Mexico's way. *The Financial Times* (May 17, 1999), 16.
- [10] Schaffhauser, D. From Offshore to Ship-to-Shore. Sourcingmag.com, 2005; see http://www.sourcingmag.com/blog/archive/from_offshore_to_ship_to_shore.html.