

India as an Outsourcing Destination for Technical Writing Projects: The Dynamics of Language, Culture, Education and Business

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Abstract: Outsourcing of Information Technology (IT) and Information Technology Enabled Services (ITES) has taken the world by storm, and India is leading the pack with its skilled, inexpensive, and English-speaking labor force. The rate of outsourcing of technical writing projects to India is increasing rapidly, as never before with projects being outsourced or companies setting up new hubs. Yet, the realistic advantage behind this outsourcing of writing projects to India remains a controversial topic in corporate circles across the United States. The central argument remains that technical writing projects should be handled in the United States as there is enough expertise to do so or should be outsourced to a country where English is the first language. While India's expertise and achievement when it comes to the use of English language is well documented and appreciated the world over, the fact remains that most of the technical writers in India receive on-the-job training and there is dearth of real technical writing academic program to support the industry potential. Whether the quality of output suffers as a result is something that still remains unanswered.

Keywords: Outsourcing, Technical writing, business

1. Introduction

Outsourcing of work and services has changed the way international business is conducted. People might love or hate the change, but it is not something that can be easily ignored anymore. Whether it is outsourcing of information technology projects and business process, whether the outsourcing is to India, Ireland, or Israel, outsourcing is the new mode of operation in the corporate world. Outsourcing consists of conducting organizational activities and specific projects involving external agents (Lacity and Hirschheim, 1993) in a country other than where the activity usually took place—the home base of the organization. Rosemary George in the E-Zine article (George, 2004) defined outsourcing as the process through which one company hands over part of its work to another company, making it responsible for the design and implementation of the business process under strict guidelines regarding requirements and specifications from the outsourcing company. Research by Khan et al (2002) has argued that outsourcing has gained interest and evolved with regard to its adoption and acceptance globally.

2. Reverse Outsourcing: An Emerging Trend?

As we continue with this discussion of outsourcing in general, and the market in India, it is important to understand that a reverse outsourcing trend is gradually taking shape. This means that Indian companies are increasingly making its presence felt in the western countries, mostly in USA and creating jobs for the Americans. Several reports have indicated that Indian IT giants

such as Infosys, Wipro, and Tata Consultancy Service are increasingly finding it worthwhile to hire western employees to deal with local populations abroad, riding profits generated on huge international business deals as well as the need to penetrate markets further. This is not as strong a trend as offshore outsourcing but the fact is that it is there and has been for quite some time. It is only recently that Americans are being hired at an increasing rate and this might be something to watch out for in the future.

3. Need for this Study

This article is meant for technical writers in the US industry to make an informed decision about whether a project should be outsourced or not? This is an important study on how some Americans perceive the outsourcing problem based on their regular life experience of the skills needed to deliver a documentation project and information about how the Indian market functions. This study on whether documentation projects should be outsourced is exploratory and not designed to be conclusive because technical writers would only tend to focus on language-level needs and applications rather than the macro-level socio-economic factors that are an integral part of any outsourcing project and reflect managerial decision-making. Further, the bottom-line remains that US technical writers do not have a vested interest in the outsourcing story to be successful and that might color their feedback. The purpose here is to provide some indication about what the technical writing group in USA might be thinking about outsourcing and the wider range of issues that needs to be considered in order to make a final decision. This study is designed to provide the participant technical writers with both language-level and socio-economic information about the Indian market and then seek their opinion. Most importantly, the goal of this study is to let readers see and understand the outsourcing issue from a systematic perspective by considering all language-specific and socio-economic factors involved in the process and related decision-making. We will provide systematic and comprehensive discussion of issues that will help readers of this article make an informed decision about outsourcing projects to India or to any other country.

An important component of the outsourcing discussion that is currently taking the center stage is technical writing projects. Given the cost-benefit advantage of outsourcing projects in a rising economy as in India (Newsweek, 2006; Economist, 2007), it is important enough to warrant a thorough discussion of how the Indian economy handles outsourced writing projects and its rising potential in the sector. Western organizations recognize the immense talent pool available in India in the fields of writing and reading in English. A number of firms are now looking to India as a destination to outsource not just software and IT projects, but also writing work (George, 2004). It is not easy to ignore India's immense potential in terms of a largely qualified, skilled and English-trained workforce, but yet there is a strategic underutilization of that skill pool and infrastructure that exists in training technical writers of the 21st century.

Although Indians have the English skills, often times they do not have the necessary academic training in technical writing or business writing, and training must be provided on-the-job. With a strong foundation in traditional literature-oriented English training, it might be easier for Indians to pick up the necessary skills in technical and business writing even when it is part of

the on-the-job training. However, employees often fail to understand that such training might be highly organization-specific and overly specialized to fit specific types of projects. There are strong arguments that just like any other discipline; training should start at the university level with strong academic-industry collaboration at the forefront. Students passing out of such programs can then be absorbed in companies with lesser need for on-job-training or training that does not focus on the basics of technical writing. Students with such systematic and global foundation in technical writing will then find themselves considerably marketable. However, individuals banking on on-job-training might still be marketable, and yet find themselves overly specialized with a specific kind of training and inability to think outside of the box and fit in other project contexts.

Whatever might be the fact about how Indians develop this technical writing skill, it is equally important to acknowledge that the cost advantage of setting up offices in India and the skill level is something that cannot be ignored any more. This outsourcing also results in employee layoffs and creates tension amongst global communities thereby helping to overlook the expertise that individuals, whether in India or the United States might have.

This study is significant because it raises several important issues regarding implications for outsourcing: why India is emerging as a hot outsourcing destination, the practice of English in India, and the necessary academic initiatives.

As we continue to discuss these issues, we reflect upon what some professional technical writers in United States industries might generally think about outsourcing technical writing projects and specifically about outsourcing to the Indian market. Before introducing the study in the Indian context, let us explore how India is shaping up as an outsourcing hub for technical writing projects.

4. Background: The Rapidly Evolving Global Economy

The majority of the offshore outsourcing of information technology projects was possible for two main reasons. The shortage of IT labor and skilled workers in the United States has led to the rising cost of the service and thereby encouraging firms to seek cost reduction (Lacity and Willcocks, 1997; Khan et al., 2002). Therefore, either American firms are setting up service offices in countries like India and China or they are outsourcing jobs projects to Indian or Chinese companies. This led to internationalization of firms and thereby acceptances of outsourcing as a recognized business practice. Firms take interest in outsourcing so that they can get access to highly skilled and quality professionals at a lower cost than the American market. Firms such as Microsoft, IBM, Dell, Intel, British Airways, General Electric, and many others have shifted their major service operations to India, Ireland, and China. This transition to setting up new facilities and operations was made easier by the low cost of installation and infrastructure development; low cost of employees involved with information technology or writing projects; a loyal workforce who still finds it fascinating to be working with a multi-national team; and an English speaking culture with a surplus of graduates skilled in engineering, computer, and writing disciplines (Apte et al., 1997).

5. Offshore Outsourcing of Writing Projects

In his research, Jeyaraj (2005) has argued that writing is a culturally situated action and if there is lack of knowledge about the users' culture and/or strong influence of writers' own local culture, it might be difficult to situate writing culturally. To save costs, some companies are outsourcing web projects to countries with cheap labor (Nielson, 2002). Nielson is not against outsourcing of writing projects, although he has explained his reservations. Nielson (1998) explained that in principle it is easy to outsource the writing of specific stories, product descriptions, press releases, and other textual content. Professional writers do not need to be physically on staff to write a good set of pages. The main problem is that the required writing style for the Web is very different from the traditional writing style for paper publishing. If writers move back and forth between writing for online and for print, then print style will dominate their work and their Web pages will have low usability. Thus, there are great benefits to having full-time writers who write solely for the Web.

Davis and Orchard (1996) argues in favor of outsourcing by explaining that the new business model is to organize virtual organizations, in which they pool skills and resources with complementary partners into made-for-the-task alliances to respond to business opportunities. They argue that this new model has far-reaching implications for technical communication projects. In this mutual-feeding model, the companies advertise each other and since the associations are always project based, there is no fixed cost of maintaining a group.

6. An Emerging Destination for Outsourcing Writing

India saw the emergence of outsourcing in the early-to-mid 1990s. The outsourcing boom started with software and expanded to call centers; now it is moving into other high-end services like engineering, human resources, architecture, research, technical writing, creative writing, and creative services.

An article in Times of India (2003), one of India's leading English-language newspapers has rightly pointed out that the highest demand for technical writers in India is generated by the information technology (IT) industry.

Gurudatt Kamath (1999), a leading technical writer in India has reported that even a few years ago, technical writing in India was still a marginal professional and the number of experts available was much less than other professions like engineering or programming. However, the trend has started to change. In recent years, many top multi-nationals corporations have set up development factories in India, and this has, in turn, led to the increase of technical writers in India. The excellence in technical writing in India comes from multi-national corporations and large organizations that employ experienced technical writers. These writers have had the benefits of seminars, professional conferences (such as STC conferences), and contacts with established technical writers. The leading writers in the current technical writing industry in India are journalists, teachers, and computer professionals. Although they have the writing skills, they have often obtained them without systematic training or a degree in technical writing (Kamath, 1999).

Jeyaraj (2005) has explained the recent trend in outsourcing information technology projects to India. North American corporations realized that instead of bringing people from other cultures to work on projects, they could actually take the projects overseas and expand the scope of the projects. Not only is it companies like IBM, Oracle, Microsoft, others are setting up research facilities in India, but Indian companies have also started to produce for the American markets. Further, the publishing industry is coming of age in India. US-based TechBooks, whose clients include Cambridge University Press, Prentice Hall, Law Writer, and Net Library, does most of its outsourcing work from Delhi. Other publishing houses like Thomson Press, Macmillan, Integra and Newgen Imaging also outsource successfully to India (George, 2004). Nilanjana Biswas of Sun Microsystems in Bangalore (India) reports that technical writing in India is still an assembly-line operation and not an enterprise activity. Indian technical writing companies are good at handling routine jobs, but the big picture is still missing.

Udit Chaudhuri (1999) has summed up the significant role played by technical writing in corporate development functions (TC-Forum). Detailed techno-economic presentations and documentations for the government and other private sponsoring companies in India are generally made by MBAs, engineers, and accountants. In addition, these types of jobs are often done by government liaison. Those doing this writing would need a thorough understanding of the manufacturing and business processes, licensing, export-import regulations etc. With efficient collaboration with administrators and technocrats, these writing projects can often be outsourced to technical writers, or professionals in other fields can be trained to be in charge of these technical documentation. Finally, there is also a large industrial and technical press in India with publications ranging from restricted-circulation journals, mostly from manufacturers, which cover technically specialized subjects. They too employ specialists from relevant fields to write and edit (Chaudhuri, 1999). A major website (www.outsource2india.com) on information technology outsourcing to India reports that according to a study conducted by National Association of Software and Service Companies (NASSCOM), the Indian advantage lies primarily in the educational and technical qualifications of the personnel, who are often more qualified than the people working in the parent locations. Several organizational efforts have fueled the current business effort.

7. Organizational Initiatives

Technical Writers of India (TWIN): A recent attempt at building up an online community of technical writers in India is praiseworthy. The Technical Writers of India (TWIN) is a mailing list with over 1000 members spread all over the world (twin-india.org). This is a forum to share, communicate, and discuss issues about technical writing. This cyber home for technical writers helps in various ways. TWIN helps to build up a sense of closely-knit community among technical writers in India.

Society of Technical Communication–India Chapter: The Indian STC chapter was established in 1999. This chapter plays a key role in educating technical writing professionals in India. The STC-India chapter publishes a very informative award winning bimonthly newsletter called

Indus and organizes learning sessions and competitions and employment fares in major India cities. The organization also promotes scholarship programs for upcoming technical writers.

The value of these initiatives would be difficult to understand without an understanding of how “technical English” is evolving in India.

8. The Culture of “Technical English” in India

An article published by Porter (2004) in the New York Times suggests that the outsourcing of information technology projects is limited in value and might not be justified for all projects. Porter quotes the chief economist of Global Insight, a forecasting and consulting firm located in Waltham, MA, as saying that projects that require creativity are more difficult to manage at a distance. Porter (2004) further argues that this does not necessarily mean that Indian programmers do not have the required skill set, but that the geographic distance and different business context in India are difficult to bridge.

In this context, it is important to evaluate the quality of technical writing projects in India. In “To Err in English” Guru Kamath (2000) argues that with outsourced projects and setting up of multi-national corporations in India, the need for technical writers is ever growing. The need for technical writers is so great that many people are welcome to join the profession, and, as a result, the quality of work suffers. He reports that for most of the user manuals that he read in India, there had been gross, subtle, or subjective error. Technical writers in India often use subjective terms in technical documentations. Kamath (2000) argues that the problem also seems to be that there are many “Indianisms” in English. If a technical writer in India were writing for a local audience, it would be well understood, but if one is writing for a global audience the context and meaning might be lost in the process. There is no doubt that English curriculum in the Indian education system is geared to provide good English skills by employing highly trained academicians presenting rigorous coursework. In “The Future of Technical Writing in India” (www.twin-india.org), Dr. Pathak argued that the primary reasons for Indians being good in English is that Indians had to pick up the language through study and usage and they never had the “privilege” of being born into it. However, Dr. Pathak goes on to argue that proficiency in the basic skills is not enough to get one to the top as a writer in today's world of business and industry. The correct and appropriate training and practice in the various forms of communication in written and spoken English is also a required ingredient for success.

India possesses a vast pool of talent in the field of English (George, 2004). Indian writers of fiction, such as Arundhati Roy, Salman Rushdie, Amitav Ghosh, and Vikram Seth are much acclaimed the world over. Arundhati Roy and Salman Rushdie won the Booker Prize for their novels *The God of Small Things* and *Midnight's Children*, respectively. Githa Hariharan was awarded the Commonwealth prize for her book *The Thousand Faces of the Night* in 1993. Internationally, recognized management thinkers like C.K. Prahalad, Deepak Jain, the late Sumantra Ghoshal, Professor Amartya Sen (Noble laureate in Economics), and Pradip Khandwala have written extensively on economics development, corporate strategy (George, 2004). There are numerous other authors in universities and corporate houses worldwide who

have gained international recognition for their work written in English language. Even Indian movies in English have established a stronghold. From 'English August', based on Upamanyu Chatterjee's novel of the same name, to Gurinder Chadha's 'Bend it like Beckham' and Mira Nair's 'Monsoon Wedding', Indian Cinema in English is reaching new comfort levels with both audiences and filmmakers alike (George,2004).

India is also emerging as the hub for patent outsourcing (and also legal process outsourcing) which is a high-end job requiring specific skills and understanding. It involves end-to-end search jobs before a patent is being filed; drafting the papers, patent analytics. As a result, often times vendors who do patent writing hire engineers, scientists, lawyers and train them (Sachdeva, 2008). Medical transcription and medical writing as a whole is also another writing-based field where the jobs are increasingly been outsourced to India. Therefore, with such a rich tradition, what seems to be the concerning factors when it comes to technical writing in India? Why is this tradition of English not directly translatable in the field of technical writing? It has to do with how Indians see the practice of English.

9. Practice of Technical Writing in India

Jayaraj (2005) explains how Indians grew up learning English. The current education system in India is largely a legacy of the British colonial system. Jayaraj (2005) explains that this education system largely focused on the study of literature and grammar. Indian universities have been somewhat reluctant in changing the curriculum to suit today's needs in the business world; one possible reason for this reluctance might be the inadequate expertise of the academia to teach wide ranging courses in technical writing. Although things are changing for better, it will be a while before one can actually see a wide impact at the university level. Jayaraj (2005) takes an example of Madras University where thousands of graduates serve the outsourcing industry; even there, the English curriculum remains traditionally literature oriented. The problem with such an approach and viewpoint is that the knack of using sophisticated and creative language and unnecessary verbosity in literary context is far removed from the specific, concise and objective oriented approach in technical writing. The major problem, as Jeyaraj (2005) rightly points out, is that in major Indian universities the English curriculum is designed so that there seems to be little effort to understand the user's culture and the complexities revolving its context-oriented application. In this context, it is important to analyze the way Indians speak and understand the language.

10. The Indian English and the Global English

English is not only the official language in India but often it is the only common language used between people from different regions with different native languages. India is the third largest English book producing country after the U.S. and the U.K., and the largest numbers of books are published in India is published in English. In higher education, English is the premier prestige language. It is taught in schools ranging from the most elite private schools to small government schools because only this language is an acceptable medium of communication through the nation (Khokhar, 2004).

Indian English has a dialect of its own but the influence of the western media is fast bridging the gap. There is a major gap between how most Indians speak English and how it is spoken in the West. The major reason for this is that the Indian script is phonetic. Many Indians see and read each letter, whereas words in English are read as a whole, sometimes swallowing a syllable (for example, Wor'stershire) or keeping silent a part of the written word. Most Indians would pronounce everything (Jaywant, 2005). However Jaywant (2005) goes on to explain that those who converse in the language on a daily basis are quite adept with the nuances of the English language and its pronunciation.

In the present world of wide-ranging information transfer, global English is defined as a simplified variety of the English Language and it is the sole solution to create international communication (Vimala, 2005). Besides the standard usage of English, new English in the form of "other language imports" are increasingly making its mark felt. Native words from pure Hindi such as Guru, Karma, Nirvana, Tandoor, Pyjamas, and Curry have been included in English dictionaries (Raddhakrishnan, 2005). These words truly reflect that global English is fast gaining prominence, and these words are spoken not as an import but as part of a language Americans have grown up with. On the other side of the world, people in today's urban India are comfortable speaking both American and British variants of the language. Media and corporate houses like Archies are bringing in the concepts of global identity and pop culture and audience is increasingly learning how to enjoy Thanksgiving and Halloween (alien concepts in India even a decade ago) the American way.

11. Technical Writing and Formal Education

A major contributing factor to India's writing potential is its education system. Missionaries and Christian organizations run good private schools and colleges or business houses that understand the global business scenario, enforce English as a first language, and set high standards of learning (George, 2004). Whether it is an elite private school or a small government school, English is one common medium of communication (Khokar, 2004).

A survey reported in the STC-India publication Indus (2005) reported that Indians and American technical writers have similar standards of education background with 70% of respondents in both places having either a Bachelors or a Master's degree. However, a significant portion of the respondents in the United States have a formal degree in technical writing, but a majority of their counterparts in India have degrees in science or engineering.

However, in India, the universities have not yet acknowledged the job market and the growing need of trained technical writers in the profession, though organizations like Society for Technical Communication, India, and Technical Writers of India have been active in organizing academic training for working professionals and future prospects in the field (www.timesofindia.com, 2004). Some major universities are slowly realizing the growing emergence of the profession; the University of Pune's Department of Communication and Journalism is one such example. Interestingly, many technical writing programs in the United

States are housed in Departments of English, rather than in Departments of Communication or Journalism, although there are notable exceptions.

Although India has a real dearth of technical writing programs at the university level, journalism is a flourishing discipline with superior institutes and colleges for journalism-- like the Asian College of Journalism, Chennai, Mudra Institute of Communication, Ahmedabad, Jamia Millia, and Indian Institute of Mass Communication, Delhi--producing talented and trained media professionals (George, 2004).

Further, there are institutions and private enterprises—like Technowrites, Pune, Documentation Research and Training Center (DRTC), Indian Institute of Science, Proficiency Continuing Education Program, Techno Point (all in Bangalore), S.A. International Limited, Chennai, Indian Institute of Technology, Delhi, Indian Institute of Technology, Madras and TASC Consulting Private Limited, Mumbai--trying to cope with the demand for technical writers (www.timesofindia.com, 2004).

Interestingly, however, some professionals in the field of technical writing in India argue that education and compensation do not necessarily need to have a strong positive correlation. A comparison of salaries of staff and management in relation to corresponding certified courses in technical areas and management areas indicates that employers are not looking for certification or relevant technical writing educational qualifications while hiring or while designing the compensation package. This survey of technical writers in India suggests that the industry requires writers who can adapt to the technical communication profession's requirements (Indus, August 2005). This 2005 survey indicates that almost 78% of respondents received training on the job and came without formal education in the field. The fourth salary survey of Indian technical communicators (released in 2007) reported a 55 per cent rise in salary since 2005. The entry level salaries improved by 65 per cent since 2005. Indian cities like Pune offered the highest pay package, while Hyderabad and Bangalore were runners-up.

12. Problem Statement

As we explore this topic in more details, it would be interesting to know what experienced technical writing professionals in the United States industry think about the Indian market, when equipped with the necessary information about the Indian outsourcing market as was discussed earlier in this article. It is not our intention as part of this study to form any definitive opinion or argument as to whether writing projects should be outsourced to India, but rather to expose readers of this article to the different factors and opinions that weigh in for such projects.

13. The Survey

In an attempt to study professional viewpoints, we designed an extensive survey stating the advantages and disadvantages of outsourcing technical writing projects to India and then asking for expert viewpoints from professional technical writers working in major corporations across the United States.

Goal of the Survey: The purpose of this study was to find a tentative answer to the question; whether and under what conditions technical writing projects should be outsourced to India. As part of this survey, participants were asked to make, judgment about the justification behind outsourcing technical writing projects to India based on:

1. Studies cited in the survey
2. Their own education in technical writing
3. On-the-job training
4. Their own experience of handling technical writing projects
5. Their analysis and informed decision about expertise needed for such outsourced projects

The pre-test questionnaire asked several questions to know where participants stand on the basis of their education and training in the profession. The actual survey was designed to ask for participant comments based on their understanding of the outsourcing industry, information provided on the Indian market and their experience of the profession.

Who was surveyed: The study tested 10 participants who are professional technical writers working in an organization of international repute. To ensure confidentiality, the names of the individuals and the organizations are not reported. This survey has been conducted as a focus group and questionnaire. Participants were not chosen based on any demographic criteria but only on the basis that they are professional technical writers working in the field. Further, participants within the group have a diversity of technical writing assignments that they handle as part of their daily work schedule. It is understandable that their job assignments depend on the nature of company they are working with. There were no pre-set standard in terms of the educational or professional qualifications that participants needed to have to answer these questions. The logic behind such an approach was to observe whether there is any similarity of responses based on variety of education and/or training and experience of the technical writers. The surveys were sent out as an e-mail attachment so that participants can take their own time to answer and return the surveys. Another purpose behind e-mailing them the survey was to allow participants any clarifying or follow-up information that readers might require in order to weigh their probable answers to the questions more appropriately.

The actual questions in the survey are mentioned below.

For all of these questions, participants had access to the relevant literature review, so that they could research the material before choosing the option that best reflects their opinion on the matter. To understand the value of this study, it is important to understand that this is no more than an exploratory study, aimed at gaining either a broad or a deep understanding of the market place. Exploratory research like this one, is not usually sufficient for decision-making, but can provide significant insight into a given situation. Exploratory research like this is often important to conduct because a problem has not yet been clearly identified for analysis and the scope of the study is unclear.

PRE-TEST QUESTIONNAIRE

1. Years of experience in technical writing.
2. Level of education
3. Based on the technical writing and other project management skills that participants use on the job, how would they analyze their training? (from entirely academic to entirely on-job)
4. How would the participants rate their experience of handling technical writing projects?
5. Rate the following considerations in order of importance.
 - A. Direct cost advantages / disadvantages of the project that the company incurs
 - B. Indirect cost of the project that the company incurs
 - C. Displacement of the American workforce
 - D. English speaking culture
 - E. Academic infrastructure
 - F. Nature of the Project
 - G. Company or individual's experience of handling technical writing projects
 - H. Level of education of the technical writer
 - I. Type of education of the technical writer
6. Has the participant ever been involved directly or indirectly with an outsourced project to India?

SURVEY QUESTIONS

1. Given the low cost advantages of operating in developing economies, how would you rate the logic behind off shoring writing projects (legal writing, medical transcriptions, medical writing etc) from USA?
2. Should writing projects be generally handled in a country where English is the first language?
3. Given the broad overview of the cost-benefit analysis that you have studied for a typical outsourcing project, what might be a more predictable outcome for a project outsourced in India?
4. Based on the above statistics for and against outsourcing, how do you rate the importance of outsourcing writing projects to India?
5. Given the above research on outsourcing of web-based projects, and your understanding of writing projects, how you think writing projects should be outsourced to India?
6. Listed above, are the activities of two premier organizations (TWIN, STC-India) involved with technical writing in India. Based on the activities organized by these organizations, how would you rate the development of technical writing market in India?
7. Above, I have summarized how Indians practice English in India. Do you think it is relevant towards how they can handle technical writing projects?
8. Above, I have summarized some examples of how Indians have performed in their respective fields using the English Language skill. Do you think the above statistics helps in decision making as to whether a project should be outsourced to India?
9. Given the curriculum of English in Indian universities, do you think it would have any impact on how Indians get to learn technical writing?
10. Rate the problems in order of importance as to how the nature of English curriculum in Indian universities, culture, complexity, contextual application etc might play a role in off shoring technical writing projects to India.

14. Results

Overall results of the study indicate that the professional participants in this study do not like to reach a definite conclusion about whether technical writing projects should be outsourced to India. Rather, they are of the opinion that the potential for outsourcing should depend on the type of project and how the project is organized. However, for some questions, readers wanted project-specific information to make a judgment and suggested that the available information and past data are not sufficient to make a judgment. Overall, results clearly suggested that more in-depth analysis of individual questions (involving project-specific information and available talent and resources) raised here would be necessary for future studies.

14.1 Low-cost advantage and off shoring

Respondents were asked whether given the low-cost advantage of operating in developing economies, there is any logic behind off shoring technical projects from the United States. The question did not specifically mention India as it was important to know the respondent's general viewpoint about off-shoring before indulging in any question related to India. Seven out of 10 respondents mentioned that they are not averse to outsourcing of the technical writing project but that it depended on the project to be outsourced. They were keener on exploring the complexity of the project in making a decision. The mean response was 3.9 (4=depends on the project) with a standard deviation of .568. This clearly suggests that at the initial stages of consideration, these experts are keener on knowing about the project rather than individual expertise.

14.2 Handling writing projects in countries with English as a first language

Respondents were asked whether English should always be handled in countries with English as a first language. The question was asked to judge whether the respondent is generally averse or inclined towards off-shoring or is it a question of delegating technical writing projects to individuals who are not only academically qualified in English but also are native speakers. Interestingly, 4 out of 10 respondents mentioned that it still depends on the project to be outsourced while 3 out of 10 respondents mentioned that technical writing projects should always be handled in countries with English as a first language. The mean response was 3.00 (may be always in countries with English as first language) with a standard deviation of 1.700. We did not use the phrase "native speakers of English" but instead used the term "English as first language" because English can academically and professionally be the first language for individuals who are not native speakers of English. There is a sizable population in India who speak English in daily life as a first language. For the outsourcing industry, a criterion for assessment of expertise might be to know how to differentiate between native speakers and individuals with English as a first language.

14.3 Cost-benefit analysis and outsourcing writing projects to India

After the previous two general questions, respondents were asked that based on the cost-benefit analysis for a typical outsourcing project, what might be a more predictable outcome for a project outsourced in India. 4 out of 10 readers thought that the answer should depend on the complexity of the project. Another 4 respondents thought that irrespective of the nature of the

project, there might never be any profit from an outsourced project. They did not want to mention a reason behind such thinking. The mean response was 3.90 with a standard deviation of 1.370. 2 individuals thought that there was a good chance that the company might end up with a profit. Next, readers were asked to read the statistics for and against outsourcing that has been published and self-report on their personal judgments as to the importance of outsourcing writing projects to India. It might be a reasonable conclusion to suggest that 6 out of 10 participants were of the opinion that it makes sense to look into the project first and make a decision regarding outsourcing. In other words, their opinion does not suggest an answer in yes or no before looking into the project. The mean response is about 4.20 with a standard deviation of .919.

14.4 Type of Projects to be outsourced

Since readers emphasized on the project type rather than the skill set of the employee, participants were asked about the type of projects they think might be outsourced to India. To facilitate their judgment, the supporting information dealt with what Neilson has to say about print and web projects. Results show that 6 out of 10 individuals think that whether it is a print or a web project, the outsourcing decision should depend on the type of the project and what this might mean is that the other specific dynamics of the project (for example, complexity, time required, type of personnel involved, coordination, cost etc) should be considered besides whether it is a print or a web project. The mean value of the responses is 4.80 with a standard deviation of 1.751.

14.5 Functioning of TWIN and STC–India

As part of this question, participants were provided with information regarding the functioning of the two technical writing organizations in India: TWIN and STC–India. Participants were asked to comment on whether they think their range of functioning as a good indicator of the development of the technical writing market in India. 8 out 10 participants thought it is a reasonable development but a strong argument is difficult to be made only on the basis of the functioning of TWIN and STC–India. The mean value of the responses is 4.30 with a standard deviation of 1.252. Participants responded by saying that these organizational initiatives are one of the many factors that might help in building a culture of technical writing.

14.6 Indian practice of English and the education system

Respondents were asked to read about successful examples of how Indians have performed with English literature globally and they were asked to comment on whether these examples, in any way, indicates whether qualified Indians with good literary expertise might perform well with technical writing projects. The reason behind asking this question is owing to the fact that almost all the English departments across India focuses mostly on literature based English, besides a few departments who have recently added “communicative English” based courses in their curriculum. Results have mostly indicated (8 out of 10 respondents) that this is not such a good indicator of how Indians might perform with technical writing projects, and some of them have strongly indicated that this indicates nothing about how Indians might perform with technical writing projects. The mean value of responses is 5.20 (5= not a good indicator of how Indians can perform) while the standard deviation is 1.932. On a related question, 8 out of 10 participants responded by saying that the current practice might help with technical writing

projects. The mean value of responses is 3.60 while the standard deviation is 1.075. 8 out of 10 respondents think that how English is taught under the current English curriculum in Indian universities has high to moderate impact on how Indians get to learn technical writing. The mean value of responses is 1.80 while the standard deviation is 1.033.

14.7 Problems in off-shoring technical writing projects

Respondents were provided with three major problems that impact how it might play a role in offshoring technical writing projects to India. The points are based on the information respondents gathered from the previous questions. They were then asked to rank order these points in order of importance. The three major points were:

- A. Nature of English curriculum in Indian Universities is geared towards literary text.
- B. There seems to be little effort to understand the user's culture and the complexities revolving its context-oriented application.
- C. Technical writing is for those who could not get into the much glamorous software industry because they are not good enough to be programmers.

6 out of 10 individuals (60%) think that inability to author technical documents keeping in mind the user's culture might be the most important issue followed by the nature of English curriculum in Indian universities.

14.8 Correlation between training and off-shoring

3 out of 10 respondents thought that the quality of training would be better for a technical writer when it is learnt on the job, because they would be exposed to and handling real client projects. Another 3 participants thought that it helps if technical writers are also content area specialists like with business majors or engineers. One of the two other participants responded by saying:

I conform to the belief that a mixture of academia, both in technical writing and within the discipline from which the writer is supporting should be combined with practical experience to yield an optimum skill-set. I believe the future of technical writing outsourcing will eventually be less about costs and more about value.

Another participant said:

We should off shore a project only when we have seen technical writing samples, resumes, and interviewed (by phone if necessary). Only then, can we determine if a project and writer(s) will work in an off shore setting.

15. Survey Conclusions

This survey results point towards some interesting observations. Respondents have indicated that they are focusing more on the type of project to be outsourced rather than the cost considerations that might drive the outsourcing decision to a large extent from the managerial and budget perspective. Results have further indicated that technical communicators are more interested in taking a case by case approach (e.g., whether a project should be handled in countries with English is a first language depends on the type of project to be outsourced) rather than entering into a contract with a company in India to handle projects for a certain period of time or projects

related to a specific documentation context. From a technical communicator's perspective (the respondents), factors that determine the type of project might be issues like web or print-based projects, complexity of the document, expertise and experience of the employees involved, knowledge about culture and context-specific applications etc. Interestingly, results have also suggested that respondents are willing to take note of how English is practiced in India as a reasonable indicator towards making an outsourcing decision. However, this decision has to be tied in with considerations regarding the specific application of the project as mentioned earlier in this section. Interestingly however, Indian talent in literature was not considered as a good indicator towards understanding whether writing projects can be outsourced to India.

16. Narrative on Globalization

The decision to outsource the technical communication portion of a project always raises concerns for a project—managerial control, schedules, collaboration, and overall quality. When the outsourced portion of the project is moved off-shore, the concerns increase, and the concerns may become a major factor in the success or failure of the project.

When we think about off-shoring the writing portion of a project, our first concerns may be ones difference in time zones or difficulty in arranging meetings. If we are assured that the writing will be done in a country for which the desired language (English in this case) is also the native language or the first language for many of potential workers, our fears may be allayed. But as we have discussed in this article, there are different interpretations of what is “good” English: is it the direct style that we have come to expect in technical documents? Or is it a more literary style of English. And what is the impact of culture on the use of language and the way that information is presented to readers? Are there preferred tones, presentation sequences, mixtures of text and graphics, and amount of detail? Perhaps there will never be universal agreement on these specifics, but as the amount of technical writing done in a country or culture different from that in which their readers reside, we will all need to increase our breadth of experience and comfort in dealing with new presentation styles and formats.

As the study described in this paper points out, people have a fairly wide range of expectations and requirements when it comes to off-shoring technical communication projects. There is no clear consensus on what is to be expected. One of the challenges that faces our profession, then, is to continue to help bridge the gap between writers and their audiences—as we have always done—but realizing that as we do so, these gaps may become more challenging and complex than they may have been previously.

17. Towards Structural Reform and Future Possibilities

To ensure that future and even currently working professionals in the field of technical writing have a systematic academic training geared towards the industry needs of the 21st century, the Indian education system has to come of age and leave behind the colonial legacy that it is still such a strong influence. Literary approach to writing is of advantage with specific types of technical writing genres (e.g., technical writing for a fashion magazine where an outfit is

described or “how to wear it” is described), but still the creative side of writing is less in demand than the procedural need to explain the process clearly. The technical writing lobby in India needs to convince the Indian universities of the growing needs of technical writing in today’s industry and persuade them to start new courses throughout the country. The major problem seems to be that companies might find it easier to train someone within the confines of their own organizational culture, when the individual is not already loaded and opinionated with a general understanding of the field. If the university supports academic initiatives, it helps to prepare technical writers who might fit in any organizational culture and technical writing genre. The question is whether organizations find it directly beneficial to their short-term goal? If they do not find it beneficial, it might not be unreasonable to term their initiative and outlook as limited and micro-managed. However, in USA, it is often seen that universities run technical writing programs and research with active collaboration and support from the corporate houses and the government. This macro perspective helps the industry as a whole without focusing on the return on investment per individual.

In addition, there is another side to this entire issue. The current job market is such that often engineers and scientists find it hard to get jobs in their respective industry and in the capacity that they would have liked. These individuals often end up working as technical writers with some training on –the-job. Although this might be considered as underemployment, the industry benefits by ensuring that their technical writer is also a subject-matter expert. This is often a luxury in other countries.

Even when the problem is adequately realized, change might be gradual and slow since this is still a relatively new concept in the academic circle in India. It would not be an overstatement to comment that even in the U.S; academia was often slow to realize the need to provide training in technical writing to its graduates. The demand from business and industry influenced the academic community to recognize technical writing as a field of study. It would not be an understatement to say that India will have to go through a similar process.

Difference between results from this study and the current trend also indicate that the decision to outsource a technical writing project is often driven by economic considerations rather than project-specific realities discussed earlier in this article. This study has nothing to indicate that India’s development as an outsourcing hub for writing projects creates any problem in itself; rather the issue is whether the decisions are made based on a standard set of criterion that unearths the ground realities about the project, for example, the location, and the infrastructure facilities, short-term and long-term goals for the outsourcing company, types of collaboration, necessity for project-specific collaboration between technical writers and the management. Further, it is also equally important that the outsourcing and the outsourced company clearly communicates expectations regarding document-specific criterion, the timeline for the project, methods of development (whenever applicable), confidentiality, and content management strategies and so on.

18. Considerations for Outsourcing Technical Writing Projects

It is worth noting that there are risks and awards in any parts of the world and investors should consider issues like service delivery, security, costs, and language.

Successful Coordination and Communication: The client and the service-provider must support each other by preparing to invest time and effort in establishing and maintaining a long-term relationship. This partnership should work like a cartel where parties can identify each other's weakness and potential in terms of cost, infrastructure, resources available and needed, expertise for specific nature of projects, and training available for employees and then act accordingly. Successful outsourcing also requires intense face-to-face communication when the product is launched and regularly thereafter to establish strategies and project-based rules.

Service-Provider Record: The documentation service-provider should have an established track record of undertaking seamless coordination in the production and delivery process (turnkey services), specialized workforce and expertise to handle specific projects, and value addition through innovative and efficient cost saving practices.

Project-Type Analysis: It is a relatively common complaint that cost savings have not been realized from offshore outsourcing, especially when working in a complex product development environment with tight schedules, frequent changes to the draft, repeated iterations, constant requirement for coordination and feedback from clients. The outsourcing decision should be based on the extent to which the service provider can work independently without compromising the quality of the product, work on internal drafts of the document in-house and have enough expertise and support from superiors who understand the nuances of such complex product development and possess fine-grained knowledge of how the final product should shape up. It is also essential for the client to develop a set criterion for specific projects as and when they are capable of doing so. This is to ensure that a criterion-driven communication is set up between the client and the service-provider at each stage of the production process. If it is a frequently used document, common across several disciplines or widely used across organizations, the service-provider might already have a set process in place for its production. It is also possible that realistic expectations and criterion might develop gradually over time and it can subsequently be used for later projects. This is truer for complex projects.

Costs: The managers involved with offshore outsourcing projects should conduct a solid cost-benefit analysis. It is advisable to conduct a project-specific analysis at a micro level. The process involves monetary value of initial and ongoing expenses vs. expected return. Constructing plausible measures of the costs (overhead costs like setting up establishments at offshore locations or home-based offices for coordination purposes, fixed costs like salary/per unit for different employee units responsible for the project directly or indirectly, variable costs like maintaining audio/videoconferencing channels for virtual teams, travel-related costs incurred by both sides to keep the project going efficiently), and benefits of specific actions (value addition at each stage) is often difficult. In practice, analysts try to estimate costs and benefits either by using survey methods or by drawing inferences from market behavior. Further,

Deborah Clifton, CEO of the Integrity Group reports that at the 2004 STC Annual Conference, companies such as Seimens, Microsoft, IBM, Cola Cola and others have reported that many years of investment are required before any return is realized. They have also reported that the metrics used to measure financial benefits from offshore projects is often skewed and incomplete. Thus companies might need to adopt a long-term strategy for offshore collaboration. It might often be the fact that collaboration succeeds at a much deeper level with increased trust and support especially when communicating online and working in virtual teams. Increased cooperation with similar projects, rectifying mistakes made at earlier projects, coming to know each other personally might have increased value that is often not directly reflected and quantifiable in benefits for each year of offshore collaboration. At the STC Annual Conference, JoAnn Hackos stated that management costs are at least doubled when using an offshore team. However, a deeper level understanding and a long-term projection is needed in order to calculate return on investments.

Government Support: Market security is a major consideration for outsourced projects. The IT market research major Gartner Inc. has reported in their December 2007 report that India has a strong government support base (TimesofIndia, 2008). This is very essential in a democracy like India. However, investors of documentation projects should note that Gartner Inc. reports also mentions that cost and risk correlate highly - The higher the cost, the lower the risk.

Educational Systems: The general academic infrastructure in India, programs on Technical Writing versus journalism, communication and other related disciplines, transferability of literary talent for technical writing projects, necessity for on-job training, higher fixed costs incurred due to the need to set of training facilities at job site, academic-industry collaboration etc should also feature in outsourcing decisions. Conversely, US have long-established technical writing programs.

Cultural Differences: Cultural differences can be very significant and expensive. This difference might be reflected in the way writing is produced for these offshore projects. It is important that projects reflect originality, creativity, ability to interpret, intuitiveness, objectivity and reasonable assumptions.

19. A Quick Checklist for Outsourcing Projects

Before outsourcing a technical writing project, the outsourcing organization must study and understand the group to whom the work will be outsourced. They must analyze and determine the group's suitability to handle the work properly. Factors to be considered are:

- Ability to create English content
- Cost involved with communication among project team members (conference calls, e-mails, chats, etc.)
- Type of documentation—software, hardware, patent, legal, visual, print, web.
- Frequency of needed changes to the documentation—from rarely to frequently.
- Frequency of needed communication among team members and with client.

- Availability of on-job-training and knowledge transfer time.
- The need to verify experience, knowledge, expertise, and track record of the offshore supplier.
- The need to establish fundamental rules of project completion, communication, and delivery.
- Ability to work in a broader set of time zones when working in a virtual team.
- Availability of standardized methods for cost and benefit calculation at one point in time and over time.
- Bridge technology gaps that might hamper productivity and communication.
- Assessment of hidden costs of production.
- Information security
- Insurance on offshore projects
- Guard against differences in political, legal and financial system for conducting business transactions.
- Need to consider issues involved with labor regulations, taxation issues, and penalties in the outsourced country.
- Public relations expense related to the offshore project

20. Conclusion

As companies continue to adapt to the changing, and expanding, global economy, they need to constantly find ways to deliver the best possible goods and services in the most cost-effective way. Often this adaptation includes outsourcing parts of the companies' business in an effort to reduce cost and to find more efficient, effective labor markets. One area of business that is frequently chosen for outsourcing is the technical writing component, and, increasingly, the outsourcing is done to a location outside of the United States. India is frequently selected as a location of choice for technical writing projects.

While many projects so outsourced are completed successfully, organizations find that the outsourced project is no longer "business as usual." Differences in culture, working practice, and language use are all factors that must be addressed and dealt with. But by being aware of potential differences and working proactively to ensure as smooth operation, companies are achieving the results they want along with the cost savings that they desire.

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