Structuration of Indian Information Technology Professionals' Migration to Australia: An Ethnographic Study[1]

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ABSTRACT

Information Technology (IT) is leading to a new form of capital accumulation as is clearly evident in the IT industry. Regardless of its origin and amount, capital can be circulated and accumulated on a global scale, at an unprecedented speed and therefore with extreme volatility. An urgent task of the study of globalization and migration is to understand the international labour system of the "new economy".

This article is an ethnographic study of those agents who have been the main means by which Indian IT professionals move globally. "Body shopping" is the practice whereby a firm recruits IT workers and then farms them out to clients for a particular project, though the firm itself is not involved in the project.

The key players in "body shopping" are a series of recruitment agents. They form "agent chains" where they depend on each other and assume different functions in dealing with the market, the state and the workers. "Body shops" rely on ethnic networks. Their practices have led to the emergence of a flexible international labour supply system that benefits some IT professionals but also imposes costs.

INTRODUCTION

The global mobility of Information Technology (IT) professionals in general, and Indian IT professionals in particular, have attracted much attention from

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media, policy makers and academics. By 1999, the US had about 346,000 unfilled IT related jobs (DCIEA et al., 1999). According to one projection, 3.47 million IT workers would be needed in 2008 in the US compared with 1.6 million in 1998 (Geewax and Ladendorf, 2000). In response to this, the American Competitiveness Act 1998 provided for an increase in number of temporary visas issued for high technology workers (H-1B visa) from 65,000 to 115,000. The number was further increased by Congress to 195,000 in October 2000 for the following three years. European Union countries had a total IT labour shortage of 500,000 in 1998 which was expected to escalate to 1.6 million by 2002 (DCIEA et al., 1999). In May 2000, Germany's cabinet approved a plan to allow as many as 20,000 non-European Union IT workers into the country.

Indians provide the lion's share of high-tech temporary migrant workers in the major receiving countries. Between May 1998 and July 1999, 63,900 Indians were issued US H-1B visas; 47.5 per cent of the total and far exceeding the second leading country China, (9.3 per cent) (INS, 2000). The reaction of anti-immigration groups in Germany to the new policy was to shout *Kinder statt Inder* ("children instead of Indians") (Wallace, 2001). The US computer industry's reaction was to urge its government to "get the Indians here before Germany grabs them" (Krishnadas, 2000).

In Australia, around 31,500 additional Information Technology and Telecom-munication (IT&T) employees were reported to be required during 1999-2000; 89,300 would be required over the next three years, and over 180,200 by 2004 (IT&T Skill Task Force, 1999). In response to this projection, the industry and government in Australia identified India as the most important source country (spokesperson for the Department of Immigration and Multicultural Affairs (DIMA), cited in Stewart, 2000). Most Indian IT professionals enter Australia on long-term business visas (457 visas). This visa class was introduced in August 1996 and permits holders to stay and work in Australia for periods from one to four years. The number of entrants of Indian nationality on 457 visas increased from 471 in 1996-97 to 3,335 in 1999-00, around 40 per cent being IT professionals.[2] The inflow of Indian IT professionals to Australia became such a conspicuous phenomenon that early 2000 was dubbed the "Indian summer" in the IT community (Foreshew, 2000).

In the first quarter of 2001, however, investment in IT equipment and software in the US fell by an annualized 6.5 per cent, having risen 25 per cent during 1995-00 (*Business Standard*, 12 June 2001). Gloomy profit reports from Cisco System and Microsoft spurred global panic in the IT area. Share prices on the high-tech heavy Nasdaq stock market fell by nearly half. In March 2001 Cisco System's stock price had dropped 84 per cent on the year. On 16 April Cisco announced that 8,500 staff, or 17 per cent of its worldwide workforce, would be laid off (*Far East Economic Review*, 2001: 20). It was estimated that at least

40,000 to 50,000 Indian IT workers in the US would be out of jobs by the end of 2001 (*The Times*, 15 May 2001; Kady, 2001; Mottram, 2001). While there are no accurate data on the number of IT workers laid off in Australia. IT recruitment agents interviewed during fieldwork indicated that recruitment had dropped by about 30 per cent in early 2001 compared to the same time in 2000. The collapse of the One-Tel company in May 2001 threw 1,400 workers out of jobs. Many Indian IT graduates in Sydney were working at petrol stations or driving taxis.

This sudden slowdown should be seen as a normal part of economic globalization. A new form of capital accumulation has emerged in the IT industry. Regardless of its origin and amount, capital can be circulated and accumulated on a global scale at an unprecedented speed and therefore with extreme volatility. An urgent task is to understand the labour system of this so-called "new economy". Capital can go anywhere and anytime but what about labour? This article offers an ethnographic description of the peculiar "body shopping" scheme that has been the main means by which Indian IT professionals have moved globally.

The article is based on 18 months fieldwork in Sydney in 2000-01 during which 102 IT Indian professionals, 12 non-IT Indian professionals and 25 Australian institutes (including companies, professional organizations, universities, and government departments) were interviewed. The research also involved participatory observation by living with 13 Indian IT workers for about four months. In order to maintain privacy and confidentiality, the names of all individual interviewees are pseudonyms.

THE IT INDUSTRY AND IT RECRUITMENT BUSINESS

Globalizing capital and IT

The global IT industry has gone through three stages, dominated respectively by hardware (before the 1970s), software (1970s to mid-1990s) and internet/e-commerce technologies (since the mid-1990s). Only in the late 1990s, when IT was widely applied in various businesses in the form of software, and particularly when the internet was commercialized, did the movement of IT professionals become a global issue. The reasons for this are:

- Business-integrated IT makes "deterritorialized" production and management technologically practical. E-commerce is arguably leading to a "tariff-free" economy. Global capital and markets can expand at an unprecedented pace with the use of IT, leading to a huge demand for IT professionals.

-   At this stage, labour markets in the major developed countries experienced a process of deregulation. The volatility and uncertainty accompanying economic globalization led IT corporations to prefer a flexible workforce. Workers moved from one place to another for new contracts.

-   Marked by the emergence of Microsoft and the Nasdaq stock, the world IT industry became a major arena where global capital concentrated and new global capital was generated in the 1990s. Because of the dominance of global capital in the IT area, the standards of professional accreditation, which had been a major obstacle for the international mobility of other professionals (such as doctors), are set mainly by major multinational corporations (particularly Microsoft, Oracle and Apple) than by national professional bodies.

Most governments actively facilitate the mobility of IT professionals. Besides those countries noted above, Austria, France, Iran, Ireland, Italy, Japan, Malaysia, Norway, Singapore, South Korea, Spain, Turkey and the UK have also sought to recruit Indian software engineers (Krishnadas, 2000). A temporary work visa scheme is the typical way to admit IT professionals. On 1 August 1996, the Australian Government introduced streamlined, demand-driven, temporary migration arrangements that provide for the temporary entry of skilled workers (DCITA et al., 1999). Long-term temporary entries made up 4.4 per cent of Australia's net immigration in 1991, less than 20 per cent in 1996, 49.3 per cent in 1998 and exceeded 50 per cent in 1999-2000 (Stewart, 2000). The main motivation for governments to increase their temporary visa schemes was to attract global capital. The Australian Minister for Immigration made it clear: "If Bill Gates were to arrive in Australia tomorrow to establish a new enterprise, he would be able to get as many IT staff as he wanted on long-term temporary visas" (Ruddock, 1999: 10).

However, frictions still occur between the state and the market regarding international labour mobility. While corporations want a highly flexible workforce which they can dispose of at anytime, the state has to make sure that foreign workers are under control. In the US, the process for acquiring H-1B visa necessitates working through four government agencies; the local employment service, US Department of Labor, US Immigration and Naturalization Service (INS) and the State Department. It takes four months for the INS alone to clear an H-1B visa. Sponsors of temporary workers are obliged to shoulder a series of responsibilities for the workers. For example, a sponsor of a 457 visa in Australia has to carry the liability of A$2,000 per month if the worker fails to pay his/her house rent, telephone bill, etc. It requires considerable energy and time for a company to make sure that every worker is paying his/her bills on time, a task which is completely irrelevant to IT companies' core business. The 457 visa is supposed to be issued to workers who move to Australia for a particular project. While many IT projects take only six months, the visa

duration is 1-4 years. Very few companies are prepared to continue sponsorship once the work is finished. Nor are companies willing to go through all the administrative procedures to sponsor workers each time there is a short-term project. Thus, the IT industry increasingly outsources its labour recruitment and management tasks to special firms, namely placement agents.

A brief history of the IT recruitment business in Australia and the US

The IT recruitment business worldwide began during the 1970s. The two oil crises ended the long boom of the capitalist world and "flexibility" became a major requirement in the labour market. To mediate a flexible labour market, labour placement grew up as a new business. In the beginning, IT was only a minor part of the overall recruitment business and the majority of the IT professionals were placed for permanent positions. By the late 1980s and early 1990s, due to the wide application of IT in various industries, IT expertise became unprecedentedly marketable. A new employment pattern, namely "contract consultant", came into being. In this pattern, an IT professional registers a company of his/her own but typically does not hire anyone else. Using the name of this company, the professional signs contracts with big companies (clients) to assign himself/herself to work for the client. A contract consultant's income is usually 2-2.5 times higher than a permanent employee's because the employer does not have to pay superannuation and fringe benefits. At the same time, with the ever-shortening life cycle of IT technologies, employers strongly prefer project-based contract workers. Thus both individual contract consultants and employers need agents to match them.

During the 1990-1992 recession in Australia, a large number of employees were laid off and many workers from traditional professions, such as mechanical engineering, shifted to the emerging computer field. Contracting was a typical way for them to obtain basic hands-on experience. On the other hand, the recession made employers highly wary about head count costs and preferred contract workers who could be retrenched any time.

By the end of the 1990s, pushed by Year 2000 (Y2K) problems and the "dot-com" boom,[3] the IT industry become highly dependent on placement agents. In Australia, the overwhelming majority of workers now have to go through agents to find a job, regardless of their status in Australia (citizens or temporary workers). Most advertisements in *The Australian IT* Section and the Fairfax press are posted by agents rather than by employers. By mid-2000, an estimated 50 per cent of companies relied on recruitment agencies for finding labour.[4]

In the US, hundreds of agents were specializing in H-1B IT workers in northern California and perhaps over a thousand across the country (Lubman, 2000). Of Microsoft's 20,000 workers at its headquarters in Redmond, Washington State,

6,000 are not employed directly by Microsoft but by temporary employment agencies. Many workers have come to be known as "perma-temps" because they have worked for Microsoft for years but are still managed by agents (Borger, 2000). Some informants have suggested that in both Australia and the US it is big agents rather than employers who determine labour price in the IT area.

The IT recruitment business is important for the IT industry for four reasons:

- By establishing worldwide labour databases and connections with labour sources, agents can address clients' labour requirements very effectively.

- Agents closely follow market trends and technology developments. Big agents combine training and placement to ensure that trained workers meet potential demands. Rather than being mere middlemen, agents creatively match business needs and labour supply.

- Agents serve as a buffer zone between employers and a highly volatile market. Once a company signs a deal with an agent for a long project, the company does not need to worry that the labour price will increase unexpectedly. As noted below, the "agent chains" and "body shopping" schemes create a labour reserve which stabilizes the price of labour.

- Agents are needed also for institutional reasons. In Australia, and particularly in the State of New South Wales, employers are subject to complex regulations. After working for a certain period, a contract worker may claim to be deemed permanent, based on labour regulations, and an employer may not be able to terminate the contract. When a placement agent is involved, however, the employer has no legal relationship with the worker and therefore is free from these liabilities. In the case of international recruitment, agents free clients from all the paperwork.

THREE TIERS OF AGENTS

Placement agents do not assume their functions individually but form "agent chains", a group of agents who depend on each other. There are three levels of agents and each operates in particular ways.

Big agents

Big agents are defined as those who place more than 50 workers in a single year with an annual turnover higher than $(A)20 million. The late 1980s saw a trend

for IT companies to reduce the number of "vendors" (agents through whom companies select workers) and outsource their labour tasks to a limited number of "Preferred Suppliers/Vendors". For example, Compaq Australia reduced its vendors from about 100 agencies to about 10 in the late 1990s. In choosing preferred suppliers, clients are very strict with agents' financial standards and infrastructure (such as training facilities) and only big placement agents can become preferred suppliers of big clients. A big agent is usually a preferred supplier of 40-50 clients and 60-80 per cent of workers recruited go to these clients.

Since late 1998, a "master vendor" model has come into existence. In this model, a client company delegates its comprehensive labour management task to one placement agent (the "master vendor") to replace its own Human Resources department. The company not only outsources its recruitment task but also the labour management, such as payroll and workers' promotion.

The preferred suppliers and master vendor model have had two consequences. First, there is a greater integration between big agents and big clients. Clients need to consult agents about labour issues when making business plans. Agents need detailed information of the clients' plans to work out their recruitment line. Second, the master vendor model gives a handful of the biggest agents an extraordinarily strong position in the market. In Sydney, the biggest five to seven agents in the IT area are estimated to take 40-60 per cent of the market share.[5]

Big agents do not see state regulations as an obstacle to their business. DIMA divides Australian companies into two categories when they apply for sponsorships of overseas workers: Pre-qualified Business Sponsors (PQBS) and Standard Business Sponsors (SBS). A PQBS can bring in workers without quota limits at any time. A SBS is subject to a cap of 20 per petition. In order to obtain PQBS status, a company must satisfy DIMA about its business performance and financial standards, and justify their continuous need for a large number of overseas workers. Some big agents sign a labour agreement with DIMA instead of joining the PQBS scheme. Under this agreement, companies can bring in workers at any time so long as they do not exceed the overall limit for the period of the agreement (usually three years). Some big agents sign special agreements with the government. For example, Mastech donates $(A)500 to Australia's universities to support IT education for each worker it brings in. Under these arrangements, the time taken from receiving a labour requirement to putting the worker in place takes a big agent about two weeks if the worker is from Western Europe or North America, and three to six weeks for a worker from India. For smaller agents, the time is almost double.

Surprisingly, some big agents identify "distance" as their major difficulty. It is very difficult for an Australian agent to judge the qualifications of a worker in

India merely through video conferencing or telephone interviews. The manager of a big Australian agent explained:

> Placement is a very "high touch" business. …In high-touch business, face-to-face communication is very important. Otherwise you can't have good judgements. When someone calls me to apply for a job, the only thing I say is "let's meet tomorrow morning". Nothing else. Everything is done through direct communication. This is why Indians can do well in the IT placement. They have the networks.

Another problem is to match workers and jobs quickly. Placement agents are not supposed to sponsor a worker until a job offer is finalized. Thus a time lag between demand and supply still exists. When one project is finished, the placement agent has to find another job for the worker but it is difficult to find a new "opening", meaning a job offer from a client. Due to these difficulties, big agents need smaller agents as their secondary vendors.

Middle-sized agents

Middle-sized placement agents are defined as those who recruit 15-50 workers a year and manage a stable number of workers through the year (rather than on an ad hoc basis). Most of the middle-sized agents involved with Indians are run by Indians. Few become "vendors" of big clients. All middle-sized agents emphasized that workers' quality is more important for their business success than their relations with clients. To ensure workers' quality, agents rely heavily on ethnic networks, particularly in the form of "associates" – an agent's overseas associates. For every worker the associate recruits for the agent, the associate is paid a fee by the agent.

Usually three types of institutes serve as middle-sized agents' associates. First, there are "consultants" similar to the agents in Sydney. For example, CSR Enterprises, run by an Indian couple, has associates in Hyderabad and Chennai (two major cities in South India) and Singapore. The owner of CSR worked in Singapore before he migrated to Australia and he came to know the Singapore associate at that time. This Singapore associate also developed CSR's connection with the Philippines. Second, there are training institutes. The owner of Glogo Consultancy, another middle-sized placement agent, ran an IT training course in New Delhi before he migrated to Australia. The training course was taken over by his brother-in-law and is now the main recruitment channel of Glogo. GGI, a US based Indian-run company, offers IT training and is also an associate of Advance Tech Institute in Australia and other placement agencies in various countries. GGI in Hyderabad charges high tuition fees because it promises to place students overseas on completion of their courses. Third, IT specialist companies (firms whose core business is computer software or hardware development) in India act as associates. G and G, a middle-sized consultant,

recruits workers exclusively from two IT specialist companies in India with which it is associated. Compared with recruiting through open advertisements, workers' quality can be better guaranteed through this recruitment pattern. Besides associates, workers' networks are also an important recruitment channel. E-Bet recruited two Filipino workers through advertisements in Manila who then brought in about 30 of their former colleagues. The connections were so noticeable that Tsukiden in Manila, a Japanese company from where half the 30 workers came, now blocks all E-Bet's e-mails and access to its website.

Middle-sized companies complain that the cumbersome bureaucracy of labour recruitment is one of the biggest obstacles in business. In some cases it takes one to three months for a middle-sized agent to obtain a work visa. More than once Glogo was in trouble with clients because it could not bring workers to Australia on time. This difficulty means that "middle agents" need to find another mechanism for guaranteeing a ready supply of IT workers. The emergence of "body shops" has provided this mechanism.

"Body shops"

Between 1997 and 1999 there was a mushrooming of Indian-run small agents in Australia. In the Indian context, these small agents are called "body shops". Am estimated 30-50 Indian body shops operated in Sydney by late 2000. Characteristic of these shops is their "bench model" operation, which means sponsoring a worker without any job offer from clients and putting the worker "on the bench" after he/she arrives. Small agents then place these workers through bigger agents. The reason why small agents use the "bench model" lies in the difficulties they experience in dealing with the market and the state.

Kana (Kanagarajan) started "body shopping" in late 1998 quite accidentally. He came across a newspaper advertisement for two IT workers in Sydney before he went to India for a visit. He happened to have friends who had the skills required and as he wanted to help his friends come to Australia Kana contacted the company. The company told him that they would not sponsor overseas workers until they saw them. The company suggested Kana's company (he was running a hardware trade business at that time) sponsor his friends. Kana's company could employ his friends in a joint project between Kana and the company, and the company pays Kana the workers' salaries. As a result, Kana launched his placement business. However, he immediately faced a big problem when he tried to do this in a larger scale.

> We know there is shortage for Oracle, SAP, etc. But I don't know who needs them ... When I talk with companies, their first question is "where is the person?" Or at least "where is the résumé?" No one will talk with you if you say you are still looking for people. What they want is to have people in their office, interview them and decide instantly. We have to have people here. This is the first step.

When Kishore started his "body shopping" business in 1998, he spent the first half year calling big IT companies searching for clients. He paid $(A)6,000 telephone bills but achieved nothing:

> These big companies don't talk with you! I have to turn to other agents … no agents will give you orders to ask you to bring people in. The way we do things is to bring people in, ring agents to tell them that we have got people here. If they are interested, we can send the workers to interview immediately.

Difficulties in going through visa processing also makes the "bench model" the only feasible alternative for small agents. Without a high revenue record, a small agent cannot go through government procedures quickly, even when they are able to get job offers from clients. Almost all the workers brought in by small agents are eventually placed out through bigger agents. Big agents explicitly admit that they are happy to manage workers sponsored by smaller agents because they do not need to take any risks (such as a worker turning out to be unqualified or breach laws in Australia). Informants estimated that as many as 80 per cent of Indian IT workers managed by a big agent are sponsored by other smaller agents.

Despite these difficulties, "body shops" have a strong advantage in recruiting workers. Most are found through friends' friends. This happens in different ways. First, through direct friends such as when Kana started his business by bringing in two of his friends. Second, by group recruitment as when Kana went to Singapore to recruit six Java specialists in 1999. Before leaving, Kana and his business partner sent e-mail messages to friends in Singapore explaining the types of persons they were seeking. Their friends forwarded these messages to fellow Indian workers there and within two days of Kana landing in Singapore, 20 workers were called for interview. Four days later, six workers were selected. Third, recruitment occurs by asking existing workers to locate more people with marketable skills when they are in India for a visit and bringing them to Australia. Because of these networks, workers recruited by body shops are no less qualified than those recruited by big agents.

Ethnic networks also facilitate workers' entry to the market. All agents offer workers orientation training. This involves teaching about the Australian market's expectation, the organizational structure of Australian companies and agents, and how to dress, shake hands and say "how are you doing mate?". Venu had three years' experience with Baan in Hyderabad, a Netherlands-based multinational software company, arrived in Australia as a permanent resident and started with Indian agents to search for jobs. He said:

> There are many hurdles to get a job through Australian companies. The Indian consultancies will be much quicker. They will give you the inside stories, what

you should say to this agent and what you should say to that one. They told us the loopholes.

These three tiers of agents have been the means by which Indian IT professionals move globally. How the three tiers interact with each other and their reliance on ethnic networks is the subject of the next section.

CONNECTIONS BETWEEN AGENTS

Relations between body shops and bigger agents

Placement agents of different sizes form a three-tiered relationship. Big agents are best equipped to deal with the market and the state but rely on other companies to provide reliable workers. Middle-sized agents develop networks on both demand and supply sides. Small agents have the greatest difficulty in dealing with the state and market and therefore rely heavily on both big and middle-sized agents to place workers. For example, Osin, a small body shop owned by Piranavan, has roughly four concentric circles of agents around it. The outer circle is open and includes any agent. Talking with these agents by phone is the main means of collecting market information. The second circle includes six or seven agents with whom Piranavan has relatively stable connections. The third circle has four agents who place Osin's name in their database and contact Piranavan when they need people. Piranavan's fourth innermost circle includes three Indian agents, two of whom are Piranavan's good friends.

Since mid-2000, middle-sized Indian consultancies have become more important in "agent chains". The high tech slowdown resulted in a large number of workers who are managed by "body shops" remaining on the bench. Middle-sized Indian agents significantly increased their intake of Indian workers who were available locally and then placed them through big agents. The costs of taking a worker from body shops are much lower than recruiting a worker from India.

"Agent chains" mean that "repeat placement" becomes a common phenomenon. The worker is sponsored by the first (small) agent but this agent does not contact or even know anything about the real employer. The employer signs a contract with the last agent only and sends the worker's salary to the last agent. Workers receive their salaries only after all margins have been subtracted by agents along the placement chain. Workers with one to three years' work experience normally receive only 40-50 per cent of the payment made by employers. In one case a worker was paid A$6,800 per month by the employer but received only A$1,200. These circumstances lead to Indian IT workers sometimes being referred to as "indentured IT workers" or "Asian IT coolies", although in this case they are managed by their own friends and ethnic counterparts.

Relations between "body shops"

It is a normal part of the placement business that some body shops have positions but no workers while others have workers but no "openings" (require-ments from clients). Contacting other body shops is a major way of resolving these mismatches. There are three major types of connections between body shops. First, body shops contact each other through non-business connections. Indian body shop owners are usually active in their communities and ethnic associations provide a common ground on which agents can interact. Piranavan and Tambi have no close relationship with each other but after a religious lecture, Piranavan mentioned his workers on the bench in a conversation with the day's speaker. The speaker, a common friend of Piranavan and Tambi, mentioned this to Tambi, who happened to know about an opening and a deal was done smoothly.

Second, body shops contact each other directly but this often results in dispute. Problems arise when a worker is poached. In order to avoid these kinds of disputes, a third pattern of connection has developed: using a third party as a middleman/person between the body shops. The middleman/person not only pulls the strings between the two parties but also stays between them as an independent business party. Workers' payments are made via the person in the middle, who in turn takes a certain margin.

Middlemen are also used to settle disputes. Such a middleman, Ravi, helped Puli Reddy place a worker with a big multinational company. The worker then decided to change his sponsorship to another Indian body shop and so Puli Reddy asked Ravi for help. Ravi asked the second body shop to pay compensation to Puli Reddy and threatened that if they did not pay he would ask a big agent to take over the worker's sponsorship and destroy the body shop's reputation among big agents. The worker was also asked to pay compensation to Puli Reddy. Ravi voluntarily pointed out that he was always on the original sponsors' side when mediating this kind of dispute. This may have something to do with the legal system in Australia. The regulations for 457 visas allow workers to change their sponsorship almost unconditionally but, as Puli Reddy pointed out, this regulation can never be fully implemented. If workers were to change sponsorships freely, the risks of running body shops would be too high. Ravi's "biased" mediation can be interpreted to counter the legal regulation and make the body shopping scheme sustainable.

CONCLUSION

In the study of globalization and migration, a distinction between "transnationalism from above" and "transnationalism from below" has been made (Guarnizo, 1997; Portes et al., 1999). While the former refers to

transnational activities of powerful institutional actors, such as multinational corporations and states, the latter focuses on the activities of ordinary migrants. While both trends have been widely discussed, the links between the two remain unexplored. This article shows how capital and labour, key concepts of a political economy framework, and ethnic networks which are central for "transnationalism from below", work together in the structuration process of a new international labour system.

Unlike what is usually assumed, ethnic networks play a critical role in the migration of highly skilled professionals. Besides their role in recruitment, ethnic networks are also important in managing workers within body shops (particularly retaining workers when they are on the bench). For example, workers see it as "immoral", or potentially damaging for their own "reputation", if they raise complaints against their Indian sponsors ("body shops").

Ethnic networks are important in this case because they reconcile the state and the market. Corporations in a volatile economy call for a flexible labour market to minimize their costs. A liberal global labour market inevitably creates social costs, such as the lack of security of workers. The governments of receiving countries require employers to take social responsibilities for the migrant workers. Employers "outsource" these responsibilities to placement agents. Big agents yet again pass them on to "body shops". Finally, ethnic networks enable "body shops" to keep workers silent when the workers are on the bench. Agent chains and ethnic networks transfer the costs of a volatile market to the workers.

In the US, wives of H1-B visa holders are granted H-4 visas under which they are not allowed to work and are completely dependent on their husbands. Maitri, a San Francisco based South Asian women organization, received over 1,500 calls from H-4 women reporting domestic violence during 2000-2001 (Srivastava, 2001). Thus, even in the case of the highly desirable professionals, globalization is accompanied with high human costs.

The ethnicity-based labour supply system also has its light side. Migratory Indian IT workers have been able to make a quick transition to transnational entrepreneurs. In California in 2000, more than 7,000 high-tech companies were run by Indians, generating an estimated US$60 billion in sales annually (Reuters, 2001). These businesses increasingly rely on their networks in India for labour, outsourcing and offshore investment opportunities (Saxenian, 2000). Arising from this labour system, India's IT industry grew at a rate ten times higher than that of national GDP during the last decade and reached US$10 billion revenue in 2000-01 (*The Times of India, Hyderabad*, 4 July 2001: 15). This scenario seems to support the new notion of "brain circulation" which replaces "brain drain" in the migration studies. However, what is not clear thus far is the extent to which brain circulation can benefit the local

society in India. The labour migration system is more likely to contribute to a new "dual structure": a global sector where resources are calculated and accumulated in US dollars; and a local sector where surplus value is pumped out to serve economic globalization. Due to the ever expanding and enhanced transnational connections, the vital issue for current research of skilled immigration may not be measuring "brain gain" versus "brain drain" of a particular country, but examining relations between the global and local sector across borders. The structuration process of Indian IT professionals' migration to Australia is only one case illustrating how skilled labour from a periphery society struggles to join the global system on the costs of their own and ultimately of the periphery society.

NOTES

1. The author was affiliated with the Centre for Asia-Pacific Social Transformation Studies (CAPSTRANS), University of Wollongong, Australia, during his field work. He thanks all the staff in CAPSTRANS, particularly Dr Robyn Iredale, Dr Mark Rix and Dr Adrian Vickers for their generous help. The author's gratitude also goes to his supervisor, Dr Frank Pieke, in Oxford.
2. Interviews in 2001 with officials at the Statistic Unit and Business and Employment Section, DIMA.
3. Rather than produce any tangible products, "dot-com" companies create particular websites, attract visitors, and use the number of visitors as the leverage to sell the websites. Hotmail is a classical example of the dot-com companies. Set up by Sabeer Bhatia, an Indian software engineer in the US, as a free e-mail service website, Hotmail was sold to Microsoft for US$400 million. Dot-com companies are typically supported by venture capital initially but have their own cash flows. The life cycle of most dot-com companies is between six months and two years. They are either bought up by established companies or closed down. Thus dot-com companies create a huge demand for short-term contract workers. Dot-com firms were a major driving force of the IT explosion in the late 1990s. But in early 2001, once "dot-bomb" became "dot-tomb", venture capitalists stopped investing and 330 dot-com companies closed down in the US during the first half of 2001 (Nag, 2001).
4. Interviews with Paul McElroy, Drake IT Recruitment, Sydney, 22 March 2001, and Michael G. Butler, The Association of Professional Engineers, Scientists and Manager, Melbourne, 5 June 2000.
5. Interviews with Terry Porter, ICON Recruitment Lit., Australia, Sydney, 11 May 2000, Stephen Leo, Morgan Banks Technology Lit., Sydney, 11 May 2000, and Paul McElroy, Drake IT Recruitment, Sydney, 22 March 2000.

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LA STRUCTURATION DE L'EMIGRATION DE SPECIALISTES INDIENS EN TECHNOLOGIE DE L'INFORMATION A DESTINATION DE L'AUSTRALIE: ETUDE ETHNOGRAPHIQUE

La technologie de l'information (TI) induit une forme nouvelle d'accumulation de capital, comme le montre à l'évidence l'industrie de la TI. Indépendamment de son origine et de son volume, le capital peut circuler et croître à l'échelle mondiale, et ce à un rythme sans précédent, et par conséquent, avec une volatilité extrême. Il est impératif, dans le cadre du débat en cours sur la mondialisation et les migrations, de bien comprendre la dimension internationale du marché de la main-d'œuvre dans la "nouvelle économie".

Cet article est une étude ethnographique des intermédiaires grâce auxquels les spécialistes indiens en TI voyagent d'un lieu d'affectation à un autre partout dans le monde. Le "body shopping" est la pratique qui consiste, pour une société, à recruter des spécialistes de TI et à les proposer à des clients en vue d'un projet particulier, même si cette société n'a elle-même aucun intérêt dans ce projet.

Les acteurs clés de cette activité sont les agents recruteurs. Ils constituent des "chaînes d'agents" agissant en interdépendance pour assurer différentes fonctions dans leurs contacts avec le marché, les Etats concernés et les spécialistes de la TI. Les "body shops" s'appuient sur des réseaux ethniques. Leurs pratiques ont conduit à l'émergence d'un système souple d'approvisionnement du marché international du travail qui peut être avantageux pour certains spécialistes de la TI, mais qui a également un coût.

ESTRUCTURA DE LA MIGRACIÓN DE PROFESIONALES DE TECNOLOGÍA DE LA INFORMACIÓN DE LA INDIA A AUSTRALIA: UN ESTUDIO ETNOGRÁFICO

La tecnología de información (IT) está dando lugar a una nueva forma de acumulación de capitales, como queda claramente demostrado en la industria de esta tecnología. Sea cual sea su origen e importe, el capital puede circularse y acumularse a nivel mundial, a una velocidad sin precedentes y, por ello, con gran volatilidad. Una tarea urgente del estudio de la globalización y migración es comprender el sistema laboral internacional de esta "nueva economía".

Este artículo es un estudio etnográfico de esos agentes que son los principales medios en virtud de los cuales los profesionales de tecnología de información de la India se desplazan a nivel mundial. El "*body shopping*" es una práctica por la que una empresa contrata a trabajadores de tecnología de información y luego

los envía a clientes para un proyecto particular, aunque la firma no esté concernida particularmente por el proyecto.

Los interlocutores clave en el "*body shopping*" comprende una serie de agentes de contratación. Ellos conforman "las cadenas de agentes" que dependen unas de otras y asumen diferentes funciones a la hora de trabajar con el mercado, el Estado y los trabajadores. El "*body shopping"* se fundamenta en redes étnicas. Sus prácticas han conducido a la emergencia de un sistema flexible de oferta de mano de obra internacional que beneficia a algunos profesionales de la tecnología de información pero que también tiene sus costos.