



Re-envisioning the ‘knowledge society’ in India: Resisting neoliberalism and the case for the ‘public’*

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abstract

The ‘knowledge society’ is a concept of importance in India’s current neoliberal path of development. This article argues for a critical conception of the ‘public’ as a means to combat the neoliberal excesses of the Indian knowledge society. A dialectic of the Indian knowledge society is proposed, which exposes the contradictions of India’s current development discourse, in order to give insights into more progressive and public-oriented alternatives. Examples of revitalized public information infrastructure and from India’s informal grassroots sector are explored as ways to enhance the public good in the knowledge society. This exploration highlights some of the challenges, contradictions, and areas of resistance in the ongoing struggle against neoliberal hegemony.

Introduction – whose knowledge society?

The concept of a ‘knowledge society’ permeates the development agendas of many countries in the Global South today. India, perhaps more than other so-called developing nations, has placed a great deal of emphasis on the knowledge society to promote widespread social and economic progress. Often conflated with the term ‘information society’, (UNESCO, 2005) the knowledge society is imbued with neoliberal politics. The neoliberal imprint in India is in evidence through increasing corporatization of the state and a growing reliance on market forces for the provision of social services.

The knowledge society paradigm, in addition to neoliberal influences, is bound up with the logic of information and communication technologies (ICTs). For example, India is now a major exporter of information technology-enabled services and software services, spurring hopes that India will become a major global economic power (Parayil, 2006).

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However, the benefits of the information revolution in India are limited mainly to urban middle and upper classes in a select number of cities. A 'revolution' that has only affected a fraction of the country's population is now used as the major paradigm of social change for the nation. A general euphoria about ICT-led development in India is more prevalent than in other developing countries, and is often accompanied by ICT fetishism and cyber-libertarian thinking (Parayil, 2006). In other words, the knowledge society in India is packaged along with logics of privatization, corporate-driven social change, and technological determinism. The responsibilities of the social welfare state in providing public services are increasingly being superseded by a neo-liberal political discourse that emphasizes market-based policies for social change (Parayil, 2006). In addition, there is a greater focus on poverty alleviation through the deployment of technology and market-based solutions at the community level.

Despite the neoliberal impetus behind the knowledge society, potential also exists for defining an Indian knowledge society in terms of enhanced public institutions and infrastructure, as well as a greater commitment to the public good. Thus, while the knowledge society of the Indian elite imagination is certainly molded from the basic dominant ideological framework that I have just described, openings do exist for more progressive visions of an Indian knowledge society. In other words, contradictory tendencies exist in the Indian knowledge society, with the potential for either capitalist intensification or genuine public sector and community-based alternatives. I term this contradictory nature of India's current development discourse as the *dialectic of the Indian knowledge society*. By dialectics, I am referring to the Marxist conception of social change in which the social totality is taken as a given and oppositional tendencies within this totality are studied to gain insight into potentially more emancipating socialist futures (Ollman, 2008). In this framework, the contradictions of the Indian knowledge society can give insights into the possibilities for more progressive alternatives. At issue are the methods, strategies, and institutional mechanisms used to develop a knowledge society. Specifically, will a knowledge society rely on neoliberal imperatives, public-private partnerships, and market-based 'bottom of the pyramid' (Prahalad, 2006, p. 4) approaches? Or will a knowledge society be based on an expanded conception of the public sector and the public good that effectively encompasses marginalized populations?

Re-envisioning the 'public' in the knowledge society

An important dimension of this dialectic of the knowledge society, as I have just mentioned, is the issue of the 'public'. This term, in fact, is fraught with many considerations and connotations. For instance, it is difficult to discuss the existence of a public in the general sense, as it is more accurate to speak of multiple 'publics' based on different formations such as race, gender, class, ethnicity, caste, etc. (Fraser, 1990). In addition, the concept of the public can connote a hegemonic relationship in which dominant classes and groups enforce their will upon subordinate groups (Fraser, 1990; Warner, 2002). Despite these realities, however, a focus on the public in terms of the public/collective interest is sorely lacking in the modern Indian landscape (Varma, 2007; Raghunathan, 2006; Parekh, 2009). When the 'public interest' is invoked in Indian politics, it unfortunately has been used at times to justify land acquisition and the

displacement of marginalized populations in the name of economic growth and progress (Baviskar, 2008), as well as other inequitable modes of development. Therefore, it is important to frame issues of the public interest in terms of equity, fairness, and a sensitivity to the needs of the marginalized. In addition, it is crucial to understand how the poor themselves define the public good, as it can often differ in subtle, but important ways from elite viewpoints (Kaviraj, 1997).

In the Indian context, the public good has generally been the domain of the state. The Indian state in the immediate post-Independence era, under the leadership of Prime Minister Jawaharlal Nehru, followed a path of state-sponsored industrialization and development. The twin discourses of poverty alleviation and development were central to Nehru's program of democratic socialism (Ray and Katzenstein, 2005). This socialist path met with some moderate successes, but was unable to create a strong social welfare state model that significantly reduced levels of poverty. In addition, endemic corruption, which began throughout the country's early years has continued and remains a formidable obstacle in the development of a strong public sector. The failure of the democratic socialist vision of Nehru has led to a decline in confidence in the state and the rise of market-oriented development philosophies (Ray and Katzenstein, 2005).

Despite the failures, inefficiencies, and increasing corporate capture of India's state apparatus, however, the state still remains in the best position to serve the widest public interest. Even though the social welfare functions of the Indian state are eroding, many of India's marginalized citizens still look to the state as a credible actor in the creation of a more just society (Baviskar, 2008). Marginalized groups in India often demand direct state action and intervention to redress inequalities and grievances (Baviskar, 2008). Given this reality, public and state institutions have an important role to play in creating more equitable and sustainable visions of a knowledge society. One can argue that the greatest failure of the Indian state since independence is the abysmal state of public infrastructure for social development, such as schools, hospitals, and libraries (Guha, 2007). Thus, a critical need exists for improving the public infrastructure of the knowledge society.

In tune with this theme of improved public infrastructure, I present a case study in this article of two similar, but philosophically distinct information institutions – public libraries and information kiosks/telecentres. Public libraries, in their ideal form, can play a role as a 'people's university' and are important facets of the democratic public sphere and information infrastructure in a number of Western and non-Western countries; in the same vein, a number of Indian states have public library legislation and a history that speaks to these values. However, public libraries in general remain neglected, underfunded, and ineffective institutions in the Indian information infrastructure. The central government has recently emphasized the importance of improving and revitalizing public libraries in a knowledge society (National Knowledge Commission, 2007), but the pervasive neoliberal climate may stifle this noble aspiration.

In addition to the role of the state in providing for the public good, I discuss the existence of a 'cyberproletariat' and various 'digital counterpublics' that exist in India's knowledge society. This cyberproletariat is based largely in the domain of India's poor

populations, operating in the shadows of India's informal economy and coalescing around practices such as media piracy and open source software (OSS). While I emphasize the role of the state in promoting the public good, the vast informal sector also plays an important role in redefining notions of the 'public' that resonate more with the needs of the poor. In short, we need to understand conceptions of the public not necessarily rooted in state-directed action. Therefore, it is important to formulate both state-driven and grassroots models for nurturing the public good. Resistance to the neoliberal knowledge society will require approaches that emphasize the public good from both statist and radical grassroots perspectives.

The next section discusses in more detail the history, roles, and current state of public libraries in Indian society. Following this section, I present the case of information kiosks and their neoliberal influences. The subsequent section focuses on alternative possibilities and resistances in the knowledge society from the perspective of India's poor and marginalized. Finally, I discuss some of the challenges that lay ahead in confronting the Indian neoliberal consensus and emphasizing an equitable conception of the public good.

Public libraries and librarians in Indian society

The modern concept of the public library in India has its origins in the British colonial period, with the development of public libraries in cities such as Bombay, Madras, and Calcutta in the early to mid 19th century helping to pave the way for future library development (Bhattacharjee, 2002). While bearing the stamp of Western influences, however, libraries have existed in India since ancient times, serving as repositories of knowledge in the courts of rulers, temples, and universities (Patel and Kumar, 2001). The development of public libraries in the country gained momentum in the post-independence period, with the passage of the Madras Public Library Act in 1948, the first library legislation in newly independent India for providing public library service (Bhattacharjee, 2002).

Despite some of the aforementioned developments, however, the Indian public library system is generally in a state of disrepair and does not provide meaningful services to the masses (Bhattacharjee, 2002). Indian public library development remains uneven throughout the country, with varying levels of quality both within and across states. India is an extremely diverse country, with great linguistic, cultural, and social variation – to speak of India as an abstract whole is beset with difficulties and unhelpful generalizations. In the same vein, it is not possible to talk about a unified Indian public library system, since it varies so much within and between different parts of the country. However, a certain basic set of observations can be made. For instance, the rural public library sector remains an area that is highly underdeveloped. In contrast, certain urban public library systems, in cities such as Delhi, Chennai, and Bangalore, exhibit fairly well-developed infrastructures. States in south India generally have higher levels of public library development, particularly the states of Tamil Nadu, Andhra Pradesh, and Karnataka (Seth, 2006). Within these different categories of libraries, great variations exist; however, city library systems in more affluent parts of the country with established state library legislation tend to be of better quality.

Over the last couple of decades, library leaders and politicians in the country have recognized the need for revitalizing public libraries and making them community and service based institutions. For instance, they realize that the potential benefits of an improved public library system can include increases in print literacy, human capacity development, informal education gains, ICT literacy, and community information delivery. Most recently, this aspiration has coalesced around the idea of transforming public libraries into community-based information systems (National Knowledge Commission, 2007). This topic of community information services and community information centres (CICs) has been gaining in importance within library services and has been suggested as an important area for library service models in developing countries (Martin, 1984; Kempson, 1986; Alemna, 1995).

Community information has been defined as survival information, a type of information necessary for participation as a full and equal member of society (Martin, 1984). Additionally, community information services aim to assist individuals and groups with participation in the democratic process and daily problem solving with issues such as housing, employment, education, welfare rights and civil rights (Library Association, 1980). Community information services have been linked with information and referral services for marginalized populations (Metoyer-Duran, 1994). Community information service models can be based on access to information and communication technologies (ICTs) (Pettigrew, Durrance, and Vakkari, 1999; Ghosh, 2005), but can also involve simply providing relevant information for communities (Alemna, 1995). Successful community information projects often involve providing solutions derived from local populations themselves and not imposed from the outside (Alemna, 1995).

Despite the promise of the community information model for Indian public libraries, much work needs to be done to achieve this goal. The troubles that have stymied the development of public sector services in India in general (e.g., low funding, maintenance, corruption, etc.) affect public libraries as well. Compounded with the neoliberal onslaught since the early 1990s, the public library is in danger of becoming an irrelevant institution in India's corporate-driven vision of development.

In addition to the institution of the public library, the work of public librarians is also an area in need of resuscitation and revitalization. For public librarians in India, the need for an expanded conception of the social benefits of their profession is long overdue. Often associated with the work of clerical officials, the job of the librarian arguably needs to develop into that of a community worker and information access advocate. The low visibility and respect of the profession within wider society is a related concern. While the general perception of public librarians reflects some unavoidable realities, a wider advocacy effort needs to be undertaken in the library community to highlight and promote the achievements and potential of India's public libraries to meet basic social development goals. Part of the solution with regard to advocacy may lie in a redevelopment of India's library education system. In particular, a new, young, and enthusiastic leadership in the profession needs to be cultivated and a reinvestment in LIS education may be part of the solution.

However, the work of the public librarian lacks both the glamour and allure of the IT professions for many students. Consequently, LIS becomes an option of last resort for

students unable to secure admission to IT programs. For the rising middle classes, the 'public' is also a term that is not in fashion – access to private schools, colleges, hospitals and the like is the mark of upward mobility and social status. This gravitation towards privatization is not confined to the middle classes, as the poor are increasingly becoming part of the neoliberal agenda. The next section discusses the case of information kiosks and telecentres, institutions that are not identical to public libraries but can serve some similar functions in terms of information and technology access. Kiosks and telecentres are focused specifically on the poor, but in certain instances are facilitating the encroachment of neoliberalism at the grassroots level. The employees of these institutions are often entrepreneurs, emphasizing the importance of business goals at the expense of public sector employment and services.

Information kiosks: Neoliberalism from the grassroots

As discussed in the previous section, the community information service model can provide new directions in public library revitalization. Thus, the potential for libraries to become effective community-based information providers is not an inconceivable goal; however, the role of community information provision is being taken up instead by entities known as information kiosks and telecentres. Both kiosks and telecentres provide community-based access to ICTs and ICT-mediated information and services (Arunachalam, 2002; Bailur, 2006; Warschauer, 2003). A telecentre or kiosk could be as simple as a small room with ICTs or a more elaborate resource centre providing various ICT-mediated services and training. These projects have the potential to 'reach the unreached' by providing relevant information services such as crop price information, health care information, and weather information (Arunachalam, 2002: 513). Information kiosks sit squarely within the ICT for development (ICTD) paradigm, which advocates for the social and economic benefits of ICTs and information access for poor and marginalized communities. A number of these projects exist in India, with some projects experiencing moderate levels of success.

Despite the successes of some community technology projects, however, the sustainability of these projects remains an important concern. When the funding from outside sources and international granting agencies dries up, how will these projects survive? A new set of strategies for the maintenance of projects over the long-term is focused on entrepreneurial and market-driven strategies. In certain cases, internet kiosks and technology centres can be private enterprises, which may provide support to local businesses and generate income at the grassroots level.

This move towards entrepreneurial models of sustainability has been described as emblematic of a 'cyber-libertarian' (Sreekumar, 2006: 61) mode of grassroots development. In this cyber-libertarian model of development, the technological determinist discourses of the information society and discourses of economic development intersect (Sreekumar, 2006). With specific reference to national and international development policies, there has been a shift over the last several years from emphasizing the role of states in development to the power of non-governmental organizations (NGOs) and civil society in development projects. In certain respects, this shift towards community and grassroots development agendas has been a welcome

change, helping to focus on agency from the bottom-up; however, in combination with ICT-driven development policies, a neoliberal agenda is often advanced. For instance, in a neoliberal grassroots development agenda, notions such as the welfare state, social democracy, and the idea of progress through large-scale social transformation are marginalized (Parayil, 2006). The intersection of neoliberal policies with ICT-led models for development can overemphasize the role of ICTs in mobilizing rural resources for community development, social support, employment, poverty alleviation, economic growth, and increased democratic participation (Sreekumar, 2006). Ironically, with this focus on the grassroots level, the poverty and deprivation of the poor can be blamed on their own intransigence and failure to help themselves (Parayil, 2006). Based on this inverted logic, one way for marginalized communities to 'help themselves' is through the development of local markets and profit-making schemes at the grassroots level.

This focus on entrepreneurialism at the grassroots level can be described as a bottom of the pyramid (BOP) approach, a term popularized by the late C.K. Prahalad, a former professor of business at the University of Michigan. The major idea behind this approach is the stimulation of entrepreneurialism and markets at the lowest economic rungs of society – an effort described by Prahalad as 'inclusive capitalism' (2006: xiii). The BOP approach has gained traction in development circles, with the idea that developing markets among the poor can stimulate sustainable and long-lasting economic growth. International donor agencies such as the World Bank and other aid agencies have increasingly emphasized BOP approaches in their projects. As the new buzzword of development, we can see BOP as a fusion of neoliberal philosophy and community-based development efforts. In general, we can see the growth of micro-credit strategies (à la Grameen Bank in Bangladesh) as one prominent example of this shift in development strategy. We should acknowledge, however, that BOP and micro-credit approaches have had some successes and cannot wholesale be dismissed as disruptive neoliberal impositions. But the danger of the BOP approach is its overemphasis on the development of market strategies, often at the expense of social benefits and an understanding of the larger public good. In addition, the poor are framed largely as consumers and economic actors, with questions of their rights as citizens and as democratic actors marginalized.

Coming back to the issue of telecentres and BOP approaches, the role of the local entrepreneur is important to explore. With this goal in mind, I will briefly discuss the case of the Akshaya telecentre project in the southern Indian state of Kerala. The Akshaya project is part of the Kerala state government's efforts to increase ICT access for populations throughout the state, while at the same time using a private-sector orientation to achieve financial sustainability (Kuriyan et al., 2008). As of 2006, the Akshaya project has so far developed 400 e-centres connected through a wireless Internet infrastructure and has trained nearly 600,000 people in basic computer skills (Akshaya Project, 2006). E-government services, online exams, agricultural information, and other various types of services are offered through these e-centres. The state has provided some subsidies for the development of these telecentres, and state authorities recruited locals from various districts in the state to be entrepreneurs in charge of centres. These local entrepreneurs often have to obtain loans and maintain the profitability of their centres after the initial phase of government support.

Kuriyan et al. (2008) have noted that a major source of tension for these entrepreneurs has been their inability to balance economic profitability and social service goals. Kiosk entrepreneurs in theory are supposed to provide both social services and various other services for economic gain, but recent research has shown that those entrepreneurs who focus solely on providing social services to the poor are often unable to sustain themselves and have to shut down (Kuriyan et al., 2008). A small proportion of the kiosk operators are able to balance the twin goals of social service and economic sustainability; however, most of the successful entrepreneurs focus solely on economic viability and ultimately wind up catering to a largely urban and semi-rural middle class population (Kuriyan et al., 2008). Thus, ironically, those in the 'bottom of the pyramid' do not appear to be the beneficiaries of this BOP-inspired project. On a related note, public-private partnership projects such as Akshaya are in some ways an attempt by state governments to rebrand themselves based on an association with business principles (Kuriyan and Ray, 2009). This rebranding effort is further evidence of neoliberal encroachment at the grassroots level.

The case of Akshaya is also important on a national scale, since the Indian government in part has used this state-level initiative as a model for a countrywide telecentre project. This project of the Indian central government is known as the Common Services Centre (CSC) model, with the goal of providing a range of government services to 600,000 villages in India. The current plan is to have 100,000 CSCs serve these villages, with a public-private partnership (PPP) model serving as the foundation for developing these centres and their associated services (Department of Information Technology, 2008). This project has been underway since 2004 and the issue of excessive private sector involvement in this project is an area of concern. This project employs village level entrepreneurs (VLEs), but in contrast to the Akshaya program, large private sector companies are involved in the development of kiosks and related services (India Development Gateway, 2010). The deep involvement of the corporate sector in service delivery points to the state's prominent role in subsidizing private capital. One also can speculate how much the poor will benefit from these centres, as it appears likely that a focus on technology and financial services for the middle classes is more likely to occur (Kuriyan and Ray, 2009). The example of telecentres and kiosks, therefore, puts the issue of entrepreneurship at the grassroots level into question. A revamped public library system thus may provide more possibilities for effective and equitable social services than information kiosks.

Alternative visions and possibilities

Up to this point, this article has documented the challenges and neoliberal threats affecting state provision of information services. While these challenges are daunting, they are not insurmountable; in this respect, I have highlighted pathways of revitalizing public library infrastructure for achieving more equitable outcomes. However, we should also keep in mind sources of resistance and alternative visions in relation to the neoliberal agenda that are generated organically. A couple of such areas to begin theorizing about resistance are located in the grassroots activist tradition of India and in the vast, informal sections of Indian society. These areas of resistance are another aspect of the *dialectic of the Indian knowledge society* that I discussed earlier in this

article – spaces that can provide more progressive and public-oriented conceptions of the knowledge society.

India is host to a range of non-governmental organizations (NGOs) and grassroots social movements focusing on issues such as environmental and women's rights and frequently emerging in response to state and corporate bodies that are unresponsive to the needs of the deprived masses (Kothari, 2005). These social movements are often mediated by NGOs, which can advocate for the needs of citizens to have a larger voice in democratic governance (Madon and Sahay, 2002). 'New social movements' (Kothari, 2005:153) taking place throughout India and arising in the last couple of decades with regard to a broad set of environmental, gender, and class-based issues may have the potential to alter the dynamics between the state and its citizens. Social movements have often put the needs of the country's most marginalized citizens at the forefront, challenging at various times the state's apathy, corruption, elitism, and violence. In many respects, NGO-mediated social movements are the main drivers of an anti-poverty agenda, especially in the face of the neoliberal transformation of the Indian state (Ray and Katzenstein, 2005).

NGOs can serve in information delivery capacities to marginalized citizens, partnering with government organizations to effectively advocate for the needs of urban poor communities and slum dwellers (Madon and Sahay, 2002). The NGO sector, while not without its own problems of governance and accountability, can thus at times serve as an effective intermediary between the state and citizens in the delivery of services. In relation to the issue of public libraries and community information provision, it might be possible to conceive of a deeper cooperation between progressive NGOs and the Indian library movement. In contrast to the public-private partnership model that has characterized some telecentre projects, an alternative model might see the state focusing on the needs of its poorest citizens through partnerships with NGOs in the creation of public and community libraries.

Another area of resistance is the large informal sector in India, particularly within the rapidly growing urban areas of the country. By 'informal', I am referring to sections of the population that do not fit within the formalized categories of urban governance, particularly those residing in the vast slums of major Indian cities. Mike Davis (2006) in his book *Planet of Slums* rightfully describes the worldwide phenomenon of urban slum growth as the inequitable and troubling situation that it is. However, Indian marginalized urban and slum communities are not always passive victims of India's dominant classes; in many respects, they are capable of remarkable political, social, and economic agency.

The prominent postcolonial theorist, Partha Chatterjee, for instance, conceptualizes the agency of these communities through his use of the term 'political society' (2004: 41). In contrast to the classical notion of civil society, which according to Chatterjee (2004) corresponds to a small section of the middle classes and elites, political society is characterized by the masses interacting with government through the logic of welfare distribution and electoral mobilization. In other words, the urban poor do not fit neatly into categories that characterize bourgeois political participation, especially given their sheer numbers and existence as political subjects outside the Eurocentric framework of

citizenship in a modern nation-state. Rather, government has had to respond to their political actions and provide welfare to this population through informal and semi-legal means. Chatterjee illustrates this point in the following way:

Governmental administration of welfare for the urban poor necessarily had to follow a different logic from that of the normal relations of the state with citizens organized in civil society. The city poor frequently lived as squatters on public land, traveled on public transport without paying, stole water and electricity, encroached on streets and parks...Electricity companies negotiated collective rates with entire squatter settlements in order to cut down the losses from pilferage...Populations of the urban poor had to be pacified and cared for, partly because they provided the necessary labor and services to the city's economy and partly because if they were not cared for at all, they could endanger the safety and well-being of all citizens. (2004: 135)

While this description of political society illustrates the dependency of the poor on state power, it also highlights the subtle power that the urban poor can have on larger political structures.

The concept of political society also highlights how the public/private distinctions that mark Western societies can differ in a place such as India. The public sphere, as defined in the strict Habermasian sense, consists of private individuals acting and coordinating in public on issues of common concern. However, one can argue that this European model of the public sphere was most attractive to the middle-class educated elites in India, and does not meaningfully apply to the lives of the poor (Kaviraj, 1997). Institutions of the middle-class public sphere can include public libraries and public parks, symbols of European modernity in the Indian context (Kaviraj, 1997). Thus, a challenge exists to re-envision public institutions such as libraries in the lives of the poor. In particular, the conception of the 'public' for the poor is often different from that of the middle class. For instance, the poor have been asserting their agency in public by 'plebianizing' spaces such as parks, public squares, and footpaths (Kaviraj, 1997). This claim on public space has negative connotations for the middle class, but has arguably a more inclusive basis. Thus, ironically, it may appear that the urban poor in India have a deeper understanding and appreciation for the concept of the 'public' than the upper and middle classes.

In addition, the informal sector encompassed within political society also is a source of great creativity with regard to the use and creation of information. Ravi Sundaram (2009), for example, discusses the agency of urban poor communities in Indian cities such as Delhi with regard to media creation. The revolution in digital technologies, with drastically reduced costs in creating media, has allowed urban poor communities in India to develop local media and information resources. In addition, the easy access to pirated media and information has allowed poor communities to have a gateway to cultural resources they otherwise would be economically barred from (Sundaram, 2009). The negative discourse surrounding piracy in the West does not have the same resonance in urban India (and in many other parts of the Global South for that matter) – remix and mash-up culture are a part of normal cultural survival (Sundaram, 2009). The informal sector's ability to find solutions in challenging situations points to some potential intersections with public and community libraries. For example, public libraries could tap into the dynamic information and media environment of the urban poor and provide services that reflect this reality.

Thus, in contrast to the knowledge society defined by capital and its interests, an alternate knowledge society exists in India's informal and marginalized sectors. An informal, parallel economy exists in which the urban poor partake in non-legal media practices including the creation, distribution, and use of pirated VCDs, DVDs, MP3s, software products, and books (Liang, 2005). Pirated materials are a regular feature of the Indian information landscape and are available in the markets, bazaars, and roadside/pavement stalls of many Indian cities. These street markets and illegal roadside vendors of pirated materials offer an affordable contrast to the glitzy, corporate shopping malls of the rich and upper middle classes. Thus, piracy in India and many parts of the Global South should not be viewed in terms of the strict legal and corporatist language of dominant interests (Liang, 2003). Piracy, in essence, becomes a form of democratic access to information for India's masses. However, we should be careful about celebrating the piracy of the Global South as a rollicking escapade of anti-capitalist fervour, particularly from the privileged vantage point of the West. In many respects, piracy is so rampant in countries like India because of a lack of adequate public infrastructure for information access (Liang, 2007).

The informal and illegal economy has a long history in India, with slums and squatter settlements having developed their own modes of economic and cultural survival for generations. Starting with the audiocassette in the 1980s and continuing into today's digital age, the urban poor in India have gained greater access to information and media products precisely because of piracy. The audiocassette, for instance, allowed widespread distribution of Indian film music in the 1980s through pirate media practices, when access to reproductions of film music was generally restricted to the masses (Athique, 2008). In subsequent years, however, this practice became absorbed into formal economic channels and mainstreamed (Athique, 2008). In a similar vein, the VCR revolution offered cheap and widespread access to both Indian and Western movies, with piracy playing a major role in the distribution chain. Video parlors and video rental stores offered group access to different media products; with the Internet revolution, many of these establishments have transformed into Internet/cyber cafes (Liang, 2005). Cyber cafes and Internet centers proliferate in many Indian cities, with private entrepreneurs running these businesses for a lower middle class and less economically well off clientele.

In addition to the creative culture of media piracy, the case of open source software (OSS) is worth mentioning. OSS, both as a movement and as a form of software development, offers a challenge to dominant proprietary models of software development. OSS development communities exist in India, with a number of grassroots advocates promoting OSS features such as flexible licensing schemes and an enhanced potential for technological democracy (Liang, 2007). The basic idea behind OSS rests in its inverted logic of property, in which value is derived in the distribution and freely available nature of software code (the building block of software), rather than in exclusive ownership over code (Weber, 2004). The success of open source can be seen in its penetration into various levels of society, through the Linux operating system, the popular Apache web server application, and the Mozilla/Firefox web browser, to name just a few prominent open source projects (Weber, 2004). Thus, while providing an alternative to commercial software development, OSS intersects comfortably with the proprietary software world and is also utilized by the for-profit

sector. OSS and 'free software', however, are also associated with a sustained grassroots technology movement with an international following and community, and are often linked to alternative, community-driven visions of an 'information commons' (Bollier, 2003). Open source seems to be implicitly linked to a wider democratic technology movement in the world, with the idea that enhanced participation in technological decisions challenges dominant societal logics of commodification (Benkler, 2003). In addition, OSS can be viewed as part of a worldwide activist 'copyleft' movement that challenges dominant conceptions of copyright (Stallman, 2001).

This anti-capitalist trajectory of OSS offers an alternative to the dominance of technocorporate giants such as Microsoft, which has a strong foothold in India. Great potential exists for India to be at the vanguard of an open source revolution, but OSS is not yet a widespread phenomenon in the country (India Knowledge@Wharton, 2008). Given the strong base of technological skills in India's population, the development of OSS could promote a grassroots revolution and increase technological self-sufficiency. A number of state governments are utilizing OSS for e-government projects, but the central government is increasingly seeing OSS as an important tool for the promotion of corporate-driven technology initiatives (National Resource Centre for Free & Open Source Software, 2010). Thus, while OSS has a number of radical democratic tendencies, a neoliberal influence is also at work.

Conclusion

This article has covered a range of issues related to the neoliberal characteristics of India's knowledge society, different types of institutional formations that are part of the knowledge society framework, and alternatives and forms of resistance from the margins. I have highlighted the need for a stronger conception of the 'public' in the knowledge society, as an inclusive notion of the public good is crucial for developing more equitable and socially just outcomes. This conception of the public needs to have a basis both in state developed public infrastructure, as well as in grassroots perspectives of the poor. While I have highlighted the shortcomings of and neoliberal threats facing state infrastructure such as public libraries, I have also pointed out their potential as revitalized institutions to shape a more equitable knowledge society. At the same time, the large informal 'grey zones' of India's margins are also areas of great creativity and sources of alternatives to the neoliberal knowledge society. Counteracting and resisting neoliberal hegemony will thus need to draw upon both enhanced public infrastructure and the energy of the informal sector. Revitalized public infrastructure provides the stability that can balance the precarious and tenuous nature of the informal sector. Romanticizing the 'resistance in the shadows' without at the same time emphasizing improved public infrastructure would be a mistake.

On a final note and in consonance with the need for combining state and grassroots action, it is worth mentioning the case of the *Right to Information Act*, a recently enacted piece of legislation related to freedom of information. The Indian parliament passed this act in July 2005, after a decade-long struggle initiated by poor peasants and workers demanding the people's right to government and public sector information

(Roy, Dey, and Pande, 2008). The act has been used to demand information from various levels of Indian government, related to day-to-day governance issues, the delivery of basic services and entitlements, and human rights and corruption issues (Roy, Dey, and Pande, 2008). While time will tell how this act will ultimately fare in enacting equitable social change, it has offered hope to the masses in the idea of a more participatory democracy. In addition, this development shows the deep understanding of and hunger of India's masses for a more inclusive and public information culture. The public institutions of the knowledge society, however, remain underdeveloped and unresponsive to this yearning. The *dialectic of the Indian knowledge society* is still waiting for its resolution.

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