Chapter 7
Epilogue

7.1 Governance and e-Governance: *Interrogating ICT*

e-Governance is defined as a governance driven through a sophisticated modern technology (ICT) which supplies the information required in formulating public policies. While governance is dependent upon the indispensable need for information, its quality and relevance of information infrastructure define the parameters of its success. The nature of information technology, its sophisticated configuration and perceptive adoption in institutional operations, constructs e-governance which suggests that the territories of governance and e-governance are overlapping and interdependent. However, the last one decade and a half of governance research being undertaken in political science and public administration has focused on institutions of governance, i.e. the legislature, the executive and the judiciary, which have been overshadowing the need for a critical intrusion into the technology domains of governance. This neglect has prevented a more holistic analysis of public policies and in turn enabled the technology determinists to capture and customise citizens' lives to serve a system. These determinists have also risen as experts within their self-created narrow forte of e-governance and have saddled over the political economy of 'Internet' which refers to the global information infrastructure. A need for a wider participation of interdisciplinary experts having socio-psychological understanding about the ability to participate and a subsequent opening up of the ICT to the requirements of the less skilled and differently abled masses has remained a rhetoric rather than a reality. It has been found that from local to global, technology has been centralised as a result of which accountability and transparency are available only under great risk and loss of personal privacy and safety.

The advancement of e-governance is an unavoidable journey but its direction ought to be defined by democratic ideals rather than the state-driven authoritative

structures which would be counterproductive to the effort. The WikiLeaks[1] and Snowden's Case[2] highlight the machinery of state surveillance and the place of individual safety and privacy. The ICT is turning into a new cold war between information seekers and controllers. The book attempts to study ICT as a foundation of e-governance through a comparative study of Asian countries so that a clearer picture could emerge on many decisions which governments take to upload and disseminate information to citizens through an adoption of a particular technology to act as a medium. The book enables the reader to understand ICT as a technology to improve state capacity in achieving the MDGs and also enhance competitive edge of countries to attain inclusive governance. The book is less concerned about the issue of affordability and accessibility at the micro-level as appropriate macro-level decisions taken on technology adoption may percolate downwards in an unstoppable manner in making systems of governance more inclusive and participatory. On the contrary, a disjunctive micro-macro decision-making may corrupt channels of governance and push strategic performance into political predation of representative democracy. The study focuses upon the micro-macro connectivity to make policies cost-effective and sustainable which could then be translated into economic opportunities and programmes of well-being. During this period, only those countries which have been guided by a visionary leadership, teamwork and strong indigenisation in e-governance would sustain the demands of the next generation governance. No old school political leaders may be required in the coming decades.

7.2   Participation and e-Governance

In the public-sector based e-governance programmes which generally attempt to address the substantive needs and well being of citizens, public participation is the key to achieving the goals of development. Ironically, its been observed that governments focus least on generating participation for the fear of more work, greater transparency and clear accountability. Public sector systems do not suit the participatory capacity of the user, supervisory commitment of administrators and trust of citizens which is better assured when the same system is transferred to an NGO where it suddenly becomes functional. There are successful practices from the TaraHaat programme in Bundelkhand region of India, the TIGERS programme from

---

[1] Julian Paul Assange is an Australian editor who is the founder of WikiLeaks, a newspaper which exposes classified information obtained from various sources. WikiLeaks has been a whistleblower of many secret programmes of big governments. Assange has been in asylum since 2010 for leaking secret information to press (Gray 2010).

[2] Edward Joseph Snowden a thirty-year-old American technical contractor for the National Security Agency (NSA) and Central Intelligence Agency (CIA) who leaked some intricate policy secrets of US government to expose its mass surveillance programmes. As he leaked secrets to The Guardian (London) and a documentary film-maker involved in such themes, he declared that his 'effort was to inform the public as to that which is done in their name and that which is done against them'. (Gellman et al. 2013; Greenwald et al. 2013; Greenwald and Ball 2013).

the Tasmanian region of Australia, BRAC (Bangladesh Rural Advancement Committee) in Bangladesh, health programmes in Indonesia's Bali, MindaCom Net in Mindanao in the Philippines and PANAH in Pakistan. The performance of Asian NGO Coalition for Agrarian Reform and Rural Development (ANGOC), Japan International Cooperation Agency (JICA), India-based ActionAid International and Sri Lanka's Dharmavijaya Foundation and Red Lotus aims to enhance the capacities of the participants for community development, monitoring and evaluation as well as policy dialogue. One can also witness that the impact of cut-throat competitiveness in the private sector has enhanced capacities of e-governance programmes to attract clients, customers and investors through many innovative strategies. This has pushed outsourcing and offshoring, but with a fuzzy framework of cyber laws available in most Asian countries, the data protection and safeguarding of citizen's privacy continue to be a major deterrent for users. Many such fears have hindered the online public sector performance in comparison to the private sector where substantial investments and leadership have defined the safe parameters of interaction online. A number of indices have been developed by private organisations and statistical agencies which have helped to identify the gaps which have been holding back many countries of Asia in strengthening their decision making for the information infrastructure. The present work develops an argument that a study of comparative capacities of countries in adopting, innovating and indigenising e-governance indicates a possible direction of their progress and sustainable advancement.

7.3 Realising the Potential of ICT

Public policy which is driven by the 'information and communication technology' (ICT) has been referred to as 'e-governance'. ICTs encompass all those technologies that enable the handling of information and facilitate different forms of communication amongst human actors, between human beings and electronic systems and amongst electronic systems. These technologies can be subdivided into capturing technologies, storage technologies, processing technologies, communication technologies and display technologies (Hamelink 2001, p. 2). This technology is different from the erstwhile computer and even the present-day telephone technology. It encompasses a linear mechanism of transfer and forms a complex network of billions of nodes which become the transmission zones for information into many different directions.

Currently, ICT is playing a larger role in governance than all previous forms of technologies such as electricity, steam engine, automobiles, wireless and telephones. It goes beyond the dyadic structures of communication to function upon a 'network of networks'.[3] It touches every section of society, every department, every organisation

---

[3] Dyadic structures define relationships between two actors, whereas networks involve many actors with multiple forms of relationships. Lazer and Binz-Scharf (2007) have titled their chapter as 'It takes a Network to Build a Network'.

and every generation. It is unstoppable and governance different from the erstwhile factory-labour-capital-based system is nevertheless reaching the same destination as the previous one, which is that of an economic divide unless it is more holistically managed and able to bring one of the deepest dividing line between the old and the new form of administration. Whatever the obstructions against this change, the outcome is definite that no amount of opposition from vested interests can prevent the coming of the ICT-based governance. Barret (1979, p. 229) summarises the situation in the following words:

> it would be silly for anyone to announce that he is 'against' technology, whatever that might mean. We should have to be against ourselves in our present historical existence. We have now become dependent upon the increasingly complex and interlocking network of production for our barest necessities.

ICTs have given rise to a new form of lifestyle of 'splurge' due to rising consumerism intensified through ATMs, online payments through credit and debit cards and an ever-rising 'e-commerce'. It has also been deepening 'alienation' by obstructing the traditional contours of participation, markets and commerce. The digital divide created through an uneven access to technology amongst people as well as nations has become a defining feature for the distribution of economic opportunities.[4]

The early breed of governance specialists was sceptical about e-governance, while the ones who followed looked at it with distrust as in the mid-1990s the 'e' was not just unsteady and less confident little David challenging the mighty Goliath of governance. As Margetts (2010, p. 115) comments, 'Until the 2000s, academic visions of e-government tended to range from the highly utopian to the severely dystopian, with a lack of empirical research filling the middle of the spectrum'. Margetts could comfortably label them as 'Hypermodernists' (1999) as there was a strong parallel found with the Weber's notion of bureaucracy as a machine which would lead towards greater efficiency and rationality. In the post-2006 era, the Asia Pacific literature on governance had a number of writings on e-governance which had been localised and confined to best practices studies with affordability and accessibility as indicators of its success. Much of the governance literature dealt with the new public management studies and critiques which occupy this phase in public admin-istration writings. A more holistic set of empirical analysis comes from Australia which has been used substantially in the writing of this book. One such analyst, Carol Johnson has contributed an Australian case study through a more holistically designed social sciences methodology in public policy. Much of the e-governance writings focused upon the impact of e-governance on citizens, public sector pro-grammes or local initiatives rather than questioning the technology itself (Kulchitsky 2004; Torres et al. 2006; Jho 2007; Christou and Simpson 2009; Myeong and Choi 2010; Ahn and Bretschneider 2011; D'Agostino and Kloby 2011; Chadwick 2011; Zysman and Breznitz 2011; Mossberger et al. 2012). Some empirical studies on

---

[4] Herbert Marcuse has written passionately on technological rationality leading to some or the other form of enslavement of human beings in society: 'In a world where haves and have-nots exist side-by-side, and where the "free" enjoy their freedom off the backs of those that remain captured, freedom is merely an illusion' (Vieta 2006, p. 10).

e-governance (Wescott 2001, 2007a, b, 2010) and Paul Starr (2010) and Chadwick (2003) have taken a wider view of transcending programme-based evaluation of e-governance policies to capture the global currents which enable the flow of e-governance in non-Western regions. To quote two examples where this neglect is quite evident, the first is the Special Issue of Public Administration Review on the 'Future of Public Administration in 2020' edited by Rosemary O'Leary and David M. Van Slyke (2010). The issue has one article mentioning a borderless future of administration in 'Administration Without Borders' by Koppell. On further reading it suggests three entirely different key developments in public administration as 'the rise of mixed and nongovernmental institutions in public policy, the increasing importance of market mechanisms, and the assertion of meaningful global regulation'. Similarly, in a recent volume *Oxford Handbook of Governance* published by the Oxford University Press (Levi-Faur 2012), e-governance is featured only in two chapters out of the total fifty-two chapters. The first one by B. Guy Peters (pp. 113–128) 'Cybernetic Models of Governance' and the second by Eran Fisher (pp. 569–583) 'e-Governance and e-Democracy: Questioning Technology Centred Categories'. These chapters have again focused on the 'impact-outcome approach', i.e. studying the impact of e-governance on governance models, democratic institutions and administration rather than addressing the state directly on the choice and processes for the adoption of technology. This has enabled the state to go scot-free in deciding upon the nature of technology including its purchase, adoption strategies and role allocation. The gulf between the understanding of social scientists and technologists has further enabled technology to be adopted within the requirements of state politics. This suggests that countries with better governance systems would be adopting more relevant technologies as compared to authoritarian and corrupt governments. So the understanding about e-governance as one which facilitates transparency, accountability and democratisation of decision making institutions may not be a standard norm associated with its promotion and marketing. The present book has attempted to go beyond the 'impact-outcome approach' and make a critical survey of the manner and strategies which governments adopt towards Big Data, IPv6 transition, Cloud Computing and strengthening data security systems. This would define government's intention towards generating a strong well-connected and interactive society which could trust their governments as they put their personal data on e-governance transactions.

7.4 e-Governance as Inherently Decentralising

By the twenty-first century, e-governance had rapidly influenced and captured the architecture of governance. While the origin of governance goes deep into the constitutional and political discourse about state capacity, e-governance originates in a technological regime designed to facilitate business in a neo-liberal market model. This is elaborated through a case study from Australia by Carol Johnson in the fifth chapter of this book.

As the Internet history reveals, the fundamentals of e-governance were formulated and controlled by the mega information technology labs in the USA, supplied by data generated in the leading data analytic labs and statistical companies headquartered in New York, Washington, Chicago or Los Angeles. All institutions of ICT, which is the basic technology for e-governance, originate from or are Siamese twins of America's ICANN, IANA, WSIS or ITU. The country has an unending source of data on electronic information and communication knowledge that its sustenance would never be a problem even during the worst economic odds that derail its reputation for short durations. This data storage ability emerging as Cloud Computing and Hadoop in the intensive debate surrounding Big Data is becoming a concern as well as a challenge for the Asia Pacific countries. The next five years would decide the direction towards autonomy, decentralisation or the UN control over the ICT technology as highlighted through the proceedings of the recently concluded World Conference on International Telecommunication at Dubai in December 2012. It is interesting to note that less than half the ITU members signed the treaty which revised ITU regulations to bring in the government control over the Internet. It is interesting as it reveals the politics behind the governance of technology.

Looking into the nature and origin of the Internet, one gets an idea that this technology is rooted into a number of other subsidiary technologies which demonstrate an inherent decentralising tendency of the Internet. e-Governance combined with innovation can resolve a number of issues which delay or diffuse programmes in poverty reduction and well-being. However, this is possible only when nations are more forthcoming to collaborate, form partnerships and seek mutual sharing of successful practices as mentioned in the MDG 8 both within their country as well as with other countries in the neighbourhood. A large number of e-governance projects have been failing, bringing a huge loss to public exchequer and the tax payers' money. The government is expected to make efforts to fulfil preconditions of e-governance implementation, the most important of which is to implement inclusive governance reforms. It is time that the fifteen Administrative Reforms Commission Reports be brought out and implemented. It is widely seen that the success stories of e-governance are rooted into partnerships, collaborations, mutual learning and a wide-ranging experience and multicultural exposure of the decision maker. Ironically, when technological systems are decided for, this is by and large reduced to technological bureaucracy.

7.5   Exploring Epistemological Foundations

Epistemology of e-governance is rooted into the processes of governance and its increasing proximity to the Internet technology. The 'e' in technology represents a complicated network for the transmission of knowledge and controls and not just a sequential chain of mechanics based upon linear relationships. These networks also generate a hybrid of public (government at the core) and private (vendors and donors) institutions to deliver many core services to people to facilitate development.

A search for epistemology is an attempt to clear some errors in treating e-governance in isolation of the nature of ICT. Theory helps to generate an understanding on epistemological directions of e-governance projects and may help take a cautious view before venturing into *a megaproject which is* capital as well as risk intensive. Analysis undertaken in this section endorses a critique of positivism and social constructionist view which are distinguished by their propinquity to attain controls over technology. This section also discusses the nature of technological determinism which defines e-governance policies. Carrying on the critique of post-modernist and post-structuralist against state authority and highlighting the Gilles Deleuze and Felix Guattari's (1988) notion of cyberspace as 'rhizomatic' or 'nomadic', the theoretical expressions also bring in the understanding of Marcuse and Foucault on state authority and controls. The chapter has particularly attempted to bridge the micro- and the macro-level decision making on ICT, the distancing of which has been a major drawback of e-governance policies. The analysis of interactiveness in society as done by the sociologist Goffman (1967) has been particularly meaningful. His micro-level behavioural studies in sociological research are quite appropriate to understand human emotions and behaviour which work in their most pristine manner when human beings interact directly or 'face to face'. This chapter also discusses the historical and cultural context of ICT to demonstrate how certain religious cultures draw boundaries around the use of Internet, but the economic opportunities attract people and empower them to *break through* these limitations and realise the full potential of this new technology. However, neither the state controls nor the religious persecution has deterred people from navigating over the social media sites and forming ideological and professional networks.

7.6   New Networks to Study Networks

Networked governance is an expression used for modern-day governance where administrative agencies work in partnerships and in communication with many other governmental and non-governmental agencies for political, informational and social reasons.

   A new vocabulary has emerged through the e-governance platform. The e-readiness, networked e-readiness and e-government readiness indicate inbuilt partnerships and collaborative activities. The challenge of development is more about managing networks and this has been sufficiently highlighted as the eighth MDG. The other seven goals are dependent upon the achievement of this last goal notwithstanding the miserable performance of nations on the achievement of this goal as the 2012 MDG Task Force Report suggests. ICT facilitates the networking process by making coordination and communication much simpler; the technological network has a human network behind itself which creates conditions for the use of technology. The Asia Pacific countries barring a few like Sri Lanka and Malaysia lack a committed leadership and strategic planning for the adoption of technology and strengthening institutions which govern technology.

Development and ICTs are related and nothing proves it better than the rising GDP of countries as the score on 'Networked Readiness Index' (NRI) goes up. NRI is propensity of countries to exploit opportunities for bringing development. This depends to a sufficient extent upon the granularity of metadata available in the country's systems. Most countries have been making serious efforts on refining their granular data obtainable from the grassroot level which serves as a design for the purpose of studying e-governance in different countries. This data has become finer over the last decade and requires new structures to manage it. Governments should be innovating structures to fulfil the requirements of data management and data analysis. From the 2003 UN Survey woven around the minimum threshold level of technological infrastructure, human capital and e-connectivity have now deepened to a complicated set of diverse data. e-Government Readiness Index (EGRI) is composed of three indices Web Measure Index, Technology Infrastructure Index and Human Capital Index. Websites are the first measure of e-government readiness as any further connectivity and interaction is generated through this. The availability and management of infrastructure along with the human capital to sustain it is a challenge for advancing on the scale of EGRI.

7.7   What Governments Could Do?

This book is primarily a study of the technology of e-governance and the policies which are formulated by governments to improve and sustain their adoption. Many such issues which appear as major challenges to e-governance such as the access, affordability and indigenisation of ICT have been treated as a natural outcome of government's application of appropriate technology through appropriate governance structures. e-Governance configures various departments, facilitates intra-agency coordination, generates specialised partnerships and creates knowledge networks and a well-structured road map for e-governance. The rapid increase in Internet, e-commerce and social media site users along with an overwhelming accumulation of data every minute is bringing new challenges for e-governance. This is leading governments to new concerns of managing Big Data analytics as a major source of knowledge power in improving governance and working of institutions. Governments have to urgently create task forces to monitor and manage processes of transition from a limited capacity IPv4 to IPv6 and to generate storage spaces through Cloud Computing. Much of the existing e-governance discussion bypasses the need for disseminating broadband to increase bandwidth and increase IP addresses, Big Data and Cloud Computing as fundamental technologies which kick-start sustainable e-governance projects and also prevent any e-catastrophe in contingent times. Many such efforts by governments also strengthen institutional memory and prevent personality-driven governance reforms which have become a bane of development and transparency in governance.

7.8   Australian e-Governance as a Case Study

The book also contains a detailed case study of ICT adoption in Australia in tune with the theoretical position taken in Chap. 2. This chapter has been a special contribution to the book by Prof. Carol Johnson who is one of the earlier authors in Australia who delved upon a more holistic understanding about the political-technology nexus of development and democratisation efforts. This case study is not just relevant to the discussions of the practical relationship between governance and ICT provision that has been discussed earlier in this book, it is also highly relevant to the theoretical engagement of how discourse around ICT is implicated in a rethinking of the nature and scope of both governance and the economy. *The case study also raises questions about how an attempted democratisation of ICT provision, in terms of extending government subsidised provision, is still constrained by the role of the private sector and market economics.* The analysis of the intersections between ideology, discourse and the legitimation of policy which is undertaken in the chapter also gives new force to Marcuse's (1964, pp. xv–xvi) observation that 'culture, politics, and the economy merge into an omnipresent system which swallows up or repulses all alternatives. … Technological rationality has become political rationality'. Similarly, Habermas's later observation that science and technology were now performing 'the function of legitimating political power' also has force, although Habermas arguably did not anticipate how that influence would continue during both Keynesian and neo-liberal periods of governance (Habermas 2001, pp. 96–101; Johnson 2000, pp. 123–144). The author discusses the ideological struggles to illustrate Donna Haraway's (1997, p. 270) point that 'technoscience' is itself a site of political contestation. The study ranges across political spectrum to interrogate Australian government's highly rated e-governance programme on the issue of 'usability of provided online information and services' and the impact of the digital divide on the ability of all groups in Australian society to access that information equally. Thus a larger part of ICT debate in Australia has therefore taken place in the context of the role of government in facilitating the development of technology infrastructure that is necessary for the provision of both public and private sector services in areas ranging from health to education, as well as the provision of ICT infrastructure that enables Australian businesses to develop and to compete in the world market. It is the development and outcomes of that debate which form the core of the chapter. Prior to the introduction of the Internet, the major focus of Labor policy had been on developing technology in Australian manufacturing industry. That focus had continued during the early years of the Hawke Labor government (Hawke 1983). However, Hawke's successor, Keating, focused more on ICT, emphasising its compatibility with the government's broader political agenda, including its commitment to globalisation and trade liberalisation. Developments in ICT also confirmed that older-style social democratic policies of nationalising 'physical capital' (never pursued extensively in Australia anyway for constitutional and ideological reasons) were outdated and inappropriate (*Sydney Morning Herald*, 13 May 1995).

Keating envisaged an Australia striding the global information superhighway, using the language and cultural skills of its multicultural population to engage with, and export to, the world. John Howard never embraced new information technology as enthusiastically as Paul Keating did. Visions of a cosmopolitan Australia celebrating diversity did not fit well with Howard's socially conservative picture of a society in which difference was ideally to be 'integrated' into the values of traditional Anglo-Celtic Australia (Johnson 2007). Nor did exciting visions of technological change gel with Howard's social conservatism generally. Labor argued that government needed to ensure that children from poorer families had good access to information technology and could develop the relevant skills, buy computers and help 'bridge the digital divide' (*Weekend Australian*, 20–21 October 2007). For Rudd Labor, as for Keating Labor, ICT was not just a technology, it was a particularly meaningful sign – and, in Rudd's case – one that arguably played a role in his defeat of the Howard government (see further Johnson 2010). The author concludes by saying that while the Australian government does not utilise the Internet in as authoritarian a way as its Chinese counterpart, it is also far from clear that the Australian government's involvement in the provision of the National Broadband Network revolves around a belief in e-governance as a constituent of democratisation processes. This becomes all the more obvious as the Australian government decided to step in to play such a central role in establishing a National Broadband Network mainly because the private sector had failed to do so.

7.9   Internet Freedom and the Law

The last section of this book deals with the activism that lies between the issues of privacy and freedom of expression on one hand and citizens' safety and state power on the other. Many issues which emerge as a terrestrial law is translated into the cyber world have been mentioned and explained. Countries have brought out their own designs of cyber laws for ensuring data security and preventing cyber crimes, but in the midst of this effort, the much required voices of the people are suppressed. Any restraint upon Internet freedom may block the diffusion of e-governance as it has happened in the last 2–3 years. Whatsoever be the structure of such a cyber law, it indicates a paradigm shift in the understanding of law. The gist of the paper by Johnson and Post (1996) suggests that the Internet should be self-governed rather than being governed by one particular state. Similarly the Google Executive Chairman Eric Schmidt and the Google Ideas Director Jared Cohen in their new book (2013) discuss the need for the governability of Internet in a manner that the emerging digital platform which unites people does not get mutilated.

The debate on control has been exacerbated by many incidents of administrative overstepping in resolving electronic communication conflicts across the world. In India the Palghar Facebook Case and a follow-up PIL against Section 66A of the IT Act have led to a phenomenal uprising of the young and a Facebook movement against authorities. This has also highlighted the British lineage of the IT Act

especially with Section 127 of the UK's Communication Act 2003. This section should be read in line with the famous House of Lords verdict[5] which read, 'The test is whether a message is couched in terms liable to cause gross offence to those to whom it relates'. It has also added the need to ascertain mens rea[6] for an offence of sending a message of menacing character or the innocent may largely get persecuted and implicated.

The *Freedom on the Net 2012: A Global Assessment of Internet and Digital Media,*[7] a US-based research group, has studied selected indicators for ranking countries about their status on the issue of freedom of the Internet. The indicators selected for assessment included many commonly undertaken measures by governments like web blocking, shut down of the net services, pro-government blogging, arrests for anti-government bloggers to the formulation of new regulatory and punishment laws, physical attacks, custodial torture, deaths and disappearance of anti-government e-writers. Of the Asian countries, only one country Philippines was rated to be actually free at a score of 23.

India has passed through a much avoidable situation in the context of its stand on Internet governance in the World Conference on International Telecommunications in Dubai in December 2012. While a proposal was prepared jointly with Brazil and South Africa, India was standing alone at the conference with its proposal and in the end even India did not sign the communication treaty which was her own initiative.[8] The objection of India and USA to the treaty was due to the fact that it contains a controversial Article 5B which is titled 'Unsolicited Bulk Electronic Communications'.

This concern of Internet freedom with civil liberties and grassroot movements has been brought out with two contrasting stories depicting the attitudes and understanding of the Supreme Court of Pakistan and that of the Philippines.

The study observes that e-governance research, which was understood just a few years ago as being 'highly utopian to severely dystopian' (Margetts 2010), is moving towards greater empiricism and institutional stability. This may not always be there as state power may design well-guarded panoptics of security against movements which expand the territories of freedom. Thus Internet governance requires a strong peoples' movement to deterritorialise the use of Internet, online interaction and people to people contact on policy issues. From outside it requires support from the universities and academic institutions to sustain this direction of freedom whenever the state power is overshadowed with the need for security from militancy and terrorism. The *success of e-governance is entrenched into the need for an ever-growing number of people* continuously going online and staying there for

---

[5] Paul Chambers and Director of Public Prosecutions (2012).

[6] Mens rea (or guilty mind) is a Latin term which is used to explain the motive behind the crime, suggesting criminal liability as 'the act is not culpable unless the mind is guilty'. Besides, there must be an 'actus reus' (or guilty act) accompanied by mens rea to constitute the crime. Technically, there is no criminal liability attached to a person who acted without mental rea.

[7] Kelly et al. (2012).

[8] Bhardwaj (2013).

rather longer durations to understand and benefit from the opportunities which are available online. Governments which restrict or discourage Internet use may also not encourage policy discourses and consequently decentralise governance which is offered through e-governance. e-Governance is ultimately a policy of converting real-life networks (hard networks) into virtual networks (soft networks) so that people are able to transcend the restrictions of geography, physical disability and time. Appropriately planned e-governance is truly an ascent of deliberativeness amongst people.

7.10   Recommendations

The e-governance discourse and its embeddedness in the politics of the Internet is now a concern of social sciences as much as that of the technologists. It is a welcome sign that social scientists are now finding reason to debate the ICT and its role in societies aspiring for development. However, it has failed to make effective inroads into public administration research especially the issues of coordination, partnerships and information dissemination on assets, policies and proper channels in governance. It continues to be used as a service delivery facilitator resulting into larger number of research studies dealing with case studies of e-governance pro-grammes. Studies which attempt to link the macro-level with the micro-level gover-nance and enhance understanding about the adoption of technology, policies and laws at these levels have been few, and as a result many institutional gaps and inac-tivity areas have still not been identified in the mainstream public administration research. The present work identifies certain gaps in the adoption and implementa-tion of e-governance in the Asia Pacific which are demanding as well as decisive about the future of democracy in this region:

- There is need for a wider dispersal of broadband services which includes every other form of high-speed fixed (wired) access to an Internet speed of 256 kb or more through cable modem, DSL, fibre optics or fixed wired broadband. The ITU Report (2011) suggests that while the news about broadband access between 2007 and 2013 has not been very heartening for the Asia Pacific (increased from 3.2 % to 7.6 %) when compared to USA (increased from 10.9 % to 17.1 %) or Europe (increased from 18.4 % to 27 %), yet an overall picture remains relatively dull and slow. The focus of governments has not been towards a holistic public sector based e-gover-nance systems despite the fact that *affordable* high-speed Internet not only brings more people together but also helps in accessing bigger sites and downloading more data to obtain economic opportunities as well as academic and market research. It is this convenience of access which has now become a key to economic growth and job creation in the Asia Pacific. There are several studies as well as reports from international funding agencies such as the World Bank and UNDP which have shown that the increase in Internet users demands faster access and greater data downloading. Much has been written on the relationship between the internet and development when governance is steered through by more insightful policies and

administrative leadership. There has been a surge of literature on the connection of internet to the GDP growth. A recently prepared Broadband Toolkit by *InfoDev* (http://broadbandtoolkit.org/1.3) and the International Telecom Union (ITU) Report (2013) suggest that a ten percent increase in broadband access results in 1.4 % growth in GDP and every 1,000 new subscribers of broadband Internet result in the creation of eighty new jobs. Governments have to play a key role in formulating policies and offering incentives so that private companies are encouraged to partici-pate in providing broadband services alongside the extended employment base which emerges for skilled and semi-skilled young people in the local subsidiary industries spread around the broadband.

- Convert hard networks (social groups such as professional ,occupational, resi-dent welfare, cultural, geographical, ideological, charitable, labour and volun-tary unions) into soft networks (virtual unions or online chat groups). This effort may require skill building, training and capacity enhancement programmes to make human interaction more apt, meaningful and inspiring. Local agencies should be identified to generate skills and entrepreneurial development within such groups so that citizens are able to overcome their handicaps in learning and seeking economic and other opportunities.

- Attend to the deepening digital divide in each country as the social divisions get seated and cemented in e-governance systems. Women and girl children are the most affected lot in this technological centrifugal chuck as they are already sitting at the periphery of social recognition. Even boys may not benefit as expected since economic, geographic, community and caste structures dominate scenes in every Asia Pacific country. Any inaction on this front may reinforce Castell's premise that 'the rise of informationalism in this end of the millennium is interwoven with rising inequality and social exclusion throughout the world' (1998, p. 70). While this would create gulfs between the haves and have-nots in the world, it may not spare even some of the achievers in human development like Australia to come clean on racial and gender deficits of technology diffusion. Asia can experiment with the targeted family-based policies to help marginalised children come out of their social cocoon in technology empowerment. Just as the family planning successes in South Asia were related to a personalised family-oriented health volunteers, one can think around ICT volunteers at the grassroot level. Decision makers need to invigorate

- Regular supervision and area-wise data build-up by IT professionals should doc-ument the comparative speed and advancement of citizens in seeking e-readiness. District-level efforts in collaboration with local schools and private companies should assist in monitoring and supervision of skill development efforts. The cost of infrastructure requirements should be embedded into the contracts signed with the developers and colonisers seeking change of land use for infrastructural growth. Part of such land should be earmarked for such e-readiness programmes. The free distribution of laptops should follow after the human, infrastructure and supervisory requirements for providing training are met, without which this exercise is an incentive to convert laptops into cash and seek political support. Accountability of local skill building units (public or private) needs to be docu-mented for records.

- e-Governance is no substitute for regular governance; henceforth the pace of administrative reforms need not be slowed or stopped on the arrival of e-governance alternatives. In fact there is no alternative to regular governance because only a well-functioning office can manage e-governance appropriately. A good e-governance system would have a right technology at the right place. Most of the ill-governed states would never move any further to the organisational portal as it involves interactiveness and policy dialogue besides the information being uploaded over it. Some offices move further and are applying technology-based solutions to governance problems, such as file movement, online grievance registering and application submission, demanding any government welfare fund, disaster relief and market information. If the service is not responded in time, then the citizen may be left with the same outmoded administrative system. If some of these technology gaps are filled with technologies such as statewide area network, IVRS, video conferencing and e-distribution of information, then e-governance would convert into an unstoppable force. For bridging these gaps, unwilling and weak governments would prefer to hire a consultant or an NGO to do the job for them.
- Convergence, interoperability and diffusion should be integrated into the design of ICT technology. Asia Pacific countries have rapidly crossed the expected number of Internet and mobile users in the last three years, which suggests that further tapping this potential into governance needs urgent attention. While this needs to be pushed further through inexpensive handsets and affordable and even free Internet broadband services in some areas, the uploaded content should be made relevant to the requirements of users. Thus monolithic ICT programmes should be decentralised both technologically and institutionally so that underprivileged users are able to seek appropriate information and economic opportunities for development.
- Efforts towards increasing the number of data analysts in government and larger governance areas need specific promotional policy. A sincere commitment towards the adoption and understanding of Big Data can become a source of national power. For example, all schools could be linked, and their segregated data on teachers' abilities; student-teacher ratio; time spent on each chapter-wise teaching; time spent by each student in classroom, per subject and in extra- and cocurriculars; students with disabilities and attention given to differently abled requirements; transport to schools; medical attention per week/per student; stability of teacher's tenure; and gender attitudes can be an unending comparative picture about school education in this country. Educational policies thus designed not only could bring a well-monitored governance of education but also reduce politics behind many populist structures which prevent the advancement of certain geographic areas and certain class of children. However, this could be possible if countries are able to generate a band of socio-technical leaders to lead this effort with discipline and understanding. This suggests the close connection between achieving MDGs in a cost-effective and timely manner through the adoption of much required data storage and analytics demanded within e-governance structures.

Bibliography

Ahn MJ, Bretschneider S (2011) Politics of e-government: e-government and the political control of bureaucracy. Public Admin Rev 71(3):414–424, Article first published online: 9 MAY 2011

Barrett W (1979) The illusion of technique. Anchor Doubleday, Garden City

Baudrillard J (1997) Global debt and parallel universe. In: Kroker A, Kroker M (eds) Digital delirium. St Martin's Press, New York

Bhardwaj SN (Jan 17, 2013) Internet governance treaty puts India in uneasy spot, Journalist

Chadwick A (2003) Bringing e-democracy back in: why it matters for future research on e-governance. Soc Sci Comput Rev 21(4):443–455

Chadwick A (2011) Explaining the failure of an online citizen engagement initiative: the role of internal institutional variables. J Inform Technol Politics 8(1):21–40

Chadwick A, May C (2003) Interaction between states and citizens in the age of the internet: "e-government" in the United States, Britain and the European Union. Governance 16(2):271–300

Christou G, Simpson S (2009) New governance, the internet, and country code top-level domains in Europe. Governance 22(4):599–624, Article first published online: 23 SEP 2009

D'Agostino MJ, Kloby K (2011) Building community capacity to engage government: reflections of nonprofit leaders on Post-Katrina New Orleans. Admin Soc 43(7):749–769, first published on July 26

Deleuze G, Guattari F (1988) A thousand plateaus. Capitalism and Schizophrenia (trans: Massumi B). The University of Minnesota Press, Minneapolis

Dunleavy P, Margetts H, Bastow S, Tinkler J (2008) Australian e-government in comparative perspective. Aust J Polit Sci 43(1):13–26

Fisher E (2012) E-governance and e-democracy: questioning technology-centered categories. In: Levi-Faur D (ed) Oxford handbook of governance. Oxford University Press, Oxford, pp 569–583

Gellman B, Blake A, Miller G (June 9, 2013) Edward Snowden comes forward as source of NSA leaks. The Washington Post. Retrieved 10 June 2013

Goffman E (1967) Interaction ritual. Doubleday Anchor, New York

Gray S (April 11, 2010) Profile: Julian Assange, the man behind WikiLeaks. The Sunday Times (London). Retrieved 17 Aug 2012 (subscription required)

Greenwald G, Ball J (June 20, 2013). The top secret rules that allow NSA to use US data without a warrant. The Guardian (London)

Greenwald G, MacAskill E, Poitras L (June 9, 2013) Edward Snowden: the whistleblower behind the NSA surveillance revelations. The Guardian (London). Retrieved 9 June 2013

Habermas J (2001) Technology and science as "Ideology". Chapter six of J. Habermas, Toward a rational society: student protest, science and politics. Heinemann, London, pp 96–101

Hamelink CJ (2001) Confronting cultural rights, Media development, no. 4. pp 44–47

Haraway DJ (1997) Modest_Witness@Second_Millenium. Routledge, New York

Hawke B (1983) 'Official Opening Speech.' National Technology Conference, Canberra. Copy in possession of Carol Johnson

Jho W (2007) Liberalization as a development strategy: network governance in the Korean mobile telecom market. Governance 20(4):633–654, Article first published online: 10 DEC 2007

Johnson C (2000) Governing change: from Keating to Howard. University of Queensland Press, St. Lucia

Johnson C (2007) Howard's values and Australian identity. Aust J Polit Sci 42(2):195–210

Johnson C (2010) Rudd versus Howard: the ideological contest. Aust Cult Hist 28(1):47–54

Johnson DR, Post DG (1996) Law and borders – the rise of law in cyberspace. Stanford Law Review 48:1367. Available at SSRN: http://ssrn.com/abstract=535

Jones B (1982) Sleepers, wake: technology and the future of work. Oxford University Press, Melbourne

Kelly S, Cook S, Truong M (eds) (2012) The freedom on the net 2012: a global assessment of internet and digital media. Freedom House, Washington DC. https://www.google.co.in/search?q=Advanced+SearchCongress%2C+Politics%2C+Booksand

Koppell JGS (2010) Administration without borders. Public Admin Rev 70(Supplement 1):46–55, Article first published online: 3 DEC 2010

Kulchitsky DR (2004) Computerization, knowledge, and information technology initiatives in Jordan E-democracy. Admin Soc 36(1):3–37

Lazer D, Binz-Scharf MC (2007) It takes a network to build a network. In: Mayer-Schonberger V, Lazer D (eds) Governance and information technology, from electronic government to information government. The MIT Press, Cambridge, MA

Levi-Faur D (2012) Oxford handbook of governance. Oxford University Press, London

Lyotard J-F (1984) The postmodern condition: a report on knowledge. Manchester University Press, Manchester

Marcuse H (1964) One dimensional man. Routledge/Kegan Paul, London

Margetts H (1999) Information technology in government: Britain and America. Routledge, London

Margetts H (2010) Public management change and e-government. In: Chadwick A, Howard PN (eds) The Routledge handbook of internet politics. Routledge, New York, pp 114–127

Mossberger K, Tolbert C, Franko W (2012) Digital cities: the internet and the geography of opportunity. Oxford University Press, Chicago

Myeong S, Choi Y (2010) Effects of information technology on policy decision-making processes: some evidences beyond rhetoric. Admin Soc 42(4):441–459

O'Leary R, Van Slyke D (eds) (2010) Special Issue of Public Administration Review on "The Future of Public Administration in 2020," vol 70, no. 6 s-1, pp 1–320

Paul Chambers and Director of Public Prosecutions (2012) EWHC 2157 Case No: CO/2350/2011 Date: 27/07/2012

Peters BG (2012) Information and governing: cybernetic models of governance. In: Levi-Faur D (ed) The Oxford handbook of governance. Oxford University Press, Oxford, pp 113–128

Schmidt E, Cohen J (2013) The new digital age: reshaping the future of people, nations and business. Alfred A. Knopf/Random House Publication, New York

Starr P (2010) The Liberal State in a Digital World, PAUL STARR. Governance 23(1):1–6, Article first published online: 23 DEC 2009

The Impact of Broadband on the Economy: Research to Date and Policy Issues April 2012, Geneva: International Telecom Union http://broadbandtoolkit.org/1.3

Thomas JC, Streib G (2005) E-commerce, and e-research: examining the electronic ties between citizens and governments. Admin Soc 37(3):259–280

Torres L, Pina V, Acerete B (2006) E-governance developments in European Union Cities: reshaping government's relationship with citizens. Governance 19(2):277–302, Article first published online: 14 MAR 2006

Vieta M (2006) Herbert Marcuse's critique of technological rationality: an exegetical reading. Draft available at http://academia.edu/1064711/Herbert_Marcuses_Critique_of_Technological_Rationality_An_Exegetical_Reading. Accessed 20 May 2013

Wescott C (2001) E-government in the Asia-Pacific region. Asian J Polit Sci 9(2):1–24

Wescott C (2007a) E-government in Asia: how culture affects patterns of adoption. In: Schedler K, Proeller I (eds) Cultural aspects of public management reforms, vol 15. Elsevier, Amsterdam. http://emerald2010.cjb.net/Insight/viewContentItem.do;jsessionid=B959797D8EAE002C50F203787FB8B300?contentType=Book&hdAction=lnkpdf&contentId=1758628. Accessed 20 May 2011

Wescott C (2007b) E-government and the applications of technology to government services. In: Rondinelli DA, Heffron JM (eds) Globalization in transition: forces of adjustment in the Asia Pacific region. Lynne Rienner, Boulder. http://unpan1.un.org/intradoc/groups/public/documents/Other/UNPAN025160.pdf. Accessed 20 May 2011

Wescott C (2010) Uneven progress in meeting e-government challenges in Asia-Pacific, talk delivered in the international seminar on "Governance reforms through ICT applications", 28–30 March 2010, Dhaka, jointly organized by NAPSIPAG and the Bangladesh Public Administration Training Centre (BPATC)

Zysman J, Breznitz D (2011) Double bind: governing the economy in an ICT era. Governance 25(1):129–150, Article first published online: 27 DEC 2012