



## Universal Connectivity in Nepal: A Policy Review

### Introduction

This research brief summarizes the findings of a review of policies related to Universal Connectivity (UC) in Nepal. Here UC means connectivity of the internet using different devices such as mobile, computer, and other internet-based technologies (IBTs). The brief shows that Nepal's UC-related policies envisage both general and specific roles for the technologies related to IBTs in realizing the country as a well-connected, knowledge-based society. The policy phraseology has enabled both the state and the private sector to mobilize huge resources to create new institutions, burgeoning market spaces, and influential discourses in the last two decades. The review undertaken, however, suggests interventions are needed and there are opportunities for much more grounded policies to ensure that existing inequalities are not reproduced in both providing access and the use of digital technologies.

This brief introduces, in the first section, the UC policy landscape in Nepal. The landscape includes the country's constitution, policies and plans, Acts, Regulations and Directives issued and amended over time according to changing priorities of governments and new developments in technology and economy. The second section lays out how specific policy visions have facilitated the creation of new institutions and discourses, which have advanced the interests of mainly the elite. By tracing the genealogy of three key phrases in these policy documents, the third section of the paper demonstrates the need for more grounded instruments that, drawing insights from recent research on technology transfer and dissemination, go beyond establishing infrastructures to facilitate information flows among the government, business and citizenry. The brief calls for a new set of evidence-based UC policies that are explicit in their aim to rectify the current structural and geographical imbalances. These policies offer better alternatives than current options which assume a leveling effect of the Information and Communication Technologies (ICTs), and little consider that technologies are themselves socially constructed artefacts.



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## Geography of UC Policy Regime in Nepal

The UC policy regime in Nepal consists of a set of government documents that have both vertical and horizontal relations (see the Box). The constitution is perceived as being at the apex, and the guidelines and directives prepared by the Government of Nepal (GoN) or one of its authorized constituents are at the bottom.

Although amendments were envisioned every two years, the policy was revised only in 2010. It was thought that opportunities unleashed by new developments in IT such as free and open source software, broadband data network and wireless technologies required clearer policies on IT and IBT related activities. The MoIC prepared both the Long-term Policy of Information and Communication Sector (LPICS)

### A Map of IT policy regime in Nepal

**Constitution:** Interim Constitution of Nepal, 2063 v.s. (2007)

**Policies:** Long-term Policy of Information and Communication Sector, 2059 v.s. (2003); Telecommunications Policy, 2060 v.s. (2004); Non-formal Education Policy, 2063 v.s. (2007); Information Technology Policy, 2010.

**Plans:** E-Government Master Plan 2006; Wireless Broadband Master Plan for the Federal Democratic Republic of Nepal 2012; Information & Communication Technology (ICT) in Education Master Plan 2013-2017.

**Acts/Regulations:** Patent, Design and Trade Mark Act, 2022 v.s. (1965); Telecommunications Act, 2053 v.s. (1997); Telecommunication Rules, 2054 v.s. (1997); Copyright Act, 2059 v.s. (2002); Copyright Rules, 2004; Electronic Transaction Rules, 2007; Sub-Regulations for (Mechanism on) Specifying the Service Providers, 2064 v.s. (2007); Electronic Transaction Act, 2008.

**Guidelines and Directives:** General Directives Related to Allied Services of Telecommunication, not dated; General Licensing Guidelines, not dated; Guidelines for Tariff Approval for Telecommunications Services, not dated; Internet with Email Guidelines, not dated; Network Service Guidelines, not dated; VSAT User Guidelines, not dated; Interconnection Guidelines, 2008; Directives for Laying and Maintaining Optical Fiber Network, 2012; Directives related to the Construction and Management of the Government Office Websites, 2068 v.s. (2012); Directives for Company (Electronic Filing), 2069 v.s. (2013); Procedure for the Operation and Management of E-village Programme, 2070 v.s. (2014).

The Interim Constitution of Nepal, 2063 v.s. (2007) guarantees the freedom of expression (Article 13), and the right to publication, broadcasting and press (Article 15).<sup>1</sup> The latter provides the right against closure of any print, electronic and online media in terms of institutions. The Ministry of Science & Technology (MoST) and the Ministry of Information and Communications (MoIC) are two line ministries generally involved in framing Information Technology (IT)-related policies. The MoST prepared the Information Technology Policy in 2000 after consultations with the representatives of IT industry.

in 2003 and the Telecommunications Policy in 2004 which addressed issues related to the internet as the technology was perceived as the backbone of evolving telecommunication technologies. Internet connectivity, however, was not at the core of these policies.

As indicated above, various UC-related components are horizontally distributed in policies on three key technological sectors, namely, telecommunication, broadcasting and the internet, with the first two technologies converging on the last.<sup>2</sup> They are also embedded in the core of other services such as education,

<sup>1</sup> GoN. 2007. *Nepalko Antaram Sambidhan, 2063 v.s.* Available at [www.supremecourt.gov.np/ic.pdf](http://www.supremecourt.gov.np/ic.pdf); accessed 9 December 2014.

<sup>2</sup> For a similar perspective in the case of African countries, see Nicol, Chris, ed. 2003. *ICT Policy: A Beginner's Handbook*. Johannesburg: The Association for Progressive Communications. In Nepal, the policy on digital broadcasting is still in the making.



e-commerce and banking. For example, the IT Policy in the 2000 and its 2010 revision stressed the need for the use of ICT in education. These however did not provide for any modality for such applications. The Ministry of Education (MoE) sought to fulfill the gap with the ICT in the Education Master Plan 2013–2017, which places the technologies as a key component of its drive for improving access to, and quality of, education. Similarly, the emphasis on e-governance in the IT policies resulted in the E-governance Master Plan Consulting Report in 2006. The International Telecommunication Union (ITU) also prepared a draft of the Wireless Broadband Master Plan in 2012 for the effective use of broadband technology in Nepal.<sup>3</sup> The IT policies also triggered several Acts and Rules: Patent, Design and Trade Mark Act, 1965; Copyright Act, 2002; and the Electronic Transaction Act, 2008. The Electronic Transaction Act, 2008, also known as the cyber law in Nepal, was originally prepared to ease e-commerce. The efficacy of these plans and Acts rely on the extent to which Nepalis are digitally connected.

Deriving the authority from the Telecommunication Act, 1997, the Nepal Telecommunication Authority (NTA) has prepared several bylaws. The NTA has also issued several guidelines for people or organizations that want to provide internet related services such as the Email and General Licensing Guideline, not dated; Network Service Guidelines, not dated; VSAT User Guidelines, Interconnection Guidelines, 2008; and the Guidelines for Tariff Approval for Telecommunications Services, not dated. Using the authority conferred by the Good Governance (Management and Operation) Act, 2008, the Government of Nepal has issued a guideline of making and managing websites of government offices.<sup>4</sup> Likewise, the Companies Act, 2006, has given power to issue directives to the Office of the Company Registrar. In 2013, the Company Registrar prepared Directives for Company (Electronic Filing) to provide for online registration services.

Despite the numerous IT related Acts and Regulations, critical attention to the connectivity issues

appears to be lacking. Key problems regarding the access and use of the internet and its content have therefore remained unresolved. For instance, the Acts covering patent rights, e-commerce and copyright issues, which have been framed on demand from the private sector, do not apprehend crucial concerns directly related to the internet such as e-payment, and the security and misuse of the electronic data.<sup>5</sup> There is also a need to clarify whether certain provisions in the Electronic Transaction Act, framed for tackling fraudulent and damaging publication of sensitive data in electronic transaction, can generally be applied to all internet uses.<sup>6</sup> Hence, Article 47 of the Act, which makes any publication of undefined 'illegal materials' on the internet liable to fine of one lakh rupees and/or imprisonment up to five years or with both, have been applied to issues related to public morality, hate speech, defamation, and social harmony as in the case of Abdul Rehman of Saptari.<sup>7</sup>

## Effects of Policies

UC-related policies have both material and ideological effects in the sense of garnering resources for new institutions and for private sector involvement in the national agenda of universalizing connectivity in Nepal. Several large institutions such as the High Level Commission for Information Technology (HLCIT), Department of Information Technology (DoIT), National Information Technology Centre (NITC), and Nepal Telecommunication Authority have been erected since 2000. Except HLCIT, the other three institutions are under the MoIC and the Ministry of Science, Technology and Environment (MoSTE) and the two line ministries are often in conflict over issues of owning up the UC-related projects.<sup>8</sup> HLCIT was established under

<sup>3</sup> Mishra, Bam Bahadur. 2008. The Development of E-payment and Challenges in Nepal. In *Development of E-payments and Challenges for Central Banks in SEACEN Countries*, pp. 159–168. Kuala Lumpur: The South East Asian Central Banks; On the crucial issue of security and misuse of digital data in Nepal, see Raj, Yogesh and Santa Bahadur Basnet. 2014. Digital Democracy on Demand. *The Kathmandu Post*, 16 July, p. 6.

<sup>4</sup> Shrestha, Dambar Krishna. 2071 v.s. Kanunko Durupayog. *Himal* 22(12): 22–23.

<sup>5</sup> GoN. 2008. The Electronic Transactions Act, 2063 v.s. Available at [www.lawcommission.gov.np/index.php?option=com\\_remository&Itemid=14&func=startdown&id=142&lang=en](http://www.lawcommission.gov.np/index.php?option=com_remository&Itemid=14&func=startdown&id=142&lang=en); accessed 9 October 2014; On Abdul Rehman's case, see Khadka, Jitendra. 2071 v.s. Police Raj. *Nepal* 14(47): 12–13.

<sup>6</sup> The Himalayan Times. 2014. House Committee Seeks Clarity on IT Development. Available at [www.thehimalayantimes.com/fullNews](http://www.thehimalayantimes.com/fullNews).

<sup>3</sup> ITU. 2012. *Wireless Broadband Master Plan for the Federal Democratic Republic of Nepal*. Geneva: ITU.

<sup>4</sup> GoN. 2008. The Electronic Transactions Act, 2063 v.s. Available at [www.lawcommission.gov.np/index.php?option=com\\_remository&Itemid=14&func=startdown&id=142&lang=en](http://www.lawcommission.gov.np/index.php?option=com_remository&Itemid=14&func=startdown&id=142&lang=en); accessed 9 October 2014.



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Office of the Prime Minister in 2003, and intended providing “crucial strategic direction” to the IT sector.<sup>9</sup> With NRs 3.7 crore allotted for the first year, it began establishing tele-centers, prepared a business plan of an IT park – a flagship project for concentrated industrial activities in Banepa – and helped produce a consulting report on the e-governance master plan.<sup>10</sup> Its activities were perceived by the line ministries as interference. After the end of the monarchy in 2008, the HLCIT was routinely presented as autocratic and was subsequently scrapped in 2011 by the ministerial decision despite protests from the IT industry. The DoIT under MoSTE replaced HLCIT as a coordinating agency. The department demanded a budget of one crore for the year 2011 in order to fulfill its monitoring and advisory roles.<sup>11</sup> It oversees the impressive infrastructure of the IT park. In 2014, the department published the National Information Technology Roadmap (2071 v.s.–2075 v.s.) for materializing visions in the short, middle and long terms.<sup>12</sup>

NITC, established in 2002, also derived its legitimacy from IT Policy, 2000. The policy proposed NITC to act as its own implementing agency, as the supervisor of the private sector involvement, as a service provider for the government, and as the state regulator in the country. NRs. 6.56 crore was earmarked for NITC in 2070/71 v.s.<sup>13</sup> The IT policy also envisaged that the Government Integrated Data Centre (GIDC) under NITC would act as the government data bank for developing and expanding their contents.<sup>14</sup> According to the E-governance Master Plan, GIDC would “provide e-government service model to central government department, government

agencies and local governments.”<sup>15</sup> Accordingly it was constructed with US\$ 3.5 million and handed over to NITC in March 2009.<sup>16</sup>

The regulatory body of Nepal’s telecom sector, NTA came into existence on 4 March 1998. It operates under MoIC and in accordance with Telecommunication Act, 1997 and Telecommunication Regulation, 1998. The Telecommunication Act allocates 15 functions for NTA, among which are its consulting and research roles to develop and use new technologies. The Act also sees NTA contribute toward developing “Nepal as an International Transit for telecommunications.”<sup>17</sup> More concrete is its licensing authority. The World Bank (WB) sought to strengthen NTA and its parent ministry MoIC as it pushed for liberalizing the telecommunication sector. The WB project document reiterates the need to train NTA staff for “ensuring effective interconnection between service providers, compliance with license conditions, establishing tariffs, monitoring the carrier’s quality of service performance, reviewing the World Trade Organization (WTO)/General Agreement on Trade in Services (GATS) offer, and type approvals for radio and telecommunications equipment to ensure interoperability of systems.”<sup>18</sup> The political appointments by MoIC have time and again destabilized NTA’s autonomy and integrity as no chairperson have stayed the full term and such appointments have been legally challenged.<sup>19</sup> The legal case against the appointment of incumbent chair Digambar Jha on 7 December 2012

php?headline=House+committee+seeks+clarity+on+IT+development&NewsID=433063; accessed 25 November 2014.

<sup>9</sup> HLCIT. 2004. Background. Available at <http://web.archive.org/web/20040223112855/http://hlcit.gov.np/>; accessed 9 October 2014.

<sup>10</sup> His Majesty’s Government (HMG). 2063 v.s. Suchana Prabidhi Uchchastariya Ayog. In *Mahalekha Parikshakko Barshik Pratibedan*, 2063 v.s., p. 328. Kathmandu: Mahalekha Parikshakko Karyalaya; HMG. 2000a. Information Technology Policy, 2057 v.s. Available at [moste.gov.np/it\\_policy\\_2057\\_\(2000\\_ad\)](http://moste.gov.np/it_policy_2057_(2000_ad)); accessed 24 September 2014.

<sup>11</sup> Nagarik. 2068 v.s. Suchana Prabidhi Bibhag Gathan Hune. 25 Asar, p. 4.

<sup>12</sup> DoIT. 2071 v.s. National Information Technology Roadmap (2071 v.s.–2075 v.s.). Unpublished draft.

<sup>13</sup> Nepal Sarkar. 2070 v.s. *Arthik Barsha 2070/71 ko Byaya Anumanko Bibaran*. Kathmandu: Artha Mantralaya.

<sup>14</sup> HMG. 2000a. Information Technology Policy, 2057 v.s. Available at [moste.gov.np/it\\_policy\\_2057\\_\(2000\\_ad\)](http://moste.gov.np/it_policy_2057_(2000_ad)); accessed 24 September 2014.

<sup>15</sup> Korea IT Industry Promotion Agency (KIPA). 2006. E-government Master Plan Consulting Report. Available at [http://nitc.gov.np/download.php?mod=mydoc&f=documents%2Fe-GM P.pdf](http://nitc.gov.np/download.php?mod=mydoc&f=documents%2Fe-GM%20P.pdf); accessed 24 September 2014.

<sup>16</sup> Korean International Cooperation Agency (KOICA) and World Friends Korea. 2012. Ex-Post Evaluation Report on the Project for Establishing Government Integrated Data Center in Nepal. Unpublished report. Available at [www.oecd.org/derec/korea/Ex-Post-Evaluation-Report-on-the-Project-for-Establishing-Government-Integrated-Data-Center-in-Nepal.pdf](http://www.oecd.org/derec/korea/Ex-Post-Evaluation-Report-on-the-Project-for-Establishing-Government-Integrated-Data-Center-in-Nepal.pdf); accessed 27 October 2014; Shakya, Subarna. 2010. Governmental Integrated Data Centre (GIDC) is the Key Foundation for E-government Implementation in Nepal. *Prashashan* 115: 118–122.

<sup>17</sup> NTA. 2004. *Nepal Telecommunications Authority: An Introduction*. Kathmandu: NTA.

<sup>18</sup> World Bank. 2001. Project Appraisal Document on a Proposed Credit in the Amount of SDR 17.50 Million (US \$ 22.56 Million Equivalent) for the Kingdom of Nepal for Telecommunications Sector Reform Project. Unpublished report. Available at [www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2001/12/01/000094946\\_01111504042481/Rendered/PDF/multi0page.pdf](http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2001/12/01/000094946_01111504042481/Rendered/PDF/multi0page.pdf); accessed 12 October 2014.

<sup>19</sup> Kumar, Ramesh. 2071 v.s. Bhadracol Niyamak. *Himal* 23(2): 38–40.



caused severe disruptions in its activities until the court reappointed him on 28 October 2014.<sup>20</sup> The Computer Association of Nepal (CAN) has accused NTA of bias toward the state-owned service provider, Nepal Doorsanchar Company Limited/Nepal Telecom.<sup>21</sup>

While huge amount of public resources have gone into the three institutions DoIT, NITC, and NTA, the government seems to oscillate between over-regulating the IT sector vis-a-vis e-governance and pushing toward the minimal-state agenda in allowing a handful of businesses to monopolize the rapidly expanding sector. All major UC-related policies reiterate private sector involvement in tune with the first liberalization program of the then government. The policies prescribe public private partnership, promotion of national and international investment, and facilitation of e-commerce to create a favorable environment for the IT sector.<sup>22</sup> These strategies have been argued as beneficial in multiplying the choice for the end user. The National Communication Policy, 1992, for instance, allowed the government “to grant permission to the private sector to also set up public telephone office to operate in different parts of Nepal.”<sup>23</sup> Building on the provision, Telecommunication Policy, 1999, spelt out possible pathways to liberalize Nepal’s IT sector.<sup>24</sup> While the Telecommunication Act, 1997, allowed national and foreign direct investment telecommunication services in

the country, the policy allowed limited private investment in the state-owned Nepal Telecommunications Corporation transforming it into a company in line with the public private partnership (PPP) as prioritized in IT Policy, 2010. After hydropower, telecommunication was the site for a vigorous PPP model as a cure for the supposed inadequacy of public resources, this time in terms of the burgeoning telecom infrastructure. Against this argument are the reports of routine poor capital spending by the government.

The UC-related policies also give preferential treatment to domestic ICT products in a bid to create a ‘good environment’ for the business. This includes the guarantee of intellectual property rights for Nepali hardware and software, commitment to establish an electronic hardware park, facilities for e-commerce/e-trade, promotion of local language in the ICT services, and updated laws and activation of authorities to reduce software and copyright piracies.<sup>25</sup> In these instances, Nepali state is clearly for the self-regulation of the private ICT sector in consonance with the US idea of minimal state interference in the sector.<sup>26</sup>

## Need for More Grounded Policies

Policies related to UC broadly start with a premise that there is no alternative to the internet and the ICTs for Nepal, particularly if it wants to overcome geographical barriers in following other countries to prosperity. The three oft-used and inter-related formulae in these policies are (a) Information and Communication Technology for Development (ICT4D), (b) E-governance, and (c) Knowledge-based Information Society. However, the vague phraseology needs to be translated into refined actions based on more grounded assessments of the structural and geographical imbalances in the access and use of the digital technologies in the countries.

ICT4D is a continuation of the erstwhile popular idea of development communication.<sup>27</sup> It rests on the claim that means of communication expedites the process of development through quick dissemination

<sup>20</sup> Kharel, Pranab and Sanjeev Giri. 2014. Apex Court Upholds Jha’s Appointment as NTA Chief. Available at [www.ekantipur.com/2014/10/29/business/apex-court-upholds-jhas-appointment-as-nta-chief/396936.html](http://www.ekantipur.com/2014/10/29/business/apex-court-upholds-jhas-appointment-as-nta-chief/396936.html); accessed 14 October 2014.

<sup>21</sup> CAN-US. 2008. Progress and Challenges of ICT Development in Nepal. Available at [www.can-usa.org/downloads/Nepal\\_ICT\\_Sector\\_Note\\_March08.pdf](http://www.can-usa.org/downloads/Nepal_ICT_Sector_Note_March08.pdf); accessed 9 October 2014.

<sup>22</sup> HMG. 1992. *National Communication Policy, 1992*. Kathmandu: Ministry of Information and Communications; HMG. 1997. Telecommunication Act, 2053 v.s. Available at [www.nta.gov.np/en/component/joomdoc/Acts/Telecom%20Act%20Upto%20date%20Eng.pdf/download](http://www.nta.gov.np/en/component/joomdoc/Acts/Telecom%20Act%20Upto%20date%20Eng.pdf/download); accessed 14 November 2014; NTA. 2001[1999]. Telecommunication Policy, 1999. Available at <http://web.archive.org/web/20011217050053/http://www.nta.gov.np/telecompolicy.html>; accessed 9 October 2014; HMG. 2003. Long-term Policy of Information and Communication Sector, 2059 v.s. Available at [www.moic.gov.np/policies-directives/Long-term-Policy-of-Information-and-Communication-Sector-2059-eng.pdf](http://www.moic.gov.np/policies-directives/Long-term-Policy-of-Information-and-Communication-Sector-2059-eng.pdf); accessed 9 October 2014; HMG. 2000a. Information Technology Policy, 2057 v.s. Available at [moste.gov.np/it\\_policy\\_2057\\_\(2000\\_ad\)](http://moste.gov.np/it_policy_2057_(2000_ad)); accessed 24 September 2014.

<sup>23</sup> HMG. 1992. *National Communication Policy, 1992*. Kathmandu: MoIC.

<sup>24</sup> NTA. 2001[1999]. Telecommunication Policy, 1999. Available at <http://web.archive.org/web/20011217050053/http://www.nta.gov.np/telecompolicy.html>; accessed 9 October 2014

<sup>25</sup> Nepal Sarkar. 2067 v.s. *Suchana Prabidhi Niti, 2067 v.s.* Kathmandu: Suchana Prabidhi Uchchastariya Ayog.

<sup>26</sup> Eko, Lyombe. 2001. Many Spiders, One Worldwide Web: Towards a Typology of Internet Regulation. *Communication Law and Policy* 6(3): 445–484.

<sup>27</sup> Melkote, Srinivas R. and H. Leslie Steeves. 2005. *Communication for Development in the Third World: Theory and Practice for Empowerment*. New Delhi: Sage Publications.



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of information and diffusion of innovations. Nepal officially adopted the aim by formulating the National Communications Services Plan in 1971 and by repeating the cliché in subsequent media and communication policies.<sup>28</sup> In the mid-1960s and 1970s, the claim was contested for its alleged modernization paradigm of the West, and for ignoring the structural imbalances in a country that reduce the reach of the media, compounding the trappings in underdevelopment.<sup>29</sup> Nevertheless, UN agencies, northern donors and international financiers promoted the developmentalist model of internet regulation and began putting forth the idea of ‘the internet as a catalyst for rapid economic and social development in the third world’ throughout the 1990s.<sup>30</sup>

Nepal began using the ICT4D formula from the early 2000s by explicitly linking ICTs to country’s socio-economic growth. The IT Policy, 2000, intends “to promote e-commerce, e-education, e-health among others and to transfer technology to rural areas” and to increase employment opportunity through the use of ICTs.<sup>31</sup> The Telecommunication Policy, 2004 proposes telecommunication “as the basic prerequisite of the development.”<sup>32</sup> The LPICS, 2059 v.s. calls it “an infrastructure of the overall social and economic development by emphasizing the research, use and expansion of the information.”<sup>33</sup> The policies equivocally present ICTs as key infrastructures to bettering growth.

<sup>28</sup> Maharjan, Harsha Man. 2011. Politics of ‘Communications for Development’: Intentions of National Communication Service Plans 1971 and Its Consequences on Three National Communication Institutions in Nepal (1971–1990). MA thesis, Tribhuvan University.

<sup>29</sup> Inayatullah. 1967. Towards a Non-Western Model of Development. In *Communication and Social Change in the Developing Countries*. Daniel Lerner and Wilbur Schramm, eds., pp. 98–102. Honolulu: East-West Center Press; Rogers, Everett M. 1976. Communication and Development: The Passing of the Dominant Paradigm. Unpublished report. Available at <http://www.cf-hst.net/unicef-temp/doc-repository/doc/doc478697.pdf>; accessed 12 October 2014.

<sup>30</sup> Eko, Lyombe. 2001. Many Spiders, One Worldwide Web: Towards a Typology of Internet Regulation. *Communication Law and Policy* 6(3): 445–484.

<sup>31</sup> HMG. 2000a. Information Technology Policy, 2057 v.s. Available at [moste.gov.np/it\\_policy\\_2057\\_\(2000\\_ad\)](http://moste.gov.np/it_policy_2057_(2000_ad)); accessed 24 September 2014.

<sup>32</sup> NTA. 2004. Telecommunication Policy, 2060 v.s. Available at [www.nta.gov.np/en/component/joomdoc/Policies/TelecomPolicy\\_2004.pdf/download](http://www.nta.gov.np/en/component/joomdoc/Policies/TelecomPolicy_2004.pdf/download); accessed 9 December 2014.

<sup>33</sup> HMG. 2003. Long-term Policy of Information and Communication Sector, 2059 v.s. Available at [www.moic.gov.np/policies-directives/Long-term-Policy-of-Information-and-Communication-Sector-2059-eng.pdf](http://www.moic.gov.np/policies-directives/Long-term-Policy-of-Information-and-Communication-Sector-2059-eng.pdf); accessed 9 October 2014.

The ambivalence as to whether ICT projects as infrastructure are necessary for triggering economic transformation or themselves create opportunities for development is inherent in the technological determinist perspective.<sup>34</sup> Lack of access to ICTs is a social problem and not merely a technical problem.<sup>35</sup> Only an inclusive and democratic social-political space will help unleash the argued potential of the technology.

More crucially, the empirical evidence, particularly cross-country comparisons, is insufficient for attributing ICTs any transformative ability. Firstly, the productive aspect of infrastructures itself depend on economic variables such as the manufacturing outputs, extent of commercialization and the demand for mobility.<sup>36</sup> In other words, ICTs contribute more to the already advanced economies than to those trapped in poverty.<sup>37</sup> Secondly, connectivity only reconfigures the landscape of material flows and not necessarily increases their volume.<sup>38</sup> Not all increase in the information traffic is linked to innovation and diffusion of useful ideas, skills or practices. Lastly, exclusive attention to innovation and diffusion within the idea of ICT4D sometimes prevents one from appreciating the significance of things in use in determining the fate of innovations.<sup>39</sup> For instance, data on economic impact of the ICTs may reveal that their contribution to overall productive growth is much smaller than conventional modes of communication such as word-to-mouth and paper technologies. There is much in the history of technology literature to call for UC-related policies that are sensitive to the content

<sup>34</sup> Leye, Veva. 2007. UNESCO, ICT Corporations and the Passion of ICT for Development: Modernization Resurrected. *Media, Culture & Society* 29(6): 972–993.

<sup>35</sup> Pieterse, Jan Nederveen. 2005. Digital Capitalism and Development: The Unbearable Lightness of ICT4D. In *Incommunicado Reader*. Geert Lovink and Soenke Zehle, eds., pp. 11–29. Amsterdam: Institute of Network Cultures.

<sup>36</sup> Gurbler, Arnulf. 1990. *The Rise and Fall of the Infrastructure: Dynamics of Evolution and Technological Change in Transport*. Heidelberg: Physica-Verlag.

<sup>37</sup> Walsham, Geoff. 2010. ICT for the Broader Development of India: An Analysis of the Literature. *The Electronic Journal on Information Systems in Developing Countries* 14(4): 1–20. Available at [www.ejisdc.org/ojs2/index.php/ejisdc/article/view/665/317](http://www.ejisdc.org/ojs2/index.php/ejisdc/article/view/665/317); accessed 20 November 2014.

<sup>38</sup> Ahuja, Ravi. 2004. ‘Opening up the Country?’ Patterns of Circulation and Politics of Communication in Early Colonial Orissa. *Studies in History* 20: 73–130.

<sup>39</sup> Edgerton, David. 2006. *The Shock of the Old*. London: Profile Books.



of the knowledge being transferred and the contexts of transfer.<sup>40</sup>

E-governance or digital governance posits ICTs as the media of interaction between government and its subordinate offices (G2G), government and businesses (G2B), and government and citizens (G2C). The notion now often comes built in the interventions for good governance: for better efficiency in governing mechanisms, better service deliveries to the citizen, and strengthening of the democratic process.<sup>41</sup> Accordingly, the IT Policy, 2000, set the aim to prepare websites of the state institutions, to link all ministries, departments, and offices through the internet (within a year), and to provide all government services through the internet. The HLCIT-KIPA prepared the E-Governance Master Plan Consulting Report and enumerated the details of the feasible projects. The mission of the report was to “improve the quality of people’s life without any discrimination, transcending regional and racial differences, and realize socio-economic development by building a transparent government and providing value added quality service through ICT.”<sup>42</sup> The Asian Development Bank (ADB) -supported “modernization” program has thus prioritized 22 services including national ID, driving license, land record management, tele-centres, government networks, and rural e-community.<sup>43</sup>

E-governance is only a part of the cure for the Nepal’s fragile governance, and that too not yet perfected. Since the results of the use of ICTs in public organizations are “specific and context dependent,” there is a need to generate evidence of real results in some pilot e-governance programs before the process becomes irreversible.<sup>44</sup> Ignoring the political nature

of the e-governance programs, whereby citizens are taken as customers, weakens the democratizing and participatory aims of the interventions.<sup>45</sup> The governmental portals in Nepal have been designed and operated without giving due consideration to the need of the citizen.<sup>46</sup> For example the website of DoIT does give information on what it does in principle such as the revision of E-governance Master Plan, development and promotion of Free and Open Software but does not reveal what it is doing. Neither does it give information on the draft IT Roadmap that DoIT shared among IT experts. Similarly, on the website of Ministry of Finance, old documents like budget speech, Red Book, White Book, etc. appear as available but the links do not work. More creative designs in the e-governance projects will ensure that the government is not stuck either with a top-down, one-way and poorly designed service delivery system or, as autocratic regimes would have it, equipped with a surveillance mechanism over citizen’s personal and private data.<sup>47</sup> The focus on enabling aspects of ICTs for the state in the existing UC policies should be paired with those for the citizen both to meaningfully participate in governance and to protect themselves from the state excesses.

Encompassing both ICT4D and e-governance is, however, the utopian notion of a knowledge-society. Reiterating the idea disseminated through UNESCO, the World Bank, and the ITU, the IT Policy 2000 sought to establish a “knowledge based society” and “knowledge based industry” in Nepal.<sup>48</sup> In concrete terms, the policy prioritized e-commerce, IT education, e-governance, a facilitator role for the government, and national and international investment for infrastructure development. Its revision in 2010 repeats the vision of transforming Nepal into a “knowledge based society.”<sup>49</sup> The alluring concept requires operational definition in order to measure the efficacy of interventions. Since

<sup>40</sup> Mishra, Yogesh Ram. 2012. *Manufacture at the Colonial Frontier: Iron and Salt Production Experiments in the East Indies, 1765-1858*. PhD diss., Imperial College, London.

<sup>41</sup> Gronlund, Ake and Thomas A. Horan. 2004. Introducing E-gov: History, Definitions, and Issues. *Communications of the Association for Information Systems* 15: 713–729.

<sup>42</sup> KIPA. 2006. E-government Master Plan Consulting Report. Available at <http://nitc.gov.np/download.php?mod=mydoc&f=documents%2Fe-GM.Ppdf>; accessed 24 September 2014.

<sup>43</sup> Illawara Technology Corporation Ltd. 2007. Preparing the Information and Communications Technology Development Project: A Program of Modernization for Nepal. Unpublished report, ADB.

<sup>44</sup> Bekkers, Victor and Vincent Homburg. 2007. The Myth of E-government: Looking beyond the Assumptions of a New and Better Government. *The Information Society* 23: 373–382.

<sup>45</sup> Wade, Robert Hunter. 2002. Bridging the Digital Divide: New Route to Development or New Form of Dependency? *Global Governance* 8(4): 443–466.

<sup>46</sup> Prashashan Puna:samrachana Ayog. 2065 v.s. Nepalma Bidyutiya Sushashanko Prawardhan. Unpublished report, Prashashan Puna:samrachana Ayog.

<sup>47</sup> Thomas, Pradip Ninan. 2012. *Digital India: Understanding Information, Communication and Social Change*. New Delhi: Sage Publications.

<sup>48</sup> Shree Panchko Sarkar. 2057 v.s. *Suchana Prabidhi Niti, 2057 v.s.* Kathmandu: Bigyan tatha Prabidhi Mantralaya.

<sup>49</sup> Nepal Sarkar. 2067 v.s. *Suchana Prabidhi Niti, 2067 v.s.* Kathmandu: Suchana Prabidhi Uchchastariya Ayog.



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“all societies have probably been each in its own way, knowledge society,” the extent to which existing patterns of knowledge production, circulation and use feed into the national economy should be mapped.<sup>50</sup> As studies have shown, investments in data storage and sharing are productive only when improvements in knowledge infrastructure – people, practices, technologies, institutions, material objects and relationships – are achieved.<sup>51</sup> Questions regarding the latter in the Nepali context are still open.

## Conclusion

The UC-related policies in Nepal are yet to be consolidated with grounded knowledge and empirical content. Available literature on existing policy practice is generally ambivalent with proponents preferring anecdotes and critics falling short of employing verifiable large-scale reviews of evidence. Instead, those looking at ICT4D as a form of foreign-aid driven technological dependency in developing countries merely wish to

preserve the credibility of the campaign.<sup>52</sup> Others calling e-governance a myth attribute it a power to “inspire people to strive for realization of issues that matter, whatever the cost.”<sup>53</sup> Nevertheless, the policies have provided a rationality for mobilizing public resources, for erecting new institutions and facilitating the sustaining of certain business interests, particularly that of the IT elite in Nepal. This review calls for going beyond the promotion of vague and shaky phraseology as they may well turn into opportunities missed. Specifically, the fate of some non-operational slogans in recent Nepali history, such as ‘Let Us Splash the Source of Development’ and ‘The Asian Measures’ show that empty policy phrases make citizens disillusioned about program intentions rather quickly. The solution does not lie in ever inventing new catch-phrases, but in formulating evidence-based UC policies while openly acknowledging the limitations of the technologies in mainstreaming the marginalized and vulnerable section of the population.

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<sup>50</sup> UNESCO. 2005. *Towards Knowledge Societies*. Paris: UNESCO.

<sup>51</sup> Borgman, Christine L. 2015. *Big Data, Little Data, No Data: Scholarship in the Networked World*. Cambridge: MIT Press.

<sup>52</sup> Wade, Robert Hunter. 2002. Bridging the Digital Divide: New Route to Development or New Form of Dependency? *Global Governance* 8(4): 443–466.

<sup>53</sup> Bekkers, Victor and Vincent Homburg. 2007. The Myth of E-government: Looking beyond the Assumptions of a New and Better Government. *The Information Society* 23: 373–382.