

THE DIGITAL DIVIDE: LEFT BEHIND ON THE OTHER SIDE

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I. INTRODUCTION

You want to get a job at Target or in the U.S. federal government. Where's the job application? It is online. You are told to fill out the application by typing and often 'cutting and pasting' your answers. It will be sent, via the Internet to the appropriate agency. Do you understand what has been asked? Do you have the skills?

You decide to turn on the TV. An actor exhorts men and women to go for broke when finding low fares for vacations and conferences. Another ad shows a rehabilitated individual assuredly using a web site to find the lowest travel fares.¹ Neither the application procedures nor either of these ads would have been possible without the technology available via programmers and the created Internet. For many North Americans the Internet is such a pervasive part of our lives that we don't consider its existence or lack of existence. We forget that the Internet is only a tool.² For many of us, including our 44th U.S. President Barack Obama, we do not think about our use of the Internet – it is a given, it has increasingly become a necessity.³

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1. See Priceline.com, <http://www.priceline.com> (last visited Mar. 10, 2009) (extolling the virtues of finding affordable deals); see also Travelocity.com, <http://travelocity.com> (last visited Mar. 10, 2009).

2. See Michael Fors, *What the United Nations Can Do: Closing the Digital Divide*, U.N. CHRON. ONLINE, <http://www.un.org/Pubs/chronicle/2003/issue4/0403p31/asp> (last visited Mar. 10, 2009).

3. See Jeff Zeleny, *Lose the BlackBerry? Yes He Can, Maybe*, N.Y. TIMES, Nov. 16, 2008, at A1; Brad Stone, *The High Security Risk Attached to Obama's Belt*, N.Y. TIMES, Jan. 11, 2009, at B1; Stephanie Clifford, *For BlackBerry, Obama's Devotion is Priceless*, N.Y. TIMES, Jan. 8, 2009, at B1. But see Debra Cassens Weiss, *Obama Reportedly Gets a Super-encrypted BlackBerry*, ABA JOURNAL – LAW NEWS NOW, Jan. 22, 2009, http://abajournal.com/news/obama_reportedly_gets_a_super-encrypted_blackberry.

However, for many people, both in the United States and abroad, the Internet is not a ubiquitous part of their existence. Digital divide⁴ is a shorthand term that has arisen to denote the technological separation between the “have’s” and “have not’s” when discussing the availability of technological advances.⁵ The technology is increasingly available throughout many nations of this world, so it would seem that the divide is closing; however reports from the United States,⁶ information from the European Union,⁷ and several other nations across the globe suggest otherwise.⁸ As the technology becomes more available, “digital inequality”⁹ is being used as the term that more narrowly conveys the inequality of access even when the technology is present. This term captures the 21st century dilemma we face. There is a disparity between the classes, genders and races of people within a single nation and thus they are severely limited in their ability to use the technological advances of the Internet.¹⁰

This article will examine the digital inequalities that still create divisions in our world between “have’s” and “have not’s.” The first part will examine the disparities of access found within the United States. There were multiple reports created during the Clinton administration that discussed the problems of the digital divide.¹¹ It is

4. There is some dispute as to whom this term should be attributed.

5. See, e.g., WORLD INFORMATION SOCIETY REPORT 21 (2007), <http://www.itu.int/osg/spu/publications/worldinformationsociety/2007/WISR07-chapter2.pdf>.

6. See generally Paul DiMaggio & Eszter Hargittai, *From the ‘Digital Divide’ to ‘Digital Inequality’: Studying Internet Use As Penetration Increases*, PRINCETON UNIV. at 5 (2001), http://www.webuse.umd.edu/webshop/resources/dimaggio_digital_divide.pdf.

7. See Europa, Key Facts and Figures about Europe and the Europeans, http://europa.eu/abc/keyfigures/index_en.htm (last visited March 9, 2009).

8. This article will address the digital inequalities found in the nations of the United States, China, India, Europe and Africa. It will not address digital inequalities in South America or Australia. Any possible FCC considerations concerning wireless internet is outside the scope of this article.

9. DiMaggio, *supra* note 6.

10. *Id.* at 3 (positing that the definition of access to technology should be refined and framed according to what users are capable of doing once they are able to use the technology).

11. See LARRY IRVING, U.S. DEPT. OF COMMERCE, FALLING THROUGH THE NET: TOWARD DIGITAL INCLUSION (2000), <http://search.ntia.doc.gov/pdf/ftn00.pdf> [hereinafter TOWARD DIGITAL INCLUSION]; LARRY IRVING, U.S. DEPT. OF COMMERCE, FALLING THROUGH THE NET: DEFINING THE DIGITAL DIVIDE, <http://www.ntia.doc.gov/ntiahome/ftn99/> (last visited Feb. 13, 2009) [hereinafter DEFINING THE DIGITAL DIVIDE]; LARRY IRVING, U.S. DEPT. OF COMMERCE, FALLING THROUGH THE NET II: NEW DATA ON THE DIGITAL DIVIDE NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION, <http://www.ntia.doc.gov/ntiahome/net2/falling.html> (last visited Jan. 29, 2009) [hereinafter NEW DATA]; LARRY IRVING, U.S. DEPT. OF COMMERCE, FALLING THROUGH THE NET: A

now more than a decade later and this article will look at groups who are still left behind in their ability to access the Internet for their needs.

If access is still a problem in the United States, have other nations of the world successfully confronted the problem, or are they too straddling the divide of access? How has this been addressed by the United Nations? This article's second and third parts will discuss the situation of the United Nations. Although some may question the relevance of this organization in the 21st Century,¹² the United Nations is the global organization that addresses the emerging global technology.¹³ The third section of this article discusses the situation within the European Union. Although the European Union is an organization of 27 member states, not all states have a uniformity of access to the Internet.¹⁴ This article will look at whether, and if so to what extent, the lack of access affects the Union as a whole.

To a varying degree of success the divide has been addressed by the entities of the United Nations. Yet what can the United Nations do? There has been criticism that, despite good intentions, the United Nations has shown a lack of power in addressing the situation.¹⁵

Finally, this article examines the policies of several technologically emerging nations. The technological infrastructures of the nations within Africa, China and India are complex and varied.¹⁶ Africa is a vast continent and the situation within Nigeria is different than that of Kenya or South Africa¹⁷.

SURVEY OF THE "HAVE NOTS" IN RURAL AND URBAN AMERICA (1995), <http://www.ntia.doc.gov/ntiahome/fallingthru.html> [hereinafter HAVE NOTS].

12. See Ken Hanly, *On the (IR) Relevance of the United Nations*, CANADIAN DIMENSION, May 2003 (on file with University of La Verne Law Review); THE NATION, *The UN's Relevance*, Mar. 13, 2003, <http://www.thenation.com/doc/20030331/editors/print> [hereinafter *The UN's Relevance*]; posting of Jace Walden to *The Fading Relevance of the UN* blog, http://www.jasonpye.com/blog/2006/09/the_fading_relevance_of_the_un.html (Sept. 12, 2006 02:17 PM).

13. See *infra*, Part II.

14. See *infra*, Part III.

15. Arik Hesseidahl, *The U.N. Will Not Bridge the Digital Divide*, FORBES, Feb. 25, 2005, http://www.forbes.com/2005/02/25/cx_ah_0225tentech.html (noting that "[s]ometimes all good intentions get you are good intentions and a lot of talk").

16. See *infra*, Part IV.

17. TELECOMMUNICATIONS DEVELOPMENT BUREAU, INT'L TELECOMMUNICATIONS UNION, AFRICAN TELECOMM. INDICATORS 2004 (2004) [hereinafter INDICATORS 2004], http://www.itu.int/wsis/tunis/newsroom/stats/AFRICA_2004.pdf (discussing the infrastructure of Africa at length).

Our understanding of the Internet grows daily as we develop.¹⁸ It is this constant give and take, this technological symbiotic relationship between our humanity and our technology that has created our use of the Internet: past, present and future. Corporations, governments and NGOs participate in the Internet's development and our society promotes this development. Yet as this has developed, it is noted in the Lopez article, schisms and disparities exist.¹⁹ For our future we have to ask whether this situation is satisfactory. The chasm is ever shifting – the digital divide widens and narrows daily – it is moving as this article is written. Where we are on the digital divide affects us all.²⁰ Many thousands of miles, diverse histories, cultures and languages separate nations of the world, yet a common theme emerges as their governments confront the digital divide: education, geography (rural and urban), class and gender. The United States and the European Union confront these problems as well, but the situation is put into stark relief²¹ by emerging nations.²²

II. STATUS WITHIN THE UNITED STATES – DIVIDED BY INEQUALITIES

It can be postulated that if you live in America you are on the Internet many times per day. But this is not exactly true. If you are poor, live in a rural area or within the central city area, and have less than a high school education, the chances are high that you do not have Internet access.²³ How do these events happen within one of the most technologically advanced Western societies?

In 1995, the U.S. Department of Commerce began a series of four reports concerning the usage of digital communication in America.²⁴

18. Alfredo López, *The Organic Internet*, in *THE ORGANIC INTERNET ORGANIZING HISTORY'S LARGEST SOCIAL MOVEMENT* 7, 9 (Entremundos Publ. 2008), available at <http://mayfirst.org/files/organicinternet.1.5.pdf> (explaining that “[t]o truly understand the Internet and to work effectively within it, we have to understand both the technology that drives it and the human network that uses it.”).

19. *Id.* at 26-27.

20. Kofi Annan, *Perspective: Kofi Annan's IT Challenge to Silicon Valley*, CNET NEWS, Nov. 5, 2004, <http://news.cnet.com/2010-1069-964507.html> (applauding the Valley's commitment to supporting public/private partnership within the United States, but exhorting Silicon Valley to expand its investment opportunities within the global community).

21. See *Make the Web Local*, Dec. 11, 2008, <http://ashimachopra.wordpress.com/category/technology-for-development/> (arguing that as much of technological innovation has come from middle class Western nations, challenges faced by developing nations can be delineated).

22. See *infra*, at Part IV.

23. HAVE NOTS, *supra* note 11.

24. *Id.*

The government wanted to investigate the situation to see if ‘universal service’ of telecommunications was being provided to its citizens.²⁵ Under the aegis of the Commerce Department’s National Telecommunications and Information Administration (NTIA) the first study made the discovery that a telecommunications imbalance existed.²⁶ The series of studies shattered many myths of digital equality within America. In many ways the digital divide is less like a chasm and more like a series of fault lines that narrow and diverge, separating classes of people. There are many metrics: young, old, rural, urban, central city, male, female, white, minority – variables that do not give easy or concrete answers.

A. The First Study

The first study examined the basics: young versus old, rural vs. urban and white vs. black.²⁷ The study’s participants, both rural and urban and minorities were apt to use computers for online services such as classified ad searches and accessing government data.²⁸ One of the myths shattered by the study was the belief that American technology had permeated the homes of all its citizens. Those minorities living in rural communities were least likely to have telephone²⁹ or computer usage.³⁰ The lack of communication home usage also applied to rural persons under 25 and those over 55.³¹

B. The Second Study

Reported in 1998, this study provided far more detail than the first. Using the permutations of the past study, this study included information on educational attainment in its attempts to view the situation three years later.³² This study was a significant improvement from the previous study because it was the first time that gender was

25. *Id.*

26. *Id.*

27. *Id.*

28. *Id.*

29. HAVE NOTS, *supra* note 11 (concerning rural Native American households).

30. *Id.* (concerning rural blacks).

31. *Id.*

32. NEW DATA, *supra* note 11 (explaining that the report primarily focuses on “the characteristics of Americans that have access to the information infrastructure, and those who do not.”).

recognized as a variable.³³ Unfortunately single female headed households were behind the national average in both telephone rates and online access.³⁴

C. The Third Study

It was not until the Third Report that the digital divide was defined.³⁵ The first and second reports targeted American usage of telephones and home computers, but the third report detailed interest in usage within and without the household.³⁶ This Report examined characteristics of both whether and where one used the Internet.³⁷ This increased sophistication in asking detailed questions points to the government's deepening interest and commitment in knowing how and where Americans are becoming part of the Information Superhighway.

The Third Report is notable also for discussing the challenges that lay ahead.³⁸ The government recognized that access to computers is increasingly "necessary"³⁹ in order to compete. Yet the disparities delineated in the previous reports still existed.⁴⁰ To ameliorate these disparities the government suggested "Community Access Centers" as a short-term solution.⁴¹

D. The Fourth Study

This study was even more comprehensive than the previous ones. In 2000 this Report examined variables of computer usage in households by income level, racial diversity, education and gender.⁴² Disparities between social minorities and whites continued. Technology had continued to move forward, so this Report questioned whether individuals had access to computers and high speed broadband Internet access. This Report charted household computer access by state.⁴³ Beginning the 21st century, the lowest rates of computer access

33. *Id.* (distinguishing among single-parent households between female and male-headed households).

34. *Id.*

35. DEFINING THE DIGITAL DIVIDE, *supra* note 11.

36. *Id.*

37. *Id.*

38. *Id.*

39. *Id.*

40. *Id.*

41. DEFINING THE DIGITAL DIVIDE, *supra* note 11.

42. *Id.*

43. TOWARD DIGITAL INCLUSION, *supra* note 11.

within households were within the states of Arkansas and Mississippi⁴⁴ with just over 1/3 access. When Internet access was the variable, these two states again had the dubious distinction of being on the bottom.⁴⁵ Washington and Alaska had over 60% of households having computer access and, in Washington, nearly half of those households were connected via high speed Internet.⁴⁶ The government found this “wider bandwidth and faster transmission speeds” that many American were able to obtain was a “bonanza” resulting from the “rapid technological change.”⁴⁷

The government supported these four Reports. So where does the U.S. stand? The factors of lower income and location compound the access problems.⁴⁸ Female-headed households are in worse circumstances than those households headed by men.⁴⁹ These multiple access indicators reveal some of the problems that the U.S. government and U.S. society faces.⁵⁰ As our society obtains even more technological achievements and more organizations get online, the racial segregation further stratifies.⁵¹ The Fourth Report has a part devoted to computer usage and people with disabilities. Those with disabilities were found half as likely to live in homes that had Internet access.⁵² However, this varied by disability. For learning disabled persons, the access was at 40%, while visually impaired persons had a 20% access rate.⁵³ Overall, this lack of access is dismal for those who had at least one disability.⁵⁴ Gender inequalities exist within this sub

44. *Id.*

45. *Id.* at Table 1-B.

46. *Id.*

47. *Id.*

48. Edwin B. Parker, *Closing the Digital Divide in Rural America*, 24 TELECOMM. POL'Y 281, 283 (2000) (explaining that in a highly competitive and demanding market, money is spent where it can be made, and therefore rural areas receive less attention because they are less economically enticing).

49. TOWARD DIGITAL INCLUSION, *supra* note 11.

50. KAREN MOSSBERGER ET AL., VIRTUAL INEQUALITY: BEYOND THE DIGITAL DIVIDE 7, 9 (Georgetown Univ. Press 2003) (espousing three views of the digital divide: access divide, technical competence, and economic opportunity).

51. Andrew Sears, *The New Digital Divide: Overcoming Online Segregation*, SOJOURNERS MAGAZINE, Jan. 2009, <http://www.sojo.net/index.cfm?action=magazine.article&issue=soj0901&article=the-new-digital-divide> (discussing and identifying that churches with a predominant membership of minorities are unable to obtain jobs for lack of computer skills as opposed to other “white” churches).

52. TOWARD DIGITAL INCLUSION, *supra* note 11.

53. *Id.*

54. *Id.*

category.⁵⁵ Once again men were more likely to have access than women.⁵⁶

Then what possible solutions exist?

The U.S. government stated that it would continue to strive zealously to see that Americans had attained access.⁵⁷ As the government studies and reports digital access statistics, community activists have banded together to seek solutions.⁵⁸ For minorities, their representative churches are holding operating classes and providing training.⁵⁹ For older Americans A.A.R.P. Foundation provides 'skill assessment, training and related employment services' in their WorkSearch program for low and moderate income older adults.⁶⁰ While more and more older adults include baby-boomers, income and education factors still affect the access rates to computers.⁶¹

The government advocates the creation of Community Action Centers (CAC).⁶² A Google search lists over 50 pages of CAC's working within their communities.⁶³ They are providing services for both rural and urban, neighbors assisting neighbors. Another source of promoting digital access is within the community public library. Libraries provide access for those who have been underserved.⁶⁴ Much has been done, yet there is much left to do to bridge the digital gap within the United States.

55. *Id.*

56. *Id.*

57. *Id.* (stating that the U.S. Department of Commerce would continue to work vigorously to promote the goals of digital inclusion for all Americans).

58. Sears, *supra* note 51.

59. *Id.*

60. Tanya Mohn, *That Digital Divide, Bridge in a Classroom*, N.Y. TIMES, Nov. 29, 2008, available at <http://www.nytimes.com/2008/11/30/jobs/30training.html>.

61. DEFINING THE DIGITAL DIVIDE, *supra* note 11.

62. *Id.*

63. Google.com, Community Action Centers, <http://www.google.com/search?source=ig&hl=en&rlz=&=&q=Community+Action+Centers&btnG=Google+Search&aq=f> (last visited Apr. 2, 2009).

64. AMERICAN LIBRARIES, *Digital Divide Still Needs a Bridge*, July 15, 2002, <http://www.ala.org/ala/online/currentnews/newsarchive/2002/july2002/digitaldivide.cfm> (citing the Bush Administration's report).

III. THE UNITED NATIONS: A DELICATE BALANCING ACT OF MANY PARTNERS

A. U.N.: A Primer

In trying to investigate what specific entity is charged with technology, it is instructive to discuss each of the entities found within the United Nations.⁶⁵ The U.N. came into being on October 24, 1945, as the subsequent global organization to the League of Nations. The U.N. has the task of working towards a global society through the governance of 192 member states.⁶⁶ The U.N.'s seven organs⁶⁷ charge the ECOSOC with global economic development, which includes the development of international technological infrastructure.⁶⁸ This is not an enviable task.⁶⁹

B. Economic and Social Council and its Commission

To further these aims, the ECOSOC Commission on Science and Technology for Development (CSTD) provides the guidance and oversight for conferences aimed at promoting global economic growth.⁷⁰ Towards this aim, the U.N. held the World Summit on the Information Society (WSIS)⁷¹ under the co-sponsorship of the ECOSOC and the CSTD.⁷²

The different U.N. organs often work on parallel tracks. While the ECOSOC is charged with the promotion of global economic and technological growth, the United Nations Grand Assembly (UNGA) set

65. U.N. Charter pmbl. (stating that one of the purposes of the U.N. is to utilize "...machinery for the promotion of the economic and social advancement of all peoples.").

66. United Nations Homepage, www.un.org (last visited Mar. 10, 2009).

67. UN.org, Main Bodies, <http://www.un.org/aboutun/mainbodies.htm> (last visited Apr. 2, 2009) (naming the six main bodies of the United Nations, specifically the economic body ECOSOC).

68. RULES OF PROCEDURE OF THE ECONOMIC AND SOCIAL COUNCIL, <http://www.un.org/ecosoc/about/pdf/rules.pdf>

69. See Hesseidahl, *supra* note 15 (identifying an example of one naysayer regarding reports concerning the United Nation attempts).

70. United Nations Conference on Trade and Development Homepage, <http://www.unctad.org/Templates/Page.asp?intItemID=2696> (last visited Mar. 10, 2009).

71. World Summit on the Information Society, G.A. Res. 56/183, U.N. Doc. A/RES/56/183 (Jan. 31, 2002) [hereinafter WSIS]. Two summits held in 2003 and 2005, endorsed the WSIS and recognized "the urgent need to harness the potential knowledge and technology for promoting the goals of the United Nations Millennium Declaration and to find effective and innovative ways to put this potential at the service and development of all." *Id.*

72. *Id.*

forth its Millennium Campaign to end poverty by 2015.⁷³ The UNGA recognized that increased technological infrastructure (ICT)⁷⁴ plays a significant role in breaking the cycle of poverty.⁷⁵

C. International Telecommunications Union

The International Telecommunications Union (ITU)⁷⁶ has defined in its framework the administrative regulations necessary for sustaining better global technology.⁷⁷ Note that while the ITU is the leading global agency concerned with the creation and support of the U.N.'s Millennium Campaign, it has created many partnerships between member states and private enterprises, and private enterprises, by their very existence, are in the business of doing business.⁷⁸ Thus these enterprises will charge what the market will bear. Whether aims of the global good⁷⁹ are the same as private enterprise, when the economic market is the engine that drives the advances, remain to be seen.⁸⁰

73. U.N. DEPT. OF ECON. & SOC. AFFAIRS (DESA), THE MILLENNIUM DEVELOPMENT GOALS REPORT 2008, 3 (2008) <http://www.un.org/millenniumgoals/pdf/The%20Millennium%20Development%20Goals%20Report%202008.pdf>. The Millennium Campaign was adopted in Sept. 2000 and it is the umbrella for a plethora of multinational, non-profit organizations and other specialized organizations that have joined together. *Id.* See UN.org, A Gateway to the UN System's Work on the MDGs, <http://www.un.org/millenniumgoals/> (last visited Mar. 14, 2009) (recently affirming a commitment to the campaign).

74. ICT is the term used globally for information and communication technology.

75. Press Release, International Telecommunications Union, Telecommunication Regulators Promote Infrastructure Sharing (March 13, 2008), *available at* http://www.itu.int/newsroom/press_releases/2008/05.html.

76. About ITU, International Telecomm. Union, <http://www.itu.int/net/about/index.aspx> (last visited Jan. 30, 2009) (identifying the ITU as the leading U.N. agency for information and communications technologies).

77. International Telecommunication Regulations, International Telecom. Union, <http://www.itu.int/ITU-T/itr/> (last visited Jan. 30, 2009) (identifying that International Telecommunication Regulation as a compliment to the ITC Constitution).

78. *Id.*

79. *Id.* (explaining that the sharing of infrastructure resources is a means of stimulating investment and growth in the ICT sector).

80. See Michael Gurstein, *Effective Use: A Community Informatics Strategy Beyond the Digital Divide*, 8 FIRST MONDAY, ¶ 4 (2003), <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1107/1027> (noting that only certain segments within the corporate sector have truly taken advantage of the revolutionary potential presented by ICTs).

D. World Summit on the Information Society in Geneva, Phase One

There are multiple official entities having the task of viewing the global technological path.⁸¹ The ITU, the ECOSOC and the CSTD all cooperated in the development of the World Summit on the Information Society (WSIS). WSIS has had two phases: Geneva in 2003 and Tunis in 2005.⁸²

The first phase was organizational in nature.⁸³ This meeting promulgated the Conference's Declaration of Principles⁸⁴ while recognizing the challenge and interdependent nature facing the UN.⁸⁵ Goals were established that reaffirmed the underlying principles of Articles 19 and 29 of the Universal Declaration of Human Rights⁸⁶ while making the important recognition that harnessing technology was necessary to prevent further marginalization of people on the globe.⁸⁷ In these Principles several items are clear throughout.

The meeting's members recognized the importance of positively addressing the technological needs of the 21st Century and having those needs driven by the needs of the people,⁸⁸ not the requirements of the technology.⁸⁹ This is a very important distinction. Throughout the Declaration of Principles "the people" are mentioned in nearly every one of the points, whether developed, developing, indigenous or special needs populations.⁹⁰ Clearly, all the representative individuals believed

81. See About ITU, *supra* note 76.

82. WSIS, *supra* note 71.

83. See First Phase, Geneva: The Summit, World Summit on the Info. Soc'y, <http://www.itu.int/wsis/geneva/index.html> (last visited Jan. 30 2009); see also Harvey Rishikof, *Long Wars of Political Order—Sovereignty and Choice: The Fourth Amendment and the Modern Trilemma*, 15 CORNELL J.L. & PUB. POL'Y 587, 594 (2006).

84. World Summit on the Information Society, Geneva Phase, Geneva, Switzerland, Dec. 10-12, 2003, *Declaration of Principles*, Doc. WSIS-03/GENEVA/DOC/4-E (Dec. 12, 2003) [hereinafter WSIS Declaration], available at <http://www.itu.int/wsis/docs/geneva/official/dop.html>. The Declaration is divided into three main parts that contain 67 points: (A) Our Common Vision of the Information Society, (B) An Information Society for All: Key Principles, and (C) Towards an Information Society for All Based on a Shared Knowledge. *Id.*

85. *Id.* at A2, A3.

86. *Id.* at A4, A5. See also, Universal Declaration of Human Rights, G.A. Res. 217A, U.N. GAOR, 3d Sess., 1st plen. mtg., U.N. Doc. A/810 (Dec. 12, 1948), available at <http://www.un.org/Overview/rights.html>.

87. *Id.* at A10.

88. *Id.* at A1.

89. *Id.*

90. WSIS Declaration, *supra* note 84.

in the importance and supremacy of people over technology.⁹¹ Did the second phase have a plan of action that satisfied these goals?

E. WSIS and ITCs

WSIS is primarily the U.N.'s undertaking. It is important because it recognizes the importance of technology and mapping out a course of action by using the technological developments *while at the same time* understanding that these developments will help benefit all citizens.⁹² These Declarations contain very high aspiration principles indeed and as this organization was created by the GA, they have the complete backing of the UN.⁹³

The Declaration's Part A enumerates the commonality of vision held by the participants.⁹⁴ Given that there were 175 countries represented,⁹⁵ the feat of agreeing to all these Principles should not be diminished. It was at the first Summit that there was a discussion and recognition of the impact of ICTs.⁹⁶ WSIS recognized the potential of the ICTs, in that they have to "reduce many traditional obstacles, especially those of time and distance," for human benefit.⁹⁷ The Declaration's next point states⁹⁸ that this technology is a tool, albeit a powerful tool⁹⁹ used by all people of the world in furtherance of the aims of the people.¹⁰⁰

This language of recognition,¹⁰¹ general awareness,¹⁰² more particular awareness,¹⁰³ commitment¹⁰⁴ and affirmation¹⁰⁵ are strong

91. Michael Fors, *What the United Nations Can Do: Closing the Digital Divide*, U.N. CHRON. ONLINE, <http://www.un.org/Pubs/chronicle/2003/issue4/0403p31/asp> (last visited Jan. 30, 2009) (listing nine ideas that would contribute to bridging the divide between the western world and developing nations).

92. WSIS Declaration, *supra* note 84, at C67. *See also*, Andrea Slane, *Democracy, Social Space and the Internet*, 57 U. TORONTO L.J. 81 (2007).

93. World Summit on the Information Society, G.A. Res. 56/183, U.N. Doc. A/RES/56/183 (Jan. 31, 2002).

94. WSIS Declaration, *supra* note 84.

95. *Id.*

96. *Id.*

97. *Id.*

98. *Id.* at A9.

99. *Id.* *See also*, Marc Sehart, *Digital Divide into Digital Opportunities*, U.N. CHRON. ONLINE, <http://www.un.org/Pubs/chronicle/2003/issue4/0403p45.asp> (last visited Jan. 30, 2009).

100. *See* WSIS Declaration, *supra* note 84.

101. *Id.* at A8.

102. *Id.* at A9.

103. *Id.* at A10.

104. *Id.* at A11.

words. It was crafted so that the writer, and more importantly the reader, would appreciate the full impact of the Declaration's language and acknowledge the significance of the chosen words. Note that in expressing their vision, the writers pay particular attention to several groups of people traditionally marginalized.¹⁰⁶ It is Part B that promotes this vision by discussing in detail why an information society is important for the betterment of the world.¹⁰⁷ Part B's items specifically mention ICTs toward creation of the Information Society.¹⁰⁸

As this Geneva meeting was a planning summit for the second phase, a preponderance of the Declaration Principles of Part B involved the future capacity building and environment suitable for the Information Society.¹⁰⁹ Clearly, the participants viewed the Information Society as valuable for all and recognized that the resulting connectedness would benefit many people.¹¹⁰ Yet did these aspirations develop into a plan in Phase Two? Prior to the Second Phase Summit there were three preparatory conferences¹¹¹ that arranged the procedures for the second phase.¹¹²

F. WSIS in Tunis, Phase Two

This phase put the Declaration of Principles into a plan of action.¹¹³ In the second year, both government and private entities recognized the growing importance of WSIS and participation was higher than the first summit.¹¹⁴

The Tunis Commitment (TC)¹¹⁵ reaffirmed the principles of the Geneva summit as well as the U.N.'s goal of the Millennium

105. *Id.* at A12.

106. *See* WSIS Declaration, *supra* note 84, at A11-A15.

107. *Id.*

108. *Id.* at B19 (identifying eleven subgroups).

109. *Id.* at B2 (realizing that "connectivity is a central enabling agent in building the Information Society . . . and that [it] constitutes one of the challenges . . ." that should be an objective of those trying to build an Information Society).

110. *Id.*

111. *Id.*

112. World Summit on the Information Society, Tunis Phase, Tunis, Tunisia Republic, Nov. 16-18, 2005, *Note by the President of PrepCom*, A(2), Doc. WIS-II/PC-1/Doc/5-E (June 26, 2004) [hereinafter WSIS PrepCom], available at <http://www.itu.int/wsis/docs2/pc1/doc5.pdf> (stating that none of the previous agreements reached would be reopened).

113. *Id.* (explaining that "[w]e recognize that it is now time to move from principles to action.").

114. *Id.*

115. World Summit on the Information Society, Tunis Phase, Tunis, Tunisia Republic, Nov. 16-18, 2005, *Report of the Tunis Phase of the World Summit on the Information*

Campaign.¹¹⁶ The important role of people jointly pursuing to use technology to better humanity was reaffirmed.¹¹⁷ This TC mentioned the “removing of barriers to bridging the digital divide,”¹¹⁸ something that was not specifically mentioned two years prior.¹¹⁹ The reader of the TC can see greater recognition of the forces that exist within society. This TC recognized the partnership opportunities between government and the private sector regarding small and micro enterprises¹²⁰ and called for partnerships between governments and the private sector towards building ICTs so that all citizens will benefit.¹²¹ This TC notified both the U.N., government and private sectors about the need to have a steady global ICT infrastructure to prevent cybercrime¹²² and terrorism,¹²³ both topics that were not mentioned two years prior. Several years have passed since Geneva and Tunis and one question remains. Has this rhetoric translated into action?

G. Action Adopted

The UNGA has adopted four resolutions concerning the WSIS Summits.¹²⁴ One may want to criticize that in over four years the only visible act is proclaiming a day of awareness for the world. But that is a far too cynical western view. The U.N. is trying to get global understanding and parity concerning information technology.¹²⁵ While

Society, Doc. WSIS-05/TUNIS/Doc/9 (Rev.1)-E (Feb. 15, 2006) [hereinafter WSIS Tunis], available at <http://www.itu.int/wsisis/docs2/tunis/off/9rev1.pdf>.

116. *Id.*

117. *Id.* at A2.

118. *Id.* at A10.

119. *Id.*

120. *Id.* at A12.

121. WSIS Tunis, *supra* note 115, at A5.

122. *Id.* at B40. See also, David Satola & W.J. Luddy, Jr., *The Potential for an International Legal Approach to Critical Information Infrastructure Protection*, 47 JURIMETRICS J. 315 (2007).

123. WSIS Tunis, *supra* note 115, at B44-B45.

124. G.A. Res. 56/183, U.N. Doc. A/RES/56/183 (Dec. 21, 2001); G.A. Res. 57/238, U.N. Doc. A/RES/57/238 (Dec. 20, 2002); G.A. Res. 59/220, U.N. Doc. A/RES/59/220 (Dec. 22, 2004) (exhorting governments, NGO's, and private entities to partner and work toward the goals expressed in the summit and acknowledge special needs of groups of people in the least developed countries); G.A. Res. 60/252, U.N. Doc. A/RES/60/252 (March 27, 2006) (instituting WSIS Day to help raise awareness regarding the digital divide and potential solutions).

125. See Mauro F. Guillén & Sandra L. Suárez, *Explaining the Global Digital Divide: Economic, Political and Sociological Drivers of Cross-National Internet Use*, 84 SOC. F. 681, 685 (2005) (quoting in part Margaret Everett, *Latin America Online: The Internet, Development, and Democratization*, 57 HUMAN ORG. 385, 385-393 (1988)) (cautioning that

New York, London, Paris, Sydney and many other major cities may have stable ICT infrastructures and have citizens technologically aware of the latest web developments, there are vast areas of the world that do not have reliable ICT infrastructures. There are a multitude of cities, towns and hamlets without Internet. Furthermore, there are millions of people who may or may not be aware of the Internet. Thus, the U.N. is facing a challenge.¹²⁶ The WSIS Summit is a very open call to governments worldwide to work towards a global information society.¹²⁷

Does the U.N.'s responsibility towards the Information Society begin and end with its involvement in WSIS? The answer is no. While the WSIS Summit specifically confronted ICT infrastructure and called on governments and the private sector for involvement, remember that the U.N. is the overarching global organization. Both the ECOSOC and the ITU are specialized organizations under the penumbra of the U.N. The U.N. addresses issues that touch the lives of each and every person in this global society:¹²⁸ whether it is disease or detonating mines, women or children, nations of Africa or the Middle East or rules of law to control the chaos of this society. We now turn to smaller, regional entities.

IV. THE EUROPEAN UNION

A. Overview of Divide Disparities

It would be erroneous to negate the importance of the European Union (EU) because it is smaller than the U.N. The EU has a large land mass and population¹²⁹ comprised of 27 nations.¹³⁰ The EU has 4 of the

information technology will not always lead to progress and may lead to new forms of dependency in developing nations).

126. Reece Roman, *What If ICANN Can't?: Can the United Nations Really Save the Internet?*, 15 SYRACUSE SCI. & TECH. L. REP. 27 (2007).

127. See Henry H. Perritt, Jr., *Economic and Other Barriers to Electronic Commerce*, 21 U. PA. J. INT'L ECON. L. 563 (2000) (arguing that economic forces generated by private entities will reduce the cost of access making ICT infrastructure available to those previously without the resources to afford the technology). *But see* Nicholas Allard, *Digital Divide: Myth, Reality, Responsibility*, 24 HASTINGS COMM. & ENT. L.J. 449 (2002) (arguing that it is in the best interests of everyone, both private enterprise and public government, to bridge the digital divide).

128. UN.org, *The United Nations Today*, www.un.org/aboutUN/untoday (last visited March 10, 2009) (posting the most recent information about the work of the United Nations).

129. See Europa, *supra* note 7 (follow "The EU at a glance" hyperlink; then follow "Key facts and figures about Europe and the Europeans" hyperlink; then follow "Size and

8 nations that make up the economic powerhouse of the G8.¹³¹ Information technology is viewed as an important educational tool.¹³² The EU claims that by 2006 “more than 90% of businesses and 49% of households” had Internet access.¹³³ But upon a closer look, there are great disparities from country to country.¹³⁴ While one of the EU’s priorities is ensuring that its people have access to the Internet, there is work to be done to narrow the disparity between EU nations. In addition to the disparity between nations, the EU has found that there exists a wide disparity in usage of the Internet by those over the age of 55.¹³⁵ Besides citing the extra expense of being connected at home, the perception among many “greyer” people is that the Internet is within the province of the young.¹³⁶

B. Solutions

The Commission of the European Communities is at work to find a solution as evidenced by their passing of Directive SEC (2006) 354.¹³⁷ The European Parliament has most recently addressed this situation when it adopted a 2007 resolution concerning the building of an infrastructure for European Internet broadband.¹³⁸ The Parliament noted that it was a strategic priority “of ensuring availability of ICT infrastructure and related services where the market fails to provide it at

Population” hyperlink; then follow “How big is the EU?”) (stating that the EU populations ranks third behind China and India).

130. *Id.*

131. *G8 Defined*, CBC NEWS, July 13, 2006, www.cbc.ca/news/background/g8. The G8 member nations are Canada, France, Germany, Italy, Japan, Russia, the United Kingdom and the United States. *Id.*

132. See Europa, *supra* note 7 (follow “The EU at a glance” hyperlink; then follow “Key facts and figures about Europe and the Europeans” hyperlink; then follow “Education, research and the information society” hyperlink; then follow “Information technology: An essential tool”).

133. *Id.*

134. *Id.* (identifying the nations and percentages of EU nations that exceed 50% connectivity as of 2006).

135. Peter Millward, *The ‘Grey Digital Divide’: Perception, Exclusion and Barriers of Access to the Internet for Older People*, 8 FIRST MONDAY (2003), http://firstmonday.org/issues/issue8_7/millward/index.html.

136. *Id.*

137. *Commission of the European Communities, Bridging the Broadband Gap*, COM (2006) 129 final (March 20, 2006).

138. See Resolution on Building a European Policy on Broadband, Eur. Par. Doc. A6-0193/2007 (2007), www.europa.eu/sides/getDoc.do?pubRef [hereinafter Resolution on Broadband].

an affordable cost.”¹³⁹ This is a more radical determination than the U.N. Here, the EU has determined that an ICT infrastructure is so important to its members that the EU, as a strategic goal, will make sure that its citizens have coverage. The EU is working towards the goal where every citizen is a “have” and there will be no “have nots”, thereby eliminating any digital divide within the EU.¹⁴⁰ There will be no “digital inequality” either, for it is their aim that all citizens will have the skill to access the Internet.¹⁴¹

The disparity between nations and regions is documented and keenly felt. Denmark plans to have 80% Internet access by implementing an e-government strategy to provide better digital service by 2010.¹⁴² Yet at the other end of the spectrum is a report¹⁴³ concerning Internet access in Central and Eastern Europe where both Romania and Bulgaria were at the bottom of the graph.¹⁴⁴ In the middle stands Estonia at 46%. While it does not have half its people connected at this time, Estonia has the political will to increase the number of people connected. Estonia has started a program entitled “Tiger Leap,” which was an independent foundation.¹⁴⁵ When it became apparent that teachers were reluctant to use computers because their pupils often learned the technology faster than the teachers, the Ministry of Education entered into agreements with private companies and banks to buy a certain number of computers that would then be offered at a discounted price to teachers.¹⁴⁶ A win-win solution for government and private enterprise was created.

139. *Id.*

140. *See Commission of the European Communities, supra* note 137.

141. *Id.*

142. DANISH GOVERNMENT, LOCAL GOVERNMENT DENMARK AND DANISH REGIONS, TOWARDS BETTER DIGITAL SERVICE, INCREASED EFFICIENCY AND STRONGER COLLABORATION, 7-11 (Digital Task Force 2007).

143. *Bridging the Digital Divide: Internet Access in Central and Eastern Europe*, CENTER FOR DEMOCRACY & TECH., Jan. 14, 2007 [hereinafter *Bridging the Digital Divide*] (concluding that most people are dependent upon dial-up access that is furthered hampered by government indifference).

144. *See* Millward, *supra* note 135.

145. Ivar Tallo, *Public Policy Lessons from Estonia: How to Overcome Digital Divide?*, E-GOVERNANCE ACAD., <http://eu-china-iskb.bizcom.com.cn/util/downNoVIP.jsp?download=D:/projects/iskb/webapp/upload/EN2007030106.pdf>.

146. *Id.*

V. THE DIGITAL DIVIDE IN SOME EMERGING NATIONS OF THE WORLD

A. Overview

It is in the emerging, technologically developing nations such as Africa, China and India, where the division between those who have and those who do not have is so keenly seen and felt.

Geography, government, education and gender are all arenas that challenge each of these societies so prominently that the divide, although apparent in the U.S. and within the EU, seems more like a chasm within these underdeveloped nations. Private entities from the US, most notably Intel and Audi from the EU, in concert with the UN, have attempted to make a concentrated effort to bring technologies and structure to these nations.¹⁴⁷ Each of these arenas sorely hampers the digital revolution from becoming a global reality. They are closely intertwined: each complex arena affects the other.

B. Government

The need is pervasive for a stable government to exist within these nations. The WSIS's Declaration of Principles recognizes that governments play an important role in the promotion, and development, of ICTs within their nations.¹⁴⁸ Most important is having governments in place that have the abilities and willingness to put information technology and ICT as priorities.¹⁴⁹

The governments of these emerging nations are struggling with several competing factors. The environment,¹⁵⁰ which affects its citizens health care,¹⁵¹ the nation's infrastructure (from airports and

147. See Sabine Dolan, *Unicef and Audi launch 'Driving Dreams,'* UNICEF, Dec. 16, 2005, http://www.unicef.org/infobycountry/china_30516.html.

148. See WSIS Declaration, *supra* note 84.

149. See *Bridging Africa's Digital Divide*, BBC NEWS, Nov. 11, 2007, http://news.bbc.co.uk/1/hi/newsid_7071000/7071289.stm (stating that what is really needed is the will of the governments to develop ICT infrastructure).

150. *Study Reveals Clean Air Challenge for Major Asian Cities*, SCIENCE DAILY, Dec. 13, 2006, www.sciencedaily.com/releases/2006/12/06121304121.htm [hereinafter *Study Reveals*] (identifying the major cities used in the study, specifically New Delhi); see also *Kolkata is now India's Pollution Capital*, REDIFF INDIA ABROAD, May 28, 2008, www.rediff.com/news/2008/may/28pollute.htm [hereinafter *Kolkata*]; and *Pollution in India-River and Air Pollution*, ECOLOGICAL PROBLEMS, <http://www.ecologicalproblems.blogspot.com/2008/01/pollution-in-india-river-and-air.html> (last visited Mar. 11, 2009).

151. See *Up to Their Necks in it*, THE ECONOMIST, July 17, 2008, www.economist.com/world/asia/displaystory.cfm?story_id=11751397 (identifying certain

roads to technology),¹⁵² and agriculture¹⁵³ are issues that claim the attention of the heads of government. The U.N. has set goals in its Millennium Campaign¹⁵⁴ towards assisting nations in addressing these factors. Yet what issue should the U.N. first address? More importantly, who should determine what should be addressed?¹⁵⁵

C. Geography

Perhaps it is best to start from the macro to the micro. Africa is a vast continent of over 50 nations having a land mass of more than 11 million square miles.¹⁵⁶ In terms of land mass it has 30 of the 100 top ranked countries within its continent: China is ranked 4th and India is ranked 7th.¹⁵⁷ Some of the world's longest rivers are found within their borders: the Nile (the world's longest river), the Niger, the Congo (5th longest), and the Zambezi (known for Victoria Falls) are located in the African continent; the Yantze (3rd longest) and Huang He (Yellow River) are in China and the Ganges in India have determined the course of human settlement (particularly the British endeavors to establish

issues in health care ranging from infant mortality, diseases, HIV/AIDS, and water-borne illnesses which abound in India); See THE BLACKSMITH INSTITUTE, THE WORLD'S MOST POLLUTED PLACES, THE TOP TEN OF THE DIRTY THIRTY (2007), <http://www.blacksmithinstitute.org/wwpp2007/finalReport2007.pdf>. Blacksmith Institute is an international organization headquartered in New York whose primary aim is to work in worldwide locations having problems with pollution. *Id.* See also *Three Locations in Russia are Among the World's 10 Most Polluted Places*, CITY MAYORS, Oct. 24, 2006, http://www.citymayors.com/environment/world_pollution.html [hereinafter *Three Locations*].

152. *Three Locations*, *supra*, note 151 (finding that 16 of the 20 most polluted cities in the world were in China).

153. Ellen Wilson, *Urbanization and Agriculture to the Year 2020*, THE UNFINISHED AGENDA: PERSPECTIVES ON OVERCOMING HUNGER, POVERTY, AND ENVIRONMENTAL DEGRADATION 77 (International Food Policy Research Institute pub., 2001) (explaining the concepts of urban agriculture).

154. See UNITED NATIONS, THE MILLENNIUM DEVELOPMENT GOALS REPORT (2008), <http://www.un.org/millenniumgoals/pdf/The%20Millennium%20Development%20Goals%20Report%202008.pdf>.

155. *Bridging Africa's Digital Divide*, *supra* note 149 (questioning the priority of technology and health care in emerging nations' governments and refuting the notion that development of one produces the development in the other).

156. See VisualGeography.com, Africa, <http://www.visualgeography.com/continents/africa.html> (last visited Mar. 11, 2009).

157. Mongabay.com, World Statistics: Sorted by Area, http://www.mongabay.com/igapo/world_statistics_by_area.htm (last visited Mar. 10, 2008).

unifying railroads in colonial India and its possession within Africa).¹⁵⁸ Africa has two of the world's most populated cities: Lagos, Nigeria at #7 and Cairo, Egypt at #17.¹⁵⁹ China has three: Shanghai at #6, Beijing at #12 and Tiajin at #20. India also has three: Mumbia (Bombay) at #3, Kolkata (Calcutta) at #9 and Dehli at #14.¹⁶⁰ One then asks how geography affects the growth of the Internet?

D. Embracing Africa

The societies of the African continent are embracing new technologies. Fixed landlines are expensive for governments having problems creating their infrastructures. The newer mobile technology has provided African nations with the ability to provide their populaces with a future technology.¹⁶¹

However, the ability to provide universal African service is hampered by the lack of governmental infrastructure: both in the stability of the governments and in the service available, such as electricity.¹⁶² There is also a lack of uniform governmental regulations regarding technology. This lack of regulations has led to several disputes in different countries.¹⁶³ As there is more governmental regulation, which is transparent and evenly regulated without benefiting the state or any person in particular, it is hoped that more African nations will develop Internet and mobile technologies.

The lack of governmental infrastructure notwithstanding, private companies have done much to bring mobile technology to the various African nations.¹⁶⁴ Thus the question regarding availability of digital access is diminished. In this regard, the question of understanding the need for access does not lessen.

158. Though not the topic of this paper, it should be noted that some of the problems for former colonies of the United Kingdom, France, Germany and Italy, stem in part, from the colonial rule of these four (4) European Union nations.

159. See WorldAtlas.com, Largest Cities of the World, www.worldatlas.com/citypops.htm (last visited Mar. 11, 2009).

160. *Id.*

161. Gumisai Mutume, *Africa Takes on the Digital Divide*, in AFRICA BUILDS ITS OWN PEACE SOURCES (Africa Recovery pub., 2003) (noting that “[m]any African countries are increasingly leapfrogging old technologies and avoiding the expense of laying land lines”).

162. See INDICATORS 2004, *supra* note 17 at 26.

163. *Id.* at 18-19 (noting that government regulations have settled disputes between African states). *But see* Perritt, *supra* note 127 (arguing that the market forces will work out all of these problems).

164. See Mutume, *supra* note 161; see also Chris Nicholson, *Bridging the Internet to Remote African Villages*, N. Y. TIMES, Feb. 2, 2009, at B4.

Some success stories are:¹⁶⁵

- In rural Togo a farmer is able to get real-time information on market prices from the capital, Lome, via cell phone.¹⁶⁶
- Entrepreneurs in Accra, Ghana are able to connect via the Internet.¹⁶⁷
- A Community Information Centre in Niger downloads programs from the African Learning Channel for rebroadcast via radio.¹⁶⁸
- A remote outpost in Kenya is now connected so that its community centre is connected to the world.¹⁶⁹

Yet for these success stories, with the technology penetrating some parts of rural Africa, much still needs to be done. This is where the U.N.'s Millennium Campaign and the WSIS Summit are valuable resources to aid these emerging technological nations. It is the hope that U.N. action will provide critical technological resources, and even more important, hard currency to bridge the divide in Africa.

E. Emerging China and India

Many similar infrastructural problems exist in China and India, as were found within nations on the African continent. The governments of these two countries have not successfully developed a necessary infrastructure to deal with providing these technologies to their people.¹⁷⁰ Basic services of providing water compete with providing electricity to the urban centers. Daunting problems of infant mortality, disease, safe drinking water, sanitation, the economy and the environment compete with levels of employment. Adding technology as one of these 21st Century aims makes the challenge even greater.

F. Education/Gender

Education and gender is where the global aims of WSIS are especially important. Global marketing cannot be underemphasized.

165. *Id.*

166. *Id.*

167. *Id.*

168. *Id.*

169. *Id.*

170. See Vice Minister Qu Weizhi, Chair of the Advisory Committee for State Informatization (Spring 2007) (transcript available at www.eu-china-iskb.bizcom.com.cn/util/downNoVIP.jsp?downfile=D:/projects/iskb/webapp/upload/EN2007030104.pdf) (stating that China must promote efforts to bridge the digital divide).

The gender and educational aspects of crossing the divide are very apparent. The societies of China and India recognize the disparity between urban and rural dwellers.¹⁷¹ The problem lies within communicating to the populace. The ability to provide access is just one problem.

First, in India, there has been a recognition that rural libraries can play a valuable role in spreading use of the Internet to villagers who would otherwise not know about access.¹⁷²

A second problem, which is not discussed in the available literature regarding Africa, is the skills set needed by the populace to understand why access is important.¹⁷³ The people of Africa need to be shown the importance of access, and that they can learn the skills needed to access these technologies. Promising results are already occurring in India, enabling access to necessary information¹⁷⁴ and in rural China, where individuals are communicating with their provincial governments.¹⁷⁵

Several authors relate how embracing the Internet has affected women in their society.¹⁷⁶ Positively, the Internet has been a boon for bridging the divide by giving young women a chance to develop skills that otherwise would have lay dormant.¹⁷⁷ Women are becoming empowered by seeing that they do have the skills necessary to become successful and now they are able to connect with others.

A cautionary note however, for although some women are able to find work, there is an increasing stratification of IT labor whereby

171. Abdul Jaleel Tharayi & Rajeev K R, *Towards Bridging the Digital Divide in India: Challenges and Opportunities from a National Perspective*, INFORMATION SOCIETY WATCH, <https://drtc.isibang.ac.in/bitstream/handle/1849/170/digitaldivide-rajeev.pdf>.

172. *Id.* at 5 (noting that 60% of the population lives in rural areas and therefore the information requirements of rural populations relate to their day to day lives).

173. *Id.*

174. *India Innovates with new Technologies*, THE GOOD NEWS INDIA, www.goodnewsindex.com/pages/content (last visited Jan. 28, 2009) (observing that fisherman started using cell phones for more than mere emergencies and soy bean farmers check futures prices and computerized train information).

175. John Lancaster, *Village Kiosks Bridge India's Digital Divide*, WASHINGTON POST, Oct. 12, 2003 at A01.

176. See Pande, Rekha, *Digital Bridge or Digital Divide – Assessing Gender Equations and the Indian Experience in Information and Communication Technologies*, Address Before the Annual Meeting of the International Studies Association (Mar. 17, 2004), available at http://www.allacademic.com/meta/p_mla_apa_research_citation/0/7/3/0/9/pages73094/p73094-1.php.

177. See Lancaster, *supra* note 175.

women are being placed in lower level positions.¹⁷⁸ The digital divide has heightened the gender disparity between men and women. Within India, women have a literacy rate of 51.4% compared to men at 74.5%.¹⁷⁹ Men are more likely to be able to gain the educational skills to advance themselves and use the new technology.¹⁸⁰ Couple this lack of skill access with the lack of ability to access the Internet and you have a further gender challenge. Women are proscribed by their physical location as they have very few opportunities for movement outside their homes.¹⁸¹ In many locales, whether because of religion or distance, women are unable to leave their villages. Thus, their ability to access the Internet is hampered by logistics. Therefore, many women face an almost insurmountable series of challenges: lack of education, lack of access, and lack of mobility. This is detrimental to the society as a whole because the nutrition of the family, the health of the children and the health of the home are often seen as items within the “woman’s sphere.” If women are unable to access the most current governmental information to better feed their children, or provide better care for the home, then this is directly detrimental to the society.

VI. CONCLUSION

As the web and the Internet penetrate the world’s cultures, the skills needed to access the Internet are adapting to the needs of the users. Although the Internet has been largely a western development, developed by a limited number of people for a specific use, the Internet is expanding its pathways of language so that it is no longer documented and expressed only in English. It is a very Western centric view to think that the web will continue to develop in this English manner. It is also a very socially stunted view of the web as it develops and mirrors the cultures within which it is created.¹⁸²

The digital divide exists in cyberspace and in physical locations throughout the world. Those of us who find ourselves without the benefits of technological access (the poor, the old, the nations’

178. *Id.* Call centers are big business and many women enter at lower level positions as data entry and customer service personnel. *Id.* The higher prestige jobs are within IT programming. *Id.*

179. See Pande, *supra* note 176, at 7.

180. *Id.*

181. *Id.*

182. See López, *supra* note 18, at 26, 29; see also Daniel Sorid, *Writing the Web’s Future in Numerous Languages*, N.Y. TIMES, Dec. 31, 2008 at B1 (identifying an online method to translate local dialects into English).

minorities, the people in rural areas, the disabled) are falling further and further behind. As countries become more technologically advanced, regulations of commercial entities are put into place. The United Nations, and its specific entities, are forces at the global forefront in narrowing the digital divide. Yes, governments and other organizations are at work. Governments are aware of their peoples' plight, but there still is much to be done. Those of us who have access cannot ignore those who are left behind. Our communities need to communicate. This is our future.