



Is the Electronic Democracy to Blame for the Widening of the Digital Divide?

A.G. Van Der Vyver

Monash, South Africa, 144 Peter Road, Ruimsig, Roodepoort, South Africa, 1725, tel: 27 11 950 4039, fax: 27 11 950 4033,
E-mail: braam.vandervyver@infotech.monash.edu

INTRODUCTION

In a special news report from the BBC, dated 14 October 1999, the following statement was made:

... for many it is easy to accept euphoric claims - like those of Vice President Al Gore - that the Internet is also bringing about a brave new world replete with an "electronic agora" and "online democracy".

It's not. More than 80% of the world's population have never even heard a dial tone, let alone, surfed the Web. Furthermore, the gap between the have's and the have not's is widening.

These statistics are the focus of the problem statement that is addressed in this assignment, i.e.:

- How does the digital divide impact on the electronic democracy?
- What alternative arrangements are being made to overcome the digital divide?
- How does the digital divide impact on the information gap?

Firstly, the electronic democracy is discussed. Next, the focus falls on the digital divide and its implications. Lastly, the impact of these two concepts on the information gap is evaluated. Relevant journal articles will be used to illustrate some of the aspects of importance in this assignment.

THE ELECTRONIC DEMOCRACY

The electronic revolution, which resulted from dramatic developments in telecommunications technology, has left its mark on political practices and democracy. Remote computing, telephone conferencing and the development of the Internet have paved the way for a new form of democracy. This democracy is known as the electronic democracy, cyberdemocracy and digital democracy (Browning 2002, Hague & Loader 1999).

In October 1994, the first E-democracy project was launched in Minnesota. Whilst the two political candidates exchanged comments, 600 members of the voting public participated in the debate by contributing their opinions directly from their computers. This event laid the foundation for the establishment of a virtual democracy (Browning 2002:1-2).

Davis (1999:4) pointed out that by 1998 on one out of every two Americans had access to the Internet. "While survey numbers have fluctuated, a constant has been the rapid growth in the public use of the Internet" (Davis, 1999:4).

The future of politics has also been hailed as the "age of Internet democracy" and the residents of this new political system have been branded as "netizens" (Davis, 1999:4). Tsagarousianou (1998:167) sees the main objectives of the electronic democracy to improve the responsiveness and accountability of political institutions. Equally important is the enhancement of citizen participation in political processes.

On a philosophical note it must be stated that there can be little doubt that the public sphere of the 18th century, which served as inspiration for many of Habermas' philosophical discourses, has been resurrected in electronic format. The literary *bourgeois* public gathered to discuss literary matters and gradually they took on a political role.

They met in clubs, *salons* and coffee-houses to debate matters of public policy. According to Outhwaite (1994:8) they formed a critical forum that, with the support of the popular press, constituted a form of public opinion. Not only does the Internet – and all its services – show a remarkable resemblance to its interpersonal predecessor, but it also displays some of the irritations that earmarked its predecessor. Outhwaite (1994:8) points out that "...Habermas admits, the idealized concept of public opinion as it was incorporated into constitutional theory was not at all fully realized; he notes, somewhat casually, the limitations of class and gender ..." Whereas the public sphere of the 1800's was dominated by affluent males, the same phenomenon occurred in the USA during the developmental years of the Internet (Browning 2002:10).

Mwesige (2003:4) thought along the same lines when he quoted Lee (1999) as saying the Internet café is a resurrection of the "original notion of the coffee-house where people gathered to read newspapers, gossip, and generally do what is now called networking."

THE DIGITAL DIVIDE

Two journalists at the Los Angeles Times, Webber and Harmon, first used the term "digital divide". They coined the phrase to describe the social division between those who use the Internet and those who do not (Servon 2002:24). Their article, according to Servon (2002:24), dealt with the split between a husband, who spent a lot of time online, and his wife, who felt alienated due to her husband's obsession with computers. Since the creation of the term, it has adopted a new meaning. It is now used in a more holistic sense to describe the gap between those who have access to computers and the Internet and those who do not have access.

Kizza (2003:159) defined the digital divide as "(t)he technological inequalities among people in one country and between countries ..." He identified the following critical issues with regard to the digital divide:

- whether there is a thing such as the digital divide,
- indicators that should be used to measure such a divide if it exists, and
- the best ways to close such a divide" (Kizza 2003:159).

It is clear that the digital divide is the main obstacle to the implementation of idealistic initiatives with regard to e-governance and e-democracy. The learned author identified five indicators of the digital divide, i.e. access, technology, human capacity, infrastructure and enabling environment (Kizza 2003:259). All these aspects are addressed in this assignment.

THE DIGITAL DIVIDE: A SOUTH AFRICAN PERSPECTIVE

Ginwala (in De Villiers, 2001:9) emphasizes socio-economic imbalances by stating the following on the South African situation: "The gap between those with resources to influence government and those whose influence, for historical reasons, is limited by poverty and disadvantage is deep and wide. Thus there is a very real danger that, while the voices of the powerful may be heard, the majority remain imprisoned in the silence ..."

For South Africa the end of apartheid came with its first democratic election in 1994. An interim constitution was promulgated which gave a constitutional task team the opportunity to finalize the country's first democratic Constitution. This Constitution was adopted in 1996. It entrenched a requirement that government engage with the citizens when making decisions that affect their lives.

De Villiers (2001:16) correctly points out that "a right to participate does not, however, automatically translate into broad-based participation across society." She also quotes from the United Nations Development Program Conference of 1998: "The most disadvantaged sectors are often unable to participate in the democratic process. Limited access to the media, low education levels and geographic isolation from the centers of government, not to mention constraints of time and money, preclude meaningful participation by much of society."

The arrival of the Internet has led to the establishment of electronic democracies all over the developed world. Interactive communication opportunities, which empower citizens to have a say in the governmental processes in all spheres of government, are created on a daily basis. In Africa the new information and communication technologies (ICT) has opened up a digital divide that led to the accentuation of the knowledge gap. The knowledge gap hypothesis according to McQuail (1994:356) does not hold that the lower status population segments remain completely uninformed. Instead, the proposition is that the growth of knowledge is relatively greater among higher status segments.

De Villiers (2001:88) pointed out that 2 million South Africans actively use the Internet. Of these users 1,2 million have access from their homes. An estimated 500 000 households are connected, while 300 000 people are connected through public facilities, mainly educational establishments. The number of users connected via their workplace is estimated at a further 1 million.

The total picture is still one of a pool of elite users, supplemented by a group of student users. De Villiers (2001:88) concludes that "neither the infrastructure nor the necessary hardware and software required for universal access is available to the majority of South Africans."

Another telling statistic is the Gini coefficient that measures the extent of income inequality. A measurement of 0.58 makes South Africa the third most unequal society in the world.

On the poverty index, South Africa registers an absolute poverty rate of 45%. This translates to 20 million citizens living below the poverty line. This line is benchmarked at a total household income of R353 per month. In the rural areas poverty percentages are reaching alarmingly high levels.

With regard to education, De Villiers (2001:35) refers to the School Register of Needs Survey of 1997. According to this survey, South Africa has one of the highest illiteracy levels in the world. Twenty four percent of black South Africans received no education. Compared to this, only one percent of white South Africans are illiterate. In some provinces nearly half of the population cannot read or write.

De Villiers (2001:35-36) sees illiteracy as the most disempowering factor in the South African scenario.

With regard to Internet access in Africa, Mwesige (2003:6) quoted Jensen (2000) who found that "while only 11 countries had Internet access at the end of 1996, by September 2000, all 54 African countries had attained permanent connectivity."

Jensen (2002:80) pointed out that Internet subscribers in Africa stood at 1.4 million. South Africa accounted for 750 000 of these subscriptions. According to Jensen (2002:80) "...this figure is becoming increasingly meaningless as an indicator of size of the Internet sector because of the high number of users sharing accounts." If it is assumed that every connection supports between three and five users, it puts the current Internet users in Africa at 4,5 million. Two million of these users are in South Africa (Jensen 2002:80).

These figures must be interpreted within the context of the South African Development Community (SADC) where less than 40% of households have access to electricity and 340 million Africans live on less than \$1 a day (Perry 2002:30).

THE DIGITAL DIVIDE: AN AMERICAN PERSPECTIVE

The digital divide does not seem to be a problem in developed countries. Servon (2002:27) cited American figures of 1995 that put the nationwide telephone penetration rate in the USA at 94% with a 78% penetration rate in the poorest communities. In 2001, 57% of all households had Internet access. Despite this very high rate of connectivity, the US government nevertheless launched a project named Cyber-Ed Truck to connect schools in the poorest neighborhoods (Servon 2002:24 from a speech delivered by Vice-President, Al Gore). Similar initiatives were conducted in other developed and developing countries.

ADDRESSING THE DIGITAL DIVIDE

This section deals with the second part of the problem statement namely what arrangements are being made to deal with the digital divide. Mwesige (2003:3) pointed out that "[by] the end of the 1990s, 68% of the countries classified by the World Bank as "least developed" were in sub-Saharan Africa. On the other hand, Uganda, registered some of the fastest digital growth rates in the world, yet the benefits have still not reached the rural areas. The one area in which the digital divide had been addressed with great success is in the field of mobile phone subscriptions. With two service providers in Uganda, the 210 000 subscriptions exceed the fixed line subscribers threefold (Mwesige 2003:3).

The exclusion of large parts of the population from the Internet still seems to be a huge problem. Mwesige (2003:4) complains about the lack of Internet access to quality government services. He evaluated the role that Internet cafés play in dealing with the digital divide (2003:1-18). In a study in which he focuses on the profile of the users of Internet cafés in Uganda, Mwesige (2003:2) correctly points out that "(p)ublic access is often celebrated as expanding the public sphere and promoting electronic democracy". Alternative access points, such as Internet kiosks, cybercafé's and multipurpose community centers have been established in the poorer areas to provide affordable access to the broader community.

An analysis of the profiles of Internet users at the six Internet cafés that was included in the sample, showed very little evidence that these facilities play a significant part in bridging the digital divide. The demographics of the users show that 80% of the users are under 30 years of age and less than 4% are over 40. Thirty nine percent of the respondents are university graduates, 17% hold another type of tertiary qualification, whilst 35% of the respondents have completed high school. Sixty percent of the respondents who use the facilities also have other avenues of access; 66% of them from the workplace. Seventy seven percent of the respondents have mobile phones.

Mwesige (2003:10) concludes that the evidence "seems to contradict utopian definitions ... of Internet cafés as public access points for 'ordinary people'".

In terms of the electronic democracy it seems that the Internet café as an alternative access point does very little to bridge the digital divide. The users' profiles show that the haves are the predominant users of the facilities. On the other hand, there are signs that these cafés may be fulfilling the roles of Habermasian political and cultural hubs in society which may be conducive to participation in democratic practices. Visits to government web sites, comments on bulletin boards and text messages to politicians and decision makers are all examples of active participation in the politics of the day.

Conradie (2001:242) explains that the term *Multi-Purpose Community Center* (MPCC) is often used in South Africa for a community facility that provides access to information sources. He does, however, qualify that these Mocks do not always provide Internet services. Therefore, he uses the term *telecenter*, for facilities that provide online services to communities. According to Conradie, people in rural areas suffer from a great deal of technophobia. This fear of technology can only be dealt with through demonstrations.

The use of public libraries as alternative points of Internet access seems to be the logical solution for people who cannot afford domestic or private access. In the U.K., however, funding seems to be a problem. Hull (2003:3) pointed out that "(p)ublic libraries are funded by local

councils and, as such, are subjected to associated vagaries of funding and decisions by councilors.”

Conradie (2001:254) also finds that community centers in rural areas can only survive if they are funded from government coffers. In a case study on a telecenter in Brits, he found that advertising on the Internet was still an alien concept to local advertisers and that they were not prepared to support it. Without the support of advertisers it was virtually impossible to run an information kiosk as a commercial venture.

ACCESS PROBLEMS RELATED TO DISABILITIES

Issues relating to disabilities form an integral part of the digital divide issue. To make a relevant contribution to the electronic democracy, it is of paramount importance that the Web is made accessible to as many people as possible. Worthington (2001:2) cites the usability guidelines of the World Wide Web Consortium as being the most respectable. Some of the pointers with regard to the access abilities of the various users are:

- They may not be able to see, hear, move, or may not be able to process some types of information easily or at all.
- They may have difficulty reading or comprehending text.
- They may not be able to use a keyboard or a mouse.
- They may have a text-only screen, a small screen, or a slow Internet connection.
- They may not understand or speak fluently the language in which the document is written.
- They may have an early version of a browser, a different browser entirely, a voice browser, or a different operating system.

CONTENT DEVELOPMENT

Content development has proved to be a major challenge to the developers of government web sites. South Africa, for instance, has got 11 official languages. English is, for a large part of the citizenry, merely a second language. This means that a citizen who wants to voice an opinion on an issue that affects his wellbeing often needs to work through a lengthy piece of draft legislation which is published in a language that s/he does not command very well. The chances are high that the nuances and pitfalls that are embodied in nearly every piece of legislation will go unnoticed.

DESIGN ISSUES

Before the site usability heuristics are determined, it is important to define the context within which government web sites function.

With regard to the design of government web sites, it is very much a balancing act. On the one hand the politicians will demand flashy, attention-grabbing Web sites that convey a message of efficiency. Interesting and creative web sites will create the impression that the taxpayer's money is well spent. On the other hand the taxpayer may prefer a simple minimalistic design that doesn't pose too many problems to his slow network capability and basic browser.

THE INFORMATION GAP

In Africa it is the digital divide that leads to the accentuation of the knowledge gap. The knowledge gap hypothesis, according to McQuail (1994:356), does not hold that the lower status population segments remain completely uninformed. Instead the proposition is that the growth of knowledge is relatively greater among higher status segments.

McQuail formulated the hypothesis before the popularization of the Internet, i.e. with regard to radio and television. Although no empirical evidence could be detected in McQuail's hypothesis, it can be safely assumed that a high level medium such as the Internet would redefine the information gap. Since access as well as literacy is required for proper utilization of the Internet, the favored classes in society will form an even smaller stratum of the total population. This boils down to an even more elitist distribution of knowledge in the African context.

CONCLUSION

The digital divide does not only deal with access and design issues. It calls for governments and other suppliers of information to compensate for the disadvantaged communities' lack of technology and technological skills. It calls for governments and other suppliers of information to take bandwidth limitations and other technical barriers into account when they brief their Web site designers. It calls for strong creative discipline and a huge dose of empathy when Web sites and navigation patterns are planned. These aspects can only be honored if the needs and wants of the various subcultures are taken into account when decisions on technology and design are taken and not within the parameters of a global ethic. Unless this rigid creative discipline forms part of such a universal ethic, it is unlikely that the needs of the disadvantaged communities will be served in a responsible manner.

BIBLIOGRAPHY

- Avison, D.E. & Fitzgerald G. 1995. 2nd ed. Information Systems Development: Methodologies, Techniques and Tools. London: McGraw-Hill.
- BBC. 1999. Special News Report. The digital divide. Issued on October 14, 1999 on www.bbc.co.uk.
- Browning, G. 2002. Electronic Democracy. 2nded. Medford, N.J.: Cyberage Books.
- Bynum, T.W. 2001. Computer ethics: Its birth and its future. *Ethics and Information Technology*, 3:109-112.
- Conradie, P. 2001. Using Information and Communication technologies for development at centres in rural communities: lessons learned, in *The digital divide in developing countries: towards an information society*, edited by G. Nulens *et al.* Brussels: Brussels University Press.
- Davis, R. 1999. The Web of Politics. New York: Oxford University Press.
- De Villiers, S. 2000. S. A People's Government. Cape Town: IDASA.
- Dryzek, R.E. 1990. Discursive Democracy. Politics, Policy and Political Science. New York: Cambridge University Press.
- Hague, B.N. & Loader, B.D. 1999. Digital democracy, Discourse and Decision-making. London and New York: Routledge.
- Ginwala, S. 2001. Foreword, in *A people's Government*, edited by S. de Villiers. Cape Town: IDASA: 9-11.
- Hull, B. 2003. ICT and social exclusion: the role of libraries. www.sciencedirect.com, 1-12.
- Jensen, M. 2002. The African Internet - a status report, in *Communication Technology*, edited by R. Hurst. Johannesburg: BMI Technowledge: 80-94.
- Kizza, J.M. 2003. Ethical and Social Issues in the Information Age. New York: Springer.
- McQuail, D. 1994. Mass Communication Theory. 3rd ed. London: Sage.
- Moore, R.K. 1999. Democracy and Cyberspace, in *Digital Democracy. Discourse and decisionmaking in the information age*, editors B.N. Hague & B.D. Loader. London & New York: Routledge. 35-59.
- Mwesige, P.G. 2003. Cyber elites: a survey of Internet Café users in Uganda. www.sciencedirect.com, 1-18.
- Nixon, P. & Johansson, H. 1999. Transparency through technology: the Internet and political parties, in *Digital Democracy. Discourse and decisionmaking in the information age*, editors B.N. Hague & B.D. Loader. Routledge: London & New York:135-153.
- Olivier, M. 1999. Information Technology Research. A practical guide. 2nd ed. Johannesburg: Private.
- Outhwaite, W. 1994. Habermas. A critical introduction. Cambridge: Polity Press.
- Parry, G. & Moran, M. (Eds.). 1994. Democracy and Democratization. London: Routledge.
- Perry, S. 2002. Into Africa the channel expands, in *Information Technologies Handbook 2002*, edited by R. Hurst. Johannesburg: BMI Technowledge: 30-34.
- Pickles, D.M. 1951. London: Methuen.

Poullet, Y. 1998. Freedom and Information Highways or how to ensure electronic democracy. *Telematics and Informatics*, 15(3):1-17 in www.sciencedirect.com.

Preece, J. 2000. Online Communities. Designing Usability, Supporting Sociability. New York: Wiley.

Rheingold, H. 1994. The Virtual Community. London: Minerva.

Servon, L.J. 2002. Bridging the Digital Divide. Blackwell, Oxford.

Spinello, R.A. 2000. An ethical evaluation of Web site linking. *Computers and Society*, 29(4):25-32.

Tsagarousianou, R., Tambini, D. & Bryan, C. (Eds.). 1998. Cyberdemocracy. London: Routledge.

Tsagarousianou, R. 1998. Electronic democracy and the public sphere: opportunities and challenges, in *Cyberdemocracy*, edited by R. Tsagarousianou *et al.*. London: Routledge:167-178.

Whittaker, S, Isaacs, E & O'Day, V. 1997. Widening the Net. Workshop Report on the Theory and Practice of Physical Network Communities. www.shef.ac.uk/info_studies/people/staffpage/whittaker/community_sigch97.html/

Worthington, T. 2001. Olympic Failures: A Case for Making the Web Accessible. www.tomw.net.au/2001/bat2001.html

0 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/proceeding-paper/electronic-democracy-blame-widening-digital/32517

Related Content

Online Survey: Best Practice

Tomayess Issa (2013). *Information Systems Research and Exploring Social Artifacts: Approaches and Methodologies* (pp. 1-19).

www.irma-international.org/chapter/online-survey-best-practice/70707

Hindi Text Document Classification System Using SVM and Fuzzy: A Survey

Shalini Puriand Satya Prakash Singh (2018). *International Journal of Rough Sets and Data Analysis* (pp. 1-31).

www.irma-international.org/article/hindi-text-document-classification-system-using-svm-and-fuzzy/214966

Exceptions in Ontologies: A Theoretical Model for Deducing Properties from Topological Axioms

Christophe Jouis, Julien Bourdaillet, Bassel Habiband Jean-Gabriel Ganascia (2010). *Ontology Theory, Management and Design: Advanced Tools and Models* (pp. 78-97).

www.irma-international.org/chapter/exceptions-ontologies-theoretical-model-deducing/42885

A Review of Literature About Models and Factors of Productivity in the Software Factory

Pedro S. Castañeda Vargasand David Mauricio (2018). *International Journal of Information Technologies and Systems Approach* (pp. 48-71).

www.irma-international.org/article/a-review-of-literature-about-models-and-factors-of-productivity-in-the-software-factory/193592

Efficient Cryptographic Protocol Design for Secure Sharing of Personal Health Records in the Cloud

Chudaman Devidasrao Sakte, Emmanuel Markand Ratnadeep R. Deshmukh (2022). *International Journal of Information Technologies and Systems Approach* (pp. 1-16).

www.irma-international.org/article/efficient-cryptographic-protocol-design-for-secure-sharing-of-personal-health-records-in-the-cloud/304810