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# Freedom of Expression in the Age of Networked Communications

*An overview*

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# Freedom of Expression in the Age of Networked Communications: An overview

by Becky Hogge

## Introduction

The networked communications environment promises to define the 21<sup>st</sup> century. The combination of cheap, programmable electronic devices connected to ubiquitous communications networks throws up new opportunities for citizens to exercise their right to freedom of expression. The early benefits from this new communications environment for human rights, democracy, and development are already being heralded. Indeed, proponents enthuse that the emergence of the Internet will usher in positive changes the likes of which have not been seen since the invention of the Gutenberg press<sup>1</sup>.

But these benefits may be slow in coming. As Ithiel De Sola Pool reminds us in his seminal 1983 work *Technologies of Freedom* “Repression is in fact most likely not before a technology of liberation comes along, but only afterward, when the powers that be are challenged by the beginnings of change.”<sup>2</sup>

Indeed, today's norms of free expression were established during the intellectual and political struggle for the freedom of Gutenberg's printing press, a struggle which lasted for centuries. In the seventeenth century the licensing practices of the Queen's Stationers' Company came to be viewed as “prior restraint” - a government or other authority restricting speech through permissions systems - triggering protests such as John Milton's *Areopagitica*. In 1765, protests against the Stamp Act, which threatened to impose special taxes on the press, catalysed the American revolution against colonial Britain. Struggles which involve the press in defamation and libel suits continue to this day. Although they are not, as they often once were, brought by democratic governments, the frequency with which powerful global corporations employ them treads a thin line between accountability and freedom.

Should those who battle for freedom of expression today expect the emergent networked communications environment to spur similar attempts at repression? Could freedom of expression rights even be expected to regress?

This paper will examine the claims made about the benefits of the networked communications environment, and contingencies on these claims. It will go on to map where battles to retain, and develop, the right to freedom of expression can be expected to take place, in what environment, and on whose terms.

## Section 1

### 1.1 Citizen media

In the last century, freedom of expression advocates have had to watch, on the one hand, state-controlled media strengthen its grip in repressive regimes across the developing world, and, on the other, the consolidation of media empires in the developed world create an oligopolous media elite symbiotic with power. It is no surprise, therefore, that the arrival of a technology that promised to refresh the fourth estate has been welcomed. Much has been written over the past five years on the rise of citizen journalism and its increasing ability to subvert or shape traditional media.

Examples abound of how the internet, through citizen journalism, is changing the media landscape. The South Korean citizen news site OhMyNews is widely credited with swaying the most recent presidential election in that country, witnessed by the fact that the successful candidate gave his first interview as President to the site. The so-called “beltway bloggers” – characters like Joshua Mica Marshall of *Talking Points Memo* or Tom Clemens of *The Washington Note* – boast of breaking news stories in the US political press. In countries like Malaysia, where sedition laws and prior restraint are still a reality for the mainstream press, blogging communities like *Project Petaling Street* as well as individual blogs like Jeff Ooi’s *Screenshots* have made a huge difference in times when pressure has been exerted on the mainstream media to keep quiet, such as during the SARS outbreak in 2003<sup>3</sup>.

Widespread access to the internet is challenging the role of the traditional media as gatekeepers of public opinion, particularly in the developing world. Further, the medium’s immediacy and interactivity is changing social conditions with regard to free expression: blogs encourage a wide participation in opinion-forming, through comment and trackback functionality that can turn a group of blogs into a conversation. Indeed, Jack M Balkin goes as far as arguing that the emergence of a much wider participation in opinion-forming should change the very focus of free speech theory itself.<sup>4</sup>

However, this same referential nature identified as being characteristic of blogs and other interactive media has led many commentators to label the blogosphere an “echo chamber”, thanks to its ability to amplify biased and factually inaccurate material simply through endless repetition. This phenomenon, which could arguably encourage a cultural tribalism that is detrimental to critical analysis, will be discussed further in sections 1.2 and 1.5.

### 1.2 Facilitation of grassroots

As brokers of information between citizen and state in democratic societies, NGOs have also been put forward as key beneficiaries of the networked information revolution. Indeed many NGOs have shown great entrepreneurial flair in their adoption of ICTs, from those in emerging democracies in

the former Soviet Union (whose birth coincides with the birth of networked ICTs)<sup>5</sup>, to those founded in established democracies in response to the potential of ICTs, such as US organisation MoveOn.org, the 3 million-strong online community dedicated to promoting progressive policies through grassroots action.

However, just as NGOs find that the new networked information environment dramatically reduces the barriers to establishment as a trusted information source, so too can fake NGOs, so-called “Astroturf groups”, be constructed at a moment’s notice by already powerful corporate lobbying interests during key policy debates, in order to give the impression of grassroots support. So, during the ongoing debate over net neutrality (see section 2.4) the pro-packet filtering Hands Off the Internet described itself as “a nationwide coalition of Internet users”, yet was sponsored by Alcatel, AT&T and Bell South. The look and feel of its website aped that of pro net neutrality (and genuinely grassroots) campaigners Save the Internet, in all but one key respect: all functions for interactivity were switched off.

Beyond NGOs, the networked communications environment has the potential to link concerned citizens without the need for intermediation. This phenomenon could be observed during “the second people power revolution” or EDSA 2, the peaceful overthrow of President Joseph Estrada in the Philippines in 2001. Described as “revolution by cellphone” the event was characterised by tens of thousands of people responding to SMS messages to gather in Epifanio de los Santos Avenue (EDSA)<sup>6</sup>.

But it is not only peaceful revolutionaries who have access to such transformative technology. Those who would bring about ideological change through violent means have equal access to distributed communications systems, and can feed distorted information through networked communications channels to spread hatred. Witness the inclusion of an Associated Press photo from a French farming festival in the dossier of cartoons offensive to Islam that sparked violent protests throughout the Muslim world<sup>7</sup>, or the practices of Hizbollah in Kenya, sending weekly SMS messages intended for redistribution across the network<sup>8</sup>. Further, sociopaths such as paedophiles, once isolated by geography, now routinely network online, supporting and thus normalising one another’s anti-social behaviour<sup>9</sup>.

### **1.3 E-Democracy**

In the mid 1990’s many governments recognised the potential in the networked communications environment for a new type of government, labelled electronic- or e-government. ICTs would deepen the bond between citizen and state, e-government advocates advised, destroying extant bureaucratic barriers to state services, and ushering in a new age of transparency in government affairs.

By 2001, according to a UN research study<sup>10</sup>, 169 of 190 UN member states had a presence on the World Wide Web. The report identified 5 distinct stages in e-government development, from “emerging” static information sites, through “enhanced”, more dynamic sites, to “interactive” sites (where, for example, citizens can download official forms), to “transactional”, and finally “seamless” portals, the latter representing “a full integration of electronic services across [national] administrative boundaries”.

In 2001, 9% of member states had already reached the fourth, transactional stage, only two of which (Brazil and Mexico) are not classified by the World Bank as high income economies. Nonetheless, the report concluded that “E-government is no longer an experiment in administrative reform but a permanent part of the governing process”.

As Giovanni Navarra has observed, e-government’s inauspicious hyphen “can be seen in one of two ways: positively, as the symbolic link between the past and the future of complex democratic institutions; or negatively, as the virtual mark of the invisible ‘long hand’ of governmental power.”<sup>11</sup> On the surface, the success of e-government initiatives turns the state into a benevolent service provider. Yet covertly, the use of integrated, cross-departmental databases, combined with technologies such as biometric identification systems and closed circuit television, grants states a dramatically increased ability to scrutinise the citizens they govern. William Davies warns that “having been drawn into the digital age by the allure of its newness... we may now be settling down into a surveillance society where privacy is at best conditional, and contingency is monitored and dealt with”<sup>12</sup>.

Concurrently, critics have circled around the government’s unwillingness to reveal data about its own machinations. In the UK, despite billions of pounds invested in e-government initiatives, it was left to a group of volunteers working against strict interpretations of the copyright system, to create an accessible portal to the UK’s parliamentary record, Hansard<sup>13</sup>. Freedom of Information laws in many democracies have attracted staunch criticism for being mired in the very bureaucracy e-government seeks to remove. Further, freedom of expression advocates may want to question whether the e-democracy road-map laid out by the UN truly captures the potential benefits for pluralist democracy that many-to-many communications could bring.

#### **1.4 Niche Cultural Exposure**

We are only now beginning to understand the effects on the marketplace of the arrival of e-commerce. Relatively established e-commerce sites like eBay and Amazon as well as newcomers such as Netflix, an online DVD rental service, and Apple’s iTunes music store are helping to uncover a previously untapped market in niche cultural goods that has been dubbed “the long tail” by *Wired* editor Chris Anderson<sup>14</sup> in his recent book of the same name.

Because bricks and mortar retailers are constrained in the range of products they can sell by the cost of storing those products relative to their profitability, consumers, concludes Anderson, were hitherto presented with a choice of “hits” which did not fairly reflect the limits of their cultural curiosity. Now the Web offers infinite display space, and sophisticated peer recommendation systems based on aggregating the choices of other consumers provide access to what had previously been relatively obscure cultural points of interest.

Inevitably, thanks to the US global cultural hegemony that has developed over the last fifty years, this “niche” culture is often the product of artists from countries outside the US, and in particular from countries in the developing world. Musical traditions such as those in West Africa, routinely plundered by Western recording artists, now have access to profitable distribution networks that promise recompense to original creators, even outside of established e-commerce sites. Where once artists such as the late Malian guitarist Ali Farka Toure were occasionally plucked out of obscurity by benevolent Western actors<sup>15</sup>, now creators can go direct to consumers.

However, the ease of distribution which in particular digital music can enjoy in the networked communications environment is a named target by music distributors in the West. These actors have lobbied for ever more stringent intellectual property rights, originating in the US and gradually exported to the global stage via the World Trade Organisation and the World Intellectual Property Organisation, which threaten to halt this trend. This, and other intellectual property issues will be approached in section 2.1.

### **1.5 Commons Production**

The emergence of computer software created by widely distributed networks of volunteer programmers, a practice commonly known as “open source”, thanks to its reliance on the availability and free distribution of computer source code, is one of the more astonishing developments in the early history of the networked communications age. Open source practices have given rise to commercial products such as Red Hat Linux, Apache and Mozilla Firefox, software that often trumps proprietary rivals, such as Microsoft’s Windows, Exchange and Internet Explorer packages, in terms of innovation and security.

The ability of the internet to harness distributed resources and create information goods far richer than those produced by commercial organisations, with their traditional hierarchical structures, can also be observed in Wikipedia, the online encyclopaedia with over 4 million articles, or SETI@home, UC Berkeley’s Space Science Laboratory project which uses the processor downtime of over 5 million home computers to search for extra-terrestrial intelligence. As Yochai Benkler observes, “[t]he removal of the physical constraints on effective information production has made human creativity and the economics of information itself the core structuring facts in the new networked information economy”<sup>16</sup>.

Benkler's heralding of a new economic prosperity, which rewards the creativity and passions of individuals, appears to trump Andrew Feenberg's analysis of the information economy as a means to further casualise the workforce and commodify human knowledge<sup>17</sup>. However, a more recent analysis of the outcomes of such commons production processes sounds caution.

In an essay for *Edge* magazine, computer scientist and visual artist Jaron Lanier warns advocates of commons production not to ignore the dangers of extolling collectivism, particularly because of its shortcomings with regards to good taste and judgement. He further warns that "[h]istory has shown us again and again that a hive mind is a cruel idiot when it runs on autopilot. Nasty hive mind outbursts have been flavoured Maoist, Fascist, and religious, and these are only a small sampling."<sup>18</sup>

## Section 2

Section 1 has attempted to show that the emergence of the networked communications environment, like all technological changes, cannot be seen as wholly beneficial to human society. Where citizen journalism can amplify unheard or repressed voices, it may also lead to cultural tribalism or disinformation. Just as peaceful grassroots activists can use the networked communications environment to bring about change in the real world, so too can already powerful lobby groups, and violent or otherwise unpalatable actors. E-government promises both better access to the services and machinations of state and an unprecedented level of surveillance on the citizen. The potential of the internet to widen our cultural horizons presents a target for powerful rightsholder lobbies, who threaten to suppress speech in bringing these distribution networks under control. And the enthusiasm for a liberating new form of production springing from a knowledge commons, might also lead to a form of digital collectivism that has the potential to dull human development.

The tensions set out above may well lead to a radically altered environment for free expression. Firstly, changes to the communications environment could dramatically alter the canvas for expression, with the increasing numbers of stakeholders in democratic dialogue posing new challenges to freedom of expression norms. Secondly, the very fact of these changes might lead those whose interests lie in suppressing speech to seek redress through technical and legal means, redress which might cause free expression norms to regress.

These are the two battles free expression advocates must fight. The first is to shape new norms of free expression emerging from widened democratic dialogue, through exemplary practice and support. The second is to maintain and bolster free expression norms in the face of pressure for technical and legal change to resolve tensions brought about by this new communications environment.

To understand where this pressure will be applied, it is necessary to look at the regulation governing information itself, followed by each layer of the networked communications environment in turn. These layers are: computers and mobile devices that connect to the network; the software that runs on these devices; the communications networks that link these devices together; and the information retrieval systems that run over these networks.

## 2.1 Intellectual Property Rights

Over the last century, most citizens' perception of intellectual property rights has undergone fundamental change. Patents and copyrights, once understood to be monopolies granted by the state to account for a market failure specific to industrial and creative ideas and their expression, were always strictly time-limited in order to account for society's need as a whole to benefit from a free marketplace in ideas. As Rosemary Bechler advises "In the first century of American legal history, copyright was deemed a necessary evil. The law granted an exclusive right to copy, sell and perform original work for a limited time, a monopoly, however, already restricted by several provisions allowing for such good faith use... as political debate, education, research or artistic expression. This limited trade monopoly was to be exchanged for subsequent universal use and access."<sup>19</sup>

Even during the relatively short copyright and patent terms of previous centuries, the effects of IPRs impacted mainly on industry. The fair dealing and fair use rights of the Anglo-American and European copyright systems ensured citizens' rights to partake freely in the marketplace of ideas, through, for example, the development of public libraries, or the private right to copy, without interference from the law. Further, during the industrial development of countries of today's developed world, IPRs were not transnational, allowing industrialists to freely ape ideas from other countries to contribute to their nation's economic, social and cultural development.

That situation changed during the latter half of the twentieth century, as industries which relied on the protection of IPRs grew in number and reach. In the minds of individuals, IPRs have gradually morphed into natural property rights, turning the marketplace of ideas from a buyer's market to a seller's one.

In the last forty years in the United States, for example, Congress has extended the term of copyright 11 times. It now applies for the lifetime of the author, plus a further seventy years, which, as Lawrence Lessig points out, for the author Irving Berlin, stands at 140 years, ten times the length of the initial term granted originally by Congress<sup>20</sup>.

The scope of copyright protection has also extended. Taking the United States as an example again, original copyright law protected only "maps, charts and books". It now automatically protects any creative act, down to the finger painting of a two year old<sup>21</sup>. In June this year, the Dutch High Court ruled that the smell of a perfume may also, in principle, be copyrightable<sup>22</sup>.

The networked communications environment puts a powerful distribution mechanism for ideas and their expression directly in the hands of the citizen. This means that, for the first time, IPRs are having a direct effect on individuals. This can be seen in the case of record industry bodies in the United States and Europe using copyright law to sue users of peer to peer filesharing networks. Young people born into such copyright-infringing activities, have begun, therefore, to understand themselves as criminals or “pirates”, although it is not clear whether this understanding will do anything to halt copyright-infringing activity.

The trend for action against the citizen can also be observed in cases more directly relevant to censorship issues. In July this year, the UK Foreign and Commonwealth Office sent a legal notice to Craig Murray, former ambassador to Uzbekistan, demanding he remove correspondence obtained under the Freedom of Information Act that showed British complicity in practices involving torture, or be subject to copyright infringement proceedings<sup>23</sup>. This aped a previous attempt by voting machine manufacturer Diebold to silence debate using copyright law following leaked memos discussing fatal flaws in their machines<sup>24</sup>.

As information flows more freely from citizen to citizen, freedom of expression fault lines created by the over-zealous extension of copyright law in the post-industrial period come starkly into view. It should be noted that freedom of expression checks such as fair use in the US are often defined by a history of case law that gives rise to considerable legal ambiguities. These can easily be taken advantage of by powerful actors against individual citizens who suffer from poor access to affordable legal representation.

If this were not enough to spur freedom of expression advocates into action, IPRs are also beginning to affect developing nations in a potentially detrimental fashion. Corporate globalisation has been paralleled by the globalisation of intellectual property rights, culminating in the Agreement on Trade-Related Aspects of Intellectual Property Rights, or TRIPS, entering into force on 1 January 1995. TRIPS – an international treaty administered by the World Trade Organisation which all members of the WTO must sign – sets down minimal standards for IPR enforcement.

Although the compliance period for these standards has been extended to 2016 for the world’s least developed countries, nevertheless, such standards threaten to prevent the developing world from enjoying the free flow of ideas and their expression which so aided today’s developed nations during the West’s industrial age. Combined with the trend towards extension of IPR term and scope, the globalisation of IPR enforcement threatens to sentence the developing world to perpetual bondage to the developed one.

IPRs are defined and enforced on the national level, between citizens in courts of law, and among lobbyists and activist in legislative bodies, and, on the international stage, at the WTO and the UN’s World Intellectual Property Organisation (WIPO). It is within the remit of advocates for freedom of expression to weigh in heavily on the debates outlined briefly above in all these locations, with a

view in particular to redressing the balance between IPRs and the free marketplace of ideas, the intellectual commons. But IPRs and other factors acting on freedom of expression are also defined and enforced covertly, on layers of the networked communications environment not governed by anything like accountable, transparent and democratic institutions. It is to these layers that the following sub-sections turn.

## 2.2 Hardware

The development of computer hardware and mobile devices such as mobile telephone handsets is rapid and resource-intensive. In order to be full participants in the networked communications environment, access to appropriate hardware is essential. Further it has been suggested that, despite the relative success of community-based projects in the developed world such as the 1999 ICT Learning Centres UK government initiative (later the UK Online Centres project) which aimed to give access to the internet to all citizens, it is valuable for every citizen to own their own computer. The One Laptop Per Child initiative, which aims to supply large orders of laptops, complete with software, at a unit price of \$100, reasons that “One does not think of community pencils—kids have their own. They are tools to think with, sufficiently inexpensive to be used for work and play, drawing, writing, and mathematics. A computer can be the same, but far more powerful.”<sup>25</sup>

Although access to appropriate hardware in the developing world will be strengthened by not-for-profit initiatives such as One Laptop Per Child, this is not to say that the market cannot also grant access. In 2004, there were 50 million mobile phone subscribers in Africa, with growth rates expected to continue at 35% per year<sup>26</sup>, making Africa the world’s fastest-growing mobile phones market. The price of mobile phone handsets still acts as a significant barrier to take up in this market, and this is encouraging manufacturers to devise low-cost alternatives. In April 2006, Motorola, spurred by a syndicate of local African network operators, delivered 6 million handsets costing less than \$40 each, and Phillips is developing new chip technology that could take this price down to \$20<sup>27</sup>.

It should be noted that, despite innovative use of mobile phones in Africa, for example to transfer funds from urban to rural areas through sending access codes for airtime via SMS, mobile telephones, unlike computers, are non-programmable devices and therefore offer less of the benefits of the networked communications age. The moment of convergence between telephony, media capture and delivery devices and the programmable computer is long-anticipated. During this process, it is important to understand the difference between increasingly interactive devices, and truly generative ones, that is, ones whose use cannot be predicted by their manufacturers. To ensure that the developing world benefits fully from the new networked communications environment, emphasis should be put on the latter type.

It is not within the remit of freedom of expression activists to influence the day-to-day manufacture and delivery of hardware. But careful monitoring of access to hardware should be maintained, to ensure equal access to programmable devices, and prevent a programmable/non-programmable gap widening between the developed and developing world, adjusting the balance of non-profit versus market led initiatives where possible and desirable.

### **2.3 Software**

Hardware is only one half of the story about the machines that connect to the communications network. The other half is software. It is this dichotomy that creates machines able to execute any algorithmic task devised by their manufacturers, users or third parties acting on machines over a network. Although software is written by a vast variety of people, the actual software market, which supplies the majority of citizens with the programmes they run on their computers, is, at best, an oligopoly. Over 90% of desktop users run an operating system on their computers built by one company: Microsoft. Although this appears to be of little to concern to the average Western computer user, it should certainly be of concern to freedom of expression advocates.

As Jonathan Zittrain has observed, data security and IPR concerns that emerge during the continued mainstreaming of a network as open as the internet, may lead to pressure towards the design of unduly “closed” machines, reversing many of the characteristics of programmable hardware, at least for the non-expert user. Zittrain warns of the rise of the PC as an “information appliance”, which will “creat[e] a consumer information environment that betrays the very principles that animate end-to-end theory”<sup>28</sup>.

Although Zittrain wishes to highlight the need to modify the network to prevent this reality, his warning serves to underscore another valuable point. The software that runs on our computers is a legitimate target for repression. And because there is little competition in the commercial software market, it is also an easy one.

Further, because the vast majority of people connected to the network, including, at present, the vast majority of freedom of expression advocates, are non-expert computer users, incremental changes in technical standards or design norms are likely to pass without protest. As an example of software vendors’ powers in this respect, Zittrain offers the rise of automatic updating. Although welcomed as a way to protect PCs from malicious computer viruses without relying on consumer vigilance, the reality of always on broadband connections means that machines endowed with automatic updating could become virtual prisoners to the will of software vendors. In turn, this will could be influenced by regulators. Indeed, this has already been put forward as a potential solution to copyright infringement<sup>29</sup>.

The rise of open source software offers the hope of future competition in the consumer software market, and the accompanying dispersal of points of influence for regulators<sup>30</sup>. Further, increased

adoption of open source operating systems such as Linux, especially in the developing world, could usher in a new age of technical literacy that would make incremental shifts in the locus of control more noticeable to consumers.

It is within the remit of freedom of expression advocates not only to monitor regulation in this field, but to ensure that competition in the computer software market is bolstered and, further, that investment is directed towards alternatives in terms of education in computer literacy. The continued development of free and open source software should also be supported through monitoring changes made to the scope of IPRs, in particular software patents, which threaten the development environment<sup>31</sup>.

## 2.4 Networks

The popular internet could be described as an accident of history. The network of ends of the early net pioneers might never have come into popular use had deregulation legislation not forced former telecommunications monopolies such as AT&T in the US and BT in the UK to neutrally allow competitive use of “their” wires. As Lawrence Lessig has put it “This imposed neutrality about how the wires would be used left the field open for others to use the wires in ways no one ever expected. The Internet was one such way.”<sup>32</sup>

The reality could have been quite different. To understand how, it is worth looking at the early business model of Internet Service Provider (ISP) America Online. AOL subscribers had access only to a “walled garden<sup>33</sup>” of services, based on revenue sharing agreements established between AOL and third party information providers. Faced with competition from a myriad of other ISPs offering full internet access, AOL changed this model in the mid 1990s. If the telcos, who operate in a far less competitive environment, had been permitted control over the wires, and even if they had eventually set themselves up as ISPs, it is unlikely they would have been forced by competitors to miss out on the opportunity the extra revenue from partnerships with licensed information providers offers.

This is a story worth retelling in today’s regulatory environment, especially with regards to a recently proposed piece of US legislation, the Communications Opportunity, Promotion and Enhancement Act (COPE). The result of a decade of fierce lobbying from American telcos, COPE proposes to allow telcos a modicum of control over the signals that run across their wires, replacing the “first come, first served” approach to data transmission with policy-based routing, and effectively ending the age of network neutrality.

Although it is unlikely we will find ourselves “returning to the garden” now that the benefits of the user-generated internet are well understood, it is possible that, under COPE, the entry cost to widespread exposure on the internet would increase, with pursuant damage to freedom of expression. Concerns over bandwidth scarcity are driving the passing of COPE, yet these are

neither understood by lawmakers (in June this year, the internet was famously described by Senator Ted Stevens in a speech on COPE as “a series of tubes” which could become blocked by too much data) nor agreed upon by technologists.

Scarcity concerns are seen by some as a legacy of the FCC’s regulation of broadcast spectrum. Because of scarcity concerns (which in themselves have been thrown into question<sup>34</sup>) broadcast spectrum, unlike the postal networks which were protected in the US by the constitution, was susceptible to government regulation beyond freedom of expression mandates. If scarcity is understood to apply to the networked communications environment, without this understanding being rigorously investigated, the same thing is likely to happen with internet regulation.

Where extant telecommunications infrastructure does not exist, the story of the internet is likely to be quite different. The growth of mobile connectivity over the past decade in Africa has proceeded from the development of private mobile networks, unsusceptible to the regulatory pressures typical of Western telecommunications environments descended from state monopolies. Walled garden internets, or mobile data services, without the potential for user-generated services, are this network’s most likely descendants, a situation which should be uncomfortable for free expression advocates focussed on the developing world.

## **2.5 Search and Retrieval**

As the networked communications environment grows and diversifies, the need for fair and coherent search and retrieval tools escalates. To date, these tools have been provided by the market, run by corporations such as Google plc.

Google’s ingenious business model relies on revenue generated by advertising space auctioned off to potential advertisers according to search request content. It has been suggested that this model offers much more successful advertising opportunities than those of newspapers and magazines. It could be surmised, therefore, that Google Ads are likely to take away much of the advertising business from traditional media outlets. Although online media can in many cases substitute for traditional offline offerings, freedom of expression advocates might surmise that this is not always the case, especially given the considerations outlined in section 1.1 above.

However, what should worry such advocates more, is the ability of search engines such as Google to censor the results they return. This has been demonstrated most recently in Google’s entry into the Chinese market, with a search engine designed to filter out search results that are censored by the Chinese authorities, for example, results relating to the Tiananmen Square massacre, or the banned spiritual movement Falun Gong.

For many previous Google fans, this action was a wake-up call. Although Google’s business model had previously been based upon providing the best information possible to the millions of people who used its search engine, it became clear that Google would compromise on this policy, were

such a compromise in its own interests. Indeed, without proper governance, any corporation would have done the same. Beyond compliance to local law, there is no evidence that Google has exercised this power in any other instance, although there has been much insinuation among certain computer hackers that censorship of information damaging to Google has taken place<sup>35</sup>, and the potential is certainly there.

Two approaches to this conundrum are currently being tested by Western legislatures. The first is to develop corporate governance based on freedom of expression norms in the US, as seen with Congressman Chris Cox's Global Internet Freedom Bill. The second is the development of government-sponsored search engines, such as the French and German joint effort Quaero, although this move has been seen by some to be more motivated by simplistic nationalism, rather than by freedom of expression concerns<sup>36</sup>.

## Conclusion

This paper has sought to investigate claims made about the potential for freedom of expression in the networked communications environment. It has suggested that those who care about freedom of expression should expect attempts at repression to multiply over the coming decades.

This repression may arrive in many forms. National and international intellectual property legislation has been identified as a key issue for freedom of expression advocates to monitor, as has increased surveillance (or "freedom after speech") and corporate censorship. The various loci of pressure for change and their instruments, whether social, legal or technical, have been identified.

Although contingencies on the purported benefits of the new communications environment have been identified, that is not to say that this environment is not worth fighting for. Were we even in a position to halt technological progress, the promise that the networked communications environment holds for greater exposure to diverse and global means and forms of expression means we should not want to. The variety and complexity of the components of this new communications medium mean that the battle for free expression must now be fought on many fronts. But the benefits are equally diverse, and must not be surrendered.

[5905 words]

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*Her writing on democracy, technology and intellectual property appears regularly on openDemocracy and in UK political weekly magazine the New Statesman. Other publications to*

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Becky Hogge blogs at <http://www.machine-envy.org/blog>.

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## Footnotes

<sup>1</sup> Gates B, Myhrvold N, Rinearson P (1996) *The Road Ahead* Penguin, New York

<sup>2</sup> de Sola Pool I (1983) *Technologies of Freedom* Belknap Press p14

<sup>3</sup> Hang Wu T (2006) "Let a Hundred Flowers Bloom: Digital Speech in Malaysia", *Asian Journal of Comparative Law*: Vol. 1: Iss. 1, Article 12, accessed on 28 September at <http://www.bileta.ac.uk/Document%20Library/1/Let%20a%20Hundred%20Flowers%20Bloom%20-%20A%20Malaysian%20Case%20Study%20on%20Bloging%20Towards%20a%20Democractic%20Culture.pdf>

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<sup>7</sup> "AP Protests Use of Photo in Controversy", Associated Press Wire 8 February 2006, accessed on 19 September at <http://abcnews.go.com/International/wireStory?id=1595247> (reproduced by ABC News)

<sup>8</sup> Andrew Puddephatt, private communication.

<sup>9</sup> See Eichenwald K (21 August 2006) "From their own online world, pedophiles extend their reach" in *New York Times*: accessed on 15 September 2006 at <http://www.iht.com/articles/2006/08/21/america/web.0821porn.php>

<sup>10</sup> United Nations Division for Public Economics and Public Administration & The American Society for Public Administration (2001) *Benchmarking E government: A global perspective – Assessing the progress of member states* Accessed on 13 September 2006 at <http://unpan1.un.org/intradoc/groups/public/documents/UN/UNPAN021547.pdf>

<sup>11</sup> Navarria G (2006) "E-government: who controls the controllers?" *openDemocracy*: accessed on 13 September 2006 at [http://www.opendemocracy.net/media-edemocracy/egovernment\\_3254.jsp](http://www.opendemocracy.net/media-edemocracy/egovernment_3254.jsp)

<sup>12</sup> Davies W (2005) "The age of surveillance: a new 'dotcom boom'?" *openDemocracy*: Accessed on 13 September 2006 at <http://www.opendemocracy.net/debates/article.jsp?id=2&debateId=124&articleId=2719>

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<sup>14</sup> Anderson C (2006) *The Long Tail: How endless choice is creating unlimited demand* Random House, London, UK

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<sup>15</sup> Deneslow R (8 March 2006) "Obituary: Ali Farka Toure" *The Guardian*: Accessed on 13 September 2006 at <http://www.guardian.co.uk/obituaries/story/0,,1725758,00.html>

<sup>16</sup> Benkler Y (2006) *The Wealth of Networks: How social production transforms markets and freedom* Yale University Press, New Haven and London

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<sup>18</sup> Lanier J (30 May 2006) "Digital Maoism: The hazards of the new online collectivism" *Edge*: Accessed on 13 September 2006 at <http://www.edge.org/documents/archive/edge183.html>

<sup>19</sup> Bechler R (2006) *Unbounded Freedom: A guide to Creative Commons thinking for cultural organisations* Counterpoint, British Council, p53 Accessed on 18 September 2006 at <http://www.counterpoint-online.org/cgi-bin/item.cgi?id=618>

<sup>20</sup> Lessig L (2001) *The Future of Ideas: The fate of the commons in a connected world* p 107 in ed of Nov 2002 Vintage Books, New York

<sup>21</sup> *ibid*, p 106

<sup>22</sup> Koelman K (September 2006) "Copyright in the Courts: Perfume as Artistic Expression?" in *WIPO Magazine* accessed on 14 September 2006 at [http://www.wipo.int/wipo\\_magazine/en/2006/05/article\\_0001.html](http://www.wipo.int/wipo_magazine/en/2006/05/article_0001.html)

<sup>23</sup> Hogge B (18 July 2006) "The Crown's copyright con" in *openDemocracy* accessed on 14 September 2006 at [http://www.opendemocracy.net/media/copyright\\_con\\_3746.jsp](http://www.opendemocracy.net/media/copyright_con_3746.jsp)

<sup>24</sup> *ibid*

<sup>25</sup> See One Laptop Per Child Initiative FAQs page at [http://www.laptop.org/faq.en\\_US.html](http://www.laptop.org/faq.en_US.html)

<sup>26</sup> Scott N, Batchelor S, Ridley J and Jorgensen B (19<sup>th</sup> November 2004) *The Impact of mobile phones in Africa: Prepared for the Commission for Africa* accessed on 14 September 2006 at [http://www.commissionforafrica.org/english/report/background/scott\\_et\\_al\\_background.pdf](http://www.commissionforafrica.org/english/report/background/scott_et_al_background.pdf)

<sup>27</sup> Bishop M "Loose talk saves lives" in *Developments: Only connect* 2006 Issue 31

<sup>28</sup> Zittrain J "The Generative Internet" in *Harvard Law Review*: Vol 119 pp 1974-2040

<sup>29</sup> Picker RC (March 2005)., "Rewinding Sony: The Evolving Product, Phoning Home and the Duty of Ongoing Design" U Chicago Law & Economics, Olin Working Paper No. 241. Available at 16 September 2006 at SSRN: <http://ssrn.com/abstract=692746>

<sup>30</sup> It should be noted that Zittrain rejects the distinction between proprietary, dominant vendors such as Microsoft on the one hand, and free and open source software on the other. Zittrain's point, however, speaks to a different debate, that of network neutrality (explored in section 2.4 of this paper). He implores net neutrality advocates to imagine "the generative internet" in their discussions of the network, a categorisation that includes the machines at the networks' endpoints, lest these machines become overly closed in the quest for an open network. In this respect, whether these machines run Windows, Mac OSX or some flavour of Linux is irrelevant.

<sup>31</sup> See Hogge B (2005) "Patents for profit: dystopian visions of the new economy" in *openDemocracy*: accessed on 16 September 2006 at [http://www.opendemocracy.net/media-copyrightlaw/article\\_2370.jsp](http://www.opendemocracy.net/media-copyrightlaw/article_2370.jsp)

<sup>32</sup> Lessig L (2001) *The Future of Ideas: The fate of the commons in a connected world* p 149 in ed of Nov 2002 Vintage Books, New York

<sup>33</sup> The notion of a "walled garden" internet is a common one among techies, but its layers of meaning may not be immediately clear to the lay reader. It seeks to capture the idea of an artificially cultivated information environment, bounded off from the rugged, "natural" environment of a truly peer to peer-based communications environment by impenetrable walls.

<sup>34</sup> See Weinberger D (12 March 2003) “The myth of interference” in *Salon*: accessed on 15 September at <http://dir.salon.com/story/tech/feature/2003/03/12/spectrum/index.html>

<sup>35</sup> See this discussion thread regarding a hack on Google Print – including the eerie question “if I can’t be Googled, do I exist?” <http://www.kuro5hin.org/story/2005/3/7/95844/59875> accessed at 15 September 2006.

<sup>36</sup> See Chrisafis A (26 April 2006) “Chirac unveils his grand plan to restore French pride” in *The Guardian*: accessed on 15 September 2006 at <http://technology.guardian.co.uk/news/story/0,,1761482,00.html>