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RE: Written submission of the *Media Policy and Democracy Project* to the Department of Communications (DoC) on the draft national broadband policy

The Media Policy and Democracy Project[1] is a joint collaborative research project between the Department of Communication Science at the University of South Africa (UNISA), and the School of Journalism and Media Studies at Rhodes University which was launched in 2012, and aims to promote participatory media and communications policymaking in the public interest in South Africa.

The project involves three thematic areas:
1) media diversity and transformation
2) media accountability and media freedom
3) communications policy and the public interest

To learn more about the Media Policy and Democracy Project visit http://www.mediaanddemocracy.com/

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In response to South Africa's draft national broadband policy

Introduction

The White Paper of 1996 recognized that telecommunication services played roles inthe economic and social development of all citizens through universal access and service (Department of Communications, 1996). While in this way it made a link to human rights, it did not recognise any specific right to telecommunication services (Zlotnick, 1999).

The draft of the proposed national broadband policy broadly continues the approach of the White Paper, not expressly declaring any new rights, but calling for a combination of state and private sector investments, together with initiatives for universal service and access, but this time cast in terms of "broadband" services (Department of Communications, 2013). While it discusses some of the possible speeds, these are not linked to universal access and service, thus there is no suggestion of a minimum speed for download or upload, and neither latency nor packet loss are mentioned. Thus the concept of universal broadband access is so vague as to be impossible to define.

The Department of Communications sets out the various links between the broadband policy and economic policies and plans, in particular economic growth and jobs. It is important to recall the history of job creation in telecommunications, with many more people now working in the sector, for example, in stores selling handsets, selling and registering SIM cards, selling top-up credits, as well as those in network operators. While these positions are often neither well paid nor very secure, they have provided or contributed to incomes for a great many citizens and their families. With the development of innovative mobile "apps", some more secure and skilled jobs are being created. It is important for the Department to consider job creation in the widest sense.

Constitutional rights

One of the fathers of the Internet, writing in the *New York Times*, declared Internet access not to be a human right, arguing that "technology is an enabler of rights, not a right itself" and making clear that in his view it was instead critical to have "freedom of speech and freedom of access to information" (Cerf, 2012). He was reacting to a report presented to the UN Human Rights Council by the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression, which took a very similar line:

> By vastly expanding the capacity of individuals to enjoy their right to freedom of opinion and expression, which is an "enabler" of other human rights, the Internet boosts economic, social and political development, and contributes to the progress of humankind as a whole. (La Rue, 2011)

Such arguments are not new, with longstanding claims around a right to communicate and use of the Internet (Kleinwachter, 1998).

According to the Constitution (RSA, 1996), the following rights are recognised, which are directly or indirectly related to broadband policy:

> **14. Privacy**
>
> Everyone has the right to privacy, which includes the right not to have -
>
> a) their person or home searched;
> b) their property searched;
> c) their possessions seized; or
> d) the privacy of their communications infringed.
>
> **16. Freedom of expression**
>
> 1. Everyone has the right to freedom of expression, which includes
>
> a) freedom of the press and other media;

b) freedom to receive or impart information or ideas;
c) freedom of artistic creativity; and
d) academic freedom and freedom of scientific research.

2. The right in subsection (1) does not extend to -

a) propaganda for war;
b) incitement of imminent violence; or
c) advocacy of hatred that is based on race, ethnicity, gender or religion, and that constitutes incitement to cause harm.

18. Freedom of association

Everyone has the right to freedom of association.

32. Access to information

1. Everyone has the right of access to -
   a) any information held by the state; and
   b) any information that is held by another person and that is required for the exercise or protection of any rights.
2. National legislation must be enacted to give effect to this right, and may provide for reasonable measures to alleviate the administrative and financial burden on the state.

Article 32 (2) was given effect by the Promotion of Access to Information Act of 2000 (PAIA). Klaaren (2005) has argued that the Human Rights Commission could, make the PAIA a mechanism for direct public participation in the achievement of socio-economic rights.

The Constitutional Court polices violations of these rights, including socio-economic rights, and will grant relief in individual cases, while the Human Rights Commission advocates their wider adoption and entrenchment.

In order for the constitutional rights listed above to be effective, it is necessary that communications services be:

- Available;
- Accessible;
- Affordable; and
- Private.

In the absence of effective access to the tools of communication, the rights to freedom of expression and access to information can quickly become rights practiced only by media owners or those with privileged access to resources. Thus broadband needs to be made available to all, under these conditions.

The issues of the interception of communications and the right to privacy have recently been highlighted in the USA in remarks by a former FBI agent, seemingly confirming that all telephone calls and Internet traffic was stored and could be subjected to analysis (Greenwald, 2012). It would appear that any telephone call made or Internet message sent within or to the USA is stored and available for analysis by the FBI and security services. There have been long debates in the European Union trying to reconcile the desire of governments to require operators to retain traffic data, in particular for anti-terrorist investigations, with human rights (Breyer, 2005)(DeSimmone, 2010).

An independent regulator

The achievement of many of the objectives of the broadband policy and implementation of the Electronic Communications Act of 2005 are heavily reliant on the Independent Communications Authority of South Africa (ICASA), to which significant powers have been assigned by a number of statutes. Independence from operators and from interference by government are seen as central to attracting private investment in the sector, especially when government owns one or more operators (Melody, 1997) (Edwards & Waverman, 2006).

Assessments of the performance of ICASA generally find that it lacks the independence in practice that it should have in law and by article 9 of the constitution (Moyo & Hlongwane, 2009) (Horwitz & Currie, 2007) (Gillwald, 2007). There is a strange divergence of opinion, the ANC considers ICASA to be a creature of the operators, while the operators consider it a creature of the ANC, views which clearly cannot both be true.

While some deference is given to a commitment made to the World Trade Organisation (WTO) to have an independent regulator, the absence of such an entity in China and Japan does not present problems to either country. Thus if the Department wanted to reverse the merger of the IBA with SATRA and to absorb the powers of SATRA into itself, that should be possible. However, the constitution makes clear that the regulation of broadcasting must be by an independent body.

The problems of ICASA have recently been made very clear by the systematic failure to collect spectrum fees over many years, with recent press stories of attempts to seize equipment being used unlawfully.

If ICASA is retained with its present scope, then it needs to be subject to a very serious reconstruction, in order to create a body with the necessary funding and expertise to carry out its statutory duties.

Competition and an end to monopoly

Challenges to the monopoly of Telkom SA represented a preference for a different economic model rather than a statement of human rights. However, the abuse by Telkom of its dominant market position, against commercial operators, continued until very recently when it was fined ZAR 449 million by the Competition Tribunal (Competition Commission v. Telkom SA Ltd, 2012). Initially Telkom contested that decision, but recently capitulated, admitting its abusive behaviour (McLeod, Telkom to pay R449m fine for abuses, 2013).

This was in contrast to Zimbabwe where the equivalent monopoly was expressly broken by the courts, in order to secure the right of freedom of expression (Retrofit (Pvt) Ltd v. Minister of Information, Posts and Telecoms, 1996) (Butler, 1997). The question which faced the Supreme Court of Zimbabwe was whether the statutory monopoly, given that the Post and Telecom Corporation (PTC) had conceded its performance was “inadequate to meet the present communication needs of the population”, was an unjustifiable hindrance on the right to free expression.

The plaintiffs had applied to the PTC for a licence to operate a mobile cellular network in Zimbabwe, a service which PTC did not operate. This was refused on the ground that it was precluded by the statutory monopoly. It was argued that the monopoly was a hindrance to free expression, in that its effect was to leave the provision of telecommunications in the hands of a body which had manifestly failed to provide an adequate service. It also prevented private enterprise from attempting to provide alternative systems which might improve the availability of telecommunications service.

The Judicial Committee of the Privy Council took a somewhat similar view in the case of the Commonwealth of Dominica in the Caribbean (Cable and Wireless (Dominica) Limited v. Marpin Telecoms and Broadcasting Company Limited (Dominica), 2000). It held that the monopoly held by Cable & Wireless hindered the applicant’s freedom to communicate ideas and information through telecommunications, thereby interfering with the applicant’s right to freedom of expression as set out in section 10(1) of the Constitution. It is important to note this was a telecommunications case, and not broadcasting.

Legal monopolies are thus an obstacle to freedom of expression.

A paucity of statistics

By its own admission the Department of Communications has extremely limited statistics. It had to rely on broadband figures from a commercial provider, BMI-Tech, which are far from being agreed.

One important part of the broadband policy must be mechanisms to collect data from citizens in order to understand patterns of ownership and use, in particular gaps in access to devices, information and services. Crowd-sourcing of data should be a central element. The Department must be able to identify those with limited or without access to the Internet.

ICASA publishes very limited data on market concentration, based on subscriber numbers. It would be helpful if in future it published detailed annual reports on market development showing market shares based on revenues and traffic volume. Ideally, it should set performance targets for a managed decline in market concentration.

Thorough instructions and the necessary funding must be provided to ICASA and to StatsSA requiring them to collect the necessary statistics in order to inform policy implementation and future policy reviews.

Network quality

The issue of the quality of the broadband networks already built and to be constructed is largely ignored in the draft national broadband policy, aside from the discussion of increased speeds. Even this issue is quite vague and seems more a consideration of technological capabilities than of the delivery of any specified capacity to individual consumers.

This is in contrast to the European Union (EU) where specific download speeds have been set as the framework of policy elaboration (see Table 1) (EC, 2010) (EC, 2012).

Table 1 European Union broadband targets

Date	*Target*	*Baseline*
2013	Basic broadband for all by 2013: basic broadband coverage for 100 per cent of EU citizens	Total DSL coverage (as percentage of the total EU population) was at 93 per cent in December 2008
2020	Fast broadband by 2020: broadband coverage at 30 Mbps or more for 100 per cent of EU citizens	23 per cent of broadband subscriptions were with at least 10 Mbps in January 2010
2020	Ultra-fast broadband by 2020: 50 per cent of European households should have subscriptions above 100Mbps	No baseline

The implication of the draft national broadband policy, though not clearly stated, is that most South Africans will access broadband by means of a smartphone or tablet computer connected to a wireless network. For the better off this will be only one part of their experience, since they will have fixed broadband in their homes and offices, where the interface is likely to be Wi-Fi, in addition to 3G and 4G. For large numbers of the less well off, access will be through tele-centres, libraries and Internet cafés. The asymmetries in information access that this will create are ignored in the draft policy, but are likely to be significant and to last for many years.

It is not stated, but unavoidable, that there would be a heavy reliance on fibre backhaul networks for the delivery of cellular wireless services – the radio connection will only be as far as the base station. This is something well known to those living and working in larger cities, who have seen the major wireless operators digging up the streets to lay cables or have had some other firm do this on their behalf.

The experience of many, perhaps most, South Africans is of less than reliable networks for voice and SMS services, with dropped calls and unavailable networks. There is no indication in the policy of how the Department of Communications intends to ensure that network quality is improved in the move from mobile voice to mobile broadband, either in terms of how it would monitor performance or what obligations, incentives or penalties it would impose on operators. This subject appears simply to have been ignored.

Reducing costs for operators

The Department sets out a range of possible measures to achieve universal access to broadband. Some of these are intended to help existing operators, for example, by releasing more spectrum, easing access to rights of way and the provision of fibre optic network connections to rural areas. However, it gives no indication of when these measures would take effect or how they are likely to affect availability of services and prices for citizens.

Central to the efficacy of such measures is the willingness of the operators to pass on cost savings (e.g., trading off extra spectrum for the construction of additional base stations). Economic analysis suggests this depends on competition in the market place, an issue not addressed in the policy. Given the complexity of pricing for

mobile services it would be very cumbersome to try to enforce price reductions, though it could be possible to require the provision of certain bundles for poorer users.

There is no indication of the extent of state investment in infrastructure, though clearly funds are expected to be provided. Nor is it clear how the funds raised from the auction of additional spectrum will be spent, for example, on additional infrastructure.

In India, USD 4 billion in the accumulated universal service fund are being released for a national optical fibre network (NOFN) to be constructed by state-owned companies (Gupta, 2013). It will reach 250,000 village *panchayats*, as part of the National Telecom Policy, which includes a target of 600 million broadband connections by 2020, with the provision of broadband access to all village *panchayats* by 2014 and to all villages and habitations (600,000) by 2017 (DoT, 2012).

The Departmentof Communications needs to be able to show that the investment of state funds in networks and the allocation of spectrum will result in benefits for citizens. Moreover, since this is likely to rely on coverage and quality obligations, it needs to make clear what these are likely to be, both for the citizens and for the operators. Given the very unfortunate history of the obligation imposed on Telkom to roll-out networks, which were subsequently and without penalty rolled-back, the nature of any obligations needs to considered carefully to ensure it would be effective. The passing on of cost savings by the operators to consumers depends on competitive conditions in markets, which the Department and ICASA need to show they can monitor and, where necessary, change.

Universal access

Even allowing for the additional investment in networks and extra spectrum, network coverage will remain limited. The Department of Communications gives a figure of 80 per cent coverage for GSM, for which the first licences were issued almost two decades ago, with mobile broadband roll-out on a commercial basis likely to take a similar period. Insofar as the Department explains how those citizens living in communities not considered to be viable by the commercial operators are to be provided with a service it is through the operation of the Universal Service and Access Fund and Universal Service and Access Agency of South Africa (USAASA).

The performance of the USAASA has given considerable cause for concern. It has suffered significant internal difficulties, with a new management team having to be brought in. Moreover, it has simply failed to deliver what is required by the citizens of South Africa, namely universal access and service. It is far from convincing for the Department to suggest that USAASA will achieve universal broadband by 2020, when it has failed to achieve universal GSM, an old and relatively cheap technology, where the driving force has been the operators.

Mobile network operators have complained that universal service funds in general have proved to be ineffective, seemingly struggling to spend the money they collect (Ladcomm Corp, 2013).

In the case of South Africa, suggestions have been made to divert funds from telecommunications to television broadcasting to pay for set top boxes (STBs).

It is essential that universal access be achieved expeditiously. In seeking to achieve this, the Department must learn from the errors of the past (e.g., Under-Serviced Area Licences (Gillwald, 2005)) and not rely on mechanisms that are known or thought likely to prove inefficient and ineffective.

Information literacy

Even assuming that 100 per cent availability could be achieved, there would be significant problems in adoption. Many citizens will require training and education in the use of broadband, ranging from encouragement through to protection against a range of online threats.

In some cases it will be necessary to address problems of illiteracy, before turning to information literacy.

The ability to evaluate information found on the Internet is increasingly important, whether in rejecting offers of millions of dollars from the widows of former heads of state or in understanding the unreliability of conspiracy theories presented as news.

One model adopted in the European Union has been that of the "digital champion", an individual to lead a range of initiatives to increase demand, recognising that bodies such as the Department and ICASA are active on the supply-side, but less familiar with the supply-side. In particular, digital champions have targeted older citizens, who are amongst those least likely to have used the Internet and to be less aware of its potential uses. For those who first language is not English, there is a need to create or to translate content into their preferred or mother tongue. In South Africa a range of digital champions for different linguistic groups would be a useful step.

Metzl (1996) has argued that that "telerevolutions" marked the closing years of the twentieth century, but that "Internet revolutions" marked the beginning of the twenty-first. Enormous attention has been given to the "Arab Spring" in North Africa, where the availability of the Internet through fixed, mobile and satellite networks empowered citizens in movements that eventually overthrew some of the totalitarian regimes (Allagui & Kuebler, 2011). Human rights abuses were reported by individual citizens using and empowered by social media (Ali, 2011), then broadcast by more traditional satellite networks. This pattern continues today in Syria. However, the somewhat optimistic view has been challenged by relatively sophisticated censorship in some countries, suggesting a more contested space than some early cyber-optimists had predicted (Paliwala, 2013).

Active political and social participation includes but is not limited to blogging with services such as Blogspot, Facebook, Instagram and Twitter, opening up debates in ways unimagined even a few years ago. Services such as Twitter collect data on the location of users for marketing analyses. As Figure 1 shows, Africa is not very well lit by twitter, while in South Africa the tweets come mostly from the major urban centres (Leetaru, Wang, Cao, Padmanabhan, & Shook, 2013). Measures are required to encourage and support much wider participation in the "twitterverse" (Park, 2013).

Figure 1 Location coordinates in the Twitter Decahose 23 October 2012 to 30 November 2012

Given the scale of these challenges, it is very surprising that the draft policy does not contain measures addressing the means to increase demand and participation.

Affordability

Even assuming total availability of broadband and a willingness to use it, there remain a series of problems relating to affordability.

While pre-paid mobile telephony has made voice telephony more accessible, a significant number of South Africans rely on others to call them through the use of “pinging” and the more formal “call me” services.It is a form of communication that is uncertain and, frequently, demeaning.

The poor generally pay a cost premium for the use of a prepaid service, though one which allows them much better control of expenditure (Barrantes & Galperin, 2008). Affordability is the most significant barrier to extending the reach of mobile services, as well as the range of services used by the poor.

With the move from circuit-switched to Internet protocol (IP), voice is becoming just another app. While for the users this means a shift to using Skype or a similar voice client, for the operators it represents a major challenge, since they have been reliant on voice revenues. At present the business models for pre-paid Internet use are very limited, with “data bundles” on mobile networksseen as relatively expensive. It is far from clear how these will evolve, but unless prices become truly affordable, broadband adoption will be delayed and incomplete, while the operators need considerable capital to pay for network upgrades. The Department gives few clues as to how it visualises the squaring of this circle.

GSM handsets have been relatively cheap or at least some relatively cheap handsets have been available (e.g., unbranded or fakes of branded devices). It is unclear how poorer South African are going to afford to buy smartphones or seven inch tablet computers, let alone Apple iPhones or iPads. Moreover, it is likely to create a substantial “grey” market in devices stolen from richer customers.

While tele-centres, libraries and Internet cafés present a number of serious problems they are important potential instruments. They involve substantial capital costs and often require long term subsidies, since they lack a business model that breaks even. Nonetheless, in rural areas they are often a long way from homes and may be accessible only on foot.

A priority should be placed on policies aimed at reducing tariffs to specific targets and stimulating the introduction of commercial innovations for services targeting low-income groups.

Ownership

While the national broadband policy mentions black economic empowerment it neither reports statistics on this nor sets any targets. There do not appear to be data available on the ownership structure of the operators and service providers.

Vodacom is substantially owned by the Vodafone Group plc, a company listed on the London Stock Exchange, plus some local interests though the identity of their owners is less than transparent (Whalley & Curwen, 2013). The MTN Group appears mostly to be owned through nominee firms, concealing the identity of the parties. Interestingly, the Mikatis a leading political family in Lebanon, admit to being “one of the biggest shareholders in MTN”, evidently the result of the merger of MTN with Investcom (M1, 2013) (Telegeography, 2006). The primary owner of Cell C appears to be Saudi Oger Ltd, since it is registered in the Kingdom of Saudi Arabia only very limited information is disclosed. Bizarrely, it appears to belong to another Lebanese political family, the Hariris. Telkom is 50 per cent owned by the government.

Transparency in the ownership of the operators would seem to be essential in order to understand who is competing in the South African market. It is also necessary to identify the flows of profits, which is complicated by the use of nominees and foreign registries. It should be possible, even obligatory, for ICASA to state the profitability of the various operators and the extent to which profits are being re-invested or re-patriated and if so to which parties.

Media diversity

Need to understand the natural link between democracy and media systems, a link that is, paradoxically, as strong as it is delicate (Ciaglia, 2013).

One recent analysis found the ownership of media to be concentrated in each sector, ranging from one to four dominant companies principally owned by Independent News and Media, Naspers and the DoC (Angelopulo & Potgieter, 2013). Such levels of concentration result in a diminution of the diversity of voice, perspective and opinion.

There have been major arguments about the form of press regulation in South Africa, with the ANC debating options for state regulation of the press (Berger, 2010) (Duncan, 2011).

The broadband policy, with its promise of universal access, presents a number of challenges. Most obviously, there is the issue of disintermediation of the press and broadcasting, with technology enabling everyone to become a "blogger" (Clarke, 2012) (Fielden, 2012) (Lee, 2012) (Ziccardi, 2013). In particular, there have been considerable changes in the flows of advertising revenues, with indications that soon Google will overtake News Corp in advertising spending and with the rise of advertising to mobile devices (Chen & Hsieh, 2012) (McCabe, 2013). Despite any mechanisms for media regulation, however contested, it is far from clear how these might be extended to a blogger, who might not even be in South Africa. The Department needs to address questions of ensuring a sufficiency of diversity, both in terms of views and in languages.

Corruption and tenderpreneurship

One of the significant dangers in investing state funds in broadband is of corruption through the tendering process, whether at the level of the Department of Communications and USAASA or with local government. It is essential to ensure that all calls for tenders are published electronically, that the responses are evaluated competitively on published criteria and that money is neither diverted nor wasted.

A disturbing story in *Tech Central* reported criminality against firms deploying networks:

> Crime is threatening to tear apart South Africa's fledgling fibre-optic telecommunications industry as naked corruption by local government officials, deliberate damage to infrastructure by criminal syndicates and repeated threats of physical violence force sector players to stop building networks in parts of the country that desperately need access to broadband. (McLeod, Crime tears at telecoms sector, 2013)

It described problem in Soweto and in Sedibeng, in which local councillors required firms laying cables to employ labourers they nominated and who then worked very slowly or stopped working, with threats of violence to employees of the firms and of destruction to their network infrastructure.

Corruption Watch is now using the Internet and mobile phones to allow reporting of instances of corruption. It is an important example of the empowerment that network access can bring to individual citizens.

Three levels of government

The Department takes a somewhat hectoring tone towards over levels of government, one that is in sharp contrast to global best practice where diversity, innovation and initiative are encouraged. Indeed, given the uncertainties about markets, business models (including public-private partnerships) and the adoption of services, the view in other countries is to encourage different approaches in order to find those which succeed and then to share those lessons either informally or through a national broadband forum.

Instead, the approach taken by the Department appears to be one seeking to limit the initiative of provincial and municipal governments. Such a position might be acceptable if the Department had already made significant advances in the provision of broadband. In the absence of significant progress it is unsurprising that that major conurbations and some towns and communities seek to take direct action.

While mechanisms for better coordination are welcomed, they should not be used to hold back those intent on taking early advantage of broadband.

Conclusion

The draft policy contains a number of important aspirations, in terms of job creation and universal access to broadband that are very welcome. However, these need to be fleshed out, specifying what is to be achieved, the mechanisms involved, the key performance indicators and a timescale for delivery.

The Department of Communications has ignored demand side factors, without which there will be only limited adoption of new services. Many citizens will need help to understand why broadband is important and how they can incorporate it into their lives. A significant number are going to need financial support, in paying for

devices, training and running costs. There is no indication of such measures and the budget which the DoC plans to assign to these tasks.

Universal access to social media, through use of broadband, has the possibility of transforming access to information, notably for education or health. In particular, it is a means to hold government at all levels to account, by opening access to governmental and parliamentary documents, thus greatly deepening democratic participation.

Bibliography

Retrofit (Pvt) Ltd v. Minister of Information, Posts and Telecoms, 4 LRC 512 (Zimbabwe Supreme Court 1996).

Cable and Wireless (Dominica) Limited v. Marpin Telecoms and Broadcasting Company Limited (Dominica), 42 (UKPC October 30, 2000). Retrieved from British and Irish Legal Information Institute: http://www.bailii.org/uk/cases/UKPC/2000/42.html

Competition Commission v. Telkom SA Ltd, 11/CR/Feb04 (003855) (Competition Tribunal August 7, 2012). Retrieved from http://www.comptrib.co.za/cases/complaint/retrieve_case/1448

Ali, A. H. (2011). The power of social media in developing nations: new tools for closing the global digital divide and beyond. *Harvard Human Rights Journal, 24*, 185-219. Retrieved from http://harvardhrj.com/wp-content/uploads/2009/09/185-220.pdf

Allagui, I., & Kuebler, J. (2011). The Arab Spring and the role of ICTs. *International Journal of Communication 5 (2011), Feature, 5*, 1435–1442. Retrieved from http://ijoc.org/ojs/index.php/ijoc/article/view/1392/616

Angelopulo, G., & Potgieter, P. (2013). The economic specification of media ownership in South Africa. *Communicatio: South African Journal for Communication Theory and Research, 39*(1), 1-19. doi:10.1080/02500167.2013.740057

Barrantes, R., & Galperin, H. (2008). Can the poor afford mobile telephony? Evidence from Latin America. *Telecommunications Policy, 32*(8), 521-530. doi:10.1016/j.telpol.2008.06.002

Berger, G. (2010). The struggle for press self-regulation in contemporary South Africa: Charting a course between an industry charade and a government doormat. *Communicatio, 36*(3), 289-308. doi:10.1080/02500167.2010.518783

Breyer, P. (2005). Telecommunications data retention and human rights: the compatibility of blanket traffic data retention with the ECHR. *European Law Journal, 11*(3), 365–375. doi:10.1111/j.1468-0386.2005.00264.x

Butler, A. S. (1997). Freedom of expression in Zimbabwe and the telecommunications monopoly. *International and Comparative Law Quarterly, 46*(1), 125-134. doi:10.1017/S0020589300060139

Cerf, V. G. (2012, January 4). *Internet access is not a human right*. Retrieved from New York Times: http://www.nytimes.com/2012/01/05/opinion/internet-access-is-not-a-human-right.html

Chen, P.-T., & Hsieh, H.-P. (2012). Personalized mobile advertising: Its key attributes, trends, and social impact. *Technological Forecasting and Social Change, 79*(3), 543-557. doi:10.1016/j.techfore.2011.08.011

Ciaglia, A. (2013). Pluralism of the system, pluralism in the system: assessing the nature of media diversity in two European countries. *International Communication Gazette*, 1-17. doi:10.1177/1748048513482262

Clarke, L. (2012). NZ watchdogs must keep up with media's changing face . *Pacific Journalism Review, 18*(2), 46-50. Retrieved from http://www.pjreview.info/sites/default/files/articles/pdfs/pjr18(2)_nz%20watchdogs_clark_pp46-50.pdf

Department of Communications. (1996, March 13). Notice No. 291, White paper on telecommunications. *Government Gazette*(16995).

Department of Communications. (2013, April 3). National broadband policy for South Africa. *Government Gazette*(36342).

DeSimmone, C. (2010). Pitting Karlsruhe against Luxembourg - German data protection and the contested implementation of the EU Data Retention Directive. *German Law Journal, 11*, 291-317.

DoT. (2012). *National Telecom Policy - 2012 (NTP - 2012)*. Retrieved from Department of Telecommunications: http://www.dot.gov.in/ntp/NTP-06.06.2012-final.pdf

Duncan, J. (2011). The ANC's poverty of strategy on media accountability. *Ecquid Novi: African Journalism Studies, 32*(2), 90-105. doi:10.1080/02560054.2011.578885

EC. (2010). *Digital Agenda for Europe. COM(2010) 245.* Brussels: European Commisison. Retrieved from http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52010DC0245R(01):EN:NOT

EC. (2012). *The Digital Agenda for Europe - Driving European growth digitally COM (2012) 784 final.* Brussels: European Commission. Retrieved from http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52012DC0784:EN:NOT

Edwards, G., & Waverman, L. (2006). The effects of public ownership and regulatory independence on regulatory outcomes. *Journal of Regulatory Economics, 29*(1), 23-67.

Fielden, L. (2012). Lara Fielden of the Reuters Institute for the Study of Journalism on press regulation in an era of blended media. *Journal of Applied Journalism & Media Studies, 1*(2), 173-180. doi:10.1386/ajms.1.2.173_1

Gillwald, A. (2005). A closing window of opportunity: under-serviced area licensing in South Africa. *Information Technologies and International Development, 2*(4), 1-19.

Gillwald, A. (2007). Between two stools: broadband policy in South Africa. *The Southern African Journal of Information and Communication, 8*(1), 53-77.

Greenwald, G. (2012, May 4). *Are all telephone calls recorded and accessible to the US government?* Retrieved from The Guardian: http://www.guardian.co.uk/commentisfree/2013/may/04/telephone-calls-recorded-fbi-boston

Gupta, S. N. (2013). ABCD of broadband in India. *Intermedia, 41*(2), 7-11.

Horwitz, R. B., & Currie, W. (2007). Another instance where privatization trumped liberalization: the politics of telecommunications reform in South Africa: a ten-year retrospective. *Telecommunications Policy, 31*(8-9), 445-462. doi:10.1016/j.telpol.2007.05.008

Klaaren, J. (2005). A second look at the South African Human Rights Commission, access to information, and the promotion of socioeconomic rights. *Human Rights Quarterly, 27*(2), 539-561. doi:10.1353/hrq.2005.0021

Kleinwachter, W. (1998). The people's 'right to communicate' and a 'Global Communication Charter'. *Journal of International Communication, 5*(1-2), 105-21. doi:10.1080/13216597.1998.9751867

La Rue, F. (2011, May 16). *Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression*. Retrieved from United Nations Human Rights Council: http://www.un.org/Docs/journal/asp/ws.asp?m=A/HRC/17/27

Ladcomm Corp. (2013). *Universal service fund study.* London: GSM Association.

Lee, J.-A. (2012). Regulating Blogging and Microblogging in China. *Oregon Law Review, 91*(2), 609-620. Retrieved from http://ssrn.com/abstract=2206345

Leetaru, K. H., Wang, S., Cao, G., Padmanabhan, A., & Shook, E. (2013). *Mapping the global Twitter heartbeat: the geography of Twitter*. Retrieved from First Monday: http://firstmonday.org/ojs/index.php/fm/article/view/4366/3654

M1. (2013). *Our story so far*. Retrieved from M1 Group: http://www.m1group.com/

McCabe, M. (2013, April 26). *Sorrell says Q1 was 'hand-to-hand combat'*. Retrieved from Campaign: http://www.campaignlive.co.uk/news/1180176/sorrell-says-q1-hand-to-hand-combat/

McLeod, D. (2013, April 17). *Crime tears at telecoms sector*. Retrieved from Tech Central: http://www.techcentral.co.za/crime-tears-at-telecoms-sector/39659/

McLeod, D. (2013, April 16). *Telkom to pay R449m fine for abuses*. Retrieved from Tech Central: http://www.techcentral.co.za/telkom-to-pay-r449m-fine-for-abuses/39635/

Melody, W. H. (1997). On the meaning and importance of 'independence' in telecom reform. *Telecommunications Policy, 21*(3), 195-199. doi:10.1016/S0308-5961(97)00001-3

Metzl, J. F. (1996). Information technology and human rights. *Human Rights Quarterly, 18*(4), 705-746. doi:10.1353/hrq.1996.0045

Moyo, D., & Hlongwane, S. (2009). Regulatory independence and the public interest: the case of South Africa's ICASA. *Journal of African Media Studies, 1*(2), 279-294. doi:10.1386/jams.1.2.279/1

Paliwala, A. (2013). Netizenship, security and freedom. *International Review of Law, Computers & Technology, 27*(1-2), 104-123. doi:10.1080/13600869.2013.764139

Park, C. S. (2013). Does Twitter motivate involvement in politics? Tweeting, opinion leadership, and political engagement . *Computers in Human Behavior, 29*(4), 1641–1648. doi:10.1016/j.chb.2013.01.044

RSA. (1996). *Constitution of the Republic of South Africa, 1996*. Retrieved from South African Government Information: http://www.info.gov.za/documents/constitution/1996/index.htm

Telegeography. (2006, May 3). *MTN to acquire Investcom for USD5.5 billion; Investcom to pull out of Millicom bid*. Retrieved from Telegeography: http://www.telegeography.com/products/commsupdate/articles/2006/05/03/mtn-to-acquire-investcom-for-usd5-5-billion-investcom-to-pull-out-of-millicom-bid/

Whalley, J., & Curwen, P. (2013). Unravelling complex organisational structures among mobile operators. *info, 15*(4), forthcoming.

Ziccardi, G. (2013). *Resistance, liberation technology and human rights in the digital age - Law, governance and technology series 7.* Amsterdam: Springer Netherlands. doi:10.1007/978-94-5276-4_1

Zlotnick, M. (1999). Telecommunications monopoly in South Africa - some human rights aspects and options for future regulation. *Journal of African Law, 43*(2), 214-233. doi:10.1017/S0021855300011359