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Mobile Media and Connections

Mobile communication studies have expanded from within various disciplinary areas (in sociology, communication, cyberculture and cultural studies, for example), instigated by they way that practices arising from the emergence of new digital mobile technologies[1] and wireless connections[2] give rise to new communications phenomena. These phenomena generate real research problems with questions that need to be addressed in order to identify and understand the economic and socio-cultural implications of mobile technologies for contemporary life.

In particular, this article aims to understand how mobile devices interface with journalism to offer potential changes to journalistic practice, newsroom culture, the production process and content production, all within an environment of convergence, multiplicity of supports and expanded mobility.[3] The computational miniaturization that has resulted in the portability of communication devices, characterized by their ubiquitous connectivity, leads us to think about physical and informational mobilities (Lemos, 2007a; Sheller & Urry, 2006)—especially as they are embedded in the interactions between urban space and new processes of journalistic production, consumption and information circulation. These mobilities are interconnected and reinforced with mobile communication technologies.

In the sense that it is used here, the concept of mobility can be understood as a connection between its physical/spatial (transport) and virtual/informational (media) aspects, as outlined by Lemos (2007a). This approaches the same idea put forward by Sheller and Urry (2006), which, on the other hand, expands these aspects to consider other categories such as transport, migration and tourism studies (physical mobility), as well as the Internet, media and mobile phone (informational mobility). Indeed, different ideas about mobility have been deployed within various historical periods and distinct areas of knowledge, with varied applications. For our object of discussion, this concept can be situated in relation to the transition from mass means of communication to present articulations of new media. For Jensen (2006) and Bauman (2001), flows and mobility are immersed in the practices of contemporary cities around networks and globalization.

And yet another effect – a particularly powerful one in combination with all of these – is to enhance the mobility of information producers and consumers. Increasingly, we can download whatever we want, wherever we want it, to portable wireless devices. Conversely, we can upload products that we create while on the move. This challenges the very idea of a fixed workplace (Mitchell, 2003, p. 84).

In their analysis of the inter-relationship between technology and mobility, Dourish, Anderson and Nafus (2007) understand that we should speak of mobilities in the plural, as a result of the various forms that mobility acquires in its relationship with computing and the city, particularly in terms of new dislocated experiences of the workplace. As the authors explain, "Computing is on the move. Mobile telephony, wireless networking, embedded computing and ubiquitous digital environments are manifestations of a broader pattern in which mobility plays an increasingly significant role in the computational experience" (Dourish et al., p. 1). For Nilsson, Nulden and Olsson (2001), mobility is a dimension of communications convergence, a stage in the process of the information industry's evolution.

Therefore, thinking about mobility(ies) within journalism requires consideration of these new concepts related to the mobile devices and wireless connections that emerged in a significant form in the 1990s, together with the digitalization process. This is linked

to computing, which has become more and more ubiquitous, pervasive, portable (Weiser, 1991; Dodge & Kitchin, 2007) and connected (Mitchell, 2003). Contextually, the introduction of new technologies in journalism is not something new. Current innovations lie in the way that information is processed through the capacity of digitalization, sharing, storing and distribution. In this sense, it is important to identify the informatization process in the newsrooms of the 1970s and 1980s (Masip, 2008) as a precursor for both incorporating modern technologies inside journalistic culture and introducing new ways of dealing with information sources and databases. The productive process as a whole was interconnected by local and remote networks, which created the possibility of constructing computer mediated reports.

At the beginning of the 21st century, with digital journalism establishing its place in media culture, scholarly attention has turned toward the impact of new technologies on journalism in general. As described by Pavlik (2001) and expanded in other theoretical writing (Deuze, 2003; Palacios, 2003), some of the implications of this new media include changes to news content, shifts in the way that journalists work, restructuring of newsrooms and redefinitions of the relationship between journalists, the public and media organizations. The transformation of the newsrooms and the profession with technological innovation (Paterson & Domingo, 2008; Deuze, 2008)—resulting from the journalistic convergence process, characterized by the fusion of telecommunications, computing and mobile devices—causes “simultaneous convergence processes in the business, professional and content sphere” (Salaverría & Avilés, 2008). Convergence is a key process to discuss in relation to journalism, particularly in terms of those

intersections between TV-internet-mobile-radio-print media that are predicated upon new distribution formats, digitalization and business models that take advantage of niche markets (Anderson, 2006).

These changes have further intensified with the recent introduction of mobile platforms in a journalistic context, expanding the capacity for mobility, and thus enabling the production and consumption of news remotely and while on the move. In essence, the news producer and consumer are afforded the potential to be in a state of movement—in both its physical and informational aspects—due to the ubiquity and pervasiveness of connected digital mobile technologies.[4]

In attempting to analyze this phenomenon, a number of questions can be raised that interrogate its possible consequences and implications. How has the introduction of digital mobile technologies connected in a wireless network interfered in the news production process in journalism? What are the modifications in news production routines, considering mobility expansion and deadline compression with "always on"? Which new news formats can emerge from the connection between digital mobile technologies and Web 2.0 applications?

As a working hypothesis, it is understood that these technologies work to reconfigure journalism primarily in terms of modifying reporters' deadlines (Paul, 2008; Paterson,

2008). The demand for continuous updates from the field is a result of always being "on", especially in critical coverage situations of great repercussion where journalists need to feed their audience's anxiety for up-to-the-minute news (Schneider, 2007). Secondly, the production process also transforms in the context of a mobile environment that enables ubiquitous access and production, allowing instant publication via portable devices connected to wireless networks. This character of immediatism forms part of the nature of journalism itself from its earliest existence as a social and communicational phenomenon. With mobile technologies, the news incorporates this instantaneity in a more insistent form (Canavilhas, 2007).

In the same way, the emergence of both Web 2.0 applications and mobile technologies favours a stronger connection between mass media such as television and these new devices, generating new formats where news gets integrated in an interactive multimedia platform that includes television, microblogging, mobile blogging, live streaming, mobile communication and collaborative networks. In this situation, the news narrative takes various formats into consideration in its structurization, causing the emergence of a type of hybrid news narrative.

When analysing the Brazilian setting, this expansion of news production and consumption stems from the adoption of third generation technology (3G)[5] since November 2007, which has been appropriated by communication conglomerates in a practice called "mobile journalism".[6] We understand this practice as leveraging the relationship between journalism and mobility. In this context, the introduction of high

speed 3G networks and other portable devices enabled mobile platforms to serve as a complement or counterpoint to the limited reach of Wi-Fi[7] networks via hotspot[8] coverage.

As in the majority of countries around the world, the mobile phone is an important communication product in Brazil, with more than 140 million phones in operation. These are divided between 81.09% pre- and 18.91% post-paid—in accordance with the ANATEL (2008) regulations—for a population of approximately 180 million inhabitants, as reported by the IBGE (2008). In this sense, the mobile phone works to develop various practices in urban space, such as production, consumption or circulation of information, due to its portability, connectivity and mobility: "The mobile phone enables communication free from physical connections, unfettered by wires and cables" (Hemment, 2005). With the convergence of functions embedded in the phone, such as photo, video, web browser, editor and text visualiser in various formats, 3G connections, Wi-Fi and Wi-Max, the mobile phone or the group of mobile technologies constitute a hybrid multimedia device—an ideal platform for journalistic practice (Lemos, 2007b; Levinson, 2004; McMullan & Richardson, 2006). The expanded mobility context that these platforms introduce is further extended by Brazil's current digital TV model, which like the model in place in Japan, allows mobile access for equipment such as phones, improving the quality of that access.

Mobile communication has in fact established itself as a key disseminator of mediated practices, in the context of different types of mobility that mark an advanced form of cyberculture (Santaella, 2008; Beilgueman, 2006). Mobile technology's multiple implications for urban space, journalistic practice and art have been addressed by research in locative media (Lemos, 2007a; Brunet, 2008; Bleecker & Knowlton, 2006; Santaella, 2008), mobile journalism (Briggs, 2007; Silva, 2008, 2009; Carmo, 2008; Quinn, 2002, Pavlik, 2001; Ahrens, 2006), smart mobs (Rheingold, 2002), socio-political processes (Gergen, 2008), cultural studies (Goggin, 2008), aspects of social transformation (Katz, 2008; Castells, Fernández-Andèvol, Qiu & Sey, 2006) and citizen journalism or collaborative journalism (Gilmmor, 2005; Bruns, 2005). These studies provide a panoramic view of the various facets introduced by mobile media on mobile phones, and other portable devices with multimedia characteristics.

In summary, we are faced with new practices that come close to what Castells et al. (2006) define as a *mobile network society*, around which all of these triggered perspectives have orbited in a more ubiquitous form since the beginning of the 21st century. This pervasiveness can be attributed to recent developments in the formatting of the Web 2.0 structure, mobile platforms and wireless, Bluetooth, infra-red, 3G and WiMax connections. As we have pointed out, mobile communication establishes new challenges for studying and observing experiences with the use of these digital technologies. It is particularly crucial to analyse the development and implications of mobiles across various spheres, principally in contemporary mediated landscapes. In the following section, we will demonstrate how this union of factors overlaps with the

Brazilian media conglomerates' negotiation between "old" and "new" media, within the specific context of journalism.

Mobility, 3G Broadband and Reporting: Brazilian Experiences

In this section we will investigate some specific journalistic applications of new digital mobile technologies in the Brazilian setting. Communication groups use Web 2.0 applications such as Qik, Cover It Live, Mogulus, Twitter, Flickr and 3G mobile phones for reports, interviews and live coverage, thus shaping the field of live streaming and interaction between post-massº and mass media. Or, in other words: these new applications are consecrated in the union between mobile technologies and Web 2.0. For Pardo Kuklinski, Brandt and Puerta (2008) the convergence of mobile devices and Web 2.0 applications suggests the emergence of mobile Web 2.0 as a migration of desktop platform functionalities to portable devices, with an "always on" connection that generates new consumption and content production classifications.

Journalism, within a broad historical context, was constructed through technology; the profession looked to mobility and instantaneity for producing and broadcasting news. These frontiers intersect in a more ubiquitous form in the present day, with the availability of a mobile environment to conduct reports in a remote form, through structures formed by digital mobile technologies and 3G broadband connections (Briggs, 2007; Srivastava, 2008; Pardo Kuklinski et al., 2008, Pellanda, 2005).

In order to understand how these relationships between journalism and mobility take place, we will describe some cases that incorporate the mobile structure in Brazilian journalism—covering a number of television networks and digital journalism sites within medium and large media conglomerates. These include the television networks *Band*, *Globo*, *Cultura* and *Jornal*, news sites *JC Online* and *NH Jornal Online* and *Época* magazine from São Paulo.

Época magazine's Urblog is an urban blog that covers everyday situations in the city of São Paulo through photos, videos, live transmissions and journalistic articles, posted directly from the investigation location in a fully mobile situation. The reporter uses a Nokia N95 mobile phone with Wi-Fi and 3G connections. The articles reflect ongoing interactions with urban space, occasionally identifying production locations using GPS-generated maps on board the mobile phone. This project demonstrates an emphasis on mobility (physical and informational), using mobile equipment that allows for instant news in various formats (text, image and audiovisual) and geolocalization situations as an integral part of the routine of production, consumption and content circulation (Silva, 2008; Aguado & Martínez, 2008).

Figure 1 – Urblog, which is a mobile urban blog where the reporter posts directly from a 3G mobile phone10

The *Rede Globo*, from the same communication group, has also had a mobile editorial team called "RJ-Móvel" in the local Rio de Janeiro TV news since 2007. It is equipped with notebooks, digital video cameras, mobile phones, editing stations and a transmission system via satellite that can transmit live from any part of the city, with the objective of offering reporters more mobility. In addition, the journalistic programme "Globo Universidade" from the same television broadcasting company uses Nokia N82 mobile phones for interviews and small reports.

As for journalism at *TV Band*, one of the most traditional networks, reporters run live transmissions using 3G mobile phones for news that demands more agility and less equipment to facilitate relocation and live appearances. This procedure was put into practice in May 2008 with a reporter in *Parque Ibirapuera* in the capital of São Paulo. Subsequently, through the "Repórter Celular" project, video-reports are shown daily of

incidents and journalistic situations captured by mobile phone cameras in the streets of São Paulo.

Figure 2 – Live transmission on the TV Band journalism network using 3G mobile phones11

Also following this trend for developing journalism through the use of mobile phones in high speed networks is the conglomerate *Sistema Jornal from Commercio de Comunicação*, in the city of Recife, Pernambuco, in the northeast region of Brazil. Both the local television network, *TV Jornal*, and the *JC OnLine* site have adjusted to this kind of mobile journalism. This includes the creation of news formats that join live coverage with mobile platforms, such as mobile phones and notebooks, as well as Web 2.0 applications like the microblogging system Twitter, image social network Flickr, Cover It Live and Qik for live transmissions. Qik is a mobile phone program that enables real-time video streaming; on the *JC OnLine site*, four mobile camera phones with the

Qik application installed and Flickr and Cover It Live for chat interaction with internet users were used in the mayoral election in the State of Pernambuco in October 2008. In turn, *TV Jornal* was the first television broadcaster in the country to use 3G technology in November 2007, in the "Notícia Celular" project. Eight reporters and cameramen recorded videos on 5 megapixel mobile phones, capturing newsworthy situations such as fires, conflicts, accidents and transmitting them to the broadcaster, supporting the principle of instantaneous and ubiquitous news.

The notion of an "unplugged city" is also suggested by the practices of "Roda Viva," the main interview programme on São Paulo's *TV Cultura*. The programme, which has been transmitted on television for more than 20 years, started to adopt a greater interaction with viewers and content producers by inserting a web platform in 2008. This platform integrates simultaneous live transmission with three behind-the-scenes cameras, linked to the streaming applications Mogulus and Cover It Live. Three invited Twitter users post behind-the-scenes information and interviews directly from the programme using notebooks, while the public also takes part, sending in comments via Twitter from their computers, notebooks and mobile phones (using the tag *#rodaviva*).

A mobile report strategy was also adopted by *NH Jornal Online* in Novo Hamburgo, Rio Grande do Sul, in the south of the country, which carries out live reports using third generation technology. The first report of this type on the Brazilian news website took place in May 2008. Third generation Nokia N95 mobile phones and the American software Qik were used for transmissions . The concept of the site, linked to Grupo

Sinos, is to adopt the practice of mobile journalism in real-time field reports to offer faster news and interview transmissions.

Yet Brazilian experiences with mobile phones as a production platform started even before the introduction of third generation networks. The "Repórter Celular" project emerged in 2005, through *TV Alterosa* in Belo Horizonte, in the State of Minas Gerais, in the southeast region of the country. The connection technology and transmission that reporters used at the time was GPRS, which required low data transfer rates in comparison with 3G, but facilitated the basic function of sending audio files, videos and photos from a distance. The *JC OnLine* site also started real-time transmissions for one of the main carnivals in Brazil in Recife-Olinda, Pernambuco in the same year. It also covered football matches and elections using mobile phones with GPRS connections, bluetooth and notebooks for sending images, videos and reports produced in the field.

Figure 3 – Transmission of the 2008 mayoral elections by JC OnLine by mobile phones12

In all of these examples of mobile journalism,[13] the interaction between urban and Internet/digital space occurs in tandem with the integration of mass media—such as television—with post-mass media—such as Twitter, live blogging and live streaming—as operated through mobile technologies and the mobile Web. Additional empirical research is needed to furnish a more in-depth account of the new journalistic practices that have emerged since the introduction of these digital mobile technologies. Based on the afore-mentioned technologies, evidence of a reconfiguration in journalism is already apparent in its production process and in news consumption.

Conclusions

In this article we explore some Brazilian cases of mobile communication practices, from the perspective of "mobile journalism". These case examples evidence a strong correlation between mass and post-mass media, which has facilitated changes in journalists' production routines. An increased immediacy of deadlines follows from the reporters' state of greater physical and informational mobility—as supported by permanent contact with cyberspace and with the editorial office through 3G and Wi-Fi connections. The portability of digital mobile hybrid devices, which enables them to even be carried in one's pocket, only furthers the ubiquity of connectivity.

Consequently, these mobile wireless network technologies affect journalistic practice, modifying the news production routine. Understanding how and why the use of such tools transforms the news production process—including both inter-newsroom relationships and relationships with on-site production—is fundamental for defining this new communicational phenomenon. Our approach centred on discussing the introduction of these new technologies in Brazilian journalism, and it presented cases that can offer a clearer vision of mobile device uses and developing practices in the country. These results and experiences form part of the convergence process that characterizes new media communication, comprised of the multiplication of supports and digitalization of production, consumption and content sharing through telematic networks.

Notes

1. The following are understood as digital mobile technologies: smartphones, palmtops, notebooks, mini-laptops, mobile phones, PDAs, digital recorders and cameras and portable devices such as pen drives and the like.

2. Wireless connections are formed by *Wi-Fi, WiMax, Bluetooth, infra-red* and third generation technology (3G), which vary in coverage according to accordance with connection speed and reach.

3. In the article "US: Mobile Journalism is changing the newsroom", from Editors' Blogs, Jean Yves Chainon affirms that mobile journalism is having an impact on American editorial offices because digital mobile technologies, which are becoming much smaller, more powerful and hybrid, are responsible for keeping reporters in the field for longer durations—since they can investigate, film video and register images to send to the editorial offices or publish them direct on location. However, some editors are showing concern regarding the quality of news without appropriate supervision of reporters' on site production.

4. Connected digital mobile technologies can be seen both as production platforms for journalists and access and consumption platforms for users on the move in urban space. With the improvement of device interfaces, the growing number of sites formatted for mobile phones alongside the equipment's increased internal capacity in terms of multi-media resources, new production and consumption conditions are added to this set of possibilities.

5. Third generation technology is a high speed, broadband connection for mobile phones that facilitates Internet navigation and upload/download activities. Apart from its speed, 3G is marked by its multimedia capacity, especially in the case of devices with fitted cameras and an Internet browser. In an evolutionary context, first generation mobile phones are only equipped for vocal communication and second generation digital mobile phones incorporate simple data traffic such as SMS (Pardo Kuklinsk et al., 2008; Srivastava, 2008).

6. The concept of mobile journalism has not yet been theoretically defined. It is a phenomenon that still lacks enough scholarly support and empirical observation to crystallize its meaning and to identify its real implications for contemporary journalistic practice. However, this article attempts to reinforce the relationship between journalism and mobility through examining uses of digital mobile technologies and wireless connections and how they affect two basic situations: production and consumption of information while on the move. This case of consumption especially intersects with the mobile web, with handsets being used to access information in cyberspace and online databases in a ubiquitous way. Likewise in content production, particularly through

various "always on" mobile platforms, the concept of mobile journalism addresses the integration of microblog and moblog updates or live streaming in new forms of journalistic production.

7. The Federal University of Bahia (UFBA) Cybercities Research Group at the PhD Program in Contemporary Communication and Culture in Salvador, Bahia, Brazil, has been mapping city of Salvador hotspots since July 2007 and has identified that part of the Wi-Fi wireless network is centralized in hotels, malls, universities and commercial centres, with access restrictions for users on the move in urban space. In this sense, there are difficulties in finding open connections for Internet access. The project is called "Wi-Fi Salvador", and it represents a pioneering effort in the country, aiming to develop modes of studying and characterizing new practices of wireless access in the respective hotspots within urban space.

8. It is necessary to emphasize that part of this emerging phenomenon in the Brazilian media around 3G is explained by the fact that the wireless infrastructure is still limited to and centralized in mall, airport and hotel hotspots. This circumscription is further reinforced by a policy of keeping networks closed by companies and users, as mentioned in the previous note. In the same way, the policy for installing Wi-Max networks is practically nonexistent in the country. 3G technology tends to be more far reaching and ubiquitous in Brazil, due to telephone operators' coverage that is not restricted to closed environments and commercial centres.

9. Lemos (2007c) differentiates post-mass media from mass media (print media, television and radio) by the characteristic of digitalization, which defines the former, for instance in the Internet and its products—wikis, blogs, podcasts, social networks and mobile devices—that shape this environment and the possibility of circulating information without a filter or though mass communication means. The focus here is on the functions carried out by these media.

10. Available at http://urblog.com.br.

11. Available at http://jornalismomovel.blogspot.com/2008/04/jornalismo-da-band-transmite-ao-vivo.html.

12. Available at http://www2.uol.com.br/JC/eleicoes_aovivo.

13. The most representative example of mobile journalism on an international scale was introduced by the news agency Reuters in October 2007 with creation of the "Reuters Mobile Journalism" project. Agency reporters spread throughout the world are using a kit comprising a Nokia N95 mobile phone, wireless bluetooth keyboard, external microphone for a higher quality recording during interviews, and tripod to assist in

stabilizing images and videos recorded. Editing applications are also embedded in the mobile phone. The reporter produces reports in distinct formats (audio, video, image and text) with this kit, for distribution through various news agency platforms. This equipment offers more mobility, portability and ubiquity to reporters who can carry out their activities in real time, transmitting video through a 3G mobile phone via the Qik application (Fulton, 2007).

References

Anderson, C. (2006). A cauda longa (The long tail): *Do Mercado de massa para o mercado de nicho*. Rio de Janeiro: Elsevier.

Ahrens, F. (2006, December 4). A newspaper sees its future, and it's online and hyper-local. *Washington Post*.

Agência Nacional de Telecomunicações [ANATEL]. (2008). *Telefonia móvel ultrapassa 140 milhões de assinantes*. Retrieved November 23, 2008 from http://www.anatel.gov.br/Portal/exibirPortalInternet.do

Aguado, J. M., & Martínez, I. J. (2008). La communicación móvil en el ecossistema informativo: de las altertas SMS al mobile 2.0. *Trípodos 23*, 107-118.

Bauman, Z. (2001). *Modernidade líquida*. Rio de Janeiro: Zahar.

Bruns, A. (2005). *Gatewatching: Collaborative online news production*. New York and Washington: Peter Lang.

Briggs, M. (2007). *Journalism 2.0: How to survive and thrive (A digital literacy guide for the information age)*.

Bleecker, J.; Knowlton, J. (2006). Locative media: A brief bibliography and taxonomy of GPS-enabled locative media. *Leonardo Online 14(3)*.

Beiguelman, G. (2006). Entre hiatos e intervalos (a estética da transmissão no âmbito da cultura da mobilidade). In D. C. Araújo (org.), *Imagem (ir) realidade: comunicação e cibermídia (152-162)*. Porto Alegre: Sulina.

Brunet, K. S. (2008). *Mídia locativa, práticas artísticas de intervenção urbana e colaboração*. In Encontro Internacional de Arte e Tecnologia. Brasília: UNB.

Carmo, F. C. (2008). *Jornalismo móvel: um estudo do noticiário produzido para celulares*. (Dissertação de Mestrado). São Paulo: Faculdade Cásper Líbero.

Castells, M., Ardèvol, M. F., Qiu, J. L., & Sey, A. (2006). *Comunicación móvil y sociedad*. Barcelona: Ariel e Fundação Telefônica.

Canavilhas, J. (2007). *Webnoticia: propuesta de modelo periodístico para la WWW*. Covilhã -PT: LABCOM: Universidade Beira Interior.

Dodge, M., & Kitchin, R. (2007). 'Outlines of a world coming into existence': Pervasive computing and ethics of forgetting. *Environment and planning B: planning and design 31*, 431-445.

Deuze, M. (2003). The web and its journalisms: Considering the consequences of different types of newsmedia online. *New Media & Society 5(2)*, 203-230.

Deuze, M. (2008). Understanding journalism as newswork: How it changes, and how it remains the same. *Westminster Papers in Communication and Culture 5(2)*, 4-23.

Dourish, P., Anderson, K., & Nafus, D. (2007). Cultural mobilities: Diversity and agency in urban computing. *Human-Computer Interaction*.

Fulton, N. (2007). *The mobile journalism toolkit contents*.

Gillmor, D. (2005). *Nós, os media*. Lisboa: Editorial presence.

Googin, G. (2008). Cultural studies of mobile communication. In J.E. Katz (Ed.), *Handbook of mobile communication studies. (353-366)*. Cambridge and London: MIT Press.

Gergen, K. J. (2008). Mobile communication and the transformation of the democratic process. In J.E. Katz (Ed.), *Handbook of mobile communication studies (297-309)*. Cambridge and London: MIT Press.

Hemment, D. (2005). The mobile effect. *Convergence: The International Journal of Research into New Media Technologies 11(2)*, 32-39.

Instituto Brasileiro de Geografia e Estatística [IBGE]. (2008). *Brasil em síntese*.

Jensen, O. B. (2006). 'Facework', flow and the city: Simmel, Goffman, and mobility in the contemporary city. *Mobilities 1(2)*, 142-165.

Katz, J. E. (2008). Mainstreamed mobiles in daily life: Perspectives and prospects. In J.E. Katz (Ed.), *Handbook of mobile communication studies* (433-445). Cambridge and London: MIT Press.

Levinson, P. (2004). *Cellphone*. New York: Palgrave Macmillan.

Lemos, A. (2007a). *Mídia locativa e territórios informacionais*.

Lemos, A. (2007b). Comunicação e práticas sociais no espaço urbano: as características dos Dispositivos Híbridos Móveis de Conexão Multirredes (DHMCM). *Comunicação, Mídia e Consumo 4(10)*, 23-40.

Lemos, A. (2007c). Cidade e mobilidade. Telefones celulares, funções pós-massivas e territórios informacionais. *Revista MATRIZes 1(1)*, 121-137.

Masip, P. (2008). *Internet a les reacciones: informació diária i rutinas periodístiques*. Barcelona: Trípodos.

Mitchell, W.J. (2003). ME++: *The Cyborg Self and the Networked City*. Boston: MIT Press.

Mcmullan, J., & Richardson, I. (2006). The mobile phone: a hybrid multi-platform medium. *ACM International Conference Proceeding Series, Vol. 207*. New York: ACM.

Nilsson, A., Nulden, U., & Olsson, D. (2001). Mobility and media convergence. *The proceedings of IRIS 24*, Bergen.

Nilsson, A., Nulden, U., & Olsson, D. (2001). Mobile media: the convergence of media and mobile communications. *Convergence: The Journal of Research into New Media Technologies 7(1)*, 34-38.

Palacios, M. (2003). Ruptura, continuidade e potencialização no jornalismo online. In E. Machado & M. Palácios (orgs.), *Modelos do Jornalismo Digital* (13-36). Salvador: Editora Calandra.

Pardo Kuklinski, H., Brandt, J., & Puerta, J. P. (2008). Mobile web 2.0. A theoretical-technical framework and developing trends. *International Journal of Interactive Mobile Technologies 2(4),* 54-61.

Rheingold, H. (2002). *Smart mobs: The next social revolution*. New York: Perseus.

Pavlik, J. V. (2001). *Journalism and new media*. New York: Columbia University Press.

Paul, N. (2008). Foreword. In C. Paterson & D. Domingo (Eds.), *Making Online News: The ethnography of news media production* (ix-xi). New York: Peter Lang.

Paterson, C. (2008). Introduction: Why ethnography? In C. Paterson & D. Domingo (Eds.), *Making Online News: The ethnography of news media production* (1-11). New York: Peter Lang.

Paterson, C., & Domingo, D. (2008). *Making Online News: The ethnography of news media production*. New York: Peter Lang.

Pellanda, E. (2005). *Internet móvel: novas relações na cibercultura derivadas da mobilidade da comunicação*. (tese doutorado). Porto Alegre: PUC-RS.

Quinn, S. (2002). *Knowledge management in the digital newsroom*. Oxford: Focal Press.

Salaverría, R., & Avilés, J. A. G. (2008). La convergencia tecnológica em los medios de comunicación: retos para el periodismo. *Trípodos 23*, 31-47.

Santaella, L. (2008). Mídias locativas: a internet móvel de lugares e coisas. *Revista FAMECOS*. 35, 96-102.

Schneider, H. (2007). The reporting mobile: A new platform for citizen media. In K. Nyíri (Org.), *Mobile studies: Paradigms and perspectives* (159-168). Vienna: Passagen Verlag.

Silva, F. F. (2009). Moblogs e microblogs: jornalismo e mobilidade. In A. Amaral, R. Recuero & S. Montardo (orgs.), *Blogs.com: Estudos sobre blogs e comunicação* (pp. 257-274). São Paulo: Momento Editorial.

Silva, F. F. (2008). Edição de imagem em jornalismo móvel. In A. Fellipi, D. A. Sóster & F. Piccinin (orgs.), *Edição de imagens em jornalismo* (140-161). Santa Cruz do Sul: EDUNISC.

Srivastava, Lara. (2008). The mobile makes its mark. In J.E. Katz (Ed.), *Handbook of mobile communication studies* (pp. 15-27). Cambridge and London: MIT Press.

Sousa e Silva, A. (2006). Do ciber ao híbrido: tecnologias móveis como interfaces de espaços híbridos. In D. C. Araújo (org.), *Imagem (ir) realidade: comunicação e cibermídia* (pp. 21-51). Porto Alegre: Sulina.

Sheller, M., & Urry, J. (2006). *Mobile Technologies and the City*. London and NY: Routledge.

Weiser, M. (1991). The computer for the 21st century. *Scientific American 265(3)*, 94-104.

Biography

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