

Strategic Tools of Networked Individualism: How women mediate work and everyday life through smartphone apps

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Abstract The ubiquitous use of mobile smartphones and Internet-based “apps” can be viewed as simultaneously empowering and constraining for women’s experiences and identities due to their potential to blur the boundaries between public and private spheres. How do logging, tracking and digitizing the details of one’s life through mobile technology modify the processes and outcomes of everyday experiences, gender relations and culture? We analyze this phenomenon through the lens of Wellman and Castells’ concept of “networked individualism,” an emerging pattern of sociability characterized by personalization, portability and ubiquitous connectivity facilitated by mobile smartphones. We also apply Wajcman’s technofeminism to highlight how people and artifacts co-evolve, facilitating and restraining gender power relations. We draw upon interviews with 12 women who daily use smartphone apps to understand how they use popular apps in order to negotiate parenting (using the app “TotalBaby”), fitness (“Runmeter”), and other daily tasks.

Keywords Mobile Technology ; Smartphones ; Apps ; Social Media ; Networked Individualism ; Gender.

Citation Frizzo-Barker, J., Chow-White, P. (2012). Strategic Tools of Networked Individualism : How women mediate work and everyday life through smartphone apps. In G. Latzko-Toth & F. Millerand (Eds.), *TEM 2012 : Proceedings of the Technology & Emerging Media Track – Annual Conference of the Canadian Communication Association (Waterloo, May 30 - June 1, 2012)*, http://www.tem.fl.ulaval.ca/www/wp-content/PDF/Waterloo_2012/FRIZZOBARKER-CHOWWHITE-TEM2012.pdf

1. Introduction

According to mobile phone subscription statistics, over 60 percent of the worldwide population has access to wireless communication (Castells 2010). In the US, more than 35 percent of adults own a web-enabled smartphone such as an iPhone, Blackberry or Android (Smith 2011). Beyond their calling and texting features, smartphones are best known as portable hand-held computers. Many users access the Internet through mobile applications, commonly known as “apps,” which are small stand-alone software that connect to Internet data without using a web browser portal. As of December 2011, the one millionth mobile app went to market, and Apple’s AppStore boasted more than 10 billion downloads in categories such as games, health, education, fitness, social networking and productivity (Freierman 2011, Xu et al., 2011). While new media technologies diffuse through a population into everyday life, surrounded by futuristic discourses of flexibility and efficiency, the ways people shape their use often diverge from the original utopic visions. Studies on the diverse usage behaviors of smartphone apps, including frequency of use and social aspects of sharing apps among users, are only beginning to emerge (Xu et. al., 2011; Ahmet & Holmquist, 2010; Yan & Chen, 2011).

Scholars refer to new patterns of sociability facilitated by the Internet and mobile technologies and characterized by personalization, portability and ubiquitous connectivity as “networked individualism” (Wellman, Quan-Haase, Boase & Chen 2003; Castells 2001). While this is a productive lens for understanding emerging communication patterns, scholars have paid less attention to gendered differences of technology use and micro level, everyday practices (Wajcman 2004). Fortunati (2009) argues gender differences must be analyzed by exploring the experiences and agencies mobile technologies facilitate for women in particular. Empirical work to date on gender and mobile technologies tends to reflect macro-level, statistical equalities in terms of distribution and general use (Smith 2011; Purcell 2011). The significance of this exploratory study lies in its empirically rich qualitative approach, based on in-depth interviews with women who daily use smartphone apps as personalized tools to monitor, informationalize and streamline myriad aspects of everyday life, from the mundane to the intimate, and from the personal to the professional.

2. Gender, Mobility & Networked Individualism

Urry discusses the concept of mobility in four senses: the capability of movement, a mob or unruly crowd, the vertical continuum of social mobility, and the horizontal continuum of geographical movement (2007). The “always on, always on you” nature of mobile technology *is* the context for everyday routines (Turkle 2008). Mobile phone subscriptions surpassed 3.4 billion globally in 2008, eclipsing landline telephone connections in the early 2000s, making it the most rapid among all human communication technologies in history (Castells 2010). According to Castells’ (2010) theory of the network society, contemporary life is made possible through a constellation of digital and mobile connectivity, with key social structures and activities organized around electronically processed information networks. The lens of networked individualism shifts the object of analysis from the social group, organization, or institution to the *individual* as the basic unit of connectivity (Miyata et al., 2005). This raises significant, timely research questions because ubiquitous accessibility in the network society changes how, when, and where individuals can be reached, and the social norms and expectations affecting one’s roles in both private and public spheres (Quan-Haase & Collins 2008).

Internet-based social networks represent an individual’s “network capital,” which impacts how people connect, interact and share resources (Wellman et. al. 2003). The rise of social media is a prime manifestation of this new form of social organization. Facebook and Twitter “lists” facilitate the categorization of contacts and filtering of user-generated content. Recent surveys report that 31 percent of adult women in the US own a smartphone and among them 87 percent use their smartphone to access the Internet, email, and social media (Smith 2011). Wajcman’s theory of technofeminism challenges notions of technology as neutral and value-free. Her “co-construction approach” focuses on “the mutual shaping of gender and technology, where neither gender nor technology is taken to be pre-existing” (2007, p. 287). Where networked individualism depicts a culture of freedom to connect to various community networks, technofeminism draws attention to women’s often overlooked role in cultivating and maintaining these community networks.

3. Methodology

We conducted in-depth qualitative interviews to explore the nuances of women’s daily uses of smartphones and apps. Qualitative methods are “pragmatic, interpretive and grounded in the lived experiences of people” (Marshall & Rossman 2011, p. 2). We identified an ethnically diverse array of women in a major urban centre through a purposeful snowball recruitment and conducted one-on-one, semi-structured interviews in-home or via telephone. Participants signed informed consent forms and we assured confidentiality through the use of pseudonyms.

The interviewees include 12 women between the ages of 27 and 39, from Chinese, Korean, East Indian and white ethnic backgrounds (see Table 1 in Appendix). Seven of the participants are mothers with either one or two children, ranging in age from infant to 9 years old. Amongst the participants are two teachers, a speech language pathologist, a TV producer, a fashion stylist, a stay-at-home mom, and a family physician. We recognize that while smartphone adoption is highest among “the affluent and well-educated, and the relatively young (under the age of 45),” smartphone diffusion into various socio-economic strata has increased especially over the past five years (Smith 2011, p. 2). During the London riots in the summer of 2011, for example, news stories focused on the proliferation of Blackberry smartphones among working class youth (Halliday 2011). In the following, we discuss our findings and emerging themes.

Table 1 — *Participants interviewed: 12 total*

Name (Pseudonym)	Age	Ethnicity	Job Title	Children	Date of Interview	Location
Andrea	28	White	Graduate Student	No	April 18, 2011	Telephone
Kristen	27	White	Speech Language Pathologist	No	April 21, 2011	In-person
Gina	31	Korean	Teacher	Yes, 1 daughter	April 24, 2011	Telephone
Jill	39	White	TV Producer	No	July 3, 2011	In-person

Name (Pseudonym)	Age	Ethnicity	Job Title	Children	Date of Interview	Location
Jocelyn	33	White	Freelancer copywriter	Yes, 2 daughters	Oct. 17, 2011	In-person
Rosie	29	Chinese	Stay-at-home Mom	Yes, 1 son	Oct. 20, 2011	In-person
Dana	37	White	Web Project Manager	Yes, 1 daughter	Oct. 21, 2011	In-person
Janine	29	White	Fashion stylist	Yes, 1 daughter	Oct. 27, 2011	In-person
Parminder	30	South Asian	Teacher	Yes, 1 daughter	Nov. 17, 2011	In-person
June	30	Korean	Physician	Yes, 2 daughters	Nov. 25, 2011	Telephone
Mallory	31	Chinese	Graphic Designer	No	Nov. 26, 2011	Telephone
Kate	30	Chinese	Financial Advisor	No	Nov. 28, 2011	Telephone

4. Mediating Constant Connectivity Between Work and Home

Creative class enthusiasts celebrate the flexibility of the increasingly common mobile work environment (Florida 2002). Yet Dalton Conley (2008) notes that women's flexible work, which operates outside of formal employment structures and set work hours, "forms the bedrock of the real story of middle-class anxiety because household labor – most notably childcare – has not gotten any easier in the meantime" (p. 13). A contract copywriter describes how her smartphone aids in running her successful business from home:

There is that expectation that you're always connected as a freelancer, so I find it really helpful business-wise. I only technically work two days a week when my kids are in childcare - the rest of the time they're at home with me. And I don't necessarily want [clients] to know that, because I'm worried that they might not give me the business if they

think that I can't get it done in time. And so I work a lot of evenings or early mornings or whatever, to kind of give the illusion that I work five days a week. (Jocelyn)

Jocelyn uses her smartphone to shape her identity as an always-on professional. To her, this is a positive aspect of smartphone use. Yet Gill and other feminist scholars identify enduring patterns of gender inequalities that are apt to remain hidden and even flourish amidst our contemporary culture's "emphasis upon self-surveillance, monitoring, and self-discipline, [and] preoccupation with discourses of individualism, choice, and empowerment" (2011, p. 64).

Smartphones blur the lines between work time and personal time and space (Middleton 2007). "Dana," another contract worker and a self-labeled "techie" who works in web development, uses the Skype app for instant messaging and the DropBox app for file-sharing to connect with colleagues and clients. She explains her morning routine:

I check my email while I'm still in bed. Because I work with a lot of people on the Eastern time zone, so they've been awake for several hours by the time I wake up. And I just want to see if there's any fires or questions or schedule changes I should be aware of before I start my day. Sometimes I check Facebook, the weather. Occasionally I'll double-check the calendar and see if it's library day at my daughter's school. (Dana)

Noelle Chesley (2005) found that increased negative family-work spillover (addressing personal issues at work) was associated with *women* but not men, while increased negative work-family spillover (paid work extending into the home) occurred for *both* genders.

Researchers find women use mobile phones for similar "kin keeping" reasons as they did landline telephones, to practice "remote mothering," increase safety and security, and extend traditional female roles to the mobile society (Castells et al. 2007). Several participants, especially the mothers, maintain frequent connectivity with family through camera and video apps, which Ito refers to as "intimate visual co-presence" (2005, p. 3):

Being able to FaceTime [my husband] at work is great. Yesterday [my daughter] was having a really bad teething

day so I was sending him pictures like a storyboard. Just having him know what I was going through to support me, it was really nice. It made me feel a lot better – like I wasn't doing it alone. Like he knew exactly how bad of a day she'd had, and I just felt a lot more confident handling it because I knew he understood. (Janine)

Mobile smartphones are intimate devices. *Virtually all* of the participants generally keep their smartphones near to themselves, day and night, but they reflected an array of preferences in terms of when, where and how they can be reached. And while the majority of participants said they would be deeply distressed at the thought of losing their smartphones – many gasped, cringed or groaned at the very mention of it – several expressed that an *anticipated* break from smartphone use would be liberating:

I like to connect with people, and I do that a lot through social media - that's a natural fit. But I need to cut it back a bit 'cuz there's a feeling of relief when you can't. Like if you sent me to a cabin for four days with no phone reception, I'd thank you. It's a forced black-out. So you have the anxiety of not being connected, and then the anxiety of media. One is, "What am I missing out on?" And the opposite kind is way too much stimulation, and you can't stay in the moment. (Jill)

These reflections illustrate some of the conflicting benefits and drawbacks associated with the ubiquitous connection facilitated by smartphones.

5. Mediating Everyday Tasks : Tools of Social Labour

Fortunati conceptualizes the mobile phone as a “strategic tool of social labor” for women in particular (2009, p. 32). Smartphone technologies promote speed and convenience in achieving everyday tasks. Indeed several of the mothers interviewed described their smartphones as tools of efficiency in parenting their infants. “Gina” recounted the usefulness of the Total Baby app as a data collection tool:

It was hugely helpful, because when you have a newborn, you have to keep track of all their diaper changes, feedings and sleep for their initial development. And I keep a record of

all her vaccinations and doctor's visits in there. Moms and dads are really into numbers, like what percentile of weight and height their kids are. You can chart it like a visual graph. I like that, yeah. I want to see where she is compared to everyone else. (Gina)

“Rosie’s” 21 month-old son uses the Tozzle game app and watches Wiggles videos on his own iPhone, an old phone of her husband’s. “This is for when I need to take a shower, or when he’s in the grocery cart,” she explains. Although she finds it helpful, she also expressed concern that allowing her son to use these apps will be seen as “lazy parenting.” Several of the mothers interviewed seemed caught in a paradoxical double standard – they felt guilty letting their children use a smartphone while they completed a task, and also while using their smartphones when with their children.

Smartphone apps add an additional layer of logic to the execution of daily tasks. In her ground-breaking study of computers and automation in the workplace the 1980s, Shoshana Zuboff (1988) highlights the distinction that computers “informate” tasks; that is, they produce precise information *about* the tasks in such a way that the data takes on a life of its own. We found evidence of how smartphone apps motivate women’s daily practices with information about their finances, health and fitness. For instance, “Andrea,” a seasoned runner, recently purchased the Runmeter app and describes how it motivates her fitness routines:

I’m constantly looking at my pace and distance. If I can see that I have another 20 seconds to reach an 8K mark, then I’ll push myself to do it. It makes me go further, for sure. I used to run with an iPod for music, a cell phone for safety, and a water bottle. Now I don’t need them all. Plus if I’m done my run and walking the rest of the way home, I can make a call or look at Facebook. (Andrea)

The user can graph and visualize trends, race against oneself, and share run times in real time via social media – she can even hear responses posted by her contacts as audio clips during the run. Each of these apps can be thought of as “opaque technologies,” which women seamlessly

weave through everyday routines to access information, solve problems, and accomplish goals (Turkle 1995).

6. Conclusion

Qualitative studies of women's uses of mobile technologies are in their early stages. The results of this interview-based pilot study provide new insights into how a diverse group of women use smartphones and apps to mediate paid and unpaid work, relationships, finances and health in the context of everyday life. The participants recalled, described, and made sense of the numerous ways they use smartphone technologies to facilitate greater flexibility in work, efficiency in achieving tasks and connectivity with friends and family. They also conveyed their concerns and anxieties about the expectations placed on them in an "always on" lifestyle, and various ways they mitigate those challenges by selectively filtering how, when and where they can be reached.

We cannot simply assume that smartphones and apps always lead to positive outcomes for women, despite the speed, versatility and pleasure associated with using them. Rather, we need to understand how women use contemporary mobile technologies in ways that reproduce or subvert traditional gender norms in various areas of life. This is a complex issue because women's use of smartphones and apps often empowers and constrains women's identities and experiences simultaneously. Although social networks existed long before they were facilitated by the Internet and smartphones, mediating technologies do more than simply reflect one's web of social connections; they add a layer of new meanings, rules and dynamics that affect the nature of those connections and their outcomes in everyday life.

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