'There's No Going Back'. Roxie's IPhone®: An Object Ethnography

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Abstract

In many of the countries of the developed world, young people live in a web of what Miller and Madianou (2012) have described as 'polymedia'. That is, many young people, including those that took part in the study underpinning this paper, have an array of media from which to choose when creating and accessing text. Adding a layer of complexity, many of these media forms, along with the lives of many young people, are increasingly mobile. Taking this into account, this paper takes as a specific focus one of the artefacts that constitute this polymedia web, specifically the textual practices that follow for one young person called Roxie. To this end, the paper develops an object ethnography of Roxie's mobile phone as a way to consider the role of this mobile, technological artefact in the construction of her everyday realities and the textual practices that emerge around this interaction.

Introduction

In many of the countries of the developed world, young people live in a web of what has been described as 'polymedia'. Madianou and Miller (2012) suggest this term as a descriptor for the emergent communicative environment comprised of a "plethora of internet- and mobile phone based platforms such as email, instant messaging (IM), social networking sites (SNS) and webcam via voice over internet protocol (VOIP)" (p. 1). For many people, there are now numerous ways to access and create messages. Madianou and Miller rightly point out that contemporary communication takes place across and between a range of platforms and technologies, with individuals moving between them to fulfil a range of different social purposes. Email, with its asynchronous print-focused nature for example is used for different purposes and with different outcomes than a phone call or a *facebook* message. Madianou and Miller (2012) further note, the choice of which technology with which to create different forms of text is dependent on the social context of use and the affordances of the particular artefact. Many young people, including those that took part in the study underpinning this paper, have an array of media from which to choose when creating and accessing text, however the focus of this study has been their relationship with mobile phones. Taking this into account, this paper takes as a specific focus one of the artefacts that constitute this polymedia web, specifically the textual practices that follow for one young person called Roxie.

The paper is positioned in the new literacy studies with its depictions of socially oriented and indexical literacy practices, (Street, 1985), multiliteracies and multimodality (Cope & Kalantzis, 2000; Kress 2003; New London Group 1996), and home and community language and literacy practices (Brice-Heath 1983; Gregory, Long & Volk, 2004; Marsh 2006; Pahl & Rowsell 2010). From this perspective literacy practices, including those associated with digital technologies, are developed and deployed in socially situated contexts. In order to provide a lens for understanding the physicality of the iPhone®, it also draws from Miller's work in material studies

(Miller, 2008, 2009) and the emerging field of postphenomenology (Verbeek, 2005,2006). From differing fields, these approaches argue that an artefact and the individuals who make use of it co-construct lived experience through their everyday interactions. This means that as Miller (2009) argues, the 'stuff' of everyday life matters.

The concept of object ethnographies borrows from Miller's views of the centrality of 'stuff' to the shaping of individuals and their lives (1997, 2009) but it situates this within broader frames. Object ethnographies begin with the artefact. These artefactual analyses are then used as "platforms for commentary on issues of identity, meaning, structure, social critique, materiality" (Fowles, 2006) that draw from Miller's interest in the centrality of 'stuff' (1997, 2009), Appadurai's (1986) descriptions of the 'social biography' of things, and Barthes' understanding of the power of mythology to transform an object into the sign of a universal value (Allen 2003; Barthes 1972).

This multi-levelled framing allows an artefact to be considered as a material object with a biography or social history of its own as well as a biographical journal with the user/s who interact with it, and then works to situate this biography within larger cultural, technological and political contexts. Object ethnographies, therefore, are nested analyses that build a rich analysis of the interaction between artefact and user in the creation and experience of the everyday. This framing has the potential to enable the examination of an artefact material object with a biography or social history that embeds it in the local, but also allows it to be positioned within broader social and cultural flows or narratives. In Madianou and Miller's terms, this frame allows the examination of one highly valued entry point into the polymedia context in which young people in the global north increasingly operate. In relation to this paper, this framing also allows an examination of the artefact itself and a simultaneous understanding that the choice of mobile phone is linked to context and to the cultural and social power of phones in contemporary youth culture. Given the ubiquity of 3G-enabled mobile phones in the everyday lives of young people, it is fitting to attempt to understand the complex nature of the relationships that develop and the ways in which these artefacts both reflect and play a role in the changing sociocultural and textual landscapes that many of us now traverse on a daily basis. A tiered object analysis allows us to attempt this analytic task.

The first level of analysis concerns itself with what can be 'read' in relation to the intentions and expectations of the designers of these objects. In effect, this level takes as its focus the 'script' embedded in the artefact during the design process (Akrich 1992; Verbeek 2005). Akrich argues that every artefact contains a message or instructional manual from its maker that outlines the artefact's intended use and meaning and it is this script that is read and interpreted by the user. The second level focuses on the social life of objects, taking up Appadurai's (1986) point that objects have a social biography. From Verbeek (2005, 2006) we understand this to mean that artefacts have an agency or intentionality, but also that they have an individual history that is significant for the people that make use of them. The intentionality, or agency, of each artefact becomes entwined overtime with its social history. The final level draws from Barthes' (1972) view of objects as players in the building and maintenance of social and cultural myth. Consequently, my use of object ethnography in this paper begins from the premise that artefacts matter. Everyday objects embody the values and worldviews of designers and the corporations that employ them; however, in the everyday lives of users they are taken up and redesigned. Consequently, the object ethnography approach adopted in this paper works across

three tiers: (i) the mobile phone is examined as an artefact with particular scripts and affordances; (ii) the 'social biography' of the individual phone both official and unofficial is mapped; and (iii), the broader narratives in which the artefact is manufactured and utilized is described.

To build the second level of analysis – the social biography of the artefact - the paper draws from a small-scale qualitative project interested in the 3G-enabled mobile phone artefacts of young people aged from 12 to 17 years of age. The project aims to examine 3G-enabled phones as the 'stuff' of individual participant's everyday life. Ultimately the project seeks to trace the local-global interactions played out via this particular technological artefact and its broader mythology using the framing provided by an object ethnography. To this end, the project's design includes the use of semi-structured interviews and survey questionnaires across a total of 50 young people. The use of interviews was designed to capture the role of this artefact in the ways in which participants construct and perceive their lives. The object ethnography is interested in consideration of the role of objects in the lives of individuals. Therefore, data in the form of a participant interview has been included to elicit the social biography of the specific artefact. This individual is Roxie. Roxie's interview revealed her strong relationship with her 3G-enabled mobile phone. The fact that this was an iPhone® has impacted the direction of the first tier of analysis constructed here. If she had reported her experience and perceptions of her Blackberry or her Samsung, the details of that analysis would be quite different: each object ethnography begins with the object rather than the person using it. The interview with Roxie explored the history of her relationship with the phone and the meaning of this particular object in her everyday life. In concert with the object ethnography outlined above, the paper seeks to nest this experience with this artefact within broader cultural patterns. As a result, the paper begins with an examination of the iPhone® as an artefact and then moves to unpack its social biography. Roxie's experiences with her phone form part of this biography. The paper then moves to consider the broader cultural narratives in which the artefact and Roxie interact with each other before considering the implications of the analysis for practices with text.

Tier 1: iPhone® as Artefact

Utterback (1996) uses the term 'dominant design' to account for the innovations that become iconic and influential. According to Utterback, a 'dominant design' is:

> The one that wins the allegiance of the marketplace, the one that competitors and innovators must adhere to if they hope to command significant market following. The dominant design usually takes the form of a new product (or set of features) synthesized from individual technological innovations introduced independently in prior product variants. (p. 24)

Utterback notes that, "once such a design is accepted it can have a profound impact both on the direction and rate of further technical advance and on the structure of competition" (p. 32). The qwerty keyboard and its domination of the design and use of the typewriter is an obvious example. The Apple iPhone® is another. Since its launch in 2007, the iPhone® has become a dominant design. The major non-Apple smart phones have evolved to resemble the physical appearance and mimic the performance features of the iPhone®. Reflecting the impact of a piece of dominant design, the physical design of the phone has influenced the design direction of the

entire smart phone market. Those that have not shifted in this direction, such as RIM's Blackberry, are experiencing a sharp global decline in sales and relevance (Miller 2011; Smith 2011).

As a technological artefact, the affordances of the iPhone®, its 'script', circumscribe some of its uses. That is, the design and size of the artefact are not insignificant in its cultural significance or in the ways in which it is used. The small screens impact on what can be viewed via the device; the small touchscreen keyboard potentially shapes what can be keyed in. Battery life impacts how long the device can travel with an individual before needing to be recharged. Different user behaviour impacts battery life, for example, using 3G consumes more battery power reserves than wifi, and playing video consumes more power than texting. However, the small screen size is balanced by extremely high resolution and the uncluttered nature of the interface design; the intuitive operation of the apps and software have become dominant designs. As a 'dominant design', the iPhone® is represented in the media as a beautiful contemporary artefact and its designer, Jonathan Ives, has received multiple design awards for the iPhone® and a knighthood in 2012 for his contributions to design and enterprise. Its sleek combination of plastic, metal and glass represents a key moment in design and technology and is, as a result, the focus of ongoing cultural desire. Utterback (1996), however, accurately observes that the iPhone® did not create innovation out of nothing; rather it synthesized and converged a range of features to create a new artefact with new affordances. The iPhone® was more than a mere phone. It was, in effect, a mobile computer that allowed users to download content, create and upload content, maintain internet connectivity, take photos, install and use applications, store and play music. A product made possible by globalization, the iPhone® is built from parts sourced in nine companies located in different countries – China, South Korea, Taiwan, Japan and the United States – with the final assembly undertaken in Shenzhen, China. Once assembled, the phones are shipped around the world (Schuman, 2011).

Beyond its globalized production cycle, it embodies the process of technological convergence that has characterized the rapid evolution of digital media over the last decade. The iPhone® has converged capacities that once existed in separate devices: video capture was once limited to specialled hand-held video cameras, digital photographs required a digital camera, games were once to be found only on computers or stand-alone gaming consoles, videos could only be viewed on a television or computer screen, and phone calls required mobile phones or land line telephones. These features converged in the iPhone® and other smart phones. Jenkins (2006) has expanded this notion to the concept of 'cultural convergence' where, "the flow of content across multiple media platforms, the cooperation between multiple media industries, and the migratory behaviour of media audiences who will go almost anywhere in search of the kind of entertainment experiences they want" (p. 2). Culturally and technologically the iPhone® sits comfortably across these two notions of convergence.

Key to the success of the iPhone® is the way in which it has moved away from being an appliance towards operating as a platform for innovation. As Petter and Ole (2010) note, a key factor in the success of the iPhone® "is the way the iPhone offers improved usability in combination with offering a generative platform for independent innovators" (p. 1). In their terms, usability refers to "how easy people can employ mobile phones for their purposes, generativity refers to how easy innovators independent of mobile phone vendors and network operators can leverage on the mobile phone as a platform to develop new services and applications" (p. 2). It is this

mix of usability and the capacity of individuals to create innovative content for the device that has contributed to the success of the iPhone® and its position as an object of desire by young people.

Tier 2: The Social Biography of the iPhone®
        The iPhone® rose out of the Steve Jobs' era of Apple Inc (hereafter referred to as Apple). It is difficult to extract fact from myth in relation to the evolution of Apple and the range of high profile and hugely successful products it launched during the Steve Jobs era. Apple released the iPhone® 3G between June and July 2008. The legend goes that Steve Jobs began to imagine a device that converged phone capacity with iPod almost as soon as the iPod was released. The desire to create such a product became more intense in late 2006 when the delay of the already announced new operating system Leopard left Jobs needing a big release to protect Apple's stock price and keep competitors at bay. Consequently, he wanted to introduce the iPhone® as the centrepiece of the annual Macworld convention in 2007. Against all odds, the myth goes, the iPhone® was developed in time and on January 9, 2007, Jobs was able to announce its arrival at the Macworld convention. The response of the public and media to the phone's release reflected the levels of value and expectation placed on Apple products in contemporary culture. The iPhone®, in effect, put a hand-sized personal computer that could be connected to the internet into the hands of individual consumers.
        The iPhone® 3G, the model owned by Roxie, was the second generation of iPhone®, released to the market between June and July 2008. The phone runs on the Apple iOS operating system, has a 2-megapixel camera embedded and supports GPS and 3G data. The particular affordances enabled users to download music, software updates and apps from the App Store and iTunes. Adding to consumer interest, in March 2008, Apple released a developer kit to allow amateurs and professionals to write programs and develop applications for the phone, test them in a simulator, and apply to have them made available through the App Store. This, linked with the Apple iTunes and App Store, quickly turned the iPhone® into a cultural phenomenon. The speed of innovation and consumer demand has been such that as of the end of 2010, Apple no longer provides updates for this particular model phone, considering it to be operationally obsolete.

        The unofficial biography: The social life of Roxie's iPhone®
        Roxie lives in a European capital city. She is sixteen and from an upper middle class family of professionals, with extended family spread across a number of countries. English is her first language although she is fluent in one other. In global terms, there is no doubt that she leads a comfortable and privileged life. She travels to and from school and around the city in which she lives via public transport and considers herself to be independent. Roxie's iPhone® 3G is the fourth phone she has had sole access to and by far the one for which she confesses to have the most serious 'relationship'. This said, she has kept every phone she has ever owned and each, in its own way, has been important to her. She keeps them because they are difficult to dispose of in an environmentally responsible way, "you can't put them in the garbage bin" and because she believes they may be useful when travelling.
        This particular phone is a jail-broken (which involves removing the restrictions on usage imposed by the various carriers or manufacturers) "hand-me-down" and is operated via a prepaid plan: "they don't come prepaid and mine's jail-broken". This said, Roxie's iPhone® has "changed her life". Roxie's connection to

her iPhone® is deep: "I love my iPhone". Carrying an iPod and a separate phone is bulky and inconvenient while the iPhone® converges these capabilities in one small, stylish device. It allows her to get online, and it has her music "all in one place". According to Roxie, "the big thing about the iPhone® is that everything is in one place". For Roxie on the iPhone®, "The apps are the best. I don't actually go to Safari, go to Google and look up anything on the phone. I just go on the apps that …I've got a *facebook* app, I've got a *skype* app, I got the weather app, the times – the different times for the countries, my alarms. My games, my games use the internet – all my little games".

The phone is highly personalized, however iPhones® do not lend themselves to the kinds of external personalization of earlier phones owned by Roxie and others. These earlier phones were externally personalized, covered in stick-on crystals, stickers, and hanging toys. The appeal of the iPhone® is that it is an iPhone® and as a result, highly valued when its shape and logo are visible. She says, "I would never colour the phone cause it's an Apple phone. I would never put a sticker on the Apple phone". She goes on to clarify the significance of the iPhone®, "On my other phones, my old phones, I used to have a Samsung phone. The back was covered in stickers. But an Apple phone, I would never put a sticker on that phone. I think the same goes for Blackberry's as well. I don't think people will put stuff on those phones. She notes that, "It doesn't need to look any prettier". For Roxie, the iPhone® has an intrinsic value that would be downgraded if the phone were less visibly an Apple product.

The script of the iPhone® works here to limit the type of decorative customization that can be made as, unlike earlier phones, there is no way to fasten hanging toys or ornaments to the body of the phone. Roxie's personalizations therefore are more about the blend of apps, ringtones and backgrounds/wallpapers. According to Roxie, you can, "Put backgrounds. You can change the themes. I down…I get different rings. You know how you can …you know how iPhone® has that one ring. That old phone ring? I download my own ringtones". However, Roxie is aware that new models and apps are always coming out, resulting in quick obsolescence. According to Roxie her current operating system, "was an upgrade of the older one. It's got the …. The … wait, it is the oldest one. It's not the oldest one, but it's the first one that came out in Australia. It's not the 3GS, it's just the 3G. So, it's a simpler one. And also, I'm a little disappointed now because it's gotten so old that it won't upgrade to the newest upgrade that's coming out now". Roxie is very aware of the changing capabilities of new models and updates and how they impact positively or negatively on her current phone.

This awareness of phone technology and updates extend to her customization and use of the iPhone®. The practice of jail-breaking sets Roxie and her iPhone® a little apart from many of the young people in her network but it positions her as an independent user with sufficient skills to research and retool her device to suit her needs. 'Jail-breaking' the iPhone® frees it from the limitations imposed by the service provider and by Apple. While some jailbreaks are undertaken as a political statement about the tight control Apple exerts over devices it produces, for Roxie jail-breaking was about taking a gifted, used phone that was out of contract but still linked to a network and customer account and making it her own. To jailbreak her iPhone®, Roxie researched the various jail-breaking software applications available online, and aware of the dangers, crossed her fingers, and unlocked the phone. As the phone was, as Roxie noted, a 'hand-me-down' the issue of warranty voiding and losing network access was not an issue. For Roxie, jail-breaking made the phone usable in relation to her particular needs, and gave her more scope for personalizing the device and its

various characteristics. She was able to locate an inexpensive prepaid option that provides internet access and importantly, continue to customize the device with third party apps, home screens and ringtones.

The highly customized phone stays with her at all times, although at school it has recently been relegated to her locker because of a new school rule that allows confiscation. On weekends it is a constant companion, "Weekends it's always with me". However the value of the phone is seen in the care with which she treats it, "And that's…I don't want to lose it. Like last night when I went out I didn't want to lose it, so I didn't take it". The phone provides a sense of security and connection for Roxie. She says, "I think the phone is a sense of security". She observes that, "It is also a cover when you're nervous. When you look like you're alone, people get their phone out and start pretending they're doing something. So they don't look awkward. But also, if I'm sitting on the tram and some creeper is looking over at me, I know the phone is right there. Yeah, I always think it gives you a sense of security. If you're walking around in the dark or … and either you have your phone or you have your music on so you don't feel like as alone I guess. It's for holding something. It's holding the person you had had to call if something, something happened. Holding them. It's also quite solid. You can always hit someone." Interestingly, Roxie sees the phone clearly as both physical object and enabling object.

When asked what would happen if she lost this particular artefact, she responds, "I would die. Because I would know that another one wasn't coming. I would have to get a crappy phone. I would die because I'd have to get a prepaid phone. And you can't go back. Once you've gone up, there's no going back". This particular iPhone® travels almost everywhere that Roxie does. It has been customized and re-customized, designed and redesigned, to meet Roxie's needs and to reflect the various identities she wishes to portray through ownership and display of this artefact. It has changed significantly since it was owned by one of Roxie's parents: it has been jail-broken, moved to a prepaid plan, had new home screens and new ring tones applied, and has been filled with new and Roxie-specific music, ringtones, photos and apps. It has had a busy life. The availability and appeal of the iPhone® to Roxie and her peers sits nested within broader narratives of technology, iconic artefacts and individual biographic trajectories.

Tier 3: Mythologies and Narratives

For much of the last decade and a half, the computer consumer world has been divided by a narrative cycling around the question, 'are you a PC or a Mac'? PCs and Microsoft represented, to many, the neoliberal Reagan and Bush era of high stakes, but not particularly innovative business. The world of Apple, on the other hand, was central to the work of the creatives, particularly those who identified as independent knowledge workers. To some extent, this dichotomy reflects the rise of what Florida (2005) calls the 'creative classes'. Florida argues that:

> Globally, a third of the workers in advanced industrial nations are employed in the creative sector, engaged in science and engineering, research and development, and the technology-based industries, in arts, music, culture, and aesthetic and design work, or in the knowledge-based professions of health care, finance, and law. (p. 3)

The narrative emerging around creative classes and taken up by Apple made it seem reasonable to accept that media and design industries were more likely to adopt

Apple products as industry standards, while desk-bound office employees worked on PCs loaded with Microsoft proprietary products. Mac users were stereotyped as urban hipsters who were innately creative and endlessly youthful, while PC users were stereotyped as stuffy office workers, less creative in outlook or practices. Apple's own "I'm a Mac and I'm a PC" advertising campaign (2006) perpetuated this binary. PCs were an office tool; Macs were a way of life and of seeing the world. The mythology around being a Mac user is easy to spot:

> …if a PC is clever, a Mac is intelligent. A PC went to school and bought all the right text books. He read them front to back, he absorbed the information and he applied it during his exams. His essays were perfect. Exactly like the test answers he learned from. A Mac flicked through the book, extracting the important information. He then combined what he had already learned with his impeccable sense of reasons, to come up with an answer that hadn't already been written in a book. His essays had style. (Rose, 2011, n.p.)

The mythology around Apple products and the company itself has played out in tandem with models of an emerging participatory and amateur culture described in the work of Jenkins, Clinton, Purushotma, Robison and Weigel (2006) in response to practices in new media environments. The media focus of Apple products and their conceptualization of a purchaser who was both a user and producer of media seemed to make possible the new forms of participation across civic and cultural spheres that Jenkins et al. described. Running parallel to the rise of a creative class narrative has been the dissemination of social theory designed to describe the changes in social patterns, roles and identities emerging across the nations of the world as a response to shifts in economic and political landscapes. While Beck (1992; Beck, Giddens, & Lash, 1994) speaks of individualized risk biographies and Bauman (2001) of liquid identities, Giddens (1991) speaks of DIY reflexive biographies and Gee (2004; Gee & Hayes, 2011) described discourse-related identity toolkits. Each heuristic attempts to account for the changes in individual life trajectory within these new landscapes.

One of the outcomes of the focus on individualized self-narratives and biographies and a burgeoning creative class has been a 'democratization' of design. As more and more of the population would categorize themselves as creative or knowledge workers their capacity to appreciate, influence and in effect 'design' for themselves rather than via a trained design expert has taken on new momentum. In effect, design has become a mass commodity. This momentum has found shape in the everyday. Other companies, like Apple, have taken advantage of this shift. For instance, the Swedish homewares company IKEA set out to democratize design with its range of affordable and stylish home products and ethos of self-assembly; additionally, software products such as *Photoshop, Pro-Engineer, Adobe Creative Suite* and *Maya* provided the tools to design and redesign via their computer; and the growth in design focused blogs such as *mocoloco*, *apartment therapy* and *design*sponge* have made new products, information and trends instantly accessible to the mainstream consumer.

Apple was well situated to become a focal point of this creative and highly individualized zeitgeist as it released fluidly stylish computers and its iconic iPod and iPhone®. Roxie is clearly deeply immersed in this narrative of creativity, design and individualization: her recognition and articulation of the cultural valuation of the iconic styling; her valorization of the functionality of the apps and internet connectivity; and her own creative customizations of the device to set herself and it

apart from all others. Roxie uses this particular technological artefact for its usability and the affordances that allow her to maintain her particular social networks and to feel safe navigating around a large, urban zone. She also uses it as a way to buy into the larger, culturally powerful mythology around being a creative, independent-spirited citizen working on the project of her own identity.

Making Connections: Polymedia Literacies

The iPhone® and its internet capacity allows Roxie to navigate the tram, train and bus system of her city. The maps app allows effective navigation across the city to places previously unknown and home again, adding to her sense of security and independence. The app linked to the local public transport network allows her to plan how to get to places and how to travel around cancelled links on the way to school. It also serves as watch and alarm clock, allowing these older, separate items to sit unused in her bedroom. She consults the weather app each morning to provide information relevant when choosing clothing for the day; she listens to music stored on the iPhone® on the way to school each day. Roxie uses the in-built camera to take photos as she moves through her day. She also connects to *facebook* via the mobile app on her phone, uploading photos on the way to school or at various events. She often makes use of various apps she has installed on her phone to edit or customize the various photos prior to saving or uploading. Most recently, she uploaded a photo of the dense fog on her trip to school via tram and was surprised to see – via their *facebook* connection - that one of her school friends had also done the same thing on her own trip to school on the tram system. She does not take or upload video footage with her phone as it does not support video.

The majority of Roxie's online social network use their internet connected phones in the same ways: they use *facebook* to stay in touch with their entire network as they move through their everyday locations and activities; they use messaging apps of various types to stay in contact with individuals and to sustain conversations or information sharing; they upload photos and share links to various sites to reinforce connections and to share interests and information. The centrality of Roxie's movement across a number of interconnected social networks is also clear. As Roxie notes in her interview, the phone and its capacities give her a sense of 'holding' her networks of friends and family, of being in constant contact and therefore being secure. In effect, she is enabled by the technology to build and create contemporaneous social and textual networks. The physical closeness of the phone to Roxie becomes a key part of sustaining these networks. Madianou and Miller (2012) note that, "the reasons why people choose one medium rather than another, even the affordances they perceive a particular medium as possessing, come much more from the wider social context of their communication rather than the narrower issues of technology and function" (p. 137).

For Roxie, the choice of mobile phone to carry as a 'security' object is linked both to the capacity the artefact has to create meanings across multiple platforms (email, texting, images, messaging, social networking) but also to the value of the iPhone® as a cultural object in the social networks in which Roxie receives and distributes texts. Interestingly text features prominently in Roxie's everyday interactions via her iPhone®. There is an abundance of texting and messaging; there are the texts she creates and uploads to her *facebook* page and the photos she takes and captions numerous times each week. In addition, there are the email messages from teachers and families that she accesses while on the way to and from school, and strategically ignores or responds to. These texts may be purely text-based, written in

small grabs using emoticons and some of the conventions associated with earlier text-speak (Carrington, 2005) or the messages may simply consist of url links to YouTube videos or other websites. This highly valued cultural artefact enables Roxie to create a multiplicity of textual forms as she moves through the spaces and places of her everyday life, each suited to particular social purposes. It also positions her within a broader cultural narrative about the value of smart phones in general, and iPhone® in particular. At the same time, her own experience with technology tells her that the people in her network will access her texts with a range of different devices and this, in some instances, will impact on the how her messages are displayed and 'read'. She cannot always control the visual display of her text. All the text created by Roxie makes use of the affordances of the phone, the software apps she has used to customize the device to suit her own needs, and the internet alongside the textual repertoires she has constructed for herself.

Roxie's artefact, her iPhone®, is clearly important to her. It affords particular engagements with the unique blend of apps she has chosen, and the contemporary features of the internet made accessible via her network. It also enables and constrains particular types of practices with text. The underlying narrative of the mobile phone is one of mobility. Created using different technologies and designed for mobility, these are not the same literacies that are created and conducted in other parts of the planet or in other cultural and/or technological moments. These are the specific literacies available to Roxie as she moves between the set of micro-hegemonies and polycentricities of authority and power that form the cultural and political landscapes in which her use of mobile technologies and maintenance of diverse social networks have meaning and value. The texts created by Roxie using the iPhone® are not uniform in construction. Depending on the purpose, the text may solely depend on alphabetic features for meaning, albeit using conventions recognizable to the various individuals she is directing the text toward, but in others the assemblage of text and image and/or audio creates the meaning. Elsewhere (Carrington, in review), I have argued that these digitally created, mobile texts are assemblages. That is, that they are texts assembled from a range of resources that do not necessarily conform to an established genre. And, unlike traditional genres they do not settle into a set shape. The various constituent parts may be assembled or reassembled in different arrangements as required. Roxie's practices with text are assembled: she recreates traditional genres, remixes available content, makes use of hyperlinks and social networking software to access and create text assemblages.

However, while assembled the texts are by no means random. The polymedia context in which she operates requires careful selection of message type with, as Mandianou and Miller (2012) note, social and moral consequences; this in turn, requires selection of appropriate use of text from her repertoire of possible choices. While Madianou and Miller's description of polymedia argues that there are a range of media from which individuals choose in order to best serve their social purpose, Roxie's prioritization of her iPhone® as the artefact through which she accesses a range of textual and visual communication strategies reflects the cultural dominance of this artefact and its value within her social networks. For Roxie, these practices are about being in constant contact. She specifically talks of 'holding them' and 'holding the person you had' as one of the key functions of the phone. This 'holding' is achieved via the full range of textual affordances: using a shifting blend of *WhatsApp, facebook, iMessage* or *Skype* to send multiple, brief messages to friends and family. Roxie uses these messages, typed using the touchscreen, to 'hold' connections as well as to manage everyday interactions with peers, family and sites of authority.

Conclusion

Sassen (2010) uses the term 'webs of locality' as a descriptor of the contexts impacting on labour immigration in early 19th century Europe. She talks of labour migration in these areas as "a complicated web of movements woven locally" (p. 17) rather than the result of generic forces. This is also a rather apt description of the web of connections and activities generated out of the interplay of young people and their access to and use of 3G phone artefacts. The particular shape and operation of these webs of locality affected the social rewards of the different ways of using the artefacts. In relation to contemporary life, these webs are also woven out of the everyday interactions between artefacts and people as they co-construct everyday lifeworlds. As Madianou and Miller (2012) note, we increasingly operate our everyday lives in a polymedia context where choices beyond simple access define the selection of medium. They argue that in this environment social and moral choices influence the how and why of message composition, distribution and reception. Roxie's world is also one of polymedia however the main avenue for her everyday activities is her iPhone®. The artefact of her iPhone® allows Roxie a secure connectivity to what is effectively a personalized network from which she creates and sustains her social life.

These webs of locality are distinct for other reasons. The mobile nature of the interactions facilitated by the particular technology highlight an emerging polycentricism in relation to which Roxie and her friends will be required to orient their textual and social practice. It has become accepted that contemporary culture is increasingly characterized by diverse and hybridized social forms and identities (Bauman, 2001; Beck, 1992; Deleuze & Guattari, 1987; Giddens, 1991). Keeping this broader sociological narrative in mind, current notions of polycentricity in urban planning or in relation to governance (Hanisch, 2006; Ostrom, 1972; Ostrom, Vincent, Tiebout, & Warren, 1961) take into account that individuals and organizations must increasingly move between multiple centres of authority order to conduct their everyday lives in diversifying social and political contexts. As part of this shift, traditional centres of social and cultural authority such as family, nation and church can no longer claim hegemonic status. Relatedly, they can no longer claim to be the only source of authority or legitimacy in relation to the norms around text and language (Blommaert, 2010). Exploring these ideas, Blommaert argues that there are now multiple sources of language legitimacy in relation to which we must each maintain 'authenticity'. One of these new sources of language legitimacy can be seen at work in the integrated commercial and entertainment spaces provided by The Lego Corporation in terms of the authority they exercise over children's practices with text (Carrington & Dowdall, in press).

In Blommaert's (2010) terms, these multiple sites form micro-hegemonies. He argues that, "the robust hegemonies that appeared to characterize Modernity have been traded for a blending within one individual life project of several micro-hegemonies valid in specific segments of life and behavior" (Blommaert & Varis 2011, p. 2). Blommaert's vision of multiple micro-hegemonies fits well with the view of individualized life biographies described earlier. The same holds true for textual practices. The textual and media landscapes in which young people now travel are themselves assembled and polycentric, operating in parallel and often independently. Given this, the appeal of an artefact that allows a web of locality to be woven across these landscapes makes perfect sense, particularly as the affordances of the artefact make it possible to assemble texts that can be remixed and reassembled to meet rapidly changing demand and a life lived between polycentric centres of authority. This paper has sought to show that the relationship between Roxie and her

personalized artefact reflects a complex set of conditions around mobility and access, immersion in particular and highly personalized social networks, and broader cultural narratives around identity, creativity and technology. Against the context, this artefact is clearly important in the dynamic of Roxie's everyday lifeworld. Her interactions and the personalizations she has made, alongside the design affordances of the iPhone®, enable particular demonstrations of identity and belonging. Together, Roxie and her iPhone® bring this world into being, everyday. The ways in which Roxie accesses and creates text do not sit outside this co-construction. The paper has also argued that Roxie's practices as she moves through her everyday life require participation in a range of appropriate and effective textual assemblages and that these are enabled via her engagements with her iPhone®. Roxie observed that once you have gone 'up' to an iPhone®, "you can't go back. Once you've gone up, there's no going back". In terms of the everyday worlds she inhabits, she may just be right.

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