Chapter 16
Mobile Literacies: Moving from the Word to the World

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> *Reading the world always precedes reading the word, and reading the word implies continually reading the world. As I suggested earlier, this movement from the word to the world is always present; even when the spoken word flows from our reading of the world. In a way, however, we can go further and say that reading the word is not preceded merely by reading the world, but by a certain form of* writing *it or* rewriting *it, that is, of transforming it by means of conscious, practical work.*
> (Freire and Macedo 1987: 23)

We can find many definitions of literacy but the above description by Freire and Macedo is at the heart of this book. Literacy is always about 'reading' and 'writing' but how we read and how we write are constantly evolving as is 'the world'. The concept of 'mobile literacies' suggests a further potential in 'the movement from the word to the world' as new technologies have enabled the move from the boundaries of pen and paper. It accounts not only for development in literacies beyond print but also for increasingly interactive forms of communication, traversals within bounded structures and unbounded 'virtual' realities—hyperdomains. The concept 'mobile literacies' offers the potential of recognising transformations in human communication and learning while paradoxically there is a danger in being bounded with such concepts or definitions. Such paradoxes are explored in this final chapter as we weave our thoughts with those raised by authors through the previous chapters.

In the history of human civilisation, dramatic change has occurred with the movement of people across boundaries whether through exploration, war, geographical or economic events. As shown through the chapters of this book, the physical and nonphysical features of the iPad and similar devices have changed the

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boundaries for literacy and learning. In 1996, the New London Group found that the term 'multiliteracies' encapsulated the way literacy could no longer be bound by pen and paper forms of reading and writing. Computer technologies and globalisation required people to adapt to multiple forms of communication. Over two decades later, the fixed computer of the 1990s has been complemented by various mobile forms of technology including social media, augmented and virtual reality. Communication has always had mobility potential but it is now mobile in new physical and semiotic forms which, as explored in the first chapter, are tied inevitably to fluctuating economic and social realities.

How has the term mobile literacies been operationalised in this book? When, with Cathy Burnett and Guy Merchant, we used the term mobile literacies as part of the title for this book little did we realise how it would be interpreted by the various authors. Nor did we realise how unfixed the term is itself. Mobile literacies is not meant to be the latest, fashionable turn for 'literacy'. Rather, it helps us analogise and question what this movement across communication boundaries means for literacy in education as we explore what happens when literacies are in flux through the focal point of tablet use. The literacy practices described in the book raise questions about the schooled ways of doing literacy as Ng. (Chap. 7) demonstrates how reading and writing underpin activities such as curating and digital design in and out of school practices. They focus attention also on the 'classroom-ness' of technology use (Burnett, Chap. 2) through the orchestration of multimodal activity in diverse contexts such as early childhood settings, tutoring sessions and game clubs. Some reports suggest that use of technology in school is less cognitively challenging and more disciplined than the more exploratory usage seen outside of school (Rowsell, Maues, Moukperian, Colquhoun, Chap. 8). Our choice of the descriptor mobile literacies has provided authors with a prompt to describe how they saw literacies enacted in any context, as it simultaneously reminded them *of* the context in which devices might be placed. Knowing that 'literacy studies are never completely stable, and never completely able to be compartmentalised' (Mills 2016: xxiv) it is contradictory to keep trying to find definitions as they will never completely account for change; yet we wish to see through what Mills (2016) refers to as social, critical, multimodal, spatial, material and sensory lenses. In some ways then the concept of mobile literacies could be considered as a collective deictic, that stands for literacies AND…, what Marsh in Chap. 3 calls 'the interrelation of a range of factors which shape individuals' engagement with technology'.

The scenario below demonstrates the need to take account of context in socially situated and technologically mediated experiences of literacy. It shows how dealing with the portability of literacies may be challenging for learners as recontextualising meaning making in alternate modes makes meaning more difficult to make.

Place in Space: How Mobile Are My Literacies?

Episode 1

I am sitting on a plane flying from Australia to the US. Before I boarded I had planned to edit a journal article I wrote in Australia responding to the list of suggested revisions emailed to me from the UK. Already the activity I plan to complete has been aided by affordances of technology, which allow me to communicate with colleagues across the world. I aim to read the two documents on the computer screen and write up the changes in a word processing program. Again my activity depends on the affordances of technology, which allow me to access my draft word document and the email program using the mobile technology platform of my lap top. However, my plans are thwarted soon after take off. I can not open my lap top. My personal space has been compromised by the passenger in front of me reclining their seat to the full.

In this physical location where the materiality of the place I and others occupy is made very real, I am unable to negotiate additional space. Fortunately before I boarded I had planned ahead for this kind of situation predicting that I might need to call upon alternate literacies that are independent of screens at some stage of the journey (such as take off and landing). So I had printed off a hard copy of both the reviewers' notes and the draft paper before I left Australia. Smiling to myself I pull the paper copies out of my bag and set to work. First I reread the hard copy of the email and then, rationalising as I go my emotional and intel-lectual responses, I make hand written notes in the margins. I circle, I tick, I write suggested revisions while others around me watch movies on their in arm screens, read books using the overhead spot lights or hide from the air conditioning under their blankets. Each individual trying to create their own personal ecology for the 13 hour trip.

I am happily progressing with my work pleased that in my choice of hand writing I have found a solution to the limits placed on my mobile literacies. However, my complacency is soon broken when I complete the notes on the email and move on to transferring these thoughts to the journal article. If I was able to access a 'dynamic' copy of the text I would type up the changes directly but in my on board context – despite the fact that I am flying at thousands of kilometres an hour through the sky - the two texts I have are 'static'. I cannot cut and paste. So I take a second run at the task and realise that in transferring my writing from one text to the other I am reworking my ideas into new words and different phrases. In this space where I am hampered from using my powered devices I gratefully reflect that the use of pen and paper and the accessible literacy of writing on static text have prompted me to layer in an additional process of reading critically. I acknowledge that the lack of dynamic affordances for simply transferring my thoughts from one document to another has resulted in transformation of those thoughts into something new. Fortunately for me my literacies are mobile.

There are a number of possible reflections to make on Episode 1. One of the most salient to us is the reminder that 'literacy' is not dependent on technological devices. No matter how advanced the technology is, if the individual is capable of mobilising literate practices across a number of platforms as this academic writer is, then meaning making will be possible to achieve. In fact, in this case, the writer's lack of access to the affordances of a word processing program stimulated more critical thinking and rewriting. As 'literacy educators', we know that contemporary students are growing into learning and new forms of communication through interaction with new and mobile devices but we wish to acknowledge the dangers of the device becoming the focus of learning rather than its tool. Hence, the

rationale of this book is to examine mobile literacies. New technologies will evolve and will determine our mode of communication but the capacity of being literate will always be mobile.

We need to consider the notion of mobility. While mobility means freedom of movement it is always, if paradoxically, related to a thing or time or place. For example, a hanging mobile decoration is both fixed and moving. A mobile phone is a physical device that needs to be held although it can be carried across places. Given the nature of the iPad as a digital device, it provides meaning making opportunities, which dynamically interact, interrupt and disrupt each other. However, the iPad is also an object, which can be acted upon in myriad ways including movement in the world. As Hammond, referring to Gibson's concept of affordance, states 'the world is full of potential not things' (Hammond 2010). Therefore, because people, devices and learning experiences are in a continual state of movement moving from, moving to, moving with (Pegrum 2014 in Ng, Chap. 7), we have adopted the concept of mobile literacies as an organising frame within which the iPad is located to examine the potential of this particular thing. In terms of the mobility of iPads, several of our authors have shown the importance of the place for their use—whether in the school, the home or the environment. They have accounted for mobility in different ways both physical and abstract explaining virtual 'wayfaring' (Rowsell, Maues, Moukperian, Colquhoun, Chap. 8) with a sense of dynamism that is value laden denoting freedom/engagement/open access/beyond systems as positive as opposed to statis/ limits/linearity as negatively bounded.

Place has long been acknowledged as a factor in literacy development (Leander and Sheehy 2004; Comber 2016) but not so well accounted for in critical explorations of mobility as it relates to iPads. Ingold's notion of 'em-placement' (see Chap. 2) is a helpful reminder of how quickly iPads have become placed resources deeply embedded in many learning contexts. As Marsh states in Chap. 3 'engagement with technology is never context-free'. Rather literacies need to be viewed as social practices 'constructed out of a constellation of social relations, meeting and weaving together at a particular locus' (Massey 1991: 28). With their strong focus on place, it is no surprise that ethnographic styles of research methodologies are common to the studies in the book as they take into account culture as key to meaning making processes. In order to explore the relationships constructed between humans and devices such as iPads in a dialectic fashion, we need to attend to what Gibson terms the 'complementarity of the animal and the environment' (Gibson 1986: 127). The role of context in creating open, closed or permeable boundaries within which mobility is made possible is important to note. In this book, the researchers are often 'in' the research space they have colonised. They openly acknowledge the multiple and partial perspectives provided as they present data collected from methods such as descriptive scenarios, digital artefacts, ethnographic interviews, narrated action, participant observation and video analysis.

The need for such variety of data collection methods indicates the complexity of trying to capture socialised relationships played out across space and time. To deal with the existence of ecological systems while acknowledging timescales where extended significance may be read from 'a series of isolated happenings' (Lemke 2000: 273), researchers record instances of literate engagement found at home, at school and out of school. Driven by the function of the task at hand literacies are mobilised during games, parent child interactions, school lessons, etc. as improvisations in meaning making occur using the appropriate affordances of technology. For example, in Marsh's study (Chap. 3), mobile technologies such as smart phones and GoPro Chest cams were used for young children as well as parents to film the children's tablet use and their interaction with parents and sometimes siblings during activities. These placed technologies enabled the researchers to develop ethnotheories about the attitudes of parents towards their children's table use. The digital dyad study of Kucirkova and Sakr (Chap. 11) allowed for a study of the concept of personalisation showing how one child's sense of self was developed through the sharing of a story making app on the iPad with her father. The link between reader response to literature and game theory was proposed and analysed through Maine's study of the dialogic interaction between two students in the story world of a game on an iPad (Chap. 13).

Just as place is important, similarly the physicality of iPads should be recognised as their materiality contributes to experiences of learning and meaning making. Merchant reminds us in Chap. 15 that learning to be literate in different ways depends on the material affordances of inscription devices. For example, the iPad has an external surface that can be experienced through embodied haptic awareness in a number of forms of 'thinging' (Ingold 2013). Previous research has examined the dynamic materiality of the touchscreen (Walsh and Simpson 2014) but the iPad device is more than just one of its parts. Socio-material approaches to literacy remind the reader that, in contrast with often touted perceptions of boundless opportunities for creating and communicating, the iPad should be viewed as a bounded object where design impacts on operationality and learner agency (Daniels, Chap. 12). As was noted in Chap. 1 and illustrated in Episode 2 below, the physicality of an iPad provides both opportunity and constraint (Hammond 2010) as objects may act and be enacted differently across locations becoming 'other' or different versions of the same thing (see Burnett, Chap. 2).

The scenario below demonstrates how digital space and physical space interrelate in the embodied mobility of the iPad. It also clearly illustrates the role personal engagement plays in literacy events as well as how the materiality of the device matters to the communication it makes possible.

Episode 2

On the back of the seat in front of me – angled oddly now due to the fully reclined chair of the passenger in front of me – is a tablet screen. When I tap it into life it reveals some bounded options. I may select from a range of enter- or info-tainment but only from the range that the airline has made available for this month. My tablet has been 'domesticated'. Tapping through various menus I can register a choice to change from listening to music now my writing task is done (see Episode 1) to watching a movie – not the one I was

hoping to watch given the limited listings – but something to pass the time. This is a familiar scenario to me. Navigating through the use of touch and symbol I achieve my goal. My heightened awareness of my personal space reminds me to tap just hard enough that the tablet senses my physical interaction with the screen but softly enough that the passenger in front of me whose seat my screen is embedded in does not. I find myself wishing that someone had educated the young person behind me with the same communicative sensitivity of which I am aware. They have scrolled through the menus to the game section and selected what I sense to be a highly challenging activity. I sense this challenge in a number of modalities. First is the more obvious one of the strongly insistent tapping on the back of my seat that communicates itself directly to the back of my head. Second is the parallel vocalisation that accompanies each move in the game. This is communicated in loud and enthusiastic calls of affirmation 'Go!' or frustration 'No!' Moments of silence lull me into a false sense of relaxation but they don't last long. They are merely the signal that the player is concentrating hard on their next move, which is accompanied by renewed tapping and a new episode narrated with tones of excitement or disappointment. The player's facility with the technology has engaged them so deeply in the gaming 'space' that they seem unaware of the 'place' that they share with their fellow passengers. The connection the mobile literacies create in this instance between a private and a public social context (as felt through the back of my seat) are literally made material through the physicality of the interaction.

As seen above in Episode 2, there is a paradox where the sophistication of technology (tablet screen and game consoles on an international flight) is constrained by the choice in programs available and the physical limitations of the situation. It is an example of a bounded place and space where the enactment of the technology is limited. The iPad has become a fixed object to be acted upon by a passive consumer. In this instance, we remind ourselves of the contradiction that even though we may be mobile we are always confined by decisions of producers and deliverers of the technology. And yet, as examples earlier in the book show, although applications and technologies may have boundaries designed in, innovation and disruptive practice is always possible (Daniels, Chap. 12 and Ng, Chap. 7).

Our perspective on mobile literacies positions researchers to look beyond individualistic/private models of learning to community/participatory/public connectedness. It rejects the autonomous model of literacy identified by Street (1984) and presents literacies as social practices. Therefore the use of the iPad has been described in the book as a device that bridges the space of togetherness and apartness (Kucirkova and Sakr, Chap. 11). Many examples were given of how relational collaborations were made possible in ways that added to what was previously achieved and did not just replicate what could be done without the technology. Two are provided here. In the Simpson and Walsh study, the shared iPad use by pairs of students supported the development of a multimodal text from handwritten notes to a recording of an advertisement accompanied by theme music broadcast to a class. The shift from private to public interactions in this context showed increased semiotic complexity and high levels of motivation sustained over time. In Chap. 9, Caine, Davies and Williams explore how iPad usage supported the formation of new relationships as expertise and knowledge provided by students—who would not normally interact—fed into a collaborative project. The affective engagement produced through this process had long lasting impact on learners' social identity.

Parallel opportunities for shared interactions were seen to exist in an array of contexts common though globally distant. While social models of learning are not new (e.g. Vygotsky 1978), the way of 'reading the world' as viewed through Pokemon Go (Wohlwend, Chap. 4) pushes our understanding of literacies into complex accounts, which incorporate simultaneously the real/physical and the virtual/immaterial. The authors in this book are examining practices expanded through digital affordances as literacy AND not either or. In this, framing devices such as iPads are actants enacted, part of the flow of assemblages that operate in entangled networks of objects and practices (Chaps. 2 and 4). Resisting the tension of the need to work towards coherence, the authors are willing to encourage conceptualisations of chaos/rhizomatic connectedness that acknowledge the always in play/anytime/anywhere nature of meaning making. The chapters record instances when learning 'transcends the temporal and spatial boundaries of school' (Ng, Chap. 7). This work recognises the opportunities provided by the 'emergent properties' (Hammond 2010) of iPads to open boundaries, enable divergent discovery and encourage originality. However, chapters also record limits on access and equity created by closed boundaries, physicality, design logic, rules, policy, provision, limited cultural capital (O'Mara, Laidlaw and Blackmore, Chap. 6). In this way, the book accepts and problematises 'systems of regulation, surveillance and scheduling governing the organisation and control of mobilities' (Mills 2016: 5).

Where to Next and What Counts?

Undoubtedly future technologies will change the way we interact with texts and each other, yet they will not change our need to interact, learn and create. Bezemer and Kress (2008) describe literacy as 'the potential for learning and for expressing' (p. 168). Surely this is what 'literacy' includes. In moving from models of literacy that encompassed skills to current developments in coding languages, twenty-first-century expectations of learners' literacy options (Heydon 2013) have shifted. We need to distinguish between the technical skills and cognitive processes of using digital technologies and the affective need for human beings to be passionate about learning, creating and communicating. Most importantly, as we examine discursive practice in individual and communal activity, we need to contextualise our study in the world to acknowledge the entanglement of 'things, places, bodies and acts' (Hollett and Ehret, Chap. 14). Focussing on the case of the iPad has given us the chance to explore complex ecological systems in which the device plays only a small part. We have pointed the way to many other potential studies that could be undertaken to compare, contrast, challenge and dispute our findings. We note mobile literacies made available through a digital platform have brought abstract concepts into physical existence by the action of finger tips tapping on a keyboard. It is very clear in writing our account of the case of the iPad, the hand is positioned 'at the interface between consciousness and the world' (Merchant, Chap. 15). And

now, as we prepare to type the last words of the chapter, email a copy to our colleagues across the world and put down the lid of the laptop as a material and allegorical sign of closure, we remind ourselves that our mental processes have been shaped into textual form through 'conscious, practical work' (Freire and Macedo 1987: 23) embodied in specific places and times. To help us transform our readings of the digitised world, we have read across instances of iPad use and contributed to critical accounts of its complexity through the framing concept of mobile literacies.

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