

Amira's complexity and cosmopolitanism: the role of disposition in mobilities and mobile learning

Michael Gallagher

Centre for Research in Digital Education, University of Edinburgh, michael.s.gallagher@ed.ac.uk

Abstract

The capacity of individuals or systems to generate or learn how to generate a metastability, a state of navigating the largely unmanageable aspects of complexity, “cannot be reduced either to the actions of individual actors or to persisting social structures” (Urry, 2016: 59). It is as if complexity resists proportionality or linearity; small changes can generate large structural consequences, and individuals will, intellectually or dispositionally, exert considerable resources towards navigating this metastability.

This paper explores this complexity through Amira, an imagined composite of characteristics gleaned from the author's research in digital education and ICT for development (ICT4D). Amira is a Nepalese woman studying in a postgraduate programme in Europe. Drawing on mobilities theory, chaosmosis, and cosmopolitanism, the habitus of Bourdieu is repurposed as disposition; a tendency of an individual to act, react, or think in a particular way based on the social systems through which they move. Disposition is advanced in as a necessary addition to the theorizing of mobilities and mobile learning respectively, one that countenances Amira's navigational practices and learning. It provides a foundation from which to observe engagement and interaction across mobile spaces. It is a fluid process of engagement across multiple contexts, some being materially, deliberately, and dispositionally mobile. Ultimately, it is one that Amira must negotiate to maintain the mobility on which she depends.

Mobile technology is positioned as a critical factor in managing Amira's mobility across her communities. Mobile learning, as an attendant learning position designed to bolster Amira's capacity for managing her mobility, needs to account for the wider range of this activity: across multiple interactional contexts, amongst people and interactive technologies, encapsulating public and private processes; activity that moves between individual Amira's) and structural (those “immanent to the material conditions of global interdependence”) systems. Disposition is advanced in this paper as a means of expanding her capacity to navigate the complexity of her own mobility, and as a means of expanding research practice towards identifying such complexity.

Keywords

mobile learning; mobilities theory; digital education; cosmopolitanism; complexity theory

Amira: Her Systems and Mobilities

There is a need to open up all sites, places and social practices ‘to the mobilities that are already coursing through them (Sheller & Urry 2006: 209).

The body of research surrounding mobile learning is less rich than the theoretical research exploring its attendant mobilities theory, a body of work that attempts to counteract sedentarist positions in the social sciences and to emphasise that “all places are tied into at least thin networks of connections” and to explore the movements through them (Sheller & Urry, 2006: 209). Rather than negotiate the complexities of larger mobilities systems (the car, for example in Sheller & Urry, 2000), this paper will present these mobilities as experienced through a personalised, if imagined, narrative. This narrative is a composite of characteristics drawn from the author's own work in digital education (most notably Gallagher, 2016) and ICT for development (ICT4D, most notably Gallagher, 2018, February), a

methodological model of counter-storytelling used to present narratives of participation that demonstrate “community among those at the margins of society by putting a human and familiar face to educational theory and practice” as well as challenge the perceived wisdom of those at society’s center by providing a context to understand and transform established belief systems” (Solórzano & Yosso, 2002). Further, an imagined narrative further establishes the imagined communities, which “include future relationships that exist only in the learner’s imagination as well as affiliations – such as nationhood or even transnational communities” (Kanno & Norton, 2003)” that govern much of the mobility that this paper attempts to identify. Both this imagined narrative and the imagined communities towards which this narrative is positioned are grounded in characteristics drawn from international students and ICT4D project participants.

Amira is an expat Nepalese woman currently studying in Europe for a postgraduate degree in economics. She is on a meager scholarship from the Nepalese government that covers her housing. She routinely connects to her communities from her hometown in Nepal: her former classmates, her extended family, her immediate family. She works 20 hours a week, the maximum allowed by the host government, to support herself. When she has the capacity, she remits money home to her family using her mobile phone. Her local government leaders praise her and fully expect her to return home on completion of her studies to improve local conditions, provide, possibly, the same mobility for others that she currently enjoys. She navigates her administrative, legal, and other duties associated with her mobility: the visas, the registration, the rent and utilities, the public transportation card. Amira has a note on her mobile phone with all her important information, an insecure but accessible tether to all these communities: passwords, telephone numbers, bus routes, wire transfer information, and rent payments. She has met with an immigration lawyer to explore permanent residence yet makes no mention of this to her communities at home. She navigates the uncertainty and fragility of her existence amidst a rapidly shifting political landscape in Europe and shuffles between feeling accepted and rejected. She engages with and manages her academic and professional identities through the tropes of practice: papers, symposia, lectures, discussion boards, and mobile messaging application chats with her peers. Amira is cosmopolitan amidst a chaotic “multi-faceted, affective cosmopolitics of embodied subjectivities grounded in diversity and radical relationality”, a “globalised condition” that is not “a transcendental ideal but are rather immanent to the material conditions of global interdependence” (Braidotti, 2013: 171). Mobility and mobile learning, broadly defined, are the attendant circumstances of her condition.

Mobilities: Amira’s Complexity and Time

Amira’s mobility illustrates, to some degree, the complexity of mobility itself, a complexity that this paper is positioning theoretically amidst mobile learning. Amira has and can continue to learn to negotiate this landscape, these networks, to assemble relations, however ephemeral, between actors and materials, between technologies and activity. Mobile learning provides, potentially, a framework for this learning when adequately aligned with the theory used to describe mobility, an environment that has manifest “‘others’ that form each person’s desires, capacities and judgements for action...Social institutions, networks and groups construct, mould and orchestrate human actions” (Urry, 2016: 58).

It is in the orchestration of these others that the mobility is enacted that forms such an important tenet of Amira’s existence. Amira orchestrates these ‘others’ both intellectually and dispositionally in an unending process of adjustment in the pursuit of equilibrium, a process historically shared structurally amongst larger “relatively fixed and self-correcting social structures” (Urry, 2016: 59). Her communities, her responsibilities, her emerging identification as an academic, a professional, an autonomous adult all enact on and are enacted by the social structures through which she moves. Critiques of such a position question the capacity of either Amira or these social structures to generate equilibrium, emphasising the largely unmanageable aspects of complexity, a complexity that “cannot be reduced either to the actions of individual actors or to persisting social structures” (59). This complexity resists proportionality or linearity; small changes can generate large structural consequences, a “metastable” condition: Amira will, intellectually or dispositionally, exert considerable resources towards navigating this metastability. Her mobility is often non-linear, nor progressive, nor always desired, but rather remains a condition of her existence. Amira is engaging this routinely on multiple fronts: her academic work, her paid employment, her meetings with immigration lawyers, her updates to her community leaders in Nepal, her family remittances and calls home. These are not activities linearly assembled towards one conclusive end for Amira; they are actors in a larger system

of mobility, actors that Amira routinely assembles and disassembles based on her own perception of need, desire, and in response to movements within the larger social systems of “global interdependence” (Braidotti, 2013: 171) in which she moves through.

However, Amira’s exertion is manifesting a system which is loose enough to evolve, adapt to both individual and structural change, and which allows her to self-organise (within an already self-organising system). If we broaden Amira’s system to include one, if not all, of her learning communities, we are left with a set of systems that is decidedly mobile, but one that still responds to a structural dynamic where elements, if not realities, of stability are present. It is through this dynamic that we see an evolving position of mobile learning emerge, one that attempts to incorporate structural instability and stability, organisations and communities, materiality, relationality (how Amira organises these actors in her systems), intent and disposition. Movement in these systems is nonlinear; “there is thus no distinction in complexity thinking between states of equilibrium and growth states – all systems are dynamic and processual, with new structures developing and others disappearing in ways that are often difficult to anticipate” (Urry, 2016: 62). Amira experiences growth and equilibrium states simultaneously, as do the systems she works through. There are additional elements that serve to structure these systems such as time, particularly A-series time (McTaggart, 1927), a condition that emphasises the relationships between past-present-future.

Past events are seen as being in part retained within the present and then carried forward into the future. Moreover, the present is not seen as an instant but as having duration. The past is not simply back there but comes to be incorporated into that present, as well as embodying certain expectations of the future” (Urry, 2016: 66).

The mobility that Amira experiences is conditioned by this A-series of time: the communities in which she participates, her own upbringing and past experience, the expectations of citizenship and civic participation, the collection of Amira’s past and present states all shape her orientation, both her intellectual and dispositional capacity to act in the future. She moves from her past to present and future routinely: the crafting of her CV for professional membership in an economics association, for example, requires a mining of her past (in Nepal, largely), her present (as a burgeoning economics professional, for example) towards her future trajectory (as possibly a European economist).

Mobile learning, if designed to serve Amira and the systems in which she participates, must also serve this A-series of time by providing the capacity to identify these expectations of the future through past and present activity and material. For Amira, these future expectations are both shaped and evidenced by her past and present activities.

Roles, Materiality, and the Networks of Mobility

While simplistically presented here, it is important to note that the roles, identities, materials, and practices that Amira adopts, embraces, backgrounds, and discards routinely are manifest in this position of mobile learning. While it is beyond the scope of mobile learning to actively account for these elements, it is imperative that it does not inhibit their use and circulation through both personal and social systems.

There are hierarchies of mobilities as one spans the continuum from refugee to cosmopolitan to expat, emotive distinctions largely predicated on economic inequality and privilege. Yet despite the categorical differences in these mobilities, ultimately an individual might experience several either simultaneously or in short succession. Returning to Amira, she is both privileged in her capacity to enact a cosmopolitan mobility owing to her role as an international student and disadvantaged in this role as an ‘other’ whose mobility is constrained by her visa status: in this transnational mobility, humans cross borders far less easily than flows of culture and media (Braidotti, 2013: 310).

The materiality of this mobility circulates through Amira’s systems both as an agent and an artifact. The passports, forms, stamps, and signs of Amira’s mobility are both symbols of mobilities and evidence of their enactment; the timings associated with them structure the mobility itself. The need to renew a visa, for example, will dictate Amira’s capacity for mobility in a particular timeframe; the need to renew a passport will structure that visa renewal. Mobilities are constructed through careful sequencing of roles, identities, material, and time; these mobilities are travelled through an orchestration of intellectual and dispositional activity. The role of technology in managing and

enacting these mobilities is critical to understanding the mobilities themselves. Amira is dependant to some degree on her phone, her laptop, the electricity required for both to run. They allow her to engage her network, to negotiate her mobility, and ultimately to survive in this 'other' existence.

Castells suggests networks 'constitute the new social morphology of our societies, and the diffusion of networking logic substantially modifies the operation and outcomes in processes of production, experience, power, and culture ...the network society, characterized by the pre-eminence of social morphology over social action' (1996: 469). It is in this emphasis on structure over social action that we see Amira's situation most readily revealed. Amira places great emphasis on the maintenance of her system of mobility, rather than in her capacity to perform a specific action: she engages in endless discussions on email with prospective employers; attends events where prospective PhD supervisors might be attending, routinely texts family and friends in Nepal; she has a series of job alerts filtering into her email everyday. From email to Whatsapp to discussion boards to meetings and events, Amira is invested in maintaining this system of mobility even when there is no clear outcome visible or possible due to the situation constraints in which she finds herself (such as still in the process of completing her degree). Deliberately or dispositionally, Amira negotiates, insofar as possible, actors, identities, material, and systems towards maintaining her capacity for mobility. This is not the linear sequencing of activity towards a deliberate outcome (although that is indeed present; Amira wants that advanced degree in economics). This negotiation is Amira aligning herself with the chaosmosis of Guattari (1995), the "vital processes of transformation alongside and with a multiplicity of human and non-human others" (Braidotti, 2013: 452-458). Amira either deliberately (as in intended action) or dispositionally (as in implicit or tacit activity) enacts mobility rather than a specific outcome; the network in which she engages to enact and manage this mobility provides an iterative foundation from which mobile learning emerges.

Amira engages this network both deliberately and dispositionally navigating through communities of geographical, digital, physical, institutional and imagined composition. Most are readily explained, to some degree, through her existing activities or identifications: as a woman, as a Nepalese citizen, as a cosmopolitan citizen, as an international student, migrant, university or disciplinary practitioner, as a friend, a daughter, and so forth. Some are imagined communities "include future relationships that exist only in the learner's imagination as well as affiliations – such as nationhood or even transnational communities" (Kanno & Norton, 2003). Amira manifests a gravity towards these imagined communities dispositionally and intellectually: her decisions, her effortful stasis, or quasi-deliberate activity, her intent, and her disposition are all, in some way, attuned to her future communities. What she wants to be vs. what she is vs. what she responds to vs. what she chooses. Amira is moving through a larger system of mobility propelled, to some degree, by a projection of the future shaped by an incorporation of the present and past, a Series-A sense of time amidst a larger complexity.

Disposition and Habitus

Amira is apt to act in this network and through her mobilities both deliberately and dispositionally. Disposition is presented here as an intentionally reductionist appropriation of habitus, encapsulated in Kress & Pachler's (2007) within their discussion of mobile learning, which is in itself an adaptation of Bourdieu's original position of habitus. Habitus is the evolving personality structure of the individual, a composite set of schemata, sensibilities, tastes with their own defining logic yet resisting any mere categorisation as a product of a conscious or slavish devotion to rules or the mere obedience of a governing entity or instructional agent. Habitus is defined by Bourdieu as follows:

The structures constitutive of a particular type of environment (e.g. the material conditions of existence characteristic of a class condition) produce habitus, systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is, as principles of the generation and structuring of practices and representations which can be objectively "regulated" and "regular" without in any way being the product of obedience to rules, objectively adapted to their goals without presupposing a conscious aiming at ends or an express mastery of the operations necessary to attain them and, being all this, collectively orchestrated without being the product of the orchestrating action of a conductor (1977: 16).

This paper notes the “disposition” being both “durable”, “transposable” and “without presupposing a conscious aiming at ends” as it provides a needed parallel to Amira’s context described thus far. Context itself has proven elusive to define with mobile learning; it is highly interactional and generally ephemeral as described earlier with mobilities theory: both the individual systems (Amira’s generally) and the social systems (largely outside Amira’s control) are persistently shifting, forcing on Amira the need to manage her mobility within these shifts. Context collapses and reassembles routinely, yet habitus sheds light on their governing dynamics. Amira acts within her mobilities largely dispositionally, rather than as explicitly deliberate. She interacts because she is disposed to as a result of her attendance to her systems of mobility, rather than always in response to pressing need or predefined purpose. By dispositionally, Amira is acting almost reflexively to maintain her mobility, a reflexivity that belies the effort required to maintain such systems.

Disposition is durable in that it is maintained vigilantly by both Amira and the systems through which she moves; it is transposable in that it is applied to a variety of these systems routinely; often these systems are generic enough to support such transposable activity (the effort required to maintain registered status as a student might prove transposable to the effort required to maintain lawful status as a visa-holding migrant, for example). Amira isn’t inherently penalised for acting in her disciplinary system of economics as if she were in her professional systems of economics. Amira’s disposition is iterative in that it shifts in response to activity and tacit, implicit, or explicit feedback received from that activity. Amira acts or does not act to maintain her systems of mobility both explicitly and dispositionally, exhibiting a responsiveness to a shifting and often unforeseen present or future context, rather than knowledge, or apt understanding of past context and activity. This evidence of transformation, of shifting habitus, is made most visible through practices and the materials that these practices employ as discussed by Bourdieu himself. These are not mere responses to explicit directives or instructions; they both reproduce and co-create the contexts in which they are applied:

“Even when they appear as the realization of the explicit, and explicitly stated, purposes of a project or plan, the practices produced by the habitus, as the strategy-generating principle enabling agents to cope with unforeseen and ever-changing situations, are only apparently determined by the future. If they seem determined by anticipation of their own consequences, thereby encouraging the finalist illusion, the fact is that, always tending to reproduce the objective structures of which they are the product, they are determined by the past conditions which have produced the principle of their production, that is, by the actual outcome of identical or interchangeable past practices, which coincides with their own outcome to the extent (and only to the extent) that the objective structures of which they are the product are prolonged in the structures within which they function” (1977: 16).

Practices, as such, are reproducing the context in which they are being enacted and responding to the opportunity provided by the context itself. By way of example, the practices and materials needed for Amira to complete an essay for her subject are largely emergent from the context itself: that of university requirements (word count and format), of disciplinary practices (modes of constructing an argument and citation systems), of her role as a graduate student (expected to develop a critical voice and move towards an original contribution), of her emergent professional affiliations (what counts as evidence as a professional economist will inform whether it is included in her essay). The complexity and mobility of Amira’s existence is largely emergent from the contrasting elements that inform Amira’s practices: that of an international student, of a woman, of a Nepalese citizen, a family member, a friend, a prospective immigrant. In short, “the life world of the individual framed both as challenge and as an environment and a potential resource for learning” (Kress & Pachler, 2007: 22).

Beyond reproducing and realizing opportunity, practices also provide a means of evidencing a shifting habitus, and opportunity for further employing mobile technology as an agent in evidencing the transformation of habitus itself. Clear connections between previously disparate fields or activities begin to appear potentially through the mobile screen: disposition, formal and informal communities, practices, technology use, and mobility itself as a cognitive rather than physical or material mobility. In other words, “that which is mobile is not knowledge or information, but the learner’s habitus” (2007). Without habitus and its attendant disposition, mobile learning is reduced to monitoring shifts in practice, activity, and nominally context. With the inclusion of disposition, we enact a fuller picture of learning: the material, the intellectual, the dispositional, the social, and so forth. Amira’s Whatsapp screen lists all her ongoing discussions with individuals or groups: a study group for one of her courses; a bulletin of information relevant to visa holders of changes in domestic immigration policy; a

chat with her mother, her brother, her friends from home; a group chat of a local photography group; and more. All of these threads vie for attention on her mobile application as they refresh, moving immediately to the top of the threads. A buzz, a ring, a red circle with a number indicate that her systems of mobility demand attention or require maintenance. Amira navigates much of this deliberately and much of this dispositionally.

Yet habitus has received significant criticism, particularly as it is often perceived to be deterministic and objectivist (King, 2000). Beyond being a trait that this paper is attempting to avoid and to which much mobile learning research is subject, determinism refers to the critique that habitus provides disposition in relation to fields without agency, suggesting the lack of capacity to shift or enact significant transformation within a habitus by either the individual or the field (Butler & Shusterman, 1999). This determinist critique neglects moves in the social sciences towards posthuman positions, where human agency is situated within a larger landscape of actors, human or nonhuman, all generating systems of activity. As Bourdieu & Wacquant (1992) suggest: "A habitus is neither compelled by the field (as in structuralism), nor freely chosen by actors (as in rational choice theories or phenomenology). Thus, habitus is the hinge between objectivist and subjectivist accounts of human action, and helps to explain the intransigence of social change" (97).

It is in this balancing between individual and structural forces that habitus provides utility for the position of mobile learning. It provides a definition that accounts for disposition, the reaction to and manipulation of mobility structured by both the system and the individual, to counter the deliberation of constructivism, or the execution of deliberate activity for learning. Rather than positioning either as deterministic, a turn towards habitus and disposition merely reinforces the assumption that both exert control over activity in varying measures; the "intransigence of social change" doesn't negate the potential for individual transformation within a system or community. Amira is becoming an economist, potentially a European professional, certainly an academic; she maintains her identity as a Nepali citizen, a daughter, friend, and so forth; she chooses some of these positions and many are thrust upon her. To be properly theorised, mobile learning requires capacity for moving between individual and structural concerns.

Mobile Learning: Exploring Disposition and Moving Towards Method

Amira wakes one Saturday morning. She needs to study, to call her family in Nepal, she needs to pay her rent online, and schedule her upcoming administrative duties: her visa needs renewed, but first her passport renewal. Aligning these takes careful consideration. Amira begins doing her laundry for the week, finishes her chores, reflexively searches a job site that she receives weekly alerts from as well. She is going to meet her friends later in the day but after completing her tasks she decides to go for a walk. She starts down her urban street, turns left, then left again, and then right, lost in the recorded lecture she is listening to as a podcast. Her path is chosen, not deliberately, but dispositionally, yet she concludes the walk near the university library. With an hour to wait before she meets her friends, she sits on a bench with her back to the campus (and Nepal) and watches the sun set in front of her, as the dulled anxieties of a Sunday and encroaching responsibility seep into the day.

A position of mobile learning that might serve the conditions of Amira's existence is one not generally reinforced in the research. Earlier definitions of mobile learning were generally technologically oriented or deterministic (critiqued in Kukulska-Hulme et al., 2005), or positioned mobile learning as an extension of e-learning (critiqued in Traxler, 2005). These proved insufficient for the evolving context and practices of mobile learning as they emphasized the technology or the location and not the fluid social practices emerging from these contexts (Roschelle, 2003). This paper and the author's previous work (Gallagher, 2016; Lamb, Gallagher & Knox, 2017) seeks to evict technological and logically circular definitions (mobile learning as any learning that takes place with mobile technology, as well as geographically or temporal definitions of mobile learning (learning that takes place anywhere or anytime, a familiar trope in early mobile learning literature, discussed in Yahya et al., 2010). A broader definition of mobile learning is presented by Sharples et al (2007); in this definition, mobile learning is positioned as "the private and public processes of coming to know through exploration and conversation across multiple contexts, amongst people and interactive technologies." It is this movement through multiple contexts that the mobility of mobile learning emerges. As

Sharples et al suggest, “we learn across time, by revisiting knowledge that was gained earlier in a different context, and more broadly, through ideas and strategies gained in early years...we move from topic to topic, managing a range of personal learning projects, rather than following a single curriculum” (2007). Again, we see evidence of the A series of time, where the past and present inform the trajectory of the future. In this definition, the mobility in mobile learning can be both material, in terms of learning artifacts (media, text, and other material elements emerging from the learning process), deliberate and dispositional. Amira’s past and present are revisited to inform her future trajectory: again, Amira has a note on her mobile phone with passwords, telephone numbers, bus routes, wire transfer information, and rent payments. Her CVs, visa renewals, and bios require a unpicking of her past for present and future relevance. She engages with and manages her academic and professional identities through practice: papers, symposia, lectures, discussion boards, and mobile messaging application chats with her peers.

Amira experiences contingency and expectation acutely from all the communities in which she participates and ultimately she is relatively comfortable in managing if not reconciling their oft competing demands on her time. “There is no way to read the following list from a standpoint of “identification,” of a unitary self. The issue is dispersion. The task is to survive in the diaspora” (Haraway, 2006: 616-617). Amira does indeed survive, is indeed attempting to be one with the vital processes of transformation alongside and with a multiplicity of human and non-human others, is as comfortable as possible amidst the chaosmosis, and is signalled to action amidst this through a dispositional cue: a pang of anxiety, a reminder, a message, a hint of something emerging and something passing, a mobile notification, a sunset, the end of term, a professional future, and so forth. This is a dispositional metastability amidst the chaos, an identity not seeking wholeness (“an identity when one never possessed the original language, never told the original story...”) (Braidotti, 2013: 9).

Mobile learning, if it to be of use to Amira, needs to account for the wider range of this activity: across multiple interactional contexts, amongst people and interactive technologies, encapsulating public and private processes (Sharples et al., 2007); activity that moves between micro (Amira’s) and macro (those “immanent to the material conditions of global interdependence”) systems. Mobile learning needs to account for Amira’s material capacity, deliberate capacity (what she intentionally decides to do), and, as this paper is attempting to suggest, a dispositional capacity (what she does largely as a reflexive response to her systems of mobility). Amira needs capacity to manage her movement through these systems, and through the diaspora of her existence, and disposition provides a means of both expanding and evidencing her capacity to do just that.

References

- Bourdieu, P., & Wacquant, L. J. (1992). *An invitation to reflexive sociology*. Chicago: University of Chicago Press.
- Bourdieu, P. (1977). *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.
- Braidotti, R., Hanafin, P., & Blaagaard, B. (Eds.). (2013). *After Cosmopolitanism*. London: Routledge.
- Butler, J., & Shusterman, R. (1999). Bourdieu: A critical reader. ‘Performativity’s social magic’, 113-128.
- Castells, M. (1996). *The information age: Economy, society, and culture*. Volume I: *The rise of the network society*. Malden: Blackwell.
- Chang, Y. (1971). Colonization as planned changed: The Korean case. *Modern Asian Studies*, 5(02), 161-186.
- Cresswell, T. (2010). Towards a politics of mobility. *Environment and planning D: society and space*, 28(1), 17-31.
- Gallagher, M. (2018, 7 February). *Equity not Equality: How ICT4D Might Inspire Digital Education at the University of Edinburgh*. Seminar presented at Oxford University Department of Education Seminar Series, Oxford, UK.
- Gallagher, M. (2016). *Charting Trajectories on the Peripheries of Community Practice: Mobile Learning for the Humanities in South Korea*. Unpublished doctoral thesis. Institute of Education, University College London, Department of Culture, Communication and Media.
- Guattari, F. (1995) *Chaosmosis: An Ethico-Aesthetic Paradigm*. Sydney: Power Publications.
- Kanno, Y., & Norton, B. (2003). Imagined communities and educational possibilities: Introduction. *Journal of language, identity, and education*, 2(4), 241-249.
- King, A. (2000). ‘Thinking with Bourdieu against Bourdieu: A ‘practical’ critique of the habitus’.

- Sociological theory, 18(3), 417-433.
- Kress, G. & Pachler, N. (Eds.) (2007). 'Mobile Learning: Towards a Research Agenda'. WLE Centre, Occasional Papers in Work-based Learning 1.
- Kukulka-Hulme, A., Evans, D. & Traxler, J. (2005). 'Landscape study in wireless and mobile learning in the post-16 sector'. JISC Technology and Standards Watch. Available at <http://www.jisc.ac.uk/whatwedo/programmes/elearninginnovation/landscape.aspx>.
- Lamb, J.; Gallagher, M. & Knox, J. (2017 forthcoming). On an excursion through EC1: multimodality, ethnography and urban walking. Qualitative Research.
- Haraway, D. (2006). A cyborg manifesto: Science, technology, and socialist-feminism in the late 20th century. The international handbook of virtual learning environments, 117-158.
- McTaggart, J. (1927) The Nature of Existence. Vol. II, Book 5. Cambridge: Cambridge University Press.
- Urry, John. What is the Future? (p. 205). Wiley. Kindle Edition.
- Roschelle, J. (2003), 'Unlocking the learning value of wireless mobile devices'. Journal of Computer Assisted Learning, 19 (3), 260-272.
- Sharples, M., Taylor, J., & Vavoula, G. (2007). 'A Theory of Learning for the Mobile Age'. In R. Andrews & C. Haythornthwaite (Eds.) The Sage Handbook of Elearning Research. London: Sage.
- Sheller, M., & Urry, J. (Eds.). (2006). Mobile technologies of the city. Routledge.
- Sheller M & Urry J, 2000, 'The city and the car' International Journal of Urban and Regional Research, 24, 737-757.
- Traxler, J. (2005). 'Mobile Learning-it's here but what is it?' Interactions, 9(1).
- Sheller, M., & Urry, J. (2006). The new mobilities paradigm. Environment and planning A, 38(2), 207-226.
- Solórzano, D. G., & Yosso, T. J. (2002). Critical race methodology: Counter-storytelling as an analytical framework for education research. Qualitative inquiry, 8(1), 23-44.
- Urry, J. (2016). What is the Future?. John Wiley & Sons.
- Urry, J. (2007). Mobilities. Cambridge: Polity Press.
- Urry, J. (2002) 'Mobility and Proximity.' Sociology, 36(2), 255-74.
- Yahya, S.; Ahmad, E. A.; Jalil, K. A.; & Mara, U. T. (2010). 'The definition and characteristics of ubiquitous learning: A discussion'. International Journal of Education and Development using Information and Communication Technology, 6(1).