**4. *Karen* by Blast Theory: Leaking Privacy**

Maria Chatzichristodoulou

**Abstract**

Blast Theory’s piece Karen (2015) is here to help you sort your life: Karen is a life coach you can download as an app. But your frequent one-to-one sessions over a period of nine days soon take an unexpected turn, as Karen appears to be psychologically volatile, confused, and disrespectful of professional boundaries. A hybrid between game and drama, the piece raises questions about privacy and control at a time when technologies increasingly permeate every aspect of our lives. Karen prompts you to question how you use media, what information you leak through this usage, and what is at stake in doing so – useful life advice if ever there was any.

Karen is a life coach and she is friendly. Too friendly.

(Blast Theory website, 2015)

**Blast Theory**

Blast Theory is an internationally renowned, award-winning British artists’ group led by Matt Adams, Ju Row Farr and Nick Tandavanitj. Founded in 1991, the group is based in Brighton, UK. Its innovative and pervasive live and media art practices focus on the socio-political aspects of technology, examining how these affect social dynamics. Since the turn of the millennium Blast Theory explores mobile and pervasive technologies and locative media, aiming to study the ‘impact of mobile culture on performance work’ (Tandavanitj, 2015), as well as how communication systems ‘can potentially be socially and politically transformative’ (Adams in Chatzichristodoulou, 2009: 109).[[1]](#endnote-1)

The group’s work is rarely contained within a delineated performance space; instead, it consistently demonstrates a disregard of traditional boundaries between stage and auditorium, performer and participant, real and fictional, or indeed, art and life. Blast Theory started with site-specific and promenade pieces such as *Gunmen Kill Three* (1991) before moving towards distributed works such as *Can You See Me Now?* (2001) and *Uncle Roy All Around* *You* (2003), which use mobile technologies to enable performance within the urban environment. Whatever the spatial framework or social context of the work, Blast Theory’s practices tend to defy boundaries, bursting into the real space – whether this is physical space or, in the instance of award-winning app *Karen* (2015), one’s smart phone screen – blurring the boundaries between disciplinary frameworks and creating hybrids that exist in the seams between game, art, and life.

<FIGURE 4.1 ABOUT HERE> Caption to read – Figure 4.1: *Karen* by Blast Theory (2015). Photo credit: Ruler.

Karen

Karen is a life-coach who works from home as a free-lancer.[[2]](#endnote-2) She is a fictional character created by Blast Theory, which you can interact with through an app. To start with, she engages with you, her ‘client’, in a professional manner. She talks to you about life, and asks questions that will help her understand your outlook on the world, your approach to various issues and, one might say, your moral compass. You do not know that (though you might suspect), but Karen’s questions are drawn from psychological profiling questionnaires – specifically the ‘Big Five’ test that measures openness, conscientiousness, extraversion, agreeableness, and neuroticism, and the Myers-Briggs type indicator personality inventory (Tandavanitj, 2015). Her responses to you are, to some extent, tailored to the life views that you are expressing. Your interaction with Karen goes on for nine days, during which you speak with her once or twice a day at different intervals. However, it does not take long before you realise that Karen is, as Khan puts it, ‘reductive, aimless, even pathetic’ (2015). Her boundaries between personal and professional life are skewed. Karen shares with you intimate information about her life and asks fairly inappropriate questions about yours. She has asked me what makes my partner tick, and whether I think the most exciting sex is that had with a stranger. I cannot recall Karen asking me much about my professional life, work-life balance, or other matters one might expect a professional life coach to engage with. Most of her questions are of the nosy type, and this certainly becomes the rule the more we interact with each other. This peaks at the point when her man *du jour* Dave becomes involved and takes over a session while Karen is unavailable (despite the fact we had an appointment). Dave’s behaviour is clearly inappropriate: he tells me that Karen finds me boring (what – me?!) and suggests that, like her, I am easy to get into bed.[[3]](#endnote-3) He pretty much forces me to watch him rummage into Karen’s drawers in her absence although I have firmly declined his offer to do so thrice. I hung up but he asks me to call back; when I do he lets me know that he has found my file.

Although fully aware that Karen is a dramatic character and not, in fact, a life coach at all, this does unnerve me: Karen might be fictional but I have been responding to her questions truthfully, in good faith, and without giving the matter of how much personal information I am diverting to her substantial consideration. I have told her about my partner, my child, my attitude to life. Now all this private info, including Karen’s notes, judgments on myself, and character profiling are in the hands of a stranger. Someone who, frankly, I would never choose to share my personal information with as he looks rather unsavoury. What is Karen’s responsibility in this? Though she (for all I know) never allowed this person access to my data, she did not take sufficient measures to protect my private information from him either; does this not constitute breach of trust on her part? And how am I to handle this? To make matters worse, Karen sulks during our next appointment as if I am the one to blame (she later does blame me of having betrayed her trust by going through her personal belongings with Dave)! The problems are escalating and I feel frustrated and trapped.

**Uncomfortable Interactions**

Blast Theory tends to use gaming and other interactive strategies in order to make its work accessible and appealing to a wide demographic. In the first instance, its work appears intriguing, appealing or seductive, which succeeds in eliciting the participants’ attention and commitment. Once audiences become drawn into engaging with a piece, it tends to place increasing demands upon their commitment to the work through growing complexity and/or intensity of narrative interaction. The interactive strategies and techniques the group chooses to adopt frequently require participants to engage with the work in ways that can be intense, emotionally unsettling, physically arduous, or time consuming. Karen is an example of such practice: the piece is durational, demanding my attention and engagement over a period of nine days; Karen’s text messages and invitations to meetings can come at any time, and often at times considered inappropriate (early morning or late at night); Karen promises to ‘help [me] work through a few things in [my] life’ (Blast Theory website, 2015), but instead drags me into her personal issues (break-up, dating, casual sex, confidence matters) in a manner that makes me cringe; she asks for my personal information, continuously challenging me to cross boundaries by inviting responses to very private matters such as relationships, sexual preferences and life values. My relationship with Karen becomes increasingly complex and challenging, forcing me to ask myself questions about some uncomfortable matters, namely: how ‘sorted’ my life is, how much private data I knowingly share with strangers, why I do that, who has access to my data via my smartphone and social media profiles, what data they can and do access, and to what end.

Blast Theory offers entertainment (the company refer to *Karen* as a hybrid between drama and game) that is less concerned with enjoyment or pleasure (the *sine qua non* of all mainstream game design and entertainment ventures) and more with what Adams terms a ‘productive anxiety’:

To disconcert (literally ‘to disturb the self possession of’) the player is to draw them into a world where normal rules do not apply, where senses are heightened, and new attention is paid to the world around you. Players … reported that, at times, this felt close to panic.

(Adams in Montola, 2009: 233)

This element of disruptive play that is manifested through strategies of intentionally disconcerting the player is evident throughout Blast Theory’s work. The group creates pieces that intentionally disturb the players/users, deliberately ‘engineer[ing] discomfort’ (Benford et al, 2012: 2005) by confronting users with unexpected and often challenging circumstances, and immersing them in fictional play-worlds that are regulated by different sets of rules than those which normally apply.

Benford et al. term those user engagements ‘uncomfortable interactions,’ that is, ‘interactions that cause a degree of suffering to the user. This may be physical suffering such as physical stress, tiredness or pain, but might also involve mental suffering due to fear and anxiety’ (2010: 1). The authors make an argument for ‘deliberately and systematically creating uncomfortable interactions as part of powerful cultural experiences’ (Benford et al., 2010: 1). They point to Blast Theory’s *Ulrike and Eamon Compliant* (2009), a piece dealing with surveillance and terrorism, as an example of this approach. *Ulrike…* is designed to make participants feel uncomfortable by confronting them with difficult decisions that involve culturally challenging issues; asking them to surrender control to others (the artists/performers); inviting them to a solo exploration of the city that can lead to feelings of isolation; confronting them with the unknown through intimate (one-to-one) encounters with strangers; putting them under surveillance, which can create a sense of vulnerability; and inviting them to watch others, thus problematising the illicit thrill of voyeurism (Benford et al., 2010: 5-6).

Benford et al. suggest that uncomfortable interactions such as those designed in *Ulrike….* can enhance cultural experiences in three main ways:

1. Entertainment: they can offer feelings of thrill, increasing subjective intensity and memorability of the experience (as in the case of a rollercoaster ride, for example).
2. Enlightenment: they can invite users to ‘engage with dark themes, demanding a deep personal commitment, reducing the risk of trivialisation, and in turn, promoting empathy and respect.’
3. Sociality: sharing discomfort can act as ‘a powerful social experience and driver of social bonding’ (2010: 2).

Like *Ulrike…,* *Karen* also creates uncomfortable interactions. To start with, I just have to download a free app that offers me a number of short sessions with a ‘life coach’ (it is understood that this is a dramatic experience and the live coach is a character). As the piece evolves though, it becomes more complex and significantly more contentious. Karen’s behaviour is not what one might expect of a professional life coach. Rather than sorting out my life, she is inflicting on me her own issues. What is my role in this context? How should I engage with her? How should I reply to her questions? Should I allow myself to be entangled in Karen’s private life? What is at stake if I do that? How much private information should I divulge in response to the idiosyncratic questions Karen seems intend on asking me? And how should I respond to Karen’s disregard of professional boundaries that puts my private information at risk?

Those are all questions that *Karen* directlyconfronts me with. Yet, there is another layer in this, which is, perhaps, more sinister than Karen’s palpable psychological confusion: while I am engaged with Karen the character, *Karen* the app performs its own functions. It accesses and logs private information available on my phone, such as my location and time data when I interact with the work. I am then offered to purchase a personalised report compiled by the range of data Karen has amassed about me, both through my deliberate responses to her questioning and through my, perhaps unconscious, allowance of the app to access and collate private information available on my phone.[[4]](#endnote-4) This report performs a triple function: a) it profiles me, b) it explains how this profiling has been done (i.e. which questions and answers have led to specific judgments about my character) and, c) it presents me with comparative data, positioning me in the behavioural spectrum of other *Karen* users. I find the report interesting, amusing, simplistic, and profoundly flowed (for example, the choice of a bangle as my preferred item amongst three of Karen’s things I was presented with has led to a whole set of conclusions about my personality being materialistic). The analysis offered is eye-opening; I find the fact that several companies appear to be using such superficial and obviously flawed means of testing and pigeon-holing their (prospective) employees shocking. Moreover, the fact that my personal data is constantly mined and processed in order to classify me as a consumer for targeted advertising campaigns is deeply problematic.

**Leaking Privacy**

Once social space (both private and public) becomes permeated by invisible machines that track one’s every movement, the prospective virtues of infinite connectivity quickly turn into the threat of infinite control. Pervasive technologies raise major concerns around issues of privacy and control (see Lyons et al., 2006). Pervasive computing increasingly permeates every aspect of our daily lives as we allow our machinic counterparts (laptop computers; handheld devices; smart phones, watches, clothing and domestic devices) to accompany, guide and track our every movement. Pervasive technology is characterised by an inherent capacity for constant surveillance; it is everywhere, it sees everything, it tracks, logs and shares everything. The practice of accessing and tracking user information can take place through dubious means, as ‘users’[[5]](#endnote-5) are often unaware of the nature and scale of private data tracking and storage their technological devices can facilitate, and of the vociferous appetite of corporations to access and consume this data for their own private (most often than not profit-making) ends. Governmental structures also use technologies in order to survey and control citizens.

Blast Theory became ‘fascinated with big data, and particularly how governments and large companies such as Facebook are collecting data on us secretly and using it without our consent’ (Blast Theory website, 2015). As a data-mining app, *Karen* is the continuation of a 2005 piece by Blast Theory, *Prof Tanda’s Guess-A-Ware* (Tandavanitj, 2015). This was designed in the context of an environmental science research project and resembles *Karen* in its structure as a ‘context aware mobile phone game’ (Blast Theory website, 2005). Prof Tanda is a fictional character that invites users to operate their mobile devices as data-gathering platforms in order to monitor their own energy and water usage, forming an understanding of their carbon footprint. The app gathers context info such as location, time of day and other private data, and alerts users twice a day over a ten-day period, tailoring activities such as quizzes and data-gathering tasks to users’ specific contexts. Prof Tanda is a ‘serious game’ app that aims to raise users’ awareness of their impact on the planet and aid them in finding ways to reduce it.

Despite the game’s good intentions, the practice of delivering *Prof Tanda*… got Blast Theory thinking how much one can learn about people’s individual contexts based on their mobile devices. It motivated the group to start exploring mobile devices as a means of ‘reality-mining,’ that is, of ‘sensing complex social systems with data collected from mobile phones’ (Eagle and Pentland, 2006), through identifying and visualising users’ behavioural and activity patterns (Tandavanitj, 2015). *Karen* is informed by ideas around individual context finding and delving into people’s private lives through their mobile devices(Tandavanitj, 2015). Through engaging with Karen (that is, downloading the app and playing the ‘game’) you continuously leak private data. This might be facilitated or obscured by the impression that Karen leaks private data back. During your Facetime meetings,[[6]](#endnote-6) Karen’s messy private life is laid bare into what is intended to be your professional life-coaching sessions, and you end up with a lot of information about her – probably more than you had bargained for. The difference of course is that Karen is fictional but you are real; and the same distinction applies to your respective data. *Karen* is, in short, *a trap* designed to make you divulge private information. However, Karen is an ethical trap: it is designed to not only access you data, make judgments about yourself and categorise you, but also make this process transparent, invite you to consider other instances when this might apply, ask yourself what is at stake when this occurs ‘for real’, and urge you to consider what you can do about it. As Dragona points out, the inherent danger of dataveillance is that ‘as identities are logged and behaviours can be predicted, processes of *homogenisation* and *normalisation* are also facilitated’ (in Fuchs et al., 2014: 236, original emphasis). *Karen* aims to raise awareness and provoke debate about this danger within the wider population of social media users.

**Karen as a Site of Resistance**

We feel it’s our job as artists to pose questions about this new world where technology is ever more personalised and intrusive.

(Blast Theory website, 2015)

I ask Tandavanitj whether Blast Theory see themselves as having a degree of social responsibility in terms of raising awareness around dangers posed by technological applications to individual users and the wider public, by virtue of the company’s technological expertise, proficiency and insight. I want to know whether Blast Theory desires to intentionally develop work that might function as a site of resistance to the neoliberal ideologies that, to a great extent, drive technological innovation and practices of user engagement such as gamification. Tandavanitj consents that the company is driven by its concerns in relation to social issues raised by technology, such as the speed of technological change, the complexity of the issues surrounding data usage, and the degree to which people share data unknowingly and unintentionally (2016). He acknowledges that there is a national security argument about accessing people’s private data (in relation to the Investigatory Powers Bill),[[7]](#endnote-7) however the company shares the concerns of many who think that individuals have no way of identifying differences in how corporations and social media platforms access and use their private data other than through reading lengthy and incomprehensible terms and conditions (ibid).[[8]](#endnote-8) Artists working with technology like Blast Theory, says Tandavanitj, have particular strengths in terms of raising awareness around such concerns. Specifically, they are characterised by a more ‘tangential’ relationship with technology that allows them to deeply understand those issues, a lack of desire to exploit technological applications for profit-making causes and, perhaps, a more humane approach to those issues than might be employed by businesses, corporations or governmental structures (2016). ‘We live within a technocratic society’, says Tandavanitj, where ‘people with technological expertise hold power’ (2016). In that context, questions around the power and responsibility of individual technological experts, whether they are artists or otherwise, are inevitable.

*Karen*is a political projectthat aims to raise awareness and engage users in critical thinking around privacy in a big data world, via inviting them to take part in life coaching sessions that Karen the character herself ‘hijacks’. Rather than divulging life advice, *Karen* asks from its users to engage in ‘uncomfortable interactions’ (Benford et al., 2010: 1) by confronting them with questions around the boundaries between private and public. Blast Theory seeks to ‘enlighten’ participants through inviting them to engage with what Benford et al. term ‘dark themes’ (ibid: 2); in this instance, with issues of privacy and control of one’s private data. Nonetheless, *Karen* is also a game that aims to entertain. Blast Theory’s work often inhabits a precarious balance between creating enticing dramatic experiences and raising awareness in relation to pertinent social issues and concerns. *Karen,* as a work of art, also inhabits this tension. As Tandavanitj explains; ‘in a case when there is a dramatic twist this is part of the experience of the piece, and you don’t want to be giving this away as part of an ethical approvals process’ (2016). Indeed, *Karen*’s intimate, one-to-one nature makes it a distinctly memorable experience: despite my awareness of Karen being a fictional character and of our meetings being pre-recorded, a feeling of excitement and anticipation always preceded them. Our encounters felt thrilling and unexpected – I never could predict what the next meeting would bring, which made me slightly apprehensive and uncomfortable. Furthermore, the durational aspect of the work meant that I was able to develop a relationship with Karen that felt unique to us, making the piece memorable. Those uncomfortable interactions, embedded in the work and made visible through the intensity and complexity of my relationship with Karen, the contentiousness of the issues discussed, and the challenging truths laid bare via the operations of the app, led, as Benford et al. argue, to an enhanced and layered cultural experience (2010: 2).

Moreover, Richardson and Hjorth, in discussing Blast Theory’s work, argue that the artists invite audiences to *de-familiarize* themselves with their environment through a deliberate ‘hack’ of the public space (2015: 261, original emphasis). This suggestion prompted me to revisit Mackenzie Wark’s influential *Hacker Manifesto,* which positions hacking as a practice of cultural critique that aims to question and challenge authority and the mainstream: for Wark, ‘to hack is to differ’ (2004:1). Blast Theory is certainly not a hacker group; however, it does employ the ethos and strategies of hacking as defined by Wark in order to debate and re-envisage the rules of engagement in both private and public spaces. Through those ‘hacks’, Blast Theory manages to tap into the ‘tremendous rhetorical power’ of play which, Koh argues, ‘can be harnessed for a plethora of (...) social, political and educational purposes’ (2014).

Daphne Dragona puts forward the idea that ‘play can assist in activating mechanisms of counter-gamification, revealing the functioning of network structures and raising awareness’ (in Fuchs et al., 2014: 238). While play itself is not a form of resistance, Dragona suggests that resistance can occur through our engagement with ‘a gaming with the system’ as a form of ‘disruptive play with its rules and content while being within it’ (in Fuchs et al., 2014: 238). She conceptualises this as a form of resistance that ‘seems to be very close to hacking’ (Dragona in Fuchs et al., 2014: 239). In *Karen* resistance is to be found in the exact process described by Dragona, which combines hacking and play, resulting in ‘disruptive play’: a play within and with the system’s very rules and content. *Karen* uses the form of a gaming app to question how we engage with gaming apps and other social media platforms. It breaks the rules of what is widely held as common practice in order to expose common practices that are unethical or obscure, and to provoke debate about how we – both society through policy and legislation and individual users through (lack of) awareness and personal choice – deal with them.

**Conclusion**

Pervasive and ubiquitous computing has turned our lives into transparent spectacles and potential profit-making opportunities at once. Blast Theory seeks to critique practices of dataveillance through exposing technology’s inherent capacity for surveillance and control, making the processes of user exploitation transparent, raising awareness around relevant social issues, and challenging the neo-liberal agendas that drive them. By creating radical intersections between the real and the virtual, Blast Theory uses hybrid gaming and dramatic structures as methods of highlighting the ever more porous, permeable or non-existent boundaries between the two. *Karen* is a hybrid form of art/entertainment, which exemplifies the type of sophisticated critique that can develop from within. As Tandavanitj points out (2016), artists working with technology tend to have the understanding, ability and inclination to develop critical practices that are conversant with the system’s vocabulary and can thus effectively target it.

*Karen* invites participants to question how they use media and what is at stake through their usage. The capacity to critique is consciously designed into the work, and is manifested through instances of ‘uncomfortable interactions’ as discussed by Benford et al. (2012). Those unexpected interactions and engagements, which are disconcerting to the user, have a ‘defamiliarization’ effect (Richardson and Hjorth, 2015). Participants are confronted with uncomfortable interactions, which employ a ‘hacking’ methodology to engage in play with the very rules of the game, thus challenging how the system is expected to work. Through those difficult encounters, participants are invited to reflect on and develop an enhanced awareness of their own media practices, and their engagement with social media and with others through them. Blast Theory’s practices seek to provoke a new media sociality that carries within it counter-gamification as a practice of resistance. This heightened awareness, argues Adam, is what can eventually produce ‘a new social landscape’ (Adams in Montola, 2009: 233).

Notes

1. Extracts of this have been published in Chatzichristodoulou, 2015. Please refer to this essay for more information on the company’s background, working methodologies and key works. [↑](#endnote-ref-1)
2. The piece was developed in partnership with the National Theatre of Wales, co-commissioned by The Space and 539 Kickstarter backers. It was developed with support from the University of Nottingham’s Mixed Reality Lab and in collaboration with Kelly Page, an expert in psychological profiling. The character of Karen is performed by British actress Claire Cage. (Blast Theory website, 2015) [↑](#endnote-ref-2)
3. I found this comment extremely sexist and wondered whether it was targeted specifically at female users. Nick Tandavanitj in an interview (18 January 2016) reassured me, however, that it is not a gender-specific comment, and it could well be addressed to male participants too. He explained that Dave’s character thrust requires him to display misogynistic behavior towards Karen but there is no intention that he comes across as misogynistic towards female participants themselves (2016). [↑](#endnote-ref-3)
4. Though it might be unconsciously, in the case of *Karen* it certainly is not unknowingly that users divulge private information: Blast Theory make a point of launching the app with publishing accessible and intelligible terms and conditions on the first page (so users do not have to scroll down to access the small print). This was a big decision, says Tandavanitj, because it meant foregrounding the terms and conditions (2016). In doing so, the concern was keeping a balance between Karen as an art project and as a socially engaged work that aims to raise awareness around issues of privacy (2016). [↑](#endnote-ref-4)
5. Though rather a reductive term, this is clearly what participants become. [↑](#endnote-ref-5)
6. These are not actual Facetime meetings as their content is pre-recorded on Karen’s part. They do, however, intentionally offer the illusion of live Facetime encounters as participants are prompted to call Karen. [↑](#endnote-ref-6)
7. The draft Investigatory Powers Bill has been criticized by civil rights groups and the technological community alike, both for overstepping the mark and for being costly and inefficient to achieve (Motson, 2016). It can be accessed here: <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/473770/Draft_Investigatory_Powers_Bill.pdf> [↑](#endnote-ref-7)
8. Research by investment specialist Skandia suggests than only 7% of people read the online terms and conditions when signing up for products and services because they are ‘boring or difficult to understand’ (Smithers, 2011). Infamously, researchers from the University of Nottingham have concluded that Google’s terms and conditions are less readable than the epic old English poem *Beowulf* (Hood, 2013).

**References**

Benford, Steve, Chris Greenhalgh, Gabriella Giannachi, Brendan Walker, Joe Marshall, and Tom Rodden (2012) ‘Uncomfortable Interactions’ *CHI ’12 Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*: 2005-2014. New York, 5-10 May 2012. Available from: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.591.5009&rep=rep1&type=pdf> (accessed 2 March 2016).

Blast Theory ‘Karen’ *Blast Theory website*. Available from: <http://www.blasttheory.co.uk/projects/karen/> (accessed 2 March 2016).

Chatzichristodoulou, Maria (2015) ‘Blast Theory’, pp. 231-254 in Liz Tomlinson (ed.) *British Theatre Companies: 1995 – 2014*. London: Bloomsbury Methuen Drama.

Chatzichristodoulou, Maria (2009) ‘How to Kidnap your Audiences: an Interview with Matt Adams of Blast Theory’, pp. 107-118 in Maria Chatzichristodoulou, Janis Jefferies, and Rachel Zerihan (eds) *Interfaces of Performance*. Farnham: Ashgate.

Eagle, Nathan and Pentland, Alex (Sandy) (2006) ‘Reality Mining: Sensing Complex Social Systems’, *Personal Ubiquitous Computing* 10(4): 255-268.

Fuchs, Mathias, Fizek, Sonia, Ruffino, Paolo and Schrape, Niklas (eds) (2014) *Rethinking Gamification*. Luneburg, Germany: meson press.

Hood, Laura (2013) ‘Google’s Terms and Conditions are Less Readable than Beowulf’ *The Conversation,* 17 October 2013. Available from: <http://theconversation.com/googles-terms-and-conditions-are-less-readable-than-beowulf-19215> (accessed 2 March 2016).

Khan, Nora K. (2015) ‘Managing Boundaries with your Intelligent Agent’ *Rhizome Blog*, 7 April 2015. Available from: <http://rhizome.org/editorial/2015/apr/7/boundary-management/> (accessed 2 March 2016).

Koh, Adeline (2014) ‘The Political Power of Play’. Keynote Address Re:Humanities 2014 conference, Swarthmore College, Pennsylvania, 3 April 2014. Available from: <http://www.hybridpedagogy.com/journal/political-power-of-play/> (accessed 9 March 2015)

Lyons, MH, Ellis, R., Potter, JMM, Holm, DAM and Venouziou, R. (2006) ‘The Socio-Economic Impact of Pervasive Computing – Intelligent Spaces and the Organisation of Business’, pp. 19-35 in Alan Steventon and Steve Wright (eds) *Intelligent Spaces: The Application of Pervasive ICT*. New York: Springer-Verlag.

Montola, Markus, Stenros, Jaakko and Waern, Annika (2009) *Pervasive Games Theory and Design: Experiences on the Boundary Between Life and Play*. Amsterdam and Boston: Morgan Kaufmann.

Motson, Elliott (2016) ‘The Snoopers’ Charter: a Government Invasion?’ *Liberal Democrat Voice*, 5 March 2016. Available from: <http://www.libdemvoice.org/49655-49655.html> (Accessed 6 March 2016).

Richardson, Ingrid and Hjorth, Larissa (2014) ‘Mobile Games: From Tetris to Foursquare’, pp. 256-266 in Gerard Goggin and Larissa Hjorth (eds) *The Routledge Companion to Mobile Media*. New York and Oxon: Routledge.

Secretary of State for the Home Department, UK (2015) ‘Draft Investigatory Powers Bill’, November 2015. Available online: <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/473770/Draft_Investigatory_Powers_Bill.pdf> (accessed 2 March 2016).

Smithers, Rebecca ‘Terms and Conditions: Not Reading the Small Print Can Mean Big Problems’ *The Guardian,* 11 May 2011. Available from: <http://www.theguardian.com/money/2011/may/11/terms-conditions-small-print-big-problems> (accessed 2 March 2016).

Tandavanitj, Nick (2016), Phone Interview with Author, 18 January 2016 (unpublished).

Tandavanitj, Nick (2015) ‘*Karen*: Telling Tales with Data’. Talk *Data Bodies* Symposium, Watermans, London, 14 November 2015.

Wark, McKenzie (2004) *A Hacker Manifesto*. Harvard: Harvard University Press. [↑](#endnote-ref-8)