Networked intimacy: Algorithmic friendship and scalable sociality

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Abstract
This article asks whether a crisis of intimacy exists in the digital era to provoke an enquiry into the extent to which social media are transforming or transformed by personal relationships. I address the nature of late modern intimacy through the lens of ‘friendship’ and consider why Facebook embraces this affiliation. I then ask whether contemporary forms of public intimacy pre-date or are configured by social media. Software-centred approaches including algorithmically engineered friendship are considered to cast light on public intimacy, privacy and trust. The implications of cross-cultural ethnographic research by Miller et al. are then considered to highlight user agency. Messaging apps such as WhatsApp have the potential to liberate certain users by controlling group size and degree of privacy, as ‘scalable sociality’ in a polymedia environment. I conclude by arguing for a synthesis of political economic perspectives and cross-cultural studies to emphasise user agency in future research.

Keywords
Social Media, Facebook, WhatsApp, friendship, intimacy, privacy

Introduction
In 2012, just before moving from a free service to a for-profit corporation, Facebook boasted that it ‘hosts’ 140.3 billion friend connections.¹ This mystifying figure raises questions about the meaning of friendship and the changing nature of intimacy in an age of social media. Today, Facebook continues to highlight ‘friendship’ as a cornerstone of its model of connectivity by commemorating ‘Friends Day’ on Facebook’s ‘birthday’.

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As personal connections are a valued currency for Facebook, one might ask whether this context for friendship generates a crisis of intimacy in the digital age. Are such social media platforms reshaping personal relationships or is the concept of ‘friendship’ transforming to describe looser social ties? Are encrypted sites such as WhatsApp supporting more ‘genuine’ intimacies?

This article explores whether or not social media are reshaping sociability by engaging with research on mediated intimacy through the lens of ‘friendship’. It begins by analysing changing conceptualisations of intimacy and friendship in late modernity. I then consider whether contemporary intimacy meanings and practices pre-dated or are configured by social media technology. This is underpinned by an assessment of debates about algorithmically engineered friendship, cultures of connectivity, publicly exhibited intimacy and privacy paradoxes. Finally, the implications of recent findings on cultural differences in social media engagement, user agency, community surveillance and scalable sociality are addressed.

The argument is twofold. On one hand, the social media exploitation of friendship to harvest users’ intimate data undermines privacy by promoting public intimacy through discourses of ‘sharing’. Yet displays of public intimacy within preceding genres such as reality TV indicate that publicly mediated intimacy pre-dates social media: it has long been considered empowering by some, such as teenagers and (would-be) celebrities. On the other hand, among those who value private intimate communication, encrypted mobile messaging apps such as WhatsApp facilitate user agency by offering communication choice and privacy. Indeed, research indicates that, via a transformative polymedia framework, this user agency fosters a change that can be profoundly liberating in certain cultural spaces such as the Arab world, not least for women (Miller et al., 2016). Foregrounding the culture-bound nature of the public and private values constituting digitally mediated intimacy, I advocate the synthesising of cross-cultural studies of user agency and political economic perspectives in future research on digitally mediated sociality.

**Elective intimacy and late modern friendship**

A striking legacy of early social thought on friendship corresponds with the contradictory ideals associated with today’s mediated values of intimacy and friendship. The 18th century ideas of friendship as *freed* from commercial concerns and the 19th century ideas of friendship as *individualised* and *market-like* coexist in today’s digitally mediated sociality. A modernising, egalitarian view of friendship signifies a society where the central unit is no longer the community but the individual. This corresponds with wider social trends featured in modern urban society, involving individualism and privatisation, described by authors such as Raymond Williams (1975) and David Riesman et al. (1950). While Riesman described individualism through changing personality types in modern urban society, Williams developed the term ‘mobile privatisation’ to explain how geographically and socially mobile individuals live more privatised lives less constrained by traditional ties of extended kin and community. He identified television as a communication technology that facilitated social integration (and control) by projecting the public realm into the privatised home. In her account of the correspondence between technology and individualism in the digital era, Sherry Turkle
(2011) invokes a crisis of intimacy. Turkle bemoans the way we allow technology to shape our emotional lives, arguing that it defines and redefines our perceptions of sociability, self, intimacy and privacy. Arguing that privacy is now lost and our sense of intimacy distorted, she advises that we ‘put [technology] in its place’ so that we can retrieve human connections and attachments (Turkle, 2011: 295).

Framed by these tensions and tendencies in modern urban living and influenced by earlier intellectual thinking, contemporary sociological studies of intimacy can be defined by three key phases: first, the democratisation of interpersonal relationships characterised by elective intimacies; second, the emergence of a friendship paradigm and non-conventional partnerships; and third, the rise of personal communities and individual networks. In the first phase of debates about transforming intimacies, from the mid-to late 20th century, changes were explained via a thesis of individualisation by scholars such as Anthony Giddens (1991, 1992), Ulrich Beck and Elizabeth Beck-Gernsheim (1995, 2002) and Zygmun Bauman (2003). No longer bound by familial duties, individuals exercise ‘free’ choice in modern confluent relationships that promote compatibility and friendship within elective intimacies (Giddens 1992: 3). For Giddens, a democratisation of the ‘interpersonal domain’ highlights identity, agency and self-actualisation. Within a project of the self, intimacy holds a privileged position exemplified by mutual disclosure and equality, involving trust confirmed through shared secrets. However, scholars such as Bauman and Beck and Beck-Gernsheim fear that individualisation and elective intimacy lead to a self-absorbed narcissism.

In the second phase of changing intimacies in the 1990s, the emphasis on choice generates more fluid intimacies including diverse forms of social dependency based on friendship, often described by terms such as ‘friends as family’ and ‘families of choice’ involving gay, lesbian, bi-sexual and trans-sexual (LGBT) relationships (Roseneil, 2000; Weeks et al., 2001). For Spencer and Pahl (2006), ‘personal communities’ involve intimate and active ties with friends, neighbours and workmates, as well as kin. The third phase involves the rise of ‘networked individualism’, characterised by a move from tight bonds to more fluid, loose systems of interaction centred on individuals with shared interests rather than groups or places (Haythornthwaite and Wellman, 1998: 1101–1114; Wellman, 2002: 10–25). Networked individuals develop new social skills and strategies for problem-solving and meeting the needs of a high-tech age. These include actively managing self-presentation and personal boundaries in digitally supported networks (Rainie and Wellman, 2012). Similarly, the idea of a ‘network public culture’ (boyd, 2011) in which this individual is embedded, matches the positive attributes of late modern intimacy and friendship by appealing to aspirations of choice, agency, flexibility, respect, mutual disclosure and companionship.

**Algorithmic friendship and engineered sharing**

By the first decade of the millennium, then, two broad but contradictory senses of intimacy dominate, based on egalitarian values of reciprocity. One emphasises exclusiveness and privacy, and the other emphasises social connectedness and sharing. These contrasting senses of intimacy are fused and reflected in today’s digitally mediated friendships. Facebook’s choice of the term ‘friend’ to describe all networked connections
on its platform is no accident. *Facebook* exploits ‘friendship’ as a powerful emblem of interpersonal democratisation in late modernity (Chambers, 2013). Platforms such as *Facebook* promote openness, emphasising a service free at the point of use but within a corporate agenda of gathering users’ data for profit (Van Dijck and Poell, 2013: 6). *Facebook*’s mission statement accentuates openness: *Founded in 2004, Facebook’s mission is to give people the power to share and make the world more open and connected.*¹ The implication is that connectedness is more powerful by being disclosing. Invoking a discourse of disclosure and reciprocity, *Facebook* discourages users from private, exclusive connections by steering them to share highly personal information. Yet is the power to share benefiting *Facebook* users, advertisers or both?

Adopting a software-sensitive approach, Taina Bucher (2012) and José Van Dijck (2013) emphasise that *Facebook* is not just a blank canvas on which sociality is allowed to thrive. Users’ connections are circumscribed by the social and technical norms operating on social network sites. Bucher proposes the concept of ‘algorithmic friendship’ to uncover the programming of sociality through the socio-technical dimensions of online friendship (Bucher, 2012: 485). The management of this online ‘friendship’ can be demanding. But, via shared default settings and a friendship discourse, users are persuaded to share feelings through questions on *Facebook* status updates such as ‘What’s on your mind?’ while the ‘share button’ is described as ‘the people you care about’. Thus, this technological design engineers particular kinds of sociality (Bucher, 2012; Van Dijck, 2013).

A key principle that structures friendship on *Facebook* is an assumption of compatibility. Software elements of findability and compatibility locate then gather friends, driven by the People You May Know algorithm (Bucher, 2012: 485). *Facebook*’s friendship procedures prompt users to ‘remember’ and befriend past connections. The privacy settings warn that changing the defaults will ‘prevent you from connecting with your friends’. Conversely, by keeping the default, you will ‘help’ your friends from all spheres of life ‘to find you’ (*Facebook*, 2011). Yet, news reports and blog traffic on Google reveal bewilderment and anxiety about how these algorithms operate amid concerns about privacy. This is exemplified by news headlines such as HOW *FACEBOOK* KNOWS WHO ALL YOUR FRIENDS ARE, EVEN BETTER THAN YOU DO (Washington Post April 2015); SOMETHING ODD ABOUT FACEBOOK’S ‘PEOPLE YOU MAY KNOW’ LIST.³ How personal data are generated, harvested and used remains a trade secret.

Asserting that content differs according to platform, Van Dijck (2013) argues that each platform’s distinct features must be studied. Van Dijck uses a political economy approach to uncover platform owners’ business motives, power and shaping of user agency. A culture of engineered sociality which allows lateral surveillance by social network sites indicates that online friendship is characterised by a double logic of open connectedness and commercial dependence. Social network sites process vast quantities of users’ behavioural data every second, yet the platform’s mechanisms are difficult to detect, raising issues about privacy, trust and levels of human agency (Van Dijck and Poell, 2013). Nonetheless, *Facebook* relies on trust within a recommendation culture. Bucher (2012) states, ‘We trust our friends and think like our friends, turning friends into the most relevant recommenders’ (p. 488). These platforms are used, then, to mould and
measure tastes. They prove their effectiveness in health campaigns, real-time law enforcement and police surveillance.

The social media rhetoric of sharing fosters a new kind of ‘sharing citizen’, a digitally socialised citizen, not so much for the good of the online community but for the good of the social network company (Van Dijck and Poell, 2013). As Kennedy (2011) observes, ‘Good subjects post, update, like, tweet, retweet, and most importantly, share (p. 132)’. But this engineered connectedness entails careful self-management as users navigate their way through the technical affordances of persistence, replicability, scalability and searchability (boyd, 2011). This emphasis on sharing and connectivity generates major disagreements among youth about the most appropriate medium through which to disconnect when ending a relationship – do you break up with your partner by text, Skype, phone call, face-to-face? (Gershon, 2010). And there is a sense in which ‘algorithmic friendship’ is inferior to a past ‘genuine’ intimacy. Turkle (2011) laments the preference, among younger generations, for communicating through social media rather than face-to-face. Should today’s mediated intimacy be judged inauthentic or as corrupted through public exposure?

The privacy paradox and spectacles of intimacy

Without control over technical boundaries of communication, and with Facebook’s frequent reversal of privacy settings which publicly exposes users’ photos and dialogue, it becomes increasingly difficult for us to manage personal privacy (Electronic Privacy Information Center, 2010). As Van Dijck (2013) asks, what does Zuckerberg mean when he says that privacy is an ‘evolving social norm’ (p. 46)? For boyd (2011), ‘privacy’ is in a state of transition as users, particularly young people, negotiate the media software. ‘Public’ and ‘private’ become meaningless binaries when scaled in new ways. Yet users recurrently undervalue the network’s size, revealing personal information (Taddicken, 2014). Although many users express concerns about privacy online (Marwick and boyd, 2014), they often fail to take privacy-protecting actions (Strater and Lipford, 2008). This inconsistency in users’ online activities is referred to as the ‘privacy paradox’ (Barnes, 2006). It suggests a user readiness to trade privacy regulation for convenience (Quinn, 2016).

‘Privacy’ may be a fluid value, but breaches of privacy can have profound consequences for vulnerable individuals. Social media’s affordances comprise invisible audiences, collapsed contexts and the blurring of public and private (boyd, 2011). Collapsed context indicates the different privacy expectations and social norms operating among segmented ‘publics’. Some audiences are invisible when a person is contributing online. Observers can lurk undetected. Raising issues of personal privacy, users must contend with colliding audiences within their networked publics. Employers track employees’ profiles, parents follow their children’s profiles and individuals’ love lives are often tracked by ex-partners. ‘ Territories of the self’ are continually contested, generating a new, highly moralised front line where traditional power relations can be displaced and reputations lost (Thompson, 2011).

Public anxieties about young people’s uses of social media are supported by reports that youth tend to ignore boundary control mechanisms (Livingstone and Helsper, 2013). Teenagers are perceived to be displaying their bodies and emotions heedlessly. At the
same time, issues of online bullying, sexting and revenge porn indicate serious breaches of intimate trust (see Ringrose et al., 2013). Yet teenagers try to avoid a discourse of victimhood, often denying the significance of distressing experiences with reproofing tales of others (Marwick and boyd, 2014). Scandals provide a mechanism through which ‘private life’ can be known, shared and dramatised (boyd, 2014). Addressing a cultural economy of spectacle, Liam Berriman and Rachel Thomson (2015) use the term ‘spectacles of intimacy’ to explain that these contradictory practices form part of an emergent moral landscape among adolescents.

Teenagers are continually trading off visibility and participation. The risks of non-participation seem higher than those of visibility since non-participation renders users powerless to control publicised personal information (Berriman and Thomson, 2015: 595). This dual emotional imperative involves a political economy of managing the mechanisms through which value is extorted, circulated and harvested. Within the ‘attention economy’ of participation/visibility, the self and body become sources of value that can be exploited by others. Ringrose et al. (2013: 312) emphasise the gendered dimensions of the risks of damage to a person’s reputation if sexualised images are not consensually shared. Teenage girls, young women and members of LGBT communities are among users most often subject to sexist and homophobic public practices.

Social media may pose challenges for privacy protection, but they also offer new opportunities for personal exhibitionism. Turkle (2011) suggests that some teenagers are gratified by a certain public exposure because they consider it to be a validation, not a violation, of their privacy. Hille Koskela (2004) refers to ‘empowering exhibitionism’ to explain the technical affordances that facilitate public promotions of the self. Intimacy is, then, reconceptualised and re-validated within an emancipating discourse, as Reynolds (2010: 35) argues. Social media create a space for new kinds of intimacy practices: ‘intimacy at a distance’ (Elliott and Urry, 2010; Hinton and Hjorth, 2013; Lomborg, 2013). Public intimacy forms an important feature of public self-expression, but this was practiced long before the emergence of social media technology.

Eva Illouz (2007) highlights the correspondence between positive notions of sharing on social media and late modern therapeutic narratives of sharing one’s feelings. Social media may accelerate and intensify a ‘public intimacy’, yet this displayed intimacy tends to follow the pre-existing logic of the market. Participants on talk shows and reality TV are encouraged to expose inner problems and feelings. This display of intimacy is part of the wider culture of emotional capitalism: ‘emotions have become entities to be evaluated, inspected, discussed, bargained, quantified and commodified’. Significantly, these practices migrate almost effortlessly from mass media to social media platforms through live webcams, updated personal profiles and blogging. For example, Jenny Davis (2010) refers to ‘exteriorised intimacy’ to describe a form of exposed intimacy digitally generated by the popular practice of sharing platforms as Flickr and YouTube. Such websites normalise the practice of sharing videos and pictures. Thus, the public display of intimacy on social media forms part of a preceding re-signification of intimacy.

**Scalable sociality**

Contrasting with Bucher’s and Van Dijck’s argument that social media platform properties shape content, Daniel Miller emphasises the ease with which genres of content
traverse media platforms (Miller, 2016; Miller et al., 2016). Social media are commonly assumed to spread individualistic behaviour globally. Yet the findings of a cross-cultural ethnographic project, the Global Social Media Impact (GSMI) Study, indicate that social media cement traditional groups, such as family, caste and tribe, to overcome separations caused by migration and mobility (Miller et al., 2016). Highlighting issues of user agency, their research suggests that social media contribute to, but are not the source of, changes in sociality.

The term ‘scalable sociality’ developed by Miller et al. (2016) explains the varied and polymediated nature of user agency. Social media can support intensely public or private modes of communication for exchanges within large or small groups, according to users’ needs. Their concept of ‘scalability’ advances previous research on polymedia by Madianou and Miller (2012). ‘Polymedia’ refers to the choices individuals make between numerous forms of communication according to their personal circumstances within a wider media ecology – whether Skype, email, WhatsApp or other channels of communication. The medium or platform selected depends on the type of relationship: certain channels of communication are suited for communicating with close intimates, some with overseas parent, some for casual friends and others for looser ties.

An example is Snapchat whose affordances change the rules of communication when compared to Facebook. The limited time during which a Snapchat message is accessible renders sharing transient yet makes communicators pay attention, changing the sense of the intimate contact. Other individual-based, mobile messaging apps such as WhatsApp and WeChat are viewed as antidotes to the large broadcast-style platforms of Facebook and Twitter (Miller et al., 2016). They allow users to manage smaller groups who can talk more privately. In response to concerns about privacy and identity loss, WhatsApp adopted encryption and privacy plug-ins which support more intimate connections comprising groups of 20–30 trusted members. Miller views these as more ‘genuine groups’ than those identified within the ‘individual networks’ described by Wellman. This new medium extends choice beyond the earlier extremes of mass broadcasting or dyadic communication to provide scales somewhere along a spectrum of mediated communication. This scale moves between small groups of close friends and larger groups of around 20 on WhatsApp and Snapchat and then to groups of more than a hundred on Facebook or thousands on Twitter. Thus, within a polymedia environment, individual users can select the scale of sociality to complement the particular type of relationship and genre of communication involved.

The GSMI study found that whole genres of communication migrate effectively between different platforms, with many locally based. For instance, playground banter preceded online contexts and then migrated to the relatively private messenger service of Blackberry phones. In Trinidad, this banter style migrates mainly to Facebook, whereas in England it moves mostly to Twitter (Miller et al., 2016). Miller emphasises the robustness of these genres. They transform social media into modes of communication unanticipated by platform designers. Whether face-to-face or mediated, the genre of banter is stable, suggesting that the quality of the platform and associated affordances are not causative. In China, the custom of giving cash as a ceremonial gift in red envelopes has migrated to social media. WeChat, a popular Chinese platform, is a medium through which cash is given via a virtual red envelope. While WeChat is similar to WhatsApp in the West, the latter is not considered appropriate for sending a gift of cash. This suggests that cultures of sociality alter the medium to reflect social norms (Miller et al., 2016).
Some uses of social media are transformative, while other forms of engagement extend or radically change previous norms in unexpected ways. In South-Eastern Turkey, among the Kurdish and Arab communities, social media facilitate the bridging of social groups such as family and tribe separated by migration. Through private messaging, social media support one-to-one relationships among youth. Users must exercise caution if the site is public, like Facebook. Activities influenced by more liberal ideas are often conducted offline in public spaces such as cafés (Costa, 2016). These public platforms are viewed as conservative in many cultures because parents, grandparents and others are observing users’ conversations and can be easily offended. Users often avoid politics and controversy on Facebook precisely because it is a free space. Miller points to new technologies such as WhatsApp as more private spaces. While Facebook is rendered more conservative through public scrutiny, WhatsApp becomes more personal, controllable and, thus, more liberal. Social media’s transformative potential is most obvious in the realm of gender. Without the scrutiny of relatives, young Muslim women can contact young men directly on WhatsApp on a scale unheard of before now, at a rate of 700 WhatsApps a day in some instances. In honour-shame cultures where women’s status is governed by strong social norms, WhatsApp protects women’s reputation (Costa, 2016).

The GSMI study confirms the culture-bound nature of privacy. In rural China, privacy is unusual: social media are group activities. Users share phones, computers and also social media account passwords with best friends. By contrast, in English culture, social media do not simply facilitate intimate connectedness. Miller (2016) refers to a ‘Goldilocks Strategy’ where platforms such as Facebook allow people in English communities to keep connections ‘at exactly the right distance’ – neither too hot nor too cold, but just right. He uses the example of friends who meet on holiday: you don’t reject them, you can keep in touch with them via social media, but you don’t have to waste your time with them. Facebook friendship is quite sufficient. It avoids rejection and impoliteness and prevents intrusiveness. This cross-cultural study confirms, then, that in a polymedia context, scalable sociality can flourish with social media supporting pre-existing cultural norms.

**Conclusion**

Arguing that content is shaped by the platform, authors such as Bucher and Van Dijck attend to the material properties of social media while scholars such as Miller and colleagues emphasise user agency through scalable sociality within a polymedia setting. I have explained that Facebook endorses friendship as an intimate affiliation revered for its positive qualities: a freely chosen association expressed through personal networks that emphasise self-disclosure and sharing. And, by discouraging users from developing exclusive, private connections, Facebook’s friendship discourse encourages users to share highly personal information – to confer intimate traits via public connections.

We might, then, point to a social media-led crisis of intimacy signified by three issues: the exploitation of intimate connections for marketing purposes, intimacy exhibitionism and breaches of privacy. However, I have argued that while social media accentuate certain features of mediated intimacy, the technology is not the root of the problem.
Public-sharing social network sites make new relations possible, but most changes in sociality pre-date them. Moreover, the conception of engineered, algorithmic sociality tends to downplay the significance of user agency, leaving unexplained the enormous transnational diversity in local social media engagement. The programme logic of the platform may, then, be overdetermined. The mediation of public intimacy via social media is a response to Western social trends that prefigure the rise of social media: the escalation and intensification of an openly connected, capitalist society.

Conversely, the GSMI study’s concept of ‘scalable sociality’ explains how social media are shaped to correspond with pre-existing norms through a polymediated environment (Miller et al., 2016). The robustness of genres of communication that migrate across different platforms confirms this. User agency and the culture-bound nature of concepts of ‘privacy’ and ‘publicity’ are foregrounded by the study’s findings. The major differences in social attitudes to platforms identified confirm that Facebook is often viewed as conservative – particularly among communities where traditional forms of hierarchy regulating gendered, generational and religious customs are being questioned. By contrast, messaging apps such as WhatsApp support more liberal, emergent cultural norms. Facebook itself may no longer be transformative, but today’s polymedia environment is transformative (Miller et al., 2016). Polymediated communication fosters scalable sociality by offering users communication choices which are vital for marginalised or vulnerable groups such as youth, women and members of LGBT communities prone to intense family or community surveillance. By juggling several platforms, users can control the nature and extent of their intimate associations.

This does not mean that social media technology is neutral. Sites such as Facebook may not be the cause of current trends in sociality, but they can accelerate and intensify them.

Both the democratising tendencies of scalable sociality that facilitates users’ negotiation of community surveillance and the harvesting and sale of personal information back to us through algorithmic friendship confirm the need for a continuous assessment of how connections are steered by software and culture. This can be achieved more effectively by synthesising macro-level political economy studies of social media platforms with macro-level ethnographic, cross-cultural studies sensitive to the ways social media users actively negotiate cultural norms and genres of communication within polymediated frameworks.

**Funding**
The author(s) received no financial support for the research, authorship and/or publication of this article.

**Notes**
1. Facebook Newsroom, History 2012: https://fbnewsroomus.files.wordpress.com/2012/10/facebook1billionstats.pdf (accessed 11 July 2016).
2. Our Mission, Facebook Newsroom, available at https://newsroom.fb.com/company-info/ (accessed 11 July 2016).
3. AnandTech Forums (August 2012) available at: http://forums.anandtech.com/showthread.php?t=2396182 (accessed 16 July 2016).
References

Barnes SB (2006) A privacy paradox: Social networking in the United States. *First Monday* 11: 1–12.

Bauman Z (2003) *Liquid Love: On the Frailty of Human Bonds*. Cambridge: Polity Press.

Beck U and Beck-Gernsheim E (1995) *The Normal Chaos of Love*. Cambridge: Polity Press.

Beck U and Beck-Gernsheim E (2002) *Individualization: Institutionalized Individualism and its Social and Political Consequences*. London: SAGE.

Berriman L and Thomson R (2015) Spectacles of intimacy? Mapping the moral landscape of teenage social media. *Journal of Youth Studies* 18(5): 583–597.

Boyd d (2011) Social network sites as networked publics: Affordances, dynamics, and implications. In: Papacharissi Z (ed.) *A Networked Self: Identity, Community, and Culture on Social Network Sites*. New York: Routledge, pp. 39–58.

Boyd d (2014) *It’s Complicated: The Social Lives of Networked Teens*. Yale University Press.

Bucher T (2012) The friendship assemblage: Investigating programmed sociality on Facebook. *Television & New Media* 14(6): 479–493.

Chambers D (2006) *New Social Ties, Contemporary Connections in a Fragmented Society*. London: Palgrave Macmillan.

Chambers D (2013) *Social Media and Personal Relationships*. London: Palgrave Macmillan.

Costa E (2016) *Social Media in South-East Turkey*. London: UCL Press.

Davis J (2010) Architecture of the personal interactive homepage: Constructing the self through MySpace. *New Media & Society* 12(7): 1103–1119.

Electronic Privacy Information Center (2010) Complaint, request for investigation, injunction, and other relief before the Federal Trade Commission (5 May). Available at: http://epic.org/privacy/facebook/EPIC_FTC_FB_Complaint.pdf (accessed 07 August 2016).

Elliott A and Urry J (2010) *Mobile Lives*. London: Routledge.

Facebook (2011) Privacy settings. Available at: http://www.facebook.com/settings/?tab=privacy.

Gershon I (2010) *The Breakup 2.0: Disconnecting over New Media*. Ithica, NY; London: Cornell University Press.

Giddens A (1991) *Modernity and Self Identity*. Cambridge: Polity Press.

Giddens A (1992) *The Transformation of Intimacy: Sexuality, Love and Eroticism in Modern Societies*. Cambridge: Polity Press.

Haythornthwaite C and Wellman B (1998) Work, friendship and media use for information exchange in a networked organization. *Journal of the American Society for Information Science* 46(12): 1101–1114.

Hinton S and Hjorth L (2013) *Understanding Social Media*. London: SAGE.

Illouz E (2007) *Cold Intimacies: The Making of Emotional Capitalism*. Cambridge: Polity Press.

Kennedy H (2011) *Net Work: Ethics and Values in Web Design*. London: Palgrave Macmillan.

Koskela H (2004) Webcams, TV shows and mobile phones: Empowering exhibitionism. *Surveillance & Society* 2(2–3): 199–215.

Livingstone S and Helsper E (2013) Children, internet and risk in comparative perspective. *Journal of Children and Media* 7(1): 1–8.

Lomborg S (2013) *Social Media, Social Genres: Making Sense of the Ordinary*. New York: Routledge.

Madianou M and Miller D (2012) *Migration and New Media: Transnational Families and Polymedia*. London: Routledge.

Marwick AE and boyd d (2014) Networked privacy: How teenagers negotiate context in social media. *New Media & Society* 16(7): 1051–1067.

Miller D (2016) *Social Media in an English Village*. London: UCL Press.
Miller D, Costa E, Haynes N, et al. (2016) *How the World Changed Social Media*. London: UCL Press.

Pahl R (2000) *On Friendship*. Cambridge: Polity Press.

Quinn K (2016) Why we share; A uses and gratifications approach to privacy regulation on social media use. *Journal of Broadcasting & Electronic Media* 60(1): 61–86.

Rainie L and Wellman B (2012) *Networked Individualism: The New Social Operating System*. Cambridge, MA: MIT press.

Reynolds P (2010) Disentangling privacy and intimacy: Intimate citizenship, private boundaries and public transgressions. *Human Affairs* 20: 33–42.

Riesman D, Denney R and Glazer N (1950) *The Lonely Crowd: A Study of the Changing American Character*. New Haven, CT: Yale University Press.

Ringrose J, Harvey L, Gill R, et al. (2013) Teen girls, sexual double standards and ‘sexting’: Gendered value in digital image exchange. *Feminist Theory* 14: 305–323.

Roseneil S (2000) Queer frameworks and queer tendencies: Towards an understanding of post-modern transformations of intimacy. *Sociological Research Online* 5(3). Available at: http://www.socresonline.org.uk/5/3/roseneil.html (accessed 07 August 2016).

Spencer L and Pahl R (2006) *Rethinking Friendship: Hidden Solidarities Today*. Princeton, NJ: Princeton University Press.

Strater K and Lipford HR (2008) Strategies and struggles with privacy in an online social networking community. In: England D (ed.) *Proceedings of BCS-HCI ’08*. Swindon: British Computer Society, pp. 111–119.

Taddicken M (2014) The ‘privacy paradox’ in the social web: The impact of privacy concerns, individual characteristics, and the perceived social relevance on different forms of self-disclosure. *Journal of Computer-Mediated Communication* 19: 248–273.

Thompson JB (2011) The shifting boundaries of public and private life. *Theory, Culture & Society* 28(4): 49–70.

Turkle S (2011) *Alone Together: Why We Expect More from Technology and Less from Each Other*. New York: Basic Books.

Van Dijck J (2013) *The Culture of Connectivity: A Critical History of Social Media*. Oxford: Oxford University Press.

Van Dijck J and Poell T (2013) Understanding social media logic. *Media and Communication* 1(1): 2–14.

Weeks J, Heaphy B and Donovan C (2001) *Same Sex Intimacies: Families of Choice and Other Life Experiments*. London: Routledge.

Wellman B (2002) Little boxes, glocalization and networked individualism. In: Tanabe M, Besselaar P and Ishida T (eds) *Digital Cities II – Second Kyoto Workshop on Digital Cities*. Berlin: Springer, pp. 10–25.

Williams R (1975) *Television, Technology and Cultural Form*. London: Fontana.