A Murky Business: Navigating the Ethics of Educational Research in Facebook Groups

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Abstract

Facebook's use an educational tool is growing, as is the body of research evaluating the platform's efficacy in educational settings. However, few studies directly address the many ethical challenges of researching in Facebook. This paper draws on our experience of researching online communities, including Facebook groups, as the basis for identifying the ethical dilemmas that arise when researching social networks. We draw on traditional guidelines for educational research, together with debates around open and 'guerrilla' research, in suggesting some of the ways in which these ethical considerations might be managed.

The ethical challenges discussed in this paper include whether/how to gain informed consent in a public setting; the need to navigate online disinhibition and confessional activity; the need to address the ethical challenges involved in triangulating data collected from social media settings with data available from other sources; the need to consider the potential impact on individual research participants and entire online communities of reporting research findings; and the use of visual evidence and its anonymisation. We argue that it is imperative for the researcher to closely engage with the research context when making ethics-related decisions, as no two research settings are the same.

Keywords: research, ethics, Facebook, education

Introduction: Why Facebook?

Facebook is undoubtedly the face of online social networking and remains ubiquitous, despite a declining usage trend emerging (Blodget, 2012). A 2011 study by Harvard University (2011) reported that 90% of four-year undergraduate college students had Facebook accounts at that time and of late there has been an upsurge in academic arguments for the more purposeful use of social media, especially Facebook, as an educational tool (Tess, 2013). Tess (2013), in his comprehensive literature review on the role of social media in higher education classes, asserts that 'the ubiquity of social media is no more apparent than at the university where the technology is transforming the ways students communicate, collaborate, and learn' but also points out that 'empirical evidence...has lagged in supporting the claim'.

Of the studies which do offer empirical evidence, several stand out. Tess (2013) lists many of these in his previously mentioned literature review, while Pander et al. (2014) offer a similarly valuable and more recent literature review that, while it focuses on the use of Facebook in medical education, contains much of more generic relevance. Several notable studies are worth mentioning in isolation. For example, Meisher-Tal et al. (2012) provide a particularly systematic account of the use of Facebook groups as LMS while O'Bannon et al. (2013) examine the effectiveness of using Facebook groups to increase pre-service teachers' knowledge of core technology topics. Bruneel et al. (2013) look at the educational use of Facebook with a focus on privacy issues, from the perspective of role theory and reference group theory, de Villiers and Pretorius (2012; 2013) conduct an heuristic evaluation of collaborative learning in Facebook and the ways in which Facebook groups can foster inter-personal relationships between formerly isolated distance learners, while Bosch (2009), and Schroeder and Greenbowe (2009), compare student activity in Facebook groups with that in official institutional sites.

Several studies focus on the use of Facebook in particular educational disciplines. For example, Lieberman (2013) researches the use of Facebook as a learning environment by political studies students while Whittaker et al. (2014) focus on Facebook's use to create an online learning community in an undergraduate science class, and Schroeder and Greenbowe (2009) explore the use of social networking to create an online community for the organic chemistry laboratory. McCarthy (2010) steps beyond disciplinary boundaries to offer broader research into Facebook's use with first year undergraduates as a tool for developing preliminary relationships between them and Donlan (2012) also provides more generic research, exploring students' views on the

use of Facebook groups in university teaching and learning, with a focus on student autonomy and control that is echoed by Conole et al. (2008). Wang et al.'s (2013) study of 'Meaningful Engagement in Facebook Learning Environments' has been particularly influential and widely-cited, concluding that Facebook use in instructional method assists students in achieving better grades, higher engagement, and greater satisfaction with the university learning experience.

This paper both builds and expands on the body of research looking at the use of Facebook in educational settings by taking as its focus the ethical challenges of researching within Facebook – a topic that receives little attention in other research studies, but which recently sparked a great media furore when scientists, conducting a psychological experiment including approximately 700,000 Facebook users – the 'emotional contagion study' – manipulated news feeds to examine the effects of positive and negative posts (see Broaddus, 2014). Indeed, some of the Facebook-related educational research appearing in recent years, including some of the studies mentioned above, employ practices that may be deemed ethically questionable. We argue here that while Facebook groups appear to offer rich pickings for the researcher, especially in domains labelled as 'public' or 'open', which offer a tempting wealth of off-the-peg data through the qualitative and quantitative study of members' posts and interactions, a variety of ethical dilemmas confront the researcher who is prepared to interrogate their own practice, to consider the true nature of openness and privacy, and to critically engage with the impact of researching in a social media context. The demands of negotiating these challenges must, therefore, be weighed against the likely value of any research findings.

Background: The research and theoretical context of our study

This paper is informed by our own reflexive research on the behaviour of formal and informal learners both in bulletin-board type forums and in Facebook groups. Since 2011, we have been working with online learner communities outside formal education when developing and piloting the 'public open scholar' role (Coughlan & Perryman, 2012), aiming to increase awareness of open educational resources (OER) and to disseminate information about the resource needs of people outside academia. The public open scholar role involves open academics working with online communities beyond formal education who might benefit from OER, identifying members' expressed needs and then sourcing OER to meet those needs. In doing so, we have built on Weller's 'digital scholar' persona – 'someone who employs digital, networked and open approaches to demonstrate specialism in a field' (Weller, 2011,

Chapter 1). We piloted the public open scholar role in 2011 within UK voluntary sector online welfare communities who were using bulletin board-style forums for information sharing and peer support (see Coughlan & Perryman, 2012) and in 2013 we took the public open scholar into Facebook (Perryman & Coughlan, 2013) to reach an international audience of autism-focused Facebook groups in India, Africa and Malaysia, with a combined membership of over 5000 people.

Facebook groups are one of the three main facilities within Facebook and are distinct from 'pages' (previously known as fan pages), which are always public, and individual accounts, which provide each user with a range of customisable privacy settings. There are at least five million Groups within Facebook overall. In 2014 we broadened our study of Facebook groups to include researching formal learners participating in 10 public Facebook groups about specific courses from our employer the UK Open University (OU), with a combined membership of approximately 3000. The bulk of these members are undergraduate students, but some groups also include alumni or prospective students interested in finding out about a particular course. While hundreds of Facebook groups from other universities are listed within Facebook, we chose OU groups because we are familiar with our own institution's organisation, structure and terminology. Our research findings from this study of OU Facebook groups are yet to be reported in detail. However, our key conclusions are set to make a significant contribution to understanding the use of social media in the context of formal education. For example, our research showed that Facebook groups can be a valuable form of open practice, with university students making a big contribution to their education by self-organising Facebook groups. As such, this evidence has the potential to shift the focus of the open education movement from researching students as co-producers of objects to exploring the ways in which students co-develop educational processes. On the basis of our findings we recommend that universities could usefully review the role of VLE forums (e.g. Moodle) within undergraduate tuition strategies and consider the extent to which Facebook groups might sit comfortably alongside the remainder of the learning experience.

For this paper, however, we move from considering the educational practices of learners within Facebook to an examination of the practices of the researcher, and their ethical implications, asking the overall research question 'what are the challenges of researching social network activity in an educational context and how might they be managed?'. This is an under-researched and complex area, covering such questions as:

> *What ethical obligations do researchers have to protect the privacy of subjects engaging in activities in "public" Internet spaces? How is confidentiality or anonymity assured online? How is and should informed consent be obtained online? How should research on minors be conducted, and how do you prove a subject is not a minor? Is deception (pretending to be someone you are not, withholding identifiable information, etc) online a norm or a harm? How is "harm" possible to someone existing in an online space? (Buchanan & Zimmer, 2012)*

Our exploration of Facebook research ethics is grounded in our experience as 'traditional' researchers, accustomed to following the ethical guidelines for educational research produced by the British Educational Research Association (BERA, 2011) and the American Educational Research Association (AERA, 2011). However, research that uses Facebook as a source of data also intersects with the province of 'guerrilla research', which Weller (2014, p.146) tentatively terms 'a Do It Yourself and Do It Now approach' that 'relies on existing open data, information and tools'. Weller, citing Unger and Warfel (2011), proposes that guerrilla research can be complementary with 'traditional' approaches and, in addition to relying on existing open data, 'can be done by one or two researchers and does not require a team', 'is fairly quick to realise', 'is often disseminated via blogs and social media' and 'doesn't require permission'. However, Farrow (2014), discussing the ethics of open research, suggests that a guerrilla approach can be problematic in terms of:

·   The ownership of intellectual property;
·   A possible lack of institutional guidance;
·   The risk of losing connection with the original context that produced the data;
·   A lack of clarity about whether consent can be assumed for public data.

Our study of the ethical challenges of researching Facebook groups addresses each of these perspectives, considering whether researchers who use publicly available data are indeed free to research without permission and whether different types of permission are relevant for different research settings and strategies.

Discussion: Working towards ethical guidelines for educational research conducted in Facebook groups

We have divided our discussion to cover ethical considerations arising in three phases of the research process: beforehand, during and afterwards. In interrogating the ethical challenges connected with researching in Facebook we began by consulting The Open University's research ethics policies (Open University, 2006) in addition to BERA (2011) and AERA (2011) ethical guidelines, following Zimmer's (2010, p.324) assertion that 'concerns over consent, privacy and anonymity do not disappear simply because subjects participate in online social networks; rather, they become even more important' and that 'it is our responsibility as scholars to ensure our research methods and processes remain rooted in long-standing ethical practices'. We then cross-referenced these guidelines with the growing body of literature dedicated solely to the ethics of researching online (e.g. Buchanan & Zimmer, 2012; Convery & Cox, 2012; Markham & Buchanan, 2012), in addition to the OER Research Hub Ethics Manual (Farrow, 2013) which directly addresses the challenges of researching in the open.

Beforehand

Based on our own experiences of researching with Facebook groups we argue that the researcher needs to carefully consider the potential ethical challenges of performing educational research in a social media context long before embarking on the process, anticipating possible challenges and how to manage them. Of interest at this point in the research process are the issue of whether and how to gain informed consent, the closely related distinction between public and private research settings, and the need to navigate online disclosure, especially when research participants are from the researcher's own institution.

Informed consent and the distinction between public and private research settings

Informed consent is a cornerstone of ethical educational research. The BERA Ethical Guidelines (2011, p.5) state that 'researchers must take the steps necessary to ensure that all participants in the research understand the process in which they are to be engaged, including why their participation is necessary, how it will be used and how and to whom it will be reported'. The BERA Guidelines do concede that 'social networking and other online activities...present challenges for consideration of consent issues' but maintain that 'the participants must be clearly informed that their participation and interactions are being monitored and analysed for research'. Of late, though, developments in open and guerrilla research, as already discussed, have led

some to question whether research in public online settings demands the same level of consent as that taking place in private domains.

The distinction between public and private research settings appears particularly pertinent to researching Facebook groups, of which three categories exist - public, closed and secret (see Figure 1 for public and closed groups; it is not possible to view a secret group without being a member of it).
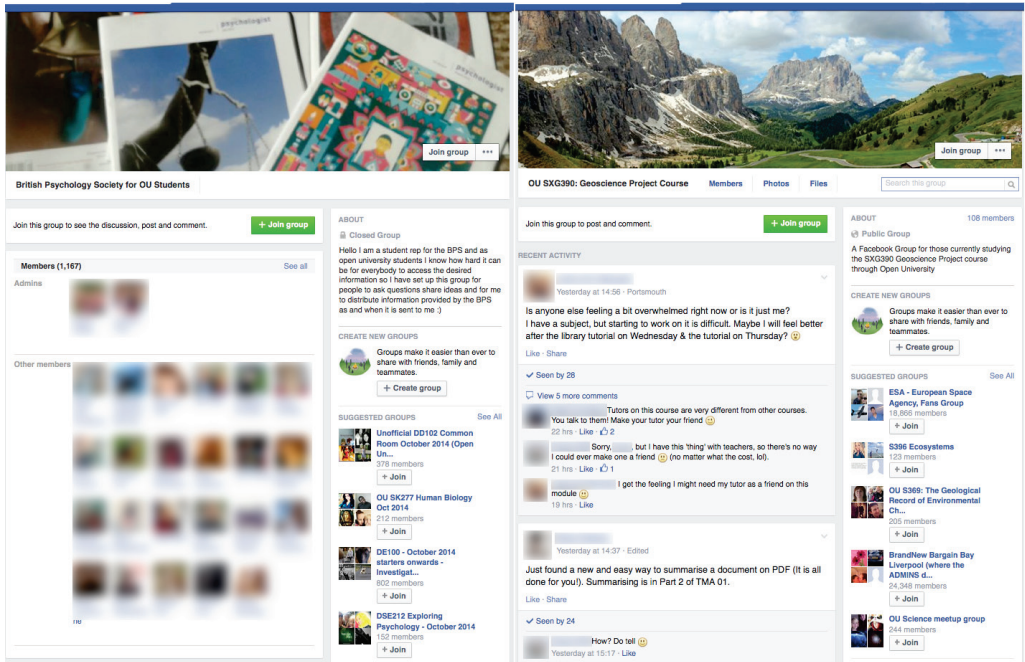

Figure 1. Closed and public Facebook groups related to Open University study

Convery and Cox (2012, p.51) state that 'one of the central issues with [Internet Based Research] is what constitutes 'public' and 'private' spaces, with corresponding implications for whether or not informed consent is required'. The BERA (2011) Guidelines do not cover this distinction between public and private. However, Zimmer's (2010) widely-cited study of the ethics of researching in Facebook, which focuses on the controversial 'T3' study of Harvard students' Facebook use, is more helpful. Zimmer suggests that while the use of data that is solely available from public Facebook pages (e.g. students' profiles) may be seen as ethically defensible, a different picture emerges where this data is then cross-referenced with institutional data accessible only to people within that institution, and that the public Facebook data then becomes semi-private and, in turn, should be subject to more rigorous ethical

treatment. Arguably then, the researcher should be particularly cautious when triangulating data from several sources (including data collected from 'public' spaces), especially where this gives a level of additional information about research subjects beyond that which the subjects themselves intended to provide.

The AERA Ethical Guidelines (AERA, 2011, p.151) make explicit reference to the ethical treatment of public data, stating that 'education researchers may conduct research in public places or use publicly available information about individuals (e.g., naturalistic observations in public places, analysis of public records, or archival research) without obtaining consent' but adding that 'if, under such circumstances, education researchers have any doubt whatsoever about the need for informed consent, they consult with institutional review boards or, in the absence of such boards, with another authoritative body with expertise on the ethics of research before proceeding with such research'. To some, online social networking in the public sphere can easily appear as a 'snoop's dream' (Marks, 2006) in which participants' contributions to online discussions are exploited for other' gain, be it commercial, financial or even criminal. However, we argue that the responsible, reflexive researcher can conduct ethically defensible research in such spaces as long as they look closely at what might constitute public and private communication in itself, irrespective of the extent to which the context in which such communication takes place is public or private.

Our own research has featured two distinct approaches. When researching a combination of public and closed Commonwealth Facebook groups on autism we gained informed consent from participants by joining each group and then contacting the group moderator to ask them to raise the matter with group members on a collective basis whereby members were invited to raise an objection if they did not wish the group to be the topic of research (none objected). We used the same approach across all groups, irrespective of whether they were public or closed. After conducting the research, we published the findings under an open licence and made them accessible from one author's own Facebook page (www.facebook.com/freeCYPmedia) and blog site (cyp-media.org) so that group members could read what we had found, in line with BERA and AERA guidelines that research reports should be shared with participants.

Latterly though, when investigating solely public (previously known as 'open') OU Facebook groups, we have not negotiated group consent, as allowed by the AERA Ethical Guidelines above. We are anonymising our findings and are again openly

publishing them and making them easily accessible from the author's Facebook page and blog site. By saving the time involved in negotiating consent, public/open groups are easier to research than closed or secret groups, although we estimate that public/open groups represent less than 10% of the total number of active OU-related Facebook groups, the remainder being either closed or secret. (Closed groups are discoverable by searches; the viewer can see who the members are, but cannot see the content without joining. Secret groups are not discoverable, so it is difficult to know how many exist.) These closed/secret groups potentially offer rich research data that could help to extend the validity and generalisability of our research findings, and its overall value to stakeholders such as learners, educators and The Open University as an institution. However, negotiating consent with closed and secret groups dramatically increases the time and effort involved in researching, which one has to be confident that the outcomes will warrant. A complexity is raised by the fact that groups' status as public/open can change. Indeed this is quite common in the life-cycle of a group; they are often set to 'public' initially to help students discover them, then closed once all the cohort that wish to have joined.

Disclosure and risk to participants

When researching within one's own institution the researcher needs to be clear about the responsibilities and obligations connected with their employment, in advance of conducting research in social media setting. The Facebook environment (in common with other online settings) has been reported as particularly conducive to 'confessional' activity' (reference) and 'online disinhibition' (Joinson, 1998; Suler, 2004), displaying the six factors that Suler (2004) identified as prompting people to self-disclose online more frequently or intensely than they would in person:

- Dissociative anonymity – the fact that 'when people have the opportunity to separate their actions online from their in-person lifestyle and identity, they feel less vulnerable about self-disclosing and acting out';
- Invisibility – overlapping, but extending beyond anonymity, physical invisibility 'amplifies the disinhibition effect' as 'people don't have to worry about how they look or sound when they type a message' nor about 'how others look or sound in response to what they say';
- Asynchronicity – not having to immediately deal with someone else's reaction to something you've said online;
- Solipsistic introjection – the sense that one's mind has become merged with the mind of the person with whom one is communicating online, leading to

> the creation of imagined 'characters' for these people and a consequent feeling that online communication is taking place in one's head, again leading to disinhibition;

- Dissociative imagination – a consciously or unconscious feeling that the imaginary characters "created" through solipsistic interjection exist in a 'make-believe dimension, separate and apart from the demands and responsibilities of the real world' (Suler, 2004 p.323).

- The minimization of authority (for people who do actually have some) due to the absence of visual cues such as dress, body language and environmental context, which can lead people to misbehave online.

Croeser (2014, p.187) comments that 'social privacy has...been the primary concern of educational scholars writing about Facebook, who worry that students may share information on Facebook that is inappropriate for other students, teachers, or future employers'. However, apparent online disinhibition may also be connected with Facebook's architecture, which in turn is driven by the company's commercial interests. Croeser explains that 'Facebook's architecture and defaults encourage users to share large amounts of information about their interests and lives', pointing out that 'Facebook's immense success as a company is reliant on the data shared by users' (p.188). It is not surprising, then, that Facebook's privacy settings are notoriously difficult to adjust and the default settings are constantly changing, leading to 'sudden privacy lurches' (Croeser, 2014, p.188) that make it difficult for users to reliably limit the audience for content posted on the platform.

The combination of online disinhibition in its various forms, and privacy controls that favour Facebook's commercial aims over users' needs, increases the likelihood of the researcher encountering evidence of plagiarism and/or disclosure of other types of poor academic practice, or indeed anti-social behaviour on the part of formal university students (e.g. complaints about named individual tutors). While it may be tempting to adopt the position of a detached observer, institutional guidelines may require the researcher to report such practice. Indeed, the BERA Ethical Guidelines (2011, p.8) state that:

> *Researchers who judge that the effect of the agreements they have made with participants, on confidentiality and anonymity, will allow the continuation of illegal behaviour, which has come to light in the course of the research, must carefully consider making disclosure to the appropriate authorities. If the behaviour is likely to*

> *be harmful to the participants or to others, the researchers must also consider disclosure.*

We recommend that the researcher finds out their institution's position on such matters well before commencing their research. Should institutional guidelines not be explicit about such topics it may be prudent to raise the issue with an institution's ethics committee in order to gain a firm steer about acceptable practice and disclosure obligations. Should this approach not yield suitable guidance then, should problem behaviour become apparent during the research process it may be fruitful to rise with the group moderator through the 'report to admin' facility.

During

Once the research process has commenced a further set of ethics-related challenges need to be managed by researchers collecting data from Facebook groups, including whether to join the Facebook groups that are being researched, whether to disclose one's status as a researcher, and how best to manage data protection obligations. Again, the distinction between public and private research spaces becomes relevant here. Facebook's own rules – especially those related to the creation of faux accounts, or aliases – must also be navigated during the research process.

Joining groups and status disclosure

To conduct any research about Facebook groups one needs an individual Facebook account. If desired, one can then join up to 6000 groups. When conducting our Commonwealth Facebook autism group study we did join each of the groups that we researched and, indeed, disclosed our identity as researchers. However, we have not joined the 10 OU Facebook groups that we have been researching more recently as all of the data that we needed was available without joining the groups, neither did we disclose our status as researchers. Our position is that as we are conducting observation-only research on passive participants in the public sphere (participants who are not being interviewed or are completing surveys, nor are the subject of interventions or AB testing), it is ethically defensible to neither join the groups we are researching, nor disclose our status as researchers.

Data protection

While researching, record-keeping also has to be considered. The BERA Guidelines (2011, p.8) state that 'researchers must ensure that data is kept securely and that the form of any publication, including publication on the Internet, does not directly or

indirectly lead to a breach of agreed confidentiality and anonymity.' Returning to our own research context, it is not possible to download Facebook group activity wholesale, so accurate record-keeping is particularly important to ensure the research can be completed and verified if necessary. A further reason for keeping accurate records is that Facebook can be quite a fluid and transitory medium – for example, whole groups can be deleted, which typically happens after the end of a course – and as a business, Facebook change their facilities and rules frequently for commercial reasons (e.g. withdrawal of email function and changed privacy settings). In our own research we have limited ourselves to counting and analysis of qualitative data; no names are attached to this and data is fully coded and anonymised (e.g. 'group 1, member A'). We recommend that other Facebook-based researchers take particular care to quickly archive, anonymise and code any research data they collect from Facebook groups and to consider the implications of changes in public availability of this data. For example, it may be difficult for others to check the veracity of assertions should the data disappear from Facebook so the researcher should not assume this will always be possible. Taking and anonymising screenshots is one way of capturing activity and qualitative data within Facebook groups and while we do recommend this as a strategy, especially for the sole use of the researcher during the analysis process, the practice is not without its challenges as we discuss later.

Breaking Facebook's rules

The existing research on the educational uses of Facebook raises a further ethical issue – the apparently common practice of creating duplicate, or 'faux' accounts as a researcher (and more generally), and of encouraging research participants to do the same. For example, Lieberman's (2013) account of her Facebook-based educational research reveals that she explicitly suggested students might create a separate account for their scholarly work, and that she had done the same. This raises questions both about the validity of her research findings and about the ethics of encouraging the creation of duplicate accounts. (It is worth noting though that Lieberman states that 'not one of the students chose to set up a dedicated account for university business' (p.27).) Lieberman is not alone, however, and it is not uncommon for writers on the educational use of Facebook (e.g. Munoz & Towner, 2009, pp.8-9) to recommend that teachers and students create a separate 'professional' (or student) profile and use an alias to hide their personal profile.

Facebook explicitly states that creating duplicate accounts is against its rules (Facebook, 2014). However, current figures for fake accounts estimate that 83 million

such accounts (8.7% of Facebook's active users) exist (Facebook, Inc, 2012). This is problematic in terms of mutual trust and member safety, and for the researcher is troublesome where research includes demographic comparisons (for example, an apparently middle-aged male Facebook member may actually be a young woman, and vice versa) or where the researcher is doing quantitative analysis of the number of posts made (for example, posts may be made by a single person using several fake accounts). The researcher should bear this in mind when conducting research in Facebook groups, and also when drawing on others' research findings. In addition, should the researcher choose to use an alias or faux account this could be seen to breach BERA's (2011, p.8) guidelines on researcher deception:

> *Researchers must...avoid deception or subterfuge unless their research design specifically requires it to ensure that the appropriate data is collected or that the welfare of the researchers is not put in jeopardy.*

Afterwards

Reporting the findings of a social-media located research study after it has ended raises a further set of ethical considerations regarding confidentiality and the potential impact on research subjects, be they active or passive. Krotoski (2010) makes a distinction between protecting the individual and protecting the online community as a whole when researching in online communities such as Facebook groups.

Protecting the individual

Holmes (2009) suggests that in general, most online research involves minimal risks to individual participants, aside from breaches of confidentiality and when questions asked by the researcher provoke emotional reactions. While the latter is not relevant for research where participants are passive and no interventions are involved, the issue of confidentiality remains. The BERA (2011, p.7) Ethical Guidelines state that:

> *The confidential and anonymous treatment of participants' data is considered the norm for the conduct of research. Researchers must recognize the participants' entitlement to privacy and must accord them their rights to confidentiality and anonymity, unless they or their guardians or responsible others, specifically and willingly waive that right.*

As previously discussed, however, the public nature of many Facebook groups might suggest that different ethical considerations apply than when researching in private settings online. Again, the AERA (2011) Guidelines do make a distinction between ethical requirements of researching in public and in private contexts, stating that:

> *Confidentiality is not required with respect to observations in public places, activities conducted in public, or other settings where no rules of privacy are provided by law or custom. Similarly, confidentiality is not required in the case of information from publicly available records.*

We tentatively argue that data in public Facebook groups falls into this category of public setting. However, this does not mean that the ethical researcher should feel free to use that data in whatever way they desire. Rather, the researcher will need to navigate the complexities of unintentional disclosure resulting from online disinhibition and to consider the possibility that passive research participants could be harmed when a researcher (especially one connected with the same institution attended by the passive participants) begins analysing and reporting research data that may have been unintentionally disclosed. Indeed, the combination of online disinhibition in its various forms, and hard-to-find, ever-in-flux privacy controls that favour Facebook's aims over its users' needs, increases the likelihood of research subjects disclosing information that could be harmful to them. We therefore suggest that while the public domain of the Facebook group does not in itself offer anonymity, researchers' reports should anonymise all data cited as evidence and that, with the exception of research where discourse analysis is integral to the research strategy, it could be helpful to paraphrase quotes where the topics discussed are potentially sensitive, to help prevent Internet searches that will lead back to the research participants. A further complexity emerges when researching closed/secret groups, when the researcher must consider the extent to which it is ethically defensible to report evidence from these groups. We argue that when conducting research in such groups it is important to gain the informed consent of participants, whether active or passive, and that when such consent has been obtained reporting data gained from such groups is less problematic, subject to the same care exercised above.

Protecting the online community

Risks to the online community being researched may also result from both the research process itself and from disseminating research findings. Krotoski (2010, p.3) suggests that:

> *Online communities are complex social negotiations between disproximate individuals who are engaged in what William Gibson described as a "consensual hallucination" (1984). Distinct from non-community online interactions, members of these groups form interpersonal systems over time and through repeated [interaction] that result in stable governance and hierarchy, featuring rules, regulations and distinctive norms.*

Arguably, reporting a close analysis of interaction within a Facebook group (whether closed, secret or public), when read by group members, could change the nature of relationships within an online community, with the potential to undermine its stability and effectiveness (although, admittedly, it is also possible that the reverse could occur, with the group being strengthened as a result of becoming aware of the research findings). Krotoski (2010, p.3) suggests that 'a breach in trust can destabilise the foundations upon which the online group rests', though he adds that 'social networking sites, like Facebook, may have a stronger sense of stability than social virtual worlds'. It is our experience, however, that public Facebook groups are typically unstable, with levels and types of contribution varying over time, content appearing and disappearing, members arriving and leaving, the group's status changing from open to closed, people disagreeing with each other, and relationships and discussions moving from one group to another group. Groups can also go through long periods of dormancy and then suddenly come back to life. In this context, it is possible that the researcher's reported findings regarding the group's behaviour at a specific point in time that has long since gone may not capture the group's attention, nor have much impact on the group.

A further consideration is that public groups may become exposed to advertising spam, or other undesirable consequences such as trolling, when their profile is raised through research dissemination. As described above, after conducting our earlier research, we published the findings under an open licence and made them accessible from one author's own Facebook page and blog site so that group members could read what we had found. We are not aware of this having led to any undesirable consequences. Indeed, it is likely that dissemination of research in academic journals does little in terms of attracting the attention of the huge industry of spammers that plague social media.

Image ethics

Reporting research findings may also involve managing the use of images derived from Facebook and used as research evidence. Facebook is very visual environment and many researchers will want to use screenshots (for example, our Figure 1) to illustrate their research reports. This, in turn, is a very murky area, raising both procedural and ethical challenges. For example, it may seem logical to assume that visual evidence collected from Facebook should be treated in the same way as textual evidence – with the researcher anonymising anything that might be traced back to a particular person, unless that person has given informed consent for their identity to be revealed. However, Facebook has its own rules around the use of screenshots:

- Screenshots must be unaltered, meaning they cannot be annotated or modified in any way from their appearance on Facebook.
- Screenshots with personally identifiable information (including photos, names, etc of actual users) require written consent from the individual(s) before they can be published. (www.facebookbrand.com)

These rules are both contradictory and ignored by very reputable institutions. The use of Facebook screenshots in published reports, and those screenshots' alteration, is very common amongst academics and there are even popular apps (e.g. SocialFixer – socialfixer.com) to make alterations and anonymisation easier.

Aside from consideration of Facebook's rules, a tension remains amongst Facebook-located researchers about whether anonymising screenshots is actually desirable. Young (2013, p.172) asserts that 'visual 'anonymisation' in most types of online research remains difficult because it destroys the rich nature of the data', while Blum-Ross (2013) and Wood and Kidman (2013) also express concerns about visual research data being compromised by the anonymising process. This, in turn, raises questions about who owns such data and whether the researcher has a right to manipulate images, especially those featuring content that is openly available (e.g. that from public Facebook groups). One possible approach is to consult each participant who is identifiable from any visual evidence (e.g. a screenshot) about the level of anonymity required. However, as with the process of gaining informed consent from passive participants, this may involve a time investment that is disproportionate to the overall research strategy, or which prevents the research from taking place. Furthermore, it assumes that those consenting to non-anonymity fully understand the consequences of doing so.

We argue that it is safer for the researcher to anonymise visual content (as we have done in Figure 1) such that individuals are not identifiable, by name, through a photo or through other identifiable content, just as one would anonymise textual data, and that it is more ethically defensible for the responsible researcher to break Facebook's rules by altering a screenshot to anonymise it, than it is not to do so. Taking this approach should help the researcher to avoid doing unanticipated harm to research subjects, for example by exposing them to predatory behaviour and exploitation as a result of the mass dissemination of open access research reports – a risk that is increased where it may be possible to 'triangulate' visual data with other information about a person, allowing them to be more easily identified. Obviously, the nature of the research context is also relevant, for example the researcher may feel there is more potential harm to members of a public group focused on adoption and fostering than to members of a pop star's fan club group. As ever, though, it is imperative that the researcher closely engages with the research context and remembers that 'behind every online communication is a real, living, breathing person' (Stern, 2003, p.240).

Conclusion

The existing literature on Facebook use in educational settings, and our own research on Facebook groups within and beyond formal education, gives persuasive evidence that Facebook groups can be of great educational and institutional value and can:

- Help in helping develop relationships between new students;
- Provide a bridge between informal and formal learning by attracting potential students who are able to see real current student experience of a particular course, allowing them to make better informed choices about what and where to study;
- Provide an environment that is conducive to developing peer-support and self-educating learner communities for existing students.

It therefore follows that the practice of researching Facebook groups has value for learners, educators and host institutions alike. For example:

- Learners can find out about the optimum strategies for self-organised support groups within Facebook;
- Educators gain information about new ways of using social media within a pedagogical strategy;
- Institutions can gain insight into student motivations and preferences in order to improve the learner experience for existing students and attract new

students, in addition to conducting comparative analysis of pedagogy and practice in Facebook groups and VLE forums in order to inform learning design.

However, our research also identifies various ethical complexities and challenges connected with researching within Facebook, including whether/how to gain informed consent in a public setting; the need to navigate online disinhibition and confessional activity; the need to address the ethical challenges involved in triangulating data collected from social media settings with data available from other sources; the need to consider the potential impact on individual research participants and entire online communities of reporting research findings, especially when published reports are open access; and, finally, the use of visual evidence and its anonymisation. We have attempted to provide some guidance about how researchers might navigate and manage these challenges, basing these recommendations on our own experiences, on a range of formal ethics guidelines, and on current debates around researching 'in the open'. Above all, we argue that the responsible and responsive researcher should heed Krotowski's (2010) plea that 'online community researchers face the person behind the screen when doing research'.

While we have reached an overall, provisional conclusion that ethical regulations and restrictions should be proportional to the scale and purpose of the research and that the ethical dimension should not prevent socially and educationally valuable research taking place, the complexities involved in researching ethically in social media contexts demand broader attention and debate from scholars. Zimmer (2010) details areas for further exploration, arguing that:

> *Future researchers must gain a better understanding of the contextual nature of privacy in these spheres...recognizing that just because personal information is made available in some fashion on a social network, does not mean it is fair game for capture and release to all...Similarly, the notion of what constitutes "consent" within the context of divulging personal information in social networking spaces must be further explored, especially in light of this contextual understanding of norms of information flow within specific spheres.*

It is our hope that other academics will contribute to an exploration of the ethics of researching in Facebook, in the interests of a greater understanding of the potential of this powerful tool.

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