

Education, Opportunities and Challenges for Generation OurSpace: Taming the Beast?

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Abstract: The paper discusses the opportunities and challenges presented for current notions of schooling by adolescent online cultures. Young people are increasingly active Web 2.0 users and their interactions through these technologies are altering their social identities, styles of learning, and exchanges with others around the world. The paper argues for the need for more research to investigate this phenomenon through the use of virtual ethnography and identifies the ethical challenges that lie therein. It raises questions for school education and presents an argument for the need to study the area in culturally sensitive ways that privilege adolescents' voices.

Introduction

Young people are increasingly active Web 2.0 users and their interactions through a suite of technologies are altering their social identities, styles of learning, and exchanges with others around the world (Facer et al. 2003; Prensky 2004; Young 2005). In this paper we use the term Web 2.0 to refer to virtual worlds, social networking and publishing spaces. The literature in this area (for example, Ferdig 2007; Green & Hannon 2007) suggests that we ignore the popularity of this phenomenon, and its implications for school education, at our peril. Yet simply harnessing adolescents' popular culture for school-based learning is problematic. Appropriating features of this contemporary digital culture for formal schooling may fundamentally change both the nature of the interactions and the appeal that this mode of interaction holds for adolescents. 'Tamed' adolescent social networking might have no more appeal than a pitiful, muzzled dancing bear. A caged beast has no resemblance to the adolescent species roaming free in their digital environment. This paper presents a conceptual overview of the challenges and opportunities that arise in the education of Generation OurSpace and also foregrounds the ethical challenges of implementing appropriate research studies in the area.

To inform discussion about this area, there is a need for research to focus on adolescents' social networking and content creation and to investigate the rationales and cultures evident. Our belief, informed by socio-cultural theory, is that Web 2.0 technologies have the power to: (a) affect human cognition; (b) change the knowledge and

skills necessary to participate in one's local and global communities; (c) impact upon the future development of society; and (d) disrupt school education. We argue, therefore, that it is desirable to gain an understanding of how young people are interacting and functioning in such environments and highlight ethical issues involved in researching this area.

Context

Technology plays a special role in the life of today's adolescents. Increasing numbers of young people are comfortable using Web 2.0 technologies to express themselves: creating and publishing new media content; contributing to creations such as artworks, audio, video and photographic products, and creative writing postings. A UK survey conducted in June 2006 of 1,003 eleven to sixteen year olds and 1,003 parents (NCH 2006) found that 33% of the young people regularly use the Internet for blogging and 79% said they use Instant Messaging (IM) regularly (including 59% of the eleven year olds in the group). A recent Australian study (ACMA 2007) surveyed a representative sample of 751 family households with children aged between eight and seventeen. 42% of young people in this study said they had posted their own material online while amongst the fourteen to seventeen years olds, 72% of girls and 52% of boys have their own online social networking profile. A robust adolescent online culture has emerged, yet little attention is given by formal education authorities to the opportunities this technology gives children for sharing ideas, exchanging and debating views and making global connections (Lamb & Johnson 2006). There is a growing incongruence between students' informal and formal learning environments (Griffin & Aubusson 2007) and a subsequent need to examine this shifting landscape.

From a schooling perspective, there is an urgent need to find out where new boundaries have emerged and to investigate if there are educational possibilities for exploiting the fluid nature of these web-based technologies. Boundaries between private and public entities and between offline and online identities are blurring (Gefer 2006) and implications of these shifts need investigation to inform school change. From a broader educational perspective, the use of social networking technologies provides an alternative to the dominant culture of schooling and by implication to current curriculum, policy and practice. What is needed is a way of theorising adolescents' absorption with this mode of interaction to understand its potential in education.

An underpinning theoretical perspective for this discussion is a socio-cultural one. From this perspective the Internet is viewed both as a cognitive tool and as a novel cultural medium. Cognitive tools are recognised as influencing and mediating new patterns of thought and mental functioning (Salomon & Perkins 1998; Wertsch & Rupert 1993). Also, the use of cognitive tools enculturates one into society and, in turn, changes society through the ideas and ways of thinking enabled by that tool (Putnam & Borko 2000). Currently, new tools have emerged which enable unprecedented high-level interactivity on a global scale. These tools are enabling of adolescent learning as young people take authorial and editorial roles, express themselves, and publish and interact globally in ways not deemed possible in times when most learning theories were laid down. The interaction between tool and user and the subsequent changes to both suggest that we cannot ignore adolescent use of these technologies in our thinking about learning.

Consequently, this paper discusses the following questions:

- Why study Web 2.0 usage for its educational potential?
- In what ways can school education be informed by such studies and what issues arise when considering the use of such technologies in formal schooling?
- What research designs are appropriate for studying adolescents' engagement with Web 2.0 and what ethical issues arise?

The Educational Potential of Adolescents' Use of Social Technologies

The traditional research and education communities have been slow to respond to the rapid emergence of this digital culture. This lag in understanding leads to educational policies and practices that alienate the very people the policies seek to embrace (Green & Bigum 1993; Kent & Facer 2004; Warschauer 2007). So far, school systems have

generally been cautious about using social technologies in the classroom and are banning social webspaces out of concern about safety of their charges (Anderson & Sturm 2007), and fear of complaints and legal consequences. The disruptive, democratic and dynamic nature of social networking, creative and collaborative technologies is seen as a threat to the establishment instead of a powerful opportunity to understand adolescent culture and to bridge the gap between adolescent culture and formal education. The picture is clouded further by the assumption that if 'safe' use of social networking is achievable through careful monitoring, Web 2.0 technologies can simply be imported into formal schooling environments in unproblematic ways, and used as teaching tools controlled by teachers and administrators. Teachers' epistemological and pedagogical beliefs are the product of a different generation (Albion & Maddux 2007). Hence, a major constraint is that they tend to apply what Barlow (1998, cited in Nagy & Bigum 2007) has suggested is 'industrial-age thinking', to the new context. Nagy and Bigum (2007) bemoan the "mindset which sees knowledge products as things to be managed, controlled and paid for by students" (p.3). The ability for anyone with access to the Internet to publish, critique what is there, and present their own perspectives, with feedback from a large audience (Nagy & Bigum 2007) presents a real challenge to the way things are done in formal educational settings. We suggest that there is a need to reframe our conceptualisations of the nature of learning and the purpose of schooling in this time of unbounded interaction.

A few pioneering studies have begun to investigate identity, networking, creativity and sociological issues (Lenhart & Madden 2007) in these new Web 2.0 contexts. Livingstone (2006) considers the role of the Internet in young people's lives to develop a framework for understanding the related social, cultural and political dimensions. She notes that social boundaries are blurred by the availability of rich media and suggests that learning, work and community participation now occur through interaction with these media. Her discussion provides valuable insights into young people's experiences with the new technologies but it does not elaborate the feasibility of exploiting this phenomenon in school education and formal learning environments. Another important ongoing study, EU Kids Online, (Livingstone & Heddon 2006-9) is considering research across Europe on how young people use the Internet and new media. However, it too is evaluating risks of such media and children's and parents' responses to such risks. The area that is largely under-researched is how such technology usage by young people matches their activity in formal learning environments. With the current rapid increase in usage of these technologies, it becomes necessary to understand what is happening in this social networking phenomenon, so that school education is informed as to appropriate ways to enhance the learning of its charges.

In order to capitalise on the engagement that young people exhibit in using these new technologies (Prensky 2005), it is necessary to inform formal education about adolescent digital cultures and also to judge when to leave boundaries intact. There is a dark side to networking spaces that figures significantly in popular media reporting. Harmful outcomes associated with these technologies are emphasised through negative publicity in the print and television media (for example, Cubby & Dubecki 2007), sometimes overshadowing the benefits of these technologies for social networking, learning, and creativity. Indeed, much discussion on young people's use of online social technologies has focused on safety issues (see for example, Millwood Hargrave & Livingstone 2006) but often associated research is based on outdated assumptions. This literature and the actions taken, frequently assume that dangers lie in chatrooms but the web has moved on and usage is much more complex than it was, with people moving between sites and interacting in multiple roles. The nature of risk for adolescents has also changed: popular and political concern remains mostly focused on varieties of web-based sexual abuse and cyberbullying (eg. Nairn 2007; Rawe 2006), but equally of concern are easily accessed links to sites promoting unhealthy lifestyles and conditions (for example, anorexia), extreme right wing groups, and unethical practices such as cheating, plagiarism and breaches of copyright (Albion & Maddux 2007). A recent report published by Green and Hannon (2007) provides many useful counter-claims for concerns of safety threats, junk culture, technologies wasting 'learning' time, plagiarism, disengagement, disconnection and passivity. It is undisputed that these technologies are currently enjoying great popularity among young people and that to view them purely as destructive technologies loses a great opportunity to capitalise on their potential for learning. Neither complacency about students' interactions out of school, nor alarm about the dangers of such interactions are appropriate ways to view this phenomenon. A more complete picture is needed, locating these emerging dangers in the context of patterns of usage across technologies.

Informing School Education: Questions Arising

In school there has been "a lost opportunity to embrace the different learning experiences (that occur) ... in authentic settings beyond the classroom" (Griffin & Aubusson 2007, p.218). In a similar vein, Hull and Schultz (2001) urge

researchers to help bridge the vast gulfs that separate and continue to widen between children and youth who succeed in school and those who do not, by seeking a collaborative understanding of the relationship between formal classroom learning and the informal learning that flourishes in a range of settings outside school. We argue that understanding the adolescent culture evident in Web 2.0 engagement provides valuable insights for school education. Yet, while governments of Western countries have been considering ways to equip all schools with fast broadband connections, they have not yet come to grips with how adolescents are already effectively using Web 2.0 technologies.

We argue for the need to investigate adolescent practices and adolescents' views about the ways in which social webspaces can be made safe and welcoming places for them to learn, create and share. However, we also recognise that the adaptation for formal school settings of features of these virtual adolescent cultures remains vexed and a formidable challenge (Pennycook 2007). For most adolescents, the appeal of interactions through such media is probably their separation from the structured world of adult-centric rules, protocols and formal engagements with adults (Boyd, 2008). 'Taming this beast' and bringing Web 2.0 technologies into the classroom could well change their intrinsic nature, thus dissipating their appeal and leading to development of other ways of interacting 'underground', far from the adult eye (Maher & Schuck 2004). Yet there are examples of emerging digital technologies improving the learning experiences and engagement of students (for example, see Black, 2006; Désilets & Paquet 2005; Facer et al. 2003; Heppell 2000; Kearney & Schuck 2006). In each instance it has not been a matter of transferring popular culture into school, but rather exploiting the attractiveness of student choice of method of communication and constructionist learning principles (Harel & Papert 1991). For example, Black (2006) demonstrates the language learning possibilities provided by online technologies and fanzines for adolescent English language learners.

One recent study that does consider the impact on education discusses a case in which primary school children were observed to both receive information from, and contribute to, online communities (Turvey 2006). Turvey suggests that deep understanding of learning can occur through examination of students' participation in such communities. Other studies (Green & Hannon 2007; Maher & Schuck 2004) discuss the implications of emerging digital cultures for schooling. These studies suggest that although there are serious gaps between what students are learning in and out of schools, we should not be merely using informal learning principles to inform the design of formal learning sites. Rather, in a similar way to Nagy and Bigum (2007), we suggest that educators should be examining the possibilities for new kinds of roles for schools and new kinds of relationships between formal learning and Web 2.0 activities taking place outside the school. We also ask how to create such relationships in schools without losing the motivational aspects of autonomy and risk-taking that currently operate in these environments and which are sensitive to the localised needs of stakeholders (Owen et al. 2006).

Appropriate Research Designs and Emerging Ethical Issues

The above sections argue for more studies in this area. As well, the research design must be appropriate. Our review of the literature suggests that most previous studies in this area relied heavily on reported use rather than actual use of these technologies; often questionnaire based and snapshot oriented. Our experience is that smaller scale studies with a greater degree of interaction between researchers and members of the digital culture can give more insightful, and perhaps honest, data. We argue that a study which is longitudinal and participative in nature, will be able to show how people move between different kinds of web-presences and also show how social contacts influence usage. We also argue for the need for projects that explore and extend 'virtual ethnographic' methodologies (Crichton & Kinash 2003; Hine 2000) and that address related ethical issues.

Of prime importance is the initiation of a dialogue with young people themselves. The value of having the voice of young people in a debate that centres on their activity is widely recognised (Cook-Sather 2006; Thomson & Gunter 2006). At present there is very little literature available which explores the learning impact of these technologies, particularly with the eleven to sixteen year old population. Where such literature does exist, the voice of the adolescent population is often neglected. We suggest that through a virtual ethnography with an emphasis on adolescent voices and their active participation as co-researchers, a deeper understanding will be gained of what is actually happening in social spaces online.

As well as arguing for a virtual ethnographic methodology, we suggest that a multi-disciplinary approach is required. This would provide the flexibility to understand young people's activity with Web 2.0 technologies, by taking into account the contexts, cultures, technologies and learning that occur. The complexity of the relationship between adolescents and social networking and publishing technologies cannot be understood from a single disciplinary perspective. Providing varied, complementary perspectives enables researchers to challenge each other's thinking, and extend conceptualisations of the adolescent social technology phenomenon. Like Facer, Furlong, Furlong and Sutherland (2003, p.226) during an earlier phase of adolescent computer use, we recognise that there is "no single theoretical framework available that [is] sufficiently rich to allow us to prise open all of the complexities" inherent in adolescent informal use of social software. Thus we recommend a multi-disciplinary approach underpinned by socio-cultural learning theory, and drawing on popular cultural studies, and educational technology studies, to enable holistic analysis of the phenomenon.

Given that an approach that provides deeper data would need to be more direct and ethnographic, researchers need to be immersed in the adolescents' digital cultures, engaging with participants. This involves the researchers participating in various Web 2.0 spaces, and interacting with the other participants to understand 'what is happening'. This methodology of 'going native' and participating in adolescents' 'underground' interactions is fraught with ethical sensitivities, as discussed by the Association of Internet Researchers (AoIR) ethics working committee (Ess & AoIR 2002).

Ethical issues range from issues of confidentiality and anonymity to more serious concerns about the consequences of encouraging adolescents to engage with adults entering their environment covertly. At one level the ethical concerns about confidentiality and anonymity appear to be trivial. Firstly, as researchers we can ensure that artifacts are de-identified, though this may prove difficult in a minority of instances. Secondly, the adolescents are already in a public space and the content that is available to researchers is that which someone has chosen to make public. Yet the problem is that the ethical expectations of researchers are far higher than the expectations of those operating and publishing in these environments. Hence we believe that it is questionable for researchers to simply appropriate content because it is public and accessible.

As digital ethnographers we are charged with the task of understanding the ethical issues better and developing protocols for professionals exploring and using these sites with young people. Arguably, one reason for bringing Web 2.0 into the school is to encourage debate and raise awareness about ethical issues in content creation in digital spaces.

Procedures for obtaining consent also need to be carefully considered. Obtaining permission from parents of students under the age of 18 may be problematic as the NCH (2006) survey mentioned earlier showed that most parents are unaware of their child's activity in Web 2.0 spaces. On one hand it may seem desirable to simply seek parental permission but adolescents often choose to be in these spaces because they are generally considered by users to be adolescent "publics" where they can interact without parental supervision (Boyd 2008). Hence the adolescents may not want researchers to reveal to parents that they are in these spaces and if revealed their behaviour in these spaces may become less authentic. In addition, because researchers will often be unable to identify the adolescent user, the researcher is also unable to identify the parent and cannot seek permission. The researcher is unable to confirm that it is the parent who is giving permission. Even if the adolescent chooses to identify him or herself it remains difficult to verify that participants are who they say they are or even that they are adolescents. Therefore it is important that researchers using digital ethnography recognize and acknowledge these limitations and implications for the integrity of the research. One of the tasks of digital ethnographers is to consider ways of circumventing these problems, for example, by using a referral process beginning with known adolescent participants to provide a pool of Web 2.0 users.

Young people's awareness of appropriate strategies to combat 'stranger-danger' make contact with participants in these spaces an ethical minefield. Parents and educators highlight the dangers of talking to strangers. It has been argued that the dangers presented by strangers in Web 2.0 environments are exaggerated because most adolescents are not interested in interacting with strangers (Livingstone 2006) and most strangers are not dangerous (Boyd 2008). Nevertheless there is danger in researchers encouraging adolescents to interact with strangers because it clouds general guidelines for safety. The participant has no way of verifying in their digital space that we are researchers and that our intentions are honourable. This ambiguity might make them relax their guard against strangers and become more vulnerable to approaches by others with inappropriate motivations.

An important point that differentiates research in this area from other ethnographies is that online contexts are more likely to involve subjects from different countries bounded by different jurisdictions. Researchers need to be aware of and updated on these constantly changing laws and sometimes ambiguous requirements. The issue of confidentiality and the blurred line between private and public spaces on the Internet presents new challenges to ethnographic researchers: "Are participants in this environment best understood as 'subjects' ... or as authors whose texts/artifacts are intended as public?" (Ess & AoIR 2002, p. 7). Ethical problems inherent in digital ethnography cannot be solved by simply ensuring confidentiality in reporting. Given these ethical challenges, we suggest that future studies contribute to new directions in the formulation of ethical guidelines associated with digital ethnography.

Conclusion

Given the increase in usage of social technologies by young people, there is a need for debate about the value of such technologies for developing more emancipatory notions of schooling. Such informed debate requires investigations of young people's current and emerging online cultures. Only then can education capitalise on the engagement shown by many young people who use and create in online social spaces. Any studies in this area need to be naturalistic to allow students' voices to be clearly heard. The ethical challenges arising from researching an anarchical, potentially subversive and democratic adolescent culture require new applications of principles of practice.

This paper suggests that there is an urgent need to develop a multi-disciplinary theoretical framework to understand and interpret the phenomenon of adolescent engagement with social technologies and to consider its implications for education. Such a framework should draw on current knowledge of popular culture, socio-cultural learning theory and emerging technologies. Virtual ethnography is an appropriate research methodology to explore the potentially transformational effects, challenges and opportunities created by these disruptive technologies.

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