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Agoraphobia and the modern learner

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Abstract: Read/write social technologies enable rich pedagogies that centre on sharing and constructing content but have two notable weaknesses. Firstly, beyond the safe, nurturing environment of closed groups, students participating in more or less public network- or set-oriented communities may be insecure in their knowledge and skills, leading to resistance to disclosure. Secondly, it is hard to know who and what to trust in an open environment where others may be equally unskilled or, sometimes, malevolent. We present partial solutions to these problems through the use of collective intelligence, discretionary disclosure controls and mindful design.

Keywords: Social media, trust, privacy, disclosure, network, group, set, collective

Introduction

Until recently, the implicit focus of most research into open education resources has been on *teacher*-created content and its re-use in different learning contexts. But, as decades of research has shown, the learning value and outcomes achieved in the quality of what learners design, create and share with one another and with the outer world, is of at least equal and often greater value than the content provided by teachers (Jochen, Guzdial, Carroll, & Holloway-Attaway, 2002; Johnson & Johnson, 1994). This article focuses on learners as authors, designers and creators of content in an open learning environment.

The growth of social media and the read/write web over the past two decades has created many opportunities for new methods of distance and blended learning and teaching in formal, non-formal and informal settings (Pettenati, 2007). From online

university courses to MOOCs, from networks of bloggers to informal learning on Facebook and Twitter, the read/write web and, increasingly, mobile social (MoSo) apps have enabled and empowered learners to teach one another, to support one another's learning, to model practice and modes of thinking, and to be privy to vast amounts of learner-generated information, constructive dialogue and connected knowledge. Many popular theoretical models emphasise the value to learners of creating things in a social context including constructionism (Papert & Harel, 1991), connectivism (Siemens, 2005), and distributed and social cognition (Saloman, 1993). While varying in detail, all point to the pedagogical benefits of sharing the artefacts that emerge from the learning process. In such models, the more openly dialogue and artefacts are shared, the greater the benefits are to all concerned (Thorpe & Gordon, 2012). This can lead to a virtuous circle in which knowledge explodes through the network in ever improving cycles of creation, consumption, transformation and change.

However, the benefits, openness and visibility, come at a cost of individual and social vulnerability. Stepping outside the protective cave of closed systems exposes us to both opportunities and threats. Learning is, by definition, a leap into the unknown, and the unknown scares us. In addition, increased exposure to knowledge also means increased exposure to ignorance and, sometimes, malevolence. Furthermore, when our teachers are other learners that lack the assured reputability of certified or otherwise qualified educators, there are risks of the blind leading the blind, of incomplete, incorrect or poorly presented knowledge. Because of this, in formal teaching, we have evolved many spaces, behaviours, technologies and attitudes that help us to create safe environments. Safety is a prerequisite of survival. Learning, in particular, has flourished in the sheltered caves, homes and, more lately, campuses and schools. Pedagogically, private space creates an environment for reflection, dialogue and production. Within this space we enjoy permission to make mistakes, to stumble and fall without fear of serious injury, reasonably secure in the knowledge that teachers and students and the tools of the environment will support and nurture us until we have become confident in the subject at hand. These spaces are often guarded by access controls, whether these are physical classroom doors or password-protected learning management systems. When learning moves into the open; parts of the safety net vanish. Things that we publish in the open may reify our ignorance and error, display our insecurities and misconceptions, and reveal our weaknesses to those around us. Equally, others around us who are sharing openly may be as ignorant or wrong as we are and, as learners, we may not have the cognitive or moral tools to recognize and distinguish the good from the bad. In this chapter we will explore the nature of this problem through the lens of our typology of social forms, which characterizes the different ways of engagement for learning that are enabled through social media. We will suggest ways to mitigate the problem and end by briefly describing solutions that we have been working on to enable learners to benefit from open sharing while retaining the safety of the traditional learning classroom.

Social learning

Social engagement is a prerequisite of many forms of meaningful learning, if only in

providing the context in which learning is incubated and sustained. We are hard-wired to learn from others, at the very least by mimicry. Mirror neurons fire in our brains when actions are performed by others that would fire were we performing the actions ourselves, acting as a precursor for learning as well as helping us to understand the intentions of others (Gallese & Goldman, 1998). Beyond that, we have evolved as eusocial creatures, in which our behaviours have evolved not just to preserve our individual genes but also to preserve the groups to which we belong (Wilson, 2012). There is plentiful evidence that the size and complexity of our brains is primarily concerned and correlated with social behaviours (Dunbar, 1993). Language itself may have developed, at least in the first place, primarily to facilitate social coordination, not as a tool for thinking and reasoning (Provine, 2004). Research on social cognition shows that we may think and process information as individuals, but that our knowledge is held not only in ourselves but in others (Pea, 1993; Sutton, Harris, Keil, & Barnier, 2010). The value of learning with others, from others, through others, and supporting others in their learning is fundamental and hard to overstate. But there are many ways in which we learn with others, some formal, some not. The growth of the social read/write web has greatly extended our social reach and introduced forms of interaction that, though they resemble those familiar to our distance ancestors, add new or exaggerated flavours.

Groups, nets, sets and collectives

Over the past few years we, the authors, have evolved a typology of social forms that a collection of learners might participate within in order to help to make sense of the ways that social media can be used to support learning. We created this typology not because each of these forms is fully independent nor to imply that they are static entities, but rather to help us to understand learners' behaviours in these aggregations and to help us create safe learning environments that meet varying pedagogical and social organization requirements and opportunities. We identify three basic forms, the *group*, the *net* and the *set*, each of which affords learning and teaching opportunities. We also identify a fourth concept, an emergent entity that is not a social form as such, but that derives from the combined behaviours of people in these social forms, which we call the *collective*. In the following subsections we describe each of these in turn.

Groups defined

The group is the traditional social form found in most formal education. It is instantiated in organizations such as classes, tutorial groups, seminar groups, cohorts, clubs, committees, divisions, faculties, schools and institutions. Groups are intentionally convened collections of people that have leaders, hierarchies of control, and formal or informal processes that define how they operate. Groups typically have an existence that is independent of the people in them. It is possible to intentionally create a group, to design its rules, processes and norms, to give it a name and to provide roles for its members, even if it initially has no members. In education, groups used for intentional learning (often called classes) tend to have fixed beginnings and ends, and often involve a temporal process such as might be defined by a curriculum, timetable or project plan.

The size of the membership of a group varies considerably but is always a measurable number. Usually group members know or have the potential to know one another's names. Groups are defined at least as much by who they exclude as who they include (Shirky, 2003). They define limits and boundaries. Generally there are rites of entry and rites of exit. It is not possible to be an unwitting member of a group - joining a group demands intention and commitment. There are often social and formal processes that make that commitment explicit. Groups tend to engage in collaborative ventures, working together to achieve some goal. The teaching/learning goal is typically to achieve an informal learning goal or to earn a formal learning accreditation (or both).

Nets defined

Many authors have observed a different social form from that of the group that is usually described as the *network* (Castells, 1996; Downes, 2005; Rainie & Wellman, 2012; Siemens, 2005). Networks consist of and may be described by the connections between people. These are often mediated and structured by social objects such as blogs, community centres or social networking systems like Facebook, LinkedIn or Google+. Unlike groups, networks are not designed, have no devised processes, no independent existence, no explicit hierarchies, no explicit leaders, no explicit membership - they simply exist as an emergent entity that is the result of individual connections between people. One does not join a network like one joins a group; one forges or drops a direct or indirect connection with another person or other people and thus the network evolves. Networks have shifting and indistinct boundaries. From the perspective of individuals, networks are the sum of people with whom they have a first-degree connection, who are themselves connected with others in the same way to form second-degree connections ('friends of friends'), and so on ad infinitum. In a meaningful sense, this makes everyone on the planet part of the same network, connected at varying degrees of distance but seldom much more than six links away from anyone else (Watts, 2004).

Topologically, networks can be differentiated into different sub-networks, described by the different social and organization roles they perform in relation to a given individual. We might, for example participate in different sub-networks of friends, colleagues, fellow shoppers or people in a geographical community, which may overlap or may only be joined because we form a link between them. The network of any individual on the planet is different from the network of every other individual because, minimally, they are the centres of their own networks while, to others, they are attached to branches. People in networks sometimes collaborate and sometimes cooperate, their independent activities benefiting others in the network more as a side-effect than an intentional process. Networks have been associated mostly strongly with informal learning in communities of practice (Wenger, 1998), fan groups and amongst frequent attendees at sports or cultural events, or community hangouts. Online networks evolve and flourish covering interests as far ranging as astronomy to gambling, and tools such as LinkedIn and Facebook have been created to support and nourish these networks. Networks form the basis of connectivist models of learning (Siemens, 2005) in which the connections, interactions and reified learning paths of those in a network, structure and channel the

content and process of learning. Networks are the typical social form that underpins informal learning, whether online or not (Chatti, Jarke, & Quix, 2010; Wenger, Trayner & de Latt, 2011). The capacity of the Internet to reify and extend networks is akin to the power of writing to reify and extend language or the printing press to do the same for writing: The Internet does not fundamentally alter the way people learn in networks, but it greatly enhances the power of networks to support learning in both scale and depth.

Sets defined

Sets are simply collections of people and their creations that share a common attribute. From an individual's perspective, sets demand no social commitment of the sort found in groups and no social connection of the sort found in networks. It is possible to be a part of a set without knowing anyone else in it and, indeed, it is possible to participate in a set without being aware of doing so. Sets are formed by the act of categorization: One or more people choose attributes are significant to them. The way that people help one another in sets tends to be cooperative and involves sharing rather than dialogue: Things that individuals do are of benefit to others but not done *with* others. Once dialogue emerges, with the exception of simple one-off questions and answers, it usually implies the set has morphed into a network. Indeed, one of the benefits of sets is as a means of establishing network and possibly group connections. Among the more popular cyberspace applications that support sets are public wikis, notably Wikipedia, media sharing sites such as YouTube, public Q&A sites like Yahoo Answers or StackOverflow, the use of hashtags in Twitter and similar tools, and social interest sites based on categorized content curation such as Pinterest and Larni.st.

Physically, libraries and museums function as places for sets of people to share and grow a set of interests. Set-oriented sites often support both network and group forms as well, but their predominant mode of engagement is through sharing of artefacts and processes by people who do not know one another. More often than not, such sharing is open. Indeed, for someone to be a member of a set, the attributes that are of interest and that make him or her part of that set must be visible to others. Sets are thus the pre-eminent and often pre-cursory social form for open, just-in-time learning - affording the discovery of multiple answers to specific questions, and potentially catalyzing the formation of networked connections to people with relevant interests.

Collectives defined

Beyond the social forms of sets, nets and groups is a class of entities that emerge from collective intelligence. Collective intelligence can occur when multiple individual entities act together in ways that mean they are most usefully understood as a single super-organism. This is a field with a long heritage (e.g. Bloom, 2000; Grassé, 1959; Heylighen, 1999; Wells, 1937; Wheeler, 1911). We describe these emergent agents as *collectives*. A collective is not a social form in itself but is a consequence of the aggregated behaviours of people in sets, nets or groups. The collective is a distinct actor, an agent that emerges as a result of collecting and processing the actions of many actors, a manifestation of crowd wisdom and, sometimes, of mob stupidity. In

social software systems, software is often used to aggregate crowd behaviours, though it is also commonplace for the aggregation to be performed by the members of the crowd themselves and, often, a collective results from a combination of the two. Sets are of particular value in collectives, and are commonly mined for likenesses between behaviours, personal attributes and preferences, which are used to distinguish one set from another. Networks are also often analyzed to discover relationships and connections between people, activities and things. For example, Google's PageRank algorithm aggregates sets of implicit ratings in the form of links from websites to other websites, each of which is itself similarly ranked, in order to provide an aggregate quality ranking that is used in displaying search results (Brin & Page, 2000). The algorithmically collected behaviours of individuals leads to a recommendation that is often more useful than any one individual could provide, in effect, the collective plays the part of a teacher or editor who recommends useful learning resources. Similar principles underlie tag clouds, recommender systems such as collaborative filters used by Amazon or Netflix, reputation systems such as those used by eBay, and citation tracking tools such as those used by Google Scholar (Segaran, 2007). Collectives do not need machines for their algorithms, however: The spread of memes, for example, relies on entirely human processing (Dawkins, 2006). Similarly, we may observe and be influenced by, and thence influence, the behaviour of a crowd, whether in our choice of shoes, our participation in a Mexican Wave or our decision to carry an umbrella (Earls, 2009). In each case, the combined and largely anonymous behaviours of many people are processed to extract patterns that act to inform, influence or constrain behaviour of individuals. As those individuals are typically part of the collective that is influencing or constraining, this deeply iterative process tends towards self-organization, recursive augmentation and dynamic evolution. The collective-augmented tools Google Search and Wikipedia are among the most well-used learning technologies on the planet, but there are also more intentional uses of collectives to augment learning. These include collaborative filters to recommend learning content, people and resources (Drachsler, Hummel, & Koper, 2008; Dron, Mitchell, Siviter, & Boyne, 2000) social navigation systems that aggregate navigation behaviour to help guide learning paths (Dron, 2004; Farzan & Brusilovsky, 2005; Koper, 2005; Kurhila, Miettinen, Nokelainen, & Tirri, 2002; Yu, 2009) as well as combinations of different kinds of collective system to recommend learning paths (Dron, 2005; Hummel et al., 2007). The lack of individual ownership tends to make collectives highly amenable to openness and sharing.

Blends and degrees of social forms

The social forms we have identified overlap and blend: All groups can in some ways be viewed as both sets and nets, all nets as sets (the set of connections) and most sets as nets (networked by their shared attributes). As they merge into one another, other identifiable social structures emerge that combine elements of these forms in different proportions. Communities of practice, for example, tend to lack the rigid boundaries, hierarchies and rules of groups but have structure, persistence and purpose distinguishing them from pure networks. Tribal affiliations can be purely set-like (crowds of supporters of sports teams, for instance) but similar tribal groups such as those who share the same religious beliefs may follow rules of behaviour, recognize leadership

hierarchies and exclude non-members much like groups. Even within a conventional classroom, different networks co-exist, intersect, overlap and merge, as do different sets - people who self-identify as members of races, religions or who just share an interest in drinking, for example. From each social form, collectives can emerge that play roles within them.

Each of these social forms carries with it baggage that can affect willingness to disclose, to share, to make open. With that in mind, we turn to the opportunities and threats to openness in each of the social forms in turn.

Safety and security

The safety of groups

Traditionally, the 'safe' social space provided by formal learning is the group. The group is a safe structure where mistakes can be made, concepts can be explored, and where learners can work with others in ways that are defined and delimited by more or less formal rules of engagement, often determined by, enforced or moderated by a teacher. Quality formal education addresses safety concerns by creation of a context through activities, tools and structure that support learners' trajectories from non-competence to competence. The rule-bound, process-driven and boundary nature of groups makes this a relatively simple matter to achieve. When work is submitted to a teacher, for instance, there is an expectation of professionalism and privacy. Even when submitted more openly to be revealed to, say, a class or tutorial group, there are limits on the ways other learners are expected to react to them, especially given the reciprocity that is implicit in the group's shared purpose. Formal or informal roles within groups can make feedback processes more useful and effective. The often tacit rules of engagement that attach to formal education mean that challenge or criticism is not so likely to be taken, nor meant, as a personal affront but as a means to foster improvement. There is a flipside to this feeling of safety: That students are often unwilling to be overly critical of their fellows and even more so of the teacher. We and others have observed a pathological politeness in groups that can, on occasion, be crippling to intellectual stimulation and growth (Archer, 2003). This politeness to other group members (especially during group formation) often develops in cultures within which a personal challenge may be perceived as anything from an insult to a complement, with necessity of making oneself visible as the price to find out which is meant.

One of the main disadvantages of sharing that educational groups encourage is that any knowledge generated or artefacts created seldom goes far beyond the group and, if it does, it is usually through regulated channels, such as the publication of graduate theses or prize-winning work. While, increasingly, teachers send students out into the wider world, for example to create or modify Wikipedia pages or to engage in virtual field trips on social media sites, such adventures into the wild and open spaces of the internet are often pre-scouted by teachers, and students are warned of challenges and ways to maintain safety. Nonetheless these voyages can actively discourage those who do not feel sufficiently confident to share what they know, whether or not such feelings are

justified.

The implicit and explicit rules of the group ensure a well understood set of norms and activities that easily create safe contexts for teaching and learning. However, as this safety comes at a pedagogical cost of isolation, group think, potential domination by teachers, a tendency for learners to delegate their learning and their safety to others. The tendency of groups is therefore to reinforce attitudes that counter openness, create hidden curriculums (Ahola, 2000) and they tend to keep learner-created resources to themselves. Their one significant benefit to openness is that work that does escape their gravitational pull tends to be carefully vetted and of potentially high value to others.

Safety and value in networks

Networks are built of people we know, though that knowing may not be reciprocated. Within them, ties may be weaker or stronger (Granovetter, 1973). The notion of weak and strong ties is, however, a simplification of the rich and complex relationships that we have with one another. There is a broad spectrum of ways in which we relate to people in our networks that vary according to context and purpose. This is particularly relevant to sharing and subsequently to teaching/learning. The popular press abounds with examples of the problems that occur when photos or comments relating to personal networks are revealed to networks of people with whom we work or worship. People have been hired or not hired and fired on the basis of information revealed in a work context that was intended to remain private to a personal context. Because networks do not have the defined norms and rules of groups, our perception of what is personal or private may differ from that of others in our networks, especially among those with whom we have weaker ties. We have found in our own teaching using networked tools that fear of such disclosure can become a major impediment to sharing within a network.

Willingness to share is not simply related to the strength of network ties. Sometimes it feels safer to share with people we do not know so well than with those closer to us. For example, as a musician, I (first author) find it considerably more intimidating to play to a small circle of friends and family with whom I share strong connections than to a crowd of thousands of people, with whom I may share little or no connection at all. For similar reasons, conflicts of interest need to be declared in peer reviews of academic papers because those who know us well may give biased appraisals of our work, for better or worse, while those that don't can often be better relied upon to provide dispassionate and therefore (often) more useful feedback from which we can learn and improve our work more effectively. Learners themselves typically know with whom they feel comfortable sharing, to whom they can turn to for different kinds of help, who would be supportive in a given context and who would not.

Networks expose linkages outside of our formal group learning contexts, which can be a powerful learning catalyst. As Ronald Burt quipped "People who live in the intersection of social worlds are at higher risk of having good ideas" (Burt, 2005), Extended networks are usually larger than groups; thus the pedagogical benefits of being exposed, contradicted or informed by a novel solution or application during our learning increases

accordingly, albeit at the cost of decreased safety. Learners (and teachers) need to develop network literacy and efficacy to know how much to share, to be confident in sharing, and to comprehend the dimensions of the networks to which they contribute. Nefarious trolls inhabit network perimeters looking for the vulnerable, and thus learners must be on their guard, yet also willing to make judicious commitments to their network, in order to reap its rewards.

We cannot end this discussion of networks without highlighting the personal esteem and gains that networks can provide for learners and teachers. Humans are attuned to attention and praise of others. Recognition for one's contributions to a learning network can be very motivating and also results in increased personal social capital. This capital can be used to acquire services, goods or assistance immediately or in the future to enable and support individual, group or network learning goals (Daniel, Schwier, & McCalla, 2003). Successful learning in networks can be very successful indeed and, the more openly learning is shared, the greater the accrual of social capital. Networks motivate the open spread of knowledge at least partly because of the social capital that some attain in large amounts.

Security through anonymity in sets

Because sets are concerned with topics and interests rather than people, in topic- or interest-focused public sites it is far more common to find user names that obfuscate identities of the individuals involved than in more networked environments. For sites that are concerned with sensitive information such as those supporting people with certain medical conditions this provides obvious benefits, enabling open sharing, but the value carries over to other contexts too. Even where registration is encouraged and groups and networks abound, some people on public sites choose to remain anonymous. Anonymity can be beneficial in enabling a greater sense of privacy and non-disclosure. It may often be easier for a learner to ask a stupid question on an anonymous special interest site than on one where people are part of the learner's network or groups. Whether people choose anonymity or not, many appear to contribute and help others for altruistic reasons or, as often as not, out of simple passion for a topic. Of 67 individuals identified as the top Wikipedia contributors, an internal Wikipedia study surprisingly revealed that 5 chose to remain anonymous (IP address only) though their edits were highly respected and their contributions were among the most prolific (Various, 2005).

Currently, among the more visible examples of set-based sites explicitly intended for teaching and learning is the curation site Learnist. Not unlike Pinterest, on which it is modelled, Learnist curators create 'Learn boards' that they populate with a variety of digital content that they believe will be of value to others members of the set of people interested in that topic. Typically, the board will only be browsed by those with an interest, though some may make comments or re-pin content to their own boards. This spread of ideas mediated through shared objects is typical of set interactions. The Khan Academy provides a slightly more top-down approach to set creation but similarly encourages engagement: Each lesson is accompanied by a mostly-anonymous discussion board. Some of the larger MOOC providers such as Udacity and Coursera

operate a similar approach.

One notable downside of the relative anonymity of sets is that it is not uncommon for people to feel emboldened to flame and to act as trolls. The impersonality of engagement in sets can lead to comments and exchanges that are highly disheartening and demotivating for those who are, or feel they are, attacked. These same ideas would perhaps not be expressed so hurtfully within a group or a network, at least in part because of the inherent accountability for one's known actions.

Exposure of one's membership in a set may in itself be a violation of one's privacy. It really is of no one's business if I belong to the set of Sherlock Holmes fans, but this knowledge may be of interest to book sellers. This is one reason for the prevalence of anonymity in sets, although the powerful data mining tools that are now available render this a weaker defence. The potential loss of privacy and safety provides a compelling argument against making use of set-based and social networking systems within a traditional group-oriented class of students where group trust remains important. The Internet is a wilderness in which diverse ethical standards co-exist uncomfortably but often invisibly and learners are particularly vulnerable. A solution is to supervise such engagement but there is a fine line between caring and becoming a helicopter teacher, hovering noisily and intrusively in ways that can be as pedagogically harmful as ignoring the problem altogether.

Another major problem in set-based learning is that (as the famous New Yorker cartoon has it), 'on the Internet, no one knows you are a dog'. Without the known roles in groups, or the assurance of knowing people in networks, the chances of getting poor or wrong feedback in set-based social forms are greatly increased. One of the most effective ways of dealing with that problem is to rely on collectives which, happily, are most easily formed in response to the activities of people in sets.

Collectives as teachers and editors

Collectives, though comprised of the behaviours of many, are singular agents that are both human and impersonal. The crowd that pushes a page to the top of Google Search results, or whose aggregated rankings of books contribute to recommendations of what we may or may not like, consists of an unknown number of unknown individuals, few of whom intentionally contribute to the collective and those that do often have selfish or pecuniary motives: The collective is a by-product of other activities. Equally anonymously but more intentionally, Learnist users (for instance) may rate or endorse individual items. Algorithms may then be used to search and sort sets and items in the set based on popularity, views or endorsements. This can be beneficial in providing meaningful feedback without the risks of pathological politeness on the one hand or flaming on the other. While it might sometimes feel worse to be judged or ignored by many people rather than one, the objectivity of the many is potentially greater than that of people we know, and more reliable than that of individuals we do not know. Collectives are put to great use in a number of set-based sites such as Reddit and Digg, but are exemplified best of all by SlashDot, which employs a wide range of collective technologies to allow controllable collectives to emerge, including an ingenious means of

self-organizing reputation through karma points, multi-dimensional tagging and nuanced categorized ratings. Collectives, when well designed, restore to sets and, to a lesser extent networks at least some of the assurance we feel when receiving advice from a teacher in a group. One individual can be wrong, but many, at least when acting independently of one another, even (and sometimes *especially*) when not themselves experts can, under the right circumstances, be more reliable than the best experts (Page, 2008). Of course, much depends on the algorithms that power the collective, the nature of the problem and, to a lesser extent, the nature of the crowd. There are risks that a naively designed collective algorithm can magnify the influence of the people whose actions are first captured, thereby making the crowd no smarter than the first person to act (Knight & Schiff, 2007; Surowiecki, 2004). Most collective systems that are used for learning are not designed with learners in mind. Also, the crowd must have at least some knowledge: A totally ignorant crowd aggregated into a collective remains totally ignorant. Collectives can and do exist within closed groups and proprietary networks, but the fact that they gain value when generated by larger numbers of individuals means that they tend towards openness. Being generated by everyone and no one in particular, it is hard for any individual to assert ownership of the knowledge they create, even though individuals and companies may own the systems that host them.

Controllable disclosure

Skilful learners know when and how much to share and to disclose and in which of our social contexts this is both effective and safe. Just as physical spaces afford different amounts of security (from the home to city streets late at night) different network contexts and social aggregations share different possibilities and safety channels. Through training, reflective experience and exposure, students can learn to achieve the benefits of openness, while minimizing the risks. In part, it is a question of nurturing confidence. One of the marks of a successful networked learner (and indeed any learner) is the ability to be unafraid and unashamed to be wrong. Unfortunately, one of the problems of being in an educational process where judgement is the norm is that the rewards and punishments that drive the system are almost inevitably demotivating, for both winners and losers (Kohn, 1999). Traditional group processes, without careful design and management, can amplify this problem by encouraging comparison with others. Moving outside such a system into the networked world brings new reasons for fear: Loss of social capital, the fear of ridicule and uncertainty of what personal information may spread further into the network. The broader world of sets carries different risks, of being a potential victim of trolls, of having privacy compromised, and of uncertainty in ascertaining the validity of feedback and help. One of the most important lessons to learn is therefore to recognize and deal with it. Another is to understand the potential for damage. Once genuine risks have been identified, there are numerous ways to reduce them. We have already mentioned the importance of gaining network literacy, to be aware of ways private and personal disclosures can be compromised. Awareness of the kind of disclosures we make, and to whom they may be made is vital. However, there are also technological solutions to the problem. We head towards a conclusion to this article by describing part of our own approach to dealing

with the issue, which illustrates some of the value of recognizing the distinctive nature of different social forms.

The authors' institution, Athabasca University, provides self-paced undergraduate courses that are normally more set-like than group-like in nature. Students can join courses at any time of year and choose their own pace and time to work through the course process. There are thus fewer opportunities for the application of typical processes and norms that form in groups of learners following a paced course of study. A traditional solution to this problem has been not to engage at all and many learners take the word 'independent' in 'independent study' very seriously. For those who do engage with others through the institutional Learning Management System (LMS), while some safety is guaranteed by the explicit terms of contract which the university requires before system access is granted, this makes social engagement a pedagogically riskier affair for our students. The crowd is unknown, a set of people with shared purposes, and some shared rules of behaviour but seldom any explicit group processes and no innate networks. Some students do, none-the-less form networks of colleagues and friends, and some go so far as to form study groups, which contribute greatly to motivation and the chances of success, not to mention the usual social benefits of learning with others (Paulsen, 2008). It is thus useful to embed the flexibility in our systems to facilitate and encourage the formation of these social forms and, through collectives, to make it easier for people to find others with shared interests or behaviours. To support this, we have created Athabasca Landing, an Elgg-based social site built to provide explicit support for groups, social networks and interest-oriented sets, and to utilize collectives. The Landing is a walled garden with windows: Anyone can choose to share anything with as few or as many people as they like, including the whole world, but site membership is limited to verified users and a few invited guests. This immediately creates a greater atmosphere of trust than might be found within public social tools and systems. This trust is further refined by the use of groups that are often used to support courses, as well as the ability for students to form social networks of those they trust, and to subdivide them into different sub-networks (or 'circles') that may be used to disclose selectively to different clusters of people with whom they are connected. The Landing's use of Elgg, a site-building framework that enables controllable disclosure, by default enables fine-grained permissions to be set on every item published. We have taken this considerably further, by allowing learners to create distinct tabbed pages for different audiences, including their groups, networks, sub-networks and sets of interest, each with the usual range of permissions available. They can thus not just choose to filter the content but create for different people and can present wholly different personas to different groups and different parts of their networks, through pages with a different look and feel, with not only different content but with different kinds of content for display to different people. They thus control not only what they disclose but how it is disclosed and to whom.

The Landing is far from perfect. It is all too easy for posts relating to one context to appear in or near to another. This can be problematic. For example, when students of a course in database management are confronted with posts from students studying radical gender politics, misunderstandings can and have ensued that make both parties

feel discomfort and uncertainty - just the things we have taken pains to try to avoid. Of course, there are at least as many positive benefits to learners from serendipitous discovery of knowledge and people that would not accrue in a closed group LMS, but the balance between openness and safety is delicate and ever shifting.

Conclusion

Openness and disclosure is a two-edged sword for the learner. On the one hand, it brings the potential for engagement, knowledge sharing and co-construction, and the valuable feedback of others. On the other hand, it can be discomfoting and sometimes dangerous, and what is shared may be useless or worse for other learners making use of it. There are few simple solutions to the problem beyond learning to deal with it. Though some of the technological approaches suggested in this chapter begin to point towards ways of building systems to support learners in dealing with different social contexts and forms, technologies of this sort are always cyborgs, part human and part machine. It is vital that we, the human parts, learn ways of being, ways of understanding different forms of social engagement, and recognizing both the value and the risks of sharing with others if we are to gain the full benefit of engagement in social media for learning. [1]

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[1] The ideas in the article have been expanded in the book Dron, J, & Anderson, T. (in press) *Teaching Crowds: The Role of Social Media in Distance Learning*. Athabasca University Press, Edmonton.