EXPLORING THE USE OF AN INTERNATIONAL ONLINE NETWORK FOR 'GIFTED' STUDENTS – A RESEARCH IN PROGRESS

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Abstract

This paper describes a strand of a research project exploring a social educational network, namely IGGY, which was set up by the University of Warwick for young people identified as academically gifted. The research investigates IGGY members' activities and relationships, their motivations, feelings towards others and the degree to which they feel that their needs are met by using the network. This particular paper reports on a study of ten members who were interviewed about their participation within IGGY. It was found that these members felt the network had the potential to cater for their differing academic and affective interests and needs. In particular IGGY provided learning challenge, a sense of 'belonging' to a community of like-minded people and an outlet for more general communication. IGGY members' level of participation was affected by multiple factors and varied across time but social presence was an influential facilitator for individual participation.

Keywords: Online learning, Sense of community, Social presence

1 INTRODUCTION

This paper looks at online learning for young people. IGGY is an online social educational network created in the UK by the University of Warwick which has the aim of nurturing academically gifted young people, aged 13 to 18, from all over the world. This goal is pursued through enrichment material and opportunities for online interaction.

Like other online networks, IGGY facilitates, or at least aspires to facilitate, interaction among members and engagement in learning activities. Young people can join IGGY if they are within the age range for membership (13 – 18) and identified, usually by a teacher, as having the potential to benefit from membership. There is a relatively modest subscription fee for membership but free membership is also offered to students who are financially or socially disadvantaged and may be extended beyond these groups in the future. According to the latest community plans, in May 2013 IGGY had about 4500 members from 25 countries – though as with all networks some of these members were not active ones. Most members lived in the UK. About half the members were 13 to 15 years old and the rest 16 to 18.

IGGY is distinctive for being both open and closed. New members in particular will feel it is an open community. They will not have met other members face to face and, at least at the beginning, only identify other members as user names which for e-safety reasons are anonymised. On the whole, members do not attend the same institutions or follow the same programmes of study and the network predates any new members' participation. There is not a prescribed route through online activity and no award bearing qualification on offer. At the same time, IGGY feels a closed network, membership is restricted, all communication is closed to members of the community and, given the nature of the community, strict safety and moderation guidelines are in place.

IGGY offers both social and educational opportunities to its members. The two most used areas within IGGY are the 'Debates' and 'Knowledge' sections. The debates section is broad and may include anything that might be of interest to the members. Some of these debates feel more social in tone (for example "Do you prefer kindles or books?" or "Who are your favourite Disney characters?") but most set a more academic, or at least serious, agenda (e.g. "Is genetic engineering a step forward for mankind?", "Overuse of antibiotics" or "Is London developing into a different economy than the rest of Britain?"). Members can also initiate a debate and suggest new projects for study. Content analysis of members' contributions is an area for further research but initial impressions suggest that messages are often discursive, rather than strident or strongly rhetorical. Using terminology suggested by Mercer

(1995) some, though not of course all, of these discussions appear genuinely exploratory. Discussions are moderated by university students who have been trained to act as mentors for members. Mentor feedback is encouraging and informal though also 'teacherly'. In this example a mentor is commenting on a contribution to a debate on green policies:

["*Hi, it's brilliant that you are taking the long view and being very objective. I was wondering what your views on conservation are? Correct me if I'm wrong but you seem to be advocating a course of least-resistance. Do you think we have a moral duty to preserve the earth the way it is or would you say we are right to let nature take its course (even if we have already influenced said course)?*"]

The moderator is prompting further reflection on a debate initiated by a member regarding the degree to which global warming is an actual problem or an inevitable necessity as the human activity expands. Perhaps due to mentor interventions like these, debates have a more educational 'register' than would be expected within an informal network of young people.

While names are anonymised members are given a personal space to create their 'Profile'. In the 'Profile' section members can describe themselves, view the challenges they undertook and the progress they made, view a list of their existing friends and make new ones, and create their own blog.

A more explicitly 'educational' aspect of IGGY is the 'Knowledge' section. IGGY does not offer its members a guided programme, rather they are expected to identify for themselves relevant 'challenges' from a series of 'extension' tasks. These tasks cover topics of interest to the community but are not matched against any particular awarding body's programme of study. The tasks are intended to be complementary, certainly not working against members' academic achievement at school, but offering 'enrichment' rather than 'acceleration' of learning. For example, IGGY provides challenges on topics which are not covered or at least not covered in depth in many school curricula (e.g. examining legal cases critically) or covered in ways that allow deeper engagement with a topic (for example coding, mathematical investigations or creative writing). Many of these challenges are designed with a 'low threshold, high ceiling' in mind and can be tackled at different levels. For example, a six-part series on the development of conventional automotive technologies began with a basic introduction to the field and the work being done to find cleaner alternatives. Upon completion of the whole unit, students were expected to understand the different technologies and the impact they have on environmental, economic and social issues. They had also had the opportunity to take part in a challenge which asked them to suggest transportation technologies that met their country's needs, culture and economy. Participation in challenges is not formally assessed but is led by members of the IGGY team, mostly university student mentors or invited academics. Members can access general feedback on the challenges and if relevant, see answers. They can discuss these challenges, and indeed tackle them, with other IGGY members.

2 WHY IGGY?

The rationale for the construction of IGGY appears as largely reputational (a showcasing of the university) and in particular positioning the university as concerned with promoting international and inclusive networks (University of Warwick, 2012). It is interesting to consider this goal in relation to the debates about giftedness. Not surprisingly there is much academic debate around what constitutes giftedness, whether giftedness covers a wide scope of domains or specific ones and whether nature or nurture is at the foreground of giftedness development (Dai, 2009; Kaufman & Sternberg, 2008). It is unrealistic to imagine that full agreement could be reached on giftedness as an idea as it appears value laden and is a term that some policy makers may seek to avoid altogether. The gifted label is highly dependent on temporal as well as cultural particularities (Kaufman & Sternberg, 2008; Sternberg, 2007) and on what society chooses to value at a particular time. In practice IGGY has largely side stepped controversy by having a flexible policy on membership – it does not set itself up to assess giftedness and is becoming more comfortable with the term 'brightest'. IGGY seeks to cover a range of topics, but the learning material is academic, for example Maths, Science, Creative Writing, History and Politics, Careers, and Languages are covered. This choice of topics reflects what the university is better placed to support, rather than a priori commitment to one particular domain of giftedness, and perhaps in part reflects the sphere of giftedness that an online network can better support.

In terms of its commitment to social inclusion, IGGY is implicitly addressing a problem concerning the inclusion of the gifted in school. For some, making special provision for the 'gifted' appears elitist (as discussed in Borland, 2005; and Gallagher, 2000) and the very label has been seen as creating and/or

sustaining racial, ethnic, social and economic inequalities in education and, by extension, in society (Borland, 2005). The counter argument is that equity requires each to receive an appropriate educational provision and in the case of gifted students this will not happen if schools believe that "bright students can succeed on their own if treated with a policy of benign neglect" (Borland, 2005, p. 2).

In practice there is considerable evidence that the needs of gifted students are not well met in many schools. In particular there is often a lack of challenge: as Eyre (1997, p. 100) comments that "it is possible for a school to be a good school for the majority of its pupils but not be effective in challenging its most able". Creating challenge for gifted students is not a straightforward task especially for teachers who have not been trained in educating gifted students or who struggle to provide differentiated activities for a diverse student population (VanTassel-Baska & Stambaugh, 2005). Roedell (1984) makes a distinction between moderately gifted and highly gifted individuals and asserts that providing appropriate educational opportunities is even more demanding for the latter. Gifted students are thought to run the risk of feeling unmotivated and unchallenged if the educational setting does not reflect their aptitudes. A consequence here could be subsequent underachievement (Reis & McCoach, 2000) and a reluctance to stretch performance and to demonstrate giftedness (Coleman & Cross, 2005). Coleman and Cross (2005) also suggest that academically gifted students are more vulnerable to potential conflicts in school and in the community while growing up, particularly if school culture feels 'anti-intellectual' in orientation. The conflict will manifest itself in both social relationships and the development of the student's identity. It seems that some gifted students struggle to find a balance between social acceptance and personal development. This can result in a variety of reactions including "increasing one's obvious strengths to concealing them" (Coleman & Cross, 2005, p. 168) and social withdrawal.

There seems to be, then, a rationale for providing a network for gifted students and making this an online one. The university has and does run face-to-face (F2F) summer schools but took the decision to establish an online environment for IGGY, staffed with appropriate professionals. The key factor here is that an online community could also be an international one as well as a more inclusive one given the low cost of, or in some cases free, membership. In further support of inclusion attempts have been made to overcome barriers to technology, for example by providing transport for young people from the townships of Johannesburg to access reliable computer networks (University of Warwick, 2012).

There is clearly a niche position for an online network for gifted young people but the creation of IGGY feels uncharted territory in the context of what is known about online networks. There are a few publications on how Web2.0 can be exploited for the educational and socio-emotional needs of gifted students (e.g. Eriksson, 2012; Eckstein, 2009; Wan & Howard, 2007) and little empirical research that examines whether and how this can be accomplished (Thomson, 2010). More generally networking of students has been much more studied in higher education (HE), and to some extent further education, than in schools. This is probably because much teaching in HEIs takes place in front of very large numbers of students and there is relatively infrequent F2F contact with tutors. Many learners are at a distance from their institution and learners are expected to show the self-motivation that would lead them to access materials and discussion of their own volition. HEIs may, in addition, have specialist technology support services (Hammond, 2010). Nonetheless, there is a literature on learning platforms for schools (e.g. Becta, undated) which does point to an opportunity for extending learning through access to material and types of discussion which would not be available within the confines of the school classroom. There have further been attempts to create institution wide learning communities (Tomai et al., 2010) and a long tradition of pairing schools from different countries. Finally, and not least important, young people have created their own networks using Facebook and other social platforms, though the degree to which this intense online activity contributes to academic achievement is of course much disputed.

There do remain, however, a number of issues which can be identified in the wider literature on online learning which are of relevance in discussing a network such as IGGY. Three of the most well-rehearsed of these issues concern the nature of participation, the idea of community and the importance of social presence. Each is considered in turn.

3 ESSENTIAL ISSUES

As regards the *first* of these issues, Anderson (2004) refers to two main kinds of online learning: independent and community-based / collaborative learning. These patterns of participation will appeal

to different students. As an example here Beaudoin (2002) presented the case of low visibility students, that is students who exhibited minimal participation online but were still engaged in learning activities. A reason provided for this low participation was that these students identified themselves as autonomous learners and were not so interested in collaboration (Beaudoin, 2002). This is consistent with Moore's (2007) advocacy that learning styles vary among students and that students should be granted the opportunity to select among a range of strategies the ones that suit them most.

Self-regulated learning has been considered a key aspiration of adult learning, but seen as more problematic for younger students (Zimmerman, 2002). Nonetheless, scholars from the field of giftedness and gifted education demonstrate a strong connection between gifted students and independent learning. For example, gifted students may use self-regulatory learning strategies more often than non-gifted students (Risemberg & Zimmerman, 1992) or find independent study their most preferable learning approach (Ricca, 1984). In a similar vein, more recent work presents academically gifted secondary students as having the ability to work independently and to self-regulate their learning in an online environment (Thomson, 2010; Wan & Howard, 2007). According to Zimmerman (2002, p. 65) "self-regulation refers to self-generated thoughts, feelings, and behaviors that are oriented to attaining goals". It should also be added that the notion of independent learning does not exclude or eliminate the significant role of scaffolding and support from others during the learning experience (Dabbagh & Kitsantas, 2012; McLoughlin & Lee, 2010; Garrison & Baynton, 1987). In Zimmerman's (2002, pp. 69,70) own words self-regulated learning "is not asocial in nature and origin. [It] can be learned from instruction and modelling by parents, teachers, coaches, and peers. In fact, self-regulated students seek out help from others to improve their learning. What defines them as 'self-regulated' is not their reliance on socially isolated methods of learning, but rather their personal initiative, perseverance, and adoptive skill."

In reviewing the above literature a key question for us to ask about IGGY is: *what kind of participation do IGGY members undertake and can members exhibit self-directness in this broad sense suggested by Zimmerman*?

The *second* key issue concerns community. Here there are many competing definitions though a key to many is the idea of belonging, a sense of being related to others and feeling that one participation matters to others (McMillan & Chavis, 1986). There is a further sense that a community may address its members' needs and interests through sharing, so that each member will gain something of value that could not be easily achieved by him or herself. The concept of community has expanded significantly from its original sense of a geographical proximity (Reich, 2010; Santos & Hammond, 2006) and in a wider sociological literature our sense of identity is not seen as formed in closed, stable communities but is an identity that floats across the different networks in which we participate (Wellman et al, 2002). A sense of community has been commonly seen as positive and beneficial (e.g. Wenger, McDermott, & Snyder, 2002; Puddifoot, 1996; McMillan & Chavis, 1986). According to Puddifoot (1996, p. 327) "it is generally assumed that if this sense of living in, belonging to, and having some commitment to, a particular community is threatened, the prospect of leading rewarding lives is to a greater or lesser extent diminished." Meanwhile the concept of a learning community has been associated with social, affective, behavioural and cognitive gains for their members (Gunawardena, Hermans, Sanchez, Richmond, Bohley, & Tuttle, 2009; Wenger, McDermott, & Snyder, 2002; Tinto, 1998). Online environments, unconstrained by the limitations of distance and time, can serve as what Puddifoot (1996, p. 332) calls the "alternative meeting places" in which social interaction is engaged.

Research suggests that a virtual learning community is even more difficult than a F2F community both to evolve and to assess (e.g. Reich, 2010; Hew & Cheung, 2003). For example, Wallace (2003, p. 262) states that "in online courses collaboration is sometimes a token for community, and community is defined as some form of collaboration, with perhaps an added element of social interaction or evidence of personal concern. The argument can go both ways: successful collaboration depends on the existence of community; community is evidenced by collaboration." It is tempting to re-define 'networks' as 'communities' and some writers have been careful to use the weaker term 'community minded' to describe attitudes and experiences of online participation (Santos & Hammond, 2006). Whatever the case, collaborative and 'community-based' undertakings have both been related to possible educational gains (Anderson, 2004). Whether the former or the latter results in quantitatively and/or qualitatively different outcomes it is certainly difficult to assess.

A second question then emerges from the literature: *should IGGY be conceived of a community and what benefits does IGGY provide which would not be easily available to learners on their own*?

Closely allied with the concept of community is our *third* issue, the question of social presence. This term has been widely used in the literature of online learning and has gained a crucial role in the field (e.g. Rourke, Anderson, Garrison, & Archer, 1999). Recent definitions of the concept stress that social presence is something members generate through their efforts to make themselves known in the online environment (e.g. Garrison, 2007). These efforts are directed either to create relationships with other members of the online environment or simply to make a statement of their presence (Lowenthal, 2009). Tu (2002, p. 294) lists several factors that may influence users' awareness of online social presence such as "social relationship, trust, learners' characteristics, learners' perceptions on online environments, attributes of communication media, learners' computer literacy, use of emoticons and paralanguage, communication styles, task types, privacy" indicating that examining social presence is a complex task. In respect to these issues we want to ask *if members can feel a sense of social presence in IGGY and if so how is this achieved*?

4 OUR STUDY

During this initial phase of the research we wanted to understand more about IGGY members' experience of the network, work that should be seen under a broader commitment to providing a case study of IGGY as a social educational network. For Yin (2009, p. 18) a case study is "an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" and this is broadly what we have set out to achieve. The context of our research is IGGY but this cannot set the limits of our interest. Various offline factors (e.g. the 'gifted' label that has been applied to some members outside of IGGY) might play a significant role in how and why the students participate online. Phenomenon and context are obviously interwoven. Our developing case study is an exploratory one, though as seen earlier the questions we ask of IGGY are ones that have been raised within the literature.

Our case study involves a mix of methods for example observation of community documents, online artefacts and, as in the research reported here, in depth telephone and Skype interviews with IGGY members. The interviewees in this study were ten active members of IGGY, in the sense that they had logged into IGGY at frequent intervals and had experience of debates and tackled academic challenges. We are of course interested in those who have joined IGGY and have not gone on to participate but in this strand of research we were interested in experience of participation. In five cases commitment to IGGY was particularly high as these were part of a sub group of IGGY, namely 'junior commissioners' (JCs), who had collaboratively tackled writing a report on behalf of IGGY concerning the use of technology in education. These JCs had been able to meet together while writing their report and this enabled a series of questions to be asked which compared online to F2F interaction. The interviewees ranged from 13 to 17 years old and it happened that those who responded to the request for an interview were mostly female (n=9). The research participants lived in Australia (1), UK (5), Pakistan (1), France (1), India (1) and Africa (1). The interview followed a semi-structured schedule (a series of more or less open ended questions about themselves and their use and experience of IGGY) but had scope for flexibility and the raising of unexpected questions. Due ethical procedures were followed, for example it was important to get parental / guardian consent. The interviews were transcribed and analysed and following a period of open coding the key themes of the interviews were identified as: the gifted label, conceptions of giftedness, use of technology in general; expectations of IGGY, why use IGGY, value of IGGY, what do you do in IGGY, benefits, constraints, suggestions for improvement and future plans on the use of IGGY. Interviews with JCs further covered: benefits, challenges, difficulties, their research, their relationship, future research plans.

5 FINDINGS

The coding process allowed comparison and contrast between members. In this paper a sub set of the findings are given in respect to three questions posed earlier.

What kind of participation do IGGY members undertake and can members exhibit self-directness in a broad sense?

Overall, the interviewees participated in the network in several ways and at some point all of them posted and viewed discussions in the Debates section or undertook a challenge from the Knowledge section. Some created their own personal blog or read and commented on someone else's blog.

Of particular importance to all members were the debates. They were mainly interested in discussions relevant to their personal experiences. They wanted to talk about their concerns or topics they had been doing at school. The most popular debates were the ones that examined issues of giftedness. For example, members debated about “Being labelled as gifted”, “How do you tell if someone is gifted” or “Is giftedness genetic”. Interviewees believed that debating was not only a social skill but also a learning activity. Below are three excerpts from the interviews that mirror this:

“*It’s [the Debates section] not just to chat with others, it’s mostly to get their opinions and what they think about some certain situations that are happening around the world. … if in school I don’t understand something and I really want to understand it, I go at the debates section, I ask the other members and just in seconds I get the answer I want*.” (Female, 15)

“*There are some people that start really good debates or write really good opinions and I always try to look at their new debates because I like what they do. I probably see most people on IGGY as people that I would really like to get to know and I can learn from.*” (Female, 15)

“*...by looking at what other people have written you kind of see what interests you in that and what interests other people in that and then incorporate that in your writing.*” (Female, 16)

Members embarked on various educational tasks within the Knowledge section too. As activity was not directed members would navigate through the sections and find their own way into challenges. One interviewee described searching for material within the Knowledge section:

“*At the beginning, when I became a member, I was reading a novel on the Himalaya mountain and the Yeti and I could not get a proper image of the Yetis and what they look like, where they live and went into IGGY and I specifically searched about it. I actually found an article about those mountain spirits which were actually Yetis and they lived on the Himalaya. I gathered a lot of information from that*.” (Female, 15)

Some took part in competitions as well, such as “The IGGY and Litro Young Writers’ Prize”, an annual creative writing competition in cooperation with Litro Magazine.

Activity was without doubt broadly self-directed but interviewees’ involvement was constrained, in particular, by lack of time, difficulties in ‘how to use’ the network and lack of interest in the activities on offer. Many found it difficult at first to become confident with the online content, the structure of the network and the online audience. This became easier over the course of time and in fact, participating itself gave members the confidence to take on more activity. The decision to engage in an activity was influenced considerably by the topic. They were primarily intrigued by educational tasks associated with their interests.

Members’ participation fluctuated according to what else was happening in their lives, for example some drifted away from IGGY as their school lives became focused on exam preparation. Nearly all had the kind of social lives expected from young people and described activities such as sport, music and maintaining friendships which took them away from IGGY participation.

Within IGGY many interviewees came to take more part in debates than learning challenges as they came to find a voice in the network. As one explained:

“*At the beginning I used the Knowledge pages a lot more than the Debates but it flipped now. I use the Debates more than I use the Knowledge.*” (Female, 13)

In fact some of the challenges were quite advanced and if a member fully engaged with a task this engagement might run for some time:

“*I tried to look at the knowledge section but some of the challenges are very time consuming. There was one that I started which I'm really hopeful that I'll able to finish over the holidays, probably I'll even start this weekend but it took a few weeks to do. And I didn't really have enough time to do it at the time I started it.*” (Female, 15)

A particular issue for members taking part in the JC was that this work was so demanding of their time that their involvement in the online part of IGGY fell away.

Can IGGY be conceived of a community and what benefits does IGGY offer?

IGGY fulfilled some of the criteria to be considered a community in that many felt a sense of belonging and a sense that their participation mattered to others. There was repeated evidence that through IGGY each member gained something of value that could not be easily achieved otherwise. In part this was because some members felt a sense of isolation as in this interview excerpt:

"*Oh yeah! I've been in a proper fight before cause someone goes 'Oh teachers speak to you as adult' and I just said 'Well maybe cause I speak to them as adults rather than teachers' and I don't try to be a student, I try to challenge myself which often involves (something) my teachers.*" (Female, 13)

Other interviewees went on to explain the value of meeting up with 'like-minded' people within IGGY. However, it is important not to overestimate the degree of isolation felt by IGGY members – most described quite full social lives and feelings of vulnerability are not of course confined to the gifted during adolescence. IGGY could be seen as offering new opportunities rather than an escape from an unsustainable set of relationships. In particular, an opportunity to communicate and a sense of belonging to a community emerged as the most significant reasons for using IGGY. Interviewees felt that they could express their thoughts and feelings to an audience that experienced similar things and could empathise with them. For instance, a member reported that:

"*It [IGGY] offers me lots of supporting information, like an online community that can help you if you have any problems. So if you are being bullied and gifted there are so many gifted ones and I've written to them the other day and people who have been bullied have posted stuff and other people have posted solutions and how to help with that situation which is like being really nice and touching*." (Female, 15)

At its most productive, interviewees could use IGGY membership not just to reinforce ideas but challenge themselves:

"*Yeah, there were some debates that were asking you to be creative and come up with the best as you could and that really challenges my creativeness because personally I don't think, when it comes to thinking outside the box I don't think of myself as a very creative person and that's something that I'd really like to strengthen and get better at and there were some debates that people put up and some challenges that were good for creative skills and that was really good, it helped.*" (Female, 15)

Most interviewees regarded their IGGY connections as acquaintances, rather than friends, but nonetheless people who they valued. Some had created strong friendships via the online environment:

"*...your friends outside IGGY you spend more time with them to get to know them more whereas the ones through IGGY you are more friends with them because they are interested in the same things as you or same subjects as you.*" (Female, 16)

However, the depth of these relationships was variable and for many IGGY was a loosely bound network rather than the close knit community developed from day to day interaction. This did not stop the network being important or offering benefits, in particular benefits accruing from its character as both a social and educational network. In the words of one interviewee:

"*It [IGGY] is kind of a cross between like Facebook and BBC-Bitesize.*" (Female, 14)

Another valued feature of the network was the safety it provided to its members. Interviewees deemed IGGY a secure online environment where trust and respect existed among the members. This permitted them to express themselves freely and many even disclosed intimate personal information. Though some of them complained about moderation and its frequency, they acknowledged that it was both necessary and useful.

Last but not least, the interviewees appreciated the cultural diversity of the network. They enjoyed being connected to people from other countries on a twofold basis. Not only did it allow them to learn at first-hand about other customs or modern lives but also to inform others about their own country, or as a student set it to ask "*what they think about my country and clear some of the misconceptions*".

Can IGGY members experience social presence online?

Clearly social presence is closely tied to the idea of community discussed above but has a specific focus on the salience of relationships among members. In our study, social presence rested on communication and a feeling of belonging. For the majority, social interaction was the most beneficial element of IGGY and their efforts to display themselves online can be regarded as attempts to expand their social connections, not merely to make their existence known. Social presence could give interviewees a sense of how acceptable or even popular they were in the network. Social presence could and was felt online. The most influential facilitator for participating in the network appeared to be social presence. For example, as one said:

"*...it's nice to see that people have actually read it [the post] and taken the time to look at your opinion. It makes me feel really good that I am able to get my opinions out there and know that someone is reading them.*" (Female, 15)

This interviewee explained how she had come to know fellow members of IGGY:

"*I normally go to the activity website to look what other people have been doing. ... Most of them I added as friends cause that have similar interests to me. So if they've done something, I know that I'll probably enjoy it too. So I look of what they've done and then I look at debates posts and blog posts.*" (Female, 16)

In contrast, absence of social presence was a constraint on participation and the failure to get a response from others could feel like a rejection. For example, one student announced on the network her intention to discontinue posting since she did not receive any response or comment back:

"*I have decided that due to the fact no one has been reading my blog posts for the thirty day challenge I will just write them on my own and stop sharing them.*)-:" (Female, 16)

Some interviewees went on to explain that it was also the quality of feedback that contributed to social presence:

"*At the beginning, I can't really remember them much but there some good ones [debates] I could sit there for hours describing things and just making a point but now there are things like books recommendations and stuff, which is great but it's not really debating. It's more like just telling something and then just stating something and then going off (…) Debating should make you think, it should give you ideas, it should stimulate you.*"

The JCs were able to have F2F meetings. These were seen as desirable and as very helpful for both social and educational purposes:

"*I think we tend to work more efficiently when we are together rather than when we are over the internet.*" (Female, 16)

They listed several reasons for valuing F2F meetings. In particular working F2F eliminated difficulties caused by time zone differences, and synchronous discussion enabled a quicker resolution of procedural matters. Their F2F collaboration was felt to be less formal and strengthened their relationships.

6 CONCLUSION

This is an early stage in the work and any conclusion is suggestive rather than definitive. However in relation to the three research questions raised in this paper it can be summarised that IGGY is a social educational network in which members can (though not all do) direct themselves to participate in debates and more formal learning tasks. While members are self-directed, mentors and moderators are important facilitators of participation. IGGY can be described as a network that provides for both educational and social needs and interests. Members value the learning tasks that interest them, recognise the educational character of IGGY and are positive about communicating with gifted students in other institutions and countries. Their communication is directed towards creating relationships as well as enhancing and facilitating learning. Learning is perceived by the students as taking place through both independent and collaborative activity but social learning is particularly recognised and cherished. It is possible to feel social presence online, to create friendships that help overcome any feelings of isolation and to recognise others through sharing a history of online interaction. Indeed social presence seems essential for participation and the absence of presence is a key constraint on participation.

There has been widespread concern that in contemporary society we are left as isolated, alienated individuals – for some a process that has been extenuated by the use of communication technology. As Wellman et al. (2002) and others have observed there is some evidence that people are not less networked but differently networked and that technology has perhaps enabled new networks to emerge and older networks to be better sustained. The findings of this study fit into this more positive view of both our world and of communication technology. However, we are careful not to offer an over romanticised view. Networks with educational objectives need to be sustained by mentors; they need to offer something more than discussion and are resource intensive. There are limits on participation in online networks. IGGY may be described as a community but communication within IGGY is better represented as displaying community mindedness – though this of course does not make it unimportant or trivial.

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