Collaborative Social Learning: Rewards and Challenges in Mainstream Higher Education

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This paper introduces the theoretical framework and design rationale for an innovative undergraduate module entitled "Living and Working on the Web" at the University of Southampton. The module design is based on the principles of collaborative social learning and the co-construction of knowledge. At the workshop a model of best practice will be presented, featuring a 'blog-comment-reflect-feedback' cycle, which has derived from the synthesis of relevant literature and which will be reflected upon through an informal content analysis of the students' blogs.

One of the problems facing this type of curriculum innovation is the difficulties faced when scaling up such modules to very large student groups, particularly in relation to feedback and assessment. To date, the single largest cohort has been 45 students. It is therefore also the intention of the presenters to engage the attendees in a discussion of how a module such as this could be feasibly extended into far larger cohort groups.

Throughout the ages new technologies have regularly shaped, and been shaped by, society as they co-evolve over time [2; 17]. The World Wide Web, together with mobile internet technology, smartphones and software, has proven to be a transformative technology which has prompted educators to reassess teaching, learning and literacy in light of its affordances. Twenty-first century networked society [3; 4] can be understood as increasingly consisting of networked individuals [25] with links to almost unlimited distributed information, wider social and professional communities, and ever more accessible lifelong learning opportunities. Therefore, learning itself needs to be understood as a connected, co-operative and networked process.

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This has been reflected in new theories of learning, including Networked Learning, [10; 11; 12; 19] and Connectivism [5; 6; 7; 27; 28; 29; 30], which consider that *"knowledge is distributed across a network of connections, and therefore that learning consists of the ability to construct and traverse those networks"* [7]. These theories complement more established theories such as Situated Learning and Communities of Practice, [18; 33], with their emphasis on contextual and collaborative learning. Alongside this, new Higher Education (HE) pedagogies have evolved, including, for example, a focus on Flexibility (in where and how we learn), Learner-centredness and Contextual Sensitivity (scope for individual differences and autonomy), and Authenticity ('real-world' relevance) [32]. With an insistence on lectures and written assignments, especially in certain disciplines, many traditional HE modules fail to recognise the significance of these pedagogies and the opportunities the Web offers for their successful integration into course design and assessment.

In addition, central to successfully navigating this networked, connected and co-constructed learning terrain is the development of Digital Capabilities and Literacies. Digital literacies, such as

- *Language Literacies* (print, texting, hyperlinks, audio-visual-video, coding),
- *Information Literacies* (searching, filtering, evaluating, storing, curating, tagging, commenting),
- *Connection Literacies* (networking, digital safety, personal literacy, [inter]cultural literacy, participation),
- and *Remix Literacies* (remixing, creating, synthesizing, reflecting)

have become essential skills for HE learners to master for both study and future work purposes [8; 9; 21; 24]. JISC have further developed the thinking around digital literacy by widening the term to Digital Capabilities [1]. Outlined and graphically represented below (see figure 1) are the six elements of digital capabilities, with clear parallels to the literacies outlined above. ICT proficiency underpins these capabilities, while digital well-being and identity overarches all digital activity:

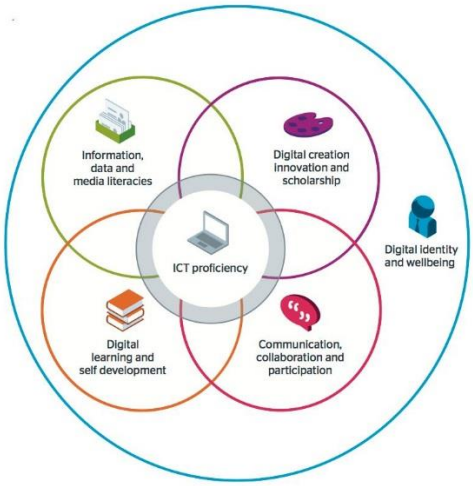

Fig. 1: JISC 6 Elements of Digital Capability (2015) [1]

Finally, the networked student already has an established network of connections which they have autonomously created over time. This network includes human contacts, technological devices, social networks, professional and academic networks, gaming networks, personal blogs, email networks and more. Learners have established preferences over the devices, software and activation patterns that best suit their learning paths. The emerging research field of Personal Learning Networks (PLNs) considers all these networks and preferences as component networks within a single networked learning resource [13; 14; 20; 26]. The successful incorporation of these pre-existing learning networks into the learning process may prove to be an engaging and effective addition to module design.

In light of new learning theories, new HE pedagogies, the increasing need for digital literacies and a growing understanding of PLNs, HE module designers face a pressing need to explore innovative teaching, learning and assessment approaches. As JISC suggests, "*With raised student expectations, institutions need to develop innovative ways to deliver the curriculum to maintain a high level learning experience. Technology has a key role to play in many innovative learning experiences."* [15]. However, it should not be forgotten that student factors such as age, gender, disability and country of origin appear to have an impact on student engagement and that innovative, pedagogically grounded module design alone is only one step in ensuring high level HE teaching and learning [22]. The need for innovation is nevertheless further strengthened by the recent UK Government Green Paper [31] with its focus on teaching excellence and the engaged student. Innovative module design, which combines collaborative, flexible, leaner-centred learning with real-world relevance and digital literacies and PLN development, may ultimately prove significantly more engaging for the networked student than simply attending ever more hours of lectures; as the Green Paper suggests they should. For example, the NMC Horizon Report [23] identifies "online, hybrid and collaborative learning" and "social media use in learning" as the key short term trends that are accelerating change in Higher Education. It states, "*Higher education is now in a position to shift its curricular focus to ensure learning environments align with the engagement of creator students and foster the critical thinking skills needed to fuel a* ***creator society****".*

In conclusion, collaborative, creative, digital participation in modules featuring innovative, networked design and assessment, and based on modern HE pedagogies, could prove to be an important area of consideration for Universities of the future.

Having positioned the module within the wider context, this paper will now describe the 'Living and Working on the Web' module in detail as a model of best practice, before presenting an analysis of learners' engagement with it based on their blog posts and reflective summaries. Finally a discussion of the problems of scalability will be undertaken.

The Flexible Learning Programme at the University of Southampton (originally called "Curriculum Innovation") began in 2011. The aim was to better prepare graduates for their future by offering new choices and options on many study programmes, in recognition that the next generation of graduates will face future challenges that have not yet been imagined, and take jobs that may still not even exist. The increasing pace of change is such that students will also need to be able to develop new knowledge and skills throughout their working life.
This innovative approach to curriculum design allowed opportunities for students to exercise choice and personalise their learning, if they wished to do so. One of the modules developed – and the subject of this paper – is titled Living and Working on the Web (#UOSM2008). The module has now run 8 times for nearly 250 students so far, including two larger cohorts based in Singapore. The first running of the module was presented as a case study at the QAA Enhancement and Innovation in HE Conference in June 2013, and the paper is available on eprints. The slides have so far received over 14,000 views on Slideshare.

The "Living and Working on the Web" module is premised by the notion that *"the most authentic journey is that by a group of people working together with technologies in explorations which are not wholly predetermined"* [9]. It aims to socialise students into the use of the Web as an instrument for learning, networking and enhancing their online profile through the tools and strategies that the Web makes available to individuals in their dual role as consumers and producers. The module aims to assist students to *"make the boundaries between school and authentic domains of life and work more permeable"* [9] and to avoid a situation where *"literacies acquired outside the [formal learning context] seem more and more relevant than those acquired within it"* [24].

The module was designed within the theoretical framework outlined above (see Introduction), and which can be summarised in the diagram below (see figure 2). Therefore, the module has a focus on:

1. developing digital literacies
2. encouraging networked learning
3. enabling co-construction of knowledge through peer interaction.

Fig. 2: The Pedagogical and Digital Capability and Literacy Framework for the module

This framework was used to inform the Module Learning Outcomes which state that learners should:

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By adopting a grounded theory approach some themes can be seen arising from the data. The first theme which can be seen recurring through the reflections relates to the learners' attitudes towards the collaborative, social, networked, co-construction of knowledge with their peers. The anonymised excerpts below provide an indication of this:

1. *"When I first started [Living and Working on the Web module] and blogging, I had no idea this module was going to be this interesting and engaging."*

2. *"I've really enjoyed the interaction with other students and feel like I've learnt a lot from them, it's been really refreshing to see others' takes on an issue."*

3. *"I'd have to say that my favourite topic was the last one, where my opinion on the Spotify music service was completely turned on its head after Charlie's comment on my post. This really highlighted the unique benefit that this module has compared to more traditional ones as this type of student interaction would never happen in another module."*

4. *"My favourite part of this module was the ability to view and discuss the work of my peers when taking on the same topic myself, it has allowed me to view the topic from different perspectives even if we had similar core ideas on the subject. For example, when discussing the development of an online professional profile after having read Charlie's blog I discovered ways of making my Twitter profile look more professional even though previously I viewed Twitter as a more informal online platform. I think this has taught me to keep my mind even more open when embarking on new topics and I will try to see the viewpoint from another perspective when researching the topic."*

5. *"This module created a sense of community on WordPress by encouraging us to comment on each other's blogs. It was an eye-opener to read and discuss with my classmates on various topics. Everyone has their own interpretation of the topics; some were insightful while some were thought provoking. Regardless, I think we all certainly have learnt something from one another."*

6. *"Also, I saw that the interaction with my mates is a very important step for my expression of ideas. I found that every comment that a colleague has posted was a great opportunity for me to debate some of the questions regarding the topic."*

This last excerpt was from a student who was initially highly skeptical of the module, hoping that it would consist of "build[ing] websites". Although clearly a selected set of excerpts, the enthusiasm and benefits which peer learning appears to have engendered is noticeable.

The second recurring theme evident in the reflective posts concerns the development of digital capabilities and literacies. The excerpts and screen captures below show progress across a range of literacies and can be mapped to those identified in figure 2 above.

1. *"Look what [the module] did to me! I have changed the settings, only allowing mutual friends to be able to look me up on Facebook. By doing this, it will minimize the risk of strangers looking at your profile and also receiving friend request from them. Not only that, I am being cautious as I do not wish those possible negative impact to affect my employment in the future."* (Digital safety and well-being)

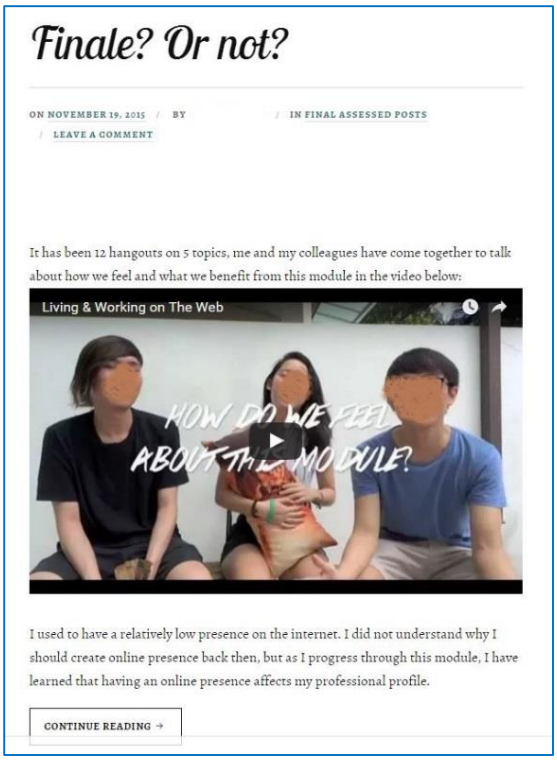
2. *"One of the most important things that this module has taught me is how vital it is to participate in online communities if you want your own content to get noticed. During the course of the module it has been those who have been sharing useful content on twitter or who have made the most insightful comments on other people's blogs that have in turn received comments, and so the module as a whole has been a valuable lesson in online communities, on top of all the knowledge I've gained researching each topic."* (Collaboration, communication and participation: Connection literacies; Personal Learning Networks)

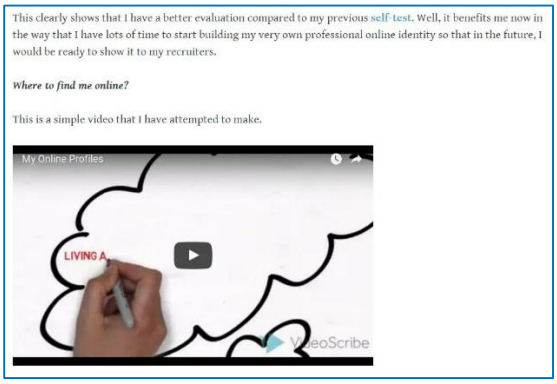
3. *"I am also so pleasantly surprised of how many views my blog has received- 502 times?! Whaaaat?! Its a great feeling to think that so many people have come across my blog, other than classmates! In fact, in my Topic 5's blog, I received a comment from Singapore! I even got recognised via Twitter- a new social platform of mine! This has definitely encouraged me to want to get involved in new communities, because simply, I want to "get out there" :)* (Collaboration, communication and participation: Connection literacies; Personal Learning Networks)

4. *"Along with my LinkedIn profile I also intend to follow Lucy's lead and use Twitter for professional use by engaging with potential employers, something I had never thought of doing before."* (Information, media and data: Information literacies; Personal Learning Networks)

5. *"I put up a vlog of myself for the final topic which was something I would NEVER have done before, and it was actually quite well-received!"* (Information, media and data: Multiliteracies)

The screen captures from some of the blogs below further demonstrate Information, media and data, and Creativity, scholarship and innovation capabilities and literacies including print, multiliteracies, hyperlinking, tagging, commenting, reflecting, collaborating and creating:





Figs. 4 & 5: example learner blog pages demonstrating creativity, reflection, collaboration, identity, multiliteracy, hyperlinking

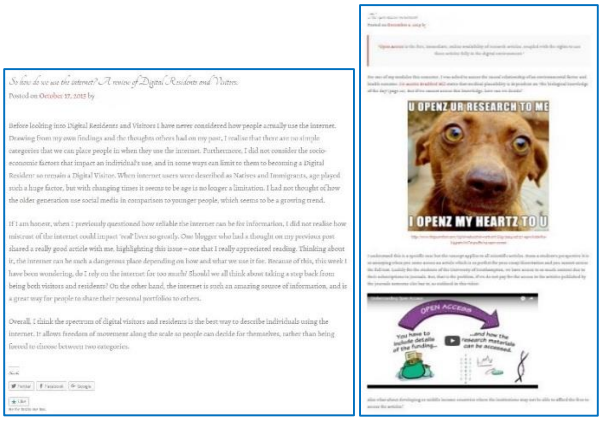


Fig. 6: development of leaner's digital capabilities and literacies from Topic 1 (left) to Topic 5 (right), including hyperlinking and multiliteracies.

Finally, although only in one particular case, involvement in the module directly led to exciting opportunities in the wider world through the effective activation of the learner's network. In the learner's words:

"something really amazing happen during this module. I was engaged to be an official photographer for Korean Film Festival 2015! The video above is a work of mine that I have shot and edited for the event. In fact, I was actually discovered through my online profile! This was my very first official event and I was honestly shocked how an online profile could actually bring me this far."

It would appear from the excerpts above that from a learner perspective the 'Living and Working on the Web' module appears to have provided an engaging, flexible, learner-centred and authentic learning experience. Significant development was made across a range of digital capabilities and literacies for most learners. Some evidence that transferable skills and strategies useful for employment or lifelong personal development was also seen.

However, from a teaching perspective, this model faces challenges. These include the technical aspect of creating the course in the beginning and the technical knowledge to be able to help learners overcome their own technical difficulties throughout. With appropriate amounts of technical support, personal knowledge and training/practice, these issues can be addressed. There is however one major challenge to overcome before this model of HE module design could be widely implemented across the mainstream curriculum. The 'blog-comment-reflect-feedback' methodology features detailed, targetted feedback provided within a short time of submission (in order for it to be effectively incorporated into the next topic). Although face-to-face contact time is limited to an hour a week, allowing more time for marking and feedback, it would nevertheless be a significant challenge to those tutors delivering such a module to large or very large cohorts, for example numbering in the hundreds.

There are a range of potential solutions to this challenge, including the introduction of a peer assessment process; the use of technologies such as natural language processing to automate the process; or the resourcing of the module to greater levels. Innovative approaches such as distributing the marking and feedback element across a range of 'affiliated tutors' may also be possible. However, each of these options faces its own issues.

Firstly, peer assessment is fraught with difficulties, even if carefully designed. For example, learners would need to be trained in how to assess their peers in an impartial way using potentially problematic assessment criteria. Secondly, the natural language processing technologies are not yet in a position to be able to perform the required level of detailed assessment, nor would any such software be able to write targetted feedback. Finally, providing additional resources to the module, in financially restricted times, may also not prove possible.

It is therefore hoped that this paper and the workshop to which it is attached, will stimulate thoughts, ideas and discussion around how to innovatively address the assessment/feedback challenge faced by expanding this module design into mainstream HE course design.

Innovative module design in Higher Education could be a way to address the changing landscape of tertiary-level teaching and learning. The ability to learn where and how one likes and to focus on areas which are of personal interest and have real-world relevance have been greatly enhanced as a result of Web and mobile technologies and need to be reflected in HE teaching and learning practices. Learning needs to be connected, collaborative and

networked if it is to continue to be seen as relevant by today's networked student and the effective incorporation of digital capabilities and literacies development is of ever increasing importance to all HE courses.

The 'Living and Working on the Web' module at the University of Southampton provides a model for such innovation by being predominantly based online with a strong focus on learning through interaction with peers (in the form of posts and comments) and tutors (in the form of feedback). The 'blog-comment-reflect-feedback' methodology has led to greater student engagement, digital capabilities and literacies development, and lifelong work or study strategies. However, this design model faces the challenge of scalability to large cohort, mainstream courses. A challenge which can, no doubt, be collectively and collaboratively overcome.

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