

WHO YOU'RE GONNA CALL? THE DEVELOPMENT OF UNIVERSITY DIGITAL LEADERS. A CASE STUDY

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ORIGINAL SCIENTIFIC PAPER / DOI: 10.20901/ms.10.19.6 / SUBMITTED: 20.05.2019.

ABSTRACT *In our hyper-connected digitised educational world, university tutors are interested in capitalising on affordances of digital trends in teaching and learning. Students, under the alias of pre-service-teachers, walk among them equipped with digital skills in areas of their interest. How can we encourage collaboration between tutors and students that can promote the use of the digital force wisely, support the development of students' professional identities further and extend tutors' digital competences? The story of nine tutors and eleven undergraduate pre-service-teachers working together on digital partnerships is set against discussions around digital leadership and citizenship. This case study aims to highlight how universities can respond to technology-driven change by engaging students further and support their awareness of digital citizenship. The overall results showed that the informal learning that students have capitalised outside the classroom can be used to scaffold their development of digital citizenship through offline community engagement. It demonstrates the advantage of using such opportunities as a means to encourage citizenship practices among university student communities and the positive impact that such synergies can have on all the participants.*

KEYWORDS

DIGITAL CITIZENSHIP, DIGITAL LEADERSHIP, DIGITAL LITERACIES

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INTRODUCTION AND CONTEXT

There are regular attempts to reflect students' symbiotic relationship with digital technologies, especially their use of mobile devices and social media participation, through higher education significant capital investments (Flavin, 2012) and institution-wide technology foci. Higher Education Institutions (HEIs) are trying to provide space and scope for digital technologies to be used as teaching and learning resources towards the "two interwoven—and deeply political—societal goals of education: to create an informed citizenry and to develop the skills for a workforce" (Boyd, 2015).

As educational institutions are adopting these well-intended technological innovations to inform their policy and practice and support student engagement and differential outcomes, student praxis is measured through metrics, which can dilute the notion of agency and self-management that they are trying to promote. Engagement can turn into compliance as well as surveillance of student participation and interactions, which can leave all stakeholders: HEIs, academics and students vulnerable in "their asymmetrical information and power relations with students" (Prinsloo and Slade, 2016: 159).

The focus of this paper is not on discussing the complexities of learning analytics or questioning the extent to which these investments in data mining can reproduce current dominant approaches if there are no clear data management strategies in place; it aims to consider how, in our continuing attempts to utilise technology proactively to enable student development, we support student personal growth not only through opportunities for them to manage their own learning but also by empowering them to develop leadership capabilities.

Developing student leadership is an integral part of that institutional aspiration. It is represented in participatory institutional initiatives to empower students and engage them as active members in change processes. 'Students as partners' is a popular approach in the UK and internationally (Healey *et al.*, 2014) to engage students in multiple ways at all operational levels of their institutions: from governance and curriculum development to teaching and learning processes through project collaborations, student councils and societies, and student peer mentoring. In this context, it can be argued that students will develop a more active role in their learning and self-awareness, viewing themselves as community members with social responsibility. As a result, they will contextualise their 'quantified self' (Lupton, 2014) as part of the complex nexus that is their identity, and get more involved in the governance of their data (Newman *et al.*, 2018).

In the UK a shift towards students' more involved role with technology has been supported by the repositioning of the school-based curriculum from ICT (Information and Communication Technologies) to Computing in 2014. This change has promoted a focus beyond application-use towards application-development "through programming or networking to solve problems" (Passey, 2017: 425). The new curriculum emphasises the connectivity of modern life with topics like 'the internet of things' and 'big data'. Alongside understanding the skill-based aspects of digital technologies and developing technical

competences, the current curriculum aims to engage students in critical consideration of the social, ethical and moral implications of digital technology implementations and help them to approach their use of computers and the internet with social responsibility and confidence. The strong emphasis on online safety embraces the 'participatory practices' (Jenkins *et al.*, 2006) associated with networked technologies and social media and allows a consideration around the dialogic relationship between the self and others in that digital praxis. The focus on digital literacies emphasises the need to develop skills in order to engage with online communities in sharing, distributing and meaning making practices safely and respectfully. Beyond protecting the self and individual rights, there is a focus on developing active civic engagement and empathy towards others in online spaces and activities rather than being a passive bystander. While there is a growing appreciation that "the internet can provide important opportunities for the youth to exercise positive social skills and engage with their community in ways that may have positive outcomes for offline civic engagement" (Jones and Mitchell, 2015: 3), there is also the expectation that these skills will be easily transferrable in offline behaviours.

However, there are some challenges associated with such assumption. One of them is around a blurry distinction between digital literacies and digital citizenship. Jones and Mitchell (2015) propose a specific focus on digital citizenship that encompasses "practice[ing] respectful and tolerant behaviours toward others and increase[ing] [online] civic engagement activities" (Jones and Mitchell, 2015: 3). In this context, digital literacies concentrate on skills and procedural knowledge about digital safety and security while digital citizenship provides the scope to encourage youth to actualise their online behaviours into offline community activism. Such an approach can also fit with the user-generated production spaces prevalent today. These environments of social engagement offer users the opportunity "for content creation as well as community building [where] learning becomes embedded in the act of sharing" (Bal *et al.*, 2014: 158). Making more explicit connections between these productive behaviours that young people exhibit online and extending them to offline possibilities may help them to engage further in civic action.

Finding ways to legitimise and bring the informal learning opportunities that such digital engagements offer into the classroom is another challenge; not that these opportunities do not exist but the focus on preventing harm, apprehensions about the impact on the students' digital footprint and personal and professional identity (Brennan, 2011), resourcing implications and lack of clarity of how they can be embedded within current assessment systems may minimise employing them consistently and long-term. This ephemeral approach to the use of the digital for community engagement and participation, rather than mere spectatorship, is also accompanied at times by terminology that exacerbates the lack of an ideological stand for embracing the affordances emerging from networked technologies. The learning that occurs in 'networked publics' (Boyd, 2014: 8), spaces that young people inhabit online, is sometimes contrasted to what is described as 'real life' experiences rather than 'offline', questioning the legitimacy of the learning that may have occurred and its application to all spheres of life.

This dichotomy also presents another challenge about perceptions of young people's use of computers and the internet. While the critique (Bennett *et al.*, 2008) of Prensky's 'digital natives' metaphor (2001) brought to light the complexities of young people's engagement with digital technologies and moved away from a generational demarcation of technology use to considerations of inequalities in digital access and breadth of use (Helsper and Enyon, 2010), it can be argued that the concept inadvertently, in the public imagination, formed expectations around young people's digital skills. As a result, students are expected to demonstrate particular skill-based competences around digital technologies in the classroom. However, these expected skills do not always correlate with young people's networked experiences.

Attempts to include informal learning opportunities into the curriculum can also be greeted with suspicion from the students themselves and result in what can be considered as clandestine uses of mobile devices in teaching sessions. Transferring the "unauthorised, spontaneous, and practical experience" (Bal *et al.*, 2014: 158) that occurs during the informal opportunities that online spaces offer into the structured classroom communities is not seen as overlapping but as juxtaposing. The multimodal code of behaviour that accompanies the elements of play and exploration associated with young people's use of digital media (Jenkins *et al.*, 2006) is sometimes seen as incompatible with classroom norms. The locus of control shifts to a more hierarchical approach and the mediated interaction they foster when posting, texting, sharing can be regarded as 'disruptive' (Goundar, 2014) rather than as a 'disruptive innovation' (Christensen and Raynor, 2003) during sessions.

However, there have been attempts to make links between young people's online engagement and offline community support. Programmes like the UK's successful Childnet's Digital Leaders initiative fosters a peer-to-peer online safety training programme for school-aged students. Students are trained on internet safety and cascade the skills to peers. Through such engagements and acts of 'small citizenship' (Orton-Johnson, 2014: 147) at local level, young people can become community builders and reflect upon their own identity. The critical awareness that accompanies DIY [do-it-yourself] Citizenship (Hartley, 1999), "a practice of putting together an identity from available choices, patterns, opportunities on offer in the semiosphere and the mediashpere" (Jacka 2003: 185) for yourself moves to a DIWO [do-it-with-others] citizenship with co-creative and voluntary choices and knowledge sharing (Hartley, 2010).

Though the term 'leader' alludes to a hierarchical relationship, such peer to peer support systems offer a way to merge digital literacies and digital citizenship practices. While there are many interpretations, definitions, typologies and styles of leadership (Karagianni and Montgomery, 2018; Kelly and Azaola, 2015), they all centre around the "ability to find and synthesise diverse sources of information, to manage self, and to empower others" (Marcketti, 2010: 131), key processes that active citizenship encompasses.

While digital leadership may not be very different to leadership in terms of managing interactions with heterogeneous actors or resources and fostering innovation, the term

'digital' can also promote the importance for those leaders to have a clear understanding of the interconnection between the problem-solving expertise that human actors and the automation capabilities that non-human resources involved in digital processes can offer. Abbatiello *et al.* (2017) identify that digital leadership should focus on cognitive (*think*), behavioural (*act*) and emotional (*react*) transformations. Their description is based in the corporate world rather than education. However, it identifies the importance of "...blur[ring] the internal and external boundaries in ways that assist transformation" as well as "educat[ing] others..." (Abbatiello *et al.*, 2017: 80). This brokerage between the technical and the human components of a digital innovation can imply some skill-based technical knowledge but also contextual understanding of the setting and a vision of how to bring all elements together to fulfil a brief purposefully. Observational learning that can include apprenticeship or addressing real-life challenges can also act as important sources of leadership development (DeRue and Myers, 2014). Therefore, collaborative ventures around digital technologies can provide a powerful process for organisational transformation either in the corporate world or in education. If such synergies on developing digital citizenship awareness move beyond peer-to-peer to student-to-tutor initiatives they may be able to challenge existing preconceptions around the relevance of informal learning in education.

It is important to recognise the impact that the fast pace of digital innovations has on teachers and academic tutors and their aspirations to keep up-to-date with Technology Enhanced Learning (TEL), the need to reflect and embed digital technologies in their teaching and learning practices as well as pragmatic needs for tutor support, further training and possible impact on their workload. The employment of authentic problem-based tasks around digital technologies through student-tutor partnership can be beneficial for both stakeholders: they can provide an opportunity for students to share their passion for particular technologies and engage in a dialogue about the shaping of their professional identity further ; they can also offer additional support for tutors' digital skills and a platform to develop a less hierarchical dialogue with students about the perceived 'disruptive technologies', such as mobile phones in sessions.

We know the contribution that teacher interactions with students play in the formation of student identities (Doherty and Mayer, 2003). At the same time, such partnerships can allow for closer alignment with the modelling of effective teaching practices and instil in students the idea of Continuing Professional Development and educators' commitment to constructivism approaches to learning. While there is no single accepted model of professional development for HE teachers (Sharpe, 2004), a synergy between tutors and students could bring more understanding about how the student journey can be enhanced creatively by supporting the development of their professional identity in organic and more power-symmetrical ways.

While students cascade their knowledge of digital technologies and the connectivity that these resources can offer, tutors can support them in clarifying further students' responsibilities as budding professionals in contexts that they are familiar with. In this way, tutors can encourage students to take ownership of personal and professional use

of digital technologies and help them develop agility and employability skills as future leaders. Although not all students have the same range of digital skills and capabilities, such collaborations between tutors and students on the use of digital technologies can also support discussions about wellbeing and self-care practices around use of digital technologies.

THE FRAMING OF THE STUDY

The current study emerged as an action research project based on the aspiration for an inclusive approach to support student voice and informed use of digital technologies. It sought to explore a threefold idea: how can we, at university level, support students' confidence that informal learning on digital technology counts for in their 'formal' learning practices; how to develop participatory practices that allow them to transfer their online skills into active community support; and how to offer students opportunities to reflect on how to manage and self-regulate their connected lives in their transition to their professional lives. Evaluation of each cycle of action can lead to the enhancement and maturity of the project idea and the participants' skills.

This short-scale study involved eleven preservice teachers (students) and nine lecturers (tutors) and took place at a UK-based university in the south-east of England. In the context of the empirical part of the study the term 'students' will refer to those participating preservice teachers rather than school-aged contributors.

The key questions for the first cycle of the project were:

- >Are we prepared to engage in a partnership with students on digital literacy?,
- >How can we create, manage and evaluate such synergies? and
- >What digital competences, leadership and citizenship skills will participant develop as a result of these interactions?

At the case study institution there is a regular Continuing Professional Development (CPD) programme for staff and opportunities for tutors to network and exchange ideas for practice around TEL. However, tutors, as reflective practitioners, are still vocal about aspirations for further support with their digital competences. External metrics around student satisfaction and teaching and learning excellence such as the Office for Standards in Education (OfSTED), the National Student Survey (NSS), the Teaching Excellence Framework (TEF), also advocate and evaluate the use of digital technologies in teaching and learning further.

METHODS: DEVELOPING THE DIGITAL LEADERS' (DL) PROJECT

In order to create such synergies, mobilising groups of students and tutors was an important first step for the project to succeed. Time was the second. The timetable for central training is strategically situated in the training year to prepare preservice teachers

for their school placements and help them reflect on their practice. The idea of Digital Leaders needed to come across as integrated in their practice rather as an add-on to be completed in order to meet the requirements of a taught module. This was especially important in terms of ethics alongside considerations about the balance between voluntary support and tutors' workload pressures. The literature identifies that trust forms the basis of positive tutor–student relationships (Lumpkin, 2008; Nowell, 2014). In order to balance all stakeholders' perspectives and motivations and connect tutor and student voices, it was imperative to create a culture of mutual trust for participation and engagement. While the premise of the project was students as 'partners in learning and teaching' (Healey *et al.*, 2014), there could be possible tension and discomfort around power relationships between the traditionally conceptualised academic roles and student agency.

As a step to create shared understanding in an atmosphere of learning and growth, a job description for the student role was put together along with an evaluation form to be completed jointly by students and tutors during their meeting.

Literature review of similar 'Digital Leader' projects, a popular idea at schools, showed that at least two more UK-based universities at the time of the study engaged their students in similar ways; however, in those projects there was more emphasis on utilising student skills for peer-to-peer support while this project was focusing on teaching and learning practices and tutor-student partnership. In addition, their schemes relied heavily on extrinsic motivators (e.g. paying the students and awarding them Open Badges) while the current project relied, at that stage, on students' altruism. Students' contributions were on voluntary basis and were not part of an assessed module. However, the university offers students an employability skills certificate to acknowledge their voluntary contributions. In an attempt to support students' participation further in ways that were meaningful to their professional development the project leader liaised with the employability skills team and the Digital Leaders project was included towards the award.

PARTICIPANTS

The participants included students from the first year cohort on an undergraduate teacher-training programme. The programme prepares students for Primary school teaching (working with five-eleven-year olds). The project leader was the Computing tutor for the course and she organised the tutor- Digital Leader appointments as part of the collaborative and independent tasks students were asked to complete during her sessions; the students who did not participate as Digital Leaders were given other collaborative digital tasks to complete. Digital Leaders were not expected to dedicate additional and out of session-time for the task, though some did willingly. Before the project was introduced to the whole cohort, the project leader had audited the cohort's digital competencies using the *Cascade iTest* (University of Exeter). The results allowed her to encourage three students to participate either because of their good overall digital skills or their expertise in a particular digital area (usually social media skills), and then

through snowballing, four more students volunteered. The two student representatives were invited to the pilot. The Year 1 Convenor was also consulted and asked to suggest two students who would benefit from the involvement (*e.g.* based on their learning profile or due to attendance and engagement issues). The job description was shared with all the students. The pilot aimed to include ten out of the sixty students in the cohort. However, eleven volunteered (five male and six female students). Traditionally, there are fewer male students on the course. There were eight male students in that first year cohort. They were all young students who had just graduated from school, with the exception of two who had started university after one gap year. The DL group had mixed digital skills (Table 1). The names have been altered to preserve the students' anonymity.

Table 1. The Digital Leaders project participants

Digital Leader	Criteria for selection	Tutor supported	Topic
James	Volunteered	female	Graphics editing using PhotoShop
Kiera	Self-confidence and attendance; IT audit: widening participation	male	Video editing using Movie Maker
Alice	Widening participation	male	Social media: Twitter
Aimee	Volunteered (Snowball effect)	male	Social media: Twitter
Tilly	Volunteered (Snowball effect)	male	Social media: Twitter
Holly	Student representative	female	Class Dojo
Barbara	Student representative	female	Edmodo
Rose	IT audit	female	Social media: Instagram
John	Engagement	female	Social media: Setting up a Facebook group
Louis	Attendance and engagement	female	Social media: Setting up a Facebook group
Mark	IT audit	female	Social media: Setting up a Facebook group
Toby	volunteered	female	Taking and including Screenshots in presentations

The project was shared with all tutors at the department and they were all invited to participate. Once the student cohort was decided, tutors were approached directly mainly because, in the past, they had identified TEL priorities for further support (*e.g.* collaboration with Art on PhotoShop; setting up a Facebook group for English; using Twitter for disseminating academic work and ideas in Physical Education, *etc.*). Tutors had also been given the opportunity to complete a JISC self-audit about their digital skills and two of them decided to get involved with the project based on the results from the audit. The Year 1 Convenor was also invited to participate, which gave the project more kudos among students. The tutors' digital skills were mixed, with some of them very confident

in the use of digital technologies. They were all positive about the idea and wanted to support it and enhance student voice.

PROCEDURE

The project leader facilitated student-tutor interaction by setting up the appointments and making the introductions. Most of the appointments took place during two of the two-hour Computing sessions that the project leader oversaw. Some appointments took place at a time and date that was convenient for both tutors and students. The duration of the appointment was flexible and tutors were understanding of the students' other commitments; meetings were aimed to last between thirty and sixty minutes. In three instances, the collaboration between the tutor and the DL student extended beyond the allocated time, while in two cases the appointments did not take place due to the tutors' busy schedules or the student's absence. In those instances, one student joined a wider group (John) while the other Digital Leader shared her skills with the project leader (Holly).

The tutorials took place in the summer term, towards the end of the training year, and after the group had completed a school placement, which contributed to the shaping of their views around school-based digital applications further. Two weeks before the allocated time for the appointments, the Digital Leaders were invited to a Skype session with a local primary school that had been running a Digital Leaders scheme successfully with their pupils. The undergraduate Digital Leaders interviewed the school-aged children on their role and responsibilities. This was a successful milestone in the project, which cemented the DLs' commitment.

DATA COLLECTION AND ANALYSIS APPROACHES

Data collection took place in two different stages. Data was collected through feedback forms that had to be completed jointly by the tutor and the Digital Leader during their face-to-face support session. The form included eight free-text questions and one closed question. There was a section for the tutor to input their comments, too. Questions like *"How do you reassure the tutor about their ideas and skills?"*; *"What did you learn about yourself as a leader/supporting tutor?"*; *"Which part of the interaction with the tutor stood out for you?"*; *"What does the tutor want to use the technology for? Why?"*; *"In terms of the SAMR model for digital technology use how does the tutor want to use this digital technology in your view?"* aimed to include loosely all three dimensions (cognitive, emotional, behavioural) Abbatiello *et al.*'s (2017) leadership capabilities framework.

A follow-up semi-structured group interview with all the Digital Leaders took place at the end of the project. They were also invited to share their views individually as well during that meeting. Four decided to produce a video clip to showcase the project to the rest of the University. Qualitative analysis of the group interviews along the three focal points of the study informed the summary of the findings presented below.

DISCUSSION OF THE FINDINGS

The study aimed to explore how to develop participatory practices between students and tutors that allow students to transfer their online skills into active offline community support and at the same time gain opportunities to reflect on self-managing and self-regulating their connected lives in their transition to their professional lives, in this case the highly regulated and caring teaching profession. This section discusses the DIWO processes that emerged during student-tutor interactions against the three key questions of the study.

Are we prepared to engage in a partnership with students on digital literacy?

This was the first cycle of a successful, small-scale, short-term pilot study and while the results will not be generalisable, they offered helpful insights as to how to develop the project further. A combination between readiness and willingness from both tutors and students contributed to the success of the pilot study. Tutor support on digital skills was needed and was embedded in real tasks that related directly to students' learning and assessment opportunities. Student participation was mainly based upon their desire to help others and not always on their self-confidence of a wide range of digital technologies. *"I am not good with IT. Computers hate me! How can I be a Digital Leader?"* was Alice's initial response to the call for participants. Through discussion about a range of technologies that she may have be using in her daily life she exclaimed *"Twitter? I am an expert on Twitter! I use it every day! My friends use it, too! It is more popular than Facebook. I didn't think that Twitter counts"*. Such comments point to a possible discrepancy between school-based digital practices and out-of-school use of digital technologies, the informal learning that takes place out of school. They indicate an opportunity to refocus our attention on "a more holistic perspective [that] sees informal and formal contexts of digital literacy as components of a knowledge ecosystem" (Meyers *et al.*, 2013: 357).

The tutors involved in the study recognised the need for further engagement with social media, skills that the Digital Leaders could offer. They acknowledged students' expertise in that area and wanted to bridge the perceived gap between their own skills and the Digital Leaders' experiences. The project was an example of involving students as partners in teaching and learning processes. This intergenerational learning offered coaching opportunities between junior (students) and senior (academics) educational practitioners around the pedagogical uses of digital technologies. Age was not considered in a Prensky way as each partner was able to contribute and offer expertise at an equal level: students with skills and tutors with professional experiences. The benefits of such approaches for students and teachers have been recognised in the educational literature (Löfgren *et al.*, 2013) along with the importance of managing these interactions and incorporating "strategy, planning and support (...) if educational outcomes are to be fully realised" (Passey, 2017: 477). Challenges stated by tutors and students did not concern aptitude, attitude or engagement issues; they mainly concerned time requirements. For such partnerships to flourish, they need to be integrated in overall programme structures rather than act as add-ons.

Some of the students prepared training resources to use with the tutors and reported in their interview that they would find it helpful to “allow the tutors beforehand to email the Digital Leaders allowing us to have specific things to show” (James). While none of the participating tutors and students considered that additional preparation as an issue during the pilot study, if their contributions were to be part of regular provision, then their input would have to be carefully planned. Tutors were positive about additional communication that would facilitate planning the tutorial with the Digital Leaders but also appreciated that this exchange could add to the workload of both students and tutors. The focus of the DL project was not to replace institutional support that needs to be in place but empower students’ leadership skills and as part of that dialogue bridge informal and formal learning opportunities that the digital offers. In this context, students should have the opportunity to capitalise on their input and gain wider recognition for their support.

All eleven student participants and nine tutors reported positively on their involvement in the project; even in the two cases where the appointments did not take place, the students commented positively on the opportunity they were given to contribute. “*I didn’t think myself as a technology expert at the beginning*”, Holly and Alice said. Such comments also indicated that these participants did not associate their interaction and expert use of social media and the learning that may be associated with such use as part of their digital profiles; for them, informal and formal learning were distinct processes that did not merge. This was reinforced with comments around the use of social media at schools. “*My school introduced blogging but some pupils sent inappropriate messages to each other and the school dropped it*”, John reported. Considerations around privacy, safety, responsible use and reuse of digital media (Meyers *et al.*, 2013) were emerging and the importance of engaging in a dialogue with the students of how to manage such priorities across school-based and informal learning contexts in ways that enable rather than disable the use of digital technologies.

At the same time hardware challenges like “*Our school computers are very slow and it takes teachers a long time to set them up*” (Toby) and timetabling priorities “*I have not seen the teacher teaching IT or Computing yet*” (Aimee) pointed towards the reality that some schools face, which also shaped these pre-service teachers’ views of the application of digital technologies in education and can make the use of networked and online technologies more challenging.

How can we create, manage and evaluate such synergies?

In the cases where the Digital Leaders knew their allocated tutor, they found it enticing that they would be ‘teaching’ them, especially when they knew that the tutor involved had a senior position on their programme (for instance, year convenor). Most of the appointments took place in the tutors’ offices, with one exception, where the Art Studio was used. The university campus already includes some defined hierarchical spaces that may influence the balance in the interactions between tutors and students. While it was not reported in any of the Digital Leaders’ or tutors’ comments, the selection of a venue for these interactions may be a future consideration.

The video conferencing session with the primary school acted as a catalyst in the project. The Digital Leaders realised that such initiatives take place and are valued in schools. It reinforced that ideas discussed at university are based on evidence-based practice and extended their thinking beyond the experiences they had during their first training year. It was at that point that the group endorsed the label of the 'digital leader' openly in their interactions with peers.

In this brief and closely-defined pilot project the selection and management of student interactions did not pose significant challenges. The selection of students remains a key priority for the success of such a project. The tutor facilitator supported the interactions and encouraged the individual students' involvement. The project involved participants from a single department. Some of the Digital Leaders mentioned that their positive experiences with the project facilitator who led the Computing sessions and their positive experiences of the Computing sessions influenced their decision to participate. While in a wider project students may not have any interaction with the co-ordinators or the tutors, it poses a question of how to encourage student participation and nurture leadership talent, especially among under-represented student groups.

What digital competences and leadership skills participants developed as a result of these interactions?

The Digital Leaders had already experience and skills in specific digital technologies but also interest in exploring these applications further in an educational context. The level of their digital skills was identified at the outset of the partnership, when the student-tutor pairs were agreed. While we cannot claim that the cognitive capabilities of their leadership profile developed as part of such a brief intervention, it was obvious that behaviours around technology use were influenced as a result of the professional dialogue with tutors. Beyond application skills, after being involved in the training session with a tutor, Digital Leaders started appreciating the impact that personal involvement with social media can have on their digital footprint and professional identity. Mark commented:

I appreciate that I need to be more careful about my presence on social media as a trainee-teacher. Tutor X shared with me her experiences from working at schools and how the headteacher Googles candidates' profiles before they invite them for an interview.

In a way, for both students and tutors the project was all about risk taking: exposing areas for further development in terms of skills, knowledge or understanding of digital technologies. Digital leaders perceived this interaction with tutors as informal and non-assessed and they felt comfortable in engaging in a dialogue about the potential use and possible shortcomings of such technologies in teaching and learning. *"I felt ok telling Tutor Y how I used Class Dojo at my placement school. The children loved it but I am not sure it works for assessment. Tutor Y and I discussed some ideas about formative assessment; it was very helpful!" (Holly).*

Digital competence became strongly related to professional expertise and central to teacher identity. The project allowed, even temporarily, for the blurring of boundaries between tutors and students. Students exhibited knowledge of the digital tools but together with the tutors they extended their understanding of digital literacy to an expanded notion of digital citizenship that included safe and responsible practices around the use and engagement of networked technologies and 'building mutual commitments and interpersonal relationships' (DeRue and Myers, 2014: 835). *"I had not reviewed my Facebook privacy settings for a while. I am glad that I did before my meeting with Tutor Z. Facebook had made some changes"* (Louis). Comments like that showed students' emerging questioning of corporate infrastructures that govern their data.

The tutors involved saw the interaction as a helpful opportunity to work both pastorally and academically with the students; especially for tutors on the Secondary Education Teacher Training programme. These young students, who had just graduated from school, offered invaluable insights of their preparations and coursework for their final year public exams (A Levels). In one instance, the partnership extended further. The tutor invited the digital leader (James) to train two Secondary preservice teachers on graphics editing and share his A Level photography portfolio to support the other Secondary students' lesson planning. This additional responsibility enabled the Digital Leader to share his expertise and gain confidence in himself. In response to that invitation James wrote in his evaluation *"I have been asked by the tutor to teach a PGCE [postgraduate preservice teacher] student going into school and teaching Photoshop how to use Photoshop...which I am determined to do"*. Comments like *"you're a superstar"*, *"your humour and friendliness were fantastic"*, *"you went beyond the call of duty"* were shared in writing about James's input by the tutor and the Secondary students. They emphasise the digital but also interpersonal skills that James demonstrated during the interaction. He led the interactions with emotional intelligence: kindness and patience, key leadership and citizenship characteristics.

There was limited but positive evidence about how the digital leader initiative affected aspirations and how these students took these practices into their professional and personal lives further. However, there was evidence of self-regulation and self-actualisation. For instance, attendance and engagement on the Computing module improved, especially for Louis and Kiera, who did not miss any of the sessions for the rest of the module and the following year. The group facilitated the recruitment of a new group of Digital Leaders the following year and actively participated in digital technology events in their capacity as Digital Leaders, such as a University Google Expedition Day.

Their beliefs about leadership as part of citizenship and community support were further informed. The project empowered them to consider that leadership is attainable and an integral part of being an active citizen rather than a bystander. This was a revelation for some of the female students, like Alice and Holly, who started being more vocal during sessions and participated confidently with ideas and questions.

CONCLUDING COMMENTS

This small scale project aimed to introduce synergies between a group of undergraduate students and tutors on digital skills. It was hoped that the interactions would legitimise students' self-confidence about the contributions that informal learning can make in formal education, enrich their understanding of leadership and digital citizenship as social responsibility and help them appreciate that digital leadership encompasses not only skills but also knowledge and understanding of safe and purposeful uses of technology for themselves and for others. Perceived changes on individuals' practice emerged: tutors developed IT skills in those specific areas while teaching and learning resources were produced as a result of the partnership. The Digital Leaders' self-confidence as digital citizens also developed alongside digital literacy, which included further awareness of their use of social media as teaching professionals. In this context they started questioning the corporate infrastructures that govern their data. The project reinforced the constructivist nature of learning through sharing. There is a need to build on this study longer term to explore how the involvement and experiences of diverse groups of Digital Leaders can influence the development of their leadership identity, active engagement with institutional data and contributions as well as how we can manage such an intervention at an institution-wide scale.

References

- >Abbatiello, Anthony; Knight, Marjorie; Philpot, Stacey and Roy, Indranil (2017) *Leadership disrupted: Pushing the boundaries 2017 Global Human Capital Trends*. Deloitte University Press. <https://www2.deloitte.com/insights/us/en/focus/human-capital-trends/2017/developing-digital-leaders.html> (29/03/2019).
- >Bal, Alexandra; Noland, Jason and Seko, Yukari (2014) Melange of Making: Bringing Children's Informal Learning Cultures to the Classroom, pp. 157-168 in Ratto, Matt, and Boler, Megan (eds) *DIY Citizenship: Critical Making and Social Media*. Cambridge, MA: MIT Press. DOI: 10.7551/mitpress/9568.003.0014.
- >Bennett, Sue; Maton, Karl and Kervin, Lisa (2008) The Digital Natives Debate: A Critical Review of the Evidence. *British Journal of Educational Technology* 39 (5): 775-786. DOI: 10.1111/j.1467-8535.2007.00793.x.
- >Boyd, Danah (2015) Are We Training Our Students to be Robots? <https://www.zephoria.org/thoughts/archives/2015/05/07/students-robots.html> (28/03/2019).
- >Boyd, Danah (2014) *It's Complicated: The Social Lives of Networked Teens*. London: Yale University Press.
- >Brennan, Caroline (2011) You got pwned! The behaviour of young people online and the issues raised for teachers. *Research in Secondary Teacher Education*, 1(1): 16-20.
- >Christensen, Clayton M. and Raynor, Michael E. (2003) *The Innovator's Solution: Creating and Sustaining Successful Growth*. Cambridge, MA: Harvard University Press.
- >DeRue, Scott D. and Myers, Christopher G (2014) Leadership Development: A Review and Agenda for Future Research, pp 829-852 in Day, David V. (ed.) *The Oxford Handbook of Leadership and Organizations*. Oxford: Oxford University Press. DOI: 10.1093/oxfordhb/9780199755615.001.0001.
- >Doherty, Catherine and Mayer, Diane (2003) E-mail as a "contact zone" for teacher-student relationships. *Journal of Adolescent & Adult Literacy* 46 (7): 592-600
- >Flavin, Michael (2012) Disruptive technologies in higher education. *Research in Learning Technology* 20 (sup1): 19184. DOI: 10.3402/rлт.v20i0.19184.

- >Goundar, Sam (2014) The Distraction of Technology in the Classroom. *Journal of Education & Human Development* 3 (1): 211-229.
- >Hartley, John (2010) Silly citizenship *Critical Discourse Studies* 7 (4): 233-248. DOI: 10.1080/17405904.2010.511826.
- >Hartley, John (1999) *The Uses of Television*. London: Routledge. DOI: 10.4324/9780203024874.
- >Healey, Mick; Flint, Abbi and Harrington, Kathy (2014) *Engagement through partnership: students as partners in learning and teaching in higher education*. York: HEA.
- >Helsper, Ellen Johanna and Enyon, Rebecca (2010) Digital Natives: Where is the Evidence? *British educational research journal* 36 (3): 503-520. DOI: 10.1080/01411920902989227
- >Jacka, Elizabeth (2003) "Democracy as defeat": The Impotence of Arguments for Public Service Broadcasting. *Television & New Media* 4 (2): 177-191. DOI: 10.1177/1527476402250675.
- >Jenkins, Henry; Clinton, Katie; Purushotma, Ravi; Robison, Alice and Weigel, Margaret (2006) *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century*. Chicago, IL: Macarthur Foundation.
- >Jones, Lisa M. and Mitchel, Kimberly J. (2015) Defining and Measuring Youth Digital Citizenship *New Media & Society* 18 (9): 1-17. DOI: 10.1177/1461444815577797.
- >Karagianni, Despoina and Montgomery, Anthony Jude (2018) Developing leadership skills among adolescents and young adults: A review of leadership programmes. *International Journal of Adolescence and Youth*, 23 (1): 86-98. DOI: 10.1080/02673843.2017.1292928.
- >Kelly, Anthony and Azaola, Marta Cristina (2015) *The benefits of student involvement in leadership: an annotated bibliography of underpinning research*. https://www.researchgate.net/publication/299428458_Student_involvement_in_leadership (29/03/2019).
- >Löfgren, Kent; Niemi, Esa; Mäkitalo-Siegl, Kati; Mekota, Anna-Maria; Ojala, Mikko; Fischer, Frank; Kahlert, Joachim; Černočová Miroslava; Achterberg, Frits; Haak, Els; Peltonen, Antti; Prokysek, Milos and Heikkinen, Pia (2013) Meeting the Challenges of Generational Change in the Teaching Profession: Towards a European Model for Intergenerational Teacher Collaboration. *Education Research eJournal* 2 (2): 107-119. DOI: 10.5838/erej.2013.22.03.
- >Lumpkin, Angela (2008) Teachers as Role Models: Teaching Character and Moral Virtues. *Journal of Physical Education, Recreation & Dance*, 79 (2): 45-50. DOI: 10.1080/07303084.2008.10598134.
- >Lupton, Deborah (2014) *The quantified self-movement: A sociology of self-tracking*. Cambridge: Polity Press.
- >Marcketti, Sara B. and Kadolph, Sara J. (2010) Empowering Student Leadership Beliefs: An Exploratory Study. *International Journal of Teaching and Learning in Higher Education*, 22 (2): 131-139.
- >Meyers, Eric M.; Erickson, Ingrid and Small, Ruth V. (2013) Digital literacy and informal learning environments: an introduction. *Learning, Media and Technology* 38 (4): 355-367, DOI: 10.1080/17439884.2013.783597.
- >Newman, Tabettha, Beetham, Helen and Knight, Sarah (2018) *Insights Survey 2018: Findings from Students in UK Further and Higher Education*. Bristol: JISC.
- >Nowell, Shanendra D. (2014) Using disruptive technologies to make digital connections: stories of media use and digital literacy in secondary classrooms. *Educational Media International* 51 (2): 109-123. DOI: 10.1080/09523987.2014.924661.
- >Orton-Johnson, Kate (2014) DIY Citizenship, Critical Making and Community, pp. 141-156 in Ratto, Matt and Boler, Megan (eds) *DIY Citizenship: Critical Making and Social Media*. Cambridge, MA: MIT Press. DOI: 10.7551/mitpress/9568.003.0013.
- >Passey, Don (2017) Computer science (CS) in the compulsory education curriculum: Implications for future research. *Educational Information Technology* 22 (2): 421-443. DOI: 10.1007/s10639-016-9475-z.
- >Prensky, Marc (2001) Digital Natives, Digital Immigrants. Part 1. *On the Horizon* 9 (5): 1-6. DOI: 10.1108/10748120110424816.
- >Prinsloo, Paul and Slade, Sharon (2016) Student Vulnerability, Agency, and Learning Analytics: An Exploration. *Journal of Learning Analytics* 3 (1): 159-182. DOI: 10.18608/jla.2016.31.10.

>Ratto, Matt, and Boler, Megan (2014) Introduction, pp. 1-22 in Ratto, Matt and Boler, Megan (eds) *DIY Citizenship: Critical Making and Social Media*. Cambridge, MA: MIT Press. DOI: 10.7551/mitpress/9568.003.0002.

>Sharpe, Rhona (2004) How do professionals learn and develop? Implications for staff and educational developers, pp. 132-153 in Baume, David and Kahn, Peter (eds) *Enhancing staff and educational development*. London: Routledge. DOI: 10.4324/9780203416228_chapter_8.

KOGA ĆETE ZVATI? RAZVOJ DIGITALNIH VOĐA NA SVEUČILIŠTU: STUDIJA SLUČAJA

Yota Dimitriadi

SAŽETAK U našem hiperpovezanom digitaliziranom obrazovnom svijetu sveučilišni nastavnici zainteresirani su za kapitaliziranje poželjnih digitalnih trendova u obrazovanju i učenju. Studenti, pod nazivom budućih nastavnika, nalaze se među njima opremljeni digitalnim vještinama. Kako možemo ohrabriti suradnju između sveučilišnih nastavnika i studenata koja može promovirati upotrebu digitalnih snaga na zajedničku korist i poduprijeti daljnji razvoj profesionalnih identiteta studenata, kao i digitalne kompetencije sveučilišnih nastavnika? U radu donosimo priče devet nastavnika i jedanaest budućih nastavnika s preddiplomskih studija koji rade zajedno na digitalnom partnerstvu, raspravljajući o digitalnom vodstvu i digitalnom građanstvu. Ovom studijom slučaja želimo pokazati kako sveučilišta mogu odgovoriti na promjene izazvane tehnologijom tako da više uključe studente i podupru njihovu svijest o sebi kao o digitalnim građanima. Rezultati pokazuju da se neformalno obrazovanje koje su studenti stekli izvan učionica može upotrijebiti kako bi se podupro njihov razvoj kao digitalnih građana kroz offline angažiranost u zajednici.

KLJUČNE RIJEČI

DIGITALNO GRAĐANSTVO, DIGITALNO VODSTVO, DIGITALNA PISMENOST

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