Beyond the VLE: Transforming Online Discussion and Collaboration through Microsoft Teams

¹ Edmund Hewson, ² Gar Wai Chung

^{1,2} Distance Learning Unit, Leeds Beckett University, United Kingdom

Abstract: Microsoft Teams is a new collaborative working and digital community platform launched in 2017 as part of the Microsoft Office 365 suite of applications. It provides an online space ideally suited for collaboration and streamlining communication for anyone involved in online learning and teaching in Higher Education. In the Distance Learning Unit (DLU) at Leeds Beckett University, Teams has been piloted used as part of a University-wide pilot project to help transform the way we work with both staff and students, both on distance and classroom courses. This presentation will outline the wider context of the Teams pilot in the University and how it is being trialled as a potential replacement for other collaborative platforms. As an early adopter, the Distance Learning Unit has experimented with Teams to improve communication, collaborative working, and sharing of best practice within the team. The presentation will then focus on how these lessons have been applied in working with the Course Team and students on a fully online distance learning course to help boost student engagement, develop a more active learner community, facilitate collaborative working, enhance resource sharing and provide a more accessible, mobile learning experience. The presentation will look at both the challenges and benefits of moving collaboration and communication outside the VLE and present staff and student feedback on their experiences of using Teams instead of other more traditional VLE-based tools and the provision of a safe, collaborative space.

Keywords: Online discussions, Distance learning, Microsoft Teams, Digital competence, Directed diffusion of innovation, Online collaboration tools, Digital capabilities, Transactional distance, Discussion boards.

1. Introduction

Based in the north of England, Leeds Beckett University (LBU) has over 24,000 students, most of whom are undergraduates taught on campus. Postgraduate provision shows a growing number of distance learning students. As part of its education strategy, LBU is considering offering students on undergraduate courses the choice to do one or more modules via distance mode, hoping that, if properly implemented, the flexibility afforded will encourage better engagement. LBU has thirteen academic Schools and Departments and is supported by professional services, for example, Information and Technology Services (ITS), Libraries and Learning Innovation (LLI), the Centre for Learning and Teaching (CLT), and the Distance Learning Unit (DLU).

Arguably, decisions relating to any digital technology adopted by a university impact the student's experience and related learning. Any major, department-spanning project, such as introducing new software, means choreographing the various timescales, technical and communicative competences, and professional cultures of different departments, even if they operate within central governance structures. The evolving regime of external regulation has both direct and indirect impacts on university life. The General Data Protection Regulation (GDPR), in principle not relevant to an education strategy, has implications for how the university deals with student records, and hence the student relationship. Regulatory initiatives such as the Teaching Excellence Framework generate their data requirements, measuring existing realities or creating new categories for measurement. This environment is not unique to LBU but suggests that the tools and affordances of learning technologies occupy just one corner of a digital and material ecosystem of projects, programs, platforms, and devices, which compete for students and academics' time and attention, and scarce organisational

resources. Entangled with these, on a spectrum from users to managers, are different groups, with their own professional cultures, specialist languages, and working practices.

1.1 Software ‘Tools’: Problematising the Concept

This paper reflects on a pilot for the introduction of MS Teams at LBU. The first reflection, however, is theoretical. We can problematise the default metaphor of software platforms and devices as ‘tools’. For example, Major et al. (2018, p.2015) state that ‘students’ learning is tool dependent’ and call for ‘further and continuing investigation into the nature of the interactional conditions under which new tools become productive for learning’. However, Gourlay (2015) has asserted that whilst learning in a university is a complex set of socially situated practices, the underlying metaphor that devices and software are mere ‘tools’, suggests they are inert until activated and this underplays their role. Drawing on the social theorist Bruno Latour (2005) Gourlay suggests these devices are ‘mediators’, actively shaping the learning. The operating needs of the devices, software, and platforms make us entangled with them. Lest the potential agency of these ‘tools’ appears fanciful, behind platforms such as Facebook, which seem designed to maximise users’ attention and participation in text making (Seymour, 2019), lie the algorithms and hidden content curators that constitute the distributed agency and data-extractive business model of one of the world’s largest companies.

2. Theoretical Framework

2.1 Introducing New ‘Tools’.

The introduction of new general-purpose software tools spanning professional services, academics, and students, must take cognisance of the different structures, user timescales, user competences and cognitive load involved in using these and being entangled with them. Introducing a ‘tool’ inevitably involves more than just a ‘device’, or a procedure: what is introduced is a device or software plus user behavioural practices in a set of ‘contexts’. Reflecting upon the experience of LBU’s DLU, these contexts might be as follows. (This is not the product of a targeted research programme). The first context consists of the rules, practices, and aesthetics of the discipline or community of practice in which the ‘tool’ is expected to live. A ‘tool’ contains ‘rules’ for basic use, but once adopted in a disciplinary or work setting there will be a set of expectations regarding how it will be used and what outputs it offers. For example, one of the authors has delivered PowerPoints in the contexts of business consulting, heavy in data visualisation, and textual prompts, and elsewhere in Humanities research conferences. The aesthetic and communicative conventions were quite different.

Secondly, we must consider user competence in the context of situated practices. The nature of these general-purpose ‘tools’ is of the ‘take it or leave it’ variety, with sophisticated features available to those that want them. Spreadsheets, a well-established technology, are used in many ways and with many different levels of skill. If we can compare working in Excel to speaking a language, it is obvious that people get by with varying degrees of fluency. Thinking about learning and teaching, we can distinguish perhaps between ‘technical competence’, understanding how it works and what it can do (‘I can do pivot tables’), with ‘pedagogic competence’, the ability perhaps to imagine what situated educational practices the technology can enable (‘I can see how pivot tables work but have no idea how to create one, but I can see how they might be used in class’). A typical Virtual Learning Environment (VLE) requires basic technical competences required to use it as a simple repository and announcement system, but more pedagogical sophistication if this is the students’ primary engagement with the course – the latter being the case for LBU’s distance learning students. Let’s apply this to social media: platforms such as Facebook are easy to use, do not require any particular level of competence to navigate and provide some powerful communicative affordances. Yet, Iredale et al.’s literature review of social media use in teacher education cautioned ‘against the assumption that students were able to apply critical thinking’ being in our view a cardinal academic virtue ‘in these spaces without careful guidance’. The technical and pedagogical come together in ‘digital competence’, the confidence to apply digital tools through a clear understanding of the pedagogic potential. Incorporating and using digital ‘tools’ in programmes requires an understanding of the tool, the pedagogy behind using a particular tool, and the differences of between one tool and other. To be digitally competent requires user clarity about what is required from the tool and the course design. Users differ in their different digital competences, but professional development opportunities exist, with the aims of raising the competences of digital practitioners and meeting regulatory guidelines and protocols. Such digital development programmes can be industry-led: Microsoft’s Education Centre offers a portfolio of short courses (such as Innovation Expert) applying Microsoft tools to case study exemplars. Some universities might also develop their own training.

Third, there is perhaps what we might call the context of user ‘affordance desire’: a tool’s affordances may be inadequate to, or might impede, the achievement of the pedagogic goal, however clearly understood this goal might be. A motivation

for the MS Teams pilot discussed below was dissatisfaction, expressed by both academics and students, with discussion boards within the LBU's VLE, described as confusing and awkward in terms of navigation and use. In other words, the desire for affordances was frustrated. Furthermore, Moreover, perhaps students communicate outside these mandated spaces, for example, on social media as opposed to the VLE, because their communications flow naturally into these easier channels.

A fourth context might be called the user time/affordance calculus. There are many calls on academic and student time and cognitive resources. They must see the benefit of the tools, visualise them operating in situated learning practices and have sufficient cognitive space and time to master them to a sufficient level of digital competence (technical and pedagogic). This is more challenging than meets the eye. Firstly, there are high sunk costs of learning things, in time and effort. Is it worth incurring these again, with a new tool, and the practices around them, for marginal or uncertain benefits? Network effects, in which the benefit of a tool arise from other users, also make a difference. There might be good, objective 'reasons' to convince people to move to a new tool, but people need to be motivated to make an effort given the many other calls on their attention. Thus, a 'satisficing' solution may be preferable, for pragmatic reasons, to an 'optimising' one. The calculus will adjust if there is institutional support to share the load, or training to reduce learning costs, or standardised templates to avoid wheel-reinvention. This consideration might also refer to students who might also take an optimising or transactional approach to what 'works' for them.

The fifth is the issue of mission criticality. At the level of the institution, a functioning student record system is mission-critical, and how it is used cannot be a matter of personal discretion. 'Mission criticality' does not exist just at an institutional level; it can also exist at a course level. Certain things must happen – assessments submitted, for example – for the student to succeed.

Sixth is the context of organisational management, culture, and resourcing. One of the authors of this paper has worked in both Higher Education (HE) and Further Education (FE) institutions (both in the UK). In her experience, the HE environment offers more flexibility in the use of digital technology as part of the curriculum design than is the case in FE. This may reflect external factors in how these organisations are governed and funded. For example, in FE, there is a requirement to meet the standards of OfSTED (Office for Standards in Education, Children's Services and Skills). A national body, the Joint Information System Committee (JISC) has made several proposals to implement the Further Education Learning Technology Action Group (FELTAG) agenda, suggesting the use digital technology in Further Education to improve the learner experience (JISC, 2016, online), and aim to include at least 10% of online learning in every public-funded learning course from 2015/16; and an aim to increase online learning within these programmes to 50% by 2017/2018 (FELTAG report, 2012, p.23). Targets like this come with risks. Whilst evidence suggests an increase in online teaching and learning going back several years (Bonk & Zhang, 2006; Er, Özden, & Arifoglu, 2009; Skylar, 2009), the initial response was often to recreate traditional teaching methods in the online environment (Shi & Marrow, 2006). Simply replicating the teaching materials to an online environment does not make it a fully functioning online course. In the author's own experience, the combined pressures of the above meant that digital tools were used inappropriately or not to their full potential. They were introduced without consideration of people's existing digital competence. Some tools were implemented to 'tick a box' to meet online learning requirements, and often, tools were used without formal training.

Seventh, we can perhaps suggest the context of team culture and competence. The focus above has been on individual digital competences of academics and students. Still, the phrase 'course team' shows this is a collective endeavour, and variable levels of digital competences can affect the student experience. But there is also the team's culture to be considered. The DLU struck by the contrast between the two course teams when introduced to MS Teams: one team, law, were offered the team it and immediately started communicating with it; the other team, International Relations, requested a more formal briefing session.

2.2 Tool Use and the Context of Transactional Distance

However, looking at learner-learner, learner-content, and learner-tutor interactions is the impact of a tool on transactional distance, theorised by Moore (1989). Transactional distance is present when both the learners and instructors are separated by space and by time: "distance education is not simply a geographic separation of learners and teachers, but, more importantly, is a pedagogical concept" (1997, p.22). It focuses on the interaction between the learner and instructor based on the structure of the programme, dialogue, and learner autonomy, and how these can increase or reduce the

transactional distance. If, say, MS Teams offers, as an affordance, an easier way for learners to connect, it has the potential to reduce transactional distance; and if they do connect more, this potential has been realised. This platform reduces transactional distance and thus perhaps changes the relationships students enter into. Moore discussed three key components of the theory: programme structure, learner's autonomy, and instructional dialogue (communication). It shows how transactional distance occurs and the correlation between the key elements (for example, that dialogue, and structure are interconnected). Falloon (2011, p189-190) has characterised the components as the 'structure' of a course, its rigidity or flexibility as shown in the curriculum planning and consideration of assessments and the ability to accommodate individual student needs. Chung (2018) summarised learner autonomy as the student's sense of self-direction or determination and dialogue is referred to more than communication alone but also considers different types of interaction. Moore's three types of interaction (Moore, 1989, cited in So and Brush, 2008) focuses on the interaction between (a) learner-content interaction, (b) learner-instructor interaction, and (c) learner-learner interaction.

In our view, a potential for a reduction in transactional distance is the result of some of the affordances offered by MS Teams, for example, online collaboration and discussions. For example, as it is easier to use and flexible enough to support dialogue, offering a bilateral communication between the learner-instructor or learner-content, thus minimising transactional distance. This could also be related to the features in MS Teams which permit instant feedback, for example, polling responses. Feedback could also be gained by comments from peers and tutors through instant messaging or private chat function. One feature within MS Teams that allows the learner to directly notify the group or an individual is by the @mention function. This suggests the transactional distance is reduced between learner-learner and learner-instructor interaction as the notion of using the feature is to gain an immediate response. Other communication features such as instant messaging and emojis/animated GIFs/stickers are present to support interaction learner-learner interaction and learner-instructor interaction, enabling a calibrated support to learners on different places of the spectrum between autonomy and dependency. A more autonomous learner may not need constant dialogue if the structure of and navigation around the dialogue space is well designed. Some of the features of MS Teams, including conversation search, notification settings, real-time chat history, ability to follow channels (at the choice of the learner) are useful for personalising the student learning experience where there are different options to structure how they interact with the content, e.g. do they want immediate notifications? To bookmark a message for later? To search for a particular topic and comment later? MS Teams allows learners to pace the information available to them. Importantly, users do not need to be logged into the platform, as notifications can be sent to email accounts.

One example of how the design of MS Teams enables a reduction in the transactional distance for all interactions is instant messaging. The instant messaging feature supports multiple formats of communication, including voice/video conferencing, sharing of weblinks, comments, and emojis/animated GIFs/stickers. Furthermore, MS Teams store files to link accordingly (e.g. collaboration on SharePoint file) and customising tabs, e.g. present the relevant weblinks as tabs on channels for easy access. By setting up MS Teams appropriately using instructional design techniques, the learner-content interaction flows, and the content design is easier to navigate.

2.3 Collaboration Tools

It is worth reflecting on the affordances offered by collaboration and social media software in higher education. Firstly, approaches to pedagogy that are built on social learning theory would possibly lead to the belief that 'collaboration' in the online space is an instantiation of social learning, and the online collaboration space is thus the site for such learning to take place and relevant textual content to be created. Indeed, some DL courses at LBU have, for many years at PG level, used wikis in assessments. The distance learning Postgraduate Certificate in Education based on the idea that 'community is the curriculum'. Of course, this assumption might well be contested: it is not necessarily the case that students, for example, welcome collaborative assessments, or even collaborative working, if this is seen as leading to unfair work-sharing, free-riders; or there may be issues of social etiquette in 'critique-ing' fellow students' work. So, even treating collaboration software merely a 'tool' (with attendant situated practices) needs to be nuanced. What pedagogical and technical competences do academics have? What affordances are desired by academics, in terms of how they want students to perform, as students, and students and are these compatible? How do students engage in the spaces created? If we consider platforms as providing spaces, what are their boundaries? Iredale et al. refer to the lack of appreciation of the social/professional divide in student/academic use of social media; familiar online spaces were not seen as 'academic' in the same way as institutional ones; that there may be different norms for social presence in each space.

As well the hoped-for pedagogical benefits, there is an aspiration that the use of social media and collaboration might respond to online students' expressed desire for student community (Hewson, 2018). Student 'Facebook' communities might provide a sense of belonging, but if these are entirely self-selected, they might marginalise those not 'invited' to join, highlighting divisions rather than erasing them. However, if social media are used for educational purposes, and in some way are official, Universities cannot avoid their responsibilities over equality and inclusiveness, and the legal and ethical concerns over the extent to which learning content and students' journeys can be mined for data for social media companies. Universities have data collection needs: recorded engagement with digital systems and content can be used as evidence of 'participation' which might involve learning, or performance of behaviours taken as a proxy for it (Gourlay, 2015 [2]).

Finally, it might be supposed that collaboration is expected in workplaces and so, therefore, common sense would suggest embedding this in courses. This again requires nuance to understand that collaboration 'for work' may be very different from collaboration for academic practice. Microsoft (2018) claims that business usage of MS Teams has doubled in two years, that real-time 'chat' applications are expanding as they offer functionality that email cannot, and that larger business are adopting it more quickly than smaller business. Anecdotally, at recent validation events for LBU distance learning courses, external members have welcomed the use of MS Teams as it is either used in the workplace or other tools like Slack. Whilst course collaboration might not inevitably translate into workplace norms and hierarchies, there is an implicit 'employability' benefit.

Following from above were two implications for our MS Teams pilot. Firstly, the use of collaborative and community-building software needs to occupy a space between the inadequate 'discussion board' offered by VLEs and the unstructured free-for-all of social media so that students are not forced into clunky discussion boards, on the one hand, or forced to use 'their own' spaces for 'governed' academic purposes. One can almost envisage it as a multipurpose space such as a 'park' with different areas operating under differing rules. Secondly, given the enormous flexibility of the MS Teams, and its general-purpose nature there needed to be a governance regime over its adoption.

3. Results and Discussion

3.1 Piloting MS Teams

The type of innovation and implementation strategy adopted for MS Teams has been influenced by the factors above. What follows results from these deliberations. A new student record system such as Banner is specialised and mission-critical. It needs a fully planned, institution-wide effort to change things over, and an established standardised level of understanding and competence depending on the roles of people using it. This is a centrally directed project. This might be contrasted with the rapid adoption of social media platforms, such as Facebook or LinkedIn, by students and academics, outside the perimeters of the University's systems. The growth of usage, in this case, might perhaps be modelled via diffusion of innovation approach, with take-up growing as a result of marketing, ease of use and network effects (the more people on it, the more useful it is). In other cases, where software is not mission-critical at an institutional level, but potentially beneficial at a course level, the key is to get people to adopt them if the user affordance calculus can be managed in the right way or if there is sufficient user affordance desire to make an effort. One might, therefore, hazard a suggestion that different institutional strategies are therefore needed to ensure the adoption of a 'tool' such as MS Teams by assessing how MS Teams can be calibrated against the above.

At LBU, the introduction of non-compulsory collaboration software, MS Teams, by distance learning courses has fallen somewhere between the requirements of 'central direction' like a new student record system, or something that can be simply 'made available', by a pure diffusion of innovation approach in which the entire functionality is offered, unmediated, to academics with the injunction to 'be creative'. Perhaps we can coin the phrase 'directed diffusion of innovation', more nuanced than 'phased rollout' (which still implies institution-wide agency from the centre) to describe our approach to MS Teams. Whilst not mission-critical for the institution, it has proved desirable for some courses, and, indeed, mission-critical for other courses. The 'burning platform' stimulating the move was the end of Google's support for its community's platform and the move to office 365 for all students. Unmet affordance desire was the expressed dissatisfaction with the VLE collaboration platform. It is also viewed as potentially satisfying the affordance desire surrounding some aspects of student engagement. This led the user time/affordance calculus to change.

3.2 The MS Teams Project

MS Teams was first offered to LBU as part of the rollout of office 365, which included Skype for Business, which MS Teams may eventually replace. Unlike the VLE, which Leeds Beckett is 'owned' by Libraries and Learning Innovation (LLI), MS Teams is 'owned' by Information and Technology Services (ITS), a different set of stakeholders to work with. ITS had managed major projects such as the Banner upgrade and the rollout of Skype for Business and office 365 to staff and students, major institution-wide projects, for comprehensive adoption.

The MS Teams project was part of a roll-out of Office365 to all staff and all students. The advertised attractions of MS Teams in terms of staff benefits were its role as an additional communications channel, its potential role as a community-building device in course cohorts, a reduction in email traffic, a private network enabling GDPR compliance, the ability to work synchronously and asynchronously, collaborating in real-time, and use as discussion. Benefits to students were advertised as the digital capabilities' potential for course collaboration, employer focus, better communications with other students, and device neutrality offering mobile and desktop access. Features of MS Teams allow it to be used as a synchronous tool, an attribute that is well documented to enhance participation in DL courses (Hrastinski, 2008). Teams had already come with certain templates (e.g. Classes) built-in, but its use in a course might be: as a collaborative online educational forum for students to contribute and participate in module discussions; as an online social space allowing for 'safe' discussion; as a repository and file exchange platform that allows students to share and collaborate on course documents and resources.

Rather than just 'switch it on' the implications of a free for all in terms of student experience and IT administration, a pilot approach was needed, and the chance to pilot was offered to a mix of courses and services. Across LBU, there were 30 pilot projects running in the academic year 2018-19. The main objective of using Teams varied between the pilots, with the breakdown as follows: seventeen Team sites supporting activity within professional service departments (8) or collaborative activity across more than one department (9); seven MS Team sites supporting academic staff groups to aid course coordination or academic leadership; six MS Teams sites including students. These team sites support academic delivery, typically focused upon using the discussion board function to aid collaborative work and peer to peer support.

DLU volunteered because, as a small but technologically aware department, DLU is used to piloting new things, and being digitally competent. Therefore, as first-line users, we could see how it would work in a department. DLU was also a 'channel' through which the innovation would 'diffuse' in a directed way to the course teams with whom DLU is a trusted partner (a claim validated by internal surveys), as DLU's Academic Instructional Designers combined, in their roles and expertise, both pedagogical and technical competences. Therefore, DLU was a useful mediator not only in providing a communications channel through which this technology could be disseminated to DL courses, shaping the adoption of this technology in distance learning course teams.

3.3 Departmental Adoption of MS Teams

The DLU is a relatively small department of thirteen people but occupying adjacent physical spaces. The team deals with many different projects. Some team members work from home for a certain number of days a week and are physically present elsewhere in the University with clients. However, they are not virtual service or outworkers. The view of DLU management is that 'sharing' different experiences of course teams and innovation are crucial to its effectiveness and that close personal interaction would be facilitated by contiguous physical spaces where everyone has a geographical home. DLU had used a Google Community but had concerns with its user-friendliness and the inconvenience of multiple sign-ins and so on. When DLU looked at MS Teams, the main attractions were the existence of channels for different subjects and conversations, the ease of adding files and links, the existence of private and group chat, and the familiar social interface were the main attractions.

Furthermore, email notifications made it easier to carry on with other work, out of the Teams environment, but still linked. Since that time, other features have been added, such as video conferencing. Within DLU, there were many different types of existing conversation in the team, a mix of places where data was stored, whether related to projects or administration and only the occasional use of communities to start discussions.

MS Teams is 'general purpose' in that many things can be done with it, and it can be set up in different ways. The DLU's MS Teams implementation was integrated into our methods of collaborative working, information sharing, and daily communications, in effect becoming an additional virtual space, complementing our physical spaces for communication

and collaboration and, eventually, replacing the virtual environment where data is stored. It is perhaps an extra ‘room’ in our office set up.

Channels (the name in Teams) were built around our core areas of work, and most frequent areas of communication including specialist use such as technical troubleshooting (where team members ask each other for advice); temporary channels for projects (such as migration to SharePoint); a channel for strategic themes, such as Academic Digital capability; channels to post or ask feedback on or research interests of team members (e.g. virtual and mixed reality, eLearning tools etc.) to enable sharing of outputs, and gathering of comments; pressing forward the ‘environmental agenda’. A ‘general’ channel was set for departmental announcements or requests. A ‘DLU Chat’ channel was set up explicitly to provide an easily accessible space for informal communications for example photographs of weddings, pets (cats, especially), and children, the reliability of local rail operators, the relative merits of local fast-food outlets and so on. ‘Contentious’ subjects have not been posted. Within DLU, the notion of transactional distance does not arise. However, DL team members are now entangled in MS Teams implementation, and the work of the department is textualised, visible and collective in a way it was not before.

DLU members engaged well. One member said it had ‘created a more community feel... rather than constant email... keeping up to date with other people’s projects... share information easily’. Other comments referred to the value of its use on multiple devices, seeing older conversations, and the social-media style ‘like’ options and related emojis which provide instant feedback hit. Even in a small department, with people often working in close physical proximity at least some of the time, team members have identified clear benefits in terms of information sharing, collaborative working and file storage, and community. Such clear ‘pragmatic’ functional benefits, deriving from a better user time/affordance calculus were clear, simply as it made far more convenient and ‘natural’ those processes and digital communications that were clunky or too much hassle to manage. Less certain is whether MS Teams has simply satisfied existing unmet needs, or whether it has created new opportunities for sociability and collaboration that had not been envisaged before. As well as a more effective communication tool, MS Teams textualises, and hence makes a visible record to the management of the social and intellectual life of the office, otherwise be less accessible or indeed ephemeral. It is not clear whether this traffic has simply moved from using emails into a more appropriate space. This visibility might be a good or bad thing, depending on indeed management culture and practice.

Other considerations arise if apply Tuckman’s [1965] model, which offers four stages in team development: forming, norming, storming and performing. DLU is already in the ‘performing’ stage and used to working as a team, owing to co-location and the culture of knowledge and expertise sharing. Culturally and managerially MS Teams was seen as a good fit. An example of MS Teams in the ‘forming’ and ‘norming’ stages is in LBU’s Advisory Network for IT projects, to collect stakeholder input on IT initiatives. This governed space, standardised documentation, and strict archive practice is for people who are not a work team but have to communicate occasionally.

Other considerations apply when MS Teams as a device for courses where students and tutors come together for the first time. A cohort of students working on a course is not a ‘work team’ as one might understand it. DLU’s second engagement has been pilots’ pilot was the involvement of DLU in applying MS Teams to a module on several courses. In one course, it was offered to a team which had already made use of Slack: not surprisingly, the course team did not wish to change over as the user time/affordance calculus did not make it worthwhile. The DLU’s second pilot was with the MSc Psychology (top-up) a long-established course, staff experienced in online delivery, high satisfaction ratings in the Postgraduate Taught Experience Survey. The course team agreed to choose one module, ‘Working and Living in a Social World’. There were 67 students and two academics on the course. DLU’s aspirations, based on working with this at a departmental level, were that MS Teams would satisfy multiple affordance desires: it would improve engagement, develop an active learner community, facilitate collaborative working and resource sharing. This is because it provided a secure professional network but was also accessible with a good mobile learning experience that provided a synchronous feel to asynchronous communication, enabled a focus on collaborative learning and gave students more control. (As mentioned above, synchronous learning can improve participation.)

The experiment was a very simple one, which allowed a clear comparison between the course with MS Teams and without MS Teams, without radical changes acting as noise which would filter out. DLU and the course team removed from the VLE all existing discussion board activities and Topic Questions and Answers, replacing them with MS Teams, thus providing a ‘like for like’ comparison with the two experiences. There was clear signposting in the VLE, and students were told that they were part of a pilot. It was explained to them that, whilst Teams has a social media ‘feel’, it was more

secure. The pilot set up also involved creating channels, amending the VLE, populating the channels, and providing a secure way for students. The DLU's perspective, as online learning specialists were largely positive. Manual enrolment was time-consuming but will be automated, and work needs to be done to integrate Teams in the VLE and registry systems. DLU also noted a need for being discipline around the academic practices of releasing content, enrolment, and announcements.

Students on this module had already experienced the VLE, and there were measurable and suggestive changes in their behaviour. 16% more posted to Teams than the previous year, with nearly two-thirds saying they were more likely to contribute to a discussion in MS Teams than in the VLE. They particularly liked the social media style, but also basic features such as email notifications seamlessly appearing in office 365 made it more user-friendly, without total immersion in the sight. 91% also wanted it used on other modules. The experience of academic staff was also changed. There was only one student query by email in ten weeks, showing the extent of migration to the new platform, as this appeared in MS Teams. Academic colleagues reported the MS Teams felt more 'conversational' and generated more 'discussion' than normal 'discussion boards'. It is quite possible that MS Teams draws on skills people have developed by working with social media, and so existing norms and social practices shaped this engagement albeit in a 'professional environment'; it is possible that the type of 'conversation' between 'learners and learners' and 'learners and tutors' may differ from more directed or limited encounters in a discussion board. It is more than a replication of a virtual conversation though – everything is recorded, and it is not yet clear how far students go back, what additional use they make of the conversations, and so on. All of these are fruitful subjects for later research. Of course, it was important to set expectations – instant feedback and response are not possible, whereas this might be expected by how some platforms work. This suggests developing the right sort of practice around the tool is a social process as much as a technical one.

In a module for Law, MS Teams were activated before student enrolment to allow staff an opportunity to test the tool. There was no formal training offered to the staff prior to their access to the tool. To our surprise, expecting hesitancy and resistance, within the first day, the course leader and all confirmed module leaders contributed and posted on MS Teams. Most shared entries not only in the welcome activity but also more informal introductions (often involving photos of pets) in the 'Social Chat' area. Following enrolment, students have also posted and shared their circumstances about what brought them to study Law. These contributions help staff understand how Distance Learning students differ from the classroom students and offer a far richer relationship between academic and student. Through positive interactions on MS Teams, the transactional distance was reduced through asynchronous dialogue that mimics synchronous conversations. There were some cases where the implementation did not work successfully. In another pilot where a networking group of academic advisors (led by student services and academics), piloted MS Teams as a tool to encourage peer to peer support. The academics involved in this pilot preferred using the VLE as a student hub and thought their use of MS Teams duplicated the announcement function. There was an assumption that, because students are familiar with the use of social media technology, they would be comfortable to use MS Teams. It became apparent towards the end of the pilot that the expectation of the student role was not established clearly, and the engagement between peers was not fostered. Academics were more familiar with the VLE and thought MS Teams was a duplication of the notice board.

4. Conclusion

DLU's view is that MS Teams chances of a successful implementation will be higher if there are some key principles adhered to, and these involve attention to the social and teaching practices in which the 'tool' is used. As with any software implementation, we need to consider the rules, practices and aesthetics of the discipline; user digital competence in the context of learning practices; mission criticality; user affordance desire and user time/affordance calculus. These factors will express themselves in very variegated ways in different course teams or departments. Hence a directed diffusion of innovation approach, based on digital competence, was the mode chosen for LBU. Moreover, there will be an interplay between the existing culture and communication practices of an existing Team that adopts MS Team, and the affordances MS Team offers. It is suggestive that MS Teams' features, such as blending both synchronous and asynchronous, and its use on multiple devices, incorporation in emails, might reduce perceived transactional distance.

Although community building is social, the MS Teams technology, can, depending on one's choice of metaphor, act a prosthesis, supercharging social effort, or provide a conveniently safe, and comfortable space where communication flows can naturally occur without being directed outside. Although MS Teams supports learning community, a social channel, as in DLU, can foster engagement. It is almost certainly not the case that student groups will migrate their social interactions – as students - into such a space. Still, it is possible that the more informal aspects of learner-learner

interaction (as learners) might migrate into this more secure, private space, integrated with other academic systems. Of course, there are other technical issues to manage, for example, retention and archiving policies (for record-keeping, GDPR), naming conventions, who and how individual MS Teams are created. MS Teams might not, of course, be the optimal approach to all courses, depending on the learning needed, the type of learning community created, and user competence.

4.1 Further Practice and Further Research

The first strand of further work is the implementation of MS Teams on more courses, as a matter of necessity, for example, LBU's distance learning Post Graduate Certificate in Education, which already uses a 'community of learners' as part of its curriculum. This is a very different proposition than postgraduate distance learning. The second strand is a more formal research project conducted by LBU's Carnegie School of Education and LBU's School of Events, Tourism and Hospitality. This will be a formal 'mixed-methods' study following the lived experience of forty distance learners from three postgraduate courses and their uses of teams. The study will seek to identify the impact of a 'less formal' collaborative digital technology for use in taught course modules and the legacy it has for both peer-to-peer and student-staff engagement and collaboration. The role of the teacher will also be explored and the implication for teaching and learning in this new-age learning environment. MS Teams will be embedded in the three postgraduate courses involved in the research. The advantage of this approach is that three different postgraduate courses offer a diversity of students and a mix of disciplines and assessments. This might show how MS Teams is better suited to some courses than others, or if external conditions influence its effectiveness.

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