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Student support services in open, distance and flexible education

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From Place to Virtual Space: Reconfiguring Student Support for Distance and E-Learning in the Digital Age

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Abstract

This article examines the impact of digital technologies on student support in distance and e-learning, drawing on the case of Open University UK. Giving a historical perspective on the use of technologies in learning over many centuries, it argues that the dominant paradigm of geography -which has defined the structures for student support services in second generation distance education- has now been overtaken in digital distance and e-learning contexts by the more powerful affordances of learning design. The article examines in detail the issue of student drop-out as the major challenge for student support in distance and e-learning, and argues that educational mission, not mode of delivery, is the more powerful explanatory driver. The article proposes that student support should now be understood as integrated with teaching and assessment, not separately organised structurally and professionally.

Keywords: e-learning; distance education; learning analytics; learning design; online learning; student drop-out; student support

Introduction

This article seeks to put perspective on the ways in which support to students should be reconceived in the digital age for distance and e-learning (ODL), using the case of the Open University UK (OU UK). Despite information and communications technology (ICT) having over the last 20 years had a very substantial impact on ODL, many assumptions and understandings about student support have survived in whole or in part from the 1980's and are still being actively promulgated or unreflectively reproduced. In particular this is true in the disaggregation of student support from learning and teaching. The need for such reassessment is due both to the fact that while practice has moved on, scholarly analysis has not adequately done so, and secondly that practice itself in some second generation distance teaching institutions has not yet fully made the far-reaching changes that the digital revolution offers.

In 2002 I was guest editor of a special issue on student support in the *International Review of Research in Open and Distance Learning*. In the Editorial for that issue I attempted to assess continuity and disjuncture in ODL and in particular in student support after the first 10 years approximately of the digital revolution in our field (Tait, 2003). I concluded that there were a number of continuities, in particular the continued relevance of Moore's theory of transactional distance (Moore, 1993) and the role of the tutor in supporting students. I also commented that the impact of ICT -as we then termed the digital technologies- on e-learning systems might make them "qualitatively improved albeit not qualitatively different," although I emphasised the impetus given to the then increasingly influential notion of constructivism in the ways in which ICT made learner-to-learner as well as student to tutor interaction easier. I also commented that "In terms of learning skills, the term 'connectivity' might cover not only technical access, but the development of the broader range of literacies to function effectively within the community of e-learners," presaging the innovations now grouped under the term "connectivism."

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In the same year Thorpe asked pertinent questions about the conventional boundaries between learner support and the then still new practices of computer-mediated communication. In particular she noted presciently that, where computer-mediated communication is designed as an integral part of the course, the separation of learner support and teaching breaks down (Thorpe, 2002).

More than a decade has passed since those assessments, and the changes made possible and driven by technologies adapted for learning offer qualitatively different opportunities and demand new solutions to the question as to how we incorporate student support into learning design in online learning contexts.

From place to virtual space: diminishing the constraints of place and time

It is important to place the changes for learning driven by the digital revolution in a longer term perspective, and then more specifically to link these to the student support dimensions of distance and e-learning. There is a significant continuity in the distancing of learning and human experience from the limits of the local from the very beginning of history which is relevant to the contemporary issues to which student support in distance and e-learning should respond. We can start by tracing the impact on human relations in early Babylonian records of harvests, sacrifices, and geography from the 3rd millennium BCE. These texts began to distance human beings from oral culture and dependence on memory, as they provided records from one year to the next which could be used for learning about and management of, amongst other things, agriculture and ceremonies. They offered the beginning of "data," manipulated arithmetically, systematically providing information for record. They distanced people from the constraints of the moment by providing abstracted "facts" from experience. While these were predominantly local records, in ancient Egypt in contrast we saw the creation of libraries, in particular the famous library of Alexandria in the 3rd century BCE, a great collection of major texts for consultation by scholars, drawing not on the locality but on the whole world of knowledge as it was understood at that time. The Middle Ages in Europe saw the artisan production of books, moved from one monastery or court to another. This began in a limited but significant way to accelerate mobility of knowledge, and further distanced a small number of the élite from the constraints of the local. The invention of movable print by Gutenberg in Germany in 1439 began the process of much wider availability of text, and its mobility in book form, to a more literate population in Europe, accessing foundational societal texts such as the Christian Bible, along with religious and political argument, drama and poetry, travel books, etc. from across the continent as a whole.

The stage coach and, in the 19th century, the railway provided accelerators to mobility of print, and supported pioneering forms of interaction with learners separated from their teachers. These technological advances led to the initiation of correspondence education with the "affordance" of the postal system, recorded in a course as beginning in Boston, Massachusetts as early as 1728, while the railway in the UK offered from 1840 or so the further possibility for Pitman's first course with its speedy and reliable distribution of teaching materials and return of assignments (Holmberg, 2005, p. 13). Both courses, separated by more than a century, taught shorthand, and were in other words practical and vocational courses to support students' livelihoods. The enormous expansion of the reading of fiction later in the 18th century, supported by more industrialised processes of print production and distribution, gave widespread access to the lives of others, developing understanding that lives from backgrounds other than one's own had value. This, it has been argued, led amongst other things to the conceiving of human rights, which later included education, in revolutionary France (Hunt, 2007). The introduction of an efficient public postal system in the UK from the mid 19th century led to the widespread practice of lengthy and frequent letter writing to

friends, colleagues and family geographically separated, representing culturally the forerunner to Holmberg's propositions for empathetic and didactic conversation in correspondence teaching (Holmberg, 1983).

The telephone, more and more widely available during the 20th century, with its initiation of synchronous conversation across enormous distances, accelerated the access from the local to much wider experience on a regular basis, and from the 1980's began to be adapted for telephone teaching in distance education contexts. The advent of the radio and then the television gave access every day to a realm of global experience mediated by professional broadcasters, so that daily experience was lived not in one place any longer but at a number of levels, local, regional, national and international, which is the contemporary experience for the majority in developed countries today. This has been radically accelerated in the 21st century by the Internet, with its provision of resources from all around the world.

This summary history provides a brief account of the ways in which technologies of text, print, transport, electricity, radio wave and the digital have provided escape from the restriction of human experience to the local and the synchronous to the much wider global and asynchronous dimensions to which we are now accustomed. It is a huge cultural change, accelerated by the digital revolution in the last 30 years in ways that have been dramatic and challenging, that have provided wonderful and rewarding opportunities for many, and new forms of oppressive hierarchy for those who have not been able to move at the speed of what is now the majority (viz. the digital divide). Asynchronous access to the non-local represents of course the distinguishing features of contemporary distance and e-learning, as they were of correspondence education some 175 years ago. These technological developments with their incorporation and adaption into educational systems have all begun with minorities of their population as users, and have all been resisted culturally by those who found their own definitions of learning and educational systems disrupted.

Such a summary also makes clear that technology has been closely associated with changing the human experience of learning and education systems for millennia. The educational system of the last 50 years in particular depended on technologies as much as those which we pioneer today, albeit different ones. The residual sources in distance and e-learning literature that continue to resent the disruption of e-learning are prisoner to the assumption that the technologies of the 1980s were features of an imagined natural world. In some senses this is understandable: the speed and the far-reaching implications for education of the digital revolution have surprised those of us who did not grow up with it. But in others ways the digital revolution represents, as I hope I have demonstrated, a strong continuity in the ways in which technologies have for thousands of years changed human experience and offered access to new ways of learning for individuals, at the same time changing institutions and educational systems.

This long-term process has been termed "disembedding" by Giddens (1990), who elaborates it as being:

> The lifting out of social relations from local contexts of interaction and their restructuring across indefinite spans of time-space.

Disembedding makes it possible for the individual to "leave" her or his community in a metaphorical sense, as many have privately done over the last 300 years through reading. Leaving home for university was a physical act of leaving the local for wider perspectives. Distance and e-learning now provides social mobility in much more organized ways out of the local without actually leaving the community. The ambivalence of such journeys away from original community for the socially mobile individual is recorded in fiction such as Hardy's *Jude the Obscure*, and may well be familiar to readers of this article personally or in the lives of their students. The downside of social mobility of course is that it leaves the residual community impoverished in the absence of its more

enlightened and enterprising members. This is the broad context in which I propose we examine change in the support of learners in distance and e-learning systems.

Student support in distance and e-learning

From the historical perspective we can place student support within the generations of distance education, using the technologically-led approach of Nipper (1989), the institutional history analysis of Peters (2004), and the pedagogical frames of analysis of Anderson and Dron (2011). First generation or correspondence education was notable for its lack of student support. There may have been, as some have argued, a behaviourist background to this, assuming that the learner would be guided autonomously through the materials (Anderson & Dron, 2011, p. 2). There may also, in at least some of the private correspondence schools, have been an interest in recruitment rather than student success, which led to student support being conceived simply as an expense, not as a necessary investment. In reaction to this the Open University UK, which created from 1968 onwards one of the first second generation multi-media learning and teaching systems, invested very substantially in student support (more detail is given below). Analysis as to what role student support played within the pedagogy of second generation Distance Education included the recognition of the humanity of the individual learner, and the identification of the affective dimensions of the learning experience, along with the cognitive and systemic dimensions (Tait, 2000, p. 289).

The tutor's role in second generation distance education was developed particularly powerfully from 1971 on, within the OU UK and elsewhere, as central to the student support system, in order to provide individual support to students both subject specific and supportive of progress and success. The tutor's role at the OU UK can be summarised as including:

- Providing individual support through teaching and grading of assignments, the core vehicles for learning;
- having a key role therefore within the assessment scheme in the ultimate recognition of learning through credit and qualification;
- paying particular attention to the progress and success of individual students, both through response and intervention;
- providing opportunities for social learning where possible in groups, and a dimension of the local and familiar through a face to face contribution to learning;
- providing support with regard to administrative and other systemic issues.

Such approaches were later termed "constructivist," in particular in the role that the tutor played in relation to the creation of meaning for individual students in the mediation of the learning materials. The deployment of part-time tutors allowed the necessary scale of open university operations to be realised, with centrally produced teaching materials supported by a cohort of local part-time tutors whose task was not the construction of curriculum but the support of learners through the modules.

Significant in the construction of the learner support system of the OU UK, as with other major open universities, was the creation of a range of study centres where support was delivered on as local a basis as possible, together with a regional centre infrastructure to support them along with other devolved operational tasks (Tait, 2004). Core to the concept of support to students was the need to be near, and in the pre-digital period of distance education near necessarily meant geographically near (see Figure 1).

This structure for large scale distance education necessitated the separation of the curriculum creation system from the student support system. While there were systemic connections through the invited presence of regional staff at central meetings, these worked weakly before the digital

England
1 London
2 South (Oxford)
3 South West (Bristol)
4 West Midlands (Birmingham)
5 East Midlands (Nottingham)
6 East (Cambridge)
7 Yorkshire (Leeds)
8 North West (Manchester)
9 North (Gateshead)
13 South East (East Grinstead)

10 Wales (Cardiff)
11 Scotland (Edinburgh)
12 Ireland (Belfast and Dublin)

Figure 1: Open University UK Regional and National Centres, 2013

era, as geographical distance made it impossible for the centralized curriculum creators to be closely into touch with the day to day lives of the students on their courses distributed across the UK and Europe. While the affordances of the digital era now make this division unnecessary, the pace of institutional change means that the regional structure is still in place, and some of contemporary literature on student support which separates it from the rest of the learning and teaching system remains unrevised. Student support now has the imperative to become an integrated part of the overall curriculum design and learning and teaching system, and no longer a separate subsystem in its concerns, professional sub-groupings and scholarly literature.

This is borne out by an examination of the four historical phases of the Open University UK's main support models. These main phases have included:

1 1971–1976

i The local educational counsellor embedded in one of the 260 or so study centres in the UK, and linked to the student for her or his undergraduate career, supporting progress and course choice.
ii The module tutor, responsible for face to face and correspondence teaching, on as local a basis as possible dependent on cohort size and geography.
iii Support of Regional Centre staff to both counsellors, tutors and a subset of students (e.g. students with disability; students with low educational qualifications; students with specific difficulties).
iv Compulsory one-week residential schools on many modules, including all first year modules.

2 1976–2000

i The tutor-counsellor, with an integrated role for first year students of subject expert tutor at the same time with an educational counsellor role, the latter extending through the student career. Based in 260 local study centres in UK.
ii Subsequent modules also have subject expert tutors, with face to face tutorial and day schools on as local a basis as possible (in perhaps 12–50 centres in UK, depending on size of student cohort).
iii Support of Regional Centre staff to tutor-counsellors and tutors and a subset of students as above. Development of Regional Centre based educational guidance team to take on more of student advisory role.
iv Residential Schools, as above.

3 2000-present

i Subject based tutor for each module. No continuity of support through qualifications to individual students.
ii Support of Regional Centre staff to tutors. Development of Regional Centre based educational guidance team to take on more of student advisory role.
iii Sharp decline in the residential school requirements, with most degree pathways no longer having any.

4 From 2014 (planned)

i Tutor for each module, as locally based as possible with continued optional face to face meetings in majority of modules.
ii Student support teams, nationally based on qualification basis, to provide enhanced subject and qualification based expertise by phone and email, irrespective of geography in England (with an additional national dimension for Scotland, Wales and Ireland). The teams will have integrated subject, qualification and guidance focuses specific to a qualification group and over the duration of the study for that qualification. It is intended that some elements of continuity of concern can be provided through expert use of student records.

We can see in this account of the 4 models of development a number of features:

- the early move to integrate subject expertise with educational counselling and guidance in the first year;
- the importance of geography rather than subject as an organising principle from 1971 to 2013;
- the removal in 2000 of the notion, core until that point in the emerging accounts of student support at the OU UK and more widely, of the whole student, whose career through a qualification needed support on an individual basis, not just a module by module basis;
- the almost total decline of residential schools being seen as part of the norm of the student experience within an undergraduate qualification;
- the move from 2014 from geography as an organising principle to subject and qualification, delivered from one point wherever the student lives. Geography as an organising factor is for the most part removed, and the separation of student support from core subject based teaching ends. The division of labour in second generation distance education in the OU UK at least -which demanded that student support be separately organised -substantially finishes, as ICT makes place largely irrelevant.

This last phase can be linked to the changes arising from the “dance” of technology and pedagogy, with the movement from instructivism, through the current dominant models of constructivism to the affordances now able to support connectivism, as Anderson and Dron have noted (ibid.).

An observer of the Open University UK would however at this point in 2014 notice very little radical structural change. The regional office structure is still in place and the student support teams will be allocated to them, not on the basis of their regional identity however, but on workload

balance with responsibility for national not regional student cohorts. We can see, like fossils embedded in a cliff, the organisational history of student support in the university's contemporary structures. The professional sub-group which has identified itself as "Student support" will in the future need to integrate with those involved in curriculum design and delivery, with theories of student support now being subordinated to those overall of learning design.

Drop-out and distance and e-learning

Central to continuity in any discussion of student support in this field is that of student progression and student success, and their companion student drop-out. The issue of drop-out in distance and e-learning in particular has long been the subject of significant attention, both from those within the field and those sceptics from outside. Data within distance and e-learning institutions is often poorly managed, with definitions being inadequate and sometimes self-serving (i.e. drop-out counted from registration for final assessment rather than from registration from course; or module-only pass rates being counted rather than qualification achievement rates). Institutions often prefer to talk about recruitment rather than student achievement. At the same time, what counts for student success and failure is not always clear in lifelong learning contexts, especially in low cost fee environments. While it seems reasonably safe to say that module non-completion would count as failure, the extent to which students who do not complete qualifications may nonetheless have achieved enough important personal as opposed to institutionally defined goals for this to count as success, is much more difficult to ascertain (c.f. any discussion on learner outcomes from MOOCs).

A superficial approach to drop-out ascribes higher levels of drop-out to this mode of learning i.e. that distance learning is in itself a mode of learning and teaching that delivers poor quality results for poor students. A subset of this argument is that the move from second generation distance education to on-line learning has made this worse. The facts might at initial glance support such a conservative and backward-looking analysis. For example, in the UK context, the Higher Education Statistics Agency (HESA) reports drop-out in 2010/11 after the first year of study for full time students in the UK of 7.4%; part-time students 35.1%; and for the Open University 44.7% (HESA, 2013, Tables 3A and 3E). But if we dig further into the statistics, cause and effect are revealed to be a more complex set of phenomena.

Reported in the same HESA tables are the following more detailed data (table 1):

It is clear that drop-out for full-time students on conventional campuses differs very significantly according to where you study (table 1). Why would that be? The University of Cambridge recruit its students with the highest possible grades at Advanced ("A") level, the examinations taken to record progress at the end of school at age 18 or so. It is reported that students from a state school with

Table 1: Non-continuation of full-time students after first year of study 2010/2011 in UK Universities

	Young	Mature	All
United Kingdom (total)	6.3%	11.6%	7.4%
University of Bolton	14.8%	15.6%	15.2%
University of Highland and Islands (UHI)	14.6%	11.8%	12.7%
University of Cambridge	1.6%	6.8%	1.8%

Source: drawn from HESA, 2013, Table 3A

free school meals (a poverty marker) have odds of entry to the Universities of Oxford or Cambridge of 2000-1, where from a private fee-paying school the odds are 20-1 (Social Mobility and Child Poverty Commission, 2013, p. 5). It is clear that for the University of Cambridge, as is evident from the same report for the most highly selective universities in the UK more generally, the aim to recruit is least ambitious in terms of wanting to expand opportunity beyond its hitherto traditional audiences of the intellectual élite, which it can be discerned substantially overlaps with the social elite. Social justice is not evident in the outcomes of its recruitment strategy. If we compare universities such as those in Bolton or the University of Highland and Islands (UHI), we can surmise that a range of other factors are in play. For example, neither university asks for top grades in most subjects as a condition of admission. Bolton has a significant multiethnic ambition and achievement, on a scale entirely different from Cambridge or Oxford, and has a clear aim to include its local population in higher education. The UHI, on the other hand, has the challenge of geography, offering a range of flexible opportunities to students living in the Highlands and Islands of the north of Scotland. Far from being necessarily being denigrated for their drop-out, these universities should in the first place be congratulated on their educational ambition and their commitment to inclusion and social justice.

Further data from the same tables make clear that the most significant marker in terms of higher drop-out is whether the student is full or part-time. As is well understood, part-time students have a range of challenges, including most of all the need to balance work, family and study in ways that are much less likely to impact on the lives of full-time students (even in these days when many full-time students work part-time). Other factors that are significant in the same tables from HESA (2013) include: relative poverty of neighbourhood; age (with mature students doing worse than school leavers); and previous educational experience. Thus we see the variables are not to do with mode in itself, but with the lives of the students, and derive primarily from their social, cultural and financial capital.

If we focus on part-time students as the most relevant category for distance and e-learning, the Higher Education Funding Council for England (HEFCE, 2009) reported on part-time student completion for the years 1996–97 (table 2).

It has been overlooked in some accounts of qualification completion at the OU UK (see Simpson, 2013, p. 7) that the Funding Council had earlier in the same report qualified those figures by stating that

> (. . .) around half of part-time entrants in the years 2003–04 to 2006–07 in this OU population begin first degree courses, and half begin modules for institutional credits (. . .) If it is assumed that a similar split between first degree and institutional credits occurs in the earlier years of the OU time series, and that a large proportion of those embarking only on institutional credits do not intend to and do not gain a first degree, the true underlying rates of first degree completion for OU entrants are likely to be double the results reported in the following sections of this report (HEFCE, 2009, p. 13).

If this were true it would mean that the OU UK completion rates were ahead not behind the part-time completion rates in the rest of the sector. We can at least say that the true figure of

Table 2: Part-time student completion UK 1996/1997

Part time completion 1996–97	First degree awarded	No longer active
UK Higher Education Institutions (non OU)	39%	59%
OU	22%	75%

Source: drawn from HEFCE (2009) p14

qualification completion for the Open University in the period reported on lies in the range of 22–44% of students. But, as we see that even the Funding Council has difficulty establishing accurate data, this above all reinforces the danger of making over-simple assertions about facts, let alone causes.

We should also make clear that entry requirements of the OU UK are categorically different from the rest of the sector. Some 45% of first year undergraduate entrants have one A level or less, that is less than the standard entry requirement for higher education of two A levels (Open University, 2013). This means that simple comparison with the rest of part-time Higher Education in the UK is misleading. The Open University UK has deliberately from its inception in the first year of teaching in 1971 sought to have an admissions policy that is at the very opposite end of the spectrum from, for example, the University of Cambridge; that is, to include those who want to study, not select those it chooses to study. The difference in drop-out rates in the UK across the range of full-time study programmes, part-time study programmes and those which use distance and e- learning is not the mode, it is argued here, but the nature of the educational enterprise. It lies in summary in the nature of the university's mission: the risk the institution chooses to take in teaching students in pursuit of inclusion and social justice.

Reforming student support in the digital age

None of this however takes away the need to challenge and reflect on the quality of the support students can have in an institution: if we allow students to take risks with their time, money and self-esteem we have an obligation to help them achieve their goals as effectively as possible. The account above of why there is variation across the sector of full-time, part-time and distance and online modes should not be allowed to hide poor practice, or excuse a lack of focus on the centrality of student success to institutions that base their identity above all on their teaching mission. We need to examine evidence from students such as that gathered by Street (2010), which indicate their understanding of the major causes of failure to progress in online learning. These include (Street 2010):

- time pressure
- self-management
- family
- logistics and support (including technical support)
- curriculum relevance

Inadequate educational preparedness would also surely need to be added as a factor. It is this set of barriers to success, lying both within and outside the institution's direct control, that have to be acknowledged in any account of how students should be supported. It is noteworthy that the issues that lie within the institution's control do not suggest separation of teaching, curriculum and student support. The reform of student support needed for today's distance and e-learning does not lie in the reform of student support as we had it, but, as the case of the Open University UK demonstrates, in its reformulation for a digital era.

Third generation distance education: the integration of student support with teaching

The impact of ICT has profound implications for the integration of teaching and student support. The substantial demise of geography as an organising principle represents one dimension. The ability for learners to source and create content rather than having content delivered represents another. This latter cannot be overestimated as a radical change for pedagogy, and thus for student

support. In second generation distance education content had to be delivered as students did not have access to academic libraries or to lectures. The Open University used the metaphorical figure of the lighthouse keeper as its notional learner: teaching had to be delivered in ways that permitted the person in the lighthouse to study successfully without coming off the rock on which on the lighthouse stood.

The advent of the web permits a whole range of innovative and supportive teaching approaches, pioneered in computer-mediated conferencing reported as early as 1989 (Mason & Kaye, 1989). In addition the affordances of the web permit:

- the use of video embedded in course materials, supporting a wider range of learning styles and being effectively integrated with teaching and assessment;
- the development of computer-based conferencing beyond text to include oral and visual dimensions, invaluable in, for example, language teaching and practice-based programmes;
- the development of virtual scenarios, including science laboratories and health settings, to support real-life skills taught at a distance;
- the development for the first time of team and presentation skills in distance and e-learning environments. These skills are needed for remote use in many professional contexts;
- the creation by students of social media such as wikis, blogs, podcasts, and videos, and the use of peer-to-peer learning.

Over and above all else, the need to move the preparation of teaching materials from content provision to the design of learning pathways where students are more responsible for finding and evaluating sources, and creating resources, is most significant. The skills needed for effective performance in these areas are needed by graduates in all subjects for personal, citizenship and livelihood goals. Whatever the difficulties of access, it is unthinkable that institutions should not seek to educate their students in these practices. Distance and e-learning is particularly well established to lead in this field (see Blashke, Porto & Kurtz, 2011, for an account in one Masters Programme).

Creelman and Reneland-Forsman (2013) identify the most significant contribution to reduction of drop-out in distance and e-learning lying in the effectiveness of learning design, supporting the notion that the dominant factor does not derive from the mode of study being full-time, part-time or online. They observe that, on a dual-mode campus, some examples of drop-out in an on-campus programme are worse than on a parallel e-learning programme. Learning design in online contexts has the potential to integrate the learning and teaching strategy with learner support in ways that have significantly more potential than the division of labour that separated them in second generation distance education. As institutions pull themselves out of constructivist and towards connectivist pedagogy, the ways in which support to students can be given changes. As responsibility is more and more shared with and between learners, diminishing the hierarchy of subject expert, so the new practices of learner analytics are being developed as the back-system to diagnose and identify when and how learners might need support, deriving from learning within, not separate from, the module or programme. The idea that intervention might follow the identification, for example, that a student has not submitted an assignment, is not new. It has however far more effective possibilities in the digital era, of real-time data collection and intervention. The use of big data practices drawn from commercial and customer-service settings allows an online learning system in real, not postal time, to “live with” a student as s/he completes online assessment tasks, and respond with offers of help where the student is not achieving learning outcomes. There has been widespread use in Higher Education for some 10 years of Student Lifecycle and Relationship Management Systems to provide systematic support for managing the quality of large-scale campus operations (JISC, 2008). More recently Learner analytics have begun to demonstrate in ODL contexts how

they can follow a student as s/he engages with learning materials, and alert a tutor to the fact that the student has not yet engaged with part of the course within the expected timeframe. Learner analytics can remind students of core concepts later in the course, and help reinforce their learning. In summary, learner analytics embed learner support within the learning design of the course, making it easier for the learner to engage with an integrated system that is readily available and immediately relevant to the learning task in hand. Accounts and theories of student support thus become embodied in accounts of learning design, rather than stand-alone parts of distance and e-learning.

Conclusion

The adoption of contemporary technologies by distance education, I have argued, is not at all new, and in particular the development from second generation distance education of the 1980's to the adoption of ICT in e- or online learning in the 21st century is not by this fact alone breaking new ground. Student support which sought to enhance the learning experience and diminish drop-out was constructed with the use of technologies in second generation distance education as much as it is now in third generation systems. Further, drop-out does not derive primarily from mode of study but from the nature of the risk embodied in the educational mission of the institution to include a wider range of students. The ways in which student support was organized in second generation distance education, where geography was of necessity a primary organizing factor, have however to be reconceived in order through the deployment of ICT to be able to reintegrate student support with curriculum and assessment. The classic accounts of distance education systems, which separate subsystems for learning materials and student support, now have to be revised (see Rumble, 1997, p. 6). It is in this imperative, exciting and creative task that the future of an improved vision of student support lies, integrated with curriculum and assessment, in the larger field of learning design. This will make significant demands of second generation institutions, which will need to demonstrate the institutional resilience identified as essential in managing the fast moving environments of technology change and policy (Weller & Anderson, 2013). If second generation institutions do not take advantage of the revised framework in which student support should now be conceived, this absence will provide a window of opportunity where new entrants to e- and online learning will leapfrog their predecessors with an improved student experience.

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References

Anderson, T. & Dron, J. (2011). Learning Technology through three generations of technology enhanced distance education pedagogy. *European Journal of Open, Distance and E-Learning*, *2011*(2). Retrieved from http://www.eurodl.org/?article=523

Blashke, L., Porto, S. & Kurtz, G. (2011) Online teaching and learning with social media: The MDE perspective. *Distance Education Quarterly, 8*(11), 2–3. Retrieved from http://issuu.com/dehub/docs/dehub-newsletter-no-8-winter-2011

Creelman, A. & Reneland-Forsman, L. (2013). Completion rates—a false trail to measuring course quality? *European Journal of Open, Distance and E-Learning*, *2013*(2). Retrieved from http://www.eurodl.org/?article=583

Giddens, A. (1990). *The Consequences of Modernity*. Cambridge: Polity Press.

HEFCE. (2009). *Part-time first degree study. Entry and completion*. Retrieved from http://www.hefce.ac.uk/pubs/year/2009/200918

HESA. (2013). *PIs: non-continuation rates*. Retrieved from http://www.hesa.ac.uk

Holmberg, B. (1983). Guided Didactic conversation in distance education, in D. Sewart, D. Keegan & B. Holmberg. (Eds.) *Distance Education: International Perspectives*. London: Croom Helm.

Holmberg, B. (2005). *The evolution, principles and practices of distance education*. Oldenburg, Germany: BIS-Verlag der Carl von Ossietzky Universität. Retrieved from http://www.uni-oldenburg.de/fileadmin/user_upload/c3l/master/mde/download/asfvolume11_eBook.pdf

Hunt, L. (2007). *Inventing Human Rights*. New York: Norton.

JISC. (2008). *Landscape Study of Student Lifecycle Relationship Management*. Retrieved from http://www.jisc.ac.uk/media/documents/programmes/jos/slrm_report.pdf

Mason, R. & Kaye, A. (Eds.) (1989). *MIndweave, Communication, Education and computers*. Oxford: Pergamon.

Moore, M. (1993). Theory of Transactional Distance, in D. Keegan (Ed.). *Theoretical Principles of Distance Education* (pp. 22–38). London: Routledge.

Nipper, S. (1989). Third generation distance learning and computer conferencing, in A. Kaye & R. Mason. (Eds.). *Mindweave, Communication, Computers and Distance Education* (pp 63–73). Oxford: Pergamon.

Open University. (2013). *Facts and figures*. Retrieved from http://www.open.ac.uk/about/main/the-ou-explained/facts-and-figures

Peters, O. (2004). *Distance Education in Transition: new trends and challenges* (4th edition). Oldenburg, Germany: Carl von Ossietzky Universität. Retrieved from http://www.uni-oldenburg.de/fileadmin/user_upload/c3l/master/mde/download/asfvolume5_4_ebook.pdf

Rumble, G. (1997). *The Costs and Economics of Open and Distance Learning*. London: Kogan Page.

Simpson, O. (2013). *Supporting Students for Success in Online and Distance Education* (third edition). Abingdon UK: Routledge.

Social Mobility and Child Poverty Commission. (2013). *Higher Education: the Fair Access Challenge*. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/206994/FINAL_Higher_Education_-_The_Fair_Access_Challenge.pdf

Street, H. (2010). Factors Influencing a Learner's Decision to Drop-Out or Persist in Higher Education Distance Learning. *Online Journal of Distance Learning Administration, 13*(4). Retrieved from http://www.westga.edu/~distance/ojdla/winter134/street134.html

Tait, A. (2000). Planning Student Support for Open and Distance Learning. *Open Learning, 15*(3), 287–299.

Tait, A. (2003). Reflections on Student Support in Open and Distance Learning. *International Review of Research in Open and Distance Learning, 4*(1). Retrieved from http://www.irrodl.org/index.php/irrodl/issue/view/15

Tait, A. (2004). On Institutional Models and Concepts of Student Support Services; The Case of the Open University UK, in J. E. Brindley, C. Walti & O. Zawacki-Richter (Eds.). *Learner Support in Open, Distance and Online learning Environments* (pp. 283–293). Oldenburg, Germany: BIS-Verlag der Carl von Ossietzky Universität.

Thorpe, M. (2002). Rethinking Learner support: the challenge of collaborative online learning. *Open Learning, 17*(2), 105–119.

Weller, M. & Anderson, T. (2013). Digital Resilience in Higher Education. *European Journal of Open, Distance and E Learning*, *2013*(1). Retrieved from http://www.eurodl.org/?article=559