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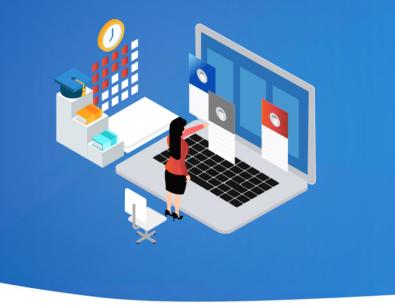


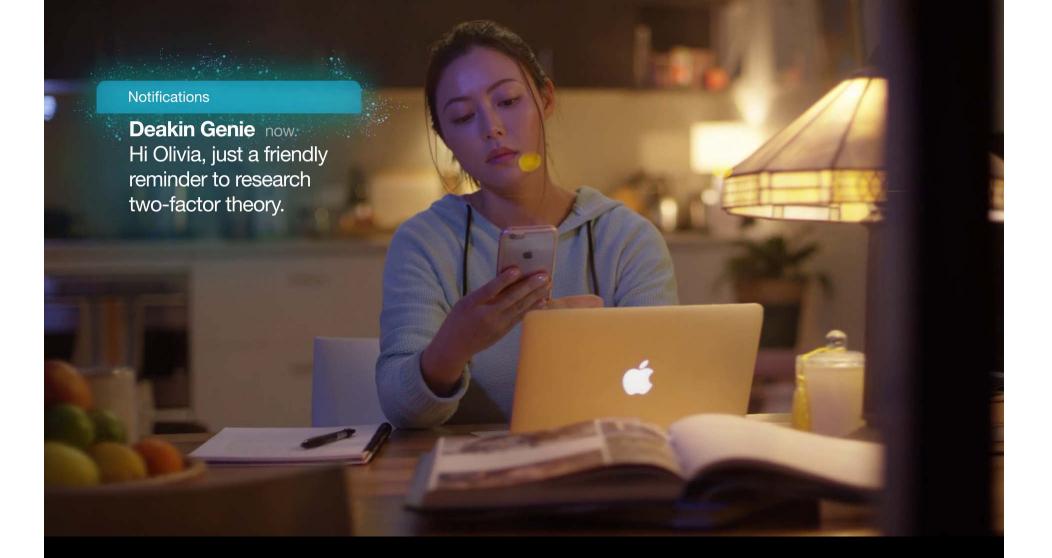
Student Attendance Management System

From Thumbs to Cloud, enjoy Automated control of

attendance







Student Interactions with University Information Technology

| Use Learning Management Systems | Accept Offer of Admission |
|--|---|
| Check Admission Status | Access Course Content |
| Online Collaboration | Send Standardized Test Scores |
| Manage Housing and Meals | E-textbooks |
| Use Campus-wide Wi-Fi | Social Media as a Learning Tool |
| Apply for University Housing and Dining | View and Request a Degree Audit report |
| Register for Campus Events | Search Tools |
| Foundation and Alumni Association Interaction | View Midterm/Final Grades |
| Apply for Graduation and Finalize Diploma Information | Purchase Athletic Tickets |
| Use Mobile Device as Identification | Fill out Employment Information for a Campus Job |
| Fill out Timesheet for Campus Job | Utilizing Laptops/Tablets/Mobile in the Classroom |
| Change Academic Major | Accessing Recorded Lectures |



| View and Request Advisor Information | Personalized Dashboards |
|--|--|
| View and Request a Transcript (Academic History) | Review and Pay Tuition, Fees and other Bills |
| Fill out an Admissions Application | Email |
| Progress Alerts | Campus Maps |
| Access Campus Portal | Career Center |
| Finalize New Student Items (Examples: Health Insurance, Identity Card) | Submit Thesis and other Graduation Documents |
| Change and Maintain Bio/Demo Information | Success Analytics |
| Register for Classes | Competency-based Education |
| E-portfolios | 'What If' Program Research and Advisement |
| Access Financial Aid Award Letter; Accept and Check on Financial Aid | Fill out Electronic Direct Deposit for Campus job |
| Access Library Resources | Register as a Prospective Student (Recruit) |
| Search for Classes in Course Catalog | Coursework Completion |

idealistic

realistic

state of the art

state of the actual

<nothing to see here>

'It's Complicated'

<nothing to see here>

Being constructively critical

#1. LANGUAGE MATTERS!

ENHANCED

ENHANCED

ENHANCED

ENHANCED

MEANINGFUL

IMPACT

MEANINGFUL



MEANINGFUL

IMPACT



Admissions Dig

Subscribe Free

Trending: Swirling Career Pathways Accreditors Under Trump

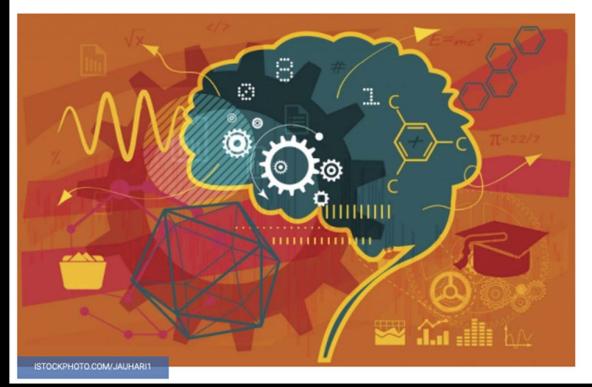
#Inside Digital Learning

Learning Engineers Inch Toward the Spotlight

What is a learning engineer, and how is it different from other roles?

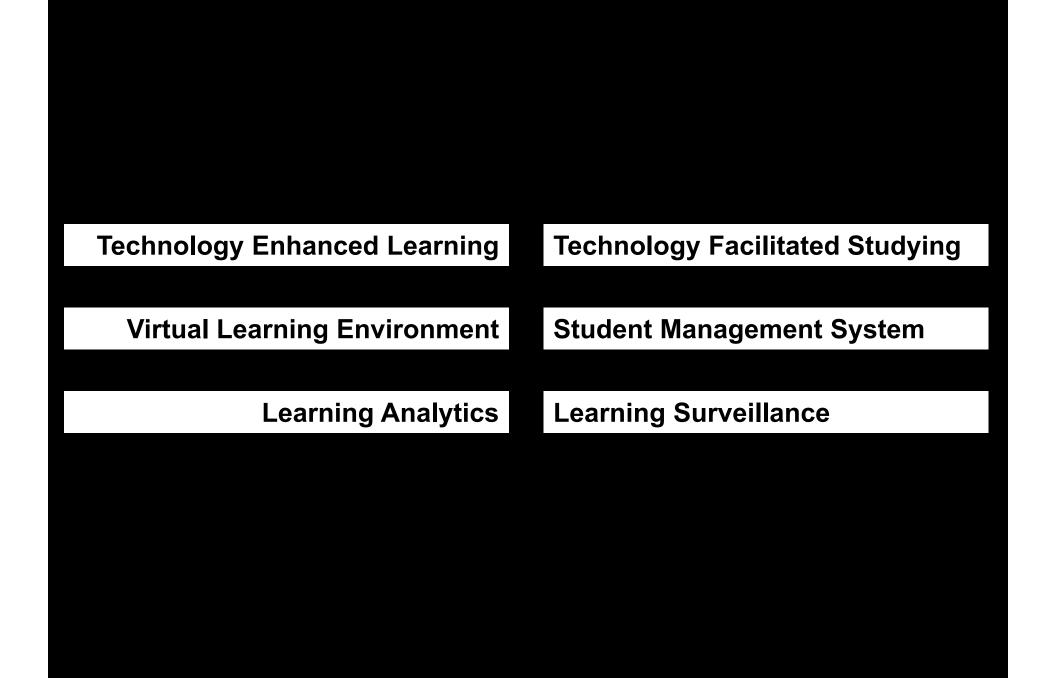
By Mark Lieberman

// September 26, 2018





seeing 'TEL' in sociotechnical terms



#2. CONTEXT MATTERS!

Student as Individual

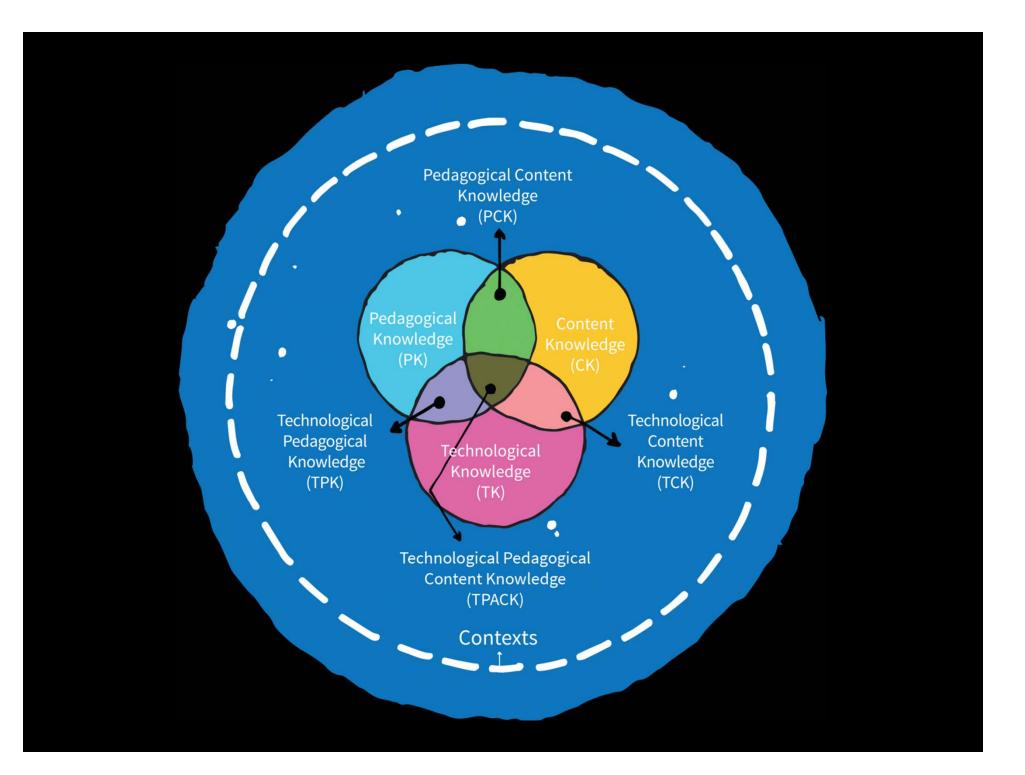
- Theory: Constructive (Individual)
- Students learn by actively exploring the world around them, receiving feedback and drawing conclusions.

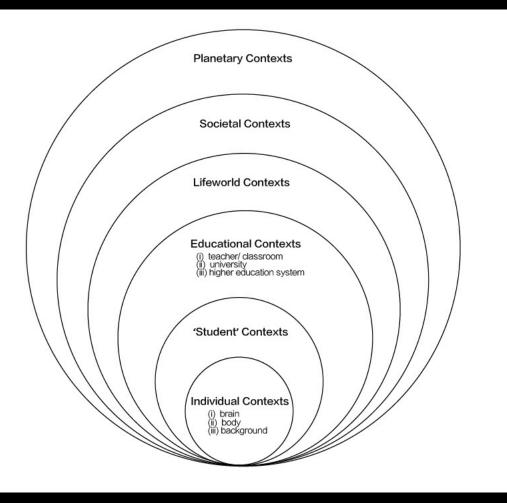
Student as Social Being

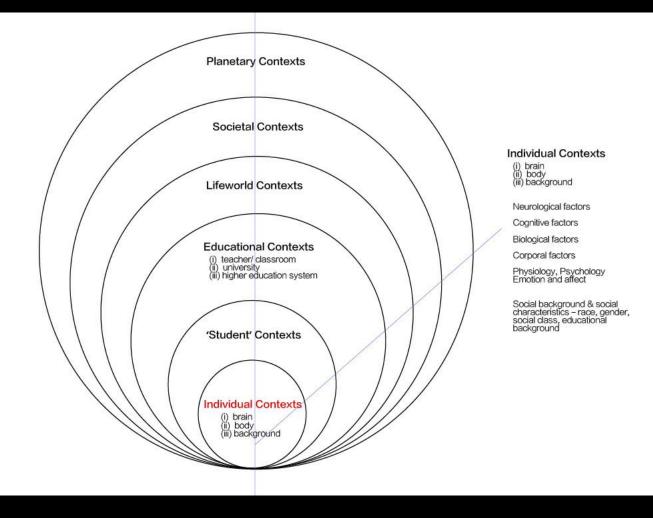
- Theory: Constructive (Social)
- Students learn by engaging in dialogue and developing a shared understanding of concepts with peers and instructors

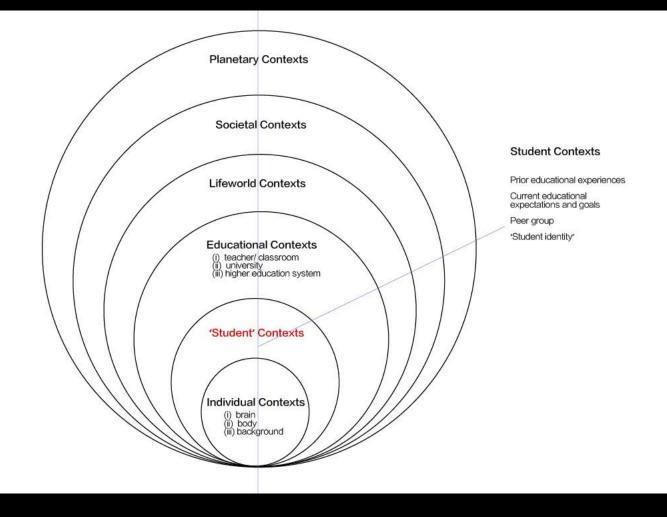
Student as member of community/ citizen

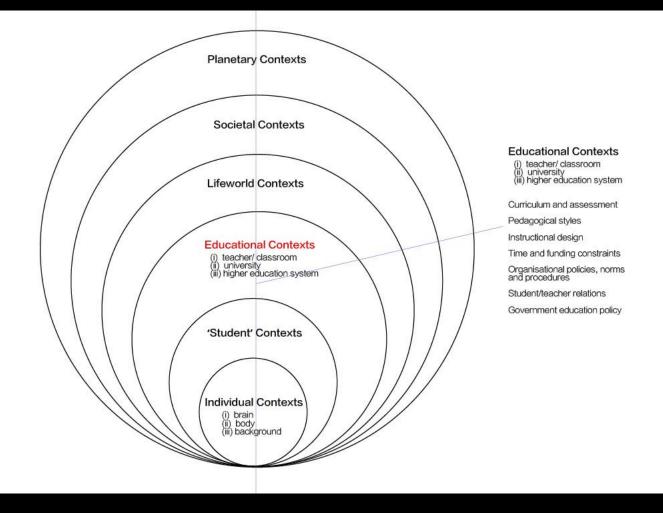
- Theory: Situative
- Students learn by participating in communities of practice, progressing from novice to expert through observation, reflection and mentorship. The context of learning is authentic.

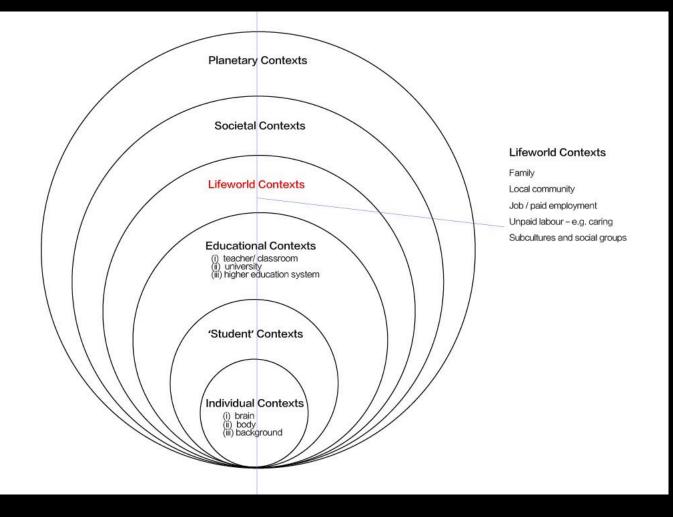


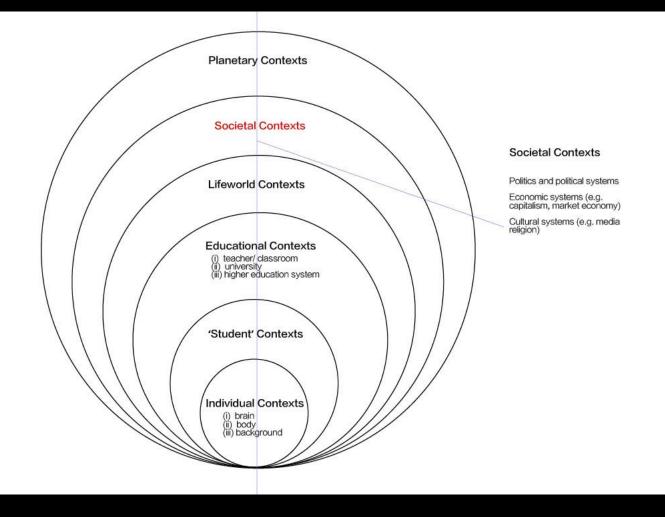


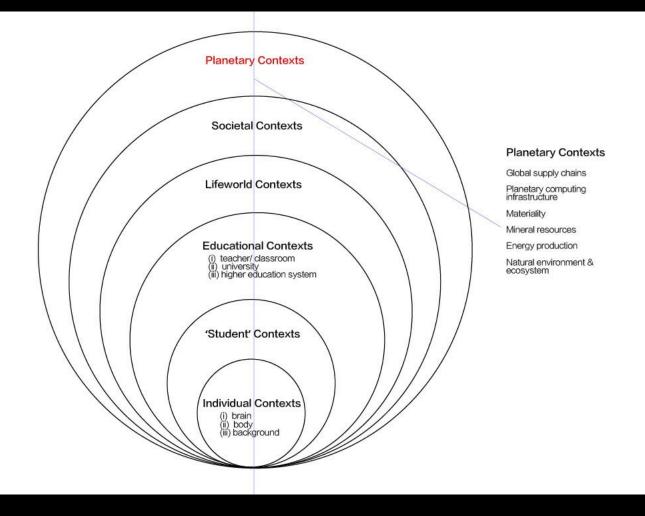


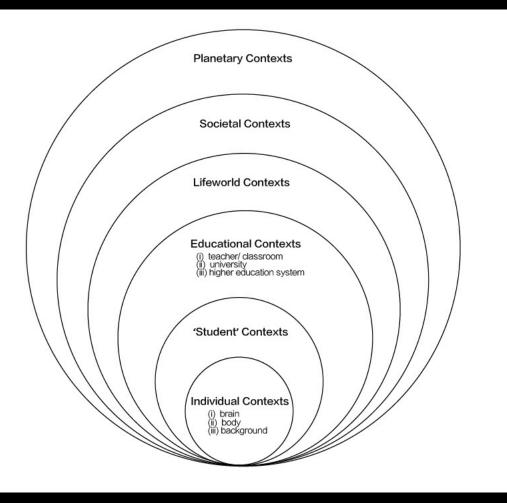


















Studies in Higher Education

Editor & Loni Maak Associate Editor: July: T.E. Richardson

SRHE Society for Research Into Higher Education Studies in Higher Education, 2017 Vol. 42, No. 8, 1567–1579, https://doi.org/10.1080/03075079.2015.1007946 Routledge Taylor & Francis Group

What works and why? Student perceptions of 'useful' digital technology in university teaching and learning

Michael Henderson, Neil Selwyn* and Rachel Aston

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Digital technologies are now an integral aspect of the university student experience. As such, academic research has understandably focused on the potential of various digital technologies to enable, extend and even 'enhance' student learning. This paper offers an alternate perspective on these issues by exploring students' actual experiences of digital technology during their academic studies - highlighting the aspects of digital technology use that students themselves see as particularly helpful and/or useful. Drawing on a survey of 1658 undergraduate students, the paper identifies 11 distinct digital 'benefits' - ranging from flexibilities of time and place, ease of organizing and managing study tasks through to the ability to replay and revisit teaching materials, and learn in more visual forms. While these data confirm digital technologies as central to the ways in which students experience their studies, they also suggest that digital technologies are not 'transforming' the nature of university teaching and learning. As such, university educators perhaps need to temper enthusiasms for what might be achieved through technology-enabled learning and develop better understandings of the realities of students' encounters with digital technology.

Keywords: student experience; technology; internet; undergraduates; student conceptions

Introduction

Differences have long persisted between the well-proven *potential* of technologyenabled learning and the less consistent *realities* of technology use within university teaching and learning. On the one hand, the potential of digital technologies to enhance student learning has been well established. Benefits include the enhanced diversity of provision and equity of access to higher education, alongside the increased efficiency of delivery and personalization of learning processes. Much enthusiasm has also surrounded the development of digital technologies along increasingly personalized, remote, adaptive and data-driven lines. Digital technologies of this nature are clearly integral to the future of university education around the world.

The imperative for technologically driven forms of higher education is seen to be exacerbated by the changing backgrounds and dispositions of the people now entering universities as undergraduate students. While the crude essentializing notion of the 'digital native' who was 'born digital' has been rightly criticized, the belief remains among many commentators that incoming cohorts of university students are more

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What forms of digital technology use do undergraduate students report as being notably helpful or beneficial in terms of their university studies?

What are the characteristics and contexts of students' beneficial technology use?

What meanings and wider connotations related to university study and the student experience are associated with these perceived benefits?

| | Used as part of university studies | Reported as 'Useful' or 'Very Useful' | Reported as 'Very Useful' |
|--|---------------------------------------|---|------------------------------|
| Learning Management System | 99.8 | 94.8 | 57.8 |
| Use internet search engines to find information | 99.4 | 96.9 | 68.3 |
| Library website | 98.2 | 83.4 | 40.2 |
| Use library online resources to find information | 97.2 | 93.7 | 66.2 |
| Watch or listen to audio recordings or videos about your subject/ discipline (e.g. YouTube, Vimeo) | 92.8 | 84.4 | 40.6 |
| Search for papers/journals on non-university provided scholarly websites | 91.8 | 81.5 | 45.7 |
| Use social networking sites for working with other students on your courses (e.g. Facebook) | 89.0 | 74.8 | 36.5 |
| Finding information through Wikipedia | 87.5 | 65.3 | 24.0 |
| Other university websites | 84.0 | 52.3 | 11.9 |
| E-books or e-textbooks | 83.9 | 76.8 | 37.6 |
| Use web-based document for working with other students on your courses (e.g. Google Docs, Wikispaces | 73.6 | 71.5 | 33.9 |
| Web-based citation/bibliography tools | 72.3 | 63.3 | 31.3 |
| Freely available courses and educational content from outside of my university (e.g. i-Tunes U, Khan Academy, OERs) | 65.6 | 64.6 | 29.8 |
| Simulations or educational games | 57.2 | 52.1 | 18.6 |
| Software specific to my study area | 56.9 | 64.3 | 28.4 |
| Twitter | 48.1 | 14.5 | 3.5 |

 Table 1. Students' use and perceived usefulness of digital technology resources in relation to their university studies.

Note. Data are percentage of sample (n=1658) responding to each survey item.

| Practice | Description | Digital devices/ practices most cited in relation to this factor | per cent citing |
|---|--|---|-----------------------|
| Organizing & managing the logistics of studying | Managing schedules, timetables, fulfilling deadlines and course requirements, 'keeping in the loop' re. university and course information and news. | Learning management system as repository of resources & information. | 46.9 |
| Flexibility of place & location | Flexibility of location, ability to engage 'remotely' with academic work off- campus, engaging at a distance and not having to be 'present', being able to be mobile, portability of university work | Library databases and library websites; Laptop computers. | 32.7 |
| Time-saving | Saving student time, quicker processes, more immediate outcomes, convenient scheduling of activities. | Writing notes/ word-processing; Library databases and library websites; Online assignment submission. | 30.6 |
| Reviewing, replaying & revising | Catching up on missed material, repeating viewing of materials to improve understanding | Lecture recordings (audio/video) of university lectures. | 27.9 |
| Researching information | Researching information for assignments; quantity and quality of information access | Library databases and library websites; | 27.9 |
| Supporting basic tasks | 'Easier' writing of assignments; 'easier' and 'helpful' information management and retrieval of resources | Writing notes/ word-processing; General internet search engines (e.g. Google). | 26.4 |
| Communicating & collaborating | Asking questions and exchanging information; working with other students; sharing ideas; preparing group work. | Facebook and other social networks; Google docs, wikis, collaborative documents. | 16.8 |
| Augmenting university learning materials | Watching lectures, tutorials and talks from outside university; cross-checking and comparing with other sources; 'going elsewhere'. | Watching videos from sources outside university; Wikipedia | 14.6 |
| Seeing information in different ways | Visualizing concepts through video, animation or annotations; allowing real- time lecturer demonstrations and 'board work' in lectures; | Watching videos from sources outside university. | 11.7 |
| Cost saving | Saving money and expenditure | E-readers, online journals and books | 4.4 |
| Gauging a sense of progress | Identifying gaps in understanding and knowledge; seeing what other students think; being tested; receiving feedback | Clickers, live polls in lectures; Quizzes. | 4.2 |

Table 2. Cited reasons for digital technology being particularly useful in relation to students' university studies

| Organizing & managing the logistics of studying | Managing schedules, timetables, fulfilling deadlines and course requirements, 'keeping in the loop' re. university and course information and news. | Learning management system as repository of resources & information. | 46.9 |
|---|--|---|------|
| Flexibility of place & location | Flexibility of location, ability to engage 'remotely' with academic work off- campus, engaging at a distance and not having to be 'present', being able to be mobile, portability of university work | Library databases and library websites; Laptop computers. | 32.7 |
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|------------------------------------|---|--|------|
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| Communicating & collaborating | Asking questions and exchanging information; working with other students; sharing ideas; preparing group work. | Facebook and other social networks; Google docs, wikis, collaborative documents. | 16.8 |
|--|--|--|------|
| Augmenting university learning materials | Watching lectures, tutorials and talks from outside university; cross-checking and comparing with other sources; 'going elsewhere'. | Watching videos from sources outside university; Wikipedia | 14.6 |
| Seeing information in different ways | Visualizing concepts through video, animation or annotations; allowing real- time lecturer demonstrations and 'board work' in lectures; | Watching videos from sources outside university. | 11.7 |
| Cost saving | Saving money and expenditure | E-readers, online journals and books | 4.4 |
| Gauging a sense of progress | Identifying gaps in understanding and knowledge; seeing what other students think; being tested; receiving feedback | Clickers, live polls in lectures; Quizzes. | 4.2 |

I'm not a morning person. Having online lectures helps me with time management because I can fit the lecture when I can (829).

'Video Lecture' enables me to access online lectures if I am unable to attend lectures on campus. To be completely honest I have only attended one lecture on campus and very rarely use 'Video Lecture' but it is definitely the most USEFUL service. (523)

THE INTERNET AND HIGHER EDUCATION



Internet and Higher Education 28 (2016) 28–34 Contents lists available at ScienceDirect



Internet and Higher Education

Students' use of Wikipedia as an academic resource – Patterns of use and perceptions of usefulness



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^b School of Education, Durham University, UK

A R T I C L E I N F O A B S T R A C T

Article history: Accepted 23 August 2015 Available online 5 September 2015

Keywords: Wikipedia Undergraduates Survey Wikipedia is now an established information source in contemporary society. With initial fears over its detrimental influence on scholarship and study habits now subsiding, this paper investigates what part Wikipedi a plays in the caademic lives of undergraduate students. The paper draws upon surve data gathered from students across two universities in Australia (n = 1658), alongside follow-up group interview data from a subsample of 35 students. Analysis of this data suggests that Wikipedia is now an embedded feature of most students' study, although to a lesser extent than other online information sources such as 'YouTube and Facebook. For the most part, Wikipedia was described as an introductory and/or supplementary source of information — providing initial orientation and occasional calrification on study topics. While 875.86 students reported using Wikipedia, it was seen to be of limited usefulness when compared with university-provided library resources, e-books, learning management systems, lecture recordings and academic literature databases. These findings were notably pattermed in terms of students' gender, year of study, first language spoken and subject of study.

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1. Introduction

As many internet users will be aware, Wikipedia is an online encyclopaedia provided in an open format where users can create, amend and delete entries and information as they feel fit, Perhaps the most appropriate source of background information about Wikipedia is Wikipedia itself. Here we learn that (at the time of writing) 288 different language versions of Wikipedia have been established since 2001, with the original English-language version remaining the largest with over 4.6 million articles. The Anglophone version of Wikipedia hosts around 23 million user accounts and nearly 75,000 active editors. These figures are dwarfed by the usage statistics associated with Wikipedia. As the sixth most used website in the world, Wikipedia attracts over 18 billion page views and approaching 500 million unique visitors each month. In this sense, Wikipedia represents one of the largest and most recognizable reference resources of current times.

The role that Wikipedia plays in contemporary education has understandably become a topic of much debate and disagreement. On one hand, the educational value of Wikipedia has been velocimed by some educators. Wikipedia is seen as "a unique opportunity for educating students in digital literacy" (Okoli, Mehdi, Mesgari, Nielsen, & Lanamäki, 2014, p.2381). The website has also been heralded in terms of its

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http://dx.doi.org/10.1016/j.iheduc.2015.08.004

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democratization of knowledge creation (Konieczny, 2014). As John Willinsky (2009, p.xiii) has argued:

"Today a student who makes the slightest correction to a Wikipedia article is contributing more to the state of public knowledge, in a matter of minutes, than I was able to do over the course of my entire grade school education, such as it was".

In contrast, a variety of concerns have been repeated regarding the quality of information on Wikipedia — most notably its accuracy and scope (Denning, Horning, Parnas, & Weinstein, 2005), as well as students' varying abilities to make discerning and critical use of Wikipedia content (Shen, Cheung, & Lee, 2013), Nevertheless, by the beginning of the 2010s Wikipedia was beginning to be seen as an accepted – if not wholly welcomed – feature of higher education. As Head and Eisenberg (2010, n.p.) conceded:

"Wikipedia meets the needs of college students because it offers a mixture of coverage, currency, convenience and comprehensibility in a world where credibility is less of a given or an expectation from today's students".

These debates need to be contextualized against the emerging empirical literature on the realities of students' digital technology use in education. Indeed, any discussion of students' use of Wikipedia needs to be set as part of the wider literature on information-seeking behavior with electronic sources (e.g. Nicholas et al. 2009) – particularly online media that support the creation and sharing of user-generated To what extent is Wikipedia being used - and valued as useful - by undergraduate students?

How does Wikipedia use and usefulness vary between different groups of students e.g. in terms of subject disciplines, age and stage, gender, educational attainment, cultural and linguistic diversity and so on?

What role can Wikipedia be said to play in the academic lives of undergraduate students?

| | Used as part of | Reported as | Reported as |
|---|--------------------|------------------------------|---------------|
| | university studies | 'Useful' or 'Very Useful' | 'Very Useful' |
| Learning Management System | 99.8 | 94.8 | 57.8 |
| Use internet search engines to find information | 99.4 | 96.9 | 68.3 |
| Library website | 98.2 | 83.4 | 40.2 |
| Use library online resources to find information | 97.2 | 93.7 | 66.2 |
| Watch or listen to audio recordings or videos about your subject/ discipline (e.g. YouTube, Vimeo) | 92.8 | 84.4 | 40.6 |
| Search for papers/journals on non-university provided scholarly websites | 91.8 | 81.5 | 45.7 |
| Use social networking sites for working with other students on your courses (e.g. Facebook) | 89.0 | 74.8 | 36.5 |
| Finding information through Wikipedia | 87.5 | 65.3 | 24.0 |
| Other university websites | 84.0 | 52.3 | 11.9 |
| E-books or e-textbooks | 83.9 | 76.8 | 37.6 |
| Use web-based document for working with other students on your courses (e.g. Google Docs, Wikispaces | 73.6 | 71.5 | 33.9 |
| Web-based citation/bibliography tools | 72.3 | 63.3 | 31.3 |
| Freely available courses and educational content from outside of my university (e.g. i-Tunes U, Khan Academy, OERs) | 65.6 | 64.6 | 29.8 |
| Simulations or educational games | 57.2 | 52.1 | 18.6 |
| Software specific to my study area | 56.9 | 64.3 | 28.4 |
| Twitter | 48.1 | 14.5 | 3.5 |

Table 3. Students' use and perceived usefulness of digital technology resources in relation to their university studies.

Note. Data are percentage of sample (n=1658) responding to each survey item.

University attended: respondents from University A were 1.75 more likely to report finding Wikipedia useful than those from University B;

Year of study: fourth/final year students were more likely to report finding Wikipedia useful (1.0) when compared to students in Year one (0.39), Year Two (0.73), and Year Three (0.67);

Subject of study: students studying any subject than Education were more likely to report funding Wikipedia useful – i.e. Medicine (3.61), Sciences (4.09), Engineering (4.75), Business (2.69), Social Sciences (3.10), Law (2.46), Humanities (3.43), Creative Arts (4.56);

Traditional age students: (i.e. aged 20 years or less at entry) – were 1.93 more likely to find Wikipedia useful than mature aged students (i.e. aged 21 years or more at entry);

Working in paid employment: those also working in part-time paid employment were 1.58 more likely to report finding Wikipedia useful than those not working;

Amount of paid employment: 6 to 10 hours a week (1.70); 11 to 20 hours (1.03) and more than 20 hours (1.04).

An entry-level initial introduction to a topic or area of study

"I think usually uni readings are overcomplicated and do not explain things very straightforwardly. Wikipedia explain concepts clearly so that I am more able to understand the uni readings" (F, Uni A, STEM)

An unofficial source of clarification & interpretation

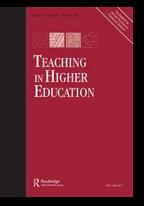
"For example, in sociology, some of the theories that you get, they're just worded so weirdly and you just don't understand what it means. So you just go to Wikipedia just to get a simple definition of what it is and an example of it. Then I can relate to what the author actually said" (M, Uni A, Non-STEM)

A bibliographic source

"I don't <u>cite</u> Wikipedia ... but I use the citations that they have there" (F, Uni A, non-STEM).

A last minute over-reliance

lower-level "simple tests, where you just have to remember content" (M, Uni A, non-STEM).



TEACHING IN HIGHER EDUCATION, 2016 VOL. 21, NO. 8, 1006–1021 http://dx.doi.org/10.1080/13562517.2016.1213229

Routledge Taylor & Francis Group

Digital downsides: exploring university students' negative engagements with digital technology

Neil Selwyn

Faculty of Education, Monash University, Melbourne, VIC, Australia

ABSTRACT

Digital technologies are now an integral feature of university study. As such, academic research has tended to concentrate on the potential of digital technologies to support, extend and even 'enhance' student learning. This paper, in contrast, explores the rather more messy realities of students' engagements with digital technology. In particular, it focuses on the aspects of digital technology use that students see as notably unhelpful. Drawing on a survey of 1658 undergraduate students from two Australian universities, the paper highlights four distinct types of digital 'downside'. These range from lowlevel annoyances and interruptions, to ways in which digital technologies are seen to diminish students' scholarship and study. Against this background, the paper considers how discussions of digital technology might better balance enthusiasms for what we know might be achieved through technology-enabled learning, with the often unsatisfactory realities of students' encounters with digital technology.

ARTICLE HISTORY Received 9 February 2015 Accepted 7 July 2016

KEYWORDS Students; digital; technology; student experience

Introduction

Digital technology is now woven deeply into the fabric of university teaching and learning – from the institutional provision of 'learning management systems' and ejournals to the widespread use of word-processing, email, Google and Wikipedia. Students' use of digital technology is now seen by many people *within* higher education as an unremarkable feature of contemporary university; an expected part of the routine of academic study and campus life. Conversely, digital technology continues to be discussed *outside* of higher education in portentous terms of systematic change and reform. Current cohorts of students are portrayed as having 'grown up digital', and therefore reliant on digital technology in ways that earlier generations were not (Prensky 2012). As such, universities are said to be struggling to keep pace with the 'disruptive' nature of new technologies and the demands of these ever more digitally attuned students (Losh 2014). All told, the over-riding sense is of the fundamental re-alignment and reform of university teaching and learning along digital lines.

CONTACT Neil Selwyn ⓒ neil selwyn⊜monash.edu ⓒ Faculty of Education, Monash University, 29 Ancora Imparo Way, Clayton, Melbourne, UK 3800, Australia © 2016 Informa UK. Ulmited, trading as Taylor & Francis Group What forms of technology use are seen by undergraduate students as unhelpful, and why?

What meanings and wider connotations are associated with these perceived 'downsides'?

Is there an increased sensitivity or vulnerability to these forms of technological 'failure' amongst particular groups of students?

| Theme | Description | Digital devices/ practices most cited in relation to this factor | %age citing |
|---------------|---|--|----------------|
| 'Distraction' | Technology as a distraction - diverting student's attention from work. | Social media (Facebook, YouTube) and Smartphones as a source of procrastination; other students' use of digital devices in lectures | 25.0 |
| 'Disruption' | Discrete instances of technology 'failing' to function - preventing students from working. | Lecture theatre projectors, lecterns, smart boards; lapses in internet connectivity, power failures, systems 'going down' | 27.7 |
| 'Difficulty' | On-going difficulties and inconveniences encountered when using technologies. Making it harder for students to work. | Inconsistent design of LMS pages and mandated software applications; physical strain and health issues; difficulty of note taking and reading through technology. | 23.5 |
| 'Detriment' | Technology leading to diminished forms of higher education - e.g. lower quality provision, compromised practices and experiences. | 'Death by PowerPoint' lectures, poor quality PDF and other forms of scanned documents; reduced breadth and depth of online discussion forums and online lectures; diminished obligation of teaching staff to engage with students/teaching obligations | 19.1 |

Table 4. Cited reasons for digital technology being particularly unhelpful/ unsuccessful in relation to students' university studies.

NB. Data are percentages of overall sample (n=1658). Respondents could cite up to three different reasons.



so what?

How many of our 'TEL' concerns are not about technology ... but about reforming our institutions?

How many of our 'TEL' concerns are related to issues outside of the university and/or the 'learner'?

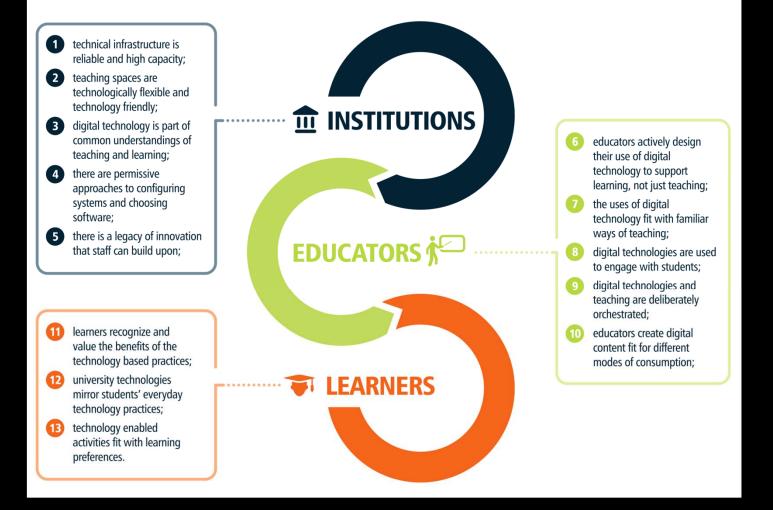
Is 'good enough' TEL all that can possibly be achieved?

Should we be spending more time acknowledging the things that EdTech <u>cannot</u> do ... and exploring how else these things might be achieved?

so what now?

Conditions for Success

Technology enabled learning is successful when...



<nothing to see here>