Key Themes
Digital Student/Learner Stories project

In late 2016, researchers for Jisc collected a series of 12 ‘learner stories’ from diverse learners engaged in UK HE, FE and adult/skills/apprenticeship learning. Short video clips were also recorded, highlighting key features of each learners’ experience. The stories and videos are important evidence in their own right and can be accessed here.

These stories focus on learners’ personal experiences with digital technology, their learning habits, and how they feel about digital issues in their learning. Learners were identified through contacts and forums. They are not in any sense a representative sample and while their experiences are diverse, they are all probably more digitally confident than the norm.

Learners were interviewed at least once using a semi-structured interview schedule. The resulting transcripts were coded thematically, some themes arising from the schedule and others being found across the scheduled questions. This descriptive analysis aims to put the learners’ own voices to the fore in each thematic category.

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1. Benefits of digital learning

Inclusion

Several of our stories illustrate how learners with disabilities and health issues can meet their potential if they have the digital tools they need. Inclusive approaches also benefit learners without a disability. Many of our learners preferred to use video, audio or images to learn with, rather than text-based media, so there is a considerable overlap between issues of ‘inclusion’ and issues of personal learning practice (see 3. ‘Aspects of digital learning’ below). All the learners in our project were clear that they benefit from being able to choose the devices they use for their studies, and the medium that suits them best (visual, auditory, text, games, self-assessment quizzes etc).
Our learners have highlighted how assistive technologies and inclusive approaches can:

- Help them to stay in mainstream education (Sky)
- Access learning from home, overcoming physical disability and other barriers (Ray, Jess)
- Use non-text-based media for learning (e.g. visual, auditory) whether or not they have dyslexia (Sky, Angela, Pepieter, Edafe, Victoria).
- Build their confidence by participating online: less challenging for anxious learners than face-to-face situations (Sky, Pepieter)
- Review materials in their own time: especially valuable to those learning in a second or other language (Pepieter, Adriana)
- Afford the cost of learning, either by using free web sites and apps, or by reducing the costs of attendance (Adriana, Jess)

*You don’t need to be a wealthy person to have access... Now we have unlimited access to things that are recorded and they are free of charge.* (Adriana)

*Because I was an anxious student, I wouldn’t have been the sort of person who stood up and spoke out and joined in debates. By using those tools, I could have those debates and join in the discussions and they helped my confidence.* (Sky)

*I couldn’t have gone to a bricks and mortar uni because I couldn’t drop my [working] hours... I guess the finances would have been the main thing for me.* (Jess)

Not all learners have access to technology or positive experiences of using it for learning. Our learners found that open classrooms, laptop loans, drop-in sessions and low-stakes opportunities to practice were all essential if they were to catch up on any earlier digital disadvantages.

These stories suggest that teaching staff need training not just in the use of digital tools for learning generally, but in the range of individual needs and study practices that can be supported with digital technologies.

**Making time**

Having access to educational resources while on the move means that learning can be fitted into busy lives, in time that would otherwise be unproductive. Many of our learners spoke of using their personal devices to learn on buses and trains, and in cafes.

*If I haven’t got a client, I can work from home or a coffee shop. It’s very feasible for university courses to be delivered completely online... The lecture notes and video recordings are available 24/7 as long as I have an internet connection, I can continue my degree.* (Ben)
Sometimes when I’m waiting for classes or a bus, and there is spare time, you want to have a quiz or game to use to help you with the language learning. (Adriana)

Within two days [of having an iPad] I realised I could be much more productive I can be. For example, on the bus I used to scroll through Facebook on my phone. Now I can review the last lecture we had.’ (Mauro)

I would often do my studying late at night. It was nice having tech that enabled me to do that. If it was only possible to do studying/learning in college it would be limiting... I do stuff on the bus back from work and the train, using the wifi, when travelling. It fits around my life. (Sky)

Learners also used a wide range of apps and services to stay organised, helping them to ‘make time’ for learning. Calendars, to-do lists and other time and task management tools allowed them to feel in control.

Yes, I’m always one for a to-do list. I use calendar reminders. Calendar is always with you and it’s especially useful if I have it on my phone. (Jade)

[I really value] tools like an online calendar and making reminders. Honestly, the biggest thing was figuring out that I needed to use a to-do list. It is the satisfaction of ticking things off a list that drives my productivity. Basically I always know what I need to accomplish during the day. (Mauro)

Being able to access resources online encourages learners to study or revise ‘little and often’, which helps retain information better.

Every single day I am learning both languages. It doesn't matter if it is five minutes or thirty minutes per language. Every single day I am learning new vocabulary in an old fashioned way with exercise books, but then I am also using the other sources; tablet, Kindle or YouTube [and] along with that I use one of the digital tools.’ (Adriana)

Independence and flexibility

Especially valued by learners who combine work with study, digital forms of learning provide flexibility and independence. Confident learners can go straight to the materials they need, while less confident learners can make sure they cover everything and go at their own pace.

I knew a lot of it or only needed refreshing [so] I skipped two thirds of the module. I got it done very quickly so that was really good. I could do it at home, [at work] or in college... I could do the things that I needed to learn.I managed to finish that module early. It really benefitted me. [Flexible learning] allows you to concentrate on what you don't know and not waste time on what you do. (Jade)

The variety of materials allowed me to be even more flexible – podcasts for walking to work, short videos for bus and train journeys and texts for sitting on the sofa. All the materials were customised for tablets or PCs and textbooks were replicated online so I could read them on my phone if I didn't want to lug the books around. (Jess)

The teacher helped me learn to use it. They start us with links so we can learn how to use it and it's up to us to learn how to use it. Then we can be independent learners. (Angela)

I like being independent and finding things out by myself. (Melissa)
Learners can also choose the approach that works best for them. Adriana described learning from aural dictionaries, subtitled films and videos, quizzes or grammar drills to suit her mood, though she also appreciates group learning as well.

For instance, I wanted to learn body parts in German and just Googled it. I found a lot of quizzes which were very funny and you could repeat until you were a genius! When you like a page, you can just bookmark it and go back to them and extend your knowledge by choosing things you still feel are difficult. You can choose exactly whatever you want to learn…Independent learning helps me think of new questions for the next class… Also practice makes sure that I don't slow down the class. (Adriana)

I don't just like just being told something and accepting it: I want to know why and how. I've always been quite autodidactic. I extend my learning myself just out of curiosity. I guess due to that I've always been an independent learner… Digital has been a lot of what helped me get to where I am. I struggled in a standard, old-fashioned classroom environment. Being able to use digital tools, being able to work independently using digital tools, sort of helped me to stay on track. (Sky)

2. Access, infrastructure and support

Bring your own

All our learners enjoyed using their own devices, services and applications, and most were completely dependent on this access for their learning. You can read any of the learner stories to see the huge variety and range of technologies in use. Our learners have also become fairly self-reliant when it comes to ICT skills.

However, even if they have their own digital devices, learners appreciate the availability of fixed computing or devices on loan so that their peers are equally well equipped. For similar reasons they like to know that ICT support is available, if and when they should need it.

Melissa reflected on the difference in access to wifi from 2010 to the present day. Returning to study after a few years away, she had been amazed at how much had changed. Other learners did not mention wifi on campus: they seemed to assume it would be available and was one of the advantages of being on site. They did mention how much they depended on broadband and mobile access off campus to keep in touch with their learning.

One device was singled out for special mention: the tablet.

Taking the Tablet

Learners love tablets. They are lightweight, cheaper than laptops, with touchscreen functionality and easy-to-use apps. Their inbuilt cameras can be used to record and share learning activities, and they are well suited to image-based social media. Because they are so portable they seem to elicit very personal feelings.

One week after getting it I was in love. (Angela)

It was a life saver having an iPad (Pepieter, who travels for two hours to attend college)
I use my iPhone a lot: the app store is terrific and I love the camera on it. Reading College gave everyone an iPad as well, so we could use more electronic ways to record progress... You can put your own apps onto the college iPad, and use it to access the web, etc. (Jess)

Now with the iPad, all of a sudden I can use a sketching app – before I never needed it. And when I found Trello I got rid of my other ‘to do’ apps. (Mauro)

Tablets can also be helpful to learners with dexterity issues and for all learners who struggle with heavy bags.

For the learners that I work with, it’s wonderful. I’ve got lots with dexterity issues so it can be very hard for them to use a keyboard. But if you can offer them a touch screen, you can help. (Jess)

Textbooks tend to be very heavy. Having an iPad means a lighter bag and that motivates me... So now all I need is my iPad and a few bits of paper. It does make me want to go to class. I now have everything in one single device! (Angela)

Having a lightweight tablet that does everything he needs has changed Ray’s relationship with technology, and with learning. It is easily portable, interfaces well with other devices, and can be used for everything from listening to podcasts to watching videos and writing on the move. Built-in accessibility features of Ray’s tablet mean that he was able to get up and running with it almost straight away.

I was a bit reluctant to get one but once I did, there was no looking back. The iPad, that’s it, that’s what I need… I don’t use a laptop now because the iPad completely replaces it. (Ray)

**Virtual learning environments**

While ‘bring your own’ is becoming the norm, institutional systems allow learners to access their learning in predictable ways. A well-maintained VLE with regularly updated resources gives students the reassurance of knowing that ‘everything they need to succeed’ is available from the one site. Our learners liked the VLE to be rich in resources, to have reliable and up to date course information, to offer a variety of channels for communication, and to let them catch up with course content such as lectures.

Melissa, Edafe, Victoria, Adriana, Sky and Ben all attached a high value to their VLE.

The front page to my university life is the Blackboard VLE. Without it, I wouldn’t have a leg to stand on... it’s a brilliant bit of software: it works. (Ben)

I use chats on DerbyLearn (VLE, hosted by Adult Learning Services). It is an absolutely fantastic way of connecting with people... I can have discussions with others. It’s a great way to ask questions... If I have a problem, then I can see if others have problems or tutors or others answer them. It also turns into a conversation for the next class. I love this way of learning. (Adriana)

Every course uses Google classroom. On our apprenticeship we have a Google classroom for each unit. Assignments, activities and we share resources with each other that might help. (Sky)
Many learners have now had the opportunity to experience more than one VLE, for example in school and then later in college, or after a change of VLE provider at university. They often have clear views as to which platform is better. Generally they find that interfaces have improved over time, along with staff confidence and consistency of use.

Library love

Our learners found access to library resources to be a really significant benefit of being at college or university. The library was referenced surprisingly often in our interviews as both a physical space for various modes of study and a portal onto digital resources. The expertise and support of library staff were also important to some learners.

Victoria and Edafe valued the quiet areas for study and the ability to access high quality resources such as journal articles from the library catalogue. Online learners (Ben, Jess and Ray) enjoyed the comprehensive access to journal articles and resources. Mauro and Melissa liked the physical environment of the library and found it helped their concentration. Learners talked about their relationship with the library in emotive terms: it was ‘beautiful’ and ‘loved’.

*I realise early on that if I was in the library, I could focus. If I’m home, there are reasons to procrastinate. It’s usually a desk in the library. If it’s group work we generally book a room in the library. [They have] bookable rooms. They have study pods which isolate you. It feels like Google’s offices and it’s incredible just how much that drives people to study there.* (Mauro)

*I know from my friends that there are some people who have never stepped into a library and all of a sudden they are there all the time. It motivates you to study there. The aesthetics of the place motivate me. I will go above and beyond to study there.* (Mauro)

Other facilities

Learners also depend on reliable access to networks, computing devices and printing. Open classrooms or practice areas and friendly, non-judgemental support are critical if learners are to feel confident about identifying their needs.

*There are lots of computers. In the library you can book iPads and laptops. Throughout the university you are bound to find a computer if you’re looking for one.* (Mauro)
[One reason I chose it is that] Southampton has really good facilities, and practice rooms with Macs. It’s really good. (Victoria)

Universities need to be praised for what they offer. I think when you know where to go and what you're looking for, the University systems make that so easy. You can search for key words or you can go on journals… You aren't limited to using just books and it helps your learning as well. Universities are keen to see students go that extra mile. (Melissa)

Wrap-around ICT support

From the evidence of our learner stories, support with ICT comes from many different sources. The first port of call with a query or problem is typically Google or YouTube. If that fails, learners might turn to someone in the organisation to help. People who are seen as sources of support include (in no particular order):

- IT services
- Course tutors
- The Library
- Disability Support adviser or equivalent
- Self-help – trying things out, exploring functions, solving problems
- Friends, fellow students, family and work colleagues

First I would Google the problem because people have a tendency to share the problem online. I would take it to the shop otherwise. If it was to do with the University, the ICT [team] would help. (Melissa)

Most of times if I can't fix it on my own, I Google how to do things. It's very quick. But in [College], if people need help, they can go to room 15 where there are technicians who can help - iPad problems or anything you need help with. Teachers, too, also can help because if you don't know how to use something in particular, they are well taught and can help people. (Angela)

I had a DSA assessment and the guy… went through all the software and we decided what was appropriate for me... I've never been in a position where something hasn't worked. But there is an Enabling Service to help me if I need it. You book an appointment for help. I just had meetings with [name] and she's helped me with everything - any queries I've had. (Victoria)

Nowadays, there are many people who are around who are good with technology and quite a lot of people are willing to be helpful. Generally speaking I just ask people. (Adriana)

Sky was 'terrified' to find at the start of her course that she was the only student who had not used a Mac before. But she found herself picking things up quickly with the support of tutors and opportunities to practice on her own.
Getting used to using Macs, just the speed of things because it wasn't natural to me. Getting used to the keyboard and learning shortcuts. I felt well supported in learning the software. [Name] and other lecturers had an open door policy, which meant that you could go into classrooms and practice, and I took advantage of this a lot. All the media lecturers I found were helpful. They were all on social media so I could contact them. (Sky)

Some of our learners are digital champions or advocates, and so are themselves sources of ICT support for other students and staff. As above, several commented on how much they learned in this role. However, one of our learners was less positive about the level of provision, pointing out the impact that a faulty device can have when the assumption is that learners will bring their own:

*There's no place at uni to help people with their devices. There isn't a place to help with faulty systems. A friend of mine who has a faulty computer needs to have it fixed and he can't get started with it.* (Edafe)

### Digital safety and wellbeing

We did not ask learners directly about e-safety issues but several learners mentioned how important it was for them to have a safe, supportive environment for digital learning.

*[The course] felt like a safe environment and helped me build my confidence.* (Angela)

Some learners were also aware of the potential risks of some online behaviours.

*Sometimes I [am] watching my peers having Facebook chats with each other... and wondering if we are losing face-to-face contact. There is a lot of bitchiness - just because it's because it's behind a screen they feel safe in being unreasonable. Have those students been given the right tools to handle those situations? (...) if they were given those tools then it wouldn't happen.* (Pepieter)

*Sometimes you have to subscribe to a website and then you get spam so I don't like that. I am aware of to whom I am giving my data. I don't like sharing my personal information unless I know who I'm sharing it with.* (Adriana)

### 3. Aspects of digital learning

#### Communication

Social media allow learners to stay in touch with classmates and tutors, and to find other people with a common interest. For a language learner like Adriana, communication is learning. She uses a wide range of opportunities to practice her language skills – chat, Facebook, and meetings with other language learners she has met online.

Learners use many different platforms, often at the same time and with a sophisticated understanding of their different uses.

*I've got Facebook, Twitter, Snapchat, Linkedin, Instagram, What'sApp, a personal training app [with associated sharing community]... I have three Twitter accounts: one I use to promote my student events. I have a personal/*
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professional one where I can talk with industry people and I have loads of, lecturers on it and they are all really supportive and helpful. (Melissa)

Personally I use Instagram, Twitter, LinkedIn and Facebook. (Mauro)

Experienced digital learners use different media to support different kinds of conversation. A Facebook group might help students to get to know each other and offer general support, but a dedicated collaboration environment may be more productive for actual work.

Generally with the OU we liked Facebook. We had a little group so we could message. I was keen but... it is really designed to be social. Rather than feeling like it was a productive space, we used it to complain about deadlines and resources and not so much for learning. That wasn't what I was looking for. [Then] we used an online presentation tool (Elluminate) for lectures and we could have a peer chat for a short period of time afterwards. It was amazing. (Jess)

For extra-curricular activities we do use What'sApp, but not useful and it's disorganised. The one I do like I use with the group that I'm working on the website project with, and that is Slack. We use it to share resources. I don't know what it is about Slack but I think it's an incredible communication platform. For one given team you have many given channels... It's a personal favourite of mine. (Mauro)

My course has a Facebook page and an Instagram page. Sometimes it's referred to [in relation to] how fashion is changing and how social media has impacted on it. The Facebook page is postings about upcoming events and the Instagram page is photos of students and what they are doing. (Victoria)

Instagram is used but I didn't use it personally... Our lecturers used it... they would take pictures of things we were doing and post them. We used Vine – a short video type of thing. We sometimes used it to do quick montages. (Sky)

Most of these communication channels had been established for learners by tutors, though sometimes learners would continue the conversation in their own channels such as Facebook.

Our lecturers all had social media profiles on Facebook and a few of them used Twitter... It's a common request from staff [to student digital champions] to help set up an account and to find out what the best way is for students to contact them and feel comfortable about it. All students have email but they don't check it. Most learners have social media on their phones anyway. So lecturers can contact students on their own ground. (Sky)

And sometimes learners were pro-active in suggesting new channels of communication to staff.

We have suggested to our geography teacher that she records her voice then we could go back and take notes from the recording. (Angela)
Collaboration

Working on projects collaboratively online is easier and removes physical and time constraints. Several of our learners were using Slack channels for project work, using Google docs, drive and apps to collaborate, and using social media to share coursework.

As in all forms of group work, learners were divided on how valuable they found it. This is consistent with findings from other research including the Jisc Digital Student study of the experiences of online learners.

*I like learning with others as long as the conversation doesn’t veer off.* (Melissa)

*When you learn in a group, you can use pretend situations. And then the teacher gives you advice on grammar. You can interact with people and share your experience.* (Adriana)

Across these student stories we see the use of WhatsApp and Instagram to collaborate informally with other students, sharing course notes and group work items. This merges collaboration with practices around note-taking and curation.

Note-making and curation

Note-making emerges from these stories as a significantly different practice for digital learners. Rather than take pen and paper notes, they are annotating slides, snapping work-in-progress on their smartphone cameras, and using apps to collect together these traces of learning and keep track of them. Some learners use dedicated mind-mapping apps, but as part of the general trend towards visual representations of learning, it seems that almost any graphics-based program can be used as a note-making tool.

*I use note-taking applications which are all online based. I use Google Keep - it's preinstalled on my phone - it's like OneNote. Mind mapping - I've got this wonderful mobile app which was designed for something else and updated for mind mapping - Draw Express. Which is brilliant.* (Ben)

*As with note taking I use pictures. Presentations and stuff. If there's a checklist of things that I need for my assignment, I'll snap a picture with my phone.* (Sky)

*TinyScanner is an app I have recommended to others. It scans mindmaps created on paper – it can be via your phone or iPad. Everyone has a copy of what we've done by hand... When I need to show any documents that are in a folder and filed somewhere, I can have easy access to it through TinyScanner.* (Angela)

*Now I have pictures of my homework and they are dated in order so I am able to flick back into my gallery, also when my classmates ask what homework we have, I am able to send them the picture that is self explanatory.* (Angela)

*We use InDesign which is part of Adobe. It's a program that you can use to create things; mood boards and things like that.* (Victoria)

*I use Notes on the iPad by copying and pasting and putting it in there... I'm good at organising my notes digitally.* (Ray)
Note-making can also merge with collaboration, as these examples show. For digitally-connected learners, it seems to be second nature to share notes, just as it is to create them using the tools they have to hand.

*Just things like taking notes via a Google doc rather than writing it down on a piece of paper that I was going to lose. I started taking notes on the PC or Mac in whatever classroom I was in on a Google doc. I would take notes on my phone as well. I do still use paper (brainstorming) - I'm a creative person; if I brainstorm, I do it on paper. It depends on what you are doing – you should always utilise tech appropriately. (Sky)*

*[Using] WhatsApp with friends and course colleagues I can ask people if I have a question. I use it a lot. If I don't get the right answer on the course, I check WhatsApp with other students and we share screen shots of the right answers. Sharing screen shots of our lab work via WhatsApp is good too. And we are always on Facebook – we share things about the course there too. (Edafe)*

**Reading and writing**

Like note-making, the basic practices of reading and writing are being challenged by learners with digital habits and tools. Our learners were excited by the opportunities of digital text, as compared with hand-writing and the use of text books (which still typify the school experience). Digital text is more portable, flexible and (re)usable than its print equivalent. Most learners quickly come to rely on being able to access, copy, bookmark, index and search, organise and endlessly re-use text in digital formats.

*I do struggle with mounds of paper. I like technology because it organises things for me very clearly. To have a folder system on a computer is beautiful. I'm organised online but my desk is a mess! I've never lost an assessment booklet or a resource [on the computer]. [In a previous role] I did a training and coaching qualification and I was given a folder with all the paperwork and I would lose things all the time. Technology really, really helps me with this. I don't need to carry big bags around. Everything I need is always with me. (Jess)*

Angela had so much to say about digital text that we have given her several quotes here.

*Textbooks are just solid words which aren't updated very often. Google is up to date! You can always Google exactly what you are looking for. It gives you the source very quickly.*

*Textbooks can be intimidating for me. They are big and they are just full of information. When I was low on my reading skills, textbooks weren't helpful. I would skip lots of words. When I have it on digital I can get it to read [aloud] and to pronounce the words.*

*It helps [to write digital text] because you can always edit your work and always improve it... It doesn't look messy. You can always copy your work much quicker rather than re-writing it all of the time. In secondary school we used to do lots of things by hand.*

*I find that textbooks are good to have, but over time it becomes heavier with the paper of notes you made in class. I do use my iPad to make notes as well, and as a timekeeper. I can review my notes quicker by swiping the screen and it is much lighter to hold.*
I do love books and having a hard copy, but I hate when they get damaged, and the value of the book goes down in a way, so instead I am able to get my books through iBook and use iTunes to pay for them, or Amazon offers a audio, digital and hard copy. So it’s a mix. [Angela]

As a postgraduate student, Jess also found digital text much easier to work with when it came to referencing and carrying out literature searches.

I’m using research papers on line because they are much more focussed on what I’m trying to find out specifically. I would often find that with a pile of books to write an assignment, I would probably work my way through those but now I can access it all online. (Jess)

For other learners it was the flexibility of digital formats that met their particular needs.

If the textbooks are on an e-book, I can copy and paste. If they are in a physical book, I have to wreck the book. My mum has to rip out the pages and prepare them for me digitally. (Ray)

What I like about an online dictionary, it allows you to hear pronunciation. So when I first learned English, pronunciation wasn’t easy to hear because the learning was from books and materials were restricted. Now, if you are making a mistake, you can learn quickly how to correct it and you don’t learn the mistake. (Adriana)

Since having the laptop it’s easier to record what I’m doing. I use it all the time. The MacBook comes with dyslexia friendly software. It’s built into the Mac – it can read back to you. Having a laptop and being able to write makes it a lot quicker. I’m quite quick at typing... If I was writing my notes, I’d be too slow and not able to keep up with the lecture. (Victoria)

Learning with different media

As we noticed in relation to practices of note-making, digital students are primed to use media other than text, both as ‘readers’ and as producers. A preference for images is particularly marked. Pepieter has a professional Facebook page as well as a Tumblr blog, and uses Instagram to share photos ‘of what I do every day. I try to use a range of social media to apply for work experience, to have documented experience to display to future employers... and to network and keep in contact with my peers’. Currently she is using Minds, a network for art activists, Pinterest ‘to generate different ideas’ and the selling network ‘Etsy as a social media site to contact jewellery designers, to talk about projects and art.’ All of these are essentially visual platforms. Pepieter likes to use visual media for the process of learning as well as for showcasing her work.

We also used Trello a couple of times to help …to keep track of … project[s] in a visual way. Vine was used as well, when we [were] trying to create short, snappy videos to get our point across in a visual and succinct way.

PocketLife rules my life. I can colour code things and see when I’m free and when I’m not and piece together a life schedule. (Pepieter)

Ben also describes himself as a visual learner. He finds looking for solutions on YouTube quicker than ‘quicker than trawling through blogs, notes and forums. It’s nicer to watch than [to] read lots of text’.
Programming processes can be visualised... I get an image around a new topic. For example, if there’s a new lecture available on Blackboard, I watch, read the notes and then I remake the presentation as if I was going to present the information to someone. It’s massively time consuming but it’s really effective.

For Sky, audio is much easier to learn from than text. She also finds that audio helps her to concentrate.

What helped me a lot when I was in college, I listened to YouTube music to help distract me from social situations and focus me on what I was doing. Having my headphones on and listening to music helped me to focus a lot. (Sky)

Revision and review

Learners say they value the opportunities digital media give them to go over material again, in their own time, or to view it in different formats and to make sense of it in their own way.

A YouTube video you can watch again and again, and it’s usually done by people my own age. I do have a problem with some lecturers who use a vocabulary that I don’t understand because I don’t use that vocabulary in my everyday life... I use a mixture of textbooks and e-books but generally I don’t get on with them. So what I do is I go to blogs or a YouTube [presenter] who explains the text in my kind of language. (Pepieter)

Before going over any lectures, I usually take a practice test and then I see what I need to work on. Then I go back to the lecture slides and notes and review that. (Mauro)

Sometimes there are difficult words or phrases so I can listen via a movie or read them in a book and now it stays in my mind. I love watching YouTube, finding movies and interesting programmes, which fit my interests and helps me to revise in a relaxed way. (Adriana)

Less common, but certainly emerging, is the use of visual curation sites such as Pinterest to collate work for review. This has the advantage that it can also act as a showcase of work to people outside of the college setting.

Getting feedback

Some learners really enjoy taking online tests. It helps them to feel secure in their understanding, and they benefit from the rapid feedback. There is also less ‘fear of failure’ when a test is administered and marked automatically.

I like doing tests on line – it’s so easy and so convenient… I use Google to find exactly what I want to learn... It many cases it is free of charge. Some of them require you to register with your email and some are absolutely free. You don’t need to check the answers yourself, the computer does it all. I found a lot of quizzes which were very funny and you could repeat until you were a genius! (Adriana)

In the first year, you read your textbook and there would be puzzlers in the textbook. When they put that online, you could write a small reflective note. You were more inclined to do the puzzle, and then it made you a better reflector. It made me analyse my own thinking more. I liked that. It really did help me. (Jess)
Motivation, curiosity and fun

Very many learners mentioned fun, enjoyment and interest as feelings that were heightened by using digital tools for learning.

A digital device helps maintain curiosity. You already went through the textbook phase and now it’s time for a different stage to keep you curious... I think having a digital device or variety of devices does help me get motivated... it’s something personal to hold and it makes your learning more personal to you. (Angela)

Angela, Sky, Adriana and Ray all identified curiosity as a positive part of their personality that kept them motivated to learn. Their curiosity was aroused by the variety of digital tools and media that they had encountered.

If we made learning more fun and made it more like realistic situations, it would be more creative and maybe that would be a better way of helping people be aware that they can do things... They can overcome weakness and help themselves simply enjoy what they are learning. (Adriana)

Learners are inspired by using their digital skills to express their ideas. Having a range of digital media available means that learning can be better tuned to their preferences too.

I do my best work when it has to be something that I feel passionate about. I’m a creative person. I like to be able to do it in my own way whether that’s presenting it in my own way and having creative control. What motivates me is if it’s meaningful to me. It’s a way of self expression I guess. (Sky)

These learners enjoyed games-based learning where they had encountered it, but it was variety rather than a focus on ‘fun’ that seemed to be motivating.

We used ‘Who wants to be a German Millionaire?’ for playing games in German and it was great at first. But I don’t think the game was supposed to be played as much as we used it... Gamification in learning became very repetitive and a put-off. We weren't learning or being challenged. (Melissa)

Coding/making/development

Several of our digital learners have developed apps/web sites/code, or are looking for an opportunity to try it. Mauro did a Coding Academy course on his own initiative, Pepieter is looking for a coding group to join, and Ben is involved in building Android apps.

We are producing a web page for a business idea (start up)... Luckily the uni has a very good support network with mentors and mechanisms for funding and workspaces to help. Pursuing the idea was incentivised by the support network around it. I had thought about doing this but I thought it would be after university. (Mauro)

We have done a few web pages as part of our job role, not so much connected to my learning. Coding is something I'm very interested in learning and I have started doing bits on Code Academy. I have very basic HTML knowledge but I'd like to learn how to do that more. (Sky)
Because he is a coder, maker and problem solver, Ben finds ways of applying these approaches to his learning.

I’m what’s called a lazy developer. I’ll create tools that do bits of my work for me. I take this tool set that does some of my work for me, such as templating and so on. Mendeley, which is free to use, makes referencing an absolute dream. I love it. (Ben)

[Lecturers sometimes] throw up quizzes to do during the term, and supporting files and bits of code, presentation notes and lecture notes that have been useful to other students... And for things like assignments that need a web host, they can organise that and we can work on that remotely. (Ben)

Discipline differences

Many of our learners are studying subjects that require digital fluency, and this requirement cuts across courses now, from design and the arts, through computer science and media studies, to more traditional subjects that are taught in digital contexts. There was an awareness that learners from other subject areas might not have the same opportunities to engage with digital tools that our learners have had.

The course does fit with technology. It does make it relevant. I have a friend who is doing English and might not use it the same way. Which degree you do does makes a difference to your use of technology. (Melissa)

Southampton has really good facilities, and rooms full of Macs. It's really good. We use them every week for one of our modules. But [having that opportunity] depends what module you're being doing and what's being taught. (Victoria)

4. Contexts of digital learning

Tutors as digital models and mentors

Although younger learners are often seen as a digital ‘generation’ many digital practices are in fact introduced to them by tutors. This is especially true of professional and academic uses of digital media (mentioned by Ben, Sky, Pepieter, Adriana) and of specialised software (Angela, Victoria, Sky). But some learners also said that tutors have helped them to gain general digital skills, which they now use to support their independent learning and to make them more effective in their personal life as well.

All use of social media was brought in by my tutor. He initiated the use of Twitter for debates... He showed us ways to use it professionally and safely, which was a big help for someone like me... It’s a good thing to be guided by the teachers because that means everyone is part of this and they are in the same place instead of being all over the place. (Angela)

I felt well supported in learning the software. [The course leader] and other lecturers had an open door policy that meant that you could go into classrooms and practice, and I took advantage of this a lot. All the media lecturers I found were helpful. They were all on social media, so I could contact them. (Sky)
Learners appreciated that not all their tutors would be equally confident and pro-active with digital technology. They were only inclined to complain if a lack of digital competence got in the way of their learning.

_Some of the [teachers I have had in the past] really needed more training. A lot of lessons were taken up with teachers trying to do something on the Smartboard and it was quite frustrating… Sometimes they just used it as a projector board. The only negative thing is when (teachers) don’t know how to use the technology properly._ (Jade)

### Students as champions and co-creators

Several of our learners have recognised roles as digital champions or advocates. Others just find themselves helping less confident digital learners. While there are obvious benefits for the students on the receiving end – and for pressurised staff – mentors can also gain from the experience with enhanced confidence and understanding.

_I was often helping other people as well. I really enjoyed doing that. It meant I wasn't stuck in hour-long lessons doing things I already knew... It really benefitted me._ (Jade)

_It's balanced – people help me and I help others. We have a lot of international students on our course so they need help with websites and Facebook because they haven't used it before. As an ambassador, it is natural to help others._ (Melissa)

_If someone is unfamiliar with [any technology], I take my iPad to class and show people what to put into Google or YouTube and how to use that. Most of those things only need intuition really, not technological knowledge._ (Adriana)

Our learners also have a view about how digital technologies are used in the curriculum, and appreciate a chance to have their say.

_There is a good back and forth flow relationship with teachers - we gain feedback and give feedback. We can be proactive and suggest other techniques [to use in the classroom]._ (Angela)

### Second chance learners

Several of our learners felt that digital learning had offered them a ‘second chance’ after an earlier less successful experience of education. This might be because they had found more successful ways of learning with digital media, and/or because studying partly online allowed them to fit learning into work and family life.

_I couldn't have gone to a bricks and mortar uni because I couldn't drop my (working) hours. To be honest, I don't think I would have liked to go back as a mature student… In the OU there were such a diverse group of people – all ages, retired, working, stay-at-home mums. It was a whole bunch of different walks of life coming together. That made me feel a lot braver._ (Jess)
Mixing formal and informal learning

Ben’s use of YouTube and Udemy to supplement his lectures is typical of switched-on digital learners. If he finds an aspect of his course difficult to understand, he turns to online learning to help him over the hurdle.

*YouTube has been brilliant. If I haven't understood the lecture, then generally someone can explain it to me... It's amazing how brilliant it is that people are willing to share for free. And a lot of the time you [can] find your favourites for describing what you need to know.* (Ben)

I like YouTube. I look it up after the lecture and then I remember and understand. I take a topic and find it on YouTube. Even Harvard referencing is on YouTube! (Edafe)

*I like to think of YouTube as proactive procrastination! Whenever I want to take some time off I'll dig up some sort of interesting video, whatever it might be. I don't take notes or anything like that, I just listen in.* (Mauro)

Ben also discovered Udemy, ‘an online learning and teaching marketplace’ and completed an online course alongside his official course of study. He describes how it benefitted him.

*It's like YouTube but they enhance the video content and they wrap a short course around it. I'm doing a course on big data and I hadn't understood it. By the time I finished the Udemy course and did the exercises and videos, I was the master.* (Ben)

Digital learners also use social media to reach out to other learners and practice what they know. In Adriana’s case, online connections through Facebook have led to real-world meet-ups, so fellow students have become friends who continue to support each other’s learning.

Mixing public and private spaces

Digital learners are also being encouraged to step outside the closed spaces of a college campus or online environment and rehearse at least some aspects of their learning more publicly. For example, Angela uses Pinterest in her Graphics A level.

*We pin our art work into Pinterest to share with the world and share with my teachers. We follow our teachers and they follow us back. They check the progress of our work via Pinterest and can see if our work is ready to be submitted.* (Angela)

Melissa found that learning the theory of her subject was enhanced by making contacts with professionals in the real world, especially on Twitter. She started ‘thinking very consciously about technology and learning’:

*Specifically for what I do, the stuff that gets taught is mostly theory based; understanding business and social trends. But going on Twitter you connect with people [who] are in the know... and [what] gets shared around is very practical and people are out there to help each other.* (Melissa)
Angela’s tutor already has her ‘A’ level class thinking about how they will use their skills in the outside world:

*In Geography we have an app called iGeology, which our teacher encourages us to look at and to become independent geographers outside of class. It encourages us to have a look around the world. It links our classroom work with the outside world.* (Angela)

And Jade took the initiative to set up a Facebook Messenger group so that everyone on her course could keep in touch. Working full time places a lot of pressure on attendance, so now if someone misses a day they use Messenger to share notes and links, and encourage each other to catch up.

**Skills for work**

Most of our learners were trying to enhance their career prospects and felt that digital skills were an important aspect of employability. Some of them were studying with cutting-edge software that provided a direct route into specialist employment. Others felt that their generic skills in using social media or in digital design would make them stand out from the crowd.

*Everything we learn in class will be useful to us in the future, for our jobs as well.* (Angela)

*Adobe, Logic (music), Premier Pro… It was great to have all that available to me at college.* (Sky)

*As far as the future is concerned I’m making sure my niche qualifications are up to date and taken care of. A lot of my professional certifications – I’ve tried to make them quite abstract so they can be applied to a variety of roles in IT.* (Ben)

*The use of digital technology tools can set you apart from others. It’s about time and training. The more prepared you are at university, and the more you know, the more you stand out at interviews and employment.* (Melissa)

Melissa, Angela, Pepieter and Sky were all using social media to connect with professionals and to build networks they could take out into the world of work.

*Using Twitter gave me an introduction into the professional world that was very useful. I did work experience between undergrad and postgrad, and… [an issue] came up that was something that had only been touched on lightly at university. Having that portal into a different perspective in the real world: having that was helpful.* (Melissa)

*Especially with Twitter, it was so easy to connect with so many people, it’s so open, it’s an open and sharing community… On Facebook you only come into contact with your friends. Twitter opens up opportunities. I was interested in journalism and I found out things that were going on in London that I was interested in. That was invaluable. Knowing how to use hashtags helps you find different communities. That’s something else that sets Twitter apart from Facebook. You can find different communities that you didn’t know about.* (Sky)
5. Conclusions

The learners involved in this project are thoughtful people who reflect on their own learning and want others to benefit from their experiences. This would no doubt be true whether digital technologies were involved or not. But for each of them, and in different ways, digital technology has been a catalyst to deeper learning, better access to learning, more independence in learning, and a more positive learning experience.

There are many continuities in the stories learners tell. As in the pre-digital age, learners still need access to rich resources, opportunities to practice, and supportive interactions with their tutors and peers. They make notes, organise ideas, prepare assignments, collaborate, express themselves, manage their time and motivation, revise and review, listen to feedback and showcase what they can do. But there are also some striking discontinuities. Learners are making more use of graphical, video and audio resources, both to learn and to express what they can do. The differences in how learners read and write – quite apart from the appeal of non-text-based forms of representation – are profound. Learners curate their personal learning resources in ways that were unimaginable in the days of paper. They share, comment, mix, remix and repurpose freely. They use digital networks to connect across boundaries, whether the barriers between learning and work, or between learners in different countries, or between formal learning and all the other opportunities and interests they have. With digital apps and tools learners can always fit learning into their lives. Without digital connectivity, they feel lost and incapable.

Increasingly, learners expect their digital skills to be a resource for getting on in life, and getting an education. They have innovative learning habits of their own, and they have creative ideas about how educators could better support them. Through stories like these we are learning to listen.