Jisc

Student digital experience tracker 2017: the voice of 22,000 UK learners

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Introduction

We are delighted to share with you a summary of findings from this year's student digital experience tracker, which paints a national picture of the student digital experience.

With over 22,000 participants from 74 organisations in the UK and 10 international universities, it is the first time the digital experience has been looked at in this detail and at this scale. This report shares the findings from the analysis of the data collected from the 74 UK organisations.

It is a useful snapshot of the state of technology-enhanced learning in UK post-compulsory education – and so we hope the findings will be useful to policymakers and education researchers – as well as educational leaders looking to improve their own provision.

The tracker is a survey tool that enables organisations to explore how students use and feel about the digital tools, environment and support they provide. It offers institutions valuable insight into how students are experiencing digitally enhanced learning, and provides an opportunity for them to engage with students with regards to issues such as the design of their curriculum and the digital environment.

It provides some clear messages for leaders in the HE, FE and skills sectors.

- Firstly, students are generally positive about the use of digital technologies in their learning.
- However, some providers still need to do more to get the basics right – including guaranteeing decent wifi provision across campuses and continuing access to desktop computers, which many students still rely upon.
- The use of digital activities within courses is not as prevalent as we might expect. This suggests that the full benefits of technology to support learning are yet to be realised, with technology more commonly used for convenience rather to support more effective pedagogy.
- Finally, the results raises questions about the level of digital skills awareness within both the higher and further education sectors. 80% of HE learners and 63% of FE feel that digital skills will be important in their chosen career, but only 50% agree that their course prepares them well for the digital workplace, raising questions about the provision and/or signposting of services to student which support the development of digital skills and capabilities.

We are pleased to have worked with so many organisations on this pilot – and would like to thank them for the rich data which has been collected through their work. In November, we will start running the 2018 version of the tracker, and would encourage any providers who wish to take part to get in touch.

We hope this report encourages even more organisations to initiate conversations with their own learners and students. Through working with students, we can create learning environments which fully harness the power of digital and provide the best possible preparation for the world outside the classroom.

Paul Feldman
Chief Executive, Jisc

General overview

The student digital experience tracker project

The student digital experience tracker allows universities, colleges and skills providers to:

- Gather evidence from learners about their digital experience and track changes over time (with this year's data considered to be year 1)
- Make better informed decisions about the digital environment
- Target resources for improving digital provision
- Plan other research, data gathering and student engagement around digital issues
- Demonstrate quality enhancement and student engagement to external bodies and to students themselves

The tracker is based on a concise set of questions that we have tested intensively with students in higher and further education for readability and ease of response. It builds on resources such as the **Jisc/NUS Digital Student Experience benchmarking tool (http://bit.ly/1MdYNzq),** and the Jisc guide to **enhancing the digital student experience: a strategic approach (jisc.ac.uk/guides/enhancing-the-digital-student-experience).** The questions cover issues that are important to learners and/or to staff who have a focus on the digital learning experience.

The tracker is delivered in **BOS (onlinesurveys.ac.uk),** an online survey service specially developed for the UK education sector. Organisations using the tracker received guidance on implementation in BOS, real-time access to their own data, and further guidance on how to understand and respond to the findings and their benchmark data. We piloted the tracker with 24 colleges, skills providers and universities in 2016 and then edited it in response to feedback. New questions were added and we ran it again as an open pilot in 2017. The 2017 tracker question sets are available from http://bit.ly/2rn9TOV

You can find out more about the tracker project from http://bit.ly/2rrDz8E and the associated guidance on the project blog http://bit.ly/2thJSwV.

This report provides an overview of the key findings from the analysis of data. There will be a series of follow on 'focus on' briefings in which we will provide further commentary around key themes identified in the report together with recommendations for organisations.

Four tracker versions for different learner groups

We created four versions of the tracker for the following learner groups: Higher Education (HE), Further Education (FE), Adult and Community Learning (ACL) and skills, and online learners. There were either 19 or 20 questions (depending on the tracker version). These often had sub-questions and so the total number of individual questions was a maximum of 70, although all questions were optional and learners could leave questions blank if they did not wish to answer.

Most questions were locked (they were standardised in the tracker template for that learner group). Some question blocks were optional and we asked pilot organisations to choose one or two of the additional optional blocks. Two questions were customisable within fairly strict guidelines to allow institutions to choose how they would segment their sample of learners (eg by subject areas, year groups, campus etc) and one question allowed organisations to match a range of their own questions against a given answer scale.

Most of the questions were identical throughout the four versions but some were worded to be relevant to learners in each sector (eg "my university..." or "my college...") whilst others were only relevant to that specific set of learners (for example, online learners were asked: "what is your main reason for engaging in online learning?").

A total of 137 organisations initially signaled their interest in the tracker pilot project. In the end, 84 organisations used at least one version of the tracker. This can be broken down to 74 UK organisations (using 89 different tracker versions) and ten international institutions (using 13 different tracker versions). We left it to the provider to choose which trackers they would run, which learner groups they would survey and which optional question sets they would include.

As a result, some pilot institutions used more than one version of the tracker (some FE colleges cater for HE, FE and online learner groups) and there was not a one-to-one relationship between the organisational type (Table 1) and the tracker versions used (Table 2). In our reporting we have used learner groups rather than organisational types to compare data and look for significant differences. So, for example, our HE learner group studied overwhelmingly but not exclusively in HE institutions. Typically, organisations providing for online learners were also HE institutions.

The remainder of this report focuses exclusively on data from the UK organisations, excluding the ten international universities. In this group there were an average of 305 responses per organisation (see Table 3), creating a total of 22,593 individual student responses and 1,442,660 individual cells of data. The FE version of the tracker (learner group) created the largest number of student responses totaling 12,347 individual responses, which made up 55% of the total data set.

Table 1. The number of each type of learning provider organisation involved in the tracker pilot

Learning provider type	No. of each type that were involved in this project
FE College	35
University (HE)	29
Adult community learning (ACL) provider	4
Skills provider	2
Sixth form college	2
TOTAL	74

Table 2. Learner group descriptions

Tracker version / learner group	Learner group description
ACL and skills	Learners in Adult Community Learning (ACL) or skills provider settings. ACL learners are typically learning outside of work hours. Learners in a skills provider setting are typically on apprenticeship schemes and learn both within and outside working hours.
FE	Learners studying for a qualification that is not a degree within an FE college.
HE	Learners studying for a degree. Nearly always in a university setting, although some FE colleges can now award degrees.
Online learner	Learners who are learning virtually using online learning materials, usually but not always provided via an HE institution. They rarely if ever visit the physical location of the learning provider.

Table 3. Tracker 2017 versions (ie learner groups) and total number of institutions that ran each version. Total number and mean average per provider of responses is also shown

Tracker version / learner group	No. providers using each version	No. UK responses	Mean responses per institution
ACL and skills	6	1,337 (5.9%)	222.8
FE	36	12,347 (54.6%)	343.0
HE	38	8,190 (36.3%)	215.5
Online learner	9	719 (3.2%)	79.9
TOTAL	**89**	**22,593**	**305.3**

Levels of data confidence

Pilot organisations could choose to use the tracker to target opinion from all of their students or focus on a specific target group (eg Year 1 students, or those studying in a particular subject area).

We offered pilot organisations guidance about sampling, with two clear options:

- Release the survey link to all students in your target population (for example, via marketing around the building and on the Virtual Learning Environment (VLE), Facebook etc)
- Select at random a small sub-sample (for example, of a single lecture group), and ensure that all (or nearly all) of them complete the tracker

In the case of (a) above there was the danger of collecting data from an unrepresentative sample of students (eg those that were compliant enough to complete the tracker, or those with issues they wanted to raise). So we gave every organisation clear information about appropriate sample sizes and margins of error in relation to their chosen target population.

For example, organisations were told that if they targeted a population of 10,000 students and obtained a sample from 400 of them, this would result in a margin of error of ± 5%, 95 times out of 100. Therefore any percentage quoted should be considered as reflecting the target population opinion within a bracket of plus or minus 5% of that percentage Figure.

In the end the average sample collected was 305 responses (see Table 3). The vast majority of organisations told us they were targeting a general population of students totalling in the thousands, so the average margin of error is expected to be in the region of ± 5 - 7% or less for ACL and skills, FE and HE data. It is likely to be slightly higher for online learners due to the smaller average sample size per provider. Whilst we are unable to calculate the exact margin of error for this sample we are confident that the data collected are useful and actionable at a learning provider level.

It is important to consider the likely margin of error for every percentage figure quoted in this report (given a confidence level of 95%) in order to correctly interpret the findings from this survey sample into a representative opinion for each learner population as a whole (see Table 4).

Universities UK estimates that the UK HE population size is in the region of 1.75 million[1]; with our sample of 8,190 learners from 38 institutions (Table 3) this provides us with a margin of error of just ± 1.1%. The *Association of Colleges* estimates UK FE student numbers at 2.7 million[2]; with our sample of 12,347 learners from 36 institutions we can estimate a margin of error of ± 0.9%. It is harder to estimate the UK ACL and skills learner populations, although a 2016 UK Parliament briefing paper[3] quoted a Figure of 509,400 apprenticeships that started in 2015/16, and a 2016 Skills Funding Agency report[4] estimated ACL and skills learner numbers in 2015/16 were just over 2 million learners. If we estimate the UK ACL and skills learner population to be approximately 2 million learners at any one time, our sample size of 1,337 from six providers gives a margin of error of ± 2.7% (although variation between providers is likely, and note that for ACL and skills only six providers successfully collected data).

[1]

1 See Figures for 2016 at universitiesuk.ac.uk/facts-and-stats/Pages/higher-education-data.aspx
2 See Figures on aoc.co.uk/general-further-education-colleges
3 See https://tinyurl.com/ktcys6v
4 See gov.uk/government/uploads/system/uploads/attachment_data/file/556015/SFR_commentary_June_2016_final_JuneOfqual_update.pdf

Finally, with regard to online learners it is difficult to find a reliable estimate of UK numbers, but the average tracker sample size was only 80 learners per provider (see Table 3). Therefore more caution is required when interpreting online learner data in this report and a margin of error of ± 10% should be used.

Table 4. Estimated margins of error for each learner group, based on the population and sample sizes

Learner group	Estimated margin of error around each quoted percentage Figure in this report
ACL and skills	± 2.7%
FE	± 0.9%
HE	± 1.1%
Online learner	± 10.0%

Response rates per question differed because questions in the tracker were not compulsory. Previous user feedback showed that students sometimes didn't understand a question and preferred to leave it: forcing them into providing an answer often resulted in them dropping out of the survey or randomly choosing any answer just to move on to the next question. Learners could therefore answer whatever they wished and leave some questions blank, such that the maximum sample sizes quoted above and in Table 3 reflect the maximum number of individual learners in each learner group, with each individual question always answered by a smaller proportion of learners. However, we gave close attention to the sample size for every individual question analysed, and this revealed that 92-97% of the total number of learners answered the vast majority of questions.

Thus we can be confident that the Figures in this report provide reliable insight into the digital experiences of ACL and skills, HE and FE learners in the UK. Our Figures also provide an indication of online learner experience, although with a far higher margin of error.

Analysis

Data were coded and exported from BOS, merged and checked in Excel and analysed in SPSS v24. Data are presented separately for each of the four tracker versions: this approach was justified during the analysis, where cross tabulations and Chi Square analysis showed that in all cases there were sufficient differences between the four groups of data to result in statistical significance at $p>0.001$.

This report focuses on a basic summary of all data. We will carry out further detailed analysis and report on it in the near future.

Access to basic services and digital devices

Access to digital services in usual place of learning (Q1)

The tracker asked learners whether they had access to a variety of digital services when they were in their usual place of learning (university, college, or other place of study), and they could answer yes or no. The Figures are presented separately for each tracker version (see Table 5).

The largest difference in student opinion between tracker versions related to reliable wifi access: only 68.5% of FE learners (ie about two in every three learners) said they had reliable wifi access in their usual place of learning in comparison with 80.4 % of HE learners, 89.9 % of ACL and skills learners, and 95.5 % of online learners.

Device use – institutional and personal (Q2)

Learners were asked: "Which of these personal and institutionally owned digital devices do you use to support your learning?" and they could tick all that applied. This provided information about the devices each group most commonly used for learning.

When it came to use of **institutionally owned devices** (see Table 6), the devices most commonly used by FE and HE learners were institutional desktops (82.9% and 65.5% respectively). ACL and skills learners were less likely to use all types of institutionally owned devices than HE or FE learners.

Table 5. The percentage of learners who said they had access to each of these digital services at their usual place of learning.

Note that the list of digital services was different for each tracker version; hence some cells in the Table are left blank.

Access to digital services at usual place of learning	ACL and skills learners	FE learners	HE learners	Online learners
Reliable wifi	89.9%	68.5%	80.4%	95.5%
Online course materials	91.9%	93.2%	95.1%	99.3%
e-books and e-journals	-	-	91.8%	93.2%
Personal information online	76.1%	88.7%	91.8%	89.3%
File storage and back-up	76.2%	87.5%	81.4%	93.3%
Mobile access to organisational services	-	84.4%	90.0%	-
Computers and printers	84.4%	94.7%	91.2%	92.8%
Reliable mobile network	85.0%	-	-	85.3%
My own social media	64.4%	-	-	82.8%

Table 6. "Which of these organisationally owned digital devices do you use to support your learning?"

Devices (institution-owned)	ACL and skills learners	FE learners	HE learners
Desktop computer	26.2%	82.9%	65.5%
Laptop computer	14.7%	35.9%	10.4%
Tablet / iPad	8.5%	13.7%	3.9%
Smartphone	2.1%	4.6%	1.2%
Printer	22.2%	67.1%	62.9%

In relation to **personally owned devices** (Table 7) for ACL and skills learners the most commonly used devices were both laptops and smartphones (50.8% and 47.2% respectively).

When it came to FE learners, by far the most popular personal devices used to support learning were smartphones (77.7%). In contrast, by far the most commonly used devices for online learners were laptops (86.4%). HE learners most commonly used their own laptops (88.4%) and smartphones (84.3%) to support their learning.

In contrast to their use of self-owned desktops and smartphones there was a large difference in self-owned laptop use between HE and FE learners: 88.4% of HE learners said they used a laptop to support their learning in comparison with only 47.9% of FE learners.

Table 7. "Which of these personal digital devices do you use to support your learning?"

Devices (self-owned)	ACL and skills learners	FE learners	HE learners	Online learners
Desktop computer	23.3%	21.7%	18.5%	33.0%
Laptop computer	50.8%	47.9%	88.4%	86.4%
Tablet / iPad	35.0%	29.3%	40.7%	32.8%
Smartphone	47.2%	77.7%	84.3%	26.1%
Printer	34.0%	25.3%	40.0%	-

Chi Square analysis revealed that HE learners were significantly more likely than FE learners or ACL and skills learners to use personally-owned laptops, tablets, smartphones and printers[5], suggesting that ACL and skills and FE learners are more dependent on institutionally owned devices, whereas HE learners tend to use their own devices for learning.

[1]

5 χ^2= 4906 (laptop), 663 (tablet), 4991 (smartphone), 546 (printer); in all cases df = 2.
HE expected figures were lower than the observed data, whereas the expected figures for FE, ACL and skills, and online learners were higher than observed).

By far the most popular devices for learners to own and use were laptops and smartphones (i.e. portable devices), whereas learners tended to use larger, non-portable institutionally-owned devices (desktops and printers). This clearly shows that learners are using a wide variety of portable and non-portable devices to access institutional learning materials and services.

This has a number of interesting implications for institutions: firstly, they should consider how learning services/resources are accessed and displayed on different devices (not just those owned by them), secondly that they should consider the resources required to support learners to BYO and to access institutional systems (such as wifi) via multiple devices per learner, and thirdly that they might improve learning experiences by tailoring pedagogic practice to make best use of the benefits offered by different devices (notably smartphones to support e.g. group discussions).

We recommend further focus group work to investigate patterns of ownership and use in more detail, to consider implications for technological support and pedagogic design, and to explore whether factors such as socioeconomic background, gender and age play a role in learners' access and choices.

In our analysis of these Figures we also looked at **how many different devices learners typically used to support their learning.** The average number of different devices used per person (maximum of five as listed in Table 7) was calculated and averaged for institutionally and personally owned devices (Table 8).

Table 8. The average number of institutional and personal devices per learner (out of a maximum of five, as listed below)

Learner group	Mean and SD institutional devices used per learner (Q2a)	Mean and SD personal devices used per learner (Q2b)
ACL and skills	1.90 ± 1.38	0.74 ± 0.99
FE	2.04 ± 1.06	2.02 ± 1.33
HE	1.44 ± 0.96	2.72 ± 1.11

Our key findings were:

- ACL and skills learners have low average personal device use (less than one device per learner) and rely on institutional devices, using an average of 1.9 institutionally-owned devices to support their learning
- FE learners rely both on institutional and personal devices, using an average of 2.0 institutional and 2.0 personally owned devices to help with their learning
- In contrast, HE learners rely less on institutional devices, using an average of only 1.4 devices per learner. However, they have far higher average personal device use to support their learning, averaging 2.7 personal devices per learner

These findings have implications for IT support. Providers must strike a balance between supporting access to institutional systems with personal devices and providing institutional devices with established connectivity. Further work is needed to understand how device ownership is changing and whether there are significant differences among different learner groups (such as, older learners, learners from different cultural backgrounds, poorer learners, and learners with specific learning needs). Further work is also needed to understand the enduring appeal of institutional IT when personal device use is so widespread.

Course-related digital activities

Frequency of digital activities within courses (Q6)

Learners were asked how often they completed various digital activities as part of their course, and could answer 'weekly or more', 'monthly or less', or 'never'; results are shown in Figures 1 to 4 below. Note that some questions asked of online learners were different to the other groups.

Key findings were as follows:

- **ACL and skills learners:** Over one-third had never produced work in a digital format, and over half had never worked online with others. Overall their level of digital engagement on their course was extremely low when compared with learners in FE
- **FE learners:** Over 90% said they had produced work in a digital format and more than four in five said they had experience of working online with others
- **HE learners:** Over 95% had produced work in a digital format but half had never used an educational game or simulation for learning, or a polling device or online quiz to give answers in class
- **Online learners:** 62.5% had never used an educational game or simulation for learning, 40.2% had never used a polling device or online quiz to give answers in class, 30% had never participated in a live online class or webinar and 25% had never worked with others online, suggesting that their learning (which must be almost completely delivered digitally) is probably mainly in the form of non-interactive and isolated content

More than one in five mainstream (HE/FE) learners have never worked online with others. This contrasts with the very high percentage of mainstream learners that access online information weekly or more, suggesting that a decade and a half after the development of 'web 2.0' (or 'the social web'), content-centred practices continue to dominate in education.

A similar observation could be made about the low use of interactive digital media such as games and simulations which provide rapid intrinsic feedback, and polling which provides in situ feedback to make live learning more engaging and responsive. Neither appears on this evidence to be fully mainstream yet.

Figure 1. The percentage of **ACL and skills** learners who said that during their course they carried out the following digital activities either weekly or more, monthly or less, or never

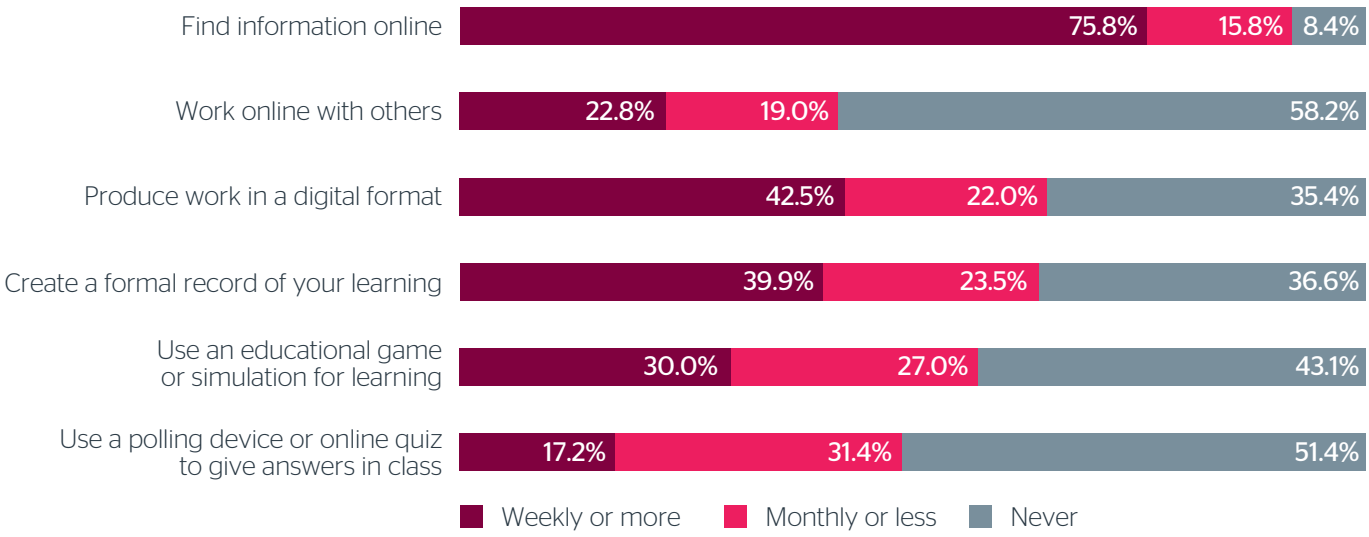


Figure 2. The percentage of **FE learners** who said that during their course they carried out the following digital activities either weekly or more, monthly or less, or never

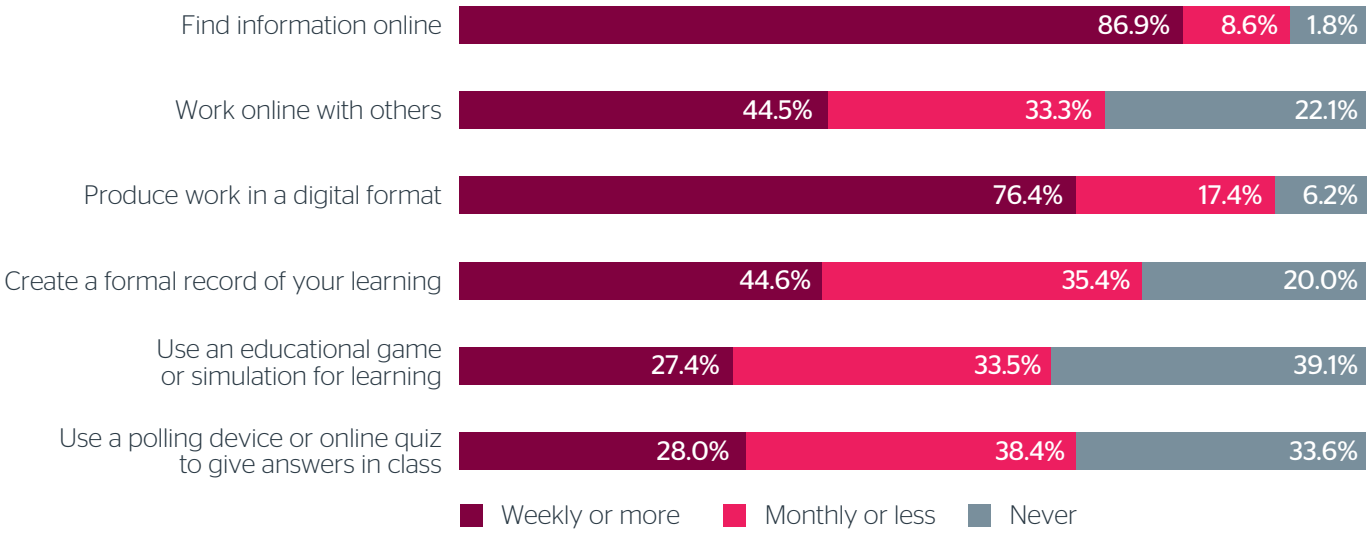


Figure 3. The percentage of **HE learners** who said that during their course they carried out the following digital activities either weekly or more, monthly or less, or never

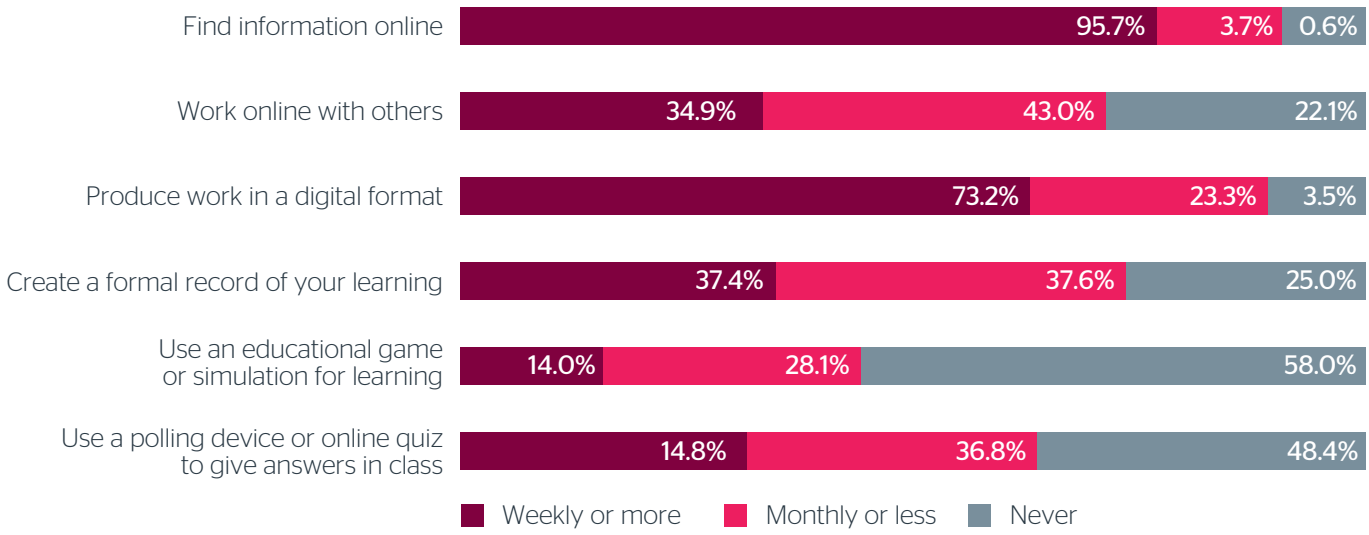
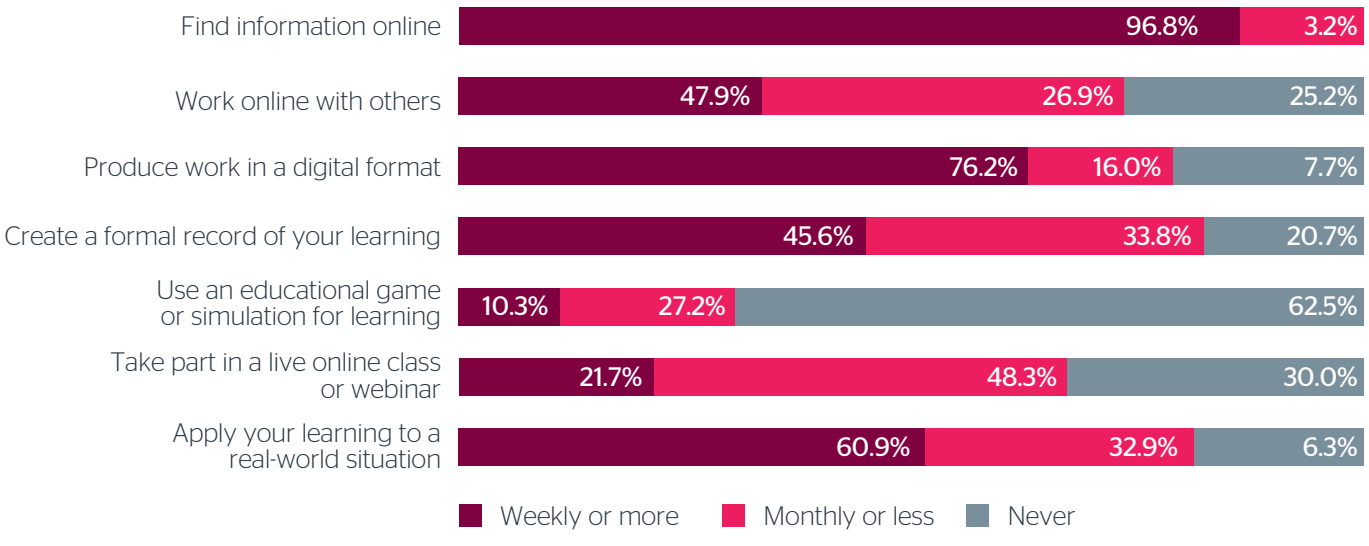


Figure 4. The percentage of **online learners** who said that during their course they carried out the following digital activities either weekly or more, monthly or less, or never



VLE use in courses (Q16)

Some blocks of questions were optional and could be chosen by the institution if they wanted to focus on this aspect. One such block concerned use of VLEs such as Blackboard and Moodle, and this was included in approximately two-thirds of the tracker surveys. Learners were asked whether they agreed, had a neutral opinion or disagreed with the statements shown in Table 9.

Key findings are as follows:

- **HE learners** are the group most likely to rely on the VLE: 80% rely on it to do coursework (in comparison with only 60.6 % of FE learners) and 66.8 % regularly access it via a mobile device (in comparison with 48.4 % of FE learners and 31.3 % of ACL and skills and online learners)
- However, learners do not report feelings of enjoyment when it comes to VLE use: only 40% of HE and FE learners say they enjoy using the collaborative features or want their tutors to use the VLE more
- **ACL and skills and online learners** were asked four other questions about their VLE use (see bottom of Table 9). Fewer than 62% of ACL and skills and online learners felt it was well designed. Only half of ACL and skills learners enjoyed using it to work with other learners (although this might be because they didn't get to use collaborative features, as seen in the results in Figure 1 with regard to opportunities to work online with others)

Table 9. The percentage of learners that agree when asked about use of their learning provider's VLE

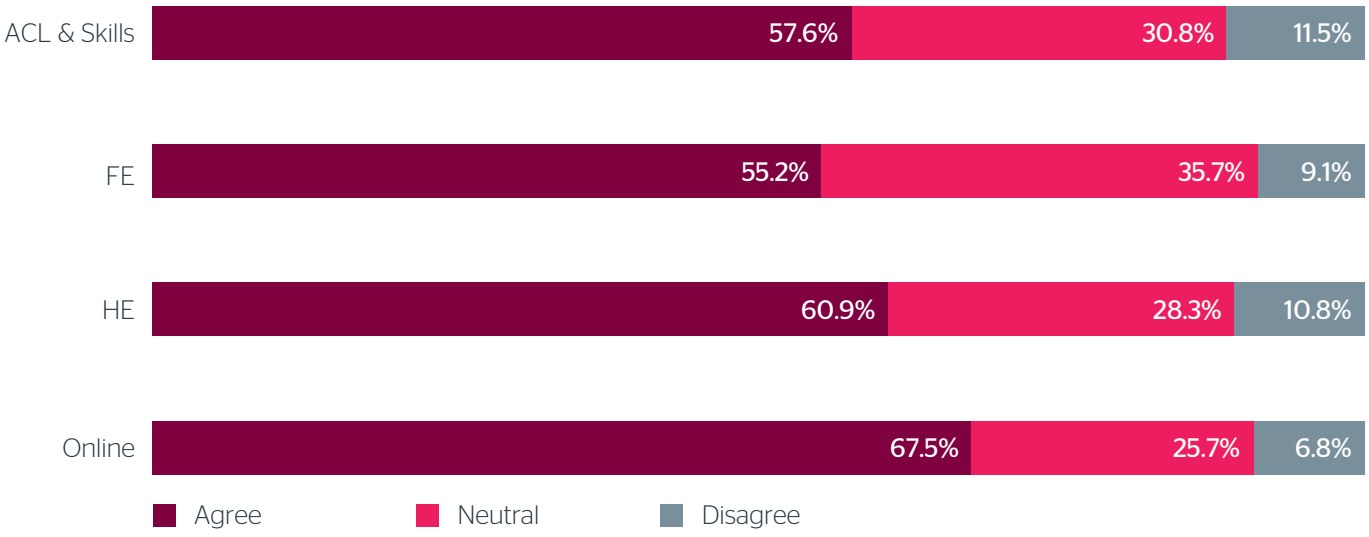
Aspects of VLE use	% learners that AGREED			
	ACL and skills learners	FE learners	HE learners	Online learners
I rely on it to do my coursework	-	60.6%	80.0%	-
I regularly access it on a mobile device	31.3%	48.4%	66.8%	30.5%
I enjoy using the collaborative features	-	41.3%	40.8%	-
I would like it to be used more by my tutors	-	40.2%	46.0%	
It is well designed	59.3%	-	-	61.6%
It provides everything I need to succeed in my course	60.4%	-	-	60.3%
I enjoy using it to work with other learners	49.5%	-	-	57.8%
Online feedback really helps me to improve	51.7%	-	-	69.9%

Delivery of online assessments (Q10)

Learners were asked whether online assessments were delivered and managed well in their course and they could choose to agree, remain neutral, or disagree. Results are shown in Figure 5.

Results between learner groups are similar: between 55% and 68% of learners agreed that online assessments are delivered and managed well on their course.

Figure 5. The opinions of ACL and skills, FE, HE and online learners when asked whether online assessments were delivered and managed well



Key finding:

» If we exclude online learners – whose mode of access makes online assessment more or less inevitable – and focus on learners who may experience or expect other forms of assessment, at least 40% are either negative or neutral about the online assessment used on their course

Attitudes relating to e-assessment (Q15)

Another optional block of questions related to e-assessment, and was available to the HE and FE learner groups. Approximately two-thirds of HE and FE learners were asked these questions. The percentage of learners that agreed with each statement is shown in Table 10. Key findings are as follows:

» Approximately 80% of HE learners say they find it more convenient to submit assignments electronically in comparison with only approximately 60% of FE learners

» Fewer than half of HE and FE learners agreed that they make better use of feedback if it is delivered digitally with approximately 30% having a neutral opinion and 20% disagreeing (suggesting that at least 20% may prefer feedback to be delivered in person (via tutorials, one-on-one meetings, group discussions etc)

Higher numbers of HE and FE learners agreed that e-assessment was convenient than agreed that it was more enjoyable, provided them with better feedback, or helped them avoid plagiarism. This suggests that negative feelings about online assessment overall may be related to delivery (and outcomes) rather than to management.

In both sectors, the median average answer for all four questions was 'agree' with the exception of a neutral average opinion for "I make better use of feedback if it is delivered digitally" – again suggesting that e-assessment is practically useful rather than pedagogically valuable.

Table 10. The percentage of HE and FE learners that agree when asked about use of e-assessment

Aspects relating to e-assessment	% learners that AGREED	
	FE learners	HE learners
I find it more convenient to submit assignments electronically	61.9%	79.6%
I enjoy using online quizzes to test my knowledge	55.9%	57.6%
I make better use of feedback if it is delivered digitally	45.0%	45.8%
College systems help me to avoid plagiarism	53.8%	69.6%

Attitudes to the use of digital technologies during learning activities (Q8, Q9)

We asked learners to comment on various statements about the use of digital technology within their course of study. Two blocks of questions were presented to learners: one phrased positively and one phrased negatively. This was to mitigate against compliance response bias and to encourage learners to take a balanced view of technology in learning. Notoriously, surveys of this kind often ask only about positive outcomes from technology use.

Learners could choose to agree, remain neutral or disagree with each statement. Results are shown in Tables 11 and 12.

Key findings:

- Overall, even with the inclusion of negative statements to balance out the compliance bias of this kind of scale, learners are upbeat about the use of digital technology to support their learning
- Across learner groups, digital technology is least favoured for feeling connected to others. It is relatively more favoured for educational outcomes ('understanding') and for independence and convenience/flexibility. Distraction is the main concern for HE and FE learners; isolation for online learners. A minority of learners in all groups may struggle with a nexus of issues around lack of connection, isolation, motivation, distraction and information overload
- Learners on the whole do not believe that the use of digital technology – for example to give access to course resources and recorded lectures – makes them less likely to attend class. Fewer than 10% of ACL and skills and FE learners believe this, in comparison with 16% of HE learners

Table 11. The percentage of learners that **agree** when asked about various aspects of digital technology use in their course (positive statements)

When digital technology is used on my course... (positive statements)	% learners that AGREED			
	ACL and skills learners	FE learners	HE learners	Online learners
I understand things better	57.8%	64.0%	58.5%	34.4%
I am more independent in my learning	63.3%	69.1%	71.3%	85.6%
I feel more connected with my lecturers/tutors	50.3%	42.2%	43.9%	20.0%
I feel more connected with other learners	37.8%	45.9%	40.4%	27.0%
I can fit learning into my life more easily	62.0%	65.3%	72.8%	80.8%
I can access learning that would be impossible to access physically	-	-	-	75.3%

Key findings by learner group:

- Compared with other groups **online learners** are less likely to say that they understand things better when digital technology is use, or that they feel more connected with their lecturers and peers. They are also more likely to feel isolated and to struggle with information overload. In fact online learners scored more highly than other learners on all the measures of dissatisfaction with digital technology. This is on the face of it a challenging result as digital technology provides their only or predominant experience of learning. So, while it helps most learners to feel independent and to fit learning into their lives online learning may offer these benefits at the expense of others, such as deep understanding and a sense of connection. The last item in this question helps to put this finding into perspective: for 75% of online learners there is no alternative so the benefits will always outweigh the costs
- This finding can be put alongside another - that online learners invariably spend time accessing content online but less than half work online with others weekly, and 25% never work online with others (see Figure 4). Content-based learning continues to drive a significant percentage of online provision – perhaps necessarily given its role in CPD, just-in-time, mandatory and compliance learning – but this may not serve well those learners who need more social interaction and interconnection

Table 12. The percentage of learners that **agree** when asked about various aspects of digital technology use in their course (negative statements)

When digital technology is used on my course... (negative statements)	% Learners that AGREED			
	ACL and skills learners	FE learners	HE learners	Online learners
I am more easily distracted	11.6%	21.6%	24.0%	25.6%
I find it harder to manage all the information	12.1%	14.1%	14.2%	20.0%
I feel more isolated	9.5%	11.7%	13.4%	30.8%
I find it harder to motivate myself	10.5%	16.4%	17.0%	17.9%
I am less likely to attend class	5.5%	8.8%	16.0%	-

» Around 60% of **ACL and skills learners** say that use of digital technology on their course makes them more independent in their learning, and allows them to fit learning into their life more easily. Only approximately 10% say use of digital technology in their course results in them being distracted more easily, creates problems in managing information, or makes it harder to motivate themselves. Overall, then, ACL/skills learners are positive about the effects of digital technology in their learning but for a significant minority there may be issues of distraction, isolation and motivation to consider

» Responses from **FE and HE learners** were broadly similar: around six in ten feel that use of digital technology on their course results in better understanding, greater independence and allows them to fit learning into their lives more easily. However nearly one in four say that its use can result in greater distraction and smaller numbers have issues with motivation and information management

Institutional-level digital provision and support

This section reports on learners' perceptions of their institution's digital support and provision.

Learner involvement in decisions about digital services (Q10)

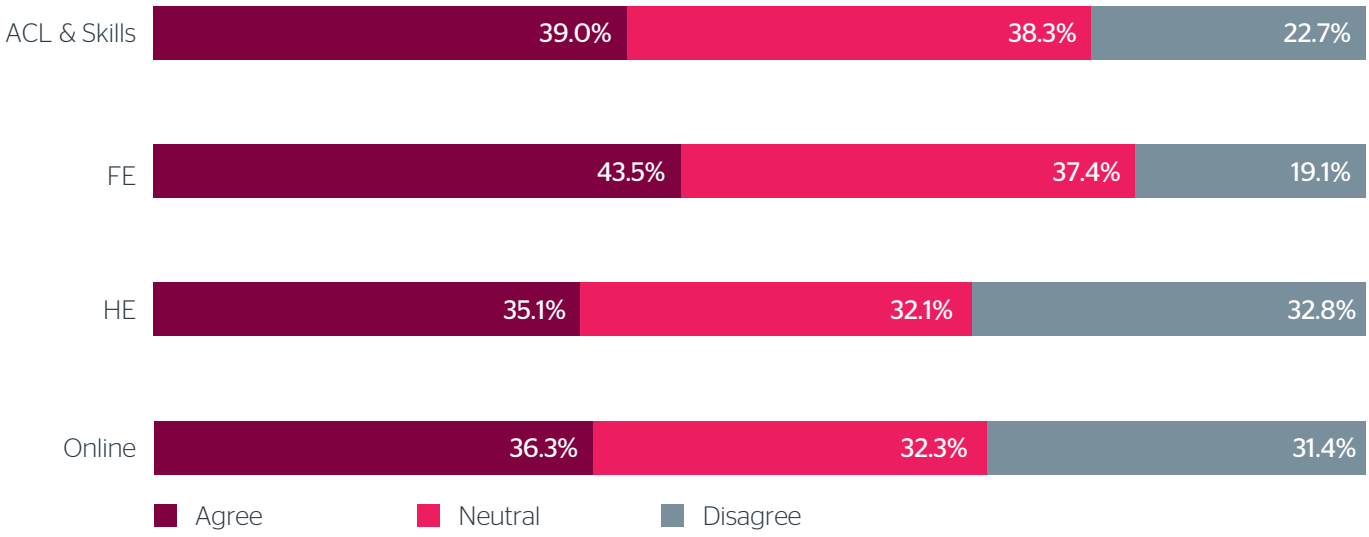
We asked learners whether they were given the chance to be involved in decisions about the digital services provided by their learning provider and they could agree, disagree or remain neutral. Results are displayed in Figure 6.

Key findings are as follows:

- Just over one-third of learners agreed that they are given the chance to be involved in decisions about digital services - with the highest level of agreement from FE learners (43.5%)
- This mirrors the 2017 UCISA digital capabilities survey report[6] which stated that 43% of universities that responded to the survey are working with students as change agents (another 38% said they were working towards this)

The tracker is one way in which organisations can begin to engage with their learners and we recommend that organisations continue the dialogue with learners by sharing and discussing tracker results, encouraging their participation in data analysis and discussing the findings with student unions and student course representatives.

Figure 6. The opinions of FE and HE learners when asked whether they are given the chance to be involved in decisions about digital services



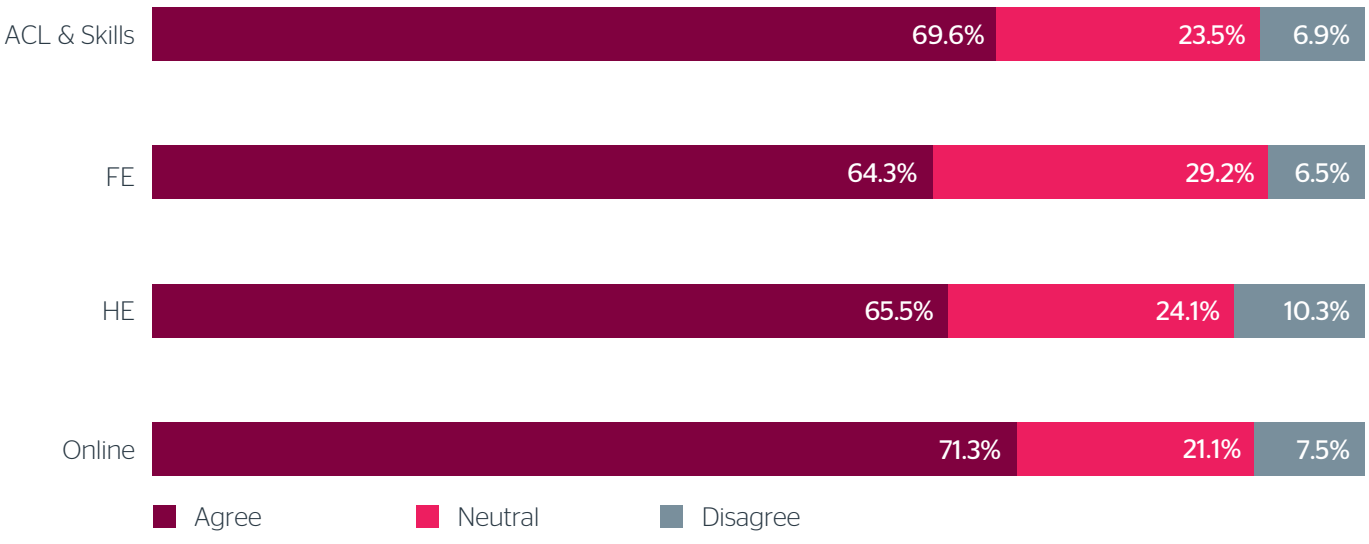
Access to digital training and support (Q13)

Learners were asked whether they could access digital training and support from their organisation whenever they needed it. They could choose to agree, disagree or remain neutral. Results are shown in Figure 7.

Key findings are as follows:

- Approximately 70% of ACL and skills and online learners agreed that they could access digital training and support from their learning provider whenever they needed it, in comparison with approximately 65% of HE and FE learners
- Just over 10% of HE learners disagreed when asked whether they could access digital training and support when they needed it in comparison with only approximately 7% of the other learner groups

Figure 7. The opinions of ACL and skills, FE, HE and online learners when asked whether they could access digital training and support whenever they needed it



[1] 6 See ucisa.ac.uk/bestpractice/surveys/digcaps/2017digcaps_report

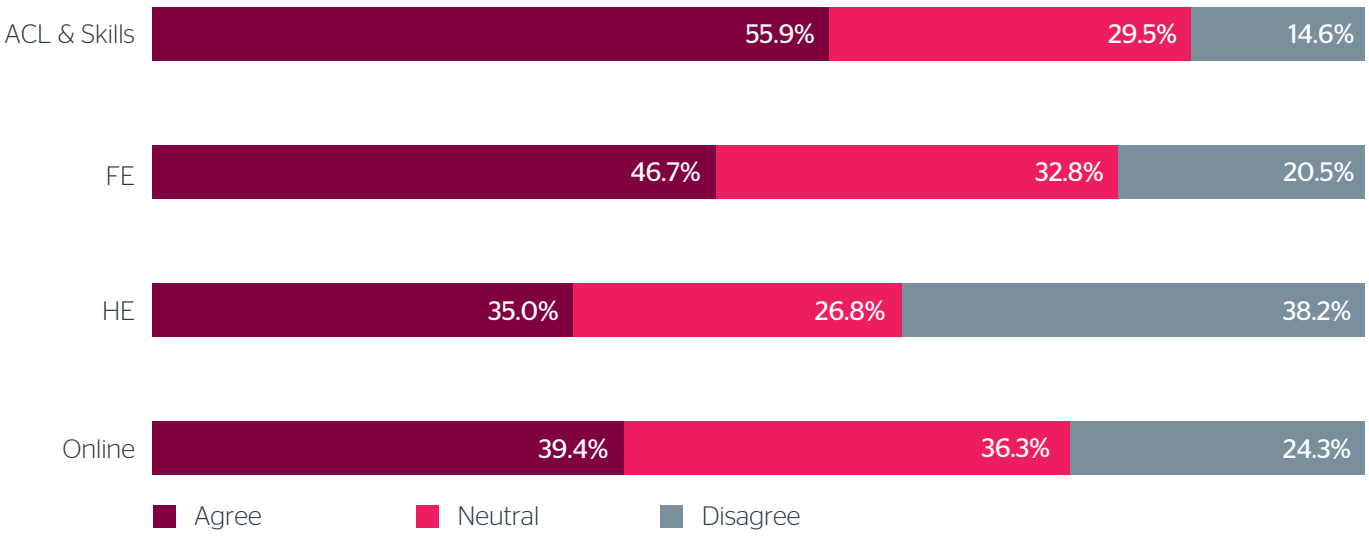
Communication about data protection (Q10.4)

Learners were asked whether they were told how their personal data was stored and used. They could agree, remain neutral or disagree with the statement (Figure 8).

Fewer than half of all online, FE and HE learners agreed with this statement. HE learners had the most negative response: 38.2% disagreed when asked if they were told how their personal data was stored and used (Figure 8). Further exploration is needed to find out whether these findings reflect real differences in how institutions inform and involve their learners or whether they conceal other factors – for example, differences in learners' understanding of personal data and its risks. It would also be of interest to learn more about how learners feel about the use of their data – does it bother them, for example, when they do not know what their data is used for?

ACL and skills learners were the only group in which over half (55.9%) agreed that they had been told how their personal data was stored and used by their learning provider.

Figure 8. The opinions of ACL and skills, FE, HE and online learners when asked whether they had been told how their personal data was stored and used by their learning provider



Digital safety and wellbeing (Q14)

Some blocks of questions were optional and could be chosen by the institution if they wanted to focus on this aspect. One such block asked about digital safety and wellbeing and it was used in approximately one-third of the tracker surveys. Learners were asked whether they agreed, had a neutral opinion or disagreed with the statements shown in Table 13.

In two cases the percentage of HE learners who disagreed was very different from the other groups: these are in bold text in the Table below.

Key findings were as follows:

» In relation to aspects of digital safety and wellbeing there was a striking difference between **HE learners** and the other learner groups: when asked whether they know where to get help if they are bullied or harassed online 20% (one in five) of HE learners disagreed, in comparison to 5 – 7% of learners from the other three groups. Similarly 10% of HE learners disagreed when asked whether their university helps them stay safe online, in comparison with fewer than 2% of learners in all other groups. This may reflect a historically lower level of expectations for responsibility when it comes to digital safety issues among HE institutions. It will be interesting to see if this changes in future iterations of the Tracker.

Table 13. The percentage of learners that **agree** when asked about the support of their learning provider in relation to various aspects of digital safety and wellbeing

Aspects of digital safety and wellbeing	% learners that AGREED (% learners that DISAGREED)			
	ACL and skills learners	FE learners	HE learners	Online learners
I know where to get help from my learning provider if I am bullied or harassed online	76.4% (5.4%)	80.7% (5.6%)	67.1% **(20.0%)**	79.0% (6.8%)
I can access learning provider health and wellbeing services online	-	69.0% (6.9%)	63.7% (13.0%)	-
I can participate in student union / club / society activities online	-	57.7% (12.8%)	63.2% (15.4%)	-
My learning provider protects my data privacy	81.9% (1.8%)	75.4% (3.6%)	76.7% (2.7%)	76.2% (3.3%)
My learning provider helps me stay safe online	70.1% (6.1%)	68.2% (5.9%)	58.2% **(10.4%)**	67.6% (6.3%)
My learning provider expects me to behave respectfully in online spaces	83.6% (1.9%)	85.6% (1.6%)	91.4% (0.9%)	85.9% (1.6%)

Outside the classroom: learner skills and views

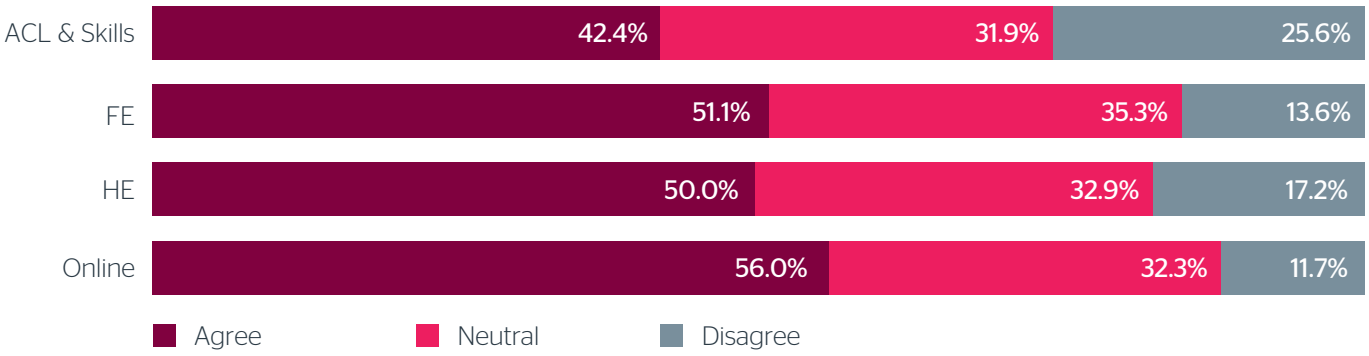
Course preparation for the digital workplace (Q10)

We asked learners if they feel their course prepares them for a digital workplace and they could choose to agree, disagree or remain neutral. Results are shown in Figure 9.

Key findings are as follows:

- The most negative results were from **ACL and skills learners:** only 40% agreed, and more than one in four disagreed when asked whether their course prepared them for the digital workplace
- The most positive results were from **online learners:** 56% agreed that their course prepared them for the digital workplace and only 12% disagreed. This may reflect the professional nature of many online courses
- Only half of **FE and HE learners** agreed that their course prepared them for the digital workplace

Figure 9. The opinions of ACL and skills, FE, HE and online learners when asked whether their course prepares them for the digital workplace



The perceived importance of digital skills in their chosen career (Q10)

Their learners were asked whether they felt that digital skills were important in their chosen career and they could choose to agree, disagree or remain neutral. Results are displayed in Figure 10. Key findings are as follows:

- While over 81.5% of HE learners feel that digital skills will be important in their chosen career (Figure 10) only 50% agree that their course prepares them well for the digital workplace (Figure 9)
- While over 63% of FE learners feel that digital skills will be important in their chosen career (Figure 10), only 51% agree that their course prepares them well for the digital workplace (Figure 9)
- The placing of these questions invited a direct comparison so we can say with some confidence that between a third and a half of learners in HE do not feel

their courses of study are preparing them well for the digital future. We should also be concerned about the almost 20% of learners in HE and almost 40% in FE who do not feel digital skills to be relevant in their chosen careers (Figure 10). Since we know that around 90% of all new jobs do require good digital skills[7] there must be a question mark over the workplace awareness of these learners and perhaps of their teachers

Figure 10. The opinions of FE and HE learners when asked whether they feel that digital skills are important in their chosen career

Awareness of digital skills that need improvement (Q13)

Learners were asked whether they feel they have been made aware of any digital skills that they need to improve. They could choose to agree, disagree or remain neutral. Results are shown in Figure 11.

Key findings are as follows:

» The most positive results were from ACL and skills and FE learners: 50% agreed and only one in five disagreed when asked whether they had been made aware of any digital skills they needed to improve

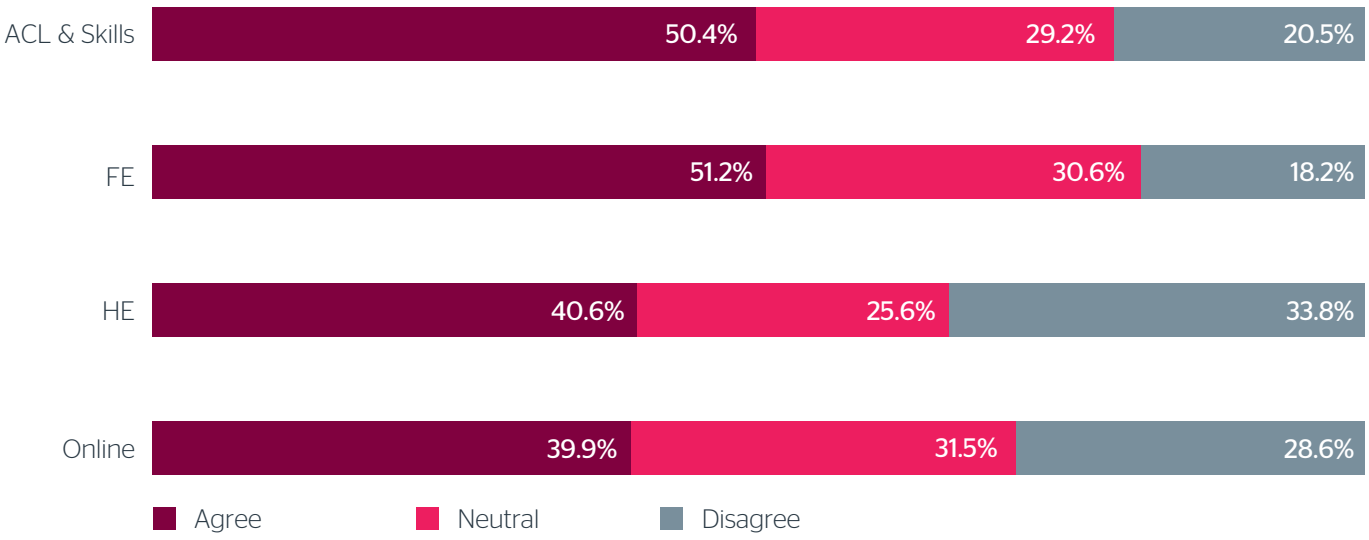
» In contrast, only 40% of online and HE learners agreed and approximately 30% disagreed they had been informed about any digital skills they needed to improve. This difference might be explained by the requirement for HE and online learners to be self-directed and independent in their studies, including in their development of digital skills

» However, there is clearly a shortfall across all sectors in the provision and/or signposting of services to support digital skills and capabilities

[1]

7 See publications.parliament.uk/pa/cm201617/cmselect/cmsctech/270/270.pdf

Figure 11. The opinions of ACL and skills, FE, HE and online learners when asked whether they have been made aware of any digital skills they need to improve



Perceived abilities in today's digital world (Q3)

Learners were asked about their ability to complete five digital activities and they could choose one of three answer options: 'yes on my own', 'yes with support', or 'no'. Results are shown in Figure 12. Because of the very high percentage of students responding 'yes on my own' to these statements, the question has not yielded any very clear results. It has shown that:

- Overall, learners feel confident in their mastery of fundamental digital skills and aptitudes, especially in their ability to stay safe and behave responsibly online. This may be the result of targeted training and awareness raising in this area, especially with FE learners
- In general learners may feel that a certain level of digital competence is expected of them, and be reluctant to admit to any shortcomings. Or they may simply be unaware that they have any – certainly our findings from the phase 1 pilot and other student user testing in relation to digital capabilities has shown us that most students are likely to rate themselves as having relatively high digital capabilities, regardless of their observed abilities in relation to aspects of digital skills and experience
- Not enough learners are sufficiently confident in their ability to create a positive online profile, judge online content reliably, or change privacy settings and manage passwords. We may want to recommend that these and some other core digital aptitudes should become mandatory and routine, as safe and responsible online behaviour seems to have done

Figure 12. The percentage of learners who, when asked about their ability to complete five digital activities, replied either that they could complete them on their own, they could do them with some support, or were unable to do them

Use of digital learning tools (Q7)

Learners were asked how often, in their own learning time, they used digital tools or apps to complete a number of tasks. They could answer 'weekly or more', 'monthly or less' or 'never' (see Figures 13 to 16).

Figure 13. The percentage of **ACL and skills learners** who said that in their own time they used digital support tools to complete the following tasks either weekly or more, monthly or less, or never

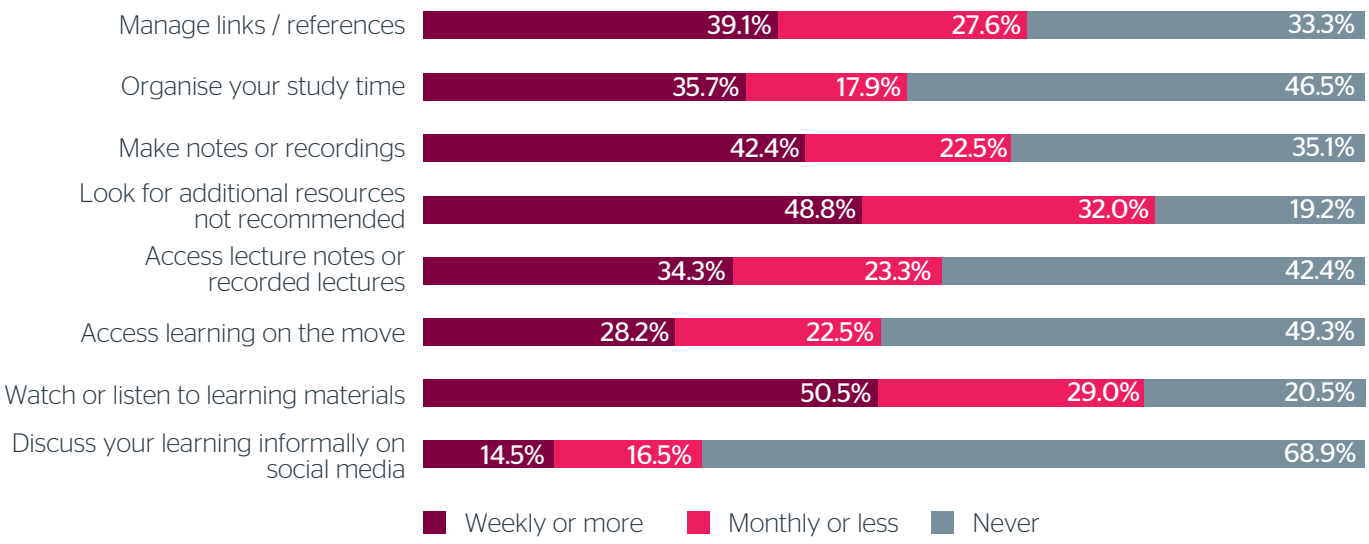


Figure 14. The percentage of **FE learners** who said that in their own time they used digital support tools to complete the following tasks either weekly or more, monthly or less, or never

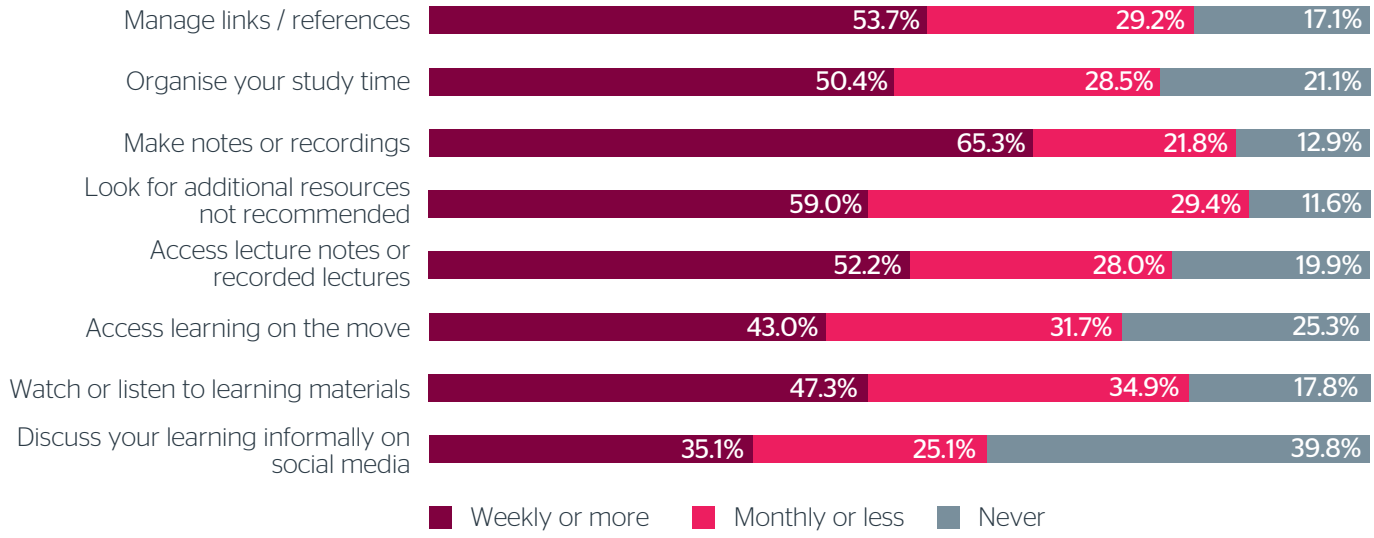


Figure 15. The percentage of **HE learners** who said that in their own time they used digital support tools to complete the following tasks either weekly or more, monthly or less, or never

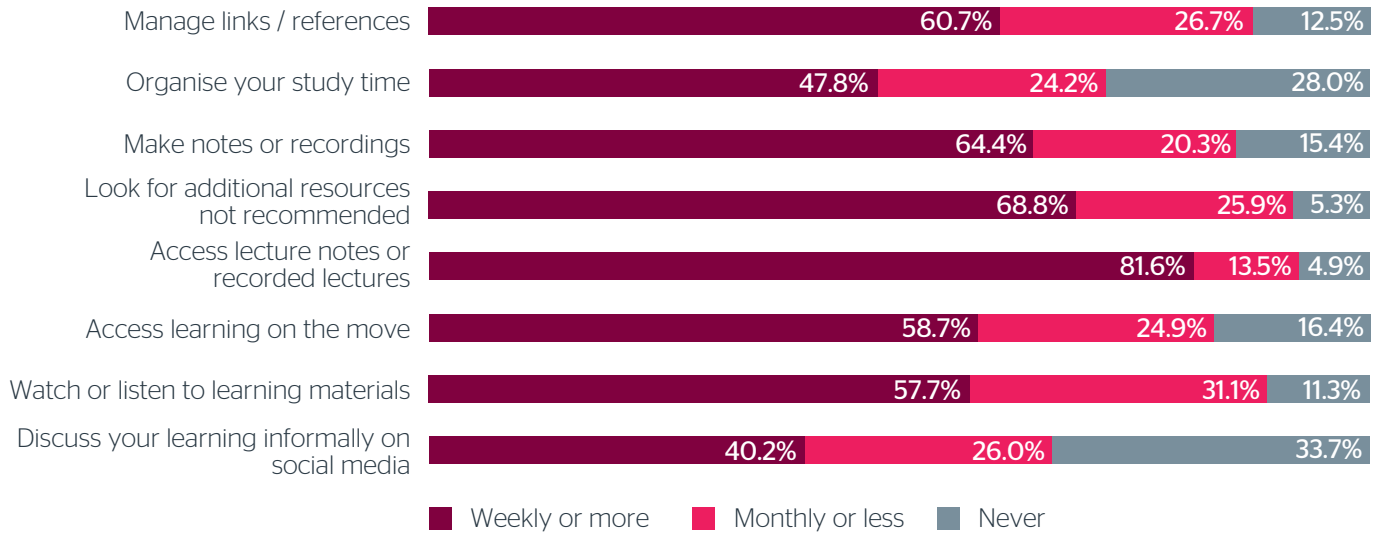
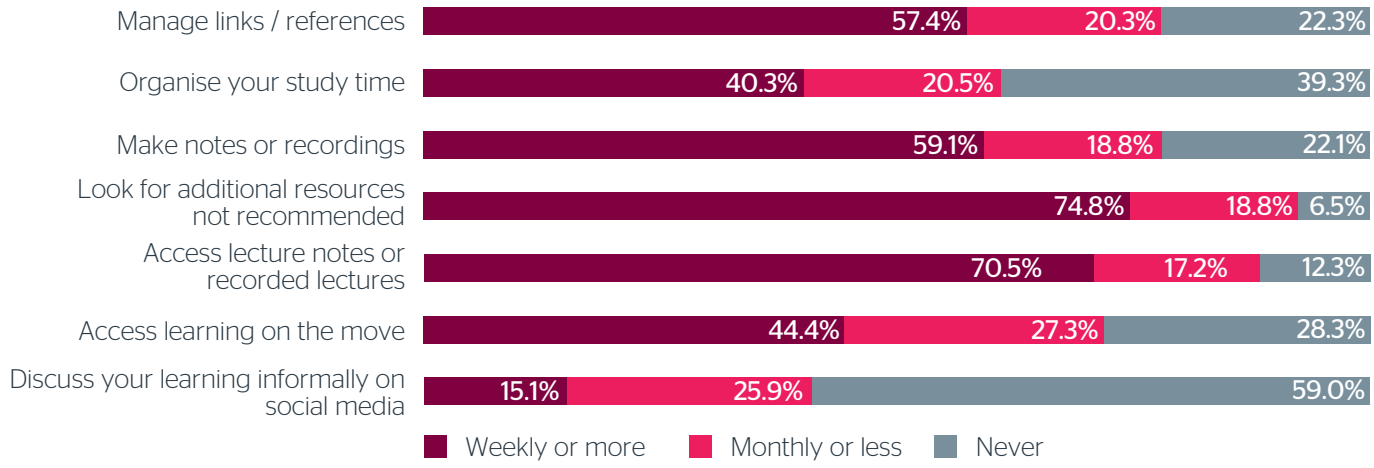


Figure 16. The percentage of **online learners** who said that in their own time they used digital support tools to complete the following tasks either weekly or more, monthly or less, or never



Key findings are as follows:

- It is somewhat surprising that relatively few HE learners, in a cohort with good access to mobile and personal devices, undertake these activities weekly
- If we look at median average answers we find that HE, FE and online learners carry out activities such as managing links/references and making notes or recordings weekly, whereas ACL and skills learners average these activities monthly or less
- The average FE learner organises their study time using digital support tools weekly or more often, in comparison with the average HE, ACL and skills and online learner who organises their study time monthly or less often
- The average FE learner watches or listens to learning materials using digital support tools monthly or less often in comparison with all other learner groups who, on average, do so weekly or more often

- The average HE learner accesses learning on the move weekly or more often, in comparison with all other learner groups who, on average, do so monthly or less often

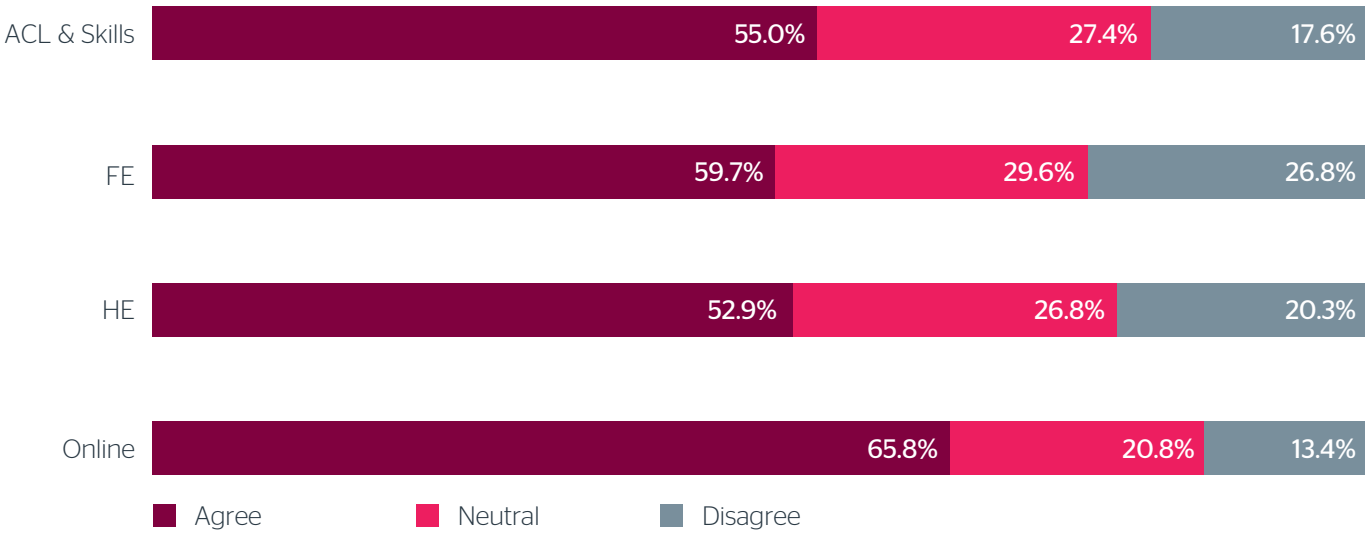
- Across all learner groups there is a particularly low result for discussing learning informally on social media with the average answer being 'monthly or less' for HE and FE learners, and 'never' for ACL and skills and online learners. Once again this suggests that the social and communicative aspects of digital networks are being less routinely used than the informational. Of course it is also possible that students see this practice as illegitimate or 'not proper learning' and so it has been under-reported. Focus groups, interviews and learner journeys could be used to investigate the intersection of formal with informal digital spaces in learners' lives

Pre-course knowledge of digital skills required (Q13) Learners were asked whether they understood what digital skills they would need before they started their course and they could choose to agree, disagree or remain neutral. Results are shown in Figure 17.

The key finding is:

- The higher proportion of agreement from online learners suggests that mainstream education could learn something from this sector, where it is common practice to issue learners with a pre-sessional test, questionnaire, 'readiness' score or similar and where induction into the learning environment is compulsory, explicit, and often ongoing through the first part of a course

Figure 17. The opinions of ACL and skills, FE, HE and online learners when asked whether they understood what digital skills they needed before starting their course



Learner support

The people who provide support for learners (Q4)

Learners were asked who best supports them to learn digital skills such as the ones listed in Figure 12. We gave them a number of options and asked them to choose just one. Results are shown in Table 14, with the most popular source of support (when learning digital skills) identified in bold for each learner group. Key findings were:

- **ACL and skills** and **FE** learners most commonly turned to their tutors for support in learning digital skills: nearly half chose their tutors as the main source of help. Following behind their tutor they would rely on friends, family and (in the case of on-campus FE learners) fellow students. These students were significantly less likely to rely on online support and information

- **HE** (36.5%) and **online** learners (45.7%) most commonly turned to online information to learn new digital skills. In fact their use of online information almost exactly mirrored the use of their tutors as primary support Figures for FE/ACL/skills learners. However, HE and online learners were almost as likely to turn to friends and family, and (if on campus) fellow students

- Fewer than 6% of ACL and skills or online learners turned to fellow students as their main source of learning digital skills in comparison with one in five FE or HE learners

- Apart from direct contact with their tutors, there was very little interest in support offered by organisations. It is possible that online provision includes some of this support, migrated from face-to-face to online formats. It is also possible that learners do not consider the support they receive from, for example, library staff, careers staff, learning support staff and research developers as 'digital' even when it includes digital skills. This is an issue that could be explored further with interviews or focus groups

These Figures underline the value of informal skills development and the importance of a supportive context.

Table 14. The opinions of ACL and skills, FE, HE and online learners when asked who they go to most often for support in learning digital skills

Support options	People who support learners			
	ACL and skills learners	FE learners	HE learners	Online learners
Lecturers/tutors on my course	47.0%	45.5%	15.8%	14.4%
Other learner provider support	3.4%	4.4%	8.1%	6.2%
Fellow students	2.3%	17.7%	20.3%	5.1%
Online information	19.9%	14.2%	36.5%	45.7%
Friends and family	27.4%	18.3%	19.3%	20.2%
Work colleagues	-	-	-	8.5%

Support with disability / health issues (Q5)

Learners were asked whether they had a disability or health issue that affects how they study, and, if so, whether they had difficulties accessing course content/ information and whether they had any support to use assistive technologies.

Fewer online learners identified themselves as having a disability or health issue that affected their learning. This may need further investigation, as it seems at odds with the high proportion that said they could not access learning in other ways. (Of course this will include many learners with constraints of geography, time, cost etc. but it would be very surprising if it did not also include learners with health and disability constraints.) If this finding is borne out, it suggests that online learning is failing to attract a group of learners that could benefit greatly from the independence and flexibility it offers.

HE learners were the group that self-identified the highest percentage of disabilities or health issues (Table 15), and were the group most likely to say they had difficulty accessing provider information or content because of their disability (Table 16).

Although 100% accessibility must be the goal, the relatively low number of respondents with difficulty accessing content (at any time) is a sign that providers must be responding positively to the accessibility agenda. However, too many learners seem to have missed out on support with assistive technologies, interfaces or adjustments.

Table 15. The percentage of learners who said they had a disability or health issue that affects how they study

	% learners who said they did have a disability or health issue that affects how they study
ACL and skills learners	10.4%
FE learners	12.1%
HE learners	14.0%
Online learners	3.8%

Table 16. The percentage of learners who said they had a disability or health issue who felt they had difficulty accessing learner provider information or course content, and who said they had support from their provider to use assistive technologies

	% learners who have difficulty accessing learner provider information or course content as a result of their disability	% learners who have had support to use assistive technologies from their learning provider
ACL and skills learners	10.5%	37.7%
FE learners	11.4%	23.4%
HE learners	16.9%	31.0%
Online learners	11.8%	13.8%

Online learners

We asked online learners four additional questions about their learning experiences. Their responses are summarised below.

Over 85% of online learners study at home (Table 17). The most common reason for engaging in online learning is to enhance career options (44.2%) followed by a desire for self-development (31.0%) (see Table 18).

Table 17. The location in which online learners most commonly study

Places of study	% online learners
At home	85.1%
At work	8.1%
In a library or learning centre	3.5%
In a café or social space	1.1%
Other	2.3%

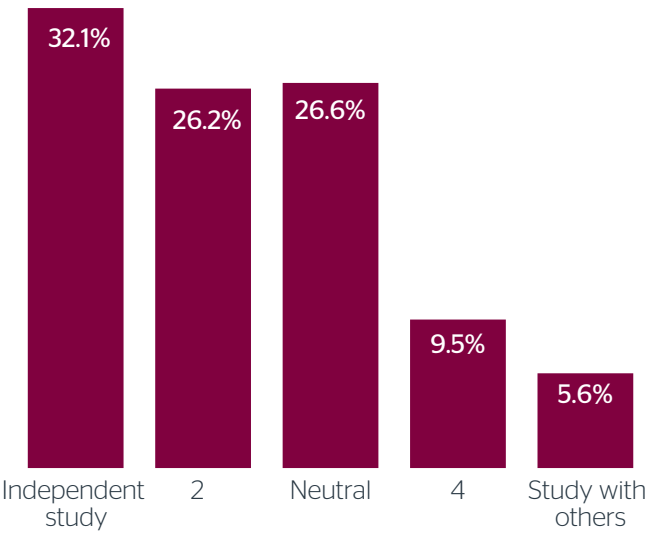
Table 18. The main reason why online learners engage with online learning

Reasons for engaging in online learning	% online learners
Self development	31.0%
To enhance my career options	44.2%
To explore a personal / professional interest	19.1%
To meet a requirement of my work	3.9%
To learn socially	0.1%
Other	1.7%

Online learners were asked for their preference between learning independently and studying with others. They had the option of choosing an answer on a five point scale where one equalled 'strongly prefer to study independently' and five equalled 'strongly prefer to study with others'.

The results are shown in Figure 18 and revealed that most online learners prefer independent study, with nearly 60% choosing one or two on the scale. It may be that online learners choose this mode of learning because it suits their existing preferences; or it may be that online learning favours independent learning as a strategy. However, 15% leant towards a preference for studying with others. This is interesting in light of the findings in Figure 4, which show that 25% of online learners never work with others online.

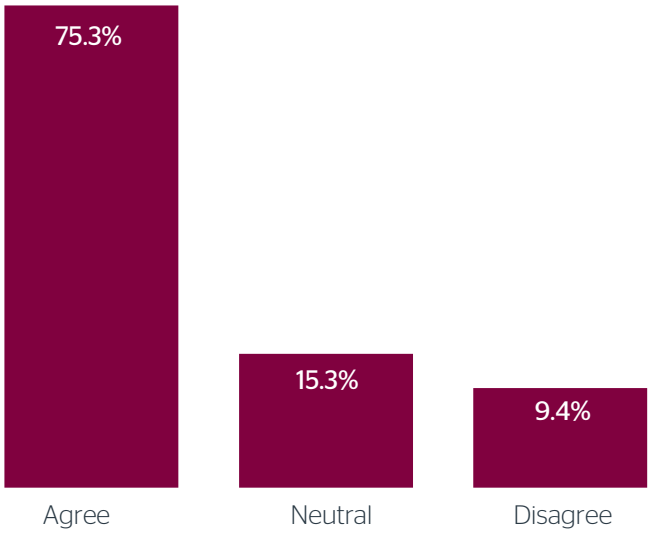
Figure 18. Online learner preference for independent versus group learning



Online learners were also asked whether they study online because it allows them to access learning that would be impossible to access physically. The percentage that agreed with this is shown in Table 11; this is expanded to show all the data collected in Figure 19.

Three quarters of online learners study online because they can access learning that they cannot access physically in other ways. This suggests that online learners are motivated to overcome the more negative experiences they have with digital technology (see question on attitudes above) because they simply do not have an alternative. Like the other findings about online learners, this requires verification with a larger data set or through qualitative methods.

Figure 19. The percentage of online learners who agreed, had a neutral opinion or disagreed when asked whether they study online because it gives them access to learning that they would not be able to access physically



What is next for the tracker?

A series of 'Focus on' briefings are being produced which will highlight the key themes from the tracker data analysis together with a set of briefings for key roles within institutions for example, IT directors, library and learning resources staff and senior leaders.

In addition, a set of institutional vignettes will be published to share how colleges and universities have used the tracker to inform their digital developments and how they are working with their students to take forward the resulting actions.

The briefings and institutional vignettes will be available in July 2017, from the tracker project page jisc.ac.uk/rd/projects/student-digital-experience-tracker

Jisc will be running the 2018 tracker survey from November 2017 and if you are interested in participating please contact Sarah Knight (sarah.knight@jisc.ac.uk).

To follow the developments of the tracker:

- Visit the project page jisc.ac.uk/rd/projects/student-digital-experience-tracker
- Join the tracker mailing list jiscmail.ac.uk/jisc-digitalstudent-tracker
- Follow #digitalstudent and @jisc on Twitter

We are analysing feedback from pilots and working closely with pilot institutions to better understand the tracker's value and impact. If you have any further questions, please contact sarah.knight@jisc.ac.uk

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