



Learning  
Innovation

# Student Device Usage Survey

Third Edition – Findings  
Summary

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The Open University



# **Student Device Usage Survey**

## **Third Edition – Findings Summary**

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### **Introduction**

The third edition of the Student Device Usage Survey was carried out in April 2020. This six-monthly survey aims to track trends relating to the usage of smart devices by students in The Open University's Curriculum Design Student Panel (CDSP). These students are representative of the overall University student population. We will be comparing the data from this edition of the survey with data from the surveys run in April 2019 and October 2019.

The purpose of the Student Device Usage Survey is to provide data to inform and guide the Smart Tech project in the Learning Innovation team in Learner and Discovery Services. The Student Device Usage Survey was initiated to investigate the potential benefits and impact of smart devices on student success. The data from the previous editions have been applied by the Learning Innovation team to establish hypotheses and experiments that now form the basis of the project.

The data from the third edition of the survey provides new and additional insight which, together with analysis of the experience of our students against commercial and market trends, will progress the Smart Tech project.

### **Methodology**

Following the same process as for previous editions of the survey, we ran a short survey with the CDSP to ask the new cohort of students on the panel a set of questions about their device ownership and usage. We kept the questions identical to those in the previous editions of the survey in order to help us easily identify any variations. The current CDSP cohort is 1970, compared with the previous cohort of 1990. The April 2020 survey received 420 complete responses, with a slightly lower response rate of around 21%.

### **Survey findings**

#### **Third Edition**

The responses (Appendix A) provide an insight into the types of devices students have access to, which of these they use regularly for study and why, and which they would like to use more. From this (and by combining this data with the data from previous surveys) we are able to obtain an insight into the devices that The Open University could potentially target more use of in the future, as well as where not to spend unnecessary time and resource.

The conclusion that can be drawn from the latest set of results is that while the current cohort exhibit similar characteristics to the previous cohorts across the whole range of questions, in general the usage of smart devices is slightly lower on average than we have seen so far. While some responses remain almost identical, particularly around the usage of laptops and smartphones, and the stated reasons for using certain devices for study, in this cohort there is a slight trend towards reduced usage of technology.

While some of this data is comparable to that seen from market trend surveys, which reports a reduced usage of desktop PCs and tablets, other responses raise interesting questions for further examination, such as a reduced rate of usage of Smart TVs when the market trends (and our own previous data) suggests increased usage.

However, on the whole, the variances remained low. For some sections, the individual findings showed only 1-2% difference across the cohort’s responses. The largest single variance for any specific response across this set of data was 8% and as per the last survey, fourteen responses had completely identical responses to the previous survey.

As in the previous survey, on average (median) the variances in the sections of the survey were 4% at the highest, and zero at the lowest, underscoring the overall similarity in the sets of results.

### Access to and usage of devices

One of the key areas explored by the Student Device Usage Survey is variety of devices that students have access to. The variety of device types listed were: PCs/laptops, tablets, smartphones, smart devices (including speakers, screens, TVs and streaming devices), games consoles, and VR headsets, as well as providing an ‘other’ category for anything that did not fit these options.

The survey specifically differentiates between access and usage, so as not to conflate ownership or access with personal usage, as students may have access to a device in their household but will never use that device of their own accord.

The responses (Figure 1) demonstrate access to a variety of devices. Traditional and well utilised devices for study purposes were well represented as in past surveys. Once again, 92% of students have access to a laptop and 92% to a smartphone, although access to smart devices in general reduced slightly compared to previous responses, with tablet access down 7% and streaming device access down 8%. Access to games consoles (+2%), smart speakers (+4%), smart screens and Virtual Reality headsets (both +2%) all rose, but access to Smart TVs and Hybrid PCs (both -4%) reduced.

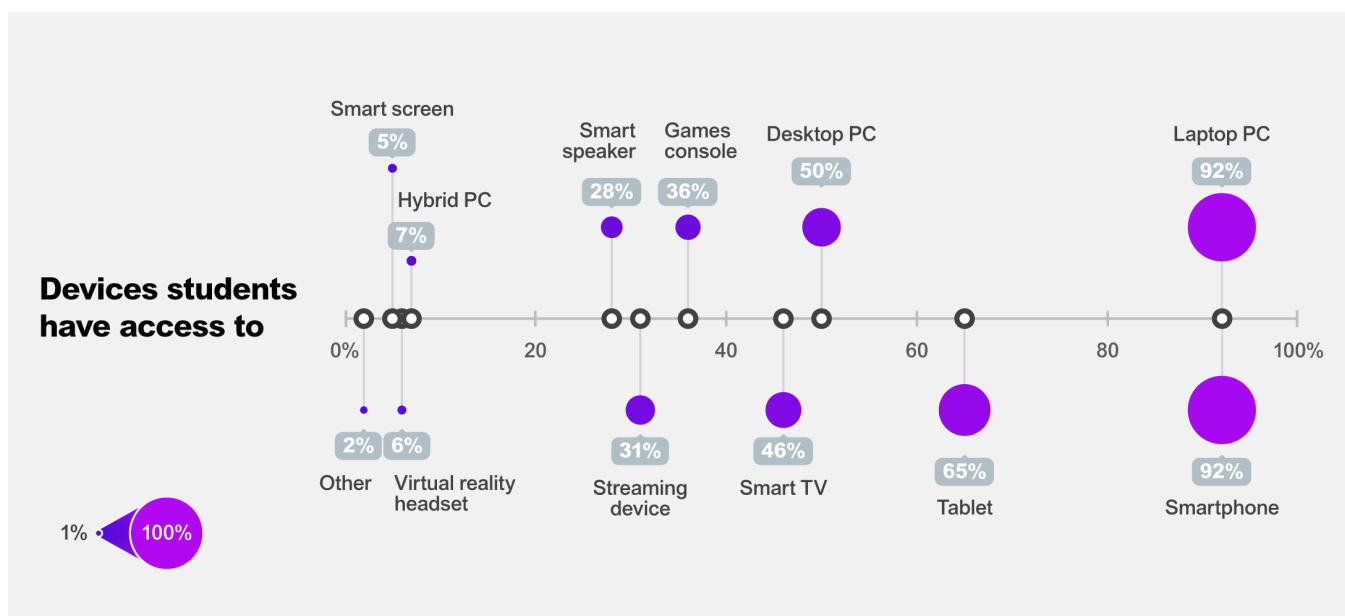
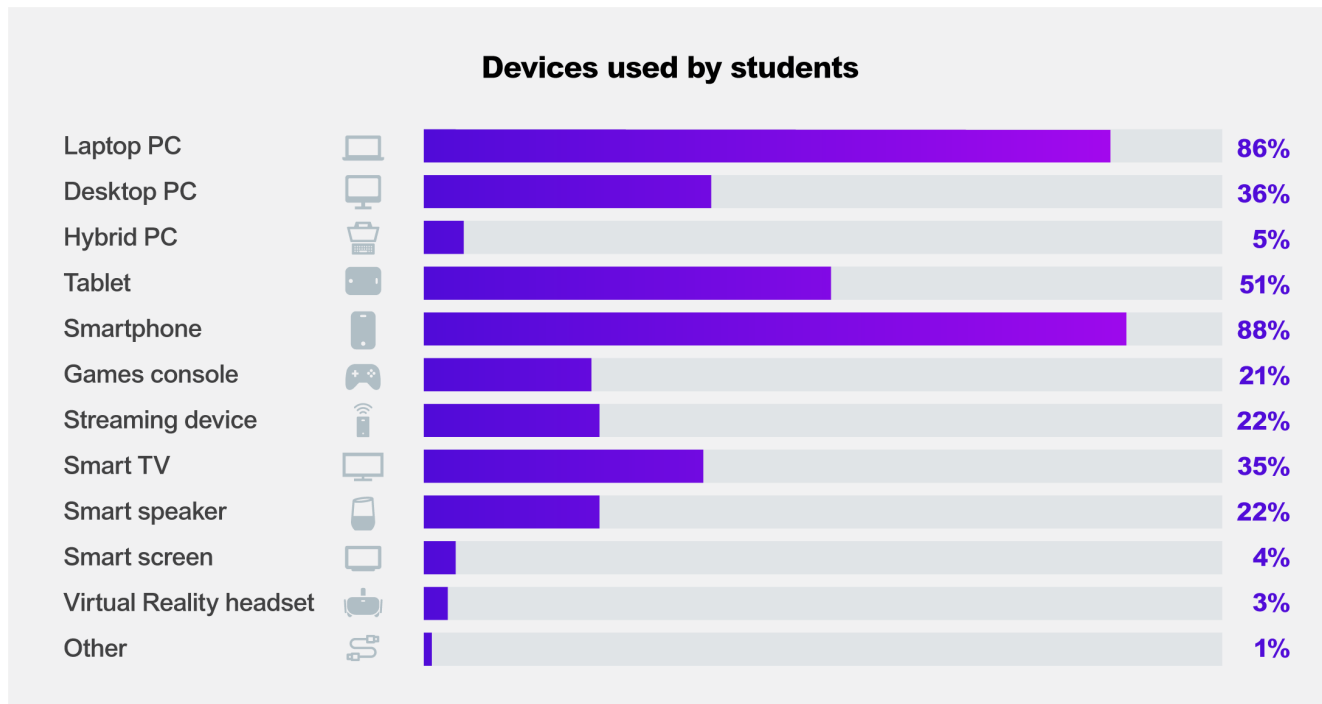


Figure 1 Device types that students own or have access to

When assessing device usage (Figure 2), the survey found that 88% of respondents regularly use a smartphone and 86% use a laptop, -1% and -2% from the previous cohort respectively. Tablet and desktop use decreased by 7% and 6% respectively, some of the biggest drops in this cohort’s responses. However, more students continue to use a tablet (51%) than a desktop (36%), and these figures are in keeping with the current industry trends.



**Figure 2** Device types that students use

This edition’s data suggests a levelling off in the uptake of students using a smart device; 35% of respondents use a smart TV, down from 39% previously, with 3% more students using a smart speaker than the previous cohort. The percentage of students using a smart screen and VR headset increased nominally (1% and 2% respectively) but streaming device usage was down by 5%.

The percentage of respondents that have access to (36% compared to 34% previously) or use a games console on a regular basis (21% compared to 20%) showed a very slight increase, however, this time around no students reported using a games console for study purposes.

### Device usage for study

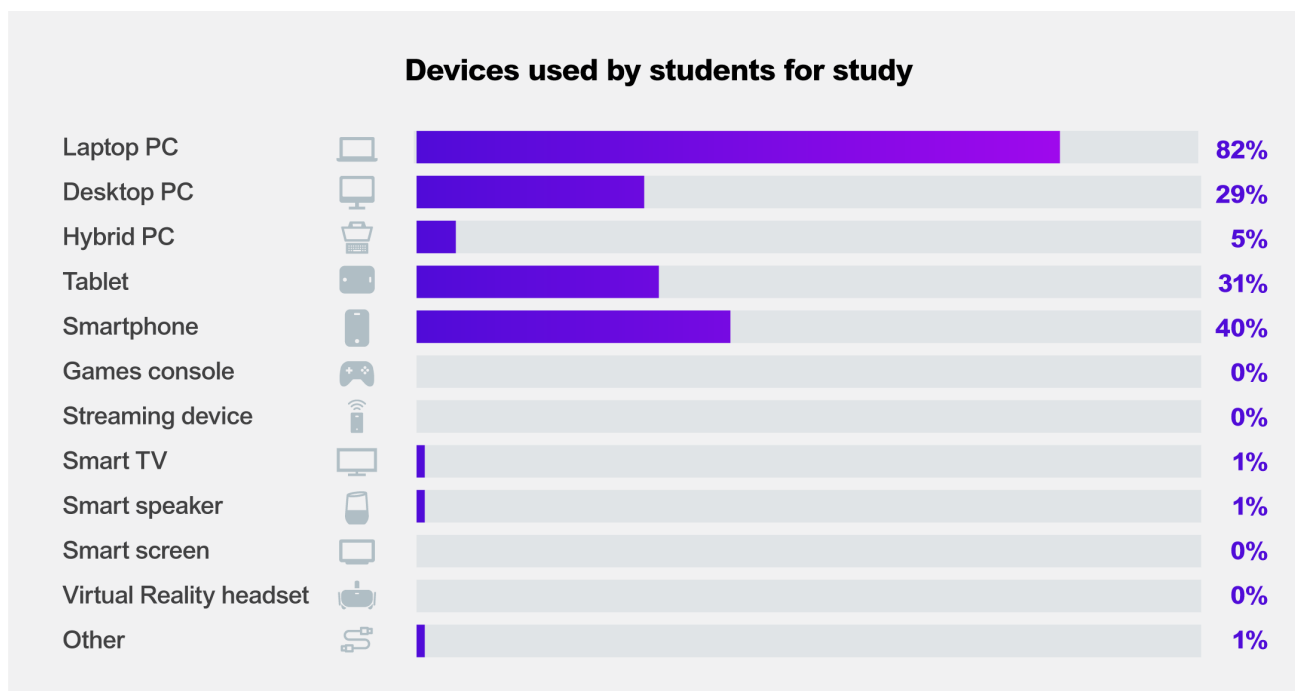
The survey asked students about their device usage specifically for study purposes. The traditional devices used for study were again very well represented. Although a 1% drop in students using laptops for study was reported, the percentage using desktops for study fell by 5%. While this is in line with industry trends, this does indicate an 11% drop in usage of desktop PCs from April 2019 to April 2020, which is significant. It also indicates that almost three times as many students are now using a laptop (82%) compared to a desktop (29%).

Continuing the trend set in the previous survey, another significant finding is that the percentage of students that now use a tablet for study decreased from 37% to 31%. This means that usage of tablets for study purposes has fallen from 46% in April 2019 to 31% in April 2020. While industry

trends show a decline, this survey data decline is far steeper and cannot be explained by increased usage of another device for study instead, as other device types either stayed the same or reduced.

Smartphone usage for study also decreased from 47% to 40%, despite the percentage of students using a mobile phone only falling by 1%. This is also interesting as the OU Study app was released before this survey and was available to at least some of the current cohort. A reduction in the number using a mobile phone for study is difficult to explain, given that both educational and industry trends point to more extensive usage of smartphones in recent times.

The percentage of students currently utilising Smart TVs or Smart Speakers for study remained the same, at an almost imperceptible 1%.

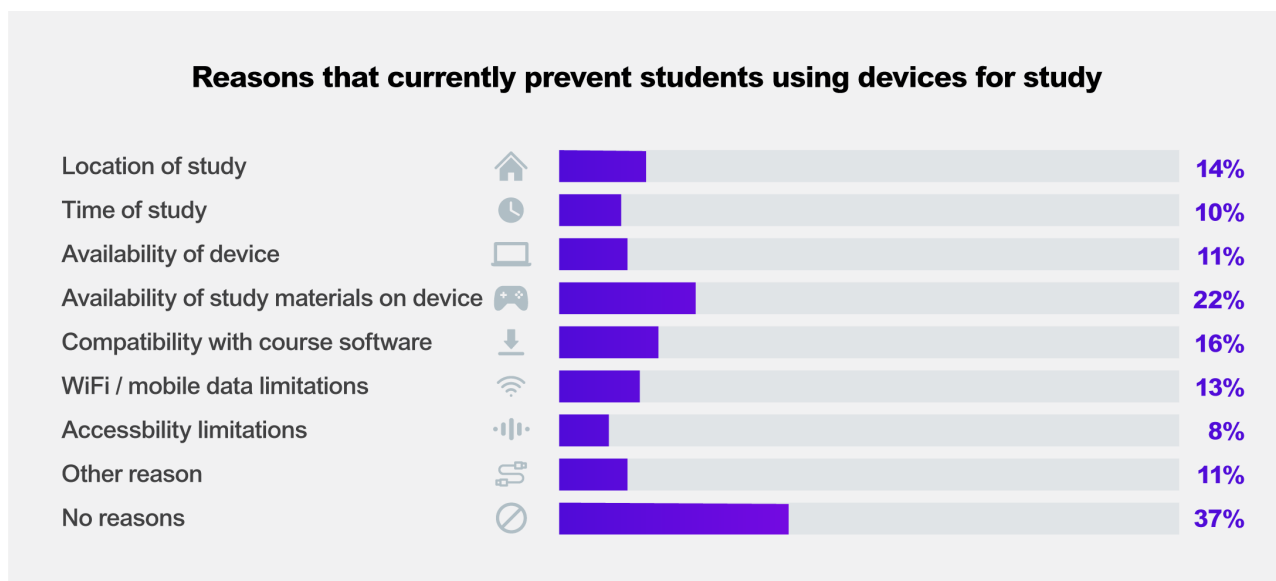


**Figure 3** Device types that students use for study purposes

The findings from this section of the survey vary significantly from the data comparison done between the first and second editions, where there was little change. This cohort’s responses suggest a decrease in usage across all major technologies used for study (PCs and mobile devices).

The reasons for this reduction in usage for study requires further examination, as from the data alone (both quantitative and qualitative) it is difficult to identify a reason for this. For example, when asked if there are any reasons preventing usage of a device for study (Figure 4), only compatibility of a device with course software showed any significant decline (dropping 5%). All other factors were statistically insignificant, either staying the same or varying by 1% up or down.

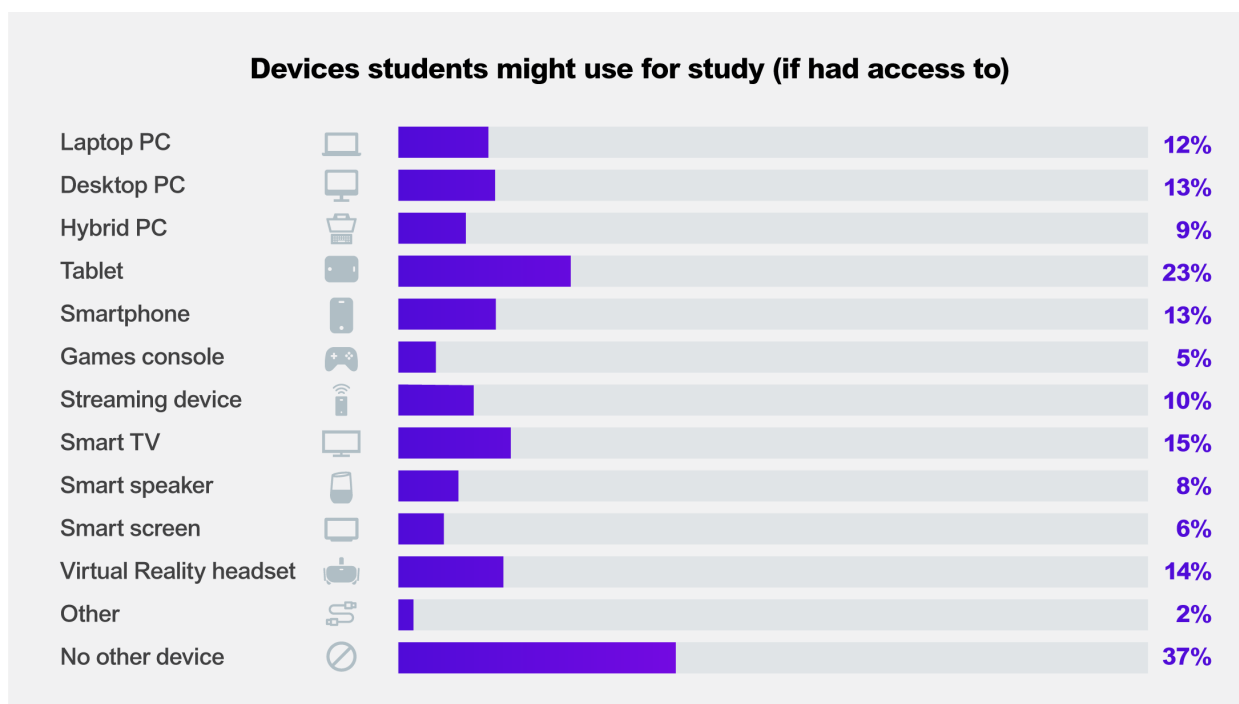
The largest change in the responses given was for there not being a reason why students did not use a device for study, suggesting it might just be a personal preference. We will need to undertake additional research to establish if this is part of a larger trend of apathy towards technology, although this does not appear to be borne out by other OU measures, such as the number of students accessing the Virtual Learning Environment each day. Reasons for not using a device for study remain a lack of availability (11%) or lack of connectivity (13%, up from 11% previously).



**Figure 4** Reasons preventing students from using devices for study

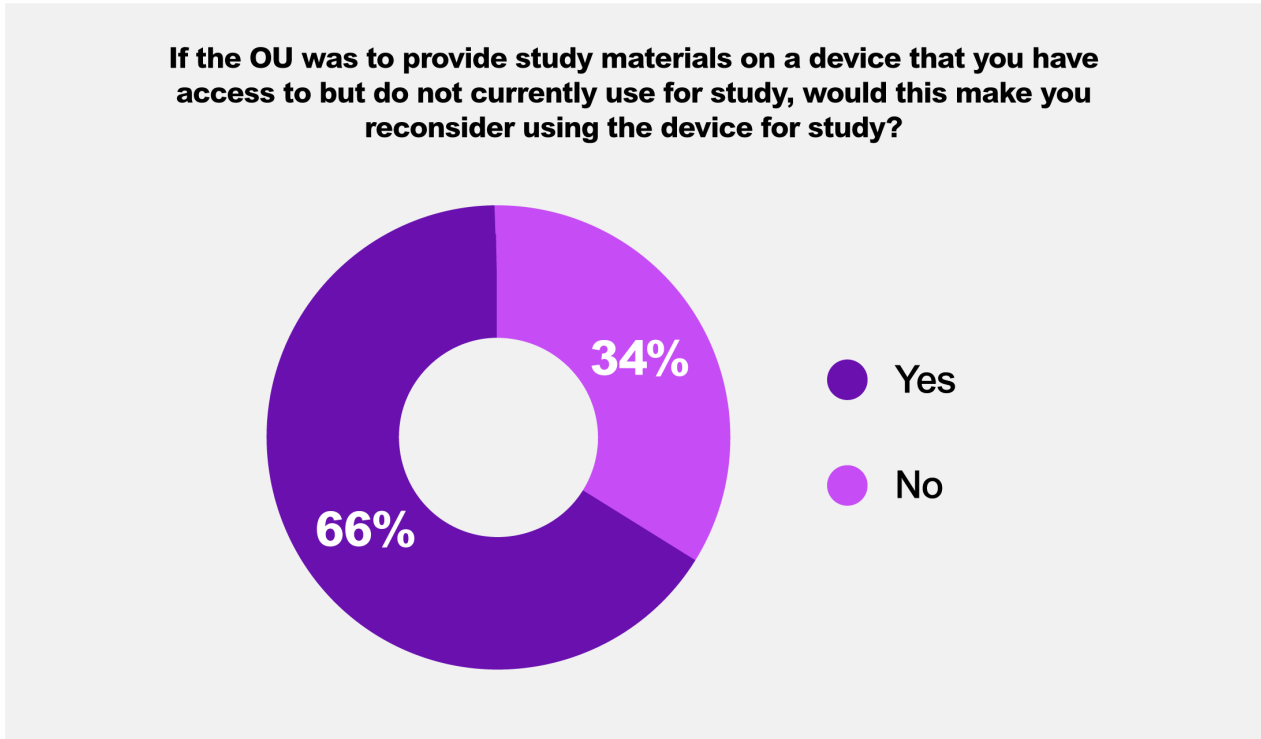
The responses in Figure 5, where 37% of respondents said they would not use another device for study even if they had access to it is almost identical to the previous survey figure of 38%. In general, the responses for this section (devices students might use for study if they had access to them) indicated a minor decrease across every device type, perhaps supporting the notion that this cohort has a slightly lower regard for technology than the previous cohort.

Only the Smart TV decrease (-6%) is statistically significant, with other results being minor reductions.



**Figure 5** Devices students might use for study if they had access to them

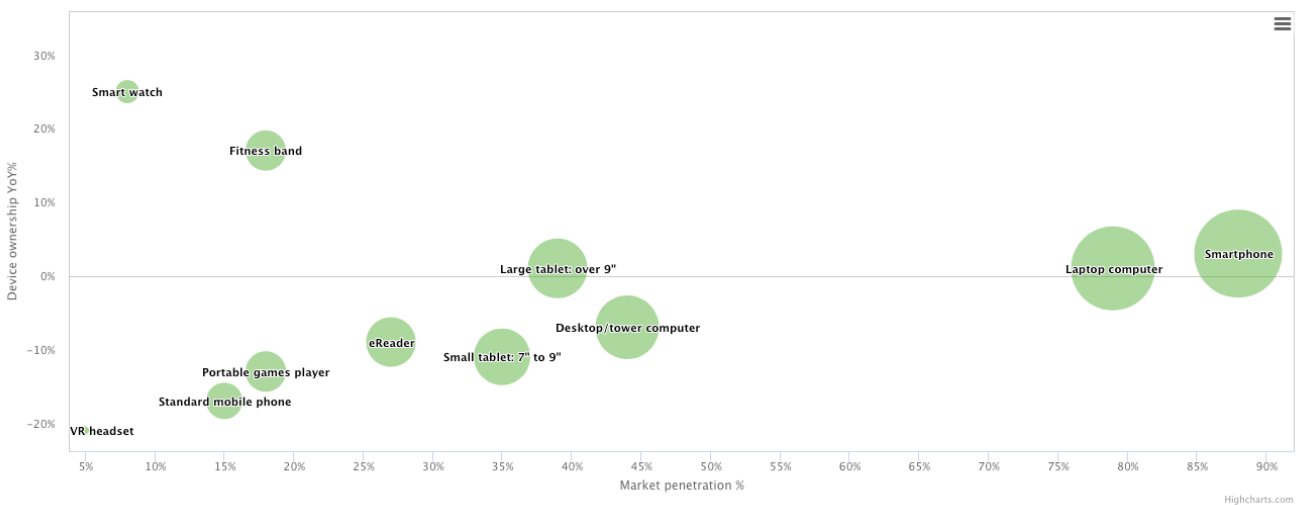
Finally, 66% of students (Figure 6) said they would use a device they have access to if the OU made study materials available via it, down from 70% previously. This is identical to the April 2019 survey.



**Figure 6** Students future device intentions

**Correlation with sector evidence and other research**

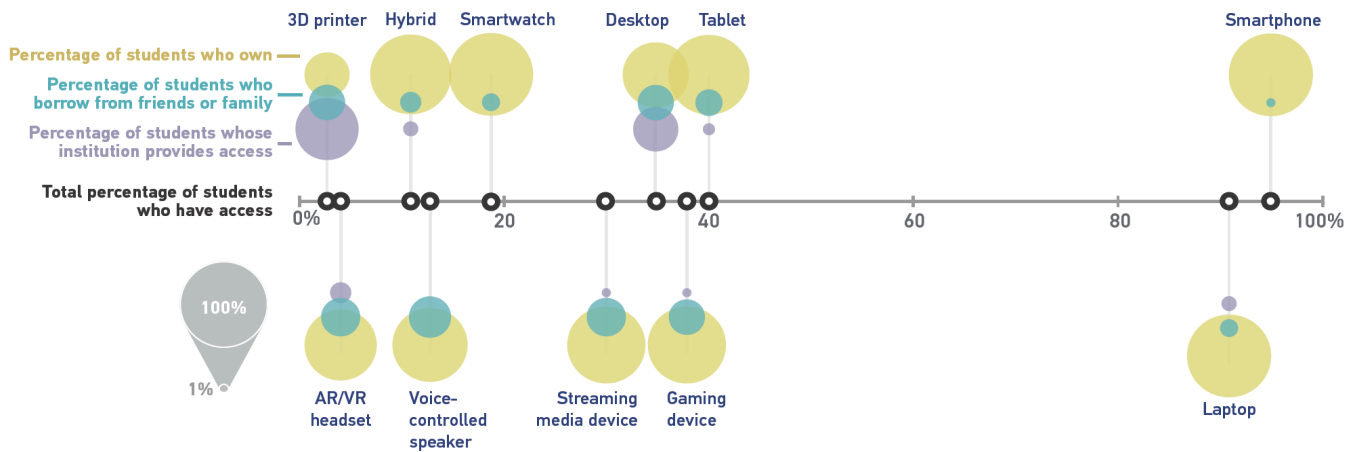
While the findings of the third edition of the survey may demonstrate a slight decrease in the use of technology compared to the responses from the previous cohort, on the whole they still indicate that device usage is more widespread than we thought at the start of 2019, and such usage is still more widespread than we currently accommodate for in learning material delivery via the VLE and other digital channels. It is also still in keeping with industry trends, although the reduction in desktop usage is steeper than the industry data would suggest.



Weighted base (2017/2018): All respondents aged 18-75 years (4,002/4,000)  
 Source: UK edition, Deloitte Global Mobile Consumer Survey, May-Jun 2017, Jun 2018  
 Please note: VR data for 2017

**Figure 7** Deloitte Global Mobile Consumer Survey, 2018 – Device ownership

These new findings continue to support research undertaken into mobile learning among OU students by Cross et al. (2017), which explored student mobile learning and the changing nature of how students are interfacing with their devices. They also continue to tally with industry data from recent years, which shows massive growth in device usage in the marketplace (for example, Deloitte’s Global Mobile Consumer Survey, Figure 7) and correlate strongly with data from surveys carried out by EDUCAUSE (Figure 8).



**Figure 8** ECAR Study of Undergraduate Students and IT, 2018 – Student device access and ownership

## Conclusions

While the findings of the third edition of the survey show a small reduction in the usage of some types of devices, there is very little variation from the data in the first and second edition when looking at the usage of smart devices, and it is still possible to draw many of the same conclusions:

- Students currently primarily use a laptop for study, but a significant percentage use a desktop PC, tablet and / or smartphone.
- While students own many devices, the majority of these are not currently used for study.
- 88% of students now use a smartphone on a regular basis, but only 40% use one for study.
- More than a third of students (35%) have a Smart TV that they use for personal use.
- 66% of students would consider using a new device for study purposes, if the OU made study materials available via that device.
- Connectivity, availability of device, study location, time of study, and accessibility limitations were all rated at  $\leq 15\%$  when students were asked about reasons for not using a device for study, indicating that they are not hindering factors in device adoption for learning purposes.

The only real new conclusion to be drawn is that a significant percentage fewer students are using tablets (-6%) and desktops (-5%) for study purposes, which correlates with the industry trend for tablet use in general, although is more marked for desktop usage. Further research will need to be carried out to review the relationship between this cohort and technology to see if this is part of a particular trend of apathy towards technology, or just an anomaly in these responses.



## Further research and information

The initial purpose of the student device usage survey was to provide some current, relevant data to help guide the setup of the Smart Tech project, examining the various themes and issues which have been drawn, in addition to a number of new themes around digital literacy and accessibility.

The various papers, findings, and results from experiments undertaken as part of the project, including additional information regarding this research, will be regularly disseminated via the Learning Innovation website at [learninginnovation.info/smart](http://learninginnovation.info/smart) and via the Scholarship Exchange.

Should you have any questions or need additional information, please contact Andrew McDermott at [Andrew.McDermott@open.ac.uk](mailto:Andrew.McDermott@open.ac.uk) or drop us a line at [lds-learninginnovation@open.ac.uk](mailto:lds-learninginnovation@open.ac.uk).

## References

Cross, S., Healing, G., Sharples, M. and Ellis, J. (2017). *Are students at the OU embracing mobile learning? Insight and analysis from repeated surveys conducted between 2012-2016*. IET Research and Innovation Reports. Milton Keynes, UK: The Open University.

Deloitte (2018). *Global Mobile Consumer Survey: US edition*. (Accessed: 1 March 2019). Available at: <https://www2.deloitte.com/us/en/pages/technology-media-and-telecommunications/articles/global-mobile-consumer-survey-us-edition.html>

Galanek, Joseph D., Dana C. Gierdowski, and D. Christopher Brooks. *ECAR Study of Undergraduate Students and Information Technology, 2018*. Research report. Louisville, CO: ECAR, October 2018.

## Appendix A

### Summary of data (scores as rounded percentages)

**Which of the following device types do you have access to? By access we mean that you are able to use, but do not necessarily own, the device either at home, place of work, place of study, etc**

Laptop PC	92
Desktop PC	50
Hybrid PC (e.g. Microsoft Surface)	7
Tablet (e.g. iPad)	65
Smartphone	92
Games console (e.g. Xbox One, PS4)	36
Streaming device (e.g. Google Chromecast, Apple TV, Amazon Fire Stick)	31
Smart TV (i.e. a TV with built-in apps)	46
Smart speaker (e.g. Amazon Echo, Google Home)	28
Smart screen (e.g. Amazon Echo Show, Google Home Hub)	5
Virtual Reality headset (e.g. Oculus Rift, PlayStation VR, Gear VR)	6
Other (please specify)	2

**Of the devices you have identified in Q1, which do you use personally?**

Laptop PC	86
Desktop PC	36
Hybrid PC (e.g. Microsoft Surface)	5
Tablet (e.g. iPad)	51
Smartphone	88
>Games console (e.g. Xbox One, PS4)	21
Streaming device (e.g. Google Chromecast, Apple TV, Amazon Fire Stick)	22
Smart TV (i.e. a TV with built-in apps)	35
Smart speaker (e.g. Amazon Echo, Google Home)	22
Smart screen (e.g. Amazon Echo Show, Google Home Hub)	4
Virtual Reality headset (e.g. Oculus Rift, PlayStation VR, Gear VR)	3
Other (please specify)	1

**Of the devices you have identified in Q1, which do you use for study?**

Laptop PC	82
Desktop PC	29
Hybrid PC (e.g. Microsoft Surface)	5
Tablet (e.g. iPad)	31
Smartphone	40
Games console (e.g. Xbox One, PS4)	0
Streaming device (e.g. Google Chromecast, Apple TV, Amazon Fire Stick)	0
Smart TV (i.e. a TV with built-in apps)	1
Smart speaker (e.g. Amazon Echo, Google Home)	1
Smart screen (e.g. Amazon Echo Show, Google Home Hub)	0
Virtual Reality headset (e.g. Oculus Rift, PlayStation VR, Gear VR)	0
Other (please specify)	1

**Of the devices you have identified in Q1, are there any reasons that currently prevent you from using the devices for study purposes?**

Location of study	14
Time of study	10
Availability of device	11
Availability of study materials on device	22
Compatibility with course software	16
WiFi / mobile data limitations	13
Accessibility limitations	8
Other reason (please specify)	11
No reasons	37

**Including the devices you have identified in Q1, which devices might you be interested in using for study in the future that you currently do not use or have access to?**

Laptop PC	12
Desktop PC	13
Hybrid PC (e.g. Microsoft Surface)	9
Tablet (e.g. iPad)	23
Smartphone	13
Games console (e.g. Xbox One, PS4)	5
Streaming device (e.g. Google Chromecast, Apple TV, Amazon Fire Stick)	10
Smart TV (i.e. a TV with built-in apps)	15
Smart speaker (e.g. Amazon Echo, Google Home)	8
Smart screen (e.g. Amazon Echo Show, Google Home Hub)	6
Virtual Reality headset (e.g. Oculus Rift, PlayStation VR, Gear VR)	14
additional devices	2
No other device	37

**If the OU was to provide study materials on a device that you have access to but do not currently use for study, would this make you reconsider using the device for study?**

Yes	66
No	34