

Learning
Innovation

Student Device Usage Survey

Second Edition – Findings
Summary

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The Open University



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Prepared by Andrew McDermott (Learning Innovation)

Introduction

This is the second edition of the Student Device Usage Survey, following on from the first run in April 2019. The purpose of the original survey in April was to provide some data that would be used to inform and guide the setup of the Smart Tech project in the Learning Innovation team in LDS.

The project was initiated to investigate the potential benefits and impact of smart devices on student success and the data from the first edition of the survey was extremely helpful in helping us establish hypotheses and experiments that now form the basis of the project.

The reasons for running the second are similar, in so much as we wanted to provide additional and current data to continue guiding the research we are undertaking, but we also wanted to check if the experience of this next cohort of students was particularly different to the last and to standard market trends.

Survey findings

Second Edition

Following the same process as for the first edition, we ran a short survey with the Curriculum Design Student Panel 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 first survey in order to help us easily identify any variations. In this edition, 476 students responded fully, although the cohort was far smaller, totalling 1990 students, meaning a higher response rate of around 24%, compared to 16% previously.

As with the first edition of the survey, 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 first survey findings) 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 overwhelming conclusion from the new results is that the new cohort have very similar characteristics to the previous cohort, with almost identical responses given to the questions in the second edition as were in the first edition of the survey. For some sections, the individual findings showed only one to two percent difference across the various responses. The largest single variance for any specific response across the whole set of data was just nine percent and fourteen responses had completely identical responses to the first survey.

On average (median) the variances in the sections of the survey were four percent at the highest, and zero at the lowest, underscoring the overall similarity in the two sets of results.

Access to and usage of devices

One of the key areas explored by this and the previous survey was the variety of devices that students have access to. The variety of device types listed were the same options as before: 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 sought to differentiate 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) demonstrated access to a wide variety of devices. Traditional and well utilised devices for study purposes were well represented once more (92% of students have access to a laptop and 93% to a smartphone, both a couple of percentage points higher than the April survey) and access to smart devices remained relatively higher than the expectations we had earlier in the year.

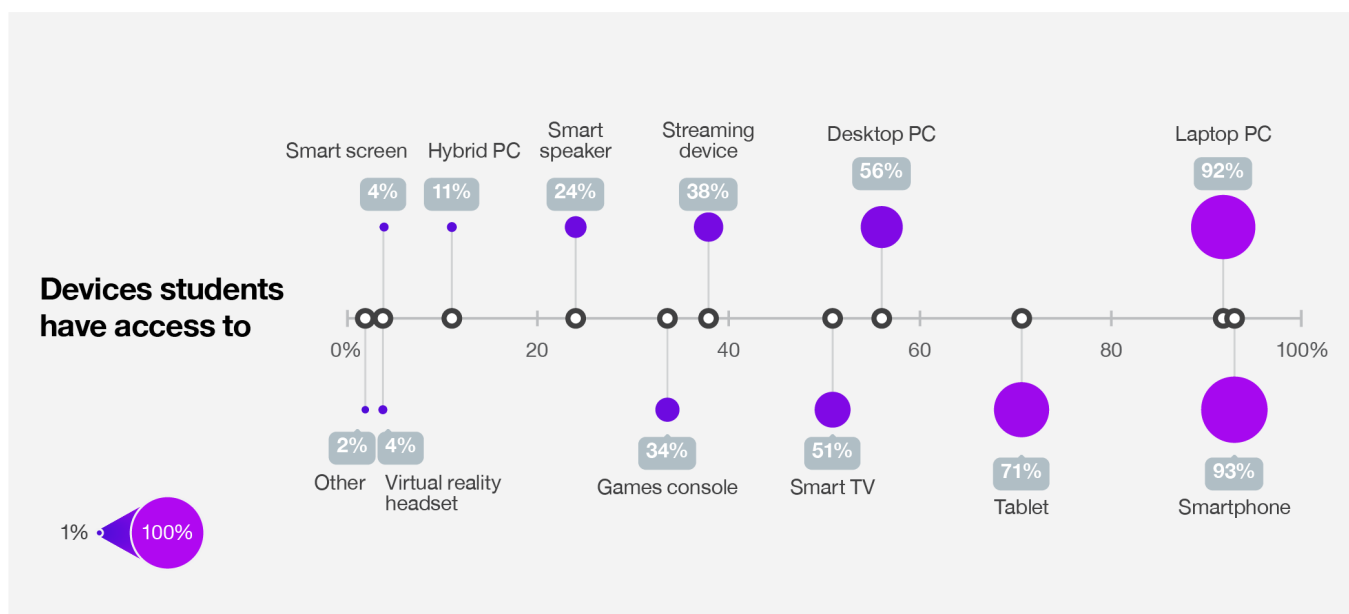


Figure 1 Device types that students own or have access to

When assessing device usage (Figure 2), the survey found that, once again, 89% of respondents regularly use a smartphone. The number of students using a laptop rose slightly to 88% from 84% previously. Tablet and desktop use both decreased by 5%, although more students continue to use a tablet (58%) than a desktop (42%).

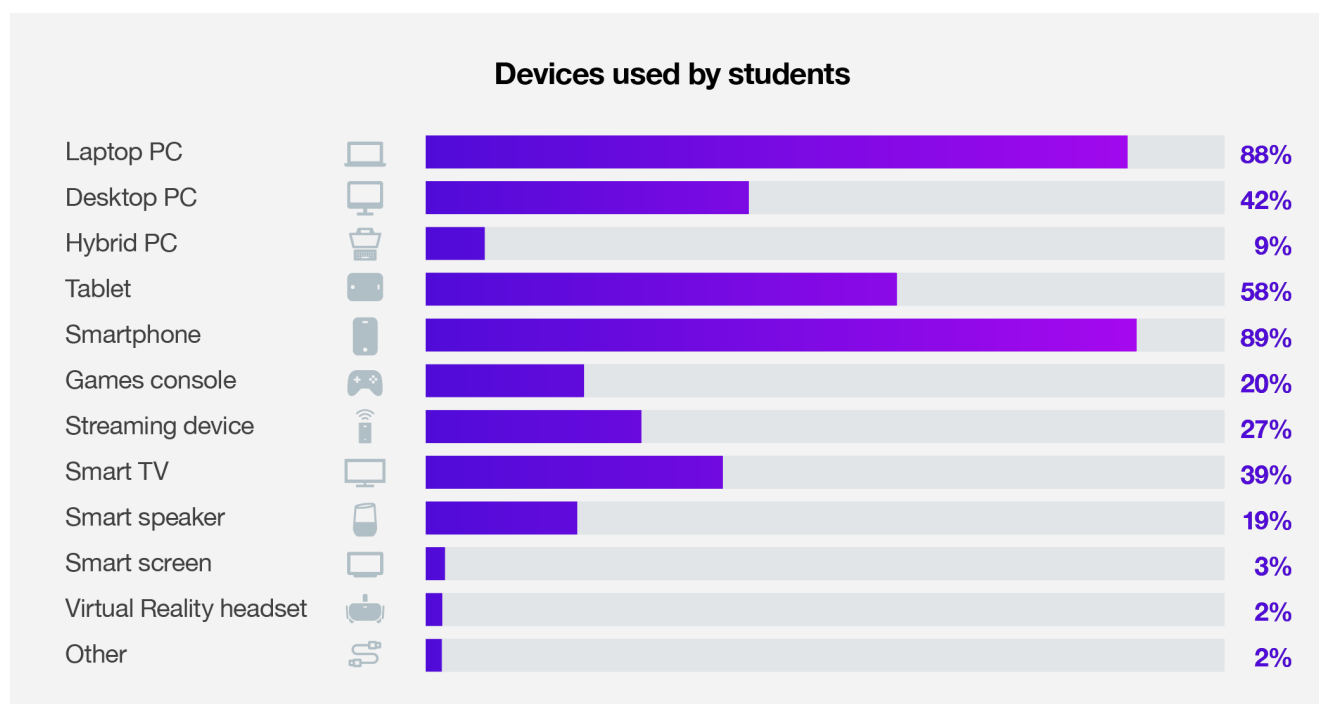


Figure 2 Device types that students use

The data suggests a slight increase in the percentage of students using a smart device. 39% of respondents use a smart TV, up from 35% earlier this year, with 1% more students using a smart speaker than the previous cohort. However, the percentage of students using a smart speaker remained at 19%, despite a steady increase in smart speaker sales and model launches over the past six months in the United Kingdom. The percentage of respondents that have access to (34% now compared to 29% previously) or use a games console on a regular basis (20% compared to 18%) showed a slight increase, however, only one of the students responding to the survey reported using a games console for study purposes.

Device usage for study

In the same manner as the previous edition, the survey asked students about their device usage specifically for study purposes. The traditional devices used for study were again very well represented. The shift to laptops over desktops accelerated with over twice as many respondents using a laptop (83%) than a desktop (35%), up from 80% and 40%, respectively.

Possibly the most interesting finding is that the percentage of students that now use a tablet for study decreased from 46% to 37%, which is the greatest variance in any comparison of the findings from the first to the second edition of the survey. With smartphone usage for study increasing from 44% to 47%, the percentage of students now using a mobile phone is 10% higher than tablets (Figure 3), representing quite a shift. However, these numbers are fairly in line with industry trends, where tablet usage in general has been declining while smartphone usage has been increasing, potentially due to larger mobile phone screen sizes.

Another interesting factor is that the percentage of students currently utilising smart devices for study actually decreased by a percentage point (from 2% to 1%), although it still remains either low or non-existent in terms of student numbers.

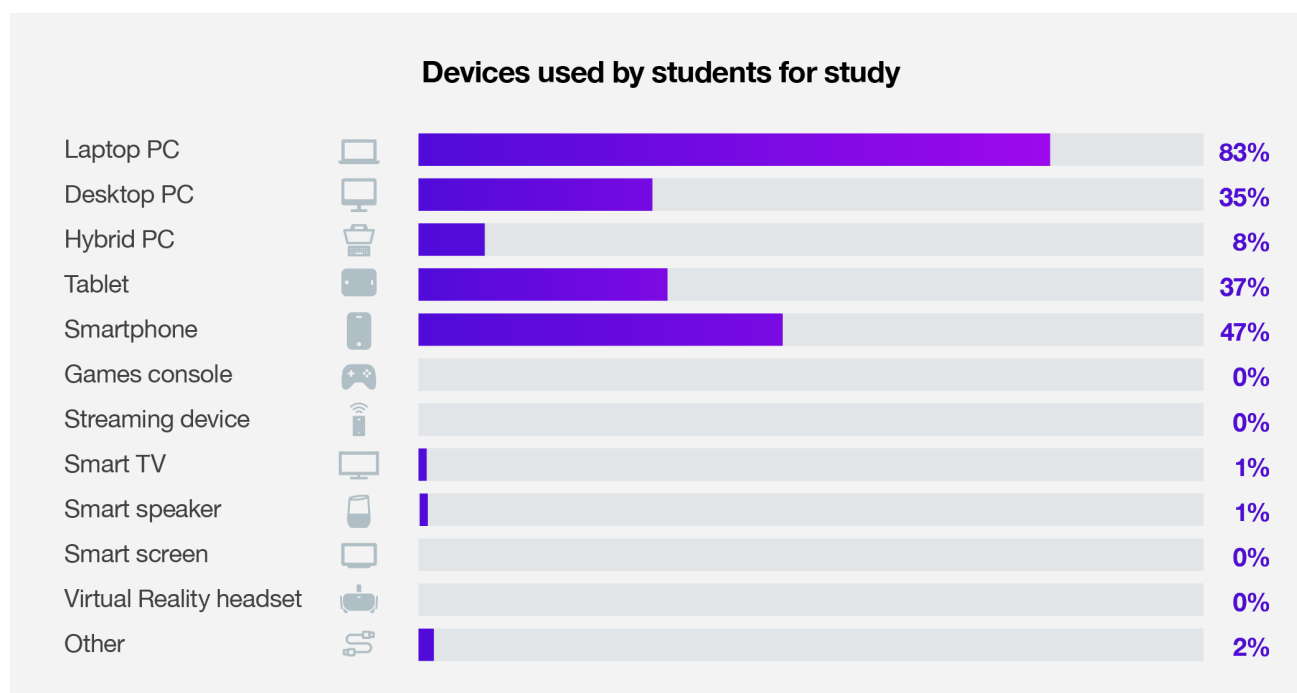


Figure 3 Device types that students use for study purposes

The general findings from this section of the survey are broadly in keeping with the previous edition's findings. For example, smart speakers are still used by around a fifth of respondents, but not for study, similar to games consoles. As before, just under a half (44%) of respondents (Figure 4) told us that they can't study on certain devices because our learning materials either aren't available to use on that device (i.e. they cannot be accessed or materials are not in the correct format) or their module software is not compatible with the device.

11% of respondents cited lack of availability of a device as a reason for not using a device for study, up from 9% previously, although only 11% cited connectivity as an issue in this edition, down from 15% previously. Again, almost half (44%) of respondents stated that although they do not use devices to study there were no reasons preventing them doing so.

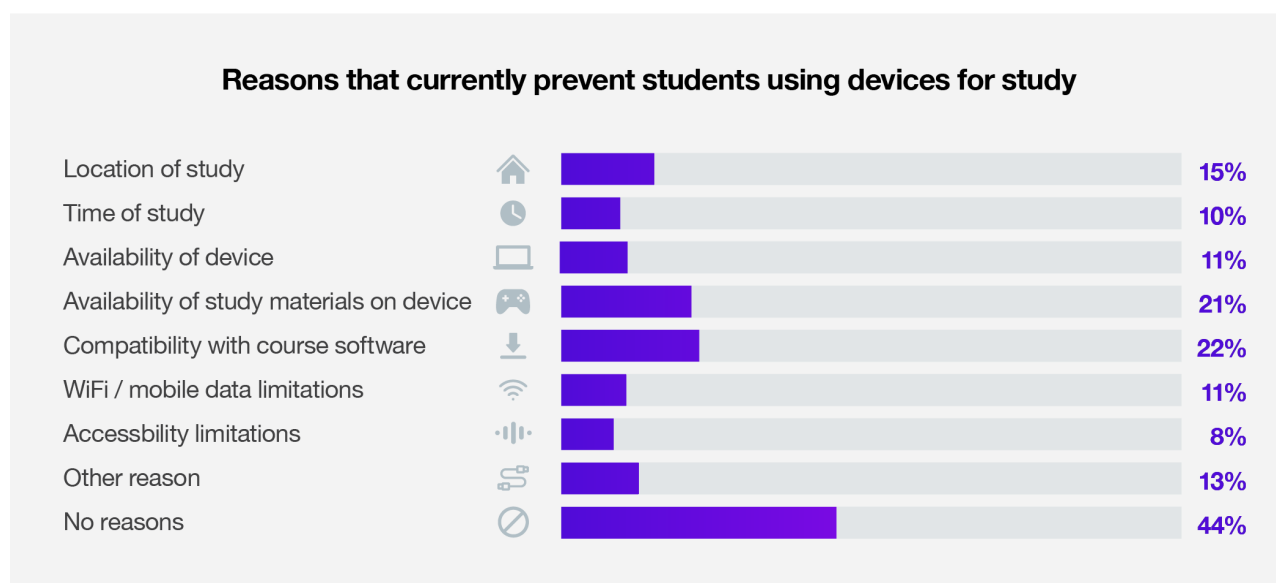


Figure 4 Reasons preventing students from using devices for study

The responses in Figure 5, where 38% of respondents said they would not use another device for study even if they had access to it suggest a very slight softening in student attitudes to device usage, the figure being down from 44% previously, although this is still not a significant variation.

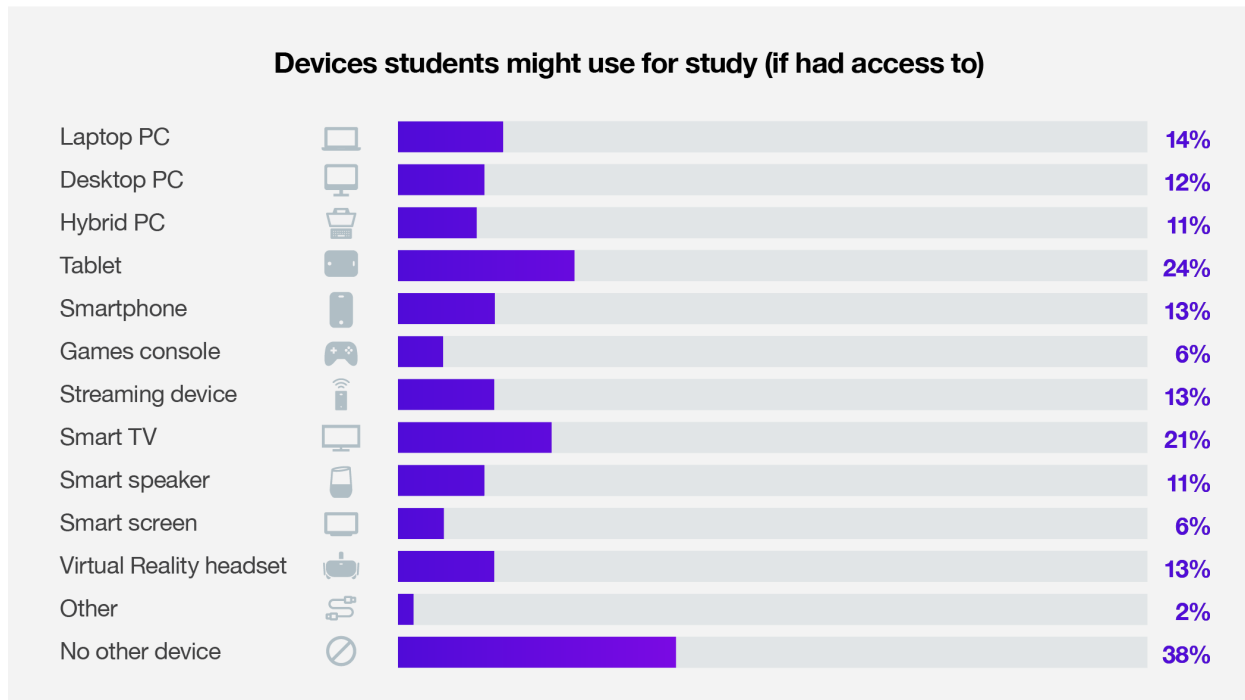


Figure 5 Devices students might use for study if they had access to them

Finally, and continuing the trend of only slight variation in the findings, 70% of students (Figure 6) said they would use a device they have access to if the OU made study materials available via it, up from 66% previously.

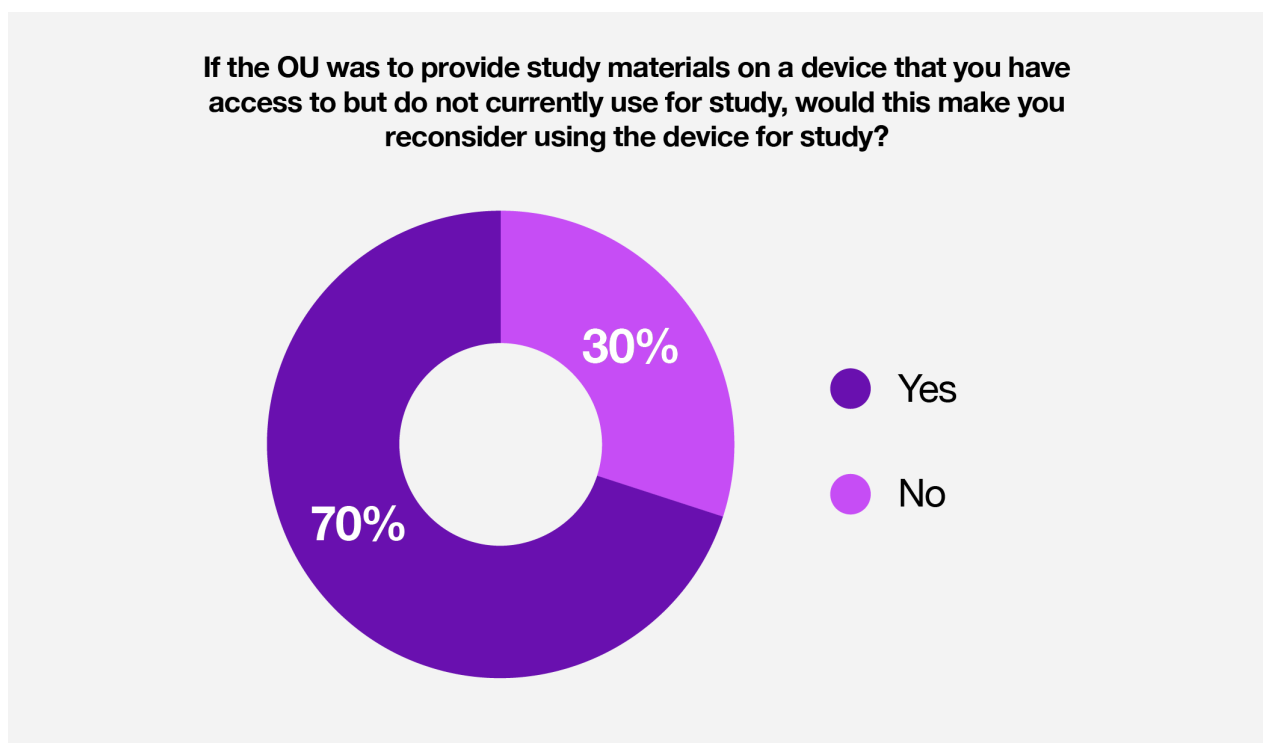
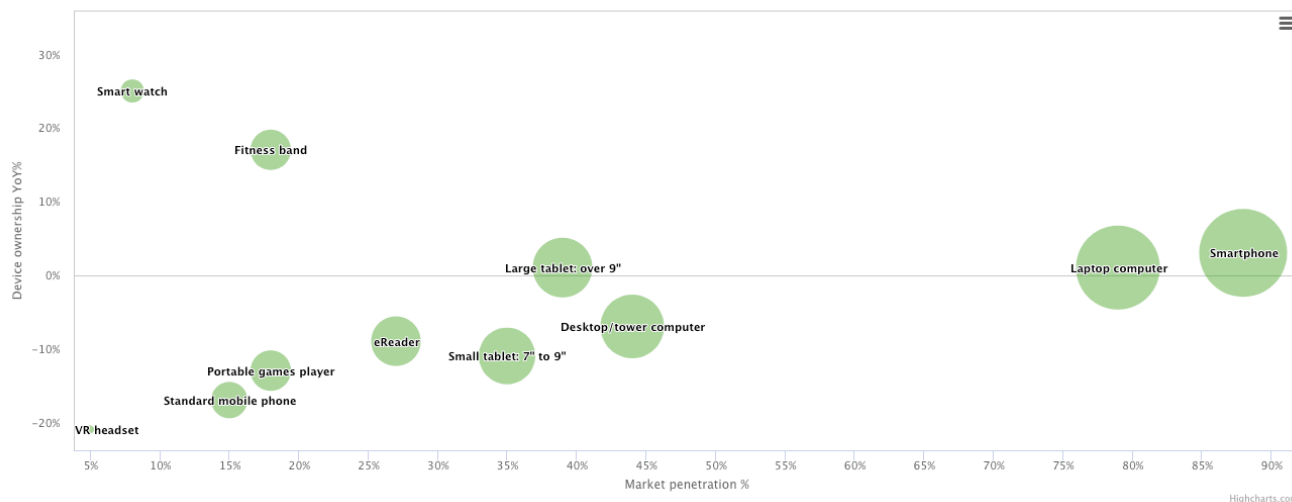


Figure 6 Students future device intentions

Correlation with sector evidence and other research

While the findings of the second edition of the survey demonstrate very similar findings to those from the first edition, 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 our VLE and other digital channels.



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 also support research undertaken into mobile learning among Open University 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).

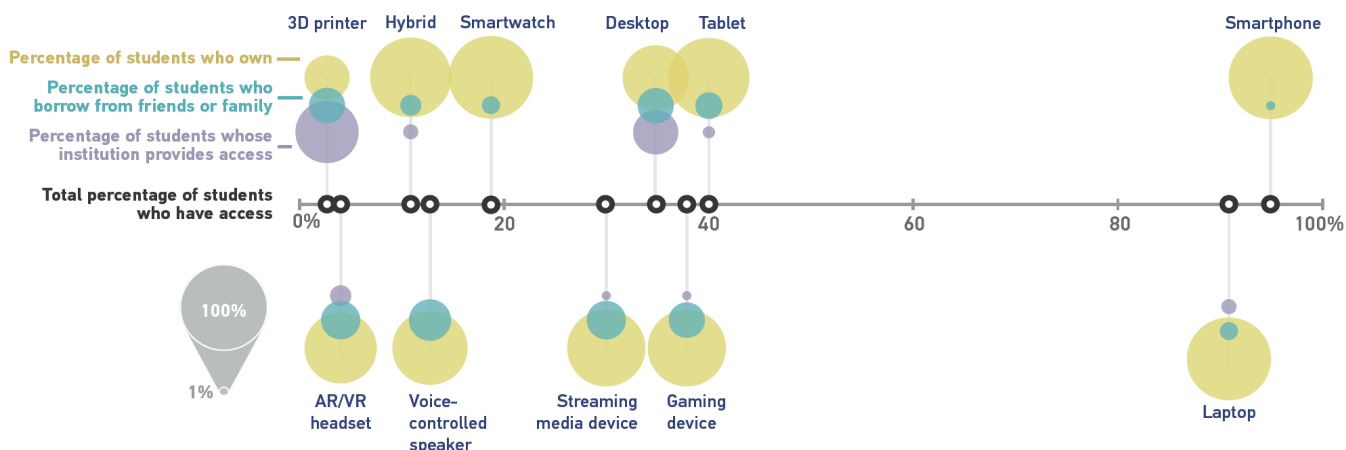


Figure 8 ECAR Study of Undergraduate Students and IT, 2018 – Student device access and ownership

The relationship between the data from both editions of the survey and the wider industry data does indicate that our student population is representative of the wider consumer population. The suggestion is, therefore, that the type of smart technology growth that is forthcoming will only lead to increased usage of smart devices across our student population.

Conclusions

While the findings of the second edition of the survey show very little variation from the data in the first edition, 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 an increasing array of devices, the majority of these are not currently used for study, but rather personal usage.
- 89% of students now use a smartphone on a regular basis, but only 47% use one for study.
- More than a third of students (38%) have a streaming device that they use for personal use.
- 70% 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 (9%) fewer students are using tablets for study purposes, which correlates with the industry trend for tablet use in general.

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 and via the Scholarship Exchange.

Should you have any questions or need additional information, please contact Andrew McDermott at Andrew.McDermott@open.ac.uk or drop us a line at 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	56
Hybrid PC (e.g. Microsoft Surface)	11
Tablet (e.g. iPad)	71
Smartphone	93
Games console (e.g. Xbox One, PS4)	34
Streaming device (e.g. Google Chromecast, Apple TV, Amazon Fire Stick)	38
Smart TV (i.e. a TV with built-in apps)	51
Smart speaker (e.g. Amazon Echo, Google Home)	24
Smart screen (e.g. Amazon Echo Show, Google Home Hub)	4
Virtual Reality headset (e.g. Oculus Rift, PlayStation VR, Gear VR)	4
Other (please specify)	2

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

Laptop PC	88
Desktop PC	42
Hybrid PC (e.g. Microsoft Surface)	9
Tablet (e.g. iPad)	58
Smartphone	89
>Games console (e.g. Xbox One, PS4)	20
Streaming device (e.g. Google Chromecast, Apple TV, Amazon Fire Stick)	27
Smart TV (i.e. a TV with built-in apps)	39
Smart speaker (e.g. Amazon Echo, Google Home)	19
Smart screen (e.g. Amazon Echo Show, Google Home Hub)	3
Virtual Reality headset (e.g. Oculus Rift, PlayStation VR, Gear VR)	2
Other (please specify)	2

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

Laptop PC	83
Desktop PC	35
Hybrid PC (e.g. Microsoft Surface)	8
Tablet (e.g. iPad)	37
Smartphone	47
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)	2

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	15
Time of study	10
Availability of device	11
Availability of study materials on device	21
Compatibility with course software	22
WiFi / mobile data limitations	11
Accessibility limitations	8
Other reason (please specify)	13
No reasons	44

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	14
Desktop PC	12
Hybrid PC (e.g. Microsoft Surface)	11
Tablet (e.g. iPad)	24
Smartphone	13
Games console (e.g. Xbox One, PS4)	6
Streaming device (e.g. Google Chromecast, Apple TV, Amazon Fire Stick)	13
Smart TV (i.e. a TV with built-in apps)	21
Smart speaker (e.g. Amazon Echo, Google Home)	11
Smart screen (e.g. Amazon Echo Show, Google Home Hub)	6
Virtual Reality headset (e.g. Oculus Rift, PlayStation VR, Gear VR)	13
additional devices	2
No other device	38

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	70
No	30