

Future of Student Computing – Recommendation Paper

Position statement

Central to students learning experience is the availability of information in many varied forms. The technology and environment supporting equitably accessing, exploring and engaging with learning will continue to change. In supporting the student learning experience the starting point for this position paper is that the University will provide a clear statement of expectation and, where appropriate, the infrastructure to support the default of Bring Your Own Device. Building on the [Digital Equity Charter](#) recommendations are provided which recognise the need to ensure that where technology is required to engage with learning, then it is readily accessible and supports the student population's desire for increased flexibility. These requirements are reflected in the OfS B conditions re the provision of 'Academic experience' and 'Resources, support and student engagement'^[1]. There is an expectation that the recommendations presented should also inform and feed into any central and/or local (eg IT, Library, Estates, SCO, Faculty, etc.) strategic discussions and developments.

Recommendations

Across and beyond BYOD:

- The clear signposting of support for device use is essential and the cybersecurity requirements of the organisation need to be met. Communication of these should start pre-induction and continue to be reinforced.
- Where students do not have access to a device financial support should be provided as appropriate.
- Decisions involving digital infrastructure incorporate consideration of digital sustainability.

BYOD

The university currently offers BYOD in terms of students bring their own devices onto sites, connecting via device agnostic technologies such as Wi-Fi for data, access to email, connectivity to Microsoft productivity applications and the office suite of tools through office 365 and connecting wirelessly to audio/visual (AV) facilities and displays around the campus.

"Standard" specifications should be carefully considered and communicated to ensure they encompass wider course specific implications. As digital equity is an important consideration, resources and appropriate support is available to support students with low-specification hardware or no user-owned devices.

1. Where greater than 'Standard' specifications are identified then the additional implications and associated recommendations are covered in the following 'Beyond BYOD section'.
2. A mixture of readily identifiable, available and bookable space for students to book/reserve individual spaces for self-study across the Campus estate connecting to WiFi for data, power etc to meet differing student needs.
3. Access to software applications with appropriate licensing is in place to support BYOD.
4. In recognising that last-minute changes or minor tweaks to digital work becomes easily possible and users can work in a more agile manner, then personal devices and, by extension, software applications will always be available to students and staff whenever they need them.
5. Health and safety must be considered and clearly communicated as user-owned devices may not be suitable in all locations or scenarios.
6. BYOD in terms of wider application distribution and enabling increased numbers of applications to be available on user-owned devices will not be a suitable solution for all desktop software currently made available by the University and the additional implications and associated recommendations are covered in the following 'Beyond BYOD section'.

^[1] <https://www.officeforstudents.org.uk/media/084f719f-5344-4717-a71b-a7ea00b9f53f/quality-and-standards-conditions.pdf>

Beyond BYOD

1. The University identifies and communicates cases within teaching where technology platforms and other operating systems, along with tablet devices, including iPads and virtual reality hardware, are to be used by students. This will include:
 - Anything that requires **specialist peripherals** (e.g., engineering appliances, software, music equipment, facilities etc.)
 - Anything that requires high-powered or **specialised hardware** (e.g., specialist graphics cards, high memory requirements, etc.)
 - Health and safety must be considered as user-owned devices may not be suitable in all locations or scenarios.
2. How cluster space is realised will be an evolving process to meet users needs and should be reviewed and regularly updated by TLSSG. In recognising there is always a demand for onsite space, considerations should include:
 - Catering for and signposting specialist software applications /hardware
 - Providing flexible infrastructure to facilitate own devices including power, Wi-Fi, screens, keyboards, comfy chairs
 - Provision of a mixture of readily identifiable, available and bookable space for students to book/reserve individual spaces for self-study across the Campus estate connecting to WiFi for data, power etc to meet differing student needs.
 - How to promote and support physical element of student digital wellbeing in workspaces with IT provision, ensuring support is provided that helps students set up their workspaces irrespective of where they are choosing to work.
 - How to promote and support physical element of student digital wellbeing in 'desk only' workspaces with no IT provisions, ensuring support is provided that helps students set up their workspaces irrespective of where they are choosing to work.
3. Cloud services will continue to evolve and the impacts of this and resulting needs should be regularly reviewed and updated by an appropriate committee.
4. Digital exam provisioning and implications in terms of identified needs and considerations including whether BYOD should or should not be used for invigilated exams, access to invigilated space and appropriate hardware needs should be regularly reviewed updated by appropriate committee (TLSIG, TLD OMG). Any decisions made around BYOD assessment should also ensure consideration as to any wider implications including:
 - Cluster provision, access to power points and network etc
5. Current Support provision to be mapped and gaps identified for students and staff with accompanying resource requirements to be addressed.
6. Ongoing funding to support student digital equity
 - Digital Equity Pilot fund evaluation to inform future funding needs for devices and expansion of criteria as appropriate
 - Consideration of further funding calls to support students with non-device digital equity needs, such as WiFi access off campus and peripherals
 - Consideration of expansion of existing device loan schemes to permit students to take a device off campus and retain it for an extended period of time.

Examples of some other university services

Name	links	description
University of Reading	link	180 applications distributed with application virtualisation. Limited availability on Apple OS
Sheffield Hallam	link	Application virtualisation to windows. Instructions on how to install windows or dual boot a mac into windows are available
University of Liverpool	link	Limited application available via streaming
University of Bristol	Link	Limited access to remote desktop
University of Durham	link	Application virtualisation and virtual desktop
University of Edinburgh	link	Desktop virtualisation with azure