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## **‘Everyone is just so furiously typing’: supporting student choices around digital notetaking in university lectures**

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### ***Presentation abstract***

University of Bristol students have indicated that 65% of them take notes digitally. As learning developers, how do we support students to take fit-for-purpose digital notes against a background of changing technology? In this study we posed two questions:

1. What are the ways in which students currently take digital notes in lectures?
2. What difficulties do students encounter in taking digital notes in lectures?

Following formal ethical approval, we collected data using a questionnaire (n=123) and four focus groups (n=17), between January and May 2022. Participants in both included undergraduate and postgraduate students representing arts, humanities and STEMM subjects. Participation was voluntary and results were anonymised. We found that students choose a wide variety of digital tools for notetaking, in response to three interrelated aspects of the university learning environment: (1) perceived social pressure, for example the sound of typing, (2) lecture content, delivery and future assessment, and (3) affordances of digital technologies such as the comparative speed of typed notes.

These themes have helped us understand the mechanisms of student notetaking choices and therefore allow us to offer relevant support. In this session we further illustrated the three main themes and presented examples of resources developed in response to them, modelling how learning developers can use these insights to support student notetaking practice: Firstly, through an open-access, online self-study resource that shares illustrative data from the research to inform student practice; secondly, a student-led workshop on

OneNote, the most cited app in our student survey; and thirdly, a series of student blog posts on approaches to taking digital notes in different subject areas, as the research indicated lecture content affects digital notetaking choices. We also discussed how student notetaking practices may evolve considering emerging technologies such as generative AI tools.

**Keywords:** notetaking; educational technology; digital technology.

### ***Community response***

It is fascinating, and unexpected, that students perceived the sound of other people typing as an almost negative form of peer pressure to take notes in this way. Anecdotally, I know that writing with others also engaged in writing can be motivating, that 'furious typing' spurring on and encouraging everyone present. Writing socially, whether in a formal writing retreat or not, can help students integrate an important aspect of their scholarly identity (Davenport, 2022), and it is perhaps worth investigating further why these students did not experience that, why it was a more negative experience for them instead.

### ***Editorial comment***

The commentary on student choices on digital notetaking (where almost 70% of students in the study chose to take notes digitally) highlights a number of questions which were generated by the talk. As outlined above, the social pressure to take notes digitally was identified as a particularly interesting finding. These questions particularly centred around the methods and practicalities of conducting the research and demonstrated a real interest in extending this type of study to other institutions.

### ***Next steps and additional questions***

The findings from Beckie, Simon and Jennifer's thematic analysis were interesting and made me want to know more, in particular about the finding of the influence of peer pressure - or the sound the digital notetaking made. So interesting! How many of the students that were interviewed expressed this feeling?

The use of student blogs and a student-led workshop on OneNote were also food for thought. How do you recruit and pay students? I'd love to get something like this going in my department.

### ***Authors' reflection***

It was a pleasure to be able to share our research findings with such an interested and engaged audience. It was a fantastic opportunity to disseminate insights that we feel could really influence our practice as learning developers.

The paper prompted an interesting discussion. Some questions centred on the demographic information we collected, asking whether there was a pattern spotted between male and female students, or across varying socio-economic status for example. These data were not included in our research as it was not core to our research aims; however, we agree that this could be an interesting angle to investigate further. In the full paper we reference the University of Bristol's demographics and how these may have shaped our findings (Arden et al., 2024). We point out that it would be very illuminating to conduct this research in a university setting with contrasting demographics to consider the impact of this factor on student notetaking decisions.

A second theme in the post presentation discussion was whether our findings suggested which notetaking methods were best for learning. Again, this was not something we measured as we were interested in the students' perceptions of what worked for them and therefore how they made their choices. There are many studies that have looked into whether the modality of notetaking has an impact on student success; notably, Mueller and Oppenheimer (2014) found that students using laptops took more notes but engaged in shallower learning than those using pen and paper. However, a replication study found only non-significant differences between laptop and pen and paper notes (Morehead et al., 2019). However, Loughlin (2023) points out that measuring learning often uses simulated assessments, and these may be unrepresentative of real-world learning.

In the community responses to our presentation, an interesting comparison was made between the reported perceived negative social pressure of the sound of 'furious typing' in a lecture context, and the perceived positive social pressure of communal writing activities

in settings such as writing retreats or dissertation writing circles (Davenport, 2022) where the community of writing in a social context was reported to be very stimulating and encouraging. Perhaps the difference lies in the nature and meaning of the word 'writing' in these contexts. I wonder if the nature of lecture notes is less of a 'writing' process, and more of a recording process. For most students in a lecture, notetaking is a less creative and more mechanical task. It is an interesting comparison, however, and would be interesting to dig into deeper. How is writing different to lecture notes? Would they opt for different writing modalities in each case?

There has been particular interest around the impact of social pressure that students reported in our focus groups. Four students in our focus groups (n=17) specifically mentioned the sound of typing as a negative social pressure that influenced their notetaking choices. Further social pressures were also reported, for example, the student perception that lecturers do not like phone use for notetaking. Additionally, some students reported feeling that taking notes was a sign to lecturers that students were listening, seeing it as a social gesture (Marin and Sturm, 2020), and the feeling that 'everyone is taking notes; so should I.'

We have a thriving team of student advocates that form an integral part of our study skills team (Gamble et al., 2020). We recruit advocates each year, and you can find out more about the recruitment and employment of these students in our [Study Skills blog post](#) (2023). The idea of 'peer to peer' learning that was clearly valuable to students from our research is emulated in the sessions on notetaking designed and delivered by these student advocates.

We would be happy to chat about this research with anyone who would like to contact us at [study-skills@bristol.ac.uk](mailto:study-skills@bristol.ac.uk).

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The authors and contributors did not use generative AI technologies in the creation of this manuscript.

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