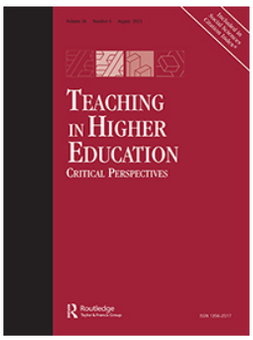
Lecture rapture: The place and case for lectures in the new normal



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Lecture rapture: the place and case for lectures in the new normal

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ABSTRACT

Following the pivot to online teaching as a result of COVID-19, a longstanding debate as to whether higher education should abandon traditional face-to-face lectures has reignited. In this paper, we set out our reflection on this issue based on the evidence available. We conclude that traditional on-campus lectures, and the recordings of those lectures have a place in higher education and the suggestion that they should be abandoned is as unhelpful as the suggestion that they should be the default mode of teaching. When lectures are deliberately chosen as the most appropriate method of teaching and when the same pedagogical care and attention is given as to other modes of delivery, they provide an effective, pragmatic solution, particularly for large classes.

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Following the pivot to online teaching as a result of COVID-19, discussion has turned to how the 'new normal' in higher education will look, in light of rapid changes and technological upskilling that have taken place across the sector (Newton, Da Silva, and Berry 2020; Nordmann, Horlin, et al. 2020; Pownall, Harris, and Blundell-Birtill 2021). Amongst this discussion, a longstanding debate (French and Kennedy 2017; Gibbs 1981; Kottasz 2005; Trott 1963) as to whether higher education should abandon traditional face-to-face lectures has reignited (Bothwell 2020; Kinash, Jones, and Crowford 2021; Ross and MacKie 2021), either because of uncertainty surrounding when large crowds can feasibly and reliably gather, or for pedagogical reasons, such as retaining the use of flipped classrooms or shorter chunks of pre-recorded material that have been developed during the pivot.

The new normal does not have a fixed starting date or procedure and there are already vast global differences in how later stages of the pandemic are managed with respect to higher education. At the time of writing, the University of Sydney, Australia (University of Sydney 2021) is still encouraging students to study remotely unless it is not reasonably practicable to do, University of Mannheim, Germany (University of Mannheim 2021) has 1.5m distancing, mask-wearing, and vaccine requirements, whilst Harvard, United

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States (Harvard University 2021) has returned to on-campus teaching with a vaccine mandate but no social distancing. Even within the UK, the context from which we write this paper, there is substantial variation. Scotland has prioritised public health and continues to require mask wearing and social distancing, for example, the University of Glasgow has limited capacity for on-campus teaching events to 50 students (University of Glasgow 2021). On the other hand, England has prioritised a return to normality, dropping masking, distancing, and vaccination requirements with the ethos of learning to live with the virus (Department for Education 2021).

The new normal for higher education, then, will not be a watershed moment but a drawn-out period of transition that progresses idiosyncratically across the globe, influenced by local restrictions, regulations, and pre-existing norms and preferences for educational approaches. Whilst lectures are not used ubiquitously across higher education, with their popularity waxing and waning even by subject and level of study within institutions (French and Kennedy 2017; Johnson, Keller, and Fukawa-Connelly 2017), they are commonplace enough that any calls for wholesale changes to their adoption is a cause for reflection, particularly following such a period of upheaval. In this paper, we set out our reflection on this issue based on the evidence available. We conclude that traditional on-campus lectures, and the recordings of those lectures have a place in higher education and the suggestion that they should be abandoned is as unhelpful as the suggestion that they should be the default mode of teaching.

The crux of our argument it that: when it is safe to do so, face-to-face lectures with an accompanying recording should continue where they are appropriate for the intended learning outcomes. If the purpose of a teaching session is to develop skills or engage in critical discussion, then lectures are unlikely to be the most effective method available (Cooper and Robinson 2000; Trees and Jackson 2007). The criticism aimed at lectures often centres on contrasting the benefits of active learning that typically characterises small-group teaching, with the traditionally passive, didactic lecture (Lambert 2012). Additionally, assessment methods commonly tied to lectures such as end-of-term exams have been criticised for promoting rote-learning rather than deep engagement with the literature and for delaying opportunities to test the knowledge and skills learned in the session and subsequent feedback on their performance (Cooper and Robinson 2000).

However, there is also robust evidence to defend traditional lectures. In a recent systematic review, Jerez et al. (2021) found five factors that facilitate the effectiveness of large-group teaching activities (1) student–teacher and student–student interaction, (2) implementation of active learning strategies, (3) classroom management, (4) students' motivation and commitment, and (5) the use of online teaching resources. The fifth factor is particularly pertinent to the discussion of lectures as Jerez et al. highlight that the use of online teaching resources provides lecturers with multiple avenues to support and enhance traditionally passive teaching formats with active learning strategies and interaction even with the large class sizes that typically characterise lectures. From early writers such as Bligh (1971), much thoughtful, reflective, evidence-based work has been written on the effectiveness of lectures, but it is crucial to recognise that many of the arguments against large-class teaching do not hold up given the reality of modern learning technology. As an example, Cooper and Robinson (2000) begin their paper with a vignette of an effective, active lecture in which the lecturer uses a clicker

system to ask questions and stimulate discussion in the class, noting that 'few professors teaching large classes have the state-of-the art technology described in this vignette' (6). Whilst it could be argued that much of what makes learning and teaching effective remains remarkably consistent over time, learning technology has progressed and in the twenty-one years since Cooper and Robinson's paper, educators now have multiple options for sophisticated large in-class polling, questions, and discussion. Indeed, Jerez et al. conclude that many authors have prioritised critiquing large classes over using creative and innovative approaches to improve them. Additionally, newer evidence may not support commonly held beliefs about particular teaching approaches. For example, Bradbury (2016) highlights that the oft-quoted suggestion that lectures are ineffective because attention wanes after 15-minutes has relatively little evidential backing and argues that when the same pedagogical care and attention is given as to other modes of delivery, lectures can provide an effective, pragmatic solution, particularly for large class sizes.

Calls to abandon lectures are not new (e.g. Mazur 1996), and neither is our rebuttal of that argument (for a detailed discussion we highly recommend French and Kennedy's seminal 2017 paper) but the temporary pivot to online teaching has added a new layer to the debate. The large-scale forced adoption of online learning without the option for additional or complementary on-campus events presents an opportunity to reflect on and distinguish between educational, social, cognitive, and pragmatic arguments for and against returning to large face-to-face lectures and indeed lecture capture (conceptualised here as the recording of a live, face-to-face lecture).

Jerez et al.'s (2021) suggestion that student–teacher and student–student interaction is crucial for the effectiveness of large-class teaching is supported by accounts that the online experience for some has highlighted the active and collaborative potential of lectures. Kuepper-Tetzel and Nordmann (2021) discuss the successful use of 'watch parties' during the pivot to online in which asynchronous recordings were accompanied by a synchronous, timetabled slot to watch the videos and to facilitate discussion between staff and students, as well as the inclusion of quizzes to help consolidate learning. Kuepper-Tetzel and Nordmann also note that the use of the chat box resulted in a more diverse range of student voices being heard during the lectures, in line with previous research (Vu and Fadde 2013). Their proposal to retain chat functionality during in-person lectures is another example of how modern learning technology can overcome earlier criticisms of large-class teaching. This is a great benefit of mixed modality teaching, but it requires explicit modelling of how to behave in a classroom (a common refrain in concerns around lecture recording practice, MacKay 2019). Students must be clearly told when they can contribute, and even within courses, individual lecturers may have different opinions as to what is appropriate. In online only environments social cues are less obvious, if present at all. As a result, students may be less likely to interact with the lecturer for fear of interrupting, unless clear expectations have been set out at the beginning of class.

Importantly, the watch party model highlights that live lectures help provide structure, routine, and contribute to a sense of belonging, through providing a social presence and the opportunity for incidental peer learning and contact (French and Kennedy 2017; Gysbers et al. 2011; Slack et al. 2014). Asynchronous content has many benefits and we argued strongly for it to form the core of the pivot on the basis of accessibility and inclusion (Nordmann, Horlin, et al. 2020). We are also clear that students need explicit

guidance on how to study and engage with learning technology if we wish them to succeed (Nordmann, Küepper-Tetzel, et al. 2020). But the greater independence that comes with alternatives to live lectures such as asynchronous classes or flipped classrooms can have negative consequences for those for whom flexibility is a double-edged sword and this is particularly the case for those with poorer self-regulation or study skills and disadvantaged groups (Montacute 2020; Pownall, Harris, and Blundell-Birtill 2021).

To revisit our call that face-to-face lectures should return with an accompanying recording, a common concern related to lecture capture pre-COVID was that recordings would be used for purposes other than those intended by the lecturer (e.g. to replace them in future years) or that students would choose *en masse* to watch the recording rather than attend (Dommett, van Tilburg, and Gardner 2019; Nordmann and Mcgeorge 2018). The student response to the pivot to online learning has reinforced that lecture recordings without interaction with the person on the recording does not provide a satisfactory learning experience alone. Whilst a strong sense of community can be achieved with online programmes (Ross and Sheail 2017), it is the social component that has often been most difficult during the pivot. This is not necessarily due to failings on behalf of educators but as a consequence of the fact that our on-campus students *did not choose to learn online* (Gurung and Stone 2020; Norton 2021), and exacerbated for learners who are at a particularly sensitive period of social development (Orben, Tomova, and Blakemore 2020). Writing pre-covid, Bradbury (2016) eloquently captures the essence of this argument:

> If a student can get the identical learning experience viewing a YouTube video in bed just as they can attending a lecture in person, why is this assumption not evident in other aspects of life? … If a virtual experience is indeed identical to a real experience, then no one need go to a live music concert, no one need to go to watch a live play or musical, no one need go to hear a distinguished speaker give a talk, and no one need attend a football or baseball game at a stadium. Yet such venues are often quickly sold out. What is different between a live and recorded event is the emotional buy-in. (Bradbury 2016, 512)

This social component to lectures presents a new angle to the finding that the lecture capture literature has historically been plagued by inconsistent results regarding the relationship between lecture capture usage, attendance, and subsequent achievement (Nordmann and Mcgeorge 2018; O'Callaghan et al. 2017), despite a consistent positive link between attendance and achievement when lecture capture is not a factor (Credé, Roch, and Kieszczynka 2010). One explanation for this inconsistency could be that lecture capture allows students to catch-up on the knowledge transmitted during a lecture but does not make up for the social elements lost from not attending. Consequently, whether lecture capture usage is related to achievement is likely due to whether students are getting those benefits from other sources, for example, Evans and Luke (2020) describe students using lecture capture collaboratively during study groups.

MacKay's (2019) pre-COVID work also discussed the issue of lecture recordings encouraging the 'lecture as canon' view, that is, the idea that the lecture is everything a student needs to know, and that the lecturer is a source of absolute truth. Anecdotally, the flexibility of pre-recorded material may encourage students to spend hours with each

video, pausing and obsessing over the minutiae and this is important to consider in cases where live lectures are to be replaced by asynchronous recordings or flipped classrooms. French and Kennedy (2017) argue that two benefits of live lectures are that they can offer a grand view of a topic and allow for the presentation of a sustained argument and narrative, both of which are impaired by stop-start viewing. On the flip side, MacKay et al. (2021) present evidence from widening participation students (students from groups who are under-represented in HE in relation to their prevalence in the population, and includes students from semi-skilled and unskilled social classes, students with disabilities, and students from ethnic minority groups (Allen and Storan 2005)), that lecture recordings offer a lifeline when financial constraints, caring responsibilities, and physical and mental health issues compromise their ability to attend live classes. In a similar vein, Nightingale et al. (2019) describe the positive impact that the ability to review a lecture has on those with learning difficulties. Consequently, there is power in the combination of a live lecture that provides a social, interactive space in which a narrative is presented, and a recording of that lecture that gives flexibility to those who need it most. When face-to-face lectures return so should lecture capture and with greater recognition that it is an inclusive technology (MacKay et al. 2021).

Finally, from a pragmatic perspective (Newton, Da Silva, and Berry 2020), the financial model of higher education is not about to change, large class sizes are not going away, and academic workload is already at breaking point (Flaherty n.d.). Jerez et al. (2021) argue that the belief that small-group teaching is the answer to effective teaching is simply a denial of reality and an idealisation of the educational process. Replacing large lectures with multiple small-group sessions that could provide the same social benefits is simply not realistic for many programmes and courses, and so a move away from large face-to-face lectures would likely result in reduced face-to-face contact, particularly at pre-honours where classes are largest but the need for structured contact is arguably greatest.

To sum up, if there is an argument to abandon poorly designed, passive lectures, then we are in full agreement. But, there must be acknowledgement that lectures can be more than their lowest form and that knowledge transmission is not the only outcome of importance; providing structure, community, and a sense of belonging is just as vital. When they are done well, lectures can represent an efficient and effective method of teaching. They allow a large group of 'non-experts' to view discipline-specific practice, whether that is the critical review of literature, the evaluation of data, or debating a thesis. Coupled with lecture capture, these tasks are perhaps more suited than ever for lectures, as the recordings enable students to revisit their notes (MacKay, Murray, and Rhind 2021), and this may free the lecturer from extensive slides and 'death by PowerPoint' (Clark 2008). Raaper and Brown (2020) argue that every crisis is both destructive and productive- we should use the schism of COVID and the massive upskilling it has resulted in to diversify our teaching methods, to reduce the proportion of HE teaching that is delivered via lectures, and to ensure that active and inclusive learning and teaching is not just the pastime of pro-pedagogy faculty. In the grand academic tradition of 'this meeting should have been an email', sometimes this lecture should have been a flipped classroom, sometimes it should have been a discussion group, but sometimes, it should have been a lecture.

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