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Zooming in on Education:
An Empirical Study on Digital Platforms and Copyright in the United Kingdom, Italy, and the Netherlands

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Abstract

The COVID-19 pandemic has led to a significant change in the types of teaching infrastructure used in higher education. This article examines how the use of commercial digital platforms for educational purposes impacted on teaching practices. At the same time, it shines a light on the experiences and (legal) perceptions of educators as an essential category of stakeholders within the EU copyright legal

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framework. Against the background of the outbreak of the COVID-19 pandemic, the study reflects on the process of 'platformisation' of education and delves into copyright-related aspects of the online teaching and learning environments. The study is based on the presumption that the pandemic-induced transformation of education would require institutional adjustments as well as an enhanced level of copyright awareness among educators. It provides data and evidence based on an empirical study conducted in 2021 surveying over 200 educators in the UK, Italy, and the Netherlands. The results, presented in this article, point at several problematic aspects in relation to 'platformised' educational practices and materials, including a low awareness and misled perceptions on copyright legal rules and an increasing role of digital commercial platforms as factual regulators of the higher education sector.

Keywords: copyright law, higher education, platformisation, distance learning, exceptions and limitations, content moderation.

1.   Introduction

Two years down the line since the first lockdowns in spring 2020, as Europe eases COVID-related restrictions, it has become apparent that distance learning is no longer a temporary tool to use in times of emergency. Distance learning has become part of the default modes of provision of learning in higher education (HE). There is still limited evidence as to the impact that this shift is having on fundamental rights such as right to education, academic freedom, and intellectual property (IP).[1] Previous research shed light on some of the issues related to the phenomenon of platformisation of education from a copyright legal perspective (Craig/Tarantino 2021; Hudson 2020; Hudson/Wragg 2020; Noto La Diega et al. 2022; Pascault et al. 2020). These studies, even though mostly stemming from the concerns of academic faculty members and researchers during the pandemic, do not investigate the actual perceptions and experiences of HE educators during in relation to online teaching.

This paper aims to connect an exploratory empirical analysis with doctrinal analyses of copyright law and its effectiveness in Europe. We decided to use the perspective of educators and particularly how they use educational materials, which are subject to a complex web of laws and private ordering. We set out to explore how these public and private rules play out in practice, for example inquiring how the terms and conditions of some platforms and distance learning services[2] purport to prevail over relevant copyright exceptions and limitations (Ducato et al. 2020). We asked ourselves: how are these terms enforced and enforceable? We assess how the pandemic provided private platforms with the opportunity to exploit legal lacunae

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[1] While the fundamental nature of IP is contested, its inclusion in instruments such as the Charter of Fundamental Rights of the EU reduces the practical relevance of the debate. See Griffiths and McDonagh 2013; Peukert 2016; Husovec 2019.

[2] For the purposes of this article, we use the terms 'platform' and 'distance learning service' interchangeably and broadly, to include all services subject to our empirical study.

and technological power to affect the quality of the teacher experience in remote settings, and ultimately how they can impact the quality of education. Against this backdrop, this study pursues four main objectives: (i) to contribute to evidence-based and stakeholder-informed legal scholarship; (ii) to support the assessment and building of the post-pandemic HE sector; (iii) to recentre the copyright debate on education; and lastly (iv) to raise copyright awareness.

As our interest lies in the 'law in action', we have adopted a socio-legal methodological approach consisting in a survey, as detailed in the next section. As the applicable copyright rules depend to a large extent on the varying national legal frameworks of relevance and since the HE systems vary significantly across Europe, we considered it useful to collect data from more than one country.

In co-designing the survey, we have gathered evidence on HE educators' choice and specific uses of distance learning platforms, their degree of copyright literacy and copyright-specific training offered to them, their experiences of copyright-related technological disruptions, including content removal, takedowns, and viable remedies. The analysis of the data collected from the survey has informed the selection of the issues that we are going to deal with in this paper, namely: the 'platformisation' of education (Section 3); copyright exceptions and limitations (Section 4); and content moderation and redress mechanisms (Section 4). With a focus on these key aspects, we aim to initiate further analysis and debate that will contribute to illuminating critical issues and possible solutions in the relationship between copyright law and education policies in the (post) COVID-19 era.

2.   Data collection and survey structure

2.1   2.1 Study target and limitations

Educators from all academic disciplines were recruited on a voluntary basis in 38 HE institutions based in three different countries: the United Kingdom (17), Italy (12), and the Netherlands (9). Although all institutions are located in Europe,[3] these three countries offered an appreciable variety of contextual characteristics in terms of public expenditure, graduation rates, teaching staff, and student-teacher ratios, thus generating a sufficiently rich picture in our data.[4] Moreover, HE institutions in all

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[3] See e.g. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 'Digital Education Action Plan 2021–2027 Resetting education and training for the digital age' COM/2020/624 final. Member States have considerable leeway as the EU has only complementary competence in the field of education – meaning that it supports state action without superseding it – and the exclusive competence with regard to intellectual property is limited to its commercial aspects. Accordingly, Brexit is unlikely to be a critical factor in assessing the similarities and differences between the sampled HE sectors.

[4] Average number of students per member of academic staff in 2018: 20.3 IT, 14.6 NL, 15.4 UK (ratios are very different also due to the low number of enrolled students in Italy). Teaching staff in thousands (2018): IT 92.7, NL 69.8; UK 161.1. Public expenditure on tertiary education relative

selected countries experienced several months of online educational activities during the pandemic.

The survey aimed at exploring to what extent the responding HE educators experienced or were aware of potential copyright-related issues in their online teaching activities. It should be stressed that the data collection was subject to stringent practical temporal and financial constraints. Therefore, we cannot make claims that our results reflect the overall position of the relevant HE educator populations. Nonetheless, this exploratory study lays the groundwork for more extensive empirical work. The key issues identified within the limitations of our sample can lead to hypotheses that can form the basis for further research and analysis on the effectiveness of copyright rules in Europe, or, more specifically, on the educators' copyright experience in the use of distance learning platforms.

We adopted the following strategy to improve the dependability of our sampling. We assumed that individual HE institutions play the most important role in selecting distance learning services and allocating resources to instruct staff and students on how to use them. Indeed, public authorities and centralised institutions seemed to be only loosely involved in the practical organisation of distance learning and the educators' degree of freedom and discretion seem to ultimately depend on the plethora of services *de facto* available on the market and made available by each specific university (Noto La Diega et al., 2022). For this reason, any uncontrolled dissemination of the survey among teachers would have increased selection bias and possibly recorded only individual experiences limited to a few institutional arrangements.

In an attempt to account for the diverse features of HE institutions across the selected countries, a list of 20 HE institutions for each country in the study was compiled to meet a number of criteria. First, we prioritised institutions that offer a wide range of teaching subjects to observe differences in educators' copyright awareness across disciplines. Second, we built a balanced sample between research-intensive, teaching-intensive, and mixed institutions. Third, we targeted small, medium, and large institutions.

In April 2021, the selected universities were contacted through their rectories and department deans and encouraged with a letter of presentation explaining the aims and scope of the study. 38 institutions responded positively. Targeting these institutions, we circulated an invitation for teachers to participate in our survey. The individual educators' data collection took place from 6 May 2021 to 6 July 2021. We collected a total of 215 responses. 180 respondents fully completed the survey, while 194 completed the questionnaire at least in its fundamental parts. 21 respondents did not get through the explanatory introduction and the requested background

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to GDP in 2017: NL1.59; IT 0.75; UK 1.44. Source: Eurostat, 'Statistics Explained' <https://ec.europa.eu/eurostat/statisticsexplained/> accessed 13 July 2022.

information and thus were excluded from the sample. Table 1 provides a descriptive picture of our sample, with indication of the number of respondents, the percentage, and the percentage of the cumulative frequency (cumulative percentage).

Table 1: Descriptive statistics

	Number of respondents	Percentage	Cumulative Percentage
Country			
Italy	92	47.67	47.67
Netherlands	31	16.06	63.73
United Kingdom	70	36.27	100
Size of university			
Large (more than 15,000 enrolled students)	128	66.32	66.32
Medium (between 5,000 to 15,000)	58	30.05	96.37
Small (fewer than 5,000)	7	3.63	100
Type of institution			
Both	142	73.58	73.58
Research intensive	41	21.24	94.82
Teaching oriented	10	5.18	100
Area of teaching			
Medical and Natural Sciences	34	17.62	17.62
Engineering, Economics, and Computer Sciences	33	17.1	34.72
Humanities and Social Sciences	122	63.21	97.93
Others	4	2.07	100
Academic position			
Academic (fixed-term position)	25	12.95	12.95
Academic (permanent position)	148	76.68	89.64
Other	8	4.15	93.78
PhD student	12	6.22	100

2.2 Questionnaire structure

The study was conducted in the form of a 32-question survey, composed of five main sections: (i) background information; (ii) uses of platforms and purposes; (iii) awareness of copyright law; (iv) use of online materials and experiences; and (v) general considerations on distance learning. The questionnaire was first piloted on a small number of respondents (N=10) that provided positive feedback on its clarity and structure.

The first section of the survey collected the respondents' relevant background information related to their professional role as educators: the academic position (fixed-term, permanent, or PhD student), the area of teaching following the ISCED-F 2013 classification,[5] the type and the size of their HE institutions, and the country in which the institution is based. The second section focused on the uses of platforms in their teaching activities and the specific purposes of such uses. First, we asked respondents to list any platforms they utilised from a comprehensive list of commonly used platforms. The respondent could input any missing platform's name, including universities' in-house platforms. For each platform that the respondent declared to use, we asked to mark the relevant purpose(s) of use, i.e. sharing materials with students; live teaching sessions and seminars; asynchronous teaching sessions (e.g. upload of video recordings); video-calling for office hours; assessment and exams; marking; e-proctoring. Respondents could specify other uses. We also recorded whether the institution delivered distance education before the pandemic and, if so, which platform(s) they used. We also asked educators if they were trained to use each specific platform by their HE institutions.

The experiences and behaviours of the respondents vis-à-vis distance learning platforms was further investigated in section 4 of the questionnaire. The first set of questions asked educators to specify their behaviours when dealing with third-party materials. We opted for visualisation and inquired whether their behaviour changed when confronted with popular copyright-related symbols (e.g. copyright/all rights reserved symbols, public domain symbols, Creative Commons licence logos),[6] and what they would generally do if they were unsure about some works being protected or not by copyright. Another set of questions focused on the educators' experiences with potential disruptions online, specifically in cases of forced removal, take-down, or otherwise disenabled access to content by the platforms and, if so, their experience with potential remedies.

Finally, the survey collected general considerations about distance learning as a consolidating practice. We asked respondents to rank their seven most worrisome aspects of distance learning, to be chosen from a list that was designed and discussed by the research team on the basis of existing relevant literature. An overview of the complete questionnaire and a summary descriptive statistics table are provided in the Appendix.

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[5] UNESCO Institute for Statistics. 'International Standard Classification of Education Fields of Education and Training 2013 (ISCED-F 2013): Detailed Field Descriptions.' (2015).
[6] 'About CC Licenses' (*Creative Commons*) <https://creativecommons.org/about/cclicenses/> accessed 7 March 2022.

3.   The platformisation of higher education

A major limitation in previous research into copyright and distance education during the pandemic was that it was based on anecdotal evidence about which platforms educators were using, and what they were using them for.[7] This study attempts to overcome that drawback, starting a discussion on the need for systematic collections of data on copyright in educational settings. The findings of our preliminary attempt in this direction may come as a surprise to many.

First, of the 18 platforms identified by the respondents, 17 were based in the US, one in Australia, none in Europe. As this was a study of three European jurisdictions, this data is rather alarming, though not entirely unexpected. Indeed, despite calls for data sovereignty (Madiega 2020) and a European cloud,[8] it seems clear that US big tech companies are using their dominance in other fields – which revolves around their data power (Lynskey 2019) – to extend their control over the education sector.[9]

Second, we have considered whether the identified platforms could be regarded as proprietary or open. Open-source platforms fared better than we expected, with three platforms falling into this model. Although proprietary approaches continue to prevail (15 platforms), there seems to be ground to explore the possibility that they do not bring specific educational benefits (Lakhan/Jhunjhunwala 2008), besides going against current legislative trends embracing openness. Indeed, citizens, public sector bodies, and private companies are being asked to increasingly open up and share data under the EU Data Governance Act, the Open Data Directive, and the Data Act respectively (Noto La Diega/Derclaye 2022). Prevalent business models in the distance education sector seem to be at odds with the Zeitgeist and do not appear beneficial to students and educators alike. Fortunately, there are some positive examples of adoption of openness in educational platforms. For example, in February 2022, the city council of Barcelona invested vast resources in the so-called DD Platform (*Digitalización Democrática*), an open source and public educational infrastructure to guarantee auditability, interoperability, and 'the sovereignty of

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[7] The platforms selected in Pascault et al. (2022) were Discord, Facebook, G-Suite for Education, Jitsi, Microsoft Teams, MoodleCloud, Skype, Zoom, and YouTube.

[8] 'Gaia-X' (*Data Infrastructure*) <https://www.data-infrastructure.eu/GAIAX/Navigation/EN/Home/home.html> accessed 7 March 2022.

[9] 'How Big Tech maintains its dominance' (*EDRi*, 10 February 2021) <https://edri.org/our-work/how-big-tech-maintains-its-dominance/> accessed 7 March 2021. Some positive efforts to develop public infrastructures for data in the HE sector should be nonetheless noted; see e.g. the GARR (Gruppo per l'Armonizzazione delle Reti della Ricerca), Italy's education-specific high-speed public network. As the GARR Consortium states, 'unlike commercial providers, the users of the GARR network do not limit themselves to use data, contents, and services; on the contrary, they play an active role in providing new ones to the benefit of the scientific community'.

student data.'[10] There is much to learn from the DD Platform experience also in methodological terms, as it is the result of sustained collaboration between non-governmental organisations, schools, academics, software developers, and local authorities.

Third, crucially, we evaluated the nature of these platforms to find out that all of them were privately owned. As HE institutions increasingly outsource a number of tasks to these platforms, the argument could be put forward that we are witnessing a privatisation of education from the backdoor. This shift cannot be explained exclusively in light of the more general dominance of big tech companies. Indeed, if this were the case, we would have seen Google leading the pack, whereas the advertising giant lags behind much smaller providers such as BigBlueButton and Moodle, despite the investments in pushing Google Workspace for Education and Google Classroom.[11] In our data, the market leaders are currently Zoom and Microsoft Teams, which means that we are not simply witnessing the backdoor privatisation of education: the prevalence of commercial non-education-specific platforms over educational platforms heralds the indirect commercialisation of HE.

The analysis of the specific purposes for which these platforms are used confirms this assessment (Table 2). Indeed, even though educational platform Blackboard still stands its ground – albeit narrowly – with regard to sharing materials, asynchronous teaching, and marking; commercial general-purpose platforms Zoom and Microsoft Teams are clearly dominating when it comes to live teaching, office hours, assessment, and e-proctoring. It would seem that the process whereby universities are outsourcing their core functions to third parties, particularly to commercial ones, has become more advanced than one may have thought or hoped.

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[10] 'Primer prototip de plataforma educativa de codi obert i auditable a la ciutat' (*Ayuntament de Barcelona*, 9 February 2022) <https://www.barcelona.cat/infobarcelona/ca/tema/educacio-i-estudis/primer-prototip-de-plataforma-educativa-de-codi-obert-i-auditable-a-la-ciutat_1143691.html> accessed 11 March 2022.

[11] A move to grow its position in the educational sector and further monetise the relevant data has been reported recently, as Google backtracked on its promise that storage for education would be free forever. See Rupert Goodwins, 'The end of free Google storage for education' (*The Register*, 14 February 2022).
<https://www.theregister.com/2022/02/14/google_free_storage_plan_ends_opinion_column/> accessed 7 March 2022.

Table 2: Most mentioned platforms by purpose

	1st mentioned		2nd mentioned		3rd mentioned	
	Platform	%	Platform	%	Platform	%
Sharing material	Blackboard	26.1	M. Teams	21.7	Moodle	15.9
Live teaching	Zoom	35.3	M. Teams	26.3	Blackboard	16.6
Asynch. teaching	Blackboard	25.0	Zoom	21.4	Canvas	15.5
Calling office hours	M. Teams	35.5	Zoom	35.1	Blackboard	10.3
Assessment	Zoom	28.7	Blackboard	23.9	M. Teams	13.8
E-proctoring	Zoom	36.8	Blackboard	15.8	M. Teams	10.5
Marking	Blackboard	46.2	Canvas	23.1	Moodle	9.6

The platformisation of education is situated in a wider context where big tech corporations are attacking the open architecture of the internet. Elsevier's acquisition of the Social Science Research Network (SSRN) – a widely popular open archive where papers can be freely downloaded – is a good example.[12] Indeed, the move marked a recentring of the business model of the Dutch publisher – known for its efforts against open access[13] – from research to data monetisation (Leeper 2016). Podcasting is also illustrative of this wider context and is particularly relevant as podcasts become a popular way for students to learn and for educators to assess (Wall 2019; Wolpaw and Harvey 2020). Spotify and Apple creating walled gardens of platform-exclusive and premium content give us tools to predict how the knowledge market is going to evolve. Even platforms such as Substack (that creates paid-for newsletters) and HootSuite (for social media management), which accommodate long-form web content, is now monetising that content (Malesic 2021). While this trend seems difficult to reverse, all hope is not lost. Similar to the aforementioned DD Platform, there are noteworthy attempts to suggest alternative models and narratives. For example, the IndieWeb and PeerTube movements have been making excellent progress in building the tools that will enable free open content (Villar-Onrubia and Marín 2022).

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[12] 'Elsevier Acquires the Social Science Research Network (SSRN), the Leading Social Science and Humanities Repository and Online Community' (*Elsevier,* 17 May 2016) <https://www.elsevier.com/about/press-releases/corporate/elsevier-acquires-the-social-science-research-network-ssrn,-the-leading-social-science-and-humanities-repository-and-online-community> accessed 29 July 2022.

[13] See inter alia *Elsevier Inc. et al v. Sci-Hub et al*, No. 1:2015cv04282 - Document 53 (S.D.N.Y. 2015).

4.   Educators' awareness of copyright exceptions

Looking more closely at the intersection between the practices in the 'platformised' education and the object and purposes of copyright law, we directed our empirical study at evaluating the extent in which HE educators make informed decisions with regard to the use of materials for their online teaching activities. By doing so, this study contributes to the vast scholarship on copyright awareness in research, teaching, and learning environments.[14] Unsurprisingly, our findings confirm our fist-hand anecdotal experience that educators seem to heavily rely on digital and downloaded materials, as over 67 per cent of the survey participants regularly or at least occasionally download teaching materials from the internet. What is more striking is that when they see the so-called copyright logo (©) they tend to refrain from using the relevant materials (see Table 3 below), despite the fact that they could be used under existing copyright exceptions and collective licences. In other words, through what we call 'copyright signalling' – i.e. the displaying, and arguably abuse, of the © symbol by right holders, aimed or leading to deter end-users from making use of their works – online educational materials are subject to the risk of overprotection, to the detriment of the fundament rights to education as well as to expression and information.

Table 3:

If you see any of these or similar logos:	Per cent	Cum.
I ask permission before sharing it	7.22	7.22
I don't download it nor share it	24.44	31.67
I don't know	16.11	47.78
I download it but use it only privately	19.44	67.22
I only use an extract (e.g. a quotation) or a small part of it (e.g. a chapter of a book)	24.44	91.67
I share it with students	8.33	100.00
Total	100.00	

The problem of a generally low degree of awareness of copyright rules across society has accompanied the evolution of the discipline since its earliest days. Several studies have addressed this issue, ranging from sector-specific inquiries into industrial practices (Woods et al. 1999) to investigations on the degree of specialisation of

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[14] For a rich compilation of empirical studies on copyright law, refer to CREATe, Copyright Evidence, <https://www.copyrightevidence.org/> accessed 20 March 2022. The online database resource allows for a search resulting in over 200 scientific articles related to the topic of 'copyright awareness' and over 100 scientific articles on 'copyright and higher education'.

judges interpreting those same copyright rules (Derclaye 2021). Despite problems of copyright literacy being empirically proven in general terms, measuring the level of familiarity with copyright rules remains essential in sectors where copyright and copyrighted content play a critical role. Education is one of them.

More specifically, it is of timely relevance and renewed importance to focus on how much we rely on copyright exceptions and limitations in our universities. The notion of copyright exceptions and limitations stands for a category of legal provisions that encompass all uses of copyright-protected content that are permitted by law (Jütte 2017; Rendas 2022). As a result, such permitted uses – which can range from quotation to parody up to reproduction for criticism or public debate – do not require any authorisation nor ad-hoc licences. Teaching and, more generally speaking, educational uses of protected works represent a very important cluster of copyright exceptions and limitations both in EU and national legal frameworks. Since 2001, the so-called illustration for teaching exception is harmonised at the EU level[15] and implemented in all Member States, despite some divergences of scope and application (Xalabarder 2009). More recently, the EU legislator further emphasised the importance of permitted uses of copyright protected materials in educational settings by adding a specific mandatory exception for digital teaching activities in the new Directive 2019/790 (CDSM Directive).[16]

As of today, Article 5 CDSM Directive plays a key role in shaping the teaching and learning experience of educators and students. Since the very beginning of the negotiation process leading to the CDSM Directive, the EU legislator acknowledged the pressing need to enhance legal certainty and modernise the legal framework to promote 'the use of parts or extracts of works to *support, enrich or complement* the teaching, including the related learning activities'.[17] What EU policymakers could not predict was the swift transition towards an almost full *replacement* of in-class activities by way of digital classroom settings during and after the pandemic emergency.

Against this background, it is highly meaningful to assess how equipped educators feel vis-à-vis the legislative attempts to further empower them to use materials online. Based on the data collected from our survey, HE educators seem not to have been affected by the momentum gathered by the EU legislator around the importance of teaching exceptions: as proven by previous empirical studies in the

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[15] Directive 2001/29/EC on the harmonisation of certain aspects of copyright and related rights in the information society (InfoSoc Directive), Art.5(3)(a).

[16] Even though of mandatory nature, Art.5 CDSM Directive is currently undergoing a complicated phase of national implementations, with some Member States transposing the provision verbatim in their national legal system, and fewer countries exploiting the opportunity to enhance the regulation of teaching exceptions as a whole. See Priora et al. 2022; Lazarova 2022; Jütte 2019.

[17] European Commission, Proposal for a Directive on Copyright in the Digital Single Market COM(2016) 593 final, Recital 16 (emphasis added).

sector (Seng 2021), deep uncertainties about the legal compliance of educational practices still persist.

Overall, the respondents received generous guidance from their HE institutions regarding the digital platforms to be used (84.5% of the respondents were instructed in the choice of at least one platform they used; 72.5% received guidance on how to use the platform). Despite this, instructions about copyright-related aspects do not seem to be given priority and sometimes they are not provided at all from the university internal policies and regulations (71.4% of the respondents indicated that no copyright training is available at their higher education institutions or they are unaware thereof; see also Noto La Diega et al. 2022). 64.6 per cent of the survey respondents stated that they did not receive any guidance from their institution with regards to which materials they can use online for their teaching activities. This lack of legal, and specifically copyright, guidance led educators to resort to various and inconsistent coping mechanisms, from seeking authorisations on their own to use third-party content (6.5% of the respondents) to presuming the lawfulness of the unauthorised use (14.5%) to limiting themselves to public domain works only (35.5%).

The low degree of awareness of copyright rules is openly declared by most educators. Only 26 per cent of the respondents indicated a high familiarity with copyright law, while the 42 per cent responded to have very little knowledge about it. 24.9 per cent of the respondents expressed the desire to receive training on this topic. A silver lining can be found in the impact of symbols other than the copyright logo, which mimicking the impact of the so-called copyright signalling strategy, seem to spread a clearer understanding about authorised and permitted uses of online materials by educators and students. Indeed, over 67 per cent of the respondents recognised public domain and Creative Commons symbols, deeming them as a green light for the use of the content they retrieve online, or at least parts thereof. If, on the one hand, this shows promising developments suggesting how to visually manage and incentivise the use of educational materials online, on the other hand, it calls for educational campaigns to safeguard and promote a diverse and pluralistic educational environment, where all works – not only public domain or Creative Commons licensed ones – can and should be relied upon by educators and students within the scope of their teaching and learning activities.

5.   Content moderation and redress mechanisms

In the survey, only a fraction of the respondents reported disruptions in the use of distance education services and platforms. There is a certain consolation in these low numbers,[18] given the toll online teaching took on teachers and learners alike. These low numbers could also be a result of the overall low copyright literacy, as illustrated above, and the resulting ignorance of sanctioning mechanisms. However, the fact that

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[18] Only 11 out of 212 respondents reported disruptions.

some issues occurred at all demands reflection on how problems with online teaching platforms can be avoided in the future, as they will, inevitably, remain a part of our HE systems. Or put differently, how could a platform infrastructure instil confidence in educators to use the learning material best suited for their teaching. Indeed, learning platforms constitute an integral element in the operation of Article 5 CDSM Directive,[19] and current practice demonstrates that even after the pandemic more 'digital' teaching will remain.

Online platforms, therefore, continue to be used by educators to communicate to and with their students. As a result, teaching activities will be subject to manual and automated content moderation procedures. In this context, content moderation should be understood broadly, as encompassing any control over content uploaded and stored in the context of the use of these services. For example, a teacher could choose to illustrate and support the learning of their students with selected text materials, or to upload a video, image or a song onto a virtual learning environment, or they could upload a lecture containing third-party content onto YouTube. In any of these cases, currently more likely in the latter, it can be expected that the platform itself, equipped with advanced content recognition software, would exercise an additional moderating role, preventing the upload or temporarily, but automatically, removing the content.[20] This control would be in addition to informed choices of teachers as to the selection of the material they share with students.

As a result of content moderation, the platform may decide to disable access to the content, or take it down. The uploading teacher would then be required to oppose the decision of the platform to disable the upload even if the upload were entirely legal, for example because the use of third-party material would fall under a copyright exception. Similarly, the upload of an entire scientific article or a textbook excerpt could be detected by the rightsholder in a closed virtual learning environment such as Moodle or Blackboard and be made temporarily unavailable until a teacher would appeal against the blocking or filtering of such content. Our survey suggests that here might lie the main clash between legal guidance and technological practice when it comes to moderation of educational content: mechanisms to appeal the platforms' decisions may not be known, perceived as overly burdensome, or not adequately functioning.[21]

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[19] Art. 5(1)(a) CDSM Directive requires that uses covered by the exception take place in 'secure electronic environments', which Recital 22 defines as 'digital teaching and learning environments access to which is limited to an educational establishment's teaching staff and to pupils or students enrolled in a study programme, in particular through appropriate authentication procedures including password-based authentication'.

[20] 9 out of 11 respondents reporting technical disruptions in the use of online platforms indicated that the platform prevented them from sharing content, while 4 respondents had their uploaded content removed or obscured.

[21] Even though 6 respondents reported to have interacted with the platform attempting to solve the disruption, 9 of them indicated they could not appeal the platform's decision.

In either scenario, teachers would be obstructed, and potentially disincentivised, to upload learning material in an open or closed online environment, even when such use would be perfectly lawful. To avoid, or at least mitigate, such deterring obstructions, two important considerations have to be made. First, the calibration of automated filtering as monitoring mechanisms for popular platforms, which might nevertheless be used for teaching purposes, must be conducted with utmost care (Geiger/Jütte 2021). Second, decisions to remove content after automatic detection, or pursuant to a notice by the rightsholder or a licensee, must be expeditiously reviewable by a qualified human moderator.

These issues raised by automated content moderation on larger platforms that fall within the scope of the CDSM Directive have been discussed extensively beyond their application in teaching environments (Geiger/Jütte 2021), and the new regime for other online services under the draft Digital Services Act[22] will also be applicable to certain uses of content by teachers. Even though these discussions were not teaching-specific, many of the criticisms would hold true in learning environments. Of course, secure electronic environments that are used for making available to students works protected by copyright, be they written or audio-visual works, can also be equipped with online filters that will be necessary tools to operationalise Article 17 of the CDSM Directive. In that case, they will also require redress mechanisms for 'disruptions', i.e. erroneous blocking and removals of lawful uses as is required by both the CDSM Directive[23] and the draft Digital Services Act.[24]

The modalities of content moderation in relation to teaching material raise unique issues. First, uses for instruction and teaching are governed by at least two different exceptions whose scopes and conditions differ and are subject to diverse implementation models in the EU Member States (Priora et al. 2022). Second, the appreciation of what uploads can or should be blocked or filtered is arguably different from 'ordinary content' in the light of European fundamental rights. In general, the lawfulness of blocking and filtering mechanism for the purposes of copyright enforcement and the operation of user redress mechanisms must be considered in the light of fundamental rights (Geiger/Jütte 2021; Wimmers 2022). Educational uses display a subject-specific fundamental rights constellation, which requires a (more) careful appreciation of uploads and storage of material intended for illustration or teaching.

When considering whether to continue blocking or filtering material for online teaching activities a service operator must take into account the 'usual' fundamental rights:[25] one the one side, the right to intellectual property of the rightsholder, on the

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[22] European Commission, Proposal for a Regulation on a Single Market for Digital Services (Digital Services Act) COM (2020) 825 final.
[23] Art 17(9) CDSM Directive.
[24] Art 17 Digital Services Act.
[25] The CJEU regularly considered the right to intellectual property (Article 17(2)), the right to freedom of expression (Article 11), the right to privacy (Article 8) and the right to conduct a

other the right to freedom of expression and information of the uploader and of the recipients of the content concerned. However, with regard to teaching activities, other fundamental rights must be considered specifically when interpreting potentially applicable exceptions such as those found in Article 5(3)(a) InfoSoc Directive and Article 5 CDSM Directive. These will have to include academic freedom and the freedom of education.

While the right to education under Article 14 CFREU does not expressly grant access to teaching materials, a combined reading of the right to freedom of expression (Article 13) and academic freedom suggests that the balancing of rights in interpreting teaching and research exceptions in an online environment would have to be considered very carefully, and arguably with a firmer standing for the rights relevant for teaching and instruction. Arguably, the effect would be that platform have to be more diligent when moderating uploads by teachers on their respective platforms because the specific appreciation of such uploads is context-sensitive.

Therefore, not only would teaching activities require special consideration on ordinary platforms, but the potential enforcement on copyright in virtual learning environments would also have to adhere to fundamental rights standards that must inform the application of copyright law online and the interpretation of copyright exceptions and limitations in particular.

6.   Conclusion

The Covid-19 pandemic has accelerated the shift from an analogue to and online, or at least a markedly hybrid form of HE. As a result, large parts of third-level education have developed into a 'platformised' teaching and learning environment. The platformisation of education results from its indirect Americanisation, commercialisation, and privatisation as a consequence of the increasing and often deterministic adoption of foreign private platforms that were not designed as educational tools. The increasing deployment of co-designed public open-source tools such as Barcelona's DD Platforms give hope that the intrinsically intertwined battles for an open internet and a just HE system have not been lost.

Our exploratory empirical study demonstrates that, in general, copyright awareness and literacy among HE teaching staff is still very low. Combined with a sudden shift to more digitisation in teaching activities at the start of the pandemic, the confidence to use and work with copyright protected teaching material has suffered significantly. Against the background of the recent copyright reform in the EU, these uncertainties are most likely to persist. A more complicated legal framework, which distinguishes

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business (Article 13), see for example Case C-360/10, *SABAM v Netlog*, EU:C:2012:85; Case C-484/14, *Mc Fadden*, EU:C:2016:689; Joined Cases C-682/18 and C-683/18, *YouTube and Cyando*, EU:C:2021:503.

between analogue and digital uses would be unlikely to improve confidence among lecturers. To harness the potential of online and blended learning, and to provide students with easily accessible learning material, more and better training and strategic support to educators is required. This support must be provided in an accessible form that incentivises the use of teaching materials in digital form, instead of cementing copyright illiteracy.

These training opportunities must also integrate information on digital learning environments used to deliver teaching and learning materials. Importantly, HEs must examine and scrutinise their choice of digital learning platforms and what implications this has for online teaching, in terms of potential liability, availability of learning materials, and control over the digital classroom. An environment in which teachers and students are potentially exposed to legal or quasi-legal proceedings over content shared online in the course of teaching and learning activities is not conducive to education.

Law reform, enforcement, literacy campaigns, and targeted training should all be part of the solution. However, they risk being blunt instruments if they do not foster a collective movement where educators and students come together to ensure that the platformisation of HE does not come at the cost of their freedom of expression, right to education, and academic freedom, thus paving the way to a more open, high quality, and diverse education ecosystem in Europe.

APPENDIX

Table 1 provides the overview of the survey's sections.
Table 2 provides the complete survey questionnaire.

Table 1: Survey sections

1.	Background information
2.	Uses of platforms and purposes
3.	Awareness of copyright law
4.	Use of online materials and experiences
5.	General considerations on e-learning

Table 2: Survey questionnaire

Part 1: Background information

Your profession	Please choose only one of the following:*Academic (permanent position); Academic (fixed-term position); PhD student; Other*

Please indicate the discipline/area of teaching	Please choose only one of the following: *Education; Humanities; Social sciences; Business and administration; Natural sciences, mathematics and statistics; Information and Communication Technologies; Engineering, manufacturing and construction; Agriculture, forestry, fisheries and veterinary; Medical studies, health and welfare; Cognitive studies; Gender studies; Law; Other*
Where is your university based?	Please choose only one of the following: *Italy; Netherlands; United Kingdom; Other*
What is the size of your university?	Please choose only one of the following: *Small (fewer than 5,000 enrolled students); Medium (between 5,000 to 15,000 enrolled students); Large (more than 15,000 enrolled students)*
Is it a research-intensive or a teaching-oriented institution?	Please choose only one of the following: *Research intensive; Teaching oriented; Both*

Part 2: Use of platforms and purposes

Which online platforms do you currently use to provide distance education?	Listing of the online platforms

For which purposes?	Please choose all that apply: *Sharing materials with students; live teaching sessions and/or seminars; asynchronous teaching sessions (e.g. upload of video recordings); video-calling for office hours and/or personal tutors; assessment and/or exams; e-proctoring; marking; other uses.*
Were you instructed by your university in the choice of the platforms, or did you choose them yourself?	Please choose only one of the following: *I was instructed by the university; I chose myself*
Did your university provide any guidance on how to use these services, including associated risks?	Please choose only one of the following: *Yes; No*
Have you used e-proctoring systems in any of your exams?	Please choose only one of the following: *Yes; No*
Was your university providing distance education before the COVID-19 pandemic?	Please choose only one of the following: *Yes; No*
Which online services were used?	Listing of the online platforms

Part 3: Awareness of copyright law

How familiar are you with copyright law?	Indicate on a scale from 1 (*Not familiar at all*) to 5 (*Very familiar*)

Does your university provide copyright-specific training to employees?	Please choose only one of the following: *Yes; No; No, but I would like to receive training on this topic; I do not know*
Have you received any guidance from your university on which materials you can/cannot use online for distance education?	Please choose only one of the following: *Yes; No*
Are you the author of the materials you use for distance education?	Please choose only one of the following: *Yes, all the materials I use are my original works; Most of the materials used are my original works, some are not; No, I mostly use third-parties' materials*
When you share third-party materials (e.g. a colleague's journal article) with your students, what do you usually do?	Please choose only one of the following: *I seek permission from the owners; I rely on my university's licences and agreements; I use materials in the public domain; It is permitted by law as it is for teaching purposes; Other*
Are you responsible for your students' activities on the platforms e.g. if they share a video that they don't have permission to use?	Please choose only one of the following: *Yes; Uncertain; No*

Part 4: Use of online materials and experiences

How often do you download materials from the Internet and use it for your distance education activities?	Please choose only one of the following: *Never; Rarely; Occasionally; Regularly*

If you see any of these or similar logos attached to a content that you'd like to use for distance education purposes, what do you usually do? [provide the logos here]	Please choose only one of the following: *I share it with students; I ask permission before sharing it; I download it but use it only privately; I only use an extract (e.g. a quotation) or a small part of it (e.g. a chapter of a book); I don't download it nor share it; I don't know*
If you see any of these or similar logos attached to a content that you'd like to use for distance education purposes, what do you usually do? [provide the logos here]	Please choose only one of the following: *I share it with students; I ask permission before sharing it; I only use an extract (e.g. a quotation) or a small part of it (e.g. a chapter of a book); I download it but use it only privately; I don't download it nor share it; I don't know*
When you are unsure about your right to use online materials (e.g. there is no logo), what do you usually do?	Please choose only one of the following: *I share it with students; I ask permission before sharing it; I download it but use it only privately; I only use an extract (e.g. a quotation) or a small part of it (e.g. a chapter of a book); I don't download it nor share it; I don't know*
Have you ever experienced the following disruptions in the use of online platforms?	Please choose all that apply: *The platform prevented me from sharing some content (e.g. videos, music, texts, hyperlinks) with my students; My content has been obscured or removed; My account has been suspended; My account has been terminated; None of the above*
If yes: Have you interacted with a human operator or an automated system while trying to fix the problem?	Please choose only one of the following: *Human operator; Automated system; Both human operator and automated system; I did not interact with the system (e.g. asked colleagues or copyright officers at the university)*

If yes: could you appeal against the disruptive decision of the platform?	Please choose only one of the following: *Yes; No*
Were you satisfied with your appeal?	Please choose only one of the following: *Very dissatisfied; Dissatisfied; Neutral; Satisfied; Very satisfied*
Did you experience difficulties using the e-proctoring system?	Please choose all that apply: *The system fails to recognise faces; The system kicked students out of the exam; The system requires a level of privacy which students cannot guarantee in their personal space (e.g. they do not live alone); None of the above; I don't use e-proctoring systems; Other*

Part 5: general considerations on e-learning

In your opinion, which are the five most pressing concerns relating to distance education?	Please rank from the top (most pressing) to the bottom (least pressing): *E-proctoring technologies; How data are used by the platform; Uncertainty about online uses of materials; Lack of digital materials at my university library; Lack of legal training and education on remote teaching issues; Privatisation of educational means (e.g. platforms); Lack of choice about the platform to use*
Do you have any other experiences or insights related to distance education that you would like to share with us?	Open-ended answer

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