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Multiple roads towards openness: Exploring the use of open educational practices within an Italian university

Molteplici strade verso la scienza aperta: un'esplorazione dell'uso di pratiche educative aperte all'interno di un'università italiana

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ABSTRACT This investigation was performed to determine whether and how the implementation of Open Educational Practices (OEP) is directly influenced by lecturers' backgrounds and preferences in terms of teaching modalities. In particular, we have analysed the use of OEPs from a social perspective to understand whether the habit to work in online and blended settings is connected to the use of open teaching approaches. Exploring this relationship has evidenced common patterns that suggest how lecturers can be further motivated to explore areas of openness where they are not advanced concerning classroom diversity and increase the social impact of their teaching. This research shows two main approaches to openness: one focused on open educational resources only and another one with a broader perspective that embraces other aspects of openness, such as access or practices. This work will help understand the relevance of contextual variables and further explore enablers for building open education capacity across universities.

KEYWORDS Open Educational Practices; Higher Education; Teaching Contexts; Open Educational Resources.

ABSTRACT Questa indagine è stata condotta per determinare se e come l'implementazione di Pratiche Educative Aperte (OEP) è direttamente influenzata dal background e dalle preferenze dei docenti in termini di modalità di insegnamento. In particolare, abbiamo analizzato l'uso delle OEP da una prospettiva sociale per capire se l'abitudine a lavorare in contesti online e blended è collegata all'uso di approcci didattici aperti. L'esplorazione di questa relazione ha evidenziato modelli comuni che suggeriscono come i docenti possono essere ulteriormente motivati a esplorare le aree di apertura in cui non sono avanzate per quanto riguarda la diversità della classe e aumentare l'impatto sociale del loro insegnamento. Questa ricerca mostra due approcci principali all'apertura: uno focalizzato solo sulle risorse educative aperte e un altro con una prospettiva più ampia che abbraccia altri aspetti dell'apertura, come l'accesso o le pratiche. Questo lavoro aiuterà a comprendere la rilevanza delle variabili contestuali e a esplorare ulteriormente i fattori abilitanti per la costruzione di capacità di istruzione aperta nelle università.

PAROLE CHIAVE Pratiche Educative Aperte; Formazione Universitaria; Contesti di Insegnamento; Risorse Educative Aperte.

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1. Introduction and background

Open educational practices (OEPs), which can be defined as "*practices which support the (re)use and production of Open Educational Resources through institutional policies, promote innovative pedagogical models, and respect and empower learners as co-producers on their lifelong learning paths*" (Ehlers, 2011, p. 4; Tlili et al., 2021), are generally recognised as potential enablers of quality, access, and effectiveness within universities (Stracke et al., 2021; Weller et al., 2015). In line with this understanding, universities are increasingly putting in place programmes to build their educators' capacity to work with OEPs (Stracke et al., 2021). However, for these initiatives to be effective, university leaders would need to know their educators' existing ability to work with open approaches within their academic practice to be able to understand who needs training and support and how to provide this capacity within the institution (Nascimbeni & Burgos, 2016). The problem is that reaching an understanding of the level of OEP adoption within an institution, and therefore being able to set clear capacity-building objectives, is a rather complex exercise for three main reasons:

- (a) openness is a social construct that evolves over time (Veletsianos, 2015);
- (b) there is not a single definition of open education, so different users can have different visions, and all of them might be valid (Burgos, 2017); and
- (c) openness is connected with educators' individual attitudes, personalities, and cultural behaviours (Cronin, 2017; Cronin & MacLaren, 2018; Ferrer et al., 2022).

Also, issues related to data protection, combined with the nebulous nature of OER usage, create a challenging landscape for researching the impact of openness on educational practices (Rooney, Gray, & O'Farrell, 2019; Weller et al., 2015).

Because of this, only a few studies have managed to provide empirical evidence to demonstrate what proportion of teaching staff at a given university have actually adopted open practices and why this is the case (Anderson & Leachman, 2019; Veletsianos, 2015). A recent study (Nascimbeni, Burgos, Campbell, & Tabacco, 2018) has mapped the overall OEP capacity of an Italian university (Politecnico di Torino, PoliTo) by examining individual educators' levels of adoption of open practices by focusing on four different areas of academic practice: learning design, content, teaching, and assessment, and demonstrating that a degree of openness capacity is present in all four areas. As might be expected, content is the area where open practices are most widely adopted among educators at PoliTo, with more than 65% of respondents being familiar or proficient with the use of OER, while assessment is the area where traditional methods are still the norm for most respondents. This study also highlights that:

- (a) OEP capacity is scattered across the university and the individual lecturers, with very few educators being highly practised in all four areas explored in the study;
- (b) some forms of OEPs are more common than others; for example, the use of OER and collaborative design practices is much more widespread than the use of open assessment methods;
- (c) the motivation and capacity to adopt OEPs is only marginally connected to age and discipline but rather stems from collaborative group dynamics where a culture of sharing already exists among colleagues; and
- (d) teachers' personalities and attitudes are the keys to the adoption of OEPs.

Finally, by covering diverse levels of OEP awareness and adoption in different practice areas, the study shows that openness is not a binary concept where educators are either open or not, but it is instead a multidimensional continuum where "open" can mean different things to different educa-

tors in other contexts (Narima, 2022; Nascimbeni et al., 2018). Also, the study confirms an important consideration emerging from research (Cronin, 2017): that teachers' approach to openness depends on contextual factors such as national legislation and institutions' receptiveness to open approaches, but also on their personal approach to balancing attitudes to privacy and sharing.

One of the limitations of this study was connected to its quantitative nature: given the complexity of quantifying openness, quantitative self-reported data may, in fact, not be sufficient to draw sound conclusions about educators' attitudes toward openness and adoption of open approaches (Cronin, 2017; Otto, Schroeder, Diekmann, & Sander, 2021). Indeed, scholars from the open education field have suggested that more qualitative empirical research is needed to understand the phenomenon (Borthwick & Gallagher-Brett, 2014; Hare & Sullivan, 2020; Littlejohn & Hood, 2016; Schuwer & Janssen, 2018). The present research was performed to complement and enrich this preliminary study (Nascimbeni et al., 2018) by adding a qualitative research dimension, which can help determine how lecturers' backgrounds and preferences directly influence the implementation of OEPs in the teaching practice in terms of teaching modality. In particular, we have taken a social perspective to understand whether a choice to use online and blended learning is connected to the use of OEPs. Exploring this relationship might evidence common patterns that suggest how lecturers can be further motivated to explore areas of openness where they are not proficient concerning classroom diversity and increase the social impact of their teaching. It may also help us understand the relevance of contextual variables and further explore enablers of building open education capacity across universities.

2. Methodology

2.1. Design and participants

This study started from the results of the quantitative research performed by Nascimbeni et al. (2018) and aimed to draw more profound conclusions about OEPs through qualitative research. The study adopted an interpretivist perspective under a subjectivist's query; in particular, the phenomenological methodology was adopted. The study was performed through semi-structured interviews using a process-focused method that required an open mind toward relevant outcomes and an absence of a priori knowledge of the phenomenon under study.

The population was the academic staff of the Politecnico di Torino (PoliTo), an Italian technical university offering courses in the fields of engineering and architecture. The participants were recruited from Nascimbeni et al. (2018) sample using typical-case sampling (a purposive non-probability sampling). According to the results of the previous research, it is unusual for an individual educator to have OEP expertise in design, content, teaching, and assessment at the same time. Hence, trying to have a representative sample of PoliTo in terms of age, academic career, and scientific field, the reference criterion is that participants must be considered "Open" in at least one of these four areas, following the results of the analysis previously carried out by Nascimbeni et al. (2018). Precisely, 13 lecturers, five females and eight males, were selected and interviewed: four from the industrial engineering field, four from ICT, three from building and architecture, and two from basic science. The sample represents the academic staff distribution at PoliTo, considering the career position (six full professors, four associate professors, three assistant professors) and seniority (three less than 10 years, seven between 11 and 20 years, and three more than 20 years). Considering their highest score on the OEP map (see Table 1), three of them were "Open" in design, four in content, three in teaching, and three in assess-

ment. They were currently teaching in the different programmes available at PoliTo: bachelor's, master's, and PhD. None of them was directly involved in open education networks.

2.2. Data collection

Each interview took place at PoliTo, was around 40 minutes long, and was audio-recorded. The language used was Italian, the mother tongue of all the interviewees. The same interviewer conducted all 13 interviews. After some ice-breaking questions to confirm their general academic position, the participants were asked to state their definition of OEPs. Then, after showing their map related to their results in the four open pillars (see Table 1) (Nascimbeni et al., 2018), we structured the interview into three main parts regarding the factors of influence on OEP adoption: context, personal background, and teaching style. In terms of context, we investigated the participants' understanding of the PoliTo open access policy and its impact on their teaching activities, asking for any desired additional support. We addressed both the interviewees' background and their vision of open education, starting from personal motivation regarding their personal background. Other related topics investigated in this part were the relationships between OEPs and social media and between OEPs and blogging practices, either for teaching purposes only or for more general aims. In both cases, we asked the interviewees to define the nature of the relationship, either positive or negative. Considering the teaching style, we started by asking about the participants' personal preferences regarding teaching methodology.

Table 1. Four open pillar map (Nascimbeni et al., 2018).

	Design	Content	Teaching	Assessment
Open collaboration	Open designer	OER expert	Open teacher	Open evaluator
Bilateral collaboration	Collaborative designer	OER novice	Engaging teacher	Innovative evaluator
Individual work	Individual designer	OER-null	Traditional teacher	Lone evaluator

Then, a generalised opinion was sought by looking at teaching methods (if existing) that strongly supported and could be directly linked to OEPs. Also, in this case, the interview focused on two relationships and their natures: the relationships between OEPs and the use of technology and between OEPs and the adoption of active and student-centred learning. Finally, the interview ended by asking about the time dedicated, or needed, in order to move toward more OEP teaching and if the interviewee considered themself an open educator. The interview questions are presented hereby:

- *Ice-breaking questions*
  - What is your current position?
  - How long have you been in service at PoliTo?
  - What subject do you teach?
  - Have you worked on other courses in the past?
  - Have you been or are you part of international networks linked to the open world?
  - If you had to explain what is meant by open education practice, how would you define it?
- *Part 1 – Context*
  - Is the adoption of OEPs in your teaching practices influenced by PoliTo's conditions and context?

  - In your opinion, what are the resources and supports that the university makes available to encourage OEPs?
  - What additional resources would you find helpful to have?
  - Do you know the university's policy for open access to scientific publications?
  - Are there other factors that you consider fundamental outside the institutional environment?
- *Part 2 – Personal background*
  - Is the adoption of OEPs in your teaching practices influenced by your background and vision of sharing?
  - How important do you think the lecturer's motivation is?
  - In your opinion, is there any relationship between the use of social media for educational and non-educational use and the adoption of OEPs? Would you define this relationship positively or negatively?
  - In your opinion, is there any relationship between using a blog, be it of a private or business nature, and adopting OEPs? Would you define this relationship positively or negatively?
- *Part 3 – Teaching style*
  - Is the adoption of OEPs in your practices influenced by your preferences in terms of teaching methods?
  - In general, what do you think are the teaching methods that most facilitate adoption?
  - In your opinion, is there any relationship between using technologies in teaching and adopting open practices? Would you define this relationship positively or negatively?
  - In your opinion, is there any relationship between active and participatory teaching and the adoption of open practices? Would you define this relationship positively or negatively?
- *Final questions*
  - How much time do you dedicate to OEPs in your teaching practices?
  - Do you consider yourself an open educator?

2.3. Data analysis

We analysed the data using a general inductive approach which involved coding responses and grouping codes into common themes via an iterative process. First, we grouped two main subsets of the interviews based on the understanding of OEPs given by the interviewees. Two main definitions of OEPs emerged from the interviews:

OEPs as teaching with OER, connected to general or thematic sharing of open resources and experiences.

OEPs as open teaching, connected to the use of innovative teaching approaches such as flipped classroom or knowledge co-creation by and with students.

Definition A was adopted by eight people, and Definition B by five. For each subset, two researchers coded the data independently. Then, the research group reviewed and revised the data, and a researcher finalised the codes based upon consensus and grouped them by themes, ensuring that the subsets were not disjointed and shared some common features. After the inductive coding was completed and confirmed by the entire research group, themes were established using a deductive approach to relate the themes to the theoretical framework presented above in Table 1.

3. Results

We summarise the results obtained according to the macro themes identified as the track for the interviews. When we found a relevant difference between the participants who understand OEPs as teaching with OER (Group A) and the ones who see OEPs in a broader perspective (Group B), we have clearly stated the key features of both groups. For those dimensions that seem not to be affected by the interviewers' perception of OEP, the results are described without distinction.

3.1. Features that stimulate and discourage the use of OEPs

When OEPs are connected to teaching with OER (Group A), the significant factors that impact their application are, in order of importance, organisation conditions independent of the lecturer's willingness, human resources, and colleagues.

PoliTo has a centralised organisation that determines, among others, the following teaching features: class composition, technological support, and exam planning. Interestingly, participants stated that these elements could either stimulate or discourage the use of OEPs. Six people (out of the eight in Group A) experienced how obligations in some specific aspect of teaching could represent an opportunity for new reflections and innovations toward openness. The most cited example was the polling system that PoliTo makes available to teachers through its mobile app. Other aspects, such as the number of students per course, were mentioned as barriers to the adoption of OEPs. Seven people focused their attention on the role of human resources, stating that the teaching staff made available were bound to specific projects and often too limited in number. There was a mismatch between the needs of the lecturers and their skills. Three people positively emphasised librarians' support to incentivise OEPs. The third aspect, the role of colleagues, was considered by three participants as an incentive and two as a limiting condition. In terms of general context, all respondents emphasised the critical role of the scientific community and the university department, noting how the degree of openness of these environments towards OEPs strongly influenced the choices of the individual lecturer.

When lecturers see OEPs as open teaching (Group B), the relationship with the students mainly drives the decision to adopt open approaches. One respondent said: "*All the actions and decisions that I take in the context of teaching are guided first of all by the interaction with the students and by the results that will be obtained. So it's a work of successive approximation to improve those aspects from year to year that proves to be critical.*" (translated from Italian). The student becomes the point of reference for both adopting and evaluating practices, the primary factor being the involvement of the whole class in the teaching activities. On the contrary, a discouraging feature is the absence of institutional incentives, including human and technical resources. Two respondents underlined the importance of structurally avant-garde classrooms and web services but complained about the difficulty to personalise the existing support tools to the needs of individual teachers, which disincentivised experimentation with open approaches.

Interestingly, both groups claimed that more significant support from human resources trained on the use of OEPs would be needed. Almost all interviewees (11 people) had heard about the university's open-access policies but considered them useful only for advanced courses (master's or graduate ones). The knowledge and experience exchange with the scientific community on topics related to teaching often used other channels that are not addressed by the university's open-access policies.

3.2. External factors and environmental conditions

The most cited external factor that can favour the introduction of OEPs was the industry's role. The relationship between the needs of teaching and employment requires a higher degree of openness, and sometimes it has been addressed as the starting point for course revision. This perception was common in all the interviews and represented a rather interesting finding, probably connected to the kind of university analysed. Also, the existence of freely available teaching resources of good quality - and the lecturers' knowledge of their existence - stimulates the educators' motivation, within Group A, in particular, to experiment with OEPs. On the contrary, some limitations linked to the subject itself were mentioned, such as the rigidity of technical standards (e.g., UNI EN ISO, CEI) that need to be used inside the classroom.

In general, most external factors are directly connected to the institutional features presented in the previous paragraph, especially regarding the environmental condition. For example, PoliTo offers an online service called "Portale della Didattica" in which teachers can upload materials and interact with students. However, the degree of openness of this tool is limited either to the students of a specific course or to the entire PoliTo student community. This was considered a limitation, particularly by Group B educators. Some of these factors can be overcome with creativity and willingness, but this requires additional time and effort.

3.3. Internal factors and personal background influence

Group A educators agreed that personal motivation plays a key role in adopting OEPs, followed by the individual experience with these approaches. These features influenced each lecturer's method as a reference for their teaching. At the same time, many lecturers mentioned personal attitudes as a key part of open teaching. This mix of internal factors is a key motivational aspect and, at the same time, a reward for implementing a new teaching methodology, which can include OEPs.

For Group B, the most cited internal motivation was the importance of providing high-quality education. This creates the stimulus for producing OER that can be shared with colleagues and usable by a broad audience. This consideration brings to light the ethical aspect linked to the use of OEPs, and underlines that the lecturer's personal attitude is fundamental to implement these properly is.

A common aspect among both groups was the interest in sharing education among both colleagues and students. It was said: "*For example, I have always used the open material I found here and there with great satisfaction. So morally it is also right to contribute in the other direction.*" (translated from Italian). This attitude originated from the experience that respondents had when they were students (meeting educators that cared about openness), as well as knowledge in the scientific field and the stimuli collected from their students, who are now increasingly connected and willing to work in open settings.

3.4. Social media and blogging

Eight interviewees reported that they used some form of personal blogging, disconnected from the official channels offered by PoliTo. This choice was due to the higher flexibility of non-institutional tools, requiring a lower effort to maintain. Three lecturers reported positive blogging experiences in the scientific community as practical tools for finding new ideas and valuable comparisons.

As far as the use of social media is concerned, Group A clarified that openness does not necessarily imply interaction; therefore, most of them considered social media as leisure time-space and for per-

sonal relations. The only exception was YouTube, where the creation of good-quality teaching materials was perceived as a service for the community, even if creating video content requires more time and effort than creating other types of materials. One said: "*I feel a bit the YouTube competition because there is a lot of stuff on YouTube, and not all of it is low quality, honestly. Then students use it and the question arises <<what do I give more?>>*" (translated from Italian). Group B did not show a clear opinion about social media, stating that they did not generally use them but recognised their potential.

3.5. Pedagogical approaches

The reasons behind the personal choice of a specific teaching technique are a mixture of different features: teacher's and students' attitudes, environment, and personal experience. Technology integration is part of this choice, but lecturers believed it does not interfere with the adoption of OEPs. In particular, Group B specified that the lecturer's role is not that of a technological innovator but of a methodological guide that makes good use of the technical resources available.

In general, respondents from both groups favoured active and student-centred learning. The majority thought that the crucial point is to teach how to be able to read and understand reality: courses need to drive students to practically apply theoretical knowledge. Both groups underlined the importance of revising their courses every year, including the teaching resources, based on the student cohort. This idea of tailored teaching, particularly strong within Group B, is related to OEPs because having access to a large pool of OERs can help tailoring their existing materials to new cohorts within the available time. This interpretation is strongly associated with the group understanding of OEPs as a way to establish a dialogue to improve all aspects of teaching (design, content, evaluation).

3.6. Time

Eight interviewees stated that sometimes it was already hard to find the appropriate amount of time for traditional teaching, stating that implementing OEPs requires additional time. This effort was quantified as around +10–15% compared to regular classes, but it is not constant over the years and the semester: when a new course needs to be redesigned more openly, the effort can reach +25%. Respondents from both groups confirmed that OEP implementation requires time in both the design and implementation stages, with a ratio of around 2:1, noting that the better one can design and prepare in advance, the more straightforward the implementation is. In our sample, the actual use of OEPs clearly correlates to the career stage: more senior educators have more time to spend on these topics.

3.7. Rewarding and feeling as an open educator

Within PoliTo, institutional and career rewards connected to the use of OEPs do not exist. Still, other motivations push the choice to invest effort into the adoption of OEPs. First of all, the personal reward: interviewees found themselves satisfied when they put more effort into open education. This element correlates with the second reward, the social one. The availability of high-quality open materials and the support for a mind shift in students produce a benefit for all society. In the end, when students are exposed to OEPs, they become more curious about the topics and learn more productively.

Even though the interviewed educators applied some sort of open approach in one or more of the dimensions of Table 1, none of them were confident in defining themselves as open educators, and six

had never reflected on their open teaching attitude. Two interviewees suggested asking their students, since they were the ultimate judges, independently of the lecturers' efforts and personal perceptions.

4. Discussion

The results of the present research, by adding a qualitative perspective, enrich the findings of the previous quantitative analysis (Nascimbeni et al., 2018), which profiles OEPs in four areas – design, content, teaching, and assessment – presenting a relatively large significance of openness in every area except assessment, where the presence of openness is scarce.

Based on that analysis, this research provides results that confirm that two understandings of OEPs exist among the group of interviewed teachers, which somehow reflect two views that coexist in the open education community (Cronin, 2017). One – adopted by 62% of the respondents – corresponds to the act of teaching with and through OER and is, therefore, more connected with the use of openly licensed resources and the improvements and innovations that such resources can bring to the teaching process (similar to the early definition of Geser, 2007); the other goes beyond the use of OER to embrace openness as an ethos and a holistic teaching practice (as in Dalsgaard & Thestrup, 2015). In this second group, 'open' is not just a set of resources but a way of practice (a way of life, in a sense) that involves every single practice on teaching and learning. For instance, like Burgos (2017a, 2020) refers as (11) pillars, namely: content, methodology, research data, research results, policies, licensing, technology, access, accreditation, certification, interoperability, and practices (as in OEP).

Altogether provide a cohesive, interwoven approach to learning and teaching beyond the simple use of content in the form of OER.

Whatever the understanding, in the eyes of the respondents, OEPs are perceived as an integral part of the teaching work, as shown by the fact that the interviewed educators, even if they were among those that used open approaches more frequently within the university, did not refer to themselves as open educators. However, they corresponded to the profile; they were simply not aware they fit it. Indeed, the findings confirm that open practice in higher education looks different for each individual and that educators are more open in some areas of work than in others: the perception is that OEPs are useful to "teach better", with only a few respondents focussing on the inclusivity impact of such practices, somehow contradicting several research findings in the area (see for example Santana-Valencia & Chávez-Melo, 2022, or Schreurs et al., 2014). OEPs are in fact perceived by the majority of our sample as a catalyst for pedagogical innovation, which can enable faculty to access one another's new materials and approaches, providing greater diffusion of innovation within the university (Paskevicius, 2018). Indeed, for this shift to happen, the second understanding of OEPs should be promoted, making sure that lecturers perceive that OEPs, although being based on OER, are approaches that can make teaching activities more transparent and accessible, opening up the classroom – or the online environment of the university – beyond its traditional walls (Nascimbeni & Burgos, 2016).

It also appears that respondents knew well the potential enablers and the existing barriers that prevented the continued use of OEPs. While all the respondents referred to institutional and contextual barriers, three noted some problems in sharing their intellectual property and some reluctance to use resources produced by others (Hodgkinson-Williams, 2010). In contrast to the results of the quantitative analysis run in 2018, the research discipline seems to be an important factor, with the reuse of resources seeming to be more common in scientific domains such as physics than in social sciences. When it comes to the relation between the use of OEPs and the career level of lecturers, the study

confirms that individuals' role within the university does influence the use of open practices: the more advanced teachers are in their career, the more willing they seem to experiment with open approaches, even though younger lecturers might have a more natural tendency to use open digital tools. Personal maturity and/or professional expertise seem to play a crucial role in the transversal approach and understanding of openness. Respondents explained this was because implementing open practices takes time, and researchers early in their careers are often not in the position to experiment with these innovations. Indeed, the time and effort needed to implement OEPs – usually connected to the time needed to find high-quality OERs, especially for respondents in Group A – seemed to be the highest barrier. This issue is well known in the literature (Allen & Seaman, 2016; Kanjilal, 2013) and confirms that universities should incentivise the use of OEPs by offering educators the necessary time to prepare them, especially with large classes, as well as to support students in openly publishing their work (Highton, Fresen, & Wild, 2011; Paskevicius, 2018). Interestingly, a direct relationship between the use of social media and the habit of blogging and the willingness to use OEPs did not appear for the majority of the sample, confirming the "fragmented nature" of social media usage among educators, who often do not consider the possible impact that such an activity could have on their teaching practices (Kimmons & Veletsianos, 2014).

Finally, an important finding is the role given to OEPs as a component of course design. Respondents agreed that, by designing their courses through open approaches, mainly involving students and external actors such as companies, they could offer learners an opportunity to develop the knowledge and skills needed in today's labour markets. This idea of "OEPs for employability" is relatively new in the literature and should be further explored.

5. Conclusions

This research aimed to determine whether and to what extent the implementation of OEPs in a specific academic setting is directly influenced by lecturers' backgrounds and preferences in terms of teaching modalities. By exploring the relationship between the actual and prospective use of OEPs and some characteristics of the sampled respondents, we have noticed some common patterns that can help to further motivate educators to explore different areas of openness. Also, this study clearly shows that two main understandings of open teaching practices exist among university lecturers: one focused on teaching with open educational resources and another that embraces other aspects of openness, such as open pedagogies and open assessment. Also, the research does show some correlation between specific characteristics of respondents and their propensity to adopt open educational practices. Firstly, openness seems to flourish within small collaborative groups and stem from the sharing culture that naturally exists among close colleagues, particularly concerning the use of resources produced by others. This observation is in line with the findings of Lopukhova and Makeeva (2017) and Veletsianos (2015), who claim that both individual and systemic barriers exist to adopting open approaches and that close collaboration can strongly influence individual agency in the practice of openness. Secondly, openness is closely connected to collaborative attitudes; across all four areas of practice, the data confirms that a strong relationship exists between the use of open approaches and the collaborative attitudes of university teachers, where open online identities and networks seem to be key to developing open teaching strategies (Nascimbeni & Burgos, 2016). As noted by Weller (2012) and Cronin (2017), a relationship exists between educators' positive attitude towards openness and their collaboration practice, confirming that the use of OEPs can impact educators' personal networks and vice-versa.

It is interesting to compare our findings with Cronin's analysis of openness within an Irish university, that found that a well-developed open digital identity, the use of social media, the use of institutional and open tools, the familiarity with OER were the main characteristics connected to the use of OEP (Cronin, 2017). While these dimensions are present in our findings as well, it seems that in the perception of our sample OEP are seen mostly as a way to foster engaging and tailored learning and are therefore connected to aspects that are connected to quality teaching and the related incentives. At the same time, our results fully resonate with Cronin's findings in terms of two key enablers of OEP: the importance of balancing privacy and openness attitudes and the need to foster the porosity across staff-student boundaries.

6. References

Allen, I. E., & Seaman, J. (2016). *Online report card: Tracking online education in the United States*. Babson Survey Research Group and Quahog Research Group. Retrieved from https://files.eric.ed.gov/fulltext/ED572777.pdf

Anderson, T., & Leachman, C. (2019). Strategies for supporting OER adoption through faculty and instructor use of a federated search tool. *Journal of Librarianship and Scholarly Communication*, *7*(1).

Borthwick, K., & Gallagher-Brett, A. (2014). 'Inspiration, ideas, encouragement': Teacher development and improved use of technology in language teaching through open educational practice. *Computer Assisted Language Learning*, *27*(2), 163–183. doi: 10.1080/09588221.2013.818560

Burgos, D. (Ed.). (2017). *Open education policy*. UNIR. Retrieved from http://bit.ly/unir-openpolicy (English) and http://bit.ly/unir-educacionabierta (Español)

Burgos, D. (2017a). Into the open: A transgenic evolution of the educational system. In 27th ICDE World Conference on Online Learning (Toronto, Canada). Retrieved from http://onlinelearning2017.ca/en/abstracts-and-presentations/.

Burgos, D. (2020). About Open Science and Open Education (Editorial). In D. Burgos (Ed.), *Radical Solutions and Open Science: An Open Approach to Boost Higher Education*. *Lecture Notes in Educational Technology*. Singapore: Springer. doi: 10.1007/978-981-15-4276-3

Cronin, C. (2017). Openness and praxis: Exploring the use of open educational practices in higher education. *International Review of Research in Open and Distributed Learning*, *18*(5). doi: 10.19173/irrodl.v18i5.3096

Cronin, C., & MacLaren, I. (2018). Conceptualising OEP: A review of theoretical and empirical literature in open educational practices. *Open Praxis*, *10*(2), 127–143.

Dalsgaard, C., & Thestrup, K. (2015). Dimensions of openness: Beyond the course as an open format in online education. *International Review of Research in Open and Distance Learning*, *16*(6). http://www.irrodl.org/index.php/irrodl/article/view/2146

Ehlers, U.-D. (2011). Extending the territory: From open educational resources to open educational practices. *Journal of Open, Flexible, and Distance Learning*, *15*(2), 1–10. Retrieved from https://www.learntechlib.org/p/147891/

Ferrer, J., Ringer, A., Saville, K., Paris, M. A., & Kashi, K. (2022). Students' motivation and engagement in higher education: The importance of attitude to online learning. *Higher Education*, *83*, 317–338. doi: 10.1007/s10734-020-00657-5

Geser, G. (2007). Open educational practices and resources: The OLCOS roadmap 2012. *Revista de Universidad y Sociedad del Conocimento*, *4*(1). doi: 10.7238/rusc.v4i1.295

Hare, S., & Sullivan, M. (2020). A qualitative study on the digital preservation of OER. *Portal: Libraries and the Academy*, *20*(4), 749–773.

Highton, M., Fresen, J., & Wild, J. (2011). Making academic OER easy: Reflections on technology and openness at Oxford University. *Journal of Open, Flexible and Distance Learning*, *15*(2), 28–40. Retrieved from http://journals.akoaotearoa.ac.nz/index.php/JOFDL/article/view/49

Hodgkinson-Williams, C. (2010). Benefits and challenges of OER for higher education institutions. Paper presented at the *Open Educational Resources (OER) Workshop for Heads of Commonwealth Universities*, Cape Town, South Africa.

Kanjilal, U. (2013). Digital repository to open educational resource repository: IGNOU's eGyanKosh. In G. Dhanarajan & D. Porter (Eds.), *Open educational resources: An Asian perspective* (pp. 225–234). Vancouver , CA: Common-

wealth of Learning and OER Asia. Retrieved from http://oasis.col.org/bitstream/handle/11599/23/pub_PS_OER_Asia_web.pdf

Kimmons, R., & Veletsianos, G. (2014). The fragmented educator 2.0: Social networking sites, acceptable identity fragments, and the identity constellation. *Computers & Education*, *72*, 292–301.

Littlejohn, A., & Hood, N. (2016). How educators build knowledge and expand their practice: The case of open education resources. *British Journal of Educational Technology*, *48*(2), 499–510. doi: 10.1111/bjet.12438

Lopukhova, J., & Makeeva, E. (2017). Creating virtual learning environment: Shared online learning in university education. *International Journal for Cross-Disciplinary Subjects in Education (IJCDSE)*, *8*(2), 3046–3054. doi: 10.20533/ijcdse.2042.6364.2017.0412

Narima, M. (2022, April 8). Decolonising open educational resources (OER): Why the focus on 'open' and 'access' is not enough for the EdTech revolution. *EdTech Hub*. Retrieved from https://edtechhub.org/2022/04/08/decolonising-open-educational-resources-oer-why-the-focus-on-open-and-access-is-not-enough-for-the-edtech-revolution/

Nascimbeni, F., & Burgos, D. (2016). In search for the open educator: Proposal of a definition and a framework to increase openness adoption among university educators. *International Review of Research in Open and Distributed Learning*, *17*(6). doi: 10.19173/irrodl.v17i6.2736

Nascimbeni, F., Burgos, D., Campbell. L. M., & Tabacco. A. (2018). Institutional mapping of open educational practices beyond use of open educational resources. *Distance Education*, *39*(4), 511–527. doi: 10.1080/01587919.2018.1520040

Otto, D., Schroeder, N., Diekmann, D., & Sander, P. (2021). Trends and gaps in empirical research on open educational resources (OER): A systematic mapping of the literature from 2015 to 2019. *Contemporary Educational Technology*, *13*(4), ep325.

Paskevicius, M. (2018). Exploring educators' experiences implementing open educational practices [Doctoral dissertation, University of Victoria]. doi: 10.5683/SP2/CA77BB

Rooney, P., Gray, G., & O'Farrell, L. (2019). The challenge of open: Empowering students or eroding privacy? *OER19 recentering open: Critical and global perspectives*, April 10–11, 2019, National University of Ireland, Galway.

Santana-Valencia, E. V., & Chávez-Melo, G. (2022). Teachers and digital educational inclusion in times of crisis. *IEEE Revista Iberoamericana de Tecnologias del Aprendizaje*, *17*(2).

Schreurs, B., Van den Beemt, A., Prinsen, F., Witthaus, G., Conole, G., & De Laat, M. (2014). An investigation into social learning activities by practitioners in open educational practices. *IRRODL*, *15*(4).

Schuwer, R., & Janssen, B. (2018). Adoption of sharing and reuse of open resources by educators in higher education institutions in the Netherlands: A qualitative research of practices, motives, and conditions. *International Review of Research in Open and Distributed Learning*, *19*(3).

Stracke, C. M., Bozkurt, A., Burgos, D., Mason, J., Ossiannilsson, E., Sharma, R. C., … Swiatek, C. (2021, September 27–October 1). *Global study on open education and open science: Practices, use cases and potentials during the COVID-19 pandemic and beyond*. Open Education Global Conference 2021 (OE Global 2021, online). Université de Nantes, France. doi: 10.5281/zenodo.5546182

Tlili, A., Burgos, D., Huang, R., Mishra, S., Sharma, R., & Bozkurt, A. (2021). An analysis of peer reviewed publications on open educational practices (OEP) from 2007 to 2020: A bibliometric mapping analysis. *Sustainability*, *13*(19), 10798. doi: 10.3390/su131910798

Veletsianos, G. (2015). A case study of scholars' open and sharing practices. *Open Praxis*, *7*, 199–209. doi: 10.5944/openpraxis.7.3.206

Weller, M. (2012). *The digital scholar*. Bloomsbury Academic.

Weller, M., de los Arcos, B., Farrow, R., Pitt, B., & McAndrew, P. (2015). The impact of OER on teaching and learning practice. *Open Praxis*, *7*(4). doi: 10.5944/openpraxis.7.4.227