Toward a Working Definition of Open Pedagogy

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Abstract

This paper analyzes recent literature on or using the term "open pedagogy" in order to distill a working definition. The term is currently contested, and is discarded completely by some influencers due to a lack of definition and thus usefulness as a rigorous academic term. This study analyzes how researchers currently use the term in the literature, searching for commonalities, with the goal of proposing a synthesis that encompasses the majority of the field and can provide potential common ground for further research on the subject.

The result was a pool of 98 peer-reviewed articles and book chapters, which were then scanned and classified to develop a taxonomy. The taxonomy was used to construct a working definition of open pedagogy as any pedagogy informed by the practitioners' conscious identification with the open movement, open access, and open educational resources (OER). In effect, open pedagogy describes the interaction between the open movement and pedagogy, whereas open educational practices (OEP) and OER-enabled pedagogy describe the actual practices arising from that pedagogical approach. *Keywords*: definition of open pedagogy, open educational practices (OEP), Open Educational Resources (OEP), open pedagogy, open movement

Hacia una definición práctica de la pedagogía abierta

Resumen

Este artículo analiza la literatura reciente sobre el uso del término "Pedagogía Abierta" con el fin de destilar una definición de trabajo. El término está actualmente en disputa, y algunos influencers lo descartan por completo por falta de definición y, por tanto, por su utilidad como término académico riguroso. Este estudio analizó cómo los investigadores utilizan actualmente el término en la literatura y buscó puntos en común con el objetivo de proponer una síntesis que abarque la mayor parte del campo y pueda proporcionar un terreno común potencial para futuras investigaciones sobre el tema.

El resultado fue un conjunto de 98 artículos revisados por pares y capítulos de libros, que luego fueron escaneados y clasificados para desarrollar una taxonomía. La taxonomía se utilizó para construir una definición de trabajo de pedagogía abierta como cualquier pedagogía informada por la identificación consciente de los profesionales con el movimiento abierto, el acceso abierto y los recursos educativos abiertos. En efecto, la pedagogía abierta describe la interacción entre el movimiento abierto y la pedagogía, mientras que las prácticas educativas abiertas y la pedagogía habilitada por REA describen las prácticas reales que surgen de ese enfoque pedagógico.

Palabras clave: Definición de Pedagogía Abierta, Prácticas Educativas Abiertas, REA, Pedagogía Abierta, Movimiento Abierto

对开放教学法进行初步定义

摘要

本文分析了关于"开放教学法"或使用该术语的近期文献, 以期提炼一个初步定义。该术语如今受到质疑,并且被一些 影响者完全弃用,因为其缺乏定义,因此没有一个严谨的学 术术语应具备的有用性。本研究分析了当前文献中该术语的 使用情况,并从中寻找共性以提出一个综合概念,后者涵盖 该领域的绝大部分并且能为未来研究提供一个潜在的共同基 础。

结果由98篇同行评审文章和书籍章节组成,随后通过审阅并 进行分类。分类结果被用于建构一个关于开放教学法的初步 定义,即受从业人员认同的开放运动、开放存取、开放教育 资源而启发的任何教学法。实际上,开放教学法描述的是开 放运动与教学法之间的相互影响,而开放教育实践与受0ER 驱动的教学法描述的是教学法的实际操作。

关键词:开放教学法定义,开放教育实践,开放教育资源 (OER),开放教学法,开放运动

pen pedagogy is an inspirational concept that has led many librarians and teachers to adopt new approaches to education. As a facet of the growing open movement, it has taken on a life of its own in the literature, sparking an ongoing debate as to how open educational resources (OER) and the concept of open impacts or should impact pedagogy and how teachers can relate to students. This in turn led to attempts to codify the concept, which ran into a common roadblock to many academic adventures into classification: disagreement on the specifics. As the conversation continued in the literature, author after author added their own spin to the concept, to the point where several researchers have thrown up their hands and abandoned it entirely to the miasma of uncertainty and slippery meaning, moving on to other terms such as OER-Enabled Pedagogy (Wiley & Hilton, 2018). Others have embraced the nebulousness, defining open pedagogy as a "site of praxis" (DeRosa & Jhang-

iani, 2017) to be explored and arguing that the concept naturally resists an exact definition. Some also posit that what is termed open pedagogy is actually "rediscovering the specificity of their disciplinary pedagogy through a new lens" (Beetham et al., 2012, para. 3), in effect arguing that the term is a re-conception of preexisting educational theories and is thus partially redundant.

Despite these obstacles, the fact that the concept is inspirational and still can lead to a transformation of practice means that it cannot be abandoned just yet. This analysis examined the use of the term in the current literature to search for potential commonalities and to develop a working definition of open pedagogy that could encapsulate the current field while providing utility and rigor for researchers.

Literature Review

The idea of an open pedagogy is not a new one, as noted by DeRosa and Jhangiani (2017, p. 8),

who rounded up scholarship from several authors who traced the term back to as early as 1979. The current usage of the term, however, has a much more recent lineage, popularized by David Wiley (2013) in a blog post in which he issued a call for open pedagogy. He defined the concept as "that set of teaching and learning practices only possible in the context of the free access and 4R permissions characteristic of open educational resources" (Wiley, 2013, final paragraph). The 4Rs turned into the 5Rs as the conversation changed over time, but that initial definition continues to be cited in articles published up to 2019. His conception of the term emerged somewhat in parallel with the idea of open educational practices (OEP), coming out of the work of Conole (2010), who defines them as "a set of activities and support around the creation, use and repurposing of Open Educational Resources (OERs)" (para. 6). The two terms have continued to be used, sometimes interchangeably, throughout the literature up to the present day. Wiley's work continues to be influential, and is cited either directly or as an inspiration used by authors to refine their own definition.

Hegarty (2015), who built on both Wiley (2013) and Conole (2013), constructed one such redefinition. He posited eight attributes associated with open pedagogy: participatory technologies; people, openness, and trust; innovation and creativity; sharing ideas and resources, connected community; learner-generated; reflective practice; and peer review (p. 5). He also noted that it was difficult to disassociate individual elements from each other, and thus an open pedagogy would likely have most, if not all, as an integral part of its practice (p. 10). Hegarty's work showed up repeatedly in the articles that followed, likely because it melded both of the existing concepts into a coherent whole and gave specific definitions of associated practices.

Another influential approach to the topic has emerged from the work of DeRosa and Jhangiani (2017), both of whom are highly prolific scholars and collaborators in this field. They conceptualize open pedagogy as a "site of praxis, a place where theories about learning, teaching, technology, and social justice enter into a conversation with each other... This site is dynamic, contested, constantly under revision, and resists static definitional claims" (p. 7). They engage with the concept of OEP as elements that accompany or emerge out of the adoption of open pedagogy. They also specifically tie the concept to other pedagogical schools, specifically "constructivist pedagogy, connected learning, and critical digital pedagogy" (p. 10). Given the intentional amorphousness of their conceptualization, their work has been popular among scholars who recognize the contested nature of the term and want to be precise in their imprecision.

More recently, Wiley and Hilton (2018) chimed in again to argue that open pedagogy had grown increasingly amorphous to the point of losing its utility, proposing a shift in terminology instead to OER-enabled pedagogy, which allowed for more specificity. This has presented some confusion given that the acronym is identical to OEP, and all three terms have been used interchangeably in the current literature. Wiley and Hilton's (2018) shift in terminology did not change the essence of the definition, but instead strove for clarity of usage as Wiley's (2013) original conception was predicated on the use of 4R permissions that were enabled by OER.

The term "open pedagogy" has been stubbornly resilient, and deserves continued examination as a result. This analysis, in the process of codifying a taxonomy of the term's usage, focused on looking for common threads and a potential path out of the interchangeable terminology toward more clarity of usage.

Methodology

The first step was to conduct a search of the literature. Because the goal of this analysis was specifically to explore scholars' use of the term "open pedagogy," the search process used that exact phrase in quotes in both Google Scholar and an institutional discovery tool that included access to Education Source, ERIC, and LISTA (along with another 400 databases). The articles and book chapters were then scanned using the following criteria:

• Recent: Articles within the last five years (defined as January 2014 to the present). The goal of this paper was to look at the current conversation, and a five-year window captured a good cross-section of that conversation, while still being achievable within the allotted period.

- Peer-reviewed/scholarly: This was achieved by using the available filters in the discovery layer and reading the author requirements and "about us" sections on the journals in Google Scholar. Over the course of the analysis, it became apparent that much of the conversation was taking place outside of the bounds of scholarly publishing, but the focus of this analysis was on the scholarly publications. The scope of the paper was shifted accordingly to look specifically at how the conversation within the context of scholarly publishing used the term.
- Academic journals: Again, as part of the (relatively arbitrary) selection for peer-reviewed journals, this weeded out conference presentations, dissertations and theses, and other articles that had not gone through either the editing process for scholarly publication or the formal peer-reviewed process.

This weeding process yielded 37 results in the discovery layer and approximately 560 results in Google Scholar (due to the limited filtering options). These were read to discern whether they actually used the term, to weed out the articles that were duplicates, did not meet the scope criteria above, or that only used the term in a citation. This filtering process led to a list of n = 98 articles and book chapters after excluding those that were not obtainable within a reasonable period.

Once the resources were obtained, the online, searchable pdfs were scanned using Ctrl. F for the term "open ped" to find the full usage of the term, and read through in the case of those that were not machine searchable. Physical books were searched using the index, starting with the term "open pedagogy" and, where that was not available, searching for open or pedagogy instead. Once the term was found, the article was read for context. As the scanning continued, a lexicon was developed through an iterative process: each readthrough of the assembled articles led to new terms and concepts and old concepts were collapsed into categories as it became clear they were synonymous or intrinsically connected. After several read-throughs, the categories were codified with formal definitions and a final read-through was conducted to make sure every entry fit the revision. In cases where the author of a piece explicitly used another author's definition, the cited author's coding was added to any other meanings the author of the piece imputed onto the term.

Once the spreadsheet was completed, the values were compared to look for high percentages of co-incidence, as measured by dividing the total number of times two classifications showed up in the same article by the total number of articles that fit a particular classification. For example, Reflection/Vulnerability occurred six times in conjunction with Explicit, yielding two fractions: 6/41 and 6/10, denoting respectively how often the combination occurred in the pool of Explicit articles and how often it occurred in the pool of Reflection/Vulnerability articles. The level of significance was set at 70% or

higher, chosen after the chart was completed because 10-15% of the articles used the term open more colloquially and a 70% threshold thus represented a solid increase above 65%. This is, of course, somewhat arbitrary, but it does establish a decently firm ground for discussion. Individual co-incidence of terms at or above 70% was analyzed to discern potential reasons for the high rating, and then the entire dataset was analyzed to look for potential commonalities that could be used to establish a definition.

The taxonomy (the full version of which is available in Appendix A) was divided into several meta-categories, each of which serves a different purpose for analysis.

- Type of definition: Implicit vs. Explicit definitions divided the articles by whether the author intended to actively define the concept or used the concept without defining it. Implicit definitions are more amorphous and context-driven. Primary and Secondary referred to whether the author put forward their own definition or used the definition from another source. This was useful in determining whether to copy the categorization from one entry to another in the data chart: specifically, any entry that used a single author's definition (e.g. Explicit & Secondary).
- **Concept of open:** The four categories here looked at different ways in which they discussed the idea of open. *Spectrum* views the concept of openness as a sliding scale, where

you can become more or less open depending on how you approach an endeavor. Collection views open as a checklist, where you would check off elements in order to define an endeavor as open. The two of these were mutually exclusive. Adjective described articles that used the word open more as an adjective to describe pedagogy and other pursuits rather than looking at "open pedagogy" as a discrete concept. Finally, Context of the Open Movement describes articles that talked about open pedagogy in the same context as open access, OER, or the open education movement. All of these concepts are useful in determining how each author viewed the concept of open on a more philosophical level.

- Relation to OEP or OER-enabled pedagogy: These two looked at how the term was used in relation to the concepts of OEP or OER-enabled pedagogy, whether open pedagogy was viewed as a subcategory or whether the term was synonymous with either concept. This is important in measuring the overall trend of the field toward using the terms OER-enabled pedagogy and OEP.
- Student focus: These categories looked at how open pedagogy was defined in relation to student autonomy, student- or learner-centered pedagogy, or connectivism and networked learning. This is important in situating open pedagogy within the scope of educational theory.

• **Practices:** These categories looked at elements such as the 5R permissions, co-creation of content, reflexive practices, and use of open access materials or courses. This is important for looking at the ways in which specific practices were mapped onto the concept of open pedagogy.

Discussion

fter reading and classifying the articles, the following tables were developed:

Analysis was iterative with the development of the charts and taxonomy until the terms were fully codified. At that junction, the focus moved toward looking at co-incidence of terms and how they interacted.

Co-incidence of terms

The comparison of categories within the data to look for co-incidence of terms yielded 31 combinations that hit the 70% or higher mark for significance. Out of that pool, 13 involved the Context of the Open Movement, which was unsurprising given the general subject matter under discussion and the fact that many of the categories, by definition, were part of the open movement. Therefore, those 13 combinations did not yield any major insights. Another 12 were in the type of article category. A likely reason for this lies in the fact that a pre-created definition is extremely useful to any researcher looking to have a rigorous foundation for their arguments, or for researchers looking for potential tools for instruction. For in-

							TABLE 1: TAXONOMY COUNT	XONOMY CO	DUNT									
American	Pub.	Eve lee	, and a second	3						Subset Sy	Synonymous	Autonomy/	Student-		Creation	Open	SR	Reflection/
	Date		_	Ŕ	secondary source(s) spectrum			me upen A		of OEP	with OEP	Agency		connectivism	Content	Access F	Permissions	Vulnerability
Al Abri, M. H., & Dabbagh, N. (2019).	2019	1		1	Wiley (2017)		1	1			1		-		1	-	1	
Badea, M., et al. (2018).	2018	1	1	-		1			1			1						1
Baker, A., & Ippoliti, C. (2018).	2018	1		1	Hegarty (2015)		1	1			1			1	1	1	1	1
Bandi-Rao, S., & Sepp, M. (2014).	2014	1			Lockridge (2014)							-		1				
Barker, J., et al. (2018).	2018	1				-1		1	-1									
Blomgren, C. (2018) OER Awareness	2018	1		1	Multiple Sources		1	1								1		
Blomgren, C., & McPherson, I. (2018) Scoping	2018	1		1	Multiple Sources		1	1					1	1	1	1		
Bonica, M. J., et al. (2018)	2018	1	-		Wiley (2017)		1	1				1			1	1	1	
Borthwick, K., & Gallagher-Brett, A. (2014)	2014	1		-	Beetham (2012)			1	-	1								
Bozkurt, A., Koseoglu, S., & Singh, L. (2019)	2019	1			Multiple Sources			1	-					1	1			
Brier, S. (2017)	2017	1																
Collier, A., & Ross, J. (2017)	2017	1		1	Multiple Sources			1	1					1		1		
Cooney, C. (2017)	2017	1	-					1					1		1	-		
Coughlan, T., & Perryman, L. A. (2015	2015	1	-			1		1		-1		1						
Cronin, C. (2017)	2017	1		1	Multiple Sources			1		1								
Czerniewicz, L., et al. (2017a) MOOC	2017	1		1	Multiple Sources			1			1		1					
Czerniewicz, L., et al. (2017b) OER	2017	1		1	Multiple Sources	1		1			1		1		1	1		
Dalton, E. M., Pérez, L., & Grant, K. (2016)	2016	1		1	Stacey (2013)		1	1						1		-		
De la Fuente, L, & Comas-Quinn, A. (2016)	2016	1		1	Wiley (2013)			1	1						1	1		
DeRosa, R., & Robison, S. (2017) From OER	2017	1	-				1	1				1			1			
Derosa, R., & Jhangiani, R. (2017)	2017	1	1	-				1				1		1	1	1	1	
Edwards, C. et al. (2014)	2014	1	1					1						1	1			
Ford, K. (2017)	2017	1	-						1									
Garner, N., Siol, A., & Eilks, I. (2015)	2015	1	-						1			1						
Gil-Jaurena, I., & Domínguez, D. (2018)	2018	1	1					1	1			1						
Goodlad, K., & Leonard, A. E. (2018)	2018	1	-															
Graham, L., & Roberts, V. (2018)	2018	1		-1	Hegarty (2015)		1	-			-		-	-	-	-		
Harrison, R. K. (2015)	2015	1	-						1				1	1	1			1
Hartnett, J. (2017)	2017	1	-					1								-		
Hegarty, B. (2015)	2015	-	-		Multiple Sources		1	1			1			1	1	-1	1	1
Henderson, S., & Ostashewski, N. (2018)	2018	1			Hegarty (2015)			1										
Hickey, A., Pauli-Myler, T., & Smith, C. (2018)	2018	1		╡								-		-				
Hilton, M. (2014)	2014	-	-			1			-					Ī				
Hodgkinson-Williams, C., et al. (2017)	2017	1		-	Cronin (2017)			1					1					
James, R., & Bossu, C. (2014)	2014	-			Conole (2013)		,	-1	-					Ī				
Jhangiani, R. S. (2018) Athenaeum	2016	1		-1	Wiley (2017)		-	-									1	
Jhangiani, R. S. (2017a) Open	2017		-	╡	Derosa (2017)			-						Ī	-			
Jhangiani, R. S. (2017b) Pragmatism	2017	-	-	+				1										
Jhangiani, R. S. (2016) Ditching	2018	-	-		Wiley (2013)			1							1			
John, B., et al. (2016)	2016	-						1					1	1				
Kalir, J. H. (2019)	2019	1		1	Derosa (2017)			1				-		1	-	-	T I	
Karunanayaka, S. P., & Naidu, S. (2017a)	2017	-		-	Multiple Sources		1	1							-			
Karunanayaka, S. P., & Naidu, S. (2017b)	2017	-		-	Multiple Sources		1	1							-			
Klobas, J. E., et al. (2015)	2015	1	-					1				1		1				
Knipping C., et al . (2015)	2015	1											-					
Koseoglu, S., & Bozkurt, A. (2018)	2018	1						1										
Laudonia, I., & Eilks, I. (2018)	2018	1	-	†					1			-		Ī				
			ļ	ŀ					ľ		Ī				T		_	

Table 1: Taxonomy Count

							-	TABLE 2: RAW DATA OF CO-INCIDENCE	DATA OF (CO-INCID	ENCE							
								Context of the		Subset	Svnonvmous	Autonomy/A	Student-		Creation of Open	Open	SR	Reflection/
Terms	z	Exp	ġ	Hin	ÿ	Spectrum	Collection	Open Movement	Adjective	ofOEP	with OEP	gency	Centered Pedagogy	Connectivism	Content		Permissions	Vulnerability
Explicit	41		•	21	30	s	8	32	4	3	11	11	10	14	27	21	16	ø
Implicit	57	0		35	33	9		45	24	•		10	13	12	19	13	4	4
Primary	56	21	35		0	••		50	18	3	4	17	12	13	26	16	9	7
Secondary	42	30	33	0		-	13	27	10	•	10	4	=	13	30	18	14	e
Spectrum	=	s	•	89	m		•	0	••	7	1	4		-	2	-	0	7
Collection	16	13	•	m	8	•		12	0	-	9	3	4	7	14	13	7	4
Context of the Open Movement	11	32	45	50	27	6	12		21	5	10	16	18	18	37	26	14	7
Adjectīve	28	4	24	18	10	8	0	21		4	0	5	7	4	4		0	9
Subset of OEP	••	7	•	2	۰	7	-	5	4		0	2	-	1	2	•	0	1
Synonymous with OEP	14	=	m	4	9	-	9	10	0	0		-	9	5	6	=	6	m
Autonomy/Agency	21	11	10	17	4	4	•	16	5	3	1		0	10	10	9	9	2
Student-Centered Pedagogy	33	10	8	12	=	-	4	18	7	-	9	0		5	=	7	2	-
Connectivism	26	14	12	13	13	-	7	18	4	-	5	10	5		19	15	8	5
Creation of Content	46	27	19	26	30	3	14	37	4	3	6	10	Π	19		24	14	9
Open Access	34	21	8	16	18	-	12	26	•	•	п	9	7	15	24		13	m
5R Permissions	20	16	4	9	14	•	7	14	0	•	6	9	2	•••	14	13		3
Reflection/Vulnerability	10	9	4	7		3	4	7	6	1	3	2	1	5	9	8	3	
Total N of Articles	86																	

Table 2: Raw Data of Co-Incidence

Table 3: % of Co-Incidence

								TABLE 3:	TABLE 3: % OF CO-INCIDENCE	VCIDENCE								
Terms	Ν	Exp.	, dini	Prim	Sec.	Spectrum	Collection	Context of the Open Movement	Adjective	Subset of OEP	Synonymous with OEP	Autonomy/A gency	Student- Centered Pedagogy	Connectivism	Creation of Content	Open Access	5R Permissions	Reflection/ Vulnerability
Explicit	41		0.0%	51.2%	48.8%	12.2%	31.7%	78.0%	9.8%	4.9%	26.8%	26.8%	24.4%	34.1%	65.9%	51.2%	39.0%	14.6%
Implicit	57	%0.0		61.4%	38.6%	10.5%	5.3%	78.9%	42.1%	10.5%	5.3%	17.5%	22.8%	21.1%	33.3%	22.8%	7.0%	7.0%
Primary	56	37.5%	62.5%		0.0%	14.3%	5.4%	89.3%	32.1%	3.6%	7.1%	30.4%	21.4%	23.2%	46.4%	28.6%	10.7%	12.5%
Secondary	42	47.6%	52.4%	%0:0		7.1%	31.0%	64.3%	23.8%	14.3%	23.8%	9.5%	26.2%	31.0%	47.6%	42.9%	33.3%	7.1%
Spectrum	11	45.5%	54.5%	72.7%	27.3%		0.0%	81.8%	72.7%	18.2%	9.1%	36.4%	27.3%	9.1%	18.2%	9.1%	0.0%	18.2%
Collection	16	81.3%	18.8%	18.8%	81.3%	0.0%		75.0%	0.0%	6.3%	37.5%	18.8%	25.0%	43.8%	87.5%	75.0%	43.8%	25.0%
Context of the Open Movement	77	41.6%	58.4%	64.9%	35.1%	11.7%	15.6%		27.3%	6.5%	13.0%	20.8%	23.4%	23.4%	48.1%	33.8%	18.2%	9.1%
Adjective	28	14.3%	85.7%	64.3%	35.7%	28.6%	%0:0	75.0%		14.3%	0.0%	17.9%	25.0%	14.3%	14.3%	10.7%	%0.0	21.4%
Subset of OEP	••	25.0%	75.0%	25.0%	75.0%	25.0%	12.5%	62.5%	50.0%		0.0%	25.0%	12.5%	12.5%	25.0%	0.0%	0.0%	12.5%
Synonymous with OEP	14	78.6%	21.4%	28.6%	71.4%	7.1%	42.9%	71.4%	0.0%	%0.0		7.1%	42.9%	35.7%	64.3%	78.6%	64.3%	21.4%
Autonomy/Agency	21	52.4%	47.6%	81.0%	19.0%	19.0%	14.3%	76.2%	23.8%	9.5%	4.8%		0.0%	47.6%	47.6%	28.6%	28.6%	9.5%
Student-Centered Pedagogy	23	43.5%	56.5%	52.2%	47.8%	13.0%	17.4%	78.3%	30.4%	4.3%	26.1%	%0:0		21.7%	47.8%	30.4%	8.7%	4.3%
Connectivism	26	53.8%	46.2%	50.0%	50.0%	3.8%	26.9%	69.2%	15.4%	3.8%	19.2%	38.5%	19.2%		73.1%	57.7%	30.8%	19.2%
Creation of Content	46	58.7%	41.3%	56.5%	43.5%	4.3%	30.4%	80.4%	8.7%	4.3%	19.6%	21.7%	23.9%	41.3%		52.2%	30.4%	13.0%
Open Access	34	61.8%	38.2%	47.1%	52.9%	2.9%	35.3%	76.5%	8.8%	0.0%	32.4%	17.6%	20.6%	44.1%	70.6%		38.2%	8.8%
5R. Permissions	20	80.0%	20.0%	30.0%	70.0%	%0.0	35.0%	70.0%	0.0%	%0.0	45.0%	30.0%	10.0%	40.0%	70.0%	65.0%		15.0%
Reflection/Vulnerability	10	60.0%	40.0%	70.0%	30.0%	20.0%	40.0%	70.0%	60.0%	10.0%	30.0%	20.0%	10.0%	50.0%	60.0%	30.0%	30.0%	

Toward a Working Definition of Open Pedagogy

stance, *Secondary* articles were at a 70% co-incidence rate with *5R Permissions*, likely because the category comes from a single specific source (Wiley, 2013). Similarly, *Secondary* sources appeared in consort with both of the OEP related categories in high rates, likely because the terms had active authorial definitions from Conole (2010) and Wiley and Hilton (2018).

Other combinations were more axiomatic. For instance, Implicit definitions had a high degree of co-incidence with Adjective and Subset of OEP. The former makes sense as using open as a descriptor makes it far less likely that you would actively define open pedagogy as a concept, a conclusion borne out by the 9.8% co-incidence rate of Explicit definitions to Adjective. Implicit also naturally leads to Subset of OEP, because many of those articles listed open pedagogy as part of a list of practices within OEP. Similarly, Explicit co-occurred with *Collection* and with the 5R permissions categorization of open pedagogy because both categories involve an explicit list of attributes or conditions necessary to qualify for the definition. Finally, Adjective combined with Spectrum, because one of the criteria for both was looking for phrases such as "more or less open."

The more interesting co-incident terms were those five within the category of practices. *Creation of Content* was combined with *Attributes*, *5R Permissions*, and *Open Access*, all of which makes sense given that *Creation of Content* is either listed as a trait or heavily implied in several conceptions of open

pedagogy (Hegarty, 2015; Wiley, 2013). Of all the practices, Creation of Content was present in the most articles, with 46.9% including it in their conception of open pedagogy. Surprisingly, 5R Permissions had a very low correlation with Open Access, though this is likely because open access is implicit in the concept of 5R permissions and thus did not need an active mention. This is borne out by the fact that Open Access as compared to 5R permissions hit 65%; many of the articles discussing open access and open pedagogy also explained or referenced the 5R permissions. The last combination was 5R permissions and Synonymous with OEP, likely because the use of 5R permissions is implicit in Wiley and Hilton's (2018) construction of OER-enabled pedagogy and because OEP are defined by their use of OER, which is intimately tied with the 5Rs.

Analysis of the data set as a whole

Despite some relatively high levels of co-incidence between terms, it is striking that the highest level of practice failed to break the 50% mark of the articles when defining open pedagogy. The only concept that managed that was Context of the Open Movement, which came in at 78.6% of all the articles. This indicates that the terminology is ill defined at best, as there is a morass of conflicting definitions at play. Several of the articles in this study also noted that the concept of open pedagogy had become contested, vague, or otherwise hard to utilize for research (DeRosa & Jhangiani, 2017; Reed, 2018; Weller, 2014; Wiley & Hilton, 2018). Apart from a preponderance of Creation of Content, there are

limited pools of similarity around those who used secondary definitions of the terms, and even those authors often added on additional categories to their definitions. Additionally, individual authors shifted their definitions over time, rarely maintaining complete consistency with how they used the term, although many acknowledged that fact in their works (Jhangiani, 2016; Wiley & Hilton, 2018). DeRosa and Jhangiani (2017) in particular view the concept of open pedagogy as more of an amorphous site of praxis, one that resists active definition, a conception fully corroborated by the data pool.

This creates several problems for creating any kind of working definition of the term. There are several major competing schematics (Hegarty, 2015; Wiley, 2013) and many papers that select elements from each of them when crafting their own definitions (DeRosa & Jhangiani, 2017; Karunanayaka & Naidu, 2017a). Conceptions such as that of Derosa and Jhangiani (2017), while accurate in describing the nebulousness of the concept, do not lend themselves to reproducibility of results or rigorous examination of outcomes arising from the use of open pedagogy because by definition they cannot be fully defined. To encapsulate the concept, one would need to step backward or outward to create an inclusive concept that fits most of the data. The only common thread weaving through the vast majority of these articles is the Context of the Open Movement, with 77 of the 98 articles directly making that connection. These examine the concept as situated within the open movement

or stemming from issues addressed by the open movement such as access, creation of content, and 5R issues. This presents a potential path forward that encapsulates many of the offered definitions and distinguishes the concept from both OER-enabled pedagogy and OEP: if the former two concepts look specifically at practices and their outcomes, then open pedagogy addresses the reasons for adoption or theoretical background of those practices. In other words, if OER-enabled pedagogy and OEP address the how, open pedagogy addresses the why.

Conclusions and a Working Definition of Open Pedagogy

iven the overall chaos in the -use of the term open pedagogy within the scholarly literature, Wiley and Hilton's (2018) approach of abandoning the term entirely and switching over to OER-enabled pedagogy appears to be a workable course. This does carry the risk of a similar muddling happening to that concept, but practices have the virtue of being more readily definable than pedagogy. Yet the term open pedagogy still occurs with a decent frequency in recent literature, despite the prevalence of OEP and OER-enabled pedagogy. This suggests that it has staying power, either as an inspirational concept or as a convincing definition in the preceding literature. Because the term has continued popularity, sometimes in conjunction with the concepts of OEP and OER-enabled pedagogy, it seems worthwhile to attempt rehabilitation. Drawing from the

discussion above, this paper proposes a working definition of open pedagogy as follows: open pedagogy is any pedagogy informed by the practitioners' conscious identification with the open movement, open access, and OER. In effect, open pedagogy describes the interaction between the open movement and pedagogy, where OEP and OER-enabled pedagogy describe the actual practices arising from that pedagogical approach.

This defines the scope of research into open pedagogy to the micro level when talking about effects on practitioners' pedagogy, and to the macro level when talking about student outcomes. It mirrors the definitions of several authors that note the path from open pedagogy to OER-enabled pedagogy or OEP, as well as those who view the terms as similar or synonymous. It also allows for some intriguing explorations into the adoption of educational practices that fit pre-existing educational schools of theory such as Connectivism and Student-Centered Learning. Again, this puts the unit of research at the level of the individual educator, the department, or an entire school. Adopting this conception of open pedagogy has the potential to lead to more rigorous research than the current usage allows, as the mélange of definitions currently in use makes generalizability impossible. This new definition also allows the establishment of a clear line between open pedagogy and OER-enabled pedagogy/OEP: the latter two are concerned with the outcomes

of students, while the former is concerned with the activities and behaviors of teachers and collectives of the same.

Further Research

This working definition of open pedagogy as any pedagogy informed by a conscious adherence to the open movement has several potential uses. At the macro level, it has utility in studies analyzing changes to the pedagogical practices of teachers in reaction to their institutions adopting statements of support for the open movement or open access. In particular, it would be interesting to uncover whether the adoption of such policies leads to educators themselves using more strategies associated with connectivism and student-centered learning. This working definition can also be used to study causal linkages between the ideology of open and student outcomes by tracing the adoption of existing educational practices back to their source in an ideological shift. This avoids the trap that Beetham et al. (2012) alluded to of creating entirely new educational theories when existing ones may have greater explanatory power.

OEP have great potential to transform the way librarians, professors, and other educators connect with and empower students. If allegiance to the concept of open inspires that shift, then that connection is worthy of study, and the conception of open pedagogy outlined here provides a coherent basis for that enterprise.

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APPENDICES

Appendix A: Taxonomy

- **Implicit** denotes articles where the concept of open pedagogy is assumed to be understood by the reader and thus no attempts are made to define it. Implicit definitions include listing open pedagogy alongside open access and OER, or as a subset of OEP or OER-enabled pedagogy without a specific definition.
- **Explicit** denotes articles where the authors actively put forward a definition of the term, either by saying "Open pedagogy is defined as…" or using variations such as "Open pedagogy, where the learning is…" It includes articles where the authors explicitly refused to pin the concept down but still actively discussed the definition.
- **Primary** denotes articles where the authors put forward their own definition or spin on a pre-existing definition. It also includes articles where the definition was implicit but the author did not specifically cite another author's construction of the term.
- **Secondary** denotes articles where the authors implicitly or explicitly used another author's definition of the term.
- **Spectrum** denotes articles that view openness as a sliding scale.
- **Collection** denotes articles that specify a list of criteria, practices, or attributes, some or all of which must be met in order to be open.
- **Context of the Open Movement** denotes articles that discuss open pedagogy in the context of OER, open access, and the Open Movement. This includes articles that contrast open pedagogy with the use of open access materials, but still discuss them in the same breath as part of a larger movement.
- Adjective denotes articles that use open as a descriptive add-on to the term pedagogy rather than as a formal category. This can include talking about "opening up the pedagogy," "more open," "open to," and other descriptions, and typically implies that the author does not view "open pedagogy" as a discrete concept.
- **Subset of OEP** denotes articles that describe open pedagogy as a practice within the umbrella of OEP (which refers in this case to both OEP and OER-enabled pedagogy).
- **Synonymous with OEP** denotes articles that explicitly or implicitly state the equivalence of open pedagogy with either OEP or OER-enabled pedagogy.

- Autonomy/Agency denotes articles that define an element of open pedagogy to include students acting without active guidance from teachers, use the terms agency or autonomy in their definition, or talk about the students planning their own curriculum.
- **Student-Centered Pedagogy** denotes articles that define an element of open pedagogy to include adherence to the educational approach of student-centered pedagogy, learner-centered pedagogy, or student-centered learning using those exact terms.
- **Connectivism** denotes articles that define an element of open pedagogy to include either adherence to the educational approach of connectivism or the general idea of networked instruction where students teach each other while not necessarily excluding professors from the equation.
- **Creation of Content** denotes articles that define an element of open pedagogy to include the creation of content intended for publication or for the open commons.
- **Open Access** denotes articles that define an element of open pedagogy to include the use of OER or OAR, or that define open as openness to access to the instruction itself. Essentially, where open pedagogy revolves around access.
- **5R Permissions** denotes articles that define open pedagogy using Wiley's (2013) construction that open pedagogy is that which is only possible when the 4R permissions are fully enabled. 5Rs is used because the field of discussion (including Wiley himself in later works) added an R.
- **Reflection/Vulnerability** denotes articles that define an element of open pedagogy to include self-reflection on the part of the students and/or instructors or instructors opening up to their students and showing vulnerability. In other words, psychological openness.