

Learners' behaviours as manifested in peer-supported digital environments

@AdrianaGWilde

Friday 11th June, 2021

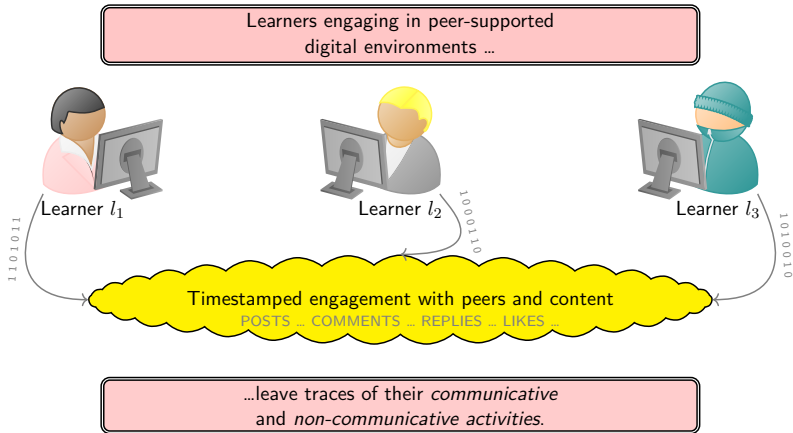
Aim

In this talk I aim to share one of the main contributions from my doctoral research, where I studied learner engagement within two specific peer-supported digital environments.

The main take-away of the presentation is the need to do adequate interventions to incentivise our cohorts of students to interact within our digital environments. Without such incentives, they will behave as online learners.

We will consider together some potential side effects of such interventions.

Context



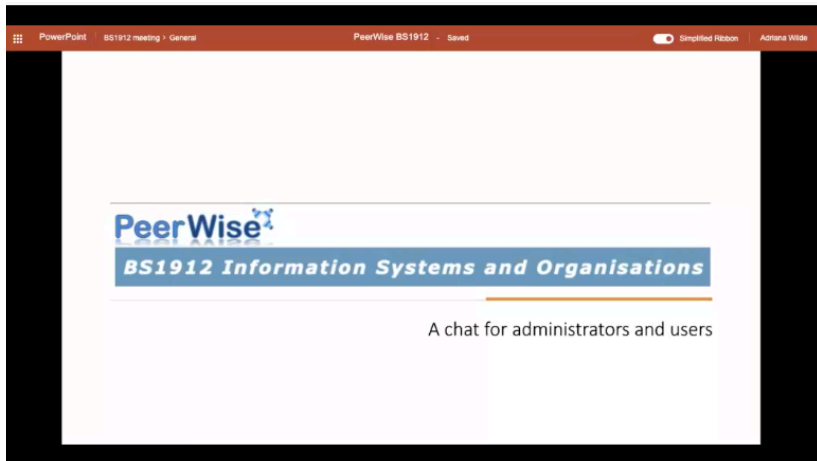
Wilde, A (2021). "A platform-agnostic model and analysis of learner engagement within peer-supported digital environments: FutureLearn MOOCs and PeerWise", PhD thesis, The University of Southampton.

Research question

What does a data-driven approach to learner interactions reveal about learning **engagement** within an online environment (**PeerWise**)?

Wilde, A (2021). "A platform-agnostic model and analysis of learner engagement within peer-supported digital environments: FutureLearn MOOCs and PeerWise", PhD thesis, The University of Southampton.

PeerWise?



The image shows a screenshot of a PowerPoint presentation. The top ribbon is orange and contains the text 'PowerPoint', 'BS1912 meeting > General', 'PeerWise BS1912 - Saved', a 'Simplified Ribbon' toggle switch, and the name 'Adriana Wilde'. The main content area is white and features the 'PeerWise' logo in blue with a small icon of three people. Below the logo is a blue horizontal bar with the text 'BS1912 Information Systems and Organisations' in white. Underneath this bar is a thin orange line. At the bottom right of the slide, the text 'A chat for administrators and users' is displayed.

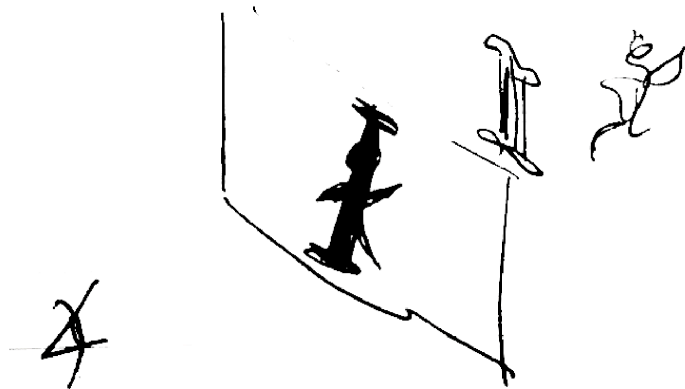
Wilde, A (2020). PeerWise: A chat for administrators and users. Video in MS Stream. University of Winchester.

Engagement?

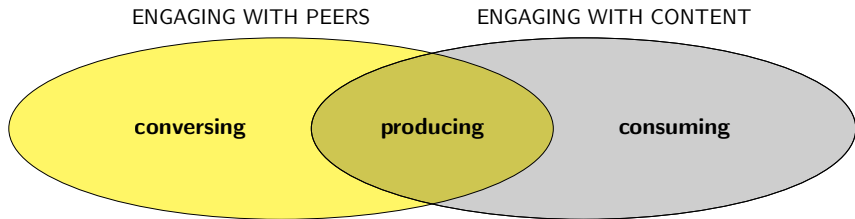
*“In reviewing academic papers relating to engagement, very few had an actual definition of the term within them (Cormier and Siemens, 2010), and **none** addressed the context of learning of MOOCs, with most relating to the traditional classroom setting (Becker, 2000; Kuh, 2001; Kuh and Gonyea, 2003; Ahn et al., 2013; Milligan et al., 2013; Ramesh et al., 2013).”*

Gore, H. (2018). Engagement of Learners Undertaking Massive Open Online Courses and the Impact of Design. EdD thesis, The Open University.

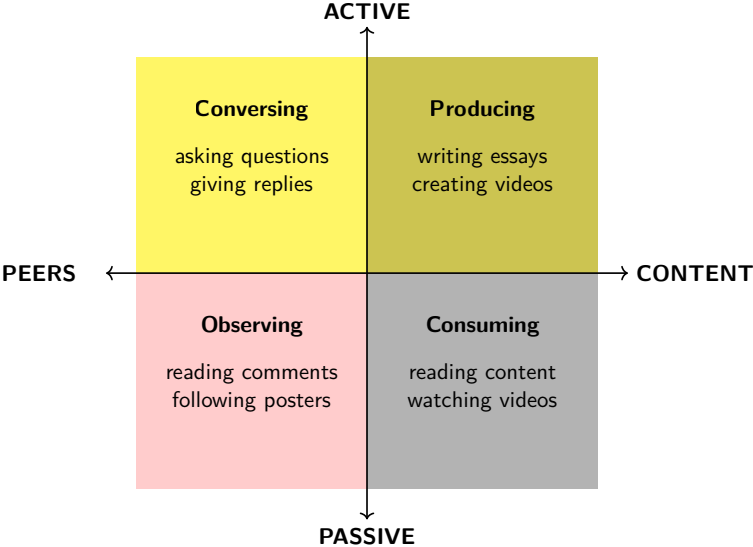
We only see silhouettes



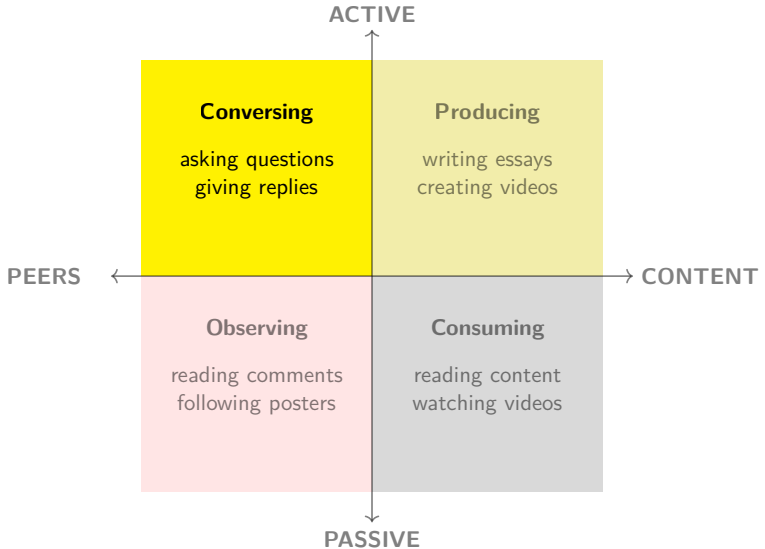
Engagement in digital learning environments?



Intensity of activity is a continuum



Focusing on one type of interaction



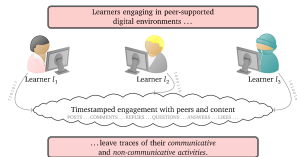
Conversing

Communicative activities, inspired by [Chua et al., 2017](#):

- SP** *starting posts* (communications by a learner at a given time that are responded to by others at a later time),
- LP** *lone posts* (learner contributions that are not responded to by others, even though the learner may have added further information in a later post as a “reply to self”),
- FR** *first replies* (responses to a *starting post* that had been communicated by another learner at an earlier time),
- IR** *initiators' replies* (responses to others' replies to one's own starting post), and,
- AR** *additional replies* (responses to others' replies under a starting post that has already been replied to).

Chua, Shi-Min; Tagg, Caroline; Sharples, Mike and Rienties, Bart. (2017). Discussion Analytics: Identifying Conversations and Social Learners in FutureLearn MOOCs. In: FutureLearn data: what we currently have, what we are learning and how it is demonstrating learning in MOOCs, 13-17 Mar 2017, Vancouver.

A worked example



Hi, who else is struggling to use this?

Hi, I'm Bob

I'm Ana

a.k.a. B

It's easy

What is this?

I have a question

could anyone answer?

Anyone here?

I'm here, Cam

Where to start to study?

I did with the background

Has anyone worked on this before?

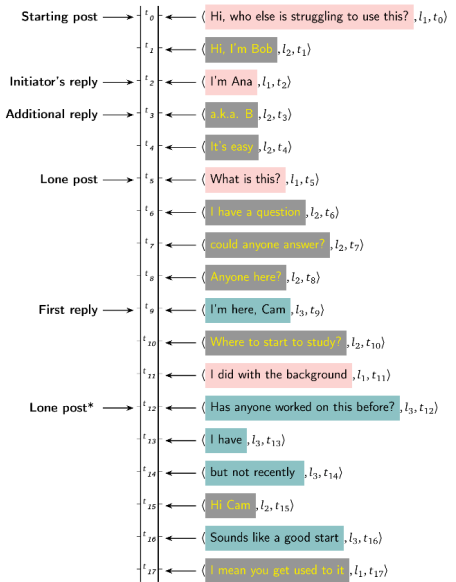
I have

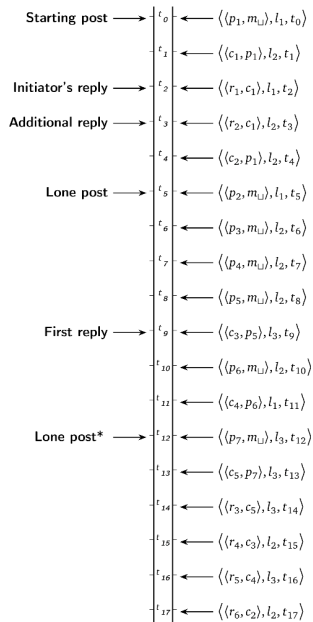
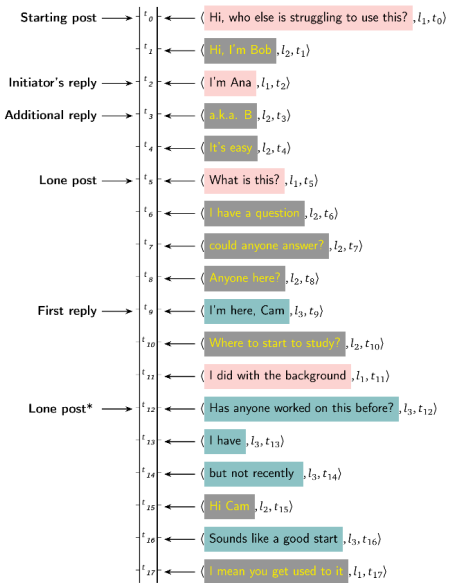
but not recently

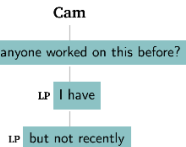
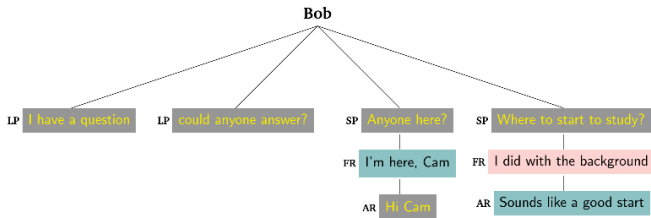
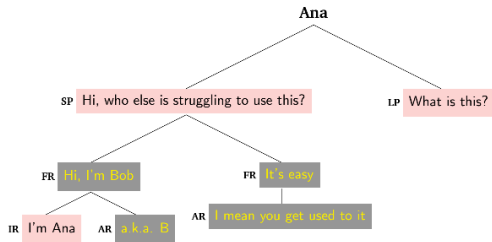
Hi, Cam

Sounds like a good start

I mean you get used to it





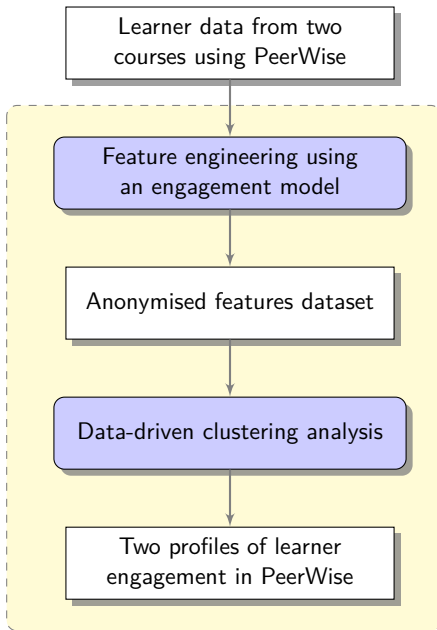


Research question (again)

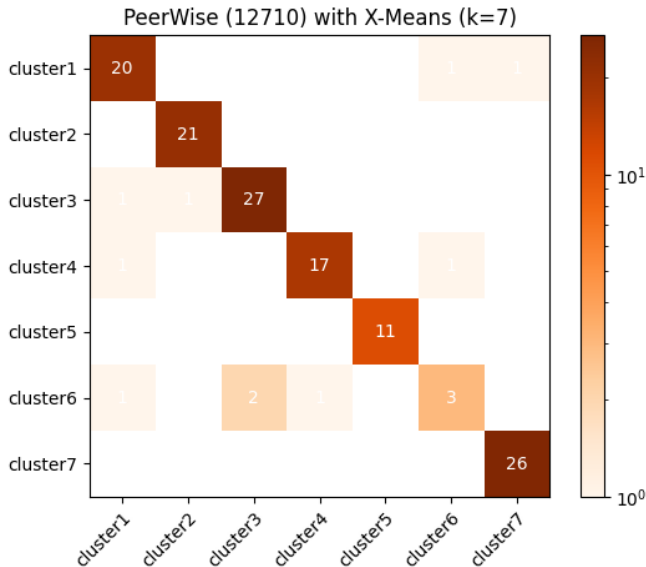
What does a **data-driven** approach to learner interactions reveal about learning engagement within an online environment (PeerWise)?

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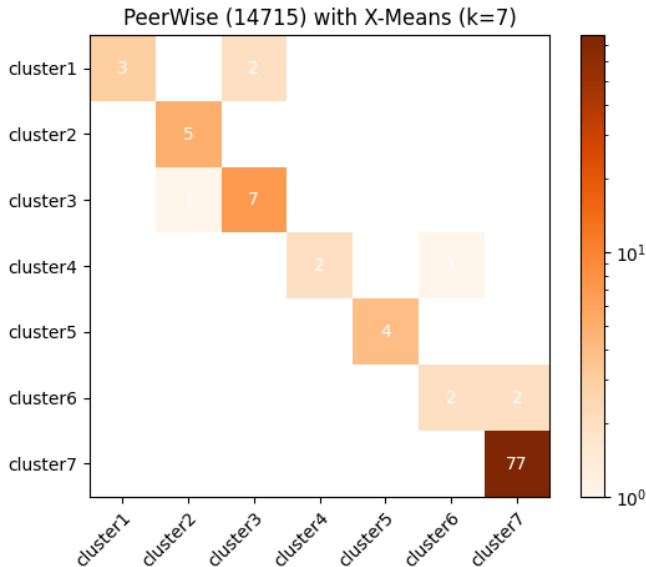
What did I do?



Interpretable profiles of learner engagement in PeerWise (compulsory)



Interpretable profiles of learner engagement in PeerWise (optional)



Comparing the profiles of learner engagement

Classes found	Portus	UL	PeerWise	
	(all)	(all)	12710	14715
1- asocial learners	89%	77%	8%	73%
2- loners		9%	21%	4%
3- initiators without replying	7%	6%	18%	5%
4- initiators who respond	0%			
5- replier			4%	4%
5a- more active replier				3%
7- ASL without turn-taking		4%	13%	
7a- more active SL without turn-taking			15%	
7aa- even more active SL without turn-taking			16%	
8- active social learners	1%	1%	5%	5%
8a- more active social learners	0%			8%
8b- ASL who do not give additional replies	2%	2%		
8bb- more active SL who do not give additional replies	1%	1%		

Take away

We need to do adequate interventions to incentivise our cohorts of students to interact within our digital environments. Without such incentives, they will behave as online learners (where the long-tail of engagement applies, with the majority of learners engaging very passively, and a very small minority much more actively).

Do consider how to introduce adequate incentives to increase learner engagement – for example, through the alignment of learning activities with assessment.

Thanks!

Cited works:

- ▶ Wilde, A (2021). A platform-agnostic model and analysis of learner engagement within peer-supported digital environments: FutureLearn MOOCs and PeerWise. PhD thesis, The University of Southampton.
- ▶ Gore, H. (2018). Engagement of Learners Undertaking Massive Open Online Courses and the Impact of Design. EdD thesis, The Open University.
- ▶ Wilde, A (2020). PeerWise: A chat for administrators and users. Video in MS Stream. University of Winchester. Chua, Shi-Min; Tagg, Caroline; Sharples, Mike and Rienties, Bart. (2017). Discussion Analytics: Identifying Conversations and Social Learners in FutureLearn MOOCs. In: FutureLearn data: what we currently have, what we are learning and how it is demonstrating learning in MOOCs, 13-17 Mar 2017, Vancouver.

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