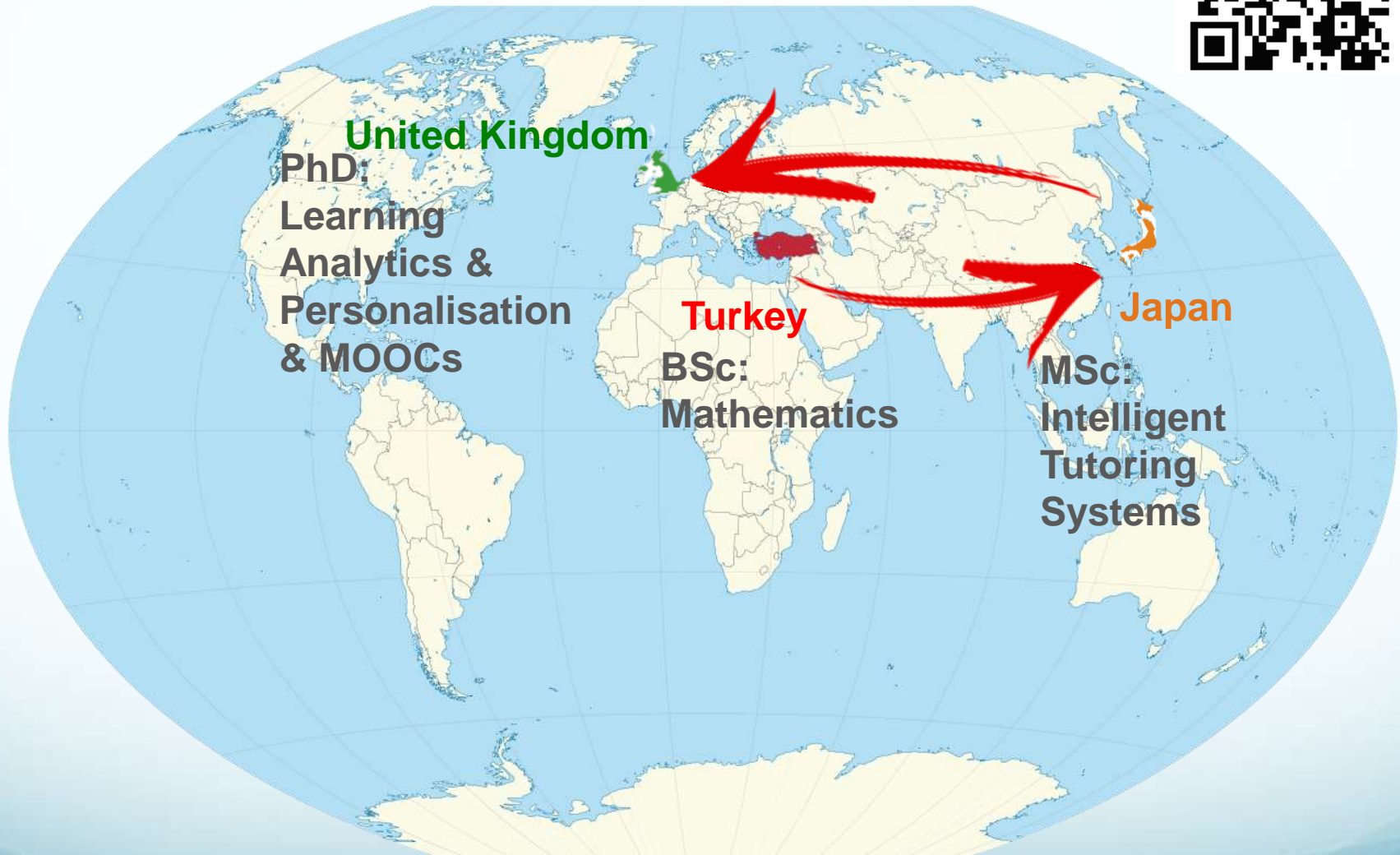


The State of the Art of Personalised MOOCs & The Importance of Social Learning Networks Analysis

Ayşe Saliha SUNAR
15.06.2015



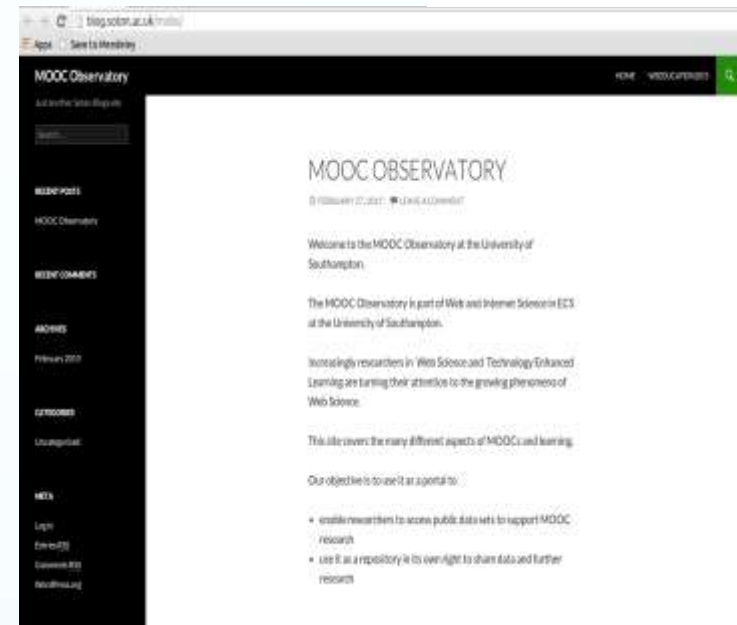
My education journey



MOOC Observatory



- MOOC Datasets management
- Data Analysis
- Curation:
 - Academic Literature (Mendeley)
 - Journalistic literature (Scoop.it)
- Blog
- Training
- Publications



Motivation



Drawbacks

- Lack of customised education to meet each learner's need
- Low participation in online discussions & high attrition rate

Opportunity

- MOOCs produce large datasets from a large number of learners.

Possible solution

Personalisation services by using learning analytics



The State of the Art of Personalised MOOCs



CSEDU paper



Personalisation of MOOCs *The State of the Art*

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Keywords: Personalisation, adaptive online learning, connectivism, MOOCs.

Abstract: Researchers in the field of educational technology are paying huge attention to the widespread adoption of Massive Open Online Courses (MOOCs) in the study of learning online. MOOCs are discussed in many angles including pedagogy, learning sustainability, and business model. However, there are very few discussions around MOOCs personalisation. In this paper, it is aimed to examine and analyse the literature on personalisation of MOOCs to identify the needs, the current states and efforts to personalise learning in MOOCs. The findings denote that the pedagogical design of MOOCs is currently insufficient due to massive and geographically dispersed learners with diverse educational backgrounds, learning requirements

- 7th International Conference on Computer Supported Education, 23-25 May, 2015, Lisbon

Focus of the paper



- What is the nature of the literature on personalisation in MOOCs?
- What kind of issues are addressed by this literature?
- What kind of techniques are applied for personalising MOOC education?
- Which directions could personalisation attempts in MOOCs lead to?

Methodology: Critical & Systematic Literature Review

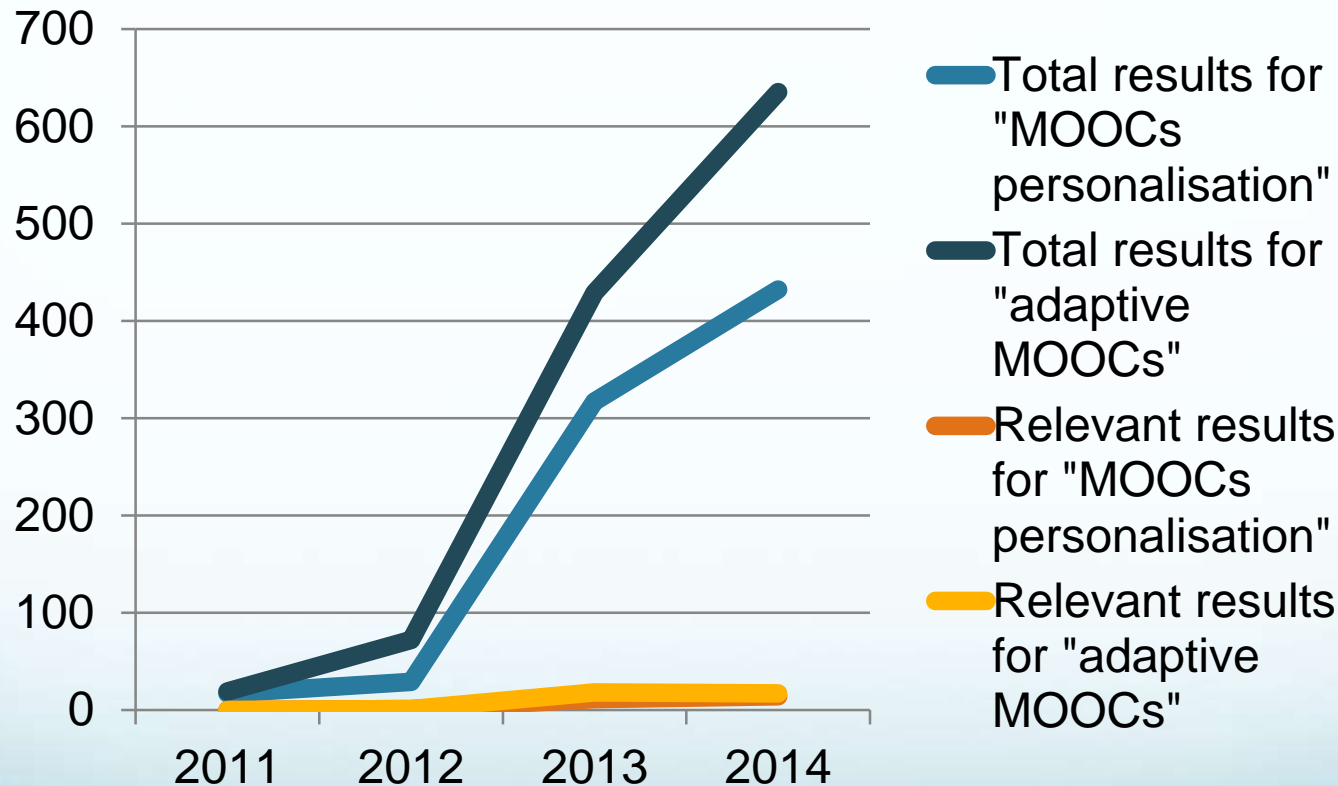


Search for the keywords
“MOOCs personalisation”
and “adaptive MOOCs”
between 2011 and 2014

- Google Scholar
- The British Journal of Educational Technology
- American Journal of Distance Education
- Journal of Online Learning and Teaching
- ISI Web of Knowledge
- IEEEXplorer

Growing attention to MOOCs personalisation

The total number of papers and relevant papers by the searches





Findings

- Several techniques used for addressing several issues

Adaptive content presentation	Poor pedagogical design
Adaptive navigation	<ul style="list-style-type: none">• Poor content engagement• Lack of study skills
Adaptive feedback	Poor feedback
Recommender system	<ul style="list-style-type: none">• Heterogeneity of learners• High dropouts• Excessive information on discussion forums



Use of social network analysis

- Researchers analysed enormous data of learners on discussion forums and other social media tools to answer:
 - Which social media tools are used often?
 - Who contributed more?
 - Who interacted with whom?
 - Is there any pattern of relations?



The Importance of Social Learning Networks Analysis

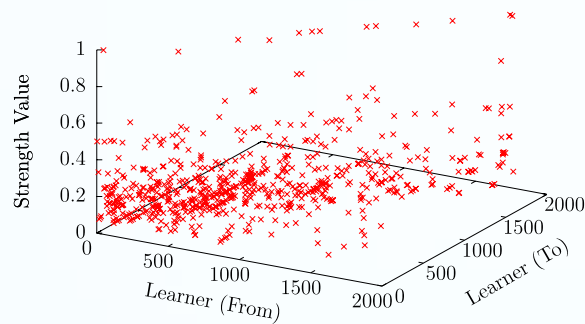
Social networks on FL



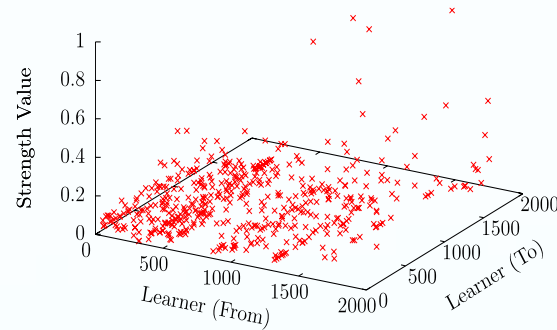
- Analysis of Develop Your Research Project MOOC (15 September – 5 November 2014)
- Dataset: Learners' comment on the discussion boards (15 September – 22 November 2014)
- Focus of study:
 - How much did the learners contribute to online discussions?
 - Did they sustain their contribution to online discussions?
 - Did recurrent interactions occur over the weeks?

Analysis of DYRP MOOC

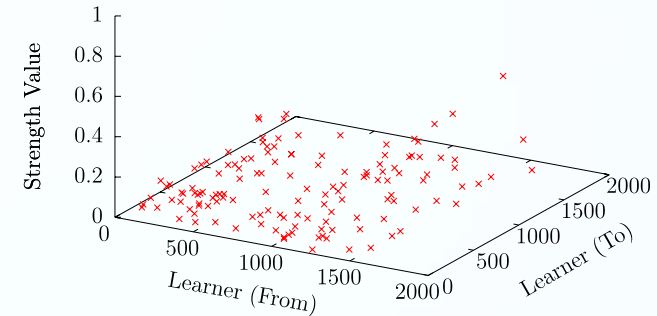
Learners' interactions and the strength of their interactions in each week



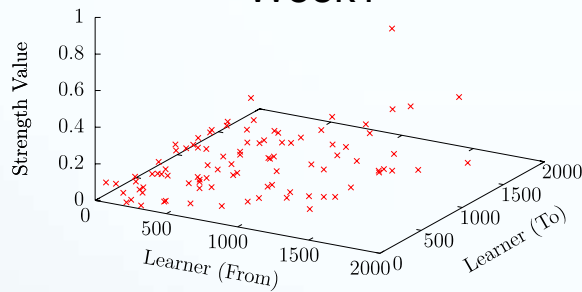
Week1



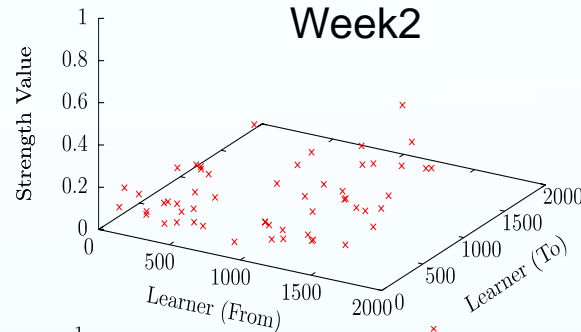
Week2



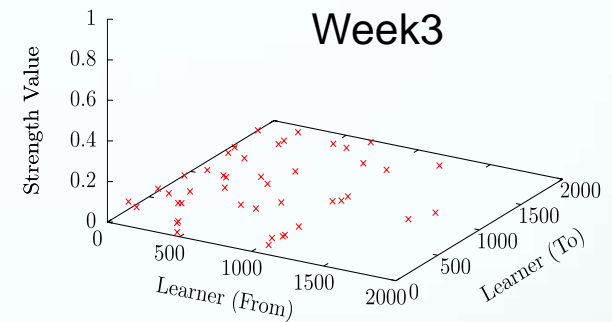
Week3



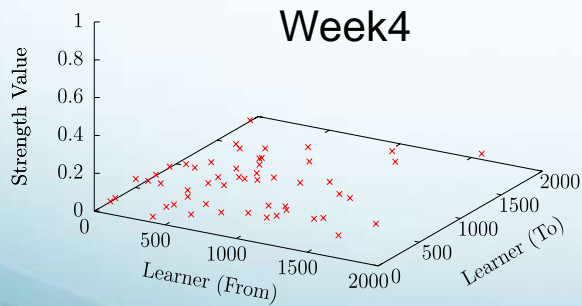
Week4



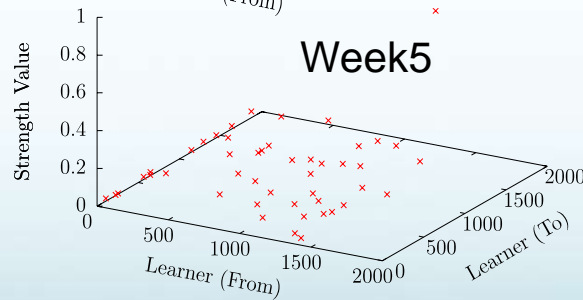
Week5



Week6



Week7

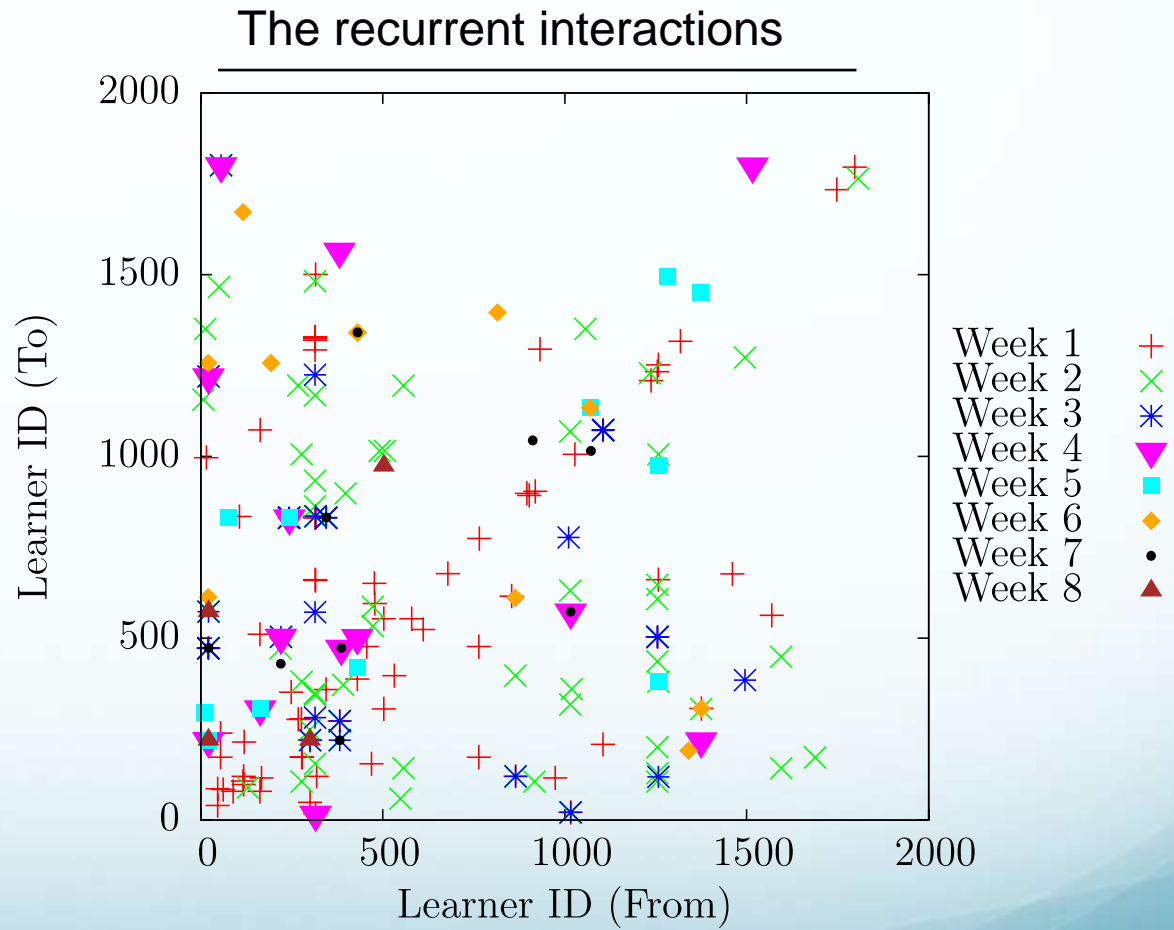


Week8

- This study has been submitted as a full paper to ICKM2015.

Recurrent interactions in DYRP

- Only 19 peers interacted multiple times in different weeks!
- Those learners joined all weeks and completed the course.



Use of 'following' tab on FL

Follow

- Do FutureLearn learners use FOLLOW function efficiently?

COMMENTS

Everyone | **Following** | Most liked | My comments

The learners or educators you follow haven't commented on this step yet.



Ayse Saliha Sunar

Leave a comment... (plain text only, links will be auto-linked)

- Do they use FOLLOWING tab on discussion board for active communication with their following list?
- Is the following list usually empty?

My PhD research

Hypothesis

Learners who have continuous friendships could sustain their interactions and most likely complete the course.

- The **Follow** function on FutureLearn is very convenient for promoting continuous friendships. But it needs to be improved.
- A recommender system for friend recommendation could enhance learners' interactions.

Mendeley

- Collection of paper on personalisation in MOOCs

The screenshot shows the Mendeley group page for 'MOOC Personalisation'. The group has 34 papers and 5 members. The page is divided into several sections: Overview, Group activity, About this group, and Related groups. The Group activity section shows a list of documents added to the group, including 'Reinforcement learning approach towards effective content recommendation in MOOC environments' and 'Social learning networks: A brief survey'. The About this group section shows the group is owned by Ayşe Saliha Sunar, a Ph.D. Student, and lists related papers and members. The Related groups section shows 'MOOC Observatory' as a related group.



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Thank you!



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