Down and Dirty with Data for Social Learning Analytics

4hr workshop

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Contemporary higher education is opening up to a wide range of online technologies that can be integrated into teaching practice. For example, Youtube, Facebook, Twitter, Google Drive etc. are all increasingly being used by instructors who want to move beyond the Learning Management System, and teach in the wild using a customised toolset. At the same time, we see emerging connected learning pedagogies (Educause 2013; Ito et al., 2013; Siemens, 2004) that are highly suited to online and mobile learning. Connected learning environments leverage social media to create learning communities that enable curation, co-creation and co-production through collaboration and peer support (Jenkins et al., 2006; Ito et al., 2013), so allowing students to create personalised learning pathways in active information seeking scenarios.

However, as Learning Analytics tend to be provided inside a Learning Management System, much of this behaviour has traditionally been beyond the scope of Learning Analytics solutions. The challenge is to design and deliver Social Learning Analytics using standard social media environments (Buckingham Shum & Ferguson, 2012).

The *Connected Learning Analytics* (CLA) toolkit (Kitto et al., 2015) is being developed as a part of an OLT sponsored Innovation and Development Project (ID14-3821: *Enabling connected learning via open source analytics in the wild: learning analytics beyond the LMS*). It can be used to provide feedback to students and academics about the nature and quality of their online interactions in ubiquitous social media environments. To date, the CLA toolkit can interface with Facebook, Twitter, Wordpress Forums and Youtube to collect data about student interactions in specified learning activities. This means that with student consent, data can be collected about student participation in a specified YouTube channel, a private Facebook group, or a designated Twitter hashtag. This allows for learning analytics to be undertaken in the wild, but still preserves student privacy beyond the learning activity. Importantly, the CLA toolkit has both instructor facing and student-facing dashboards that allow for the exploration of social interactions in real time, while the course is underway.

This workshop will introduce you to many of the approaches currently used in Social Learning Analytics, using data generated by the CLA toolkit. We will engage you at two levels - you will both create the data and analyse it using methods like Social Network Analysis and Discourse Analytics. The learning activity used to generate the data set for analysis in the workshop will centre around watching videos about institutional adoption of Learning Analytics, tweeting some of your initial thoughts and writing more detailed comments in the discussion forum for our Youtube channel.

What participants will do

Before attending the workshop you should read a blog we have posted at:
http://www.beyondlms.org/blog/17/11/2015/ALASI15Part1/
This will give you a chance to prepare for the workshop, and start generating some of the data that the workshop will rely upon. We encourage you to try and generate a Community of Inquiry (Garrison et al. 1999) while participating in this exercise. Try to interact with and build upon other people's contributions.

This workshop will provide an introduction to Social Learning Analytics using the above dataset. Depending upon their background knowledge and/or expertise, participants will be able to:

1. Explore different aspects of social learning analytics using the dashboards provided by the CLA toolkit.
2. Access the raw dataset and use it to investigate the dataset using their own preferred tools and methods.
3. Share techniques and tricks with other workshop participants.

We will provide a series of different mini tutorials where participants are invited to explore different aspects of SLA while receiving guidance from the project team members as they explore different features of the dataset using a varied set of tools and activities. Analytical techniques that revolve around topics such as Social Network Analysis (Bakharia et al. 2011), the classification of Cognitive Presence (Joksimovic et al. 2014), Writing Analytics (Simsek et al, 2013) and Activity Analysis will all be covered in brief, hands-on settings. We will also discuss issues surrounding the broader implications of Learning Analytics, such as: the ethics of collecting student data from social media; what data should be shown to students; what metrics should be applied to student data, and what interventions would be reasonable to perform on the basis of those metrics.

Outcomes

Through their participation, workshop attendees will:

1. Think about the barriers to institutional adoption of LA at scale (while participating in the data generation phase for the workshop).
2. Learn about some of the LA methods that can be used to examine social interactions.
3. Consider some of the behaviours that they might want to encourage in a healthy Community of Inquiry, and ways in LA can help to drive pedagogical interventions.
4. Discover that many of these techniques can be applied in "the wild" using data harvested from standard social media environments.

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