ELEC

Overview:

In this era, so called ‘information era’, the size of the knowledge and information are bursting everyday. People who needs to survive must adapt to the era by learning quickly and efficiently. Online learning platform

Therefore, learning how we learn become a heated topic and research area has also been focusing on the topic for several years.

In 2013, Stanford University kicked out the research in this field and till now the researches have accumulated many great methodologies and concepts. From only analyze the different background of the learning at the beginning[1], now they are expanding the analysis to surrounding platform like social platform and deepening analysis using more tools like RNNs[2].

On the other side, the industries also speed up to provide better tools for understanding learning process in personal level.

[1] R. F. Kizilcec, C. Piech, and E. Schneider, "Deconstructing Disengagement: Analyzing Learner Subpopulations in Massive Open Online Courses," Proceedings of the third international conference on learning analytics and knowledge, 2013.

[2] C. Complaints, "Research," in Stanford learning analytics research. [Online]. Available: https://lytics.stanford.edu/research. Accessed: Nov. 29, 2016.

Data:

Online presence:

Full of flexibility and automaticity for collecting process, the internet become the major source of big data. Data from collected from the internet has some advantages than traditional method, like comprehensiveness, integrity, preciseness and genuineness.

Apart from the general advantage, in our case, the online presence of the learning platform shows more merits, such as the interpersonal communication and group discussion (in form of forum) can shows learning style of specific students. And total online activity can indicate the overall commitment of this course compared with other course.

The detailed online presence data:

1. Personal level:
   1. learning time log
   2. learning process log
   3. forum usage log (how many times asking or discussing questions on the forum)
   4. learning platform social time log
   5. connection log and discussing log
2. Course level:
   1. Total online learning time log (aggregate all personal data)
   2. Aggregate students process data (statistics)
   3. Forum activity (aggregate using log), post data (following discuss times, close post statistic -> how many people treat it as useful)
   4. Social platform activity (aggregate using log), connection map

The online presence shows the following indicators:

1. Personal learning relationships
2. Personal online activeness
3. Personal learning style
4. Personal relative attention on this course
5. Course commitment
6. Course overall activity
7. Course online tools using degree
8. Course’s online good usage and bad side