Student Data from VLEs: Approaches at Edinburgh

May 2015

Wilma Alexander

Learning, Teaching and Web Services
Background

• Age, size
• Degrees
• Demographics
• Initiatives
Project 1 - 2014
Existing options – Learn

• BIRT Reports
• Course Reports
• Stats column option in the grade center
• Average grade display
• Retention Centre
• Performance Dashboard
• Google Analytics
• 3rd Party tools - BB Learning Analytics, Eesysoft
Existing options - Moodle

• Intelliboard.net
• GradeTracker (Bedford College)
• Personal Learning Plan (Bedford College)
• Engagement Analytics (“Traffic Lights”)
• Forum Graph
• Activity Analytics using AWS – in-house adapted plug-in
Tableau image from Dr Paula Smith, University of Edinburgh
User Stories
User Stories

- 92 stories from 18 staff / 32 students
- As a ... I want to ... so that I can ...

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory</td>
<td>4</td>
</tr>
<tr>
<td>In Scope</td>
<td>38</td>
</tr>
<tr>
<td>Already Available / in scope</td>
<td>35</td>
</tr>
<tr>
<td>Not in scope but of interest</td>
<td>21</td>
</tr>
<tr>
<td>Not in scope and already available</td>
<td>6</td>
</tr>
</tbody>
</table>
Staff concerns

As a teacher / personal tutor I want to have measures of activity of the students so that I can be alerted to who are "falling by the wayside".

As a teacher I want to see detailed patterns of activity in the VLE so that I can judge whether some activities are more typical of "deep learning" or the "strong student".

As a teacher I want to know which students are feeling isolated so that I can contact them at an appropriate time.
Student Concerns

As a student I want to see how my mark compares to the class average and what the highest and lowest are and marks are anonymised so that I can track my progress and see how my performance compares to the best and worst marks so I can get an idea of where I stand.

As a final year student I want to have a timetable\chart of dates when submissions are due (plus possibly weighting of the assignment) so that I can keep track of when essays are due and access a neat overview. This way I can plan ahead and organise better.
IF YOU BUILD IT, THEY WILL COME.
For students (Learn)

Activity map

<table>
<thead>
<tr>
<th>Week starting</th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
<th>Sat</th>
<th>Sun</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014-05-05</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2014-05-12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>0</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>2014-05-19</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>2014-05-26</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2014-06-02</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2014-06-09</td>
<td>0</td>
<td>0</td>
<td>16</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>2014-06-16</td>
<td>12</td>
<td>12</td>
<td>0</td>
<td>32</td>
<td>24</td>
<td>27</td>
<td>3</td>
</tr>
<tr>
<td>2014-06-23</td>
<td>0</td>
<td>1</td>
<td>9</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2014-06-30</td>
<td>0</td>
<td>0</td>
<td>42</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2014-07-07</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2014-07-14</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2014-07-21</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2014-07-28</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2014-08-04</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2014-08-11</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>30</td>
<td>32</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>2014-08-18</td>
<td>35</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2014-08-25</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2014-09-01</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2014-09-08</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Legend:
- values below 10
- values between 10 and 20
- values between 20 and 30
- values between 30 and 40
- values above 40
Gradebook data for:

- Normalised Grade

- Student Grade
- Average Grade
Survey responses (n=148)

- Activity information useful – 32%
- Grade information useful – 97%

<table>
<thead>
<tr>
<th>How often would you check it?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>6</td>
</tr>
<tr>
<td>Weekly</td>
<td>47</td>
</tr>
<tr>
<td>Monthly</td>
<td>64</td>
</tr>
<tr>
<td>Once a year</td>
<td>24</td>
</tr>
<tr>
<td>Never</td>
<td>2</td>
</tr>
<tr>
<td>N/A</td>
<td>5</td>
</tr>
</tbody>
</table>
Will it change your Learning Behaviour?

32% - having access to the average grade data would have an impact on their learning behaviour (both positively and negatively).

7% - the grade average could motivate them to work harder.

• What information you would find useful?

- **Discussion**
  - Useful: 57%
  - Not Useful: 40%
  - N/A: 3%

- **Grade**
  - Useful: 100%
  - Not Useful: 0%

- **Activity**
  - Useful: 57%
  - Not Useful: 40%
  - N/A: 3%
The grade component would keep me aware of my performance and make me aware of others as well.

whether my grades are good or not I can find out myself by talking to my PT, data like this is not instructive to me individually, I have my own needs and goals.

Not really except for a slight increase in paranoia regarding grades.

Grade comparison would give me a better idea of how I am coping compared to others.
Learn Tools and Content 2013/14

- Some social / Peer / Network
- Content + Submission / Assessment
- Content only
Outcomes to date

- Context is all!
- Must work for individuals and course-level
- Building Block and Plug-ins
- Mapping our territory
- Staff Awareness
- Student Awareness
- Learning Support – contextual, individual, actionable, reflective
- Institution-level engagement
Planning for 2015/16

Décio Villares (1851-1931). Study for Brave New World Photo: Gedley Belchior Braga. By Projetodelrei (Own work) via Wikimedia Commons
Thank-you!

• Thanks to colleagues at Edinburgh
• Myles Blaney, Steph Hay, Ross Ward, Paula Smith

• Wilma.Alexander@ed.ac.uk