

# SNAP and Moodle UX

- Snippets on UX design
- consistency in the Moodle user experience
- and graphical representation of Learning Analytics



### Background

Annabell Lorenz
Solutions engineer
E-Learning Consultant, Higher Education Background



Blackboard Moodlerooms Solutions engineer since 2013

- Regular active participant of Moodle DACH, France, Italy etc.
- Moodle Devcamps together with AMC
- Moodle DACH 2016

E-Learning at the University of Vienna 2004-2013









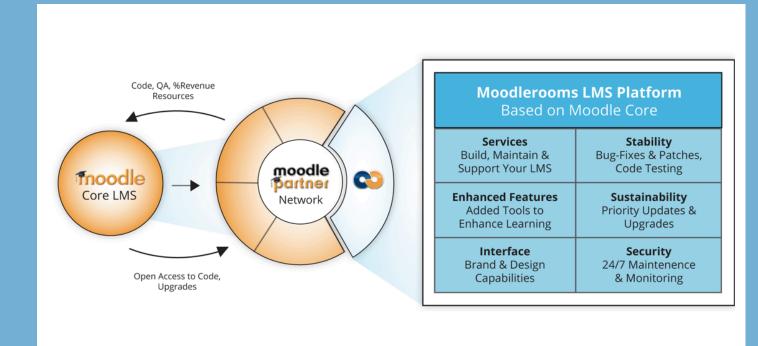
### **Moodle Partnership: What is it?**

- Partners = **Certified** companies, offer Moodle services for a fee
- Moodlerooms official Contributions:
  - $-\hspace{0.1cm}$  Royalties ( $\sim \! 10\%$  revenue) to keep Moodle moving forward
  - Code, plugins, bug fixes
- Separate Agreement with Moodle HQ:
  - Common development projects
  - Influence in roadmap
- More than 50 partners globally

### **Contribution to Moodle project**

- Integrations with Google and Microsoft
- IMS Common Cartridge import/export
- IMS Learning Tools Interoperability for external content repositories
- Innovative course formats and rubric checklists
- Outcomes Module rewrite

### Moodlerooms is Moodle Partner

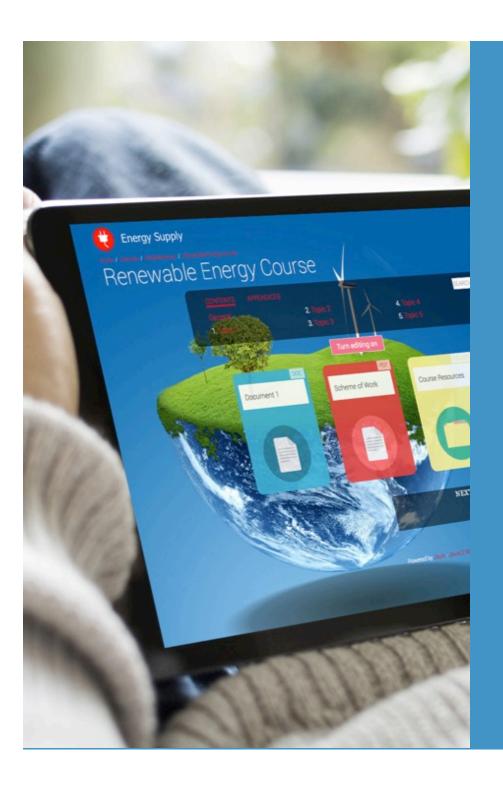










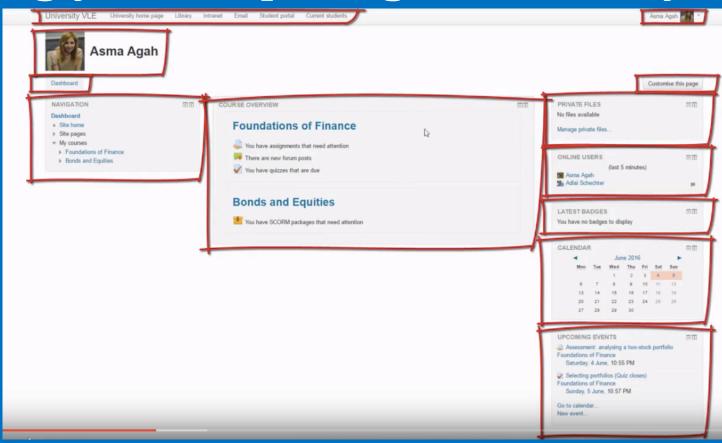


# SNAP and Moodle

- Snippets on UX design
- consistency in the Moodle user experience
- and graphical representation of Learning Analytics



# Organisations tell us Moodle is ugly, uninspiring and clunky



Source: CAS Business School, modified SNAP theme to their needs <a href="https://drive.google.com/file/d/0B8urjKTUZJxISmx0U2lDNFExcTA/views.google.com/file/d/0B8urjKtuZJxISmx0U2lDNFExcTA/views.google.com/file/d/0B8urjKtuZJxISmx0U2lDNFExcTA/views.google.com/file/d/0B8urjKtuZJxISmx0U2lDNFExcTA/views.google.com/file/d/0B8urjKtuZJxISmx0U2lDNFExcTA/views.google.com/file/d/0B8urjKtuZJxISmx0U2lDNFExcTA/views.google.com/file/d/0B8urjKtuZJxISmx0U2lDNFExcTA/views.google.com/file/d/0B8urjKtuZJxISmx0U2lDNFExcTA/views.google.com/file/d/0B8urjKtuZJxISmx0U2lDNFExcTA/views.google.com/file/d/0B8urjKtuZJxISmx0U2lDNFExcTA/views.google.com/file/d/0B8urjKtuZJxISmx0U2lDNFExcTA/views.google.com/file/d/0B8urjKtuZJxISmx0U2lDNFExcTA/views.google.com/file/d/0B8urjKtuZJxISmx0U2lDNFExcTA/views.google.com/file/d/0B8urjKtuZJxISmx0U2lDNFExcTA/views.google.com/file/d/0B8urjKtuZJxISmx0U2lDNFExcTA/views.google.com/file/d/d/d/d/d/d/d/d/d/d/d/d/d/d/d/d/d/d

### **SNAP**

https://github.com/moodlerooms/moodle-theme\_snap

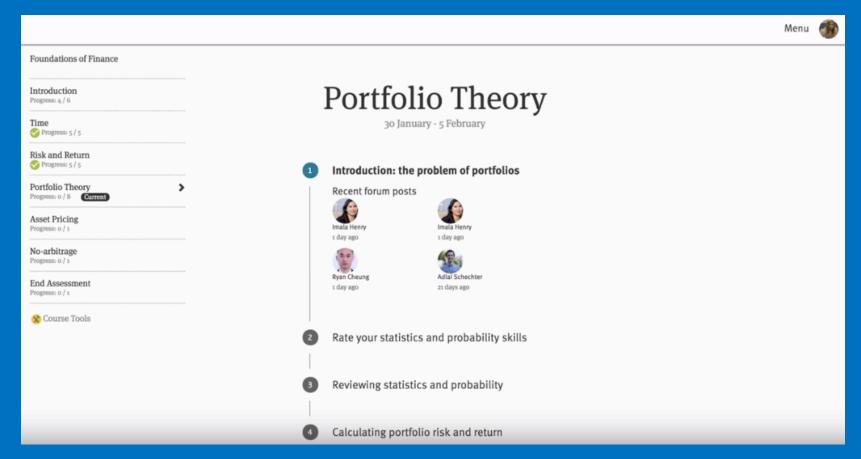


- SNAP is a Moodle theme (github) by MR
- fully responsive
- we built it with the help of UX designers and user feedback
- built with Bootstrap 3 and jQuery

### Distraction free learning



## Example of user-centric course design – Online learning should be like a website



Source: CAS Business School, modified SNAP theme <a href="https://drive.google.com/file/d/0B8urjKTUZJxISmx0U2lDNFExcTA/view">https://drive.google.com/file/d/0B8urjKTUZJxISmx0U2lDNFExcTA/view</a>

moodlerooms

Students want a better mobile experience.



### Media Theory: Extensions of Man



We become what we behold. We shape our tools and then our tools shape us.

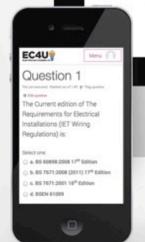
Marshall McLuhan



## device-agnostic user experience





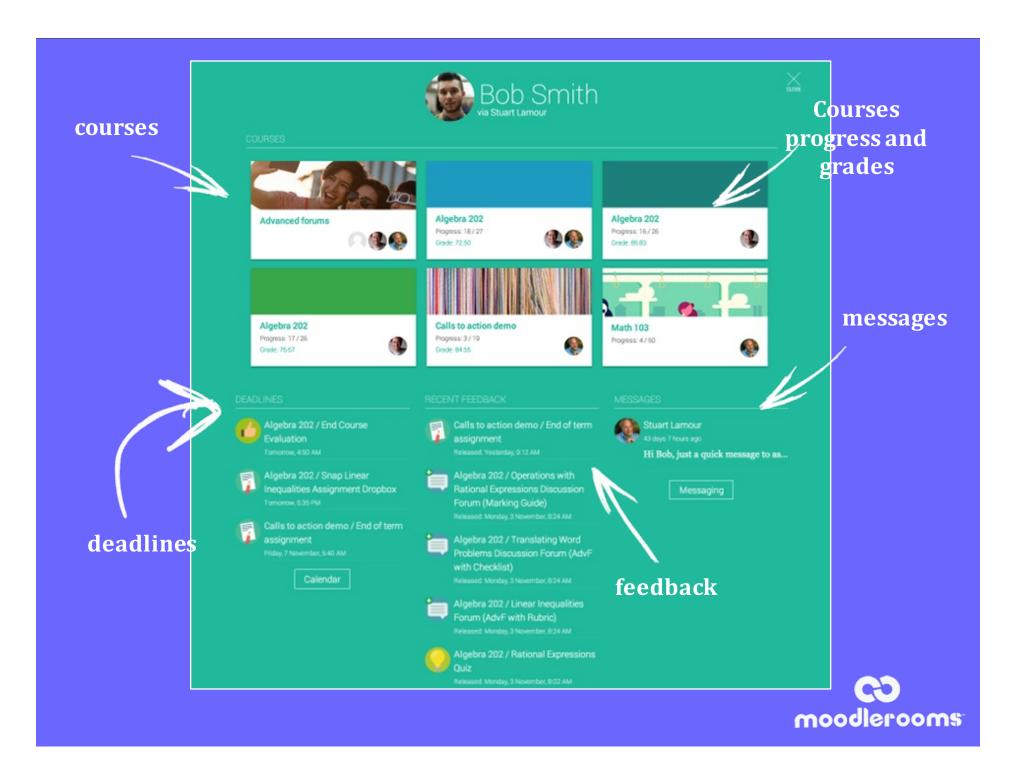


Electrician Courses 4U | Online Electrical Courses

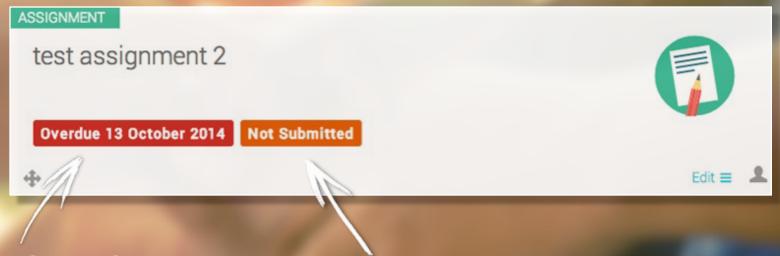


Need better ways to see courses, assignments, deadlines and feedback.





## For students

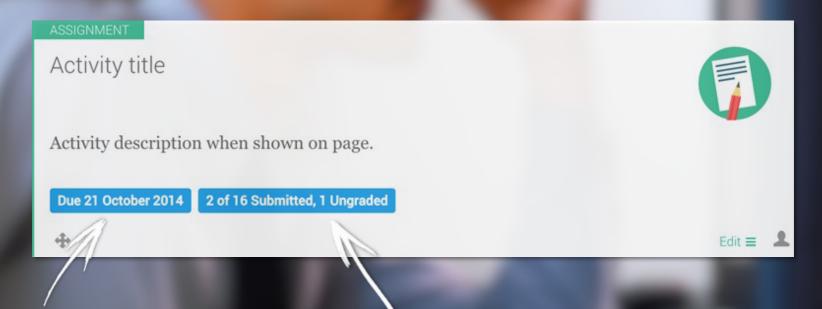


Due date and overdue warnings

**Assignment progress** 



### For tutors



Due dates
Submiss

Submissions status & Pending Grading



Tutors complain about long courses and the "scroll of death" when using topics.



### moodlerooms



Home / My courses / Science / human\_anatomy

### Human Anatomy

### CONTENTS TOOLS 🔎



1. Course Introduction

Progress: 1 / 5

2. Skeletal System

Progress: 2/9

3. Cardiovascular System

Progress: 0 / 4

4. Digestive System
Progress: 0 / 5

5. Muscular System Progress: 0 / 5

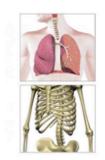
6. Social/Twitter

7. IV Section

Progress: 0 / 1 Not published to students



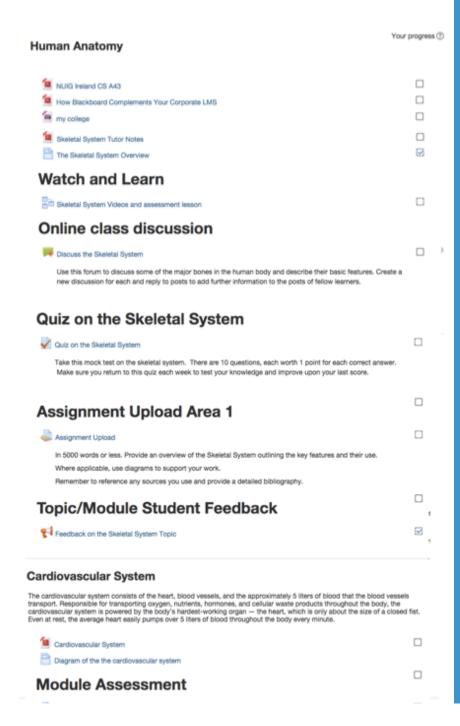




NEXT SECTION

Course Introduction





## Moodle courses:

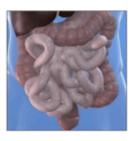
## dull endless lists of resources



### 4. Digestive System







The digestive system is a group of organs working together to convert food into energy and basic nutrients to feed the entire body. Food passes through a long tube inside the body known as the alimentary canal or the gastrointestinal tract (GI tract). The alimentary canal is made up of the oral cavity, pharynx, esophagus, stomach, small intestines, and large intestines. In addition to the alimentary canal, there are several important accessory organs that help your body to digest food but do not have food pass through them. Accessory organs of the digestive system include the teeth, tongue, salivary glands, liver, gallbladder, and pancreas.







### Module Assessment







Digestive Assignment

# First approach to draw focus on content



Students feed back they find it difficult to find resources and activities within courses.



### real-time content search



Home / My courses / Science / human\_anatomy

### Human Anatomy

CONTENTS

T00LS

### assignm

- Assignment Upload
- Assignment (online text)
  - Digestive Assignment
- Muscular System Assignment

3.

Progress: 0 / 4

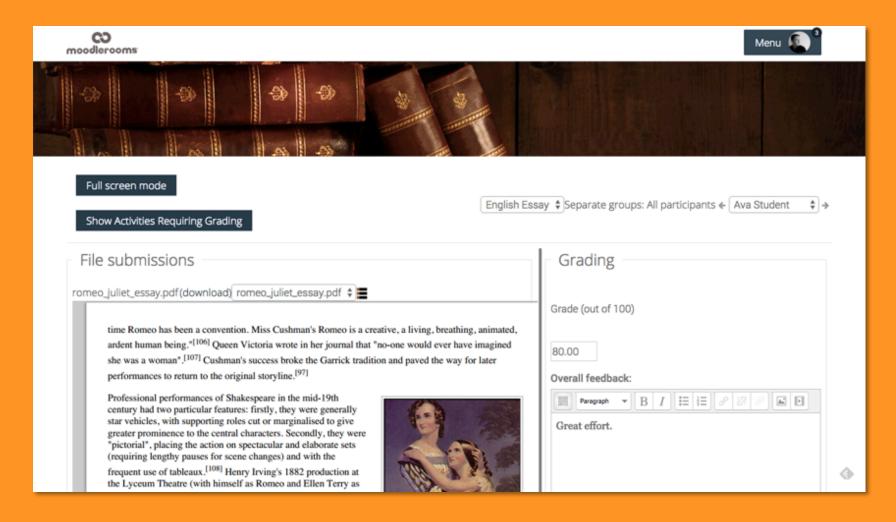
Progress: 0 / 1 Not published to students



Tutors explain that grading assignments is time consuming and complicated.



### Inline assignment viewing and grading





# Students want improved communication tools and alerts



### **Social functionality**

#### **ALERTS**



On 11:32 AM, October 22, 2014, How Blackboard
Complements Your Corporate LMS was created in the
course Human Anatomy (human\_anatomy).

Remove | Read | Visit



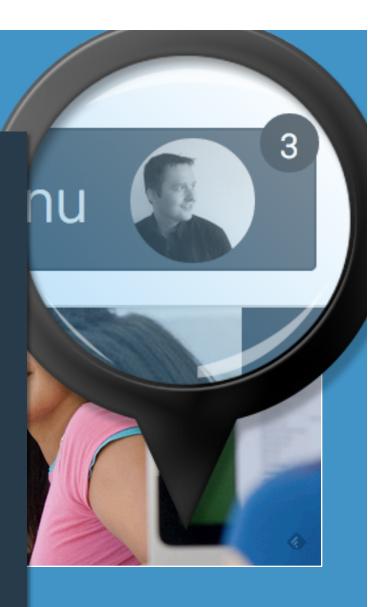
On 8:47 AM, August 18, 2014, Heart structure was created in the course ABPI Demonstration Course (ABPI Demonstration Course).

Remove | Read | Visit



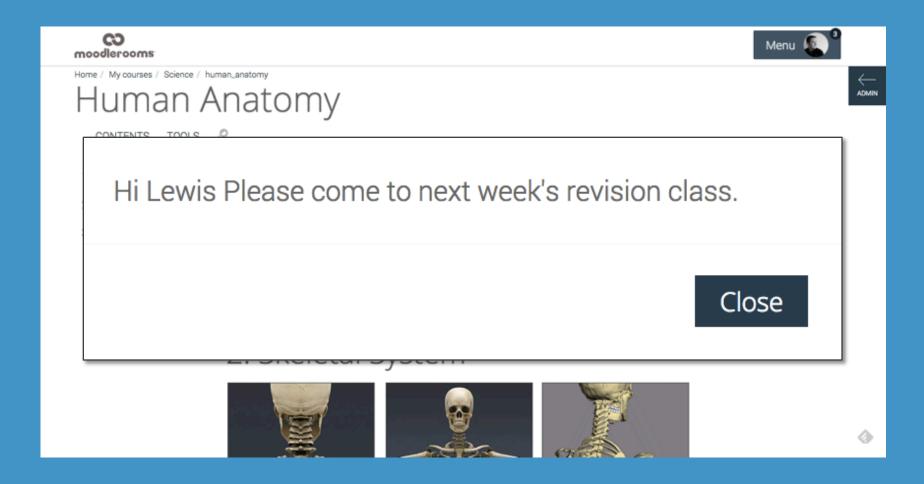
On 2:54 PM, August 12, 2014, Garnts sample quiz was created in the course Human Anatomy (Human Anatomy).

Remove | Read | Visit





### Popup alerts and rules via Personalized Learning

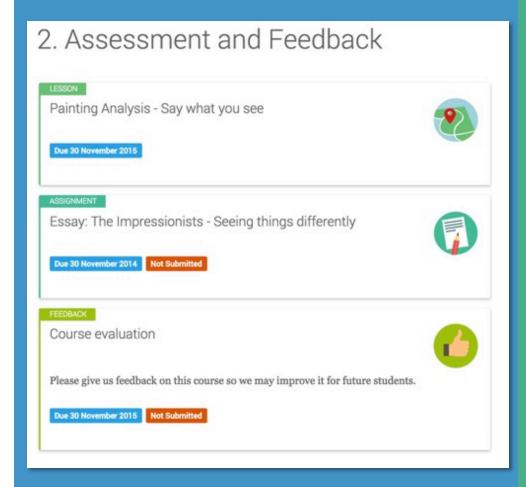




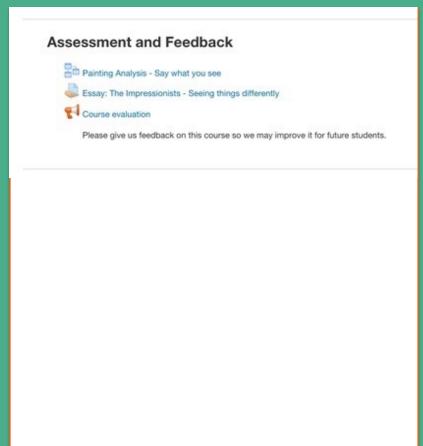
# Students tell us that Moodle looks...well...very "Moodley"



### Resources in Moodlerooms

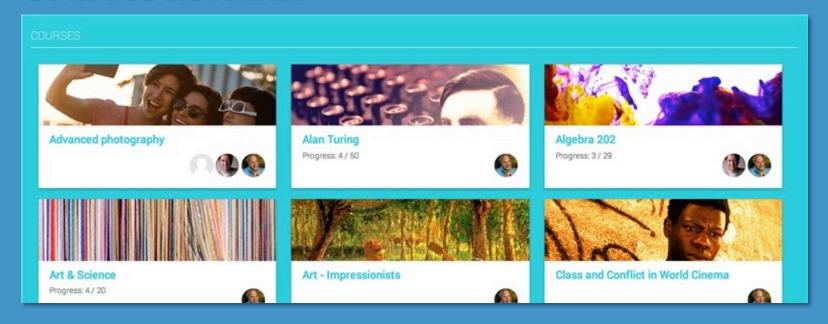


### Resources in Moodle





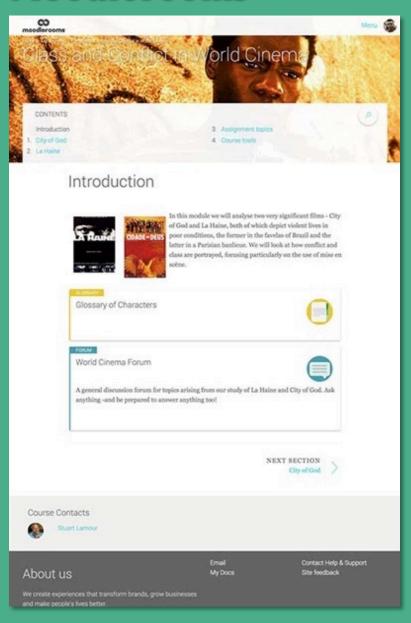
### Courses listed in



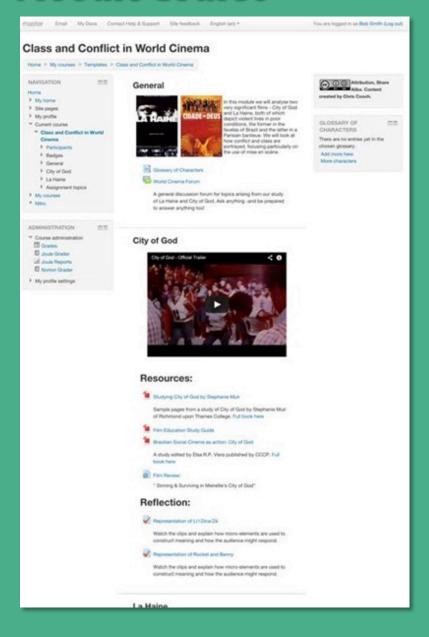
## **Courses listed in Moodle**



### **Moodlerooms**

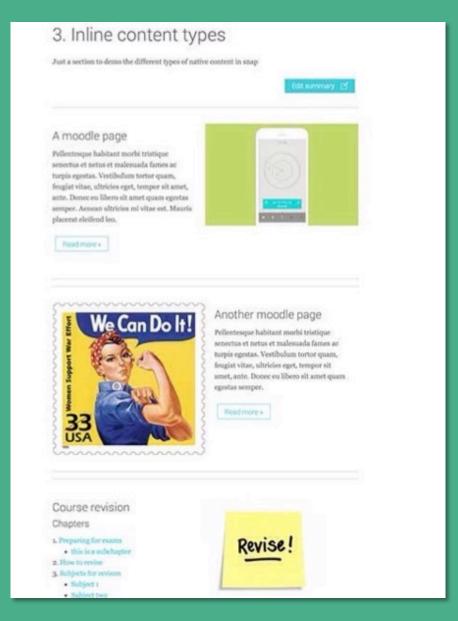


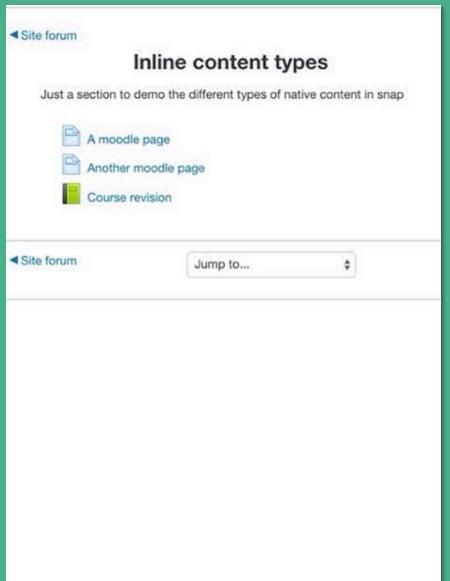
### **Moodle Course**



### **Moodlerooms Inline Content**

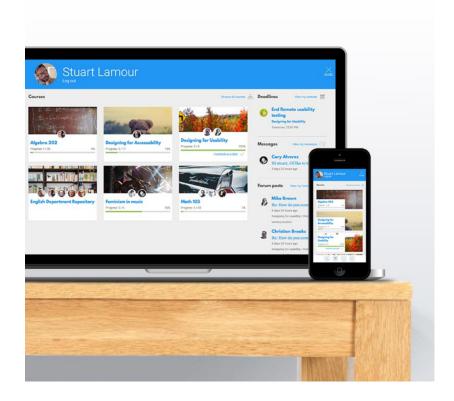
### **Moodle Inline Content**





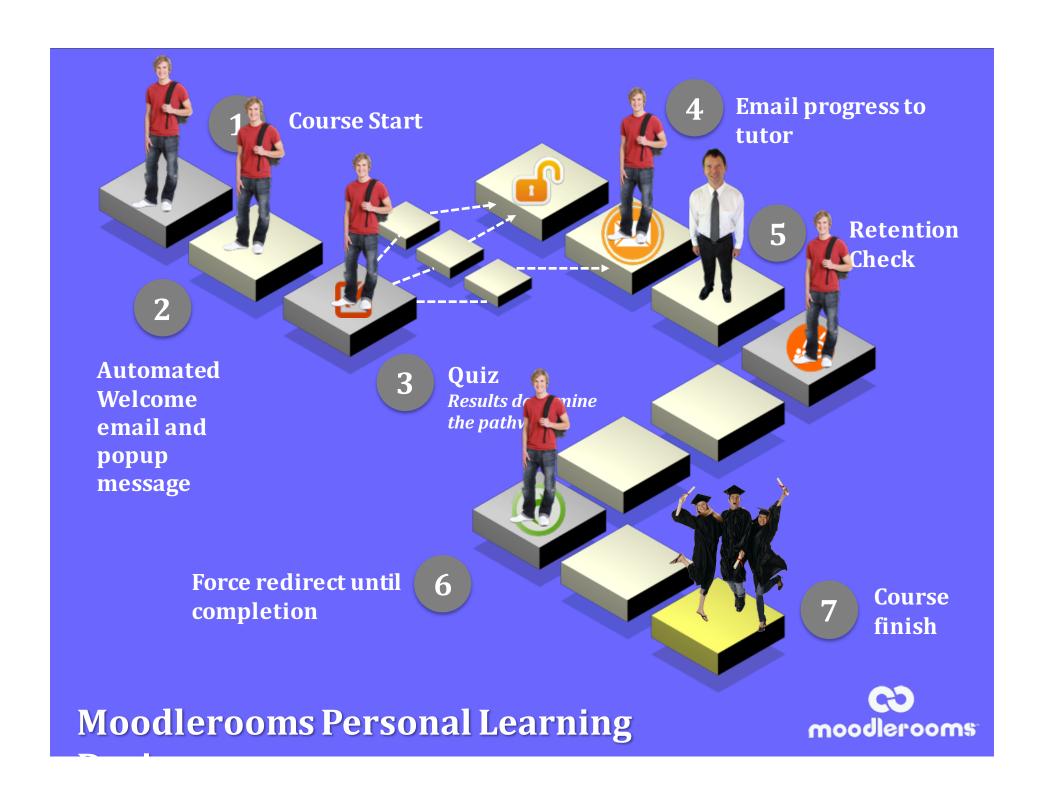
### Snap 3.0

- Personalized favourite course list
- Learn anywhere on any device
- ⊘ Personal menu mobile experience
- o personal menu as a landing page
- More accessible buttonsReturn home with one click



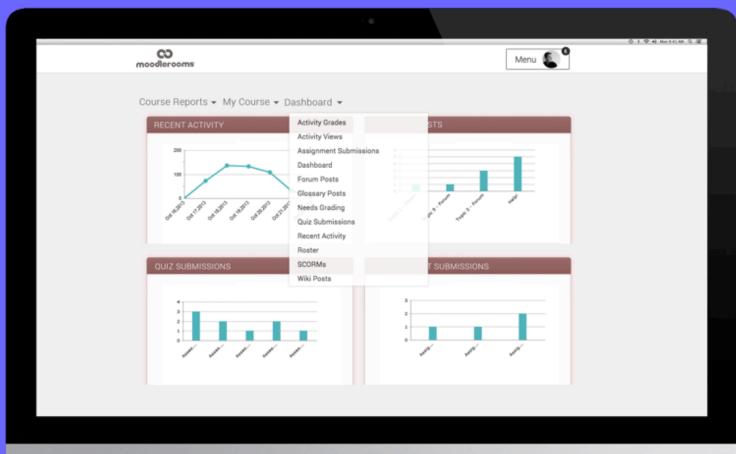
Organisations are looking for ways to create personalised pathways through courses that enable progression.





Organisations struggle to produce reports and generate learner analytics.







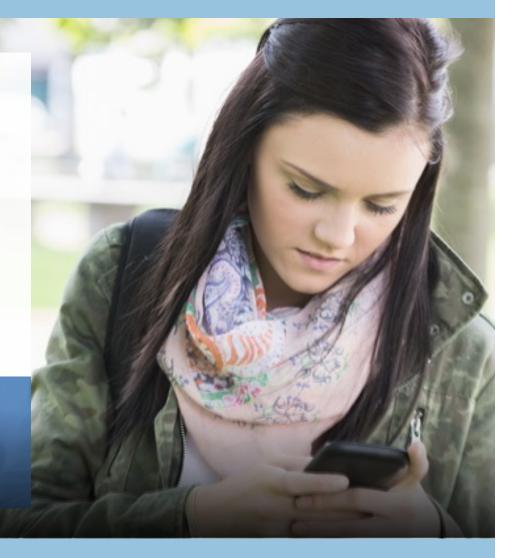


### What is Learning Analytics?

" ...measurement, collection, analysis and reporting of data about learners and their contexts,

for purposes of understanding and optimizing learning and the environments in which it occurs."

Learning and Knowledge Analytics Conference, 2011



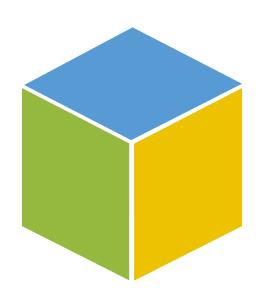
Organisations
tell us they need
to integrate into
Systems
landscape.

Single Sign On

Group creation management Enrollments moodlerooms grades

User

### What does X-Ray provide?



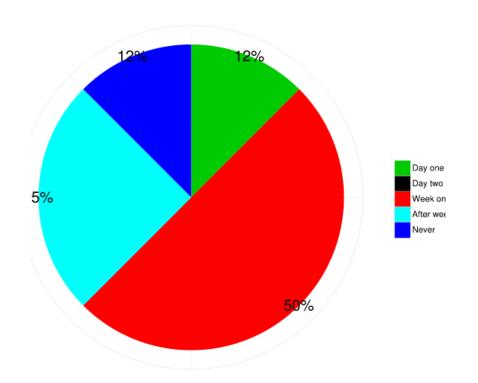
Identify at-risk students

Analyze discussions

Measure effectiveness of content

Insight into student behavior

### Design



### 39 analytical visualizations and tables in 4 areas





Risk Status



Activity



Gradebook



3 of 10 1

Students at **Risk** yesterday.

Average of the week before was 3 of -.

7 of 10 **^** 

**Logged in** students in the last 7 days.

Week before was 7 of -.

60.9% 1

Average course grade yesterday.

Average of the week before was

-%.



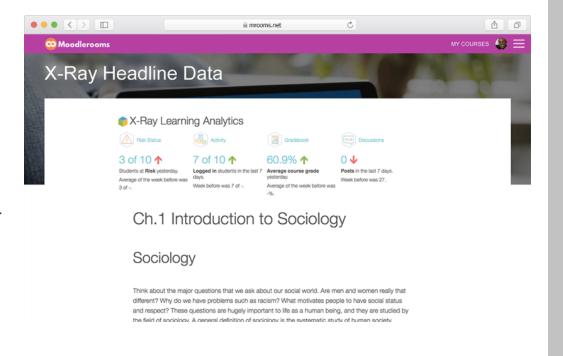
Posts in the last 7 days.

Week before was 27.

### X-Ray Learning Analytics Headline Data

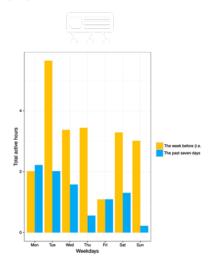
Provides key data in the right context for instructors.

The data bar is located at the top of the Moodle course page and provides basic information of risk status, activity, grade book and discussions.



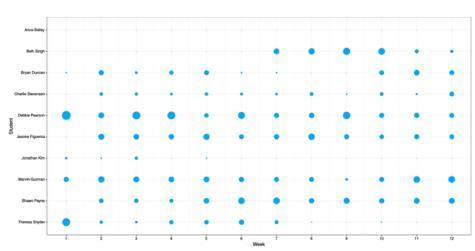
## Understand course activity and identify disengaged learners or learners at risk

Increase engagement before it's too late.



Relative Activity Compared to Other Students in Class

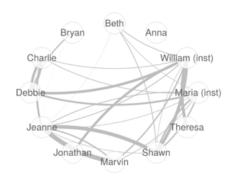
Dots represent student activity. Bigger dots indicate more activity.



### Deep analysis of discussion forum activity

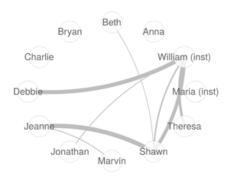
Interaction Analysis with Word Count (with instructor)

View data



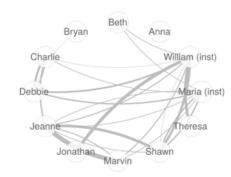
Interaction Analysis with Original Contributions (with instructor)

View data

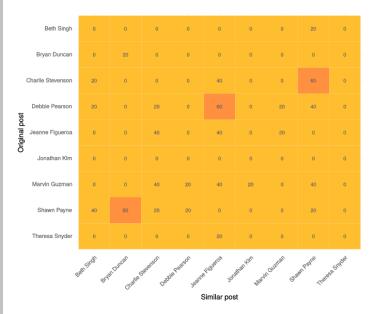


Interaction Analysis with Critical Thought (with instructor)

View data



### Conduct deep analysis of discussion forum activity.

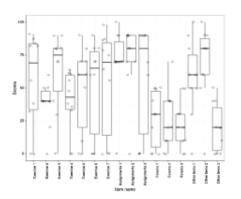


Surname A	Given Name 💠	Total posts 💠	Average original contribution $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	Regularity of original contribution	Average critical thought $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	Grade recommendation
Bailey	Anna					
Duncan	Bryan	22	0.9	Highly regular 0.19	Low 24.6%	C-
Figueroa	Jeanne	35	40.5	Regular 3.85	High 82.2%	A
Guzman	Marvin	28	39.7	irregular 4.28	High 72%	8+
Kim	Jonathan	4	9.5		Low 2.5%	F
Payne	Shawn	38	100	Irregular 4.15	High 99.2%	A+
Pearson	Debbie	39	97.4	Regular 3.39	High 91.5%	A+
Singh	Beth	23	3.4	Highly regular 1.11	Medium 53.4%	B-
Snyder	Theresa	16	39.7	Regular 2.33	Medium 39.8%	B-
Stevenson	Charlie	29	36.2	tregular 5.81	High 66.9%	B+
	_					

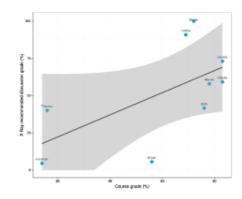
# Select activities and materials that positively impact learning experience

Evaluate effectiveness using statistical analyses

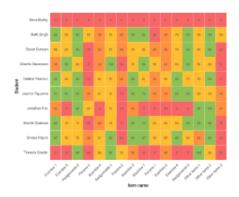
Distribution of Scores



Automatic Discussion Forum Grading versus Course Grade



Comparison of Scores



### Assess overall course participation and at-risk students

Improve outcomes with informed interventions.

Academic versus Social Risk 
Social risk is determined by discussion forum interaction; academic risk is determined by grade data. Each dot represents a student; red dots indicate students at high risk, yellow dots indicate students at medium risk, green dots indicate students not at risk. Shows how at risk a student is socially and academically. The black line plots the relationship between social and academic risk. The shaded area indicates the calculation confidence range.

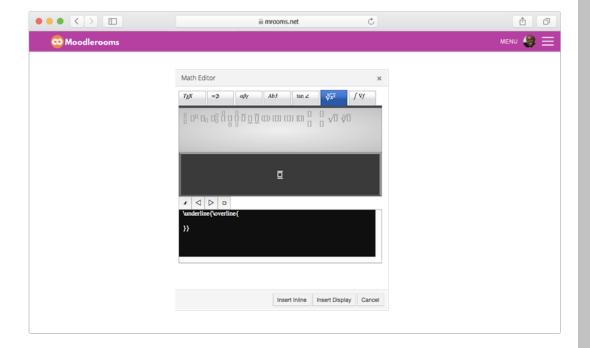
Risk Metrics ?

Surname	Given Name	Hours spent in cours	e   Academic risk	Social risk	Total risk 🔻
Snyder	Theresa	08:39	Low 13.2%	Medium 28.2%	High 41.5%
Duncan	Bryan	14:15	Low 6%	Medium 20.4%	Medium 26.3%
Figueroa	Jeanne	00:50	Low 0.5%	1.6%	Low 8.1%
Singh	Beth	02:03	Low 0.3%	Low 0.2%	Low 0.5%
Guzman	Marvin	03:31	Low 0.1%	Low 0%	Low 0.2%
Payne	Shawn	04:43	Low 0.1%	Low 0%	Low 0.1%
Pearson	Debbie	08:43	Low 0%	Low 0%	Low 0%
Kim	Jonathan	00:47	Medium 31%	Medium 30.4%	High 61.4%
Stevenson	Charlie	08:34	Low 13.4%	Low 12.1%	Medium 25.5%

Show 10 \$

#### Accessibility

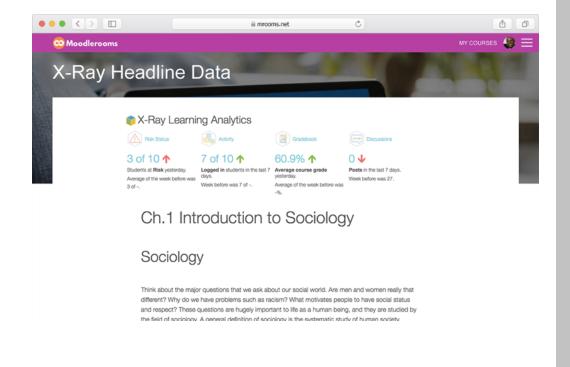
- Expand collapse state
- Creation and edition of accessible rubrics
- Math accessibility in Moodle version 3.0 improves the accessibility of math-related content, JAWS is now compatible with MathJax.



#### X-Ray Learning Analytics Headline Data

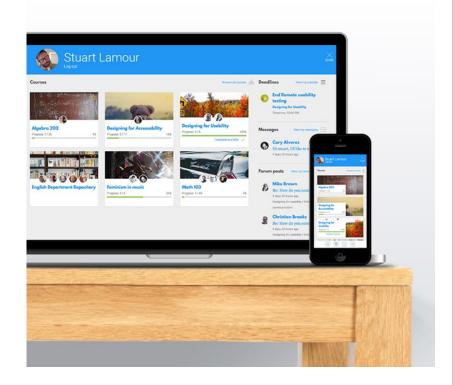
Provides key data in the right context for instructors.

The data bar is located at the top of the page and provides basic information of risk status, activity, grade book and discussions.



### Snap 3.0

- Personalize your learning with your favorite courses
- C Learn anywhere on any device
- Improved personal menu mobile experienceUse the personal menu as a landing page
- More accessible buttons
  Return home with one click



### The voice of other Moodlers

"Moodlerooms has allowed students to finish courses faster and they now can go further."

James Taylor - Challenger Institute of Technology

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