Master thesis

# INTERACTING WITH A MOOC SEARCH SYSTEM

design, implementation and summative empirical evaluation of the UI

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# AGENDA

1. Status Quo of MOOCs
2. The Vision
3. Motivation
4. Literature Research so far
5. Next Steps
6. Challenges
7. Demo
8. References

# STATUS QUO OF MOOCS

- A lot of **MOOCs**[1] available on different platforms

- Aim: support **self learning** with valuable content

  - Offer knowledge on new topics
  - Provide access to lectures of renowned speakers
  - Serve advanced knowledge about a certain subject

- In the easy form of videos **on the web**

[1] Massive Open Online Courses

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# THE VISION

- **Huge amount** of MOOC platforms

- **Difficulties in finding** the right keywords for needed information

➡ Solution: A single **intelligent search and recommendation system** for MOOCs from all major platforms

→ To support students of universities with learning and help them succeed in their studies

# IROM PROJECT

Aim of project Irom:

Conceive, develop and test an **intelligent MOOC search system** (a vertical search model)

Tasks:

- Carry out **textual analysis** of MOOC descriptions ✓
- Develop a **search and recommendation engine** ✓
- Provide a **search platform** for students, collect users' click-through data and evaluate it

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# MOTIVATION

- Good opportunity to **analyse** click-through data of users' interactions in a **scientific** approach
- Get deeper knowledge of the mechanics behind the trending **vertical search** model
- Offer **students** a platform, so they can actually **profit** from the already developed search and recommendation engines
- **Grow** with the tasks and **learn** a lot on the way

# GOAL OF THIS MASTER THESIS

- Complete Irom's 3rd task: implement a **web app** based on the search and recommendation engines
- Design the web app fullfilling **usability** principles and users' expectations of the system and providing personalized features
- **Evaluate** user interaction data and feedback to assess and improve the functionality of both, backend and frontend solutions

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# LITERATURE RESEARCH SO FAR

- **Usability** fundamentals
  - Searching process (autocompletion, suggestions on search with no results)
  - Presentation of search results
  - Recommendations
- Principles of **vertical search** and benchmarking of search interfaces among leading companies in search and MOOCs (Google, Amazon, Coursera, Udacity, etc.)
- **Analysis** and **evaluation** of user interactions using tools like Piwik

# VERTICAL SEARCH

- Refers to a **special topic** of a general search (shopping, travel, automobile, medical info, videos etc.)

- Why it is necessary:

  → Rapid, ongoing **increase of links** on the internet makes it difficult to find the desired information

  → Vertical search **limits** the number of **results** to a specific topic

  → **High precision** of results

  → More **user friendly** because desired info is found faster than with general search

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# NEXT STEPS

- **Implement** an innovative search web app with intelligent UI
  - Set up **functional requirements,** design the **look and feel** of the search web client
  - **Develop** the web client using Angular 2 and Material design
  - **Integrate** the search engine and the recommendation backend
- Extend the app by the functionality to **gather** user interaction **metadata** → integrate tracking code, create opportunities for direct user feedback, set up a backend for the metadata
- **Evaluate** the metadata empirically using Piwik and draw conclusions regarding functionality, usability and efficiency

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# CHALLENGES

- Get a representative set of users to gather **enough metadata** for the evaluation
- **Understand** the gathered **click-through data** and interprete it correctly

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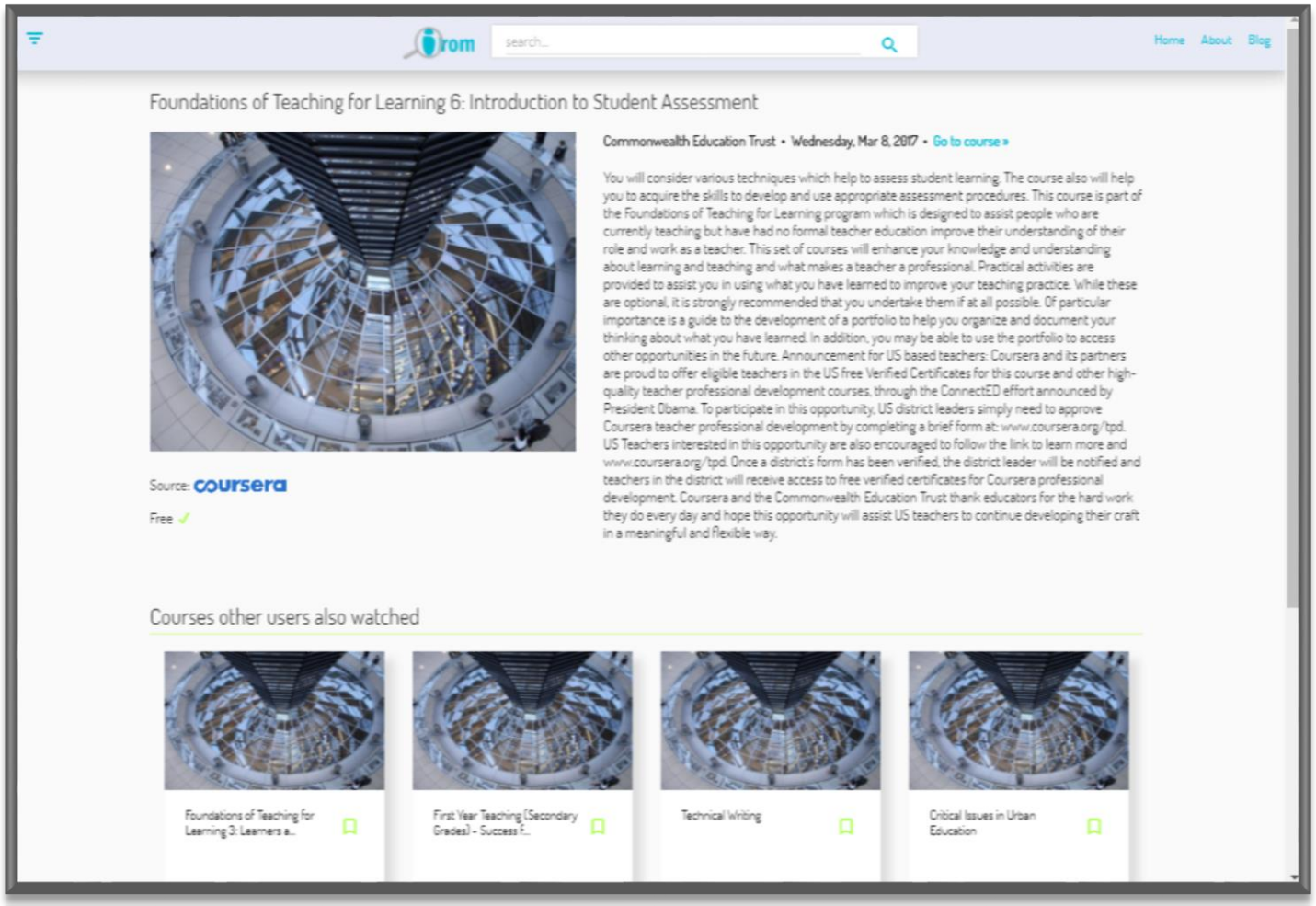
# DEMO

source: http://ami.responsivedesign.is/

# DEMO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Foundations of Teaching for Learning 6: Introduction to Student Assessment
Commonwealth Education Trust • Wednesday, Mar 8, 2017 • Go to course »
You will consider various techniques which help to assess student learning. The course also will help you to acquire the skills to develop and use appropriate assessment procedures. This course is part of the Foundations of Teaching for Learning program which is designed to assist people who are currently teaching but have had no formal teacher education improve their understanding of their role and work as a teacher. This set of courses will enhance your knowledge and understanding about learning and teaching and what makes a teacher a professional. Practical activities are provided to assist you in using what you have learned to improve your teaching practice. While these are optional, it is strongly recommended that you undertake them if at all possible. Of particular importance is a guide to the development of a portfolio to help you organize and document your thinking about what you have learned. In addition, you may be able to use the portfolio to access other opportunities in the future. Announcement for US based teachers: Coursera and its partners are proud to offer eligible teachers in the US free Verified Certificates for this course and other high-quality teacher professional development courses, through the ConnectED effort announced by President Obama. To participate in this opportunity, US district leaders simply need to approve Coursera teacher professional development by completing a brief form at: www.coursera.org/tpd. US Teachers interested in this opportunity are also encouraged to follow the link to learn more and www.coursera.org/tpd. Once a district's form has been verified, the district leader will be notified and teachers in the district will receive access to free verified certificates for Coursera professional development. Coursera and the Commonwealth Education Trust thank educators for the hard work they do every day and hope this opportunity will assist US teachers to continue developing their craft in a meaningful and flexible way.
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Free
Courses other users also watched
Foundations of Teaching for Learning 3: Learners a...
First Year Teaching (Secondary Grades) - Success f...
Technical Writing
Critical Issues in Urban Education

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