Let There be Data

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MOOCs

• No barrier to enrollment
• Accessible worldwide
Consequence:

Scale
Diversity
Challenges

Scale

Diversity

• Assessment beyond multiple choice
  • Humanities
  • Show your work
  • Proper peer grading
• No lecture hall pulse
• No office hours
Challenges

• Prior education
• Age
• Language
• ...
• Intent
Challenges

Scale

Diversity

- Prior education
- Age
- Language
- ...

- Intent

- Deep dive
- Brush up
- Learn one part
- Is this a career?
- Do half, then vacation
What’s Needed?

Instructional designer
- Student demographics
- Past difficulties
- Nav paths taken
- Bad video sections

Instructor
- Excessive time investment
- Confusion on forum
- Peer review selection
- How are videos used?
- Time spent
- Comprehension: all granularities
- Hints of intent
- Comparison of multiple runs
- Controlled intervention

Learning researcher
• Video interactions
• Assignment submission
• Navigation
This is not Enough
Desiderata

Data must be:

• Of a model understood by most
• Loadable with standard tools
• Fine grained
• Cross linkable
• Real-time
• Anonymizable

Available not just to a few providers