

# DM Master Project: Big-Gami-Edu-Data

Big Data, Learning Analytics and Games & Gamification in Education

# Who are we?

- Information Management Group



Prof. Dr.  
Andreas Breiter



Jan Broer, MSc



Dr. Juliane Jarke

## Goal of the project

- Create a prototypical game-based or gamified application for use in an educational context.
  - Detailed definition is up to you!
- Based on current research
  - Mobile learning
  - Big data and learning analytics
- Made for real customers
- Scientifically evaluated

# Gamification

„The use of game design elements in non-game contexts“

- Deterding et al. (2011)

Deterding, S., Sicart, M., Nacke, L., O'Hara, K., & Dixon, D. (2011). Gamification: Toward a Definition. Vancouver, BC, Canada: ACM.

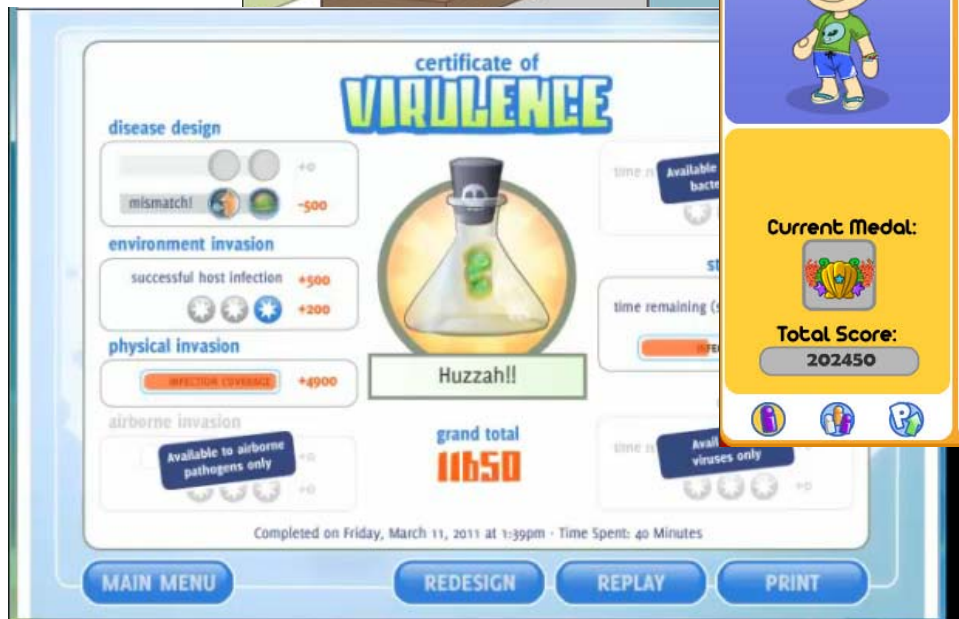
# Classic Examples of Gamification



Images (left to right, top to bottom): nikeplus.com, stackoverflow.com, foursquare.com, tumblr.com, slashdot.org, xing.com

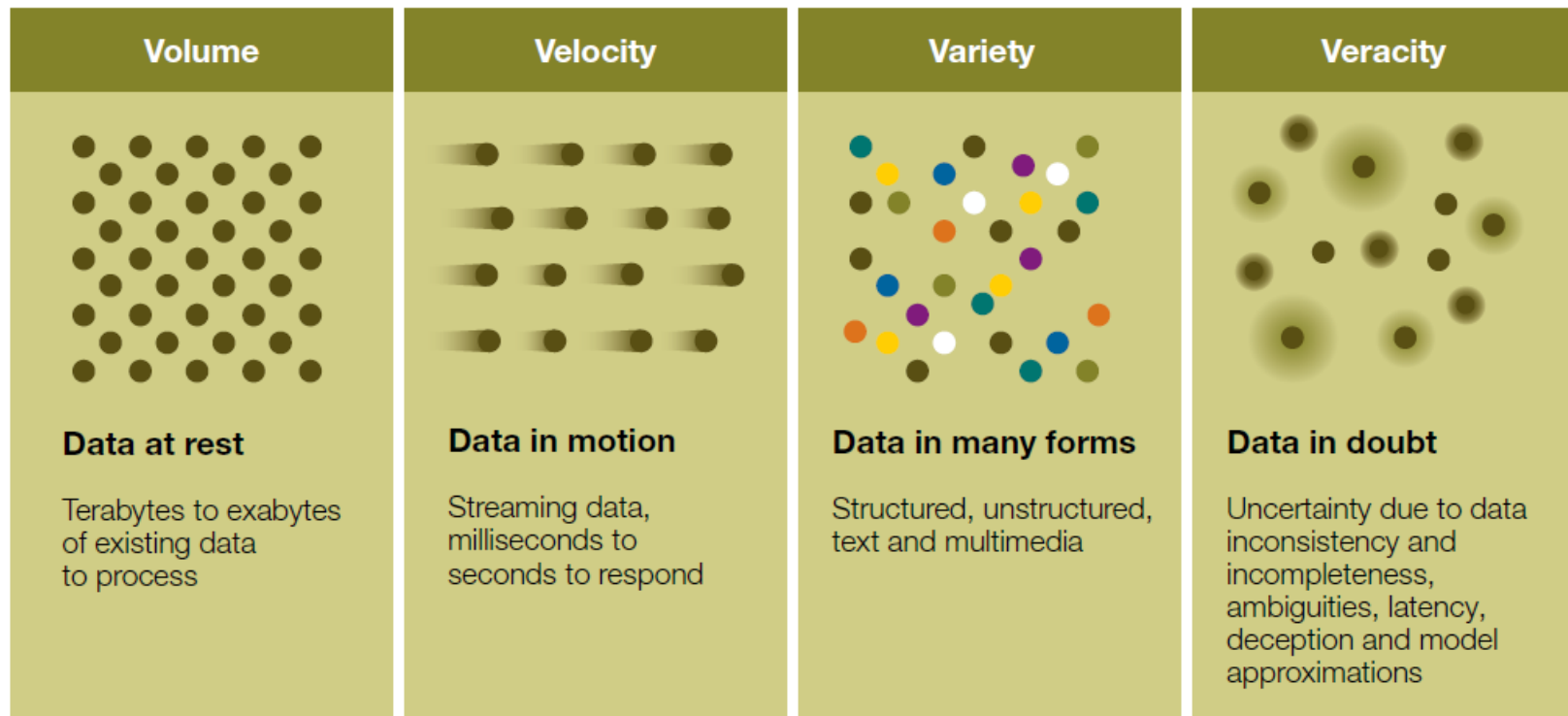


# Game-based Learning



Images (left to right, top to bottom): Zoo U, Sokikom, GILS

# Big Data – 4 V's



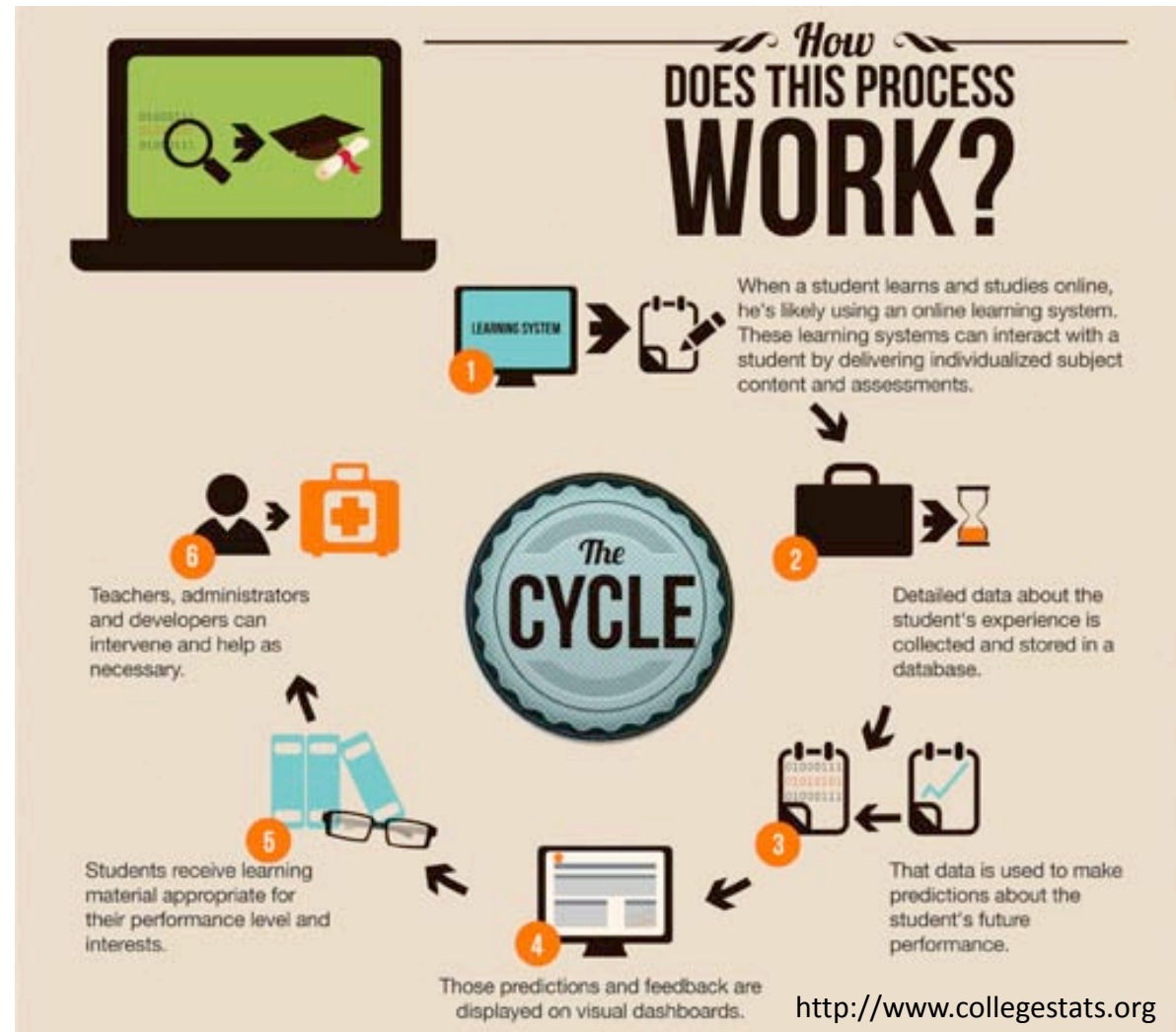
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## Potential application contexts

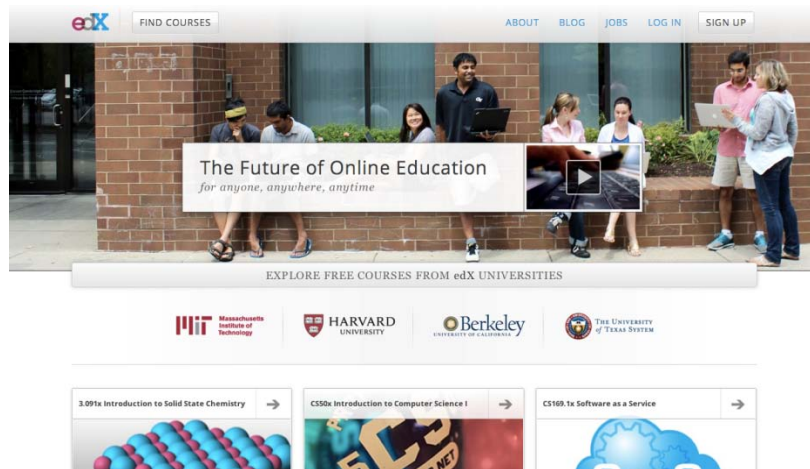
- K-12 education
- Higher education
- Vocational training



# Learning analytics



# Big data and MOOCs

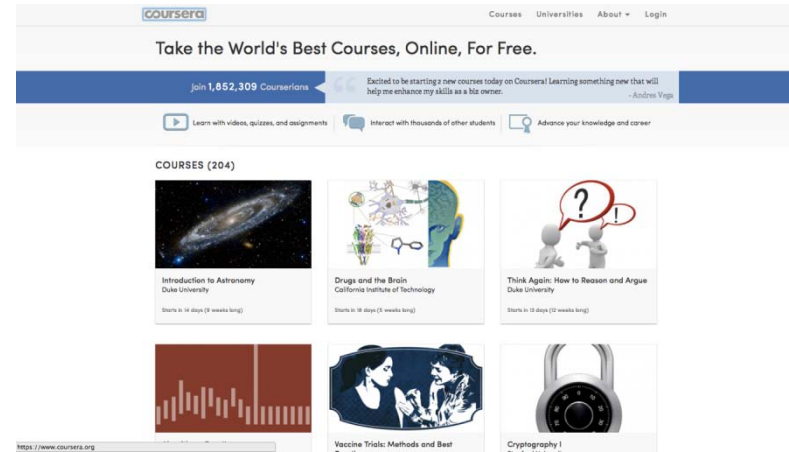


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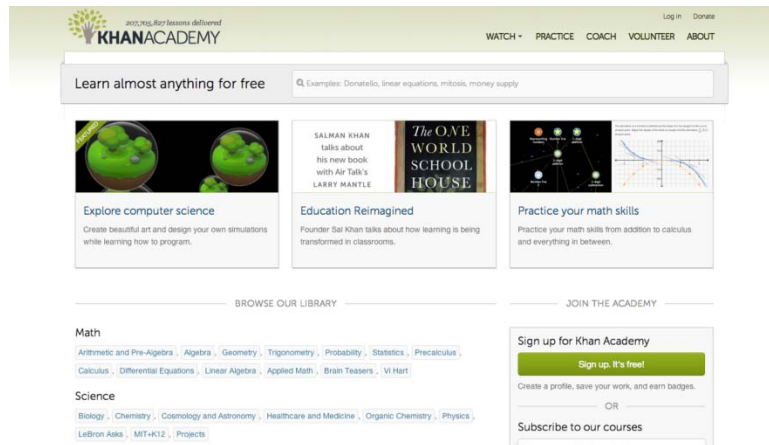
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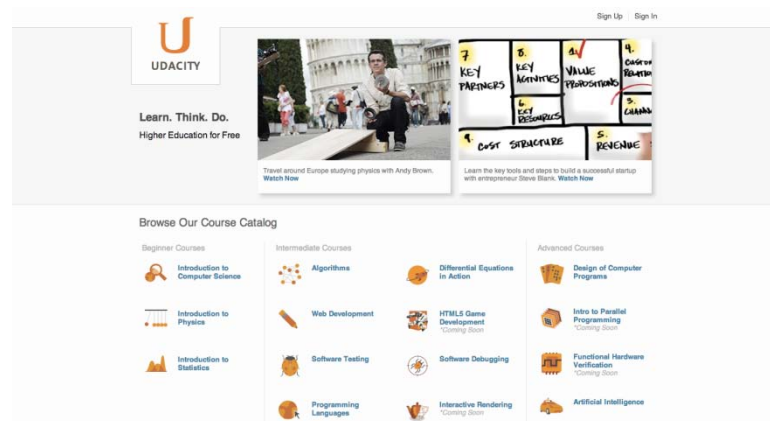
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# Big data and MOOCs

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## MITx and HarvardX Dataverse





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		MD5 Checksum: d11e340a47d10e418f0d4304d3cda316			

### Analysis:

- Participants
- Path of use
- Correlation with success

# Project Preparation

- M-MA-31 Gamification & Game Studies
  - Lecturer: Jan Broer
  - Tuesday (14.04. – 14.07.)
  - 14:00-16:00
  - MZH 1090
- Seminar with practical preparation elements

# Rough Project Schedule

- Learn the basics
  - Games & gamification
  - Education & pedagogy
  - Learning analytics and big data
  - Software development
- Manage and implement a project
  - Identify requirements
  - Create a concept for an application
  - Create a prototype
  - Test the prototype with actual users
  - Include feedback and improve the product
- Write paper(s) (and publish them!)



## A project with us is

- Self-organized
- Creative
- Open
- Research-oriented
- Practical & customer centric
- Team-oriented & collaborative
- Reaching beyond the state-of-the-art

**Thank you for your attention**

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