Teaching web architecture and ethics to highly gifted high school students in a summer school

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Where are ethics in websci education?

Tim Davies
@timdavies

Folgen

Interesting to see 'ethical aspects' as core slide in presentation on Internet and #websci13. Wondering where ethics is in websci education

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5:31 AM - 1 Mai 13

Antwort an @timdavies

WeST

- 96 students in 6 courses
    - 16 students per course
    - 2 (voluntary) teachers per course

- 11th and 12th grade
    - Between 14 and 19 years

- 17 days with 50 hours of total course time

- Almost no preparation

- Very heterogeneous knowledge

- Students are recommended by their teachers

- **Course goals**

- Course structure

- Teaching methodology

- Evaluation

- Lessons learnt

- Future work

- Students should be able to

  - understand the technical parts of current web architecture in particular

    – Protocols
    – the decentralized & open aspects
    – Design decisions

  - know and identify (currently ongoing) ethical issues on the Web and be able to form a solid opinion abut them

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- Course goals

- Course structure and content

- Teaching methodology

- Evaluation

- Lessons learnt

- Future work

- 2 kind of topics

  - Technical topics

    - IP, TCP, HTTP
    - DNS
    - Routing protocols
    - HTML
    - Unique resource identifier

  - Ethical topics

    - net neutrality
    - copy right infringement
    - censorship on the web
    - Governance of the Web

- First week

  - teaching of theoretical knowledge on technical issues
  - Implementing HTTP in Java using sockets

- Midterm:

  - Presenting learnt material in a theater play

- Second week

  - Ethical discussions
  - Writing a 25 pages essay on the studied material

- Course goals

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- Future work

- Theoretical knowledge

  - Bottom up
  - Each student had to present a 20 minute talk

- Programming HTTP (have the studens could not code)

  - Top down
  - Learning by doing

- Ethical aspects of the web

  - Introductory talk by a student
  - Group discussions
  - Role play

Index

- Voluntary course
    - ==> no exams or other direct evaluation methods

- 25 pages essay by students

- Written feedback (daily basis)

- Oral presentation
    - Prepared talk
    - Rotational talks

- Web ethics can be understood much better if the web architecture is well known and understood

- Already high school students can be well aware of ethical issues on the web

- This could only be a small part of a web science course

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Teaching Web Science as a massive open online course

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- **Foundations of the web**
  - Lesson 1 & 2: History of the Web & Web Architecture
  - Lesson 3: Structure of the Web

- **Theoretical results of web user behavior**
  - Lesson 4 & 5: Micro and Macro behavior of web users & Social Network (Analysis)
  - Lesson 6 & 7: Information Retrieval & Recommender systems

- **The Web & society**
  - Lesson 8: Trust and Security
  - Lesson 9: Web Economics
  - Lesson 10: Web Governance and Web Ethics

http://www.moocfellowship.org/submissions/web-science

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- ## http://www.moocfellowship.org/submissions/web-science

Web Science Massive open online course

WSTNet Laboratories

University of Southern California
Massachusetts Institute of Technology
Vrije Universiteit, Amsterdam
DERI
University of Koblenz and Landau
Oxford Internet Institute
Northwestern University
Tetherless World Constellation at RPI
University of Southampton
Tsinghua-Southampton Web Science Laboratory
at Shenzhen

Web Science

Prof. Dr. Steffen Staab and Rene Pickhardt

Field/Discipline : Interdisciplinary

Language : English

Institution : Institute for Web Science and Technologies

👍 Vote

Description

This MOOC consists of ten lessons divided into three parts.

1. Lesson 1 - 3: **Foundations of the web**

2. Lesson 4 - 7: **Theoretical results of web user behavior**

3. Lesson 8 - 10: **Web & society**

Lesson 1 & 2: History of the Web & Web Architecture

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Prof. Dr. Steffen Staab

Rene Pickhardt