COMP 766: An introduction to Crowdsourcing and Human-Computation techniques

Jérôme Waldispühl
jeromew@cs.mcgill.ca

What it Human-computation?

199801801071 + 653635653 + 45735581 * (5364261 - 540543 + 536536361) - 66556151022362648712 * 562563 + 76434 - 63264782647354746236 * 5465463 (465463 - 6743252)

= 2.1332374e+27

Computer are very efficient to process numerical and text data.

What it Human-computation?

But on other types of problems, humans are not always bad.

Web enable to gather crowds and connect human to computers.

What it Human-computation?

Our goal should be to build better human-computer systems!

Human-Computation Systems

- Incentive by money: Amazon Mechanical Turk
- Incentive by fun: Games with a Purpose
- You have no other choices: CAPTCHA/reCAPTCHA
Artificial Intelligence

Human-Computer Interaction

Design

Programming

New technologies

General information


Office hours: Thursday 14:30-16:00 in ENGTR 3106

Email: jeromew@cs.mcgill.ca

Evaluation:
- 2 paper reviews with class presentation (30%)
- Research project (60%)
- Class participation (10%)
## Paper Review/Presentation
- List of available scientific articles (typically from conferences such as HCOMP or CHI).
- 25min presentation in class with a slide deck
- 10min for questions from the audience
- Participation to the discussion after the talks will be integrated in your grade for participation.

## Project
- List of projects proposed early September (Other suggestions will be considered).
- Individual project or teams of two (with separate tasks).
- Mid-term report: 2 pages due late October (4 pages for teams).
- Final report: 6 pages due mid December (12 pages for teams).
- All projects must include a programming component and experiments.

## Framework & Platforms
- Python
- PyBossa (crowdsourcing framework)
- Other Python package: scikit-learn (AI)
- Web programming (javascript, HTML5, etc.)

## Invited Lectures
- Olivier Tremblay-Savard, Computer Science, University of Manitoba
- Derek Ruths, Computer Science, McGill
- Pascal Nataf, Affordance studio
- Yan Cyr, Beam Me Up
- TBD

## References
- Human Computation
  Edith Law, Luis von Ahn
  Morgan & Claypool Publishers
- Reinventing Discovery
  Michael Nielsen
  Princeton University Press

## Outline
- September 8-20: Concepts in “Human Computation”
- September 22: Presentation of articles to review and project
- Sep 27 - Oct. 4: Case studies
- Oct 6 - 11: Invited lectures
- Oct 12 – Nov 3: Paper presentations
- Nov. 10 – 22: Selected topics
- Nov. 24 - 29: Invited Lectures
- Dec. 1: Review & discussion
Next lecture

Thursday, Sep. 8th.
