



HCI Week 7: Ethics

Uta Hinrichs & Tara Capel



today

- Comments on assignment 1
- Ethics Principles
- Ethical Review Process
- Activity: Case Studies in Ethics and Computer Science

comments on Assignment 1

feedback structure

- Quality of Heuristic Evaluation
- Presentation
- Critical reflection

Quality of Heuristic Evaluation

- Coverage of both positive features and usability issues
- Clear description/illustration of features/issues presented
- Sensible mapping of features/issues to Nielsen's heuristics
 - Explain mappings, especially if there are ambiguities!
- Group agreement on inclusion and ratings
 - Discuss disagreements!
- What we wanted to see is a ranking of issues, not heuristics!

Presentation of Results

- Think carefully about how to present your results
 - It is the most important way for us to find out what you have done and why
 - Put yourself in the shoes of the reader of your report
 - Think about what should be mentioned in what order
 - Make it easy for them to understand what you are covering
- Name and describe the system in focus
- Describe the scope of your heuristic evaluation
 - Technology used
 - Context
 - Describe the tasks/processes you have evaluated
- Characterize the team and any aspects that influenced their evaluation approach or results
- Describe the results of your evaluation (table form worked well)

Presentation of Results

- Structure of (group) results
 - By heuristic
 - By task (worked much better) as issues/features are discussed in context!
 - Issue vs. positive features (worked well if a link to tasks was still provided)

Critical Reflection

- Group process
- Any aspects that may have influenced/biased your results
- Strengths and weaknesses of heuristic evaluation in general
 - Any interesting features/issues you discovered that went beyond Nielsen's Heuristics

notes on feedback

- This is a formative assignment – no grades
- However, you will see a suggested grade – take this as guidance
- Focus on the comments and feedback we provided

Taking results of Assignment 1 into Assignment 2

- Structure your re-design around
 - High-level issues that consider a certain part/page of the interface (e.g., landing page)
 - Tasks: Interaction sequences that a person has to go through to accomplish a certain task or several related tasks
- If you have found lots of low-level issues (terminology issues, button labelling, layout, etc...)
 - Group them by interface part/page and/or task
- Create your persona(s) around goals they may have and tasks they may want to do
 - Goals = reasons or motivations for using the interactive system
 - Learning more about the topic of data visualization
 - Tasks = things that need to be done to reach the goal
 - Searching for resources about “data visualization” at the library
 - Finding the most important authors that have written about “data visualization”
 - Creating a reading list
 - Opening and reading these resources online

optional online drop-in session

- Wednesday – Nov. 5 – 3:30-4:30pm via Teams
- Link to be announced!

next steps

Week 8

- Monday
 - Guest lecture: Dushani Ushettige
 - Data physicalization in-the-home
- Wednesday – People & Layout
- (Optional) Online drop-in session for project feedback
 - Wednesday, Nov. 5 – 3:30-4:30pm via Teams
 - Link will be announced shortly!

Ethical Principles

Ethical Questions

Can you invite people who are homeless to study how they care for their wellbeing?

If you see an online discussion on Reddit about mood tracking, can you use that information in a study?

Is it ok to video record strangers who come together to play sports in a public place (e.g., a tennis competition)?

Ethical Principles

The issue: the need to protect participants

Principles:

- Respect for persons
- Beneficence
- Justice
- Respect for law and public interest

Respect for Persons

- Participation as a research subject is voluntary, and follows from informed consent
- Treat individuals as autonomous agents and respect their right to determine their own best interests
- Respect individuals who are not targets of research yet are impacted
- Individuals with diminished autonomy, who are incapable of deciding for themselves, are entitled to protection. Give them the right to choose and the knowledge they need to make a good decision.

Applications:

- Participants should be fully informed of the risks and benefits of participation (consent)
- However, implied consent still possible if person choice is respected

Beneficence

- Maximise the possible benefits and minimize the possible harms
- Will this research make society better? What risks will the participants experience?

Applications:

- Systematic analysis of the risks and benefits of the research to both the individual and to society at large
- Risks can happen much faster in ICT research

Justice

Who should bear the burdens of research and who should receive the benefits?

- To each person an equal share
- To each person according to individual need
- To each person according to individual effort
- To each person according to societal contribution
- To each person according to merit

Application

- Selection of research participants

Respect for Law and Public Interest

Compliance:

- Make sure you know what the laws are and don't break them
- When breaking laws must be done engage in due process

Transparency and Accountability:

- Make the contents of research clear, including how data will be handled and used
- Clearly communicate risks
- Document the contents of your study and make that documentation public

Ethical Review Process

Informatics Ethics Procedure

- The Informatics ethics procedure is in place to ensure that all research conducted in the School abides by the required ethical standards.
- Each project needs to be reviewed by the ethics committee by completing an online Informatics ethics form. The form guides the PI through mandatory questions and a data protection impact assessment.
- If you are working with human participants, the PI will also need to produce a Participant Information Sheet and Consent Form.

<https://uoe.sharepoint.com/sites/inf-researchservices/SitePages/Ethics-and-integrity.aspx>

Data Management

- Protect any personal information you acquire
- Respect the confidentiality of the individual or groups of people in the conduct and reporting of their research
- Anonymise data by replacing names with anonymous identifiers (e.g., P1), by blurring faces in images, and by changing contextual information (e.g., anonymise name of place/organisation)
- Submit only genuine findings or results of research
- Data Protection Impact Assessment (DPIA) is integrated into the online ethics form - this reviews how the project can be conducted while minimising the privacy risks to participants

Voluntary and Informed Consent

- Respect the dignity of participants, including their rights, beliefs, perceptions, customs and culture
- Inform participants of the nature and purpose of the research and any risks that may be involved
- Seek voluntary and informed consent from participants by reading and signing the consent form
- Individuals can withdraw from research at any time without explanation and without negative consequences
- Consent is an ongoing process (not just signing a form)
- The Participant Information Sheet and Consent Form is provided to the participant, you retain the signed consent form

Case Studies in Ethics and Computer Science

Experimental evidence of massive-scale emotional contagion through social networks

by Adam D. I. Kramer, Jamie E. Guillory, and Jeffrey T. Hancock

AKA Facebook emotion contagion study

“We show, via a massive ($N = 689,003$) experiment on Facebook, that emotional states can be transferred to others via emotional contagion, leading people to experience the same emotions without their awareness. We provide experimental evidence that emotional contagion occurs without direct interaction between people (exposure to a friend expressing an emotion is sufficient), and in the complete absence of nonverbal cues.”

<http://www.pnas.org/content/111/24/8788.full>

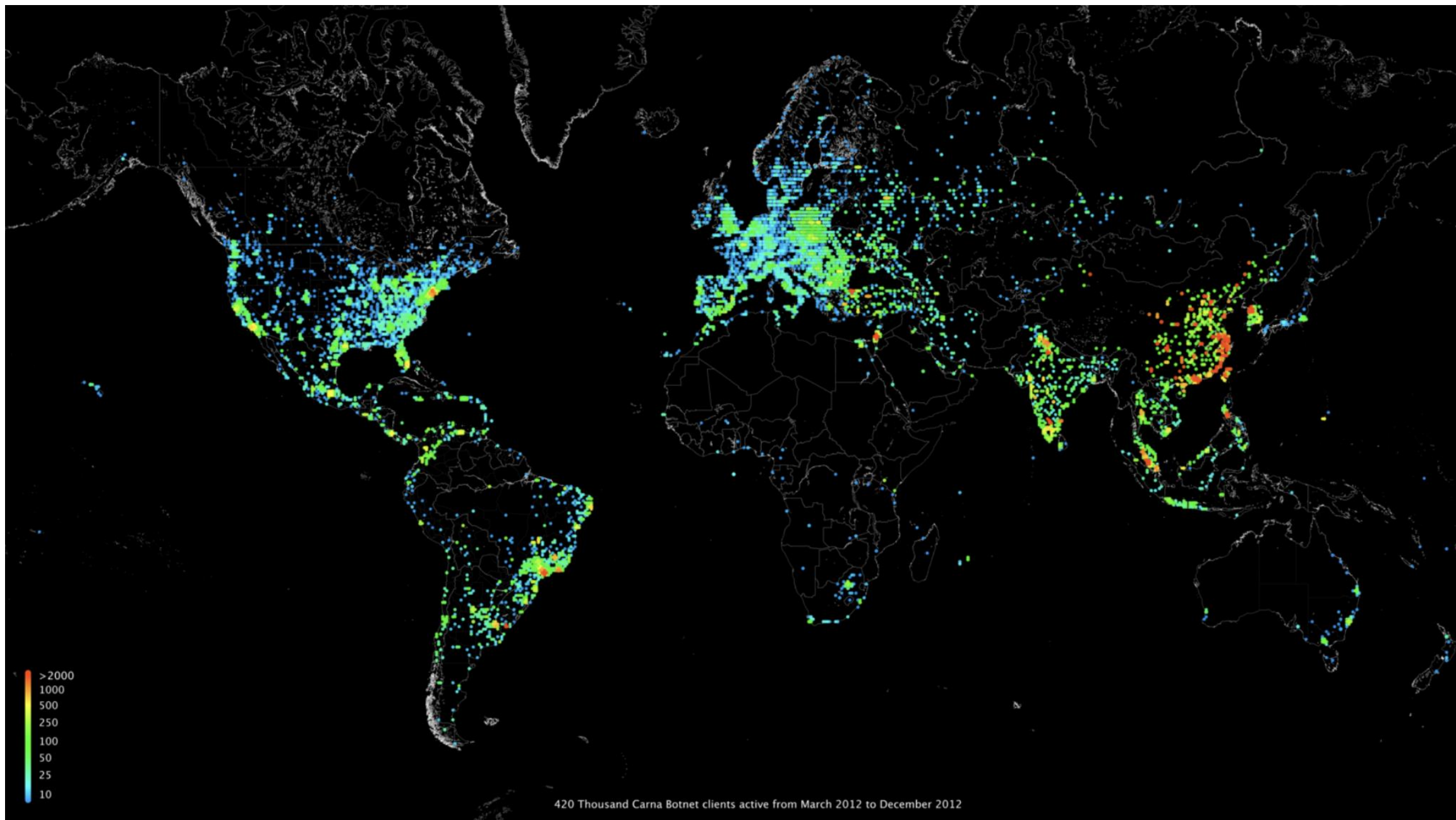
The study

- All Facebook users who spoke English qualified
- Two groups: positive and negative emotions
- Positive/negative posts were then suppressed from the news feed
- 689,003 participants randomly selected by user id
- Saw an impact
 - When positive posts withheld the participant's posts got more negative
 - When negative posts withheld the participants posts got more positive
 - Withdrawal effect: people who saw less emotion posts less likely to express themselves for several days

Mapping the Internet

Someone made the most detailed map of the internet ever by hacking into just under half a million computers

<https://www.vice.com/en/article/this-is-most-detailed-picture-internet-ever/>



Activity

- Do these two studies fit the requirements of the ethical principles from the Menlo report?
- Why/why not? What could make these studies more ethical?

Ethical Principles:

- Respect for persons
- Beneficence
- Justice
- Respect for law and public interest

Any questions?