

# About myself

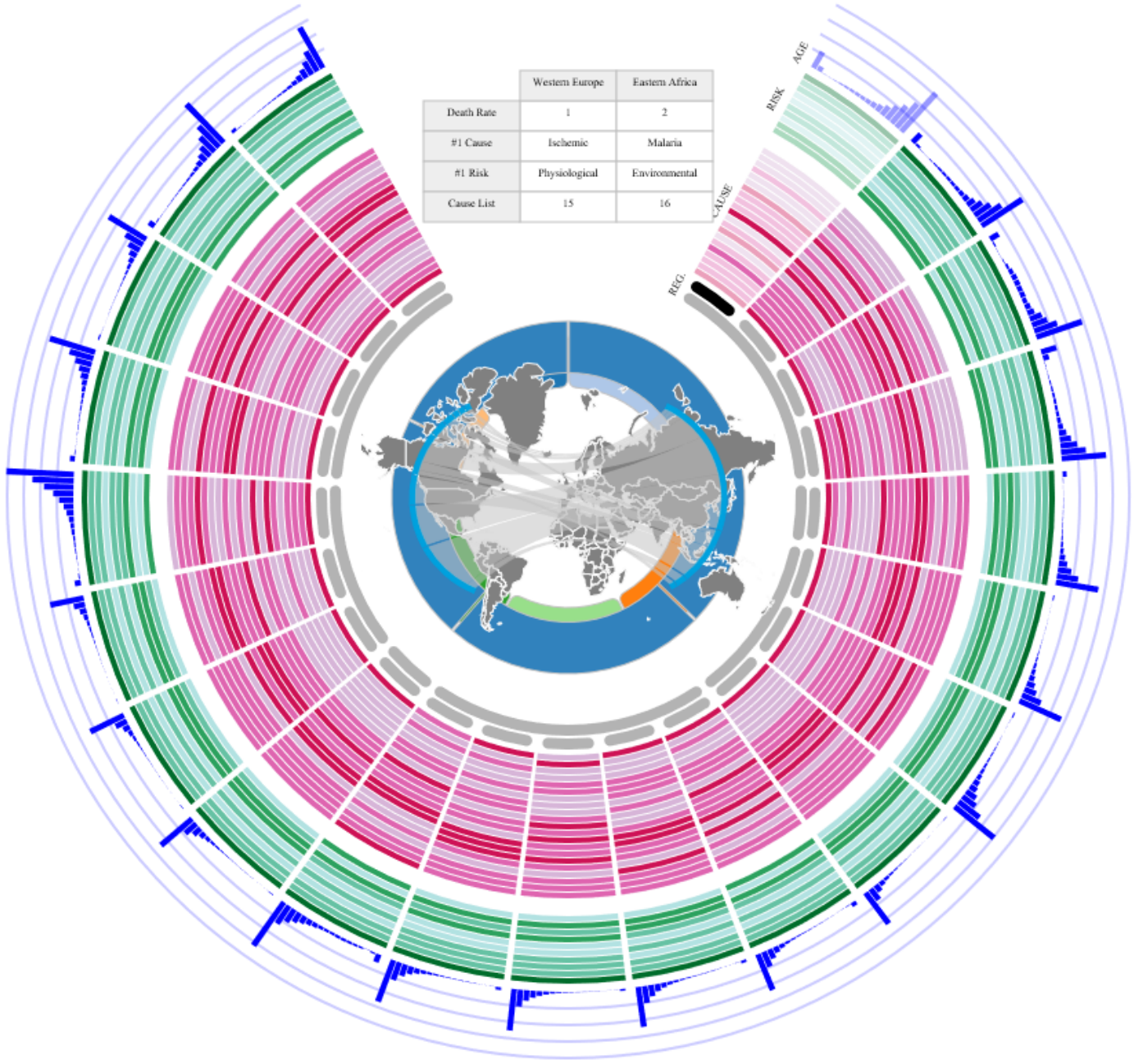
- Kamran Sedig (come-run se-deeg)
  - Joint appointment between Computer Science & Information and Media Studies
- [sedig@uwo.ca](mailto:sedig@uwo.ca)
- MC 420

# My research

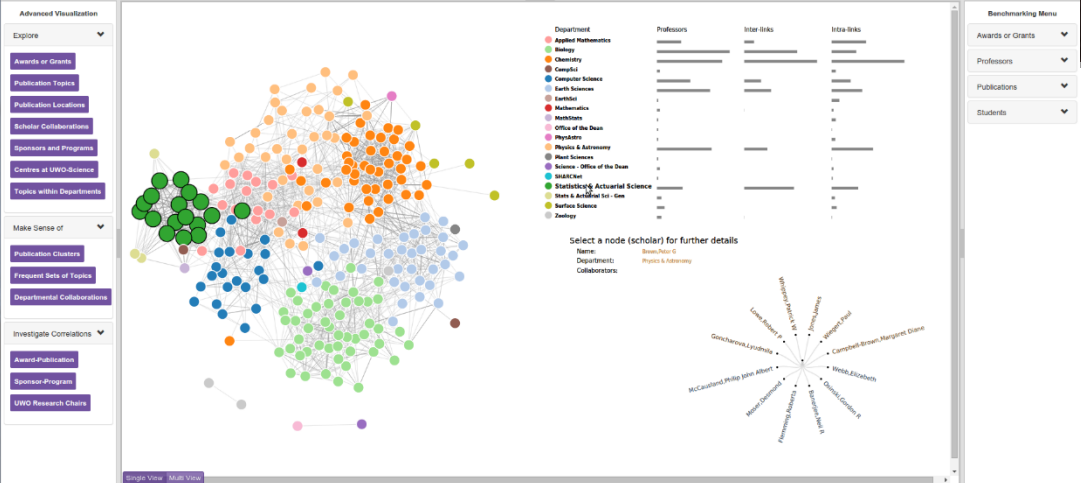
- Interdisciplinary, at the cross-roads of
  - Human-centered computing
  - Information & data science
  - Cognitive science
  - Systems theory
  - Design (interaction, visualization, cognitive, game, motivation)
- Investigate how to
  - Design of interactive software tools that support data-intensive complex human tasks
    - Data analysis & interpretation, investigation, problem solving, planning, decision making, ...

# Sub areas and applications of my research

- Design of interactive visualization tools
  - Data/information visualization
  - Data and visual analytics
- Data-driven complex activities
  - Health & medical informatics
  - Decision-support tools
  - Design of cognitive games
  - Interactive reasoning
- Interface design
- Information artifacts and tools
- ...



	Western Europe	Eastern Africa
Death Rate	1	2
#1 Cause	Ischemic	Malaria
#1 Risk	Physiological	Environmental
Cause List	15	16



Filters

Change in Setting Policy

Keep Re-render

Visual Settings

Ring Scale

1

0-Weight Groups

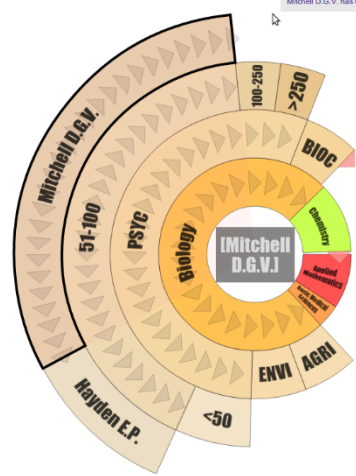
Show No Show

Ring Diameter

750

Visible Groups

Single View Multi View



Benchmarking Menu

- Awards or Grants
- Professors
- Publications
- Students

## Phenotype Terms

### Increased circulating renin level

- 56409  Increased
- 5634  circulating
- 2928  level
- 1679  Increased+level
- 1389  circulating+level
- 1286  renin
- 962  circulating+renin
- 962  renin+level
- 962  circulating+renin+level
- 732  Increased+circulating
- 724  Increased+circulating+level
- 530  Increased+renin
- 524  Increased+circulating+renin
- 524  Increased+renin+level
- 524  Increased+circulating+renin+level

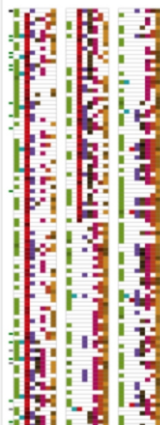
### Hypertension

- 231892  Hypertension

### Elevated mean arterial pressure

- 109729  arterial
- 18591  Elevated
- 14057  pressure
- 1187  Elevated+arterial
- 763  Elevated+pressure
- 410  mean
- 404  arterial+pressure
- 365  Elevated+arterial+pressure
- 97  mean+arterial
- 80  mean+pressure
- 80  Elevated+mean+pressure
- 80  Elevated+mean+arterial
- 80  Elevated+mean
- 80  mean+arterial+pressure

## Metadata



Add to Selected Articles

Journal Title	Abstract MeSH	Term		
0	0	0	1	increased
0	0	0	0	circulating
1	0	0	2	renin
0	0	0	0	level
0	0	0	0	hypertension
0	0	0	0	elevated
0	0	0	1	arterial
0	0	1	1	pressure

Mechanism of inhibition of renin release by clonidine in rats.  
European journal of pharmacology  
1978

MeSH Terms: Animals, Blood Pressure, Clonidine, Magna, Clonidine, Injections, Intravenous, Male, Naphazoline, Rats

## Abstracts



Open Side Browser

Role of the renin-angiotensin system during alterations of sodium intake in conscious mice.

American journal of physiology. Regulatory, int...  
2001

The present studies were performed to quantify circulating components of the renin-angiotensin-aldosterone axis and to determine the functional importance of this system during alterations in sodium intake in conscious mice. Increasing sodium intake from approximately 200 to 1,000 microeq/day significantly decreased plasma renin concentration from 472 +/- 96 to 304 +/- 83 ng ANG I. ml(-1). h(-1) (n = 5) but did not alter plasma renin activity from the low-sodium level of 7.7 +/- 1.1 ng ANG I. ml(-1). h(-1). Despite the elevated plasma renin concentration, plasma ANG II in mice on low-sodium level averaged 14 +/- 3 pg/ml and was significantly suppressed to 6 +/- 1 pg/ml by high-sodium intake (n = 7). Consistent with the modulation of ANG II, plasma aldosterone significantly decreased from 41 +/- 8 to 8 +/- 3 ng/dl when sodium intake was elevated (n = 5). In a final set of experiments, the continuous infusion of ANG II (20 ng. kg(-1). min(-1)) led to a mild salt-sensitive increase in mean arterial pressure from 108 +/- 2 to 131 +/- 2 mmHg as sodium intake was varied from low to high (n = 7). In vehicle-infused mice, mean arterial pressure was unaltered from 109 +/- 2 mmHg when

## Selected Article

Open in New Browser Tab

NCBI Resources How To

PubMed.gov PubMed

US National Library of Medicine National Institutes of Health Advanced

Format: Abstract

Am J Physiol Regul Integr Comp Physiol. 2001 Sep;281(3):R987-93.

**Role of the renin-angiotensin system during alterations of sodium intake in conscious mice.**

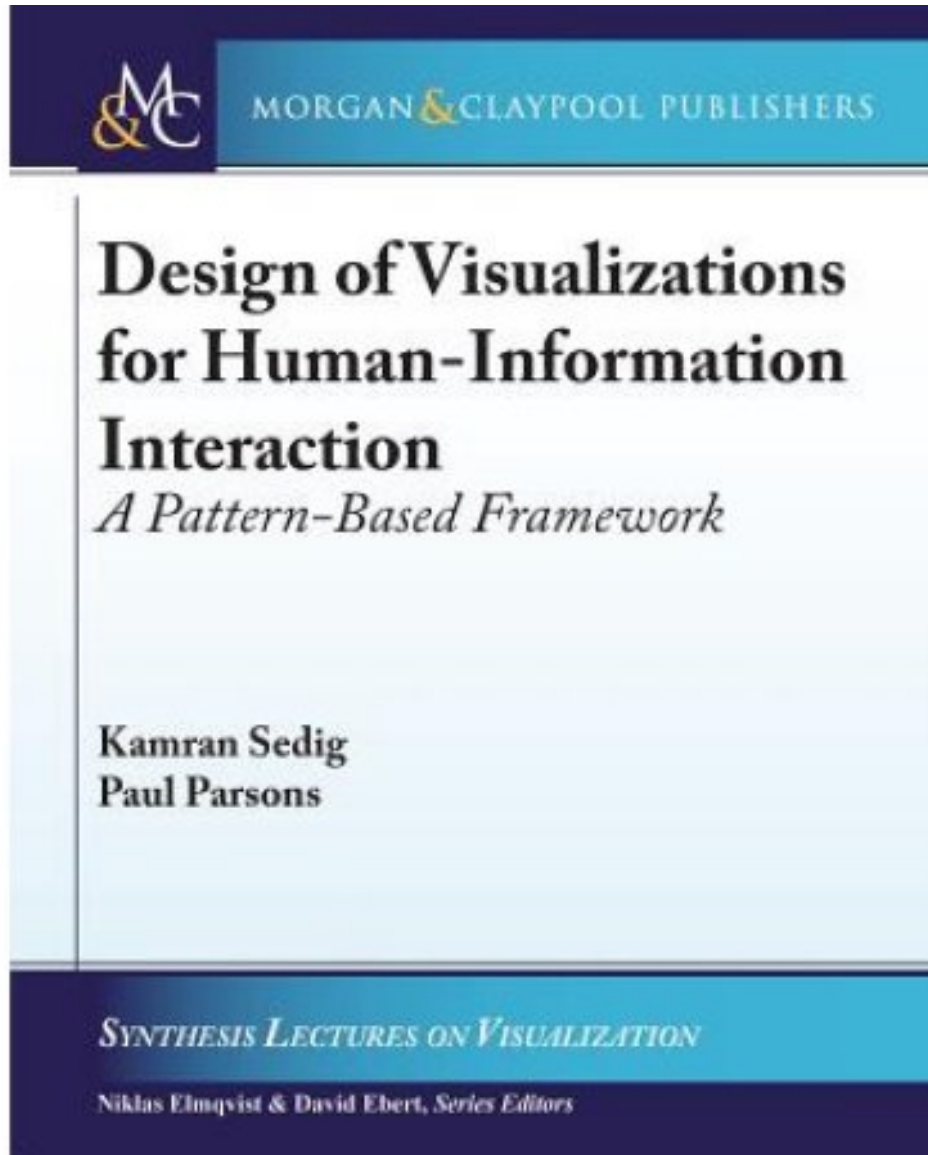
Cholewa BC<sup>1</sup>, Mattson DL.

Author information

**Abstract**

The present studies were performed to quantify circulating components of the renin-angiotensin-aldosterone axis and to determine the functional importance of this system alterations in sodium intake in conscious mice. Increasing sodium intake from approximately 200 to 1,000 microeq/day significantly decreased plasma renin concentration from 472 to 304 +/- 83 ng ANG I. ml(-1). h(-1) (n = 5) but did not alter plasma renin activity from 1

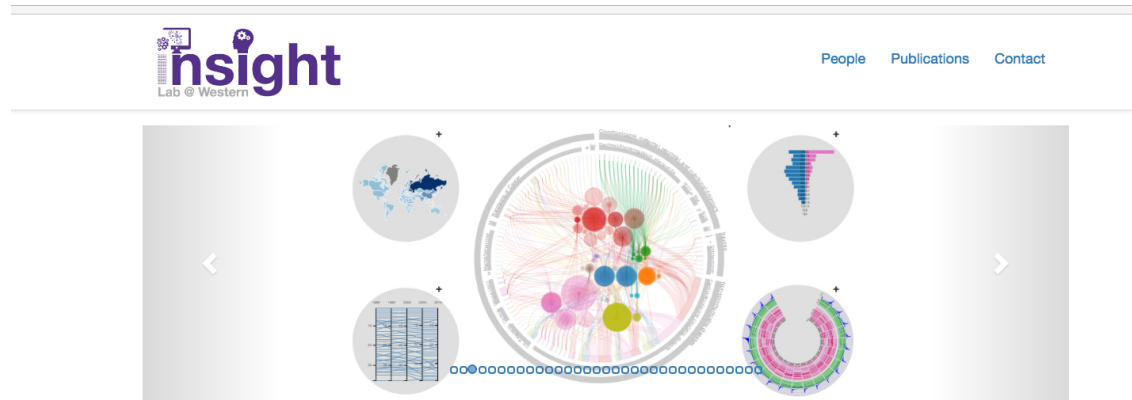
# Recently published book



# My research

- Visit our research lab:

[insight.uwo.ca](http://insight.uwo.ca)



## Welcome to the Insight Lab @ Western University

The Insight Lab at Western conducts research at the intersection of human-information interaction, visualization and visual interface design, human-centered informatics, human cognition, and human-computer systems. We investigate how to design interactive technologies to better support humans in their execution of data-intensive and/or information-based tasks and activities. We also investigate the effects of design decisions on users. Our research has applications in the areas of health and medical informatics, visual analytics, decision support systems, cognitive and learning technologies, digital games for the mind, digital humanities, and social networks, to name a few. Please take a look at our publications to get more information.

### Research Keywords

- ⊙ human-data interaction
- ⊙ high-interaction information interfaces
- ⊙ interactivity measures of data
- ⊙ interaction design
- ⊙ cognitive gameplay
- ⊙ cognitive activity support tools
- ⊙ data-intensive activity and task design
- ⊙ design thinking
- ⊙ visual analytics
- ⊙ information visualization
- ⊙ interactivity design for cognitive coupling
- ⊙ learning
- ⊙ design of cognitive games
- ⊙ problem solving
- ⊙ knowledge work
- ⊙ interactivity design models and frameworks
- ⊙ human-centered informatics
- ⊙ interactive reasoning with data
- ⊙ interface design and evaluation
- ⊙ decision support systems
- ⊙ interactive techniques
- ⊙ interactive visualizations
- ⊙ joint human-computer systems
- ⊙ information tools for complex cognitive tasks
- ⊙ human-computer interaction in visualization
- ⊙ mental models and maps of visual data
- ⊙ navigation design
- ⊙ reasoning with visual information
- ⊙ data artifacts
- ⊙ data analytics
- ⊙ information interfaces and presentations
- ⊙ distributed cognition



# Graduate students (14)

- 6 PhD in Computer Science (2 with Dr. Lizotte)
- 5 MSc in Computer Science (2 with Dr. Haque, 1 with Dr. Lizotte)
- 2 PhD in Information Science
- 1 PhD in Health Information Science
- Areas:
  - Visual analytics; medical visual analytics; role of information & cognition in evidence-based medicine; visual document search and triaging; public health; ...

# Fall 2018 (CS 9855a)

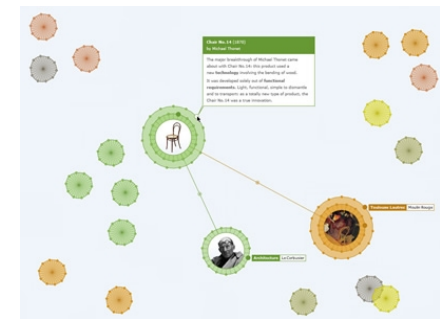
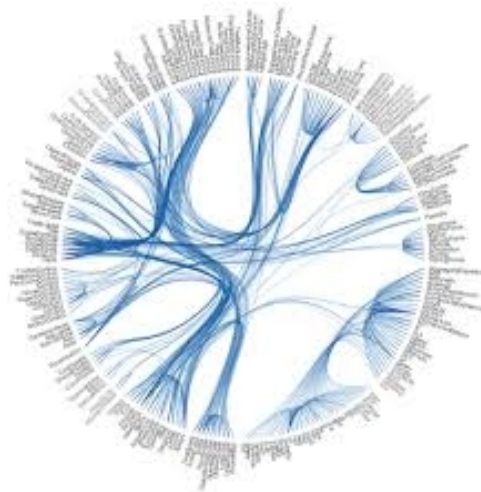
- Topics in health informatics
  - will examine topics related to health informatics— with particular emphasis on health informatics tools, big data in healthcare, presentation of health data, analytics methods and their role in healthcare, and design of health informatics tools
  - cross-listed (CS & Information Science & Health Information Science)
- Mondays, 9-12 (Rm. MC 316)
  - Start date: September 10 (be on time)

# Evaluation scheme for CS 9855a

- 1. Paper summaries (9) – 18%
- 2. Paper discussion facilitation (2) – 24%
- 3. HI tool presentation – 12%
- 4. Research report -- 16%
- 5. Participation in class discussions – 30%

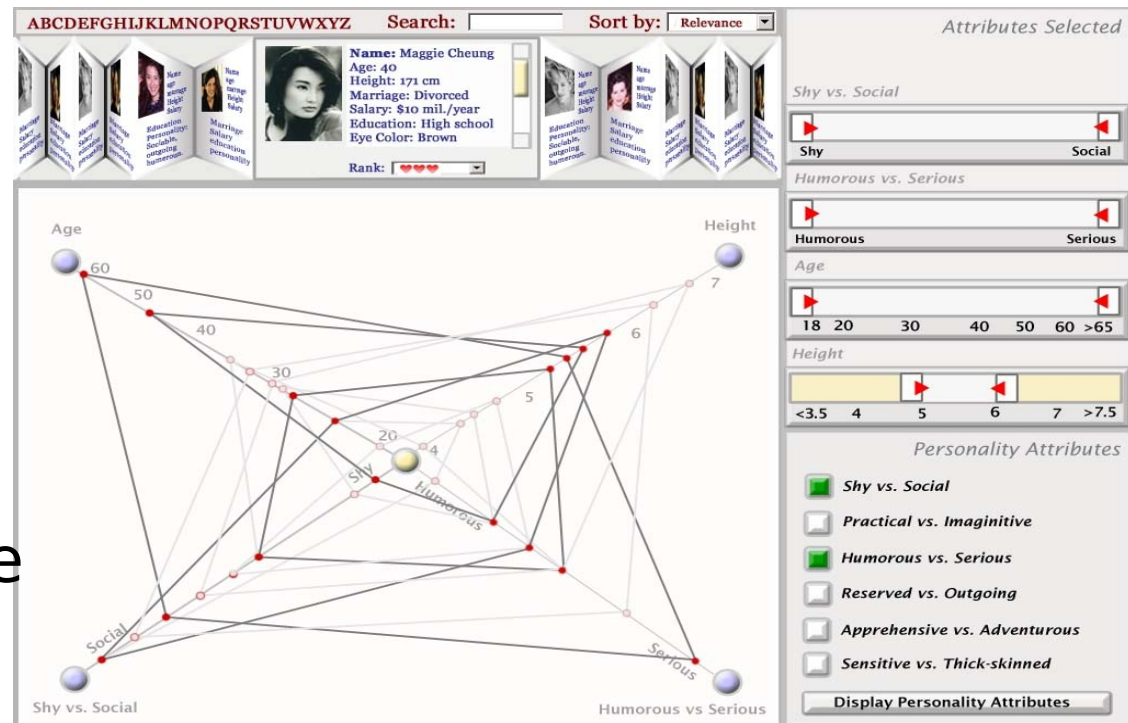
# (9639B)

- 1 cross-listed course (CS & Library & Information Science)
- Mondays, 9-12



# W2019 Human-Computer Interaction (9521B)

- Conceptualization, design, and evaluation of computational tools that support and facilitate human activities



Dating software

# Winter courses

- Evaluation for CS9639b & CS9521b will be decided later on