

# Socially Influencing Systems (SIS) for Improved Urban Mobility

IAP 2015 Non-Credit Course (E15-359, MIT Media Lab)

## Instructors

*Dr. Agnis Stibe* – Postdoctoral Associate at MIT Media Lab: City Science Initiative

*Emily G. Martin* – Assistant at MIT Education Arcade

## Guest Instructors

- *Nicole Freedman* – MIT Road Cycling Coach and Director of Boston Bikes
- *Scot Osterweil* – Game Designer and Creative Director at MIT Education Arcade
- *Jinhua Zhao* – PhD, Edward H. and Joyce Linde Assistant Professor, DUSP at MIT
- *Dr. Sebastian Deterding* – Assistant Professor, Game Design, Northeastern University
- *y.t.* – SCUL Controller and Project Manager at MIT Education Arcade

## Course Description

Do I want to shape my behavior? Or influence behaviors or other people?

Have you ever thought of *changing something in your behavior* or *influencing what others think or do*? Has your experience been successful so far? If you'd like to have more success, then you are welcome to take this course to practice and learn about shaping human behaviors.

This highly interactive course combines an extensive body of knowledge from *social psychology* – focusing on *social influence*, *behavioral change*, *persuasion*, and hands-on development of socially influencing systems for *urban mobility* in modern cities.

The course explains the role of *persuasive technologies* and their applications to various problem domains, such as mobility, health and wellbeing, energy conservation and efficiency, safety, education, etc. Each session will delve into practical design issues through interactive presentations and collaborative work. The course will address the following questions:

- How can I *design technologies* to influence what people think and do?
- How can people be *persuaded to increase their bicycling behavior*?
- What kind of socially influencing systems has greater potential to *shift people's attitudes and behavior*?
- How can these systems *improve city living* and other aspects of modern times?

**Schedule** – Jan 21 (9am-12pm), Jan 23 (9am-12pm), Jan 28 (9am-12pm), Jan 30 (9am-12pm)

**Location** – E15-359, MIT Media Lab

**Syllabus** – <http://bit.ly/SISyllabus>

**Website** – <http://cp.media.mit.edu/workshops>

**MIT IAP** – <http://student.mit.edu/searchiap/iap-9289af8d4a4dbcf9014a5957ad270171.html>

**Enrollment** – Advance sign-up required *by Jan 16, 2015*. Class size limited to *20 participants*.

**Prerequisites** – Permission of instructor

**Attendance** – Participants welcome at individual sessions

**Sponsors** – Media Arts and Sciences, City Science Initiative

**Contact** – *Agnis Stibe*, E15-368, [agnis@mit.edu](mailto:agnis@mit.edu)

**Register** – <http://bit.ly/SociallyIS>

## Course Sessions

### (1) Introduction to Socially Influencing Systems (SIS), Persuasive Technology, Behavior Change, and Gamification Concepts (Jan 21)

This session will introduce the main goals of the course and provide an in-depth understanding of the key concepts related to socially influencing systems, persuasive technologies, behavior change, and gamification.

Q: How can I *design technologies* to influence what people think and do?

A hands-on part will focus on applying these concepts to tackle some of the major issues in urban mobility.

Speakers: *Agnis Stibe, Scot Osterweil, Emily G. Martin*

### (2) Persuasive Urban Mobility (Jan 23)

This session will focus on diving into urban mobility issues and discussing persuasive strategies for motivating different groups of people to change their mobility patterns in cities from using high to low energy transportation modes, such as bicycles, in particular.

Q: How can people be *persuaded to increase their bicycling behavior*?

An activity in groups will be aimed at designing effective persuasive strategies for frequent biking.

Speakers: *Nicole Freedman, Agnis Stibe, y.t., Emily G. Martin*

### (3) Prototyping Socially Influencing Systems (SIS) for Improved Urban Mobility (Jan 28)

This session will concentrate on reviewing the existing solutions for motivating low-energy mobility and building prototypes of new SIS for sustainable urban mobility, including the assessment of their effectiveness and future applicability.

Q: What kind of socially influencing systems has greater potential to *shift people's attitudes and behavior*?

A collaborative project will be arranged around developing actionable prototypes of SIS for improved urban mobility.

Speakers: *Agnis Stibe, Emily G. Martin, Jinhua Zhao*

### (4) Future of Socially Influencing Systems (SIS) and their Role in Shaping Cities (Jan 30)

This session will envision the future of SIS and how they can be helpful in transforming various aspects of cities and societies in the future.

Q: How can SIS *improve city living* and other aspects of modern times?

A brainstorming session will be set around the future of SIS and benefits they can bring to cities and mankind in general.

Speakers: *Sebastian Deterding, Agnis Stibe, Emily G. Martin*

# Socially Influencing Systems (SIS) for Improved Urban Mobility

IAP 2015 Non-Credit Course Schedule (E15-359, MIT Media Lab)

## Wednesday, January 21<sup>st</sup>

- 09:00 Introduction and course logistics
- 09:15 “Why *Behavior Change* Matters?” – *Agnis Stibe*
- 09:30 “Defining *Socially Influencing Systems (SIS)*” – *Agnis Stibe*
- 10:00 Break
- 10:15 “What does it Mean to Become a *Bicycle Commuter?*” – *Scot Osterweil*
- 10:45 “Main *Obstacles* for People to Start *Bicycling* in Cities” – *Emily G. Martin*
- 11:15 Overcoming barriers in urban bicycling – Interactive Class Discussion
- 11:45 Wrap-up
- 12:00 Closing

## Friday, January 23<sup>rd</sup>

- 09:00 “Bicycling in the City of *Boston*” – *Nicole Freedman*
- 09:30 “*Persuasive Technology* and *Persuasive Design Principles*” – *Agnis Stibe*
- 10:00 Break
- 10:15 “How the *SCUL Game Structure* Affects *Bicycle Riders?*” – *y.t.*
- 10:45 “*Bicycling Advantages* and *Benefits*” – *Emily G. Martin*
- 11:15 Designing persuasive strategies for frequent bicycling – Interactive Class Exercise
- 11:45 Wrap-up
- 12:00 Closing

## Wednesday, January 28<sup>th</sup>

- 09:00 “Computer Mediated / *Moderated Persuasion*” – *Agnis Stibe*
- 09:30 “Reviewing Present Solution for *Low-Energy Mobility*” – *Agnis Stibe, Emily G. Martin*
- 10:00 Break
- 10:15 Developing actionable prototypes for improved urban mobility – Hands-on Exercise
- 11:00 “Nudging People towards more *Sustainable Travel Behavior*” – *Jinhua Zhao*
- 11:40 Wrap-up
- 12:00 Closing

## Friday, January 30<sup>th</sup>

- 09:00 “Focusing the *Blind Spots* of *Persuasive Design*” – *Sebastian Deterding*
- 10:00 Break
- 10:15 “*Problem Domains* for *Persuasive Applications*” – *Agnis Stibe*
- 11:00 Future of SIS and their benefits for cities – Interactive Class Brainstorming
- 11:45 Wrap-up
- 12:00 Closing

## References

Stibe A (2014) “*Socially Influencing Systems: Persuading People to Engage with Publicly Displayed Twitter-based Systems.*” Free download: <http://bit.ly/socinfsys>

Fogg BJ (2003) “*Persuasive Technology: Using Computers To Change What We Think And Do.*” Morgan Kaufmann, San Francisco, CA. <http://www.persuasivetechology.com/>