**Persuasive Urban Systems**

**Healthy and Sustainable Routines (MAS.S60) Fall 2015**

**Instructors** – Agnis Stibe, Naia Favre  
**Advisors** – Kent Larson, Rosalind Picard, Ryan Chin, Kevin Slavin

**Class Description** — We all live and work in an urban environment. Oftentimes, we are not aware of how hugely our behavior is influenced by the environment. For example, if stairs are inconveniently located, we take an elevator. If bicycle lanes are dangerous, we prefer to drive a car. Future cities will alter human behavior in countless ways. Persuasive urban systems will play an important role in making cities more livable and resource efficient by addressing current environmental problems and enabling healthier routines.

In this course, we will work on reshaping our current environments and designing future spaces to help people become healthier and to acquire sustainable lifestyles. We will explore how good urban design might be combined with socially influencing systems to encourage healthy behaviors (such as walking, bicycling, stair-use) at scale. We will study how quality of life and the health of the individual and communities might be improved through the creation of persuasive cities, streets, buildings, homes, and vehicles.

**Contact** — agnis@mit.edu  
**Website** — hcss.media.mit.edu  
**Class Days** – Tuesday, 4-5:30pm (E14-633), Thursday 2-3:30pm (E15-359) – First Class September 10th
Expectations

• Knowledge & Tools for Behavior Change
  • Persuasion
  • Social Influence

• Materialize Ideas
  • Specific Contexts
  • Publish Research

• Engage & Fun
Class 2

• Examples of Demos
• Schools of Behavior Change
• Presentations of Student Projects Idea(s)
• Forming Pairs for Student Projects
• Assignment 2
• COUHES Presentation
Student Projects

• Demo
  • Computer Animation
  • Video
  • Animated Visuals
  • Combination of All the Above

• User Study
  • Recruit Participants
  • Let Them Experience Your Demo
  • Questionnaire / Semi-Structured Interview
Student Projects

- Examples
Persuasive Electric Vehicle (PEV)

Ryan Chin, Michael Lin, Sandra Richter
Spike is a social biking application.
Starting in summer 2015

BIKING TOURNEY
Class 2

- Examples of **Demos**
- **Schools of Behavior Change**
- Presentations of **Student Projects** Idea(s)
- **Forming Pairs** for Student Projects
- Assignment 2

- **COUHES** Presentation
ALBERT BANDURA

Cognitive Behaviorism
Personality is determined by three things: the environment, behavior, and a person’s psychological processes
Albert Bandura’s theory

Behaviour

Personal factors
(Cognitive, affective, & biological events)

Environmental factors
Bandura’s social cognitive theory emphasizes reciprocal influences of behavior, environment, and person/cognitive factors.
Cognitive Factors
(also called "Personal Factors")
- Knowledge
- Expectations
- Attitudes

Determines Human Behavior

Environmental Factors
- Social Norms
- Access in Community
- Influence on Others
  (ability to change own environment)

Behavioral Factors
- Skills
- Practice
- Self-efficacy
The interaction between the person and their environment involves beliefs and cognitive competencies developed and modified by social influences.

The interaction between the person and their behaviour is influenced by their thoughts and actions.

The interaction between the environment and their behaviour involves the person's behaviour determining their environment, which in turn, affects their behaviour.
Persuasion:
The act of influencing an audience.
An act of power.
Aristotle's Model of Communication
from Ehninger, Gronbeck and Monroe

A Speaker . . .

discovers rational (logos), emotional (pathos) and ethical (ethos) proofs (pistis),

arranges those proofs strategically,

clothes the ideas in clear and compelling words

delivers the product appropriately

Invention  Arrangement  Style  Delivery
persuade
/pərˈswəd/

Verb
1. Cause (someone) to do something through reasoning or argument.
2. Cause (someone) to believe something, esp. after a sustained effort; convince.

Synonyms
convinced - induce - coax - prevail - argue
ELABORATION
LIKELIHOOD MODEL

Of Richard Petty and John Cacioppo
**Elaboration Likelihood Model**

*Petty & Cacioppo*

- **Central Route**
  - Communication
  - Attention & Comprehension
  - High-Involvement Processing
  - Cognitive Response
  - Belief & Attitude Change
  - Behaviour Change

- **Peripheral Route**
  - Communication
  - Attention & Comprehension
  - Low-Involvement Processing
  - Belief Change
  - Behaviour Change
  - Attitude Change
NORMALLY

Have you thought about purchasing a complementary retirement plan?

Not interested.

VINHLY

I’m just here to help you define your retirement strategy...

I never really thought about it!

www.vinh.ly
NORMALLY

What’s so great about this washing machine?

The E5-98 has 236 rpm and needs 12% less detergent per liter. It’s a steal for 497 dollars...

In order to compare I would need to know how your competitors are positioned and the corresponding prices...

Vinhly

What’s so great about this washing machine?

This beautiful device will make your life easier. You and your wife will fight over who gets to do the laundry!

Ha ha... True. I’m happily married with children. There must be a lot of laundry!
NORMALLY

Sorry, corporate policy does not allow returns

What?

I haven’t touched this @#$%. You should give me my money back!

Sorry, corporate policy does not allow returns

grrrrrr

VINHLY

Sorry, corporate policy does not allow returns

Ohh?

I understand there’s a policy, but I’m sure the king of customer support can do something...

...I guess I can give you a credit note for the next purchase...

Yipeeee!
Social Influence

The study of how thoughts, feelings and behaviour of individuals are influenced by the actual, imagined or implied presence of others.
SOCIAL INFLUENCE

DEFINITION:
Social influence is the process by which one’s thought and actions are affected by others.

EXAMPLE:
Roy is influenced by his friends when they invite him to smoke with them.
SOCIALLY INFLUENCING SYSTEMS
Class 2

- Examples of **Demos**
- Schools of **Behavior Change**
- Presentations of **Student Projects** Idea(s)
- **Forming Pairs** for Student Projects
- Assignment 2
- **COUHES** Presentation
Assignment 2 – Part 1

• Forming Pairs

• **Defining Project** to Present in Class 3 (Sep 24)

• Include in the Presentation:
  • Relevant *Literature*
  • Previous *Studies*
  • Examples

• Upload Presentations to **Stellar** (due Sep 22)
Assignment 2 – Part 2

- **Readings**
  - Persuasive Technology – Intro & Chapters 1-2

- **Twitter posts (#hbcps)**
  - Socially Influencing Systems
  - Computer-Supported Influence
  - Persuasive Technology – Intro & Chapters 1-2