



Sustainable Mobility

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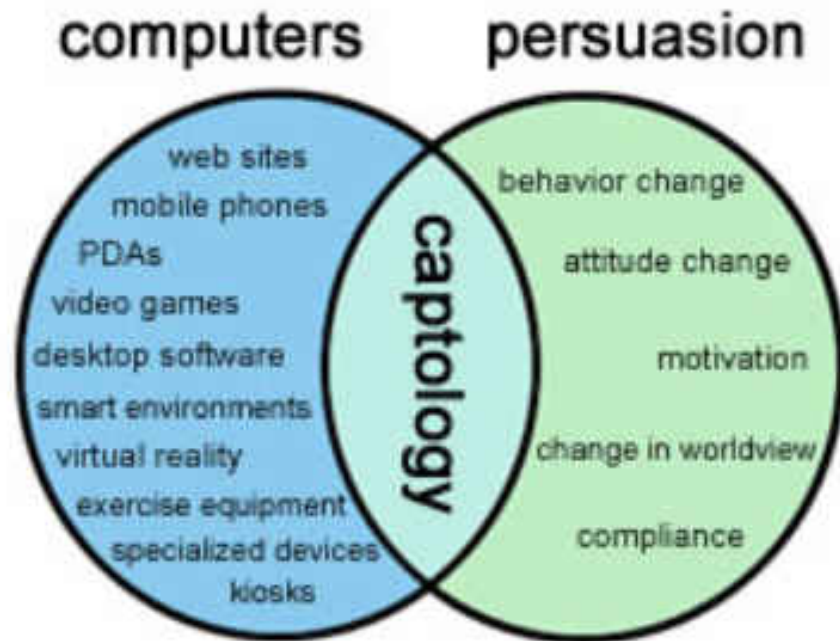
Goal

- Encourage people to increase their use of sustainable mobility options:
 - Walking, cycling
 - Bus, train, car pools
 - Electrical cars



Means

- Persuasive technology
- Serious games
- Gamification





Persuasive Technology

- Tool: Make it easier for a person to perform a target behavior (e.g., help track information)
- Media: Use interactivity or narrative to support practicing a behavior or to persuade (e.g., game or simulation)
- Social actor: Cue social responses (e.g., conversational agents)

Serious Game

- Work (or other) simulation
- Exergame (e.g., Wii sports)
- Physical rehabilitation games
- Game-based learning
- Human-based computation game (e.g., ESP)



Building a Game

- Come up with an idea
- Test it over and over on paper
- Start specifying details (see next slide)
- Iterate until the idea is good enough to be implemented

- *Art of Game Design Deck* app on Android



What to Think of When Building a Game

- What is the goal of your game?
- What are the rules?
- What are the conflicts?
- What are the challenges?
- How do you finish the game? How do you win? How do you lose?

Gamification



- Applying game-like elements to encourage certain behaviors or participation
 - Rewards like badges or points (real or virtual)
 - Tracking success through leaderboards
- The fun is not in the badges, it is in the behavior the badges are rewarding (Deterding)

Motivation

- Extrinsic versus intrinsic motivation
- Your ideal goal: create intrinsic motivation

	Personal	Interpersonal
Intrinsic	Personal Satisfaction	Social Interaction
Extrinsic	Personal Rewards	Public Recognition

Ethical Considerations

- Don't force people to do anything
- Respect people's privacy
- How are you using people's personal data (who can access it, what happens when the person stops playing, etc.)
- Don't be evil!



Initial Considerations

- Who are your users?
- What behavior(s) do you want to encourage/discourage?
- What technique will you use?

Deliverables

- Week 2: Initial Data Analysis Report
 - Review SmartCampus travel app
 - Specify your target population
 - Specify the issue(s) you will tackle and how
 - Justify your decisions

Deliverables

- Week 6: Initial Design Phase Report
 - Initial prototypes with justification
 - User evaluation (at least 3 users per group member)

Deliverables

- Week 9: Final Report
 - Summarize work done
 - Hi-fi prototype OR implemented system
 - Final user evaluation (at least 3 users per group member)
 - Critical reflection

QUESTIONS?