

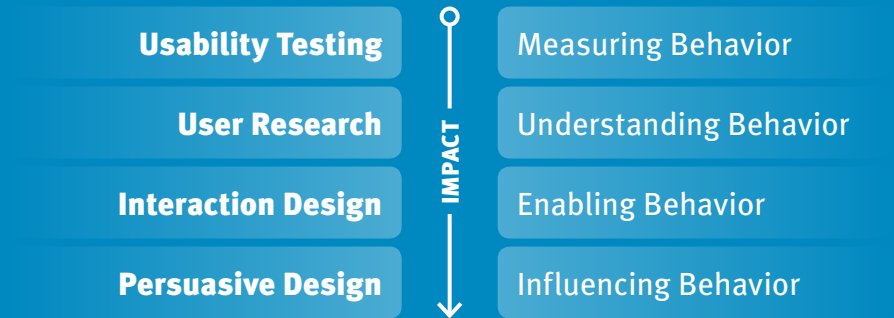
# PIXD

## Persuasive Interaction Design

## BACKGROUND

Persuasive Interaction Design is the process of creating persuasive technology, or "technology that is designed to change attitudes or behaviors of users through persuasion and social influence, but not through coercion."<sup>1</sup> In other words, it is the use of psychology in design to influence behavior.

Over the last two decades, one can clearly observe a trend towards deeper meanings and impacts within the broader field of user experience.<sup>2</sup>



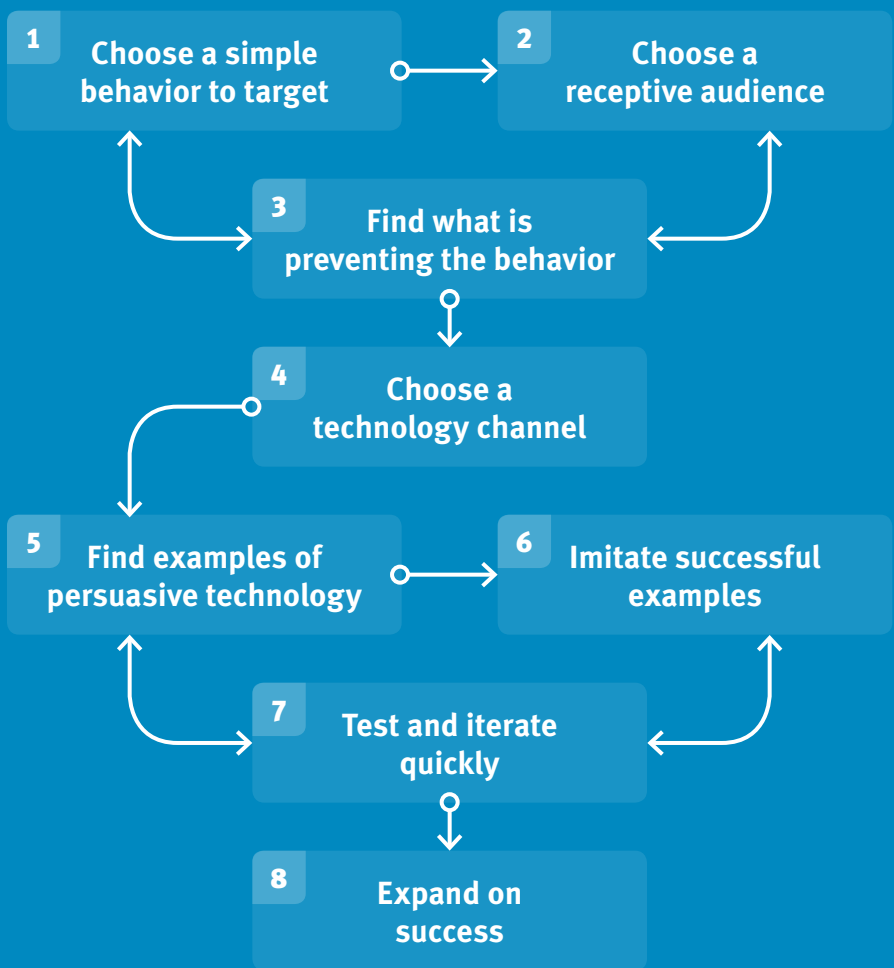
This poster should help practitioners to get a better grasp of what is going on in their discipline if not help them to figure out what is still missing in order to develop better design practices.

## FRAMEWORKS

### Influence Analysis



### Early Stage Persuasive Design



## CAUTION

### Ethical Considerations

With power comes responsibility. It cannot be understated how important it is to consider if and when it is okay to change or influence someone's behavior. At this point, it seems as if the UX community is still searching for a shared ethical framework though. Consequently, we can only ask practitioners to act and design wisely.

Unfortunately, this happens during a time when large corporations are already practicing persuasion to sell candy, cigarettes, fast food and other questionable items.

Stephen Anderson from UX Magazine writes that if he's asked when is it okay (or not okay) to influence someone's behavior that his simple response is: don't take on projects that you wouldn't personally use yourself or recommend to your friends and family.<sup>3</sup>

## IIT Institute of Design

This map was developed by **Boris Galesler** at the IIT Institute of Design, supervised by professor **Tom MacTavish** in the Spring of 2013. © 2013 IIT Institute of Design.

1. Fogg, B. J. (2003). Persuasive Technology: Using Computers to Change What We Think and Do. Morgan Kaufmann
2. Baxter, Lauren (2013). Why Persuasive Design Should Be Your Next Skill Set. UX Magazine. goo.gl/09Uig
3. Anderson, Stephen (2011). Towards an Ethics of Persuasion. UX Magazine. goo.gl/Ggiejo
4. Oinas-Kukkonen, Harri (2010). Requirements for Measuring the Success of Persuasive Technology Applications.
5. Fogg, B. J. (2003). B J Fogg's Behavior Model. behaviormodel.org
6. Self-Determination Theory (2013). goo.gl/vnKvm
7. Pink, Daniel (2011). The Surprising Truth About What Motivates Us. Riverhead Press
8. Deci, Edward & Ryan, Richard (2004). Handbook of Self-Determination Research (Overview of Self-Determination Theory). University Rochester Press.
9. Oinas-Kukkonen, Harri (2010). Behavior Change Support Systems: The Next Frontier for Web Science.
10. Shirky, Clay (2010). Cognitive Surplus, Creativity and Generosity in a Connected Age. Penguin Group.
11. Preece, Jennifer & Shneiderman, Ben (2009). The Reader-to-Leader Framework: Motivating Technology-Mediated Social Participation. goo.gl/j070w

## ANALYZE & STRATEGIZE

### BEHAVIOR MODELS

#### Outcome/Change Design Matrix<sup>4</sup>

How to facilitate behavior and attitude?

	Compliance	Behavior	Attitude
Forming	Forming an act of complying	Forming a behavior	Forming an attitude
Altering	Altering an act of complying	Altering a behavior	Altering an attitude
Reinforcing	Reinforcing an act of complying	Reinforcing a behavior	Reinforcing an attitude

#### Fogg Behavior Model<sup>5</sup>



### MOTIVATION

#### Environments

Consider that motivation can happen on distinct levels.

	<b>Global</b>	General environment
	<b>Contextual</b>	Sphere of human activity
	<b>Situational</b>	Specific activity at a particular time

#### Self Determination Theory<sup>6</sup>

"Control leads to compliance, autonomy leads to engagement."

<b>Autonomy</b>	The desire to be self-directed
<b>Competence</b> (Challenge & mastery)	The urge to get better
<b>Relatedness</b>	Sense of larger purpose, connectivity

#### The Self Determination Continuum<sup>8</sup>

	Regulation	Causality locus
<b>Amotivation</b>	None	Impersonal
<b>Extrinsic motivation</b>	External	External
	Introjected	Somewhat external
	Identified	Somewhat internal
	Integrated	Internal
<b>Intrinsic motivation</b>	Intrinsic	Internal

## PERSUADE

### TRADITIONAL PERSUASION METHODS

#### Six Areas of Influence

<b>Reciprocation</b>	People feel obliged to return favours. Even if gifts are unwanted, it will influence the recipient to reciprocate.
<b>Commitment &amp; Consistency</b>	People desire and value consistency in their own and others behavior. Requests can be made that uphold initial commitments.
<b>Social Proof</b>	People consider friends or similar personalities when making decisions, particularly noticeable in situations of uncertainty or ambiguity.
<b>Liking</b>	People are more likely to agree with people they like. Factors that can influence others can be physical, psychological, language-based, or based on social dynamics or roles.
<b>Authority</b>	People tend to automatically respond to commands from authority, even if their instincts suggest the commands shouldn't be followed.
<b>Scarcity</b>	People tend to want things as they become less available. Items are also given a higher value when they become scarce.

#### Credibility

Credibility is a perceived quality that has two dimensions: trustworthiness and expertise.

<b>Perceived Trustworthiness</b>	<ul style="list-style-type: none"><li>• Be fair and without bias</li><li>• Set back own interest</li><li>• Project similarity</li></ul>
<b>Perceived Expertise</b>	<ul style="list-style-type: none"><li>• Project knowledge</li><li>• Project experience</li><li>• Project competence</li></ul>
<b>Perceived Credibility</b>	<ul style="list-style-type: none"><li>• Presumed credibility</li><li>• Surface credibility</li><li>• Reputed credibility</li><li>• Earned credibility</li></ul>

Matters whilst...

Instructing or advising users, reporting measurements, providing information and analysis, reporting on work performed, reporting about own state, running simulations, rendering virtual environments

#### Aristotle's Rhetoric

<b>Ethos</b> Establish credibility/trust	Decorum Virtue Practical wisdom Disinterest
<b>Logos</b> Convey consistency/logic	Deduction Induction Concession Framing Logical fallacies Bad Proof Bad conclusion Rhetorical fouls
<b>Pathos</b> Show emotions/imagination	Sympathy Belief Backfiring Persuasive emotion Figures of speech
<b>Kairos</b> Seize the moment	Persuadable moment Style Delivery

### CAPTOLOGY STRATEGIES

#### Captology<sup>4</sup>

Leverage **endogenous** factors:

- Persistency
- Allowance of anonymity
- Processing power
- Multimodality
- Scalability
- Ubiquity

Persuade on two levels:

1. Macrosuasion
2. Microsuasion

Be aware of exogenous side effects.

#### The Functional Triad<sup>4</sup>

**Tool**  
Increases capabilities

- Reduction
- Tunneling
- Tailoring
- Suggestion
- Self-monitoring
- Surveillance
- Conditioning

**Medium**  
Provides experiences

- Simulated causes and effects
- Simulated environments
- Simulated objects

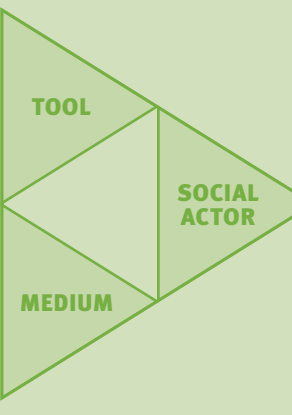
**Social Actor**  
Creates relationships

- Embodied agents

Five types of social cues (handle with care):

1. Physical ..... Principle of attractiveness
2. Psychological ..... Principle of similarity
3. Language ..... Principle of praise
4. Social dynamics ..... Principle of reciprocity
5. Social roles ..... Principle of authority

Persuasion strategies differ depending on the role being played by the computer. Computers can act as a tool, medium, social actor, or a combinations thereof.



#### Persuasive Systems Design Techniques<sup>9</sup>

##### Primary Task

- Tailoring
- Tunneling
- Reduction
- Self-monitoring
- Simulation
- Personalization
- Rehearsal

##### HCI Dialogue

- Praise
- Rewards
- Reminders
- Suggestion
- Liking
- Similarity
- Social Role

##### System Credibility

- Surface credibility
- Authority
- Trustworthiness
- Expertise
- Real world feel
- 3rd party endorsement
- Verifiability

##### Social Influence

- Social learning
- Social comparison
- Social facilitation
- Normative influence
- Recognition
- Cooperation
- Competition

### SOCIAL ENCOURAGEMENT

#### Social Engagement<sup>10</sup>

##### Social Media Categories

- Task sharing
- Experience sharing
- Knowledge sharing
- Creative outlets
- Recognition

Consider the value of sharing itself.

##### The Social Media Value Spectrum

- Personal sharing
- Communal sharing
- Public sharing
- Civic sharing

#### Social Participation<sup>11</sup>

##### Reader

Readers are motivated by:

- Friends, family, respected authorities, advertising
- Repeated visibility in online, print, TV, and other media
- Understandable norms & policies
- Sense of belonging: recognition of familiar people & activities
- Charismatic leaders with visionary goals
- Safety & privacy

Contributors are motivated by:

- Support for legitimate peripheral participation
- Chance to build reputation over time while performing satisfying tasks
- Recognition for the highest quality & quantity of contributions
- Recognition of a person's specific expertise
- Policies & norms for contributions

Collaborators are motivated by:

- Empathy & trust lead to joint projects that aim to produce something larger
- Altruism: desire to support the community, give back, willingness to reciprocate
- Ways to develop a reputation & maintain a certain status within a group
- Respect for status within the community

Leaders are motivated by:

- Leadership is valued and given an honored position
- Respect is offered for helping others & dealing with problems
- Mentors are cultivated & encouraged