PUR – Introductory Lecture

Course introduction

Introduction into Psychology

Psychology and HCI

Timetable & Rules of the game
What to Expect

Selection of topics relevant to UX & HCI across psychology subfields
Practitioner's approach / limited theory
Guidance in practical application of the knowledge gained here
Big Picture

Week of the semester

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**Lecture**

- Introduction
- Applied research methods
  - User Research
- Selected topics in psychology
  - Mostly cognitive
- Exam

**Practice**

- Research Project
- Full-day WS
- CFI
Goals

Creatively use what you have learned and apply it in designing any system involving human

do not expect step-by-step instructions
Goals

Understand the knowledge behind UI design rules, so you apply them wisely

no more sleepless nights when bumping into a problem addressed by two contradictory rules
Goals

Learn how to learn about your users
applied research methods for getting insights into user's needs and preferences

OK, so sometimes she is but let's not get pedantic.
What we're saying is you can't deliver a great user experience if you don't look beyond your own back yard.

Credit: yourmumux.co.uk
Goals – Shifting Mindset

Step 1: Take into account a user of the system
Usually it is a soulful human

Step 2: Get user-centered
Inspire yourself with humans and their actions
Understand the potential and limits of a user

Step 3: Have courage to put it into practice
Theory is not enough
Make it real in your workplace
Often you need start with step 1 with your colleagues
What Is Not a Goal?

Learn all the theory behind
Get a complex cognitive psychology overview

Interested? There is probably a class for you:
*Kognitivní systémy (Mgr. Michal Vavrečka, Ph.D.)*
What Is Not a Goal?

Learn how to design user centered or UX
Get complete set of the design rules

Interested? Go to: NUR, PDA, (SUR)
Psyché + Logos
(“soul, mind, breath”)  (“word, reason, science”)
History of Psychology

1. The study subject is **soul**
   Aristotle, Plato, Thomas Aquinas
   Speculative approach
   Part of philosophy
2. The study subject is **consciousness**
Rene Descartes, John Locke, William James, Empiric approach

3. The study subject is **behavior**
J.B. Watson, E.C. Tolman, Frederic Skinner
Objective observation
History of Psychology

4. The study subject is **gestalt**
   Max Wertheimer, Kurt Koffka, Wolfgang Koehler
   Focus on perception

5. The study subject is **human**
   Carl Rogers, Abraham Maslow, Erich Fromm
   Holistic approach
Main Approaches in Psychology

Biological
Behavioristic
Psychodynamic
Phenomenological
Gestalt
Cognitive
Cultural
Psychological Disciplines

1. Theoretical
2. Practical
1. Theoretical Disciplines

Cognitive psychology
Developmental psychology
Social psychology
Personality psychology
Physiological psychology
Ethology
Methodology and psychometrics
Psycholinguistics
2. Practical Disciplines

Clinical psychology
Pedagogical psychology
Psychology of work and organizations
Counseling psychology
Forensic and penitentiary psychology
Sport psychology
Environmental psychology
Psychology of art
Engineering psychology, HCI, Human Factors
Psychology and HCI

HCI = Engineering + Psychology
Psychology and HCI

Why to bother with psychology?
Any ideas?
Psychology and HCI

What can we learn from various psychological disciplines?

5 examples will follow

Credit: psychoanalysis.cz
Example 1: Personality Psychology

Motivation behind people’s behavior is the base for any interaction and UX design.
People Feel, People Have Needs

People want to feel comfortable
People want to feel efficient
People want to feel satisfied
People want not to feel stupid
People want not to feel ashamed in front of others
People want to control things
People want to know their nearest future
People want to have fun
People want to meet other people
Needs

I can do what I want, the way I want it. (Autonomy)
I am good in what I do. (Competence)
I feel close to people I care about. (Relatedness)
I am encountering new experiences and activities. (Stimulation)
I have impact on others. (Popularity)
I am safe from threats and uncertainties. (Security)
I am healthy and physically active. (Physical thriving)
My life and my activities have a deeper meaning. (Meaning)
I am better than others. (Competition)
I am having and preserving meaningful objects. (Collecting)
Needs

Need

Saturation

Frustration

Deprivation
Needs And Users’ Satisfaction

Not saturating basic needs -> frustration
Saturating (only) basic needs -> basic satisfaction
Saturating unspoken needs (unexpectedly) -> excitement and emotional bond

Optimal experience - Treat your users the same way you treat your lover
Abraham Maslow

Humanistic psychology
Hierarchy of needs
Concept of Self-actualization
Peak experiences
“D cognition” and “B cognition”
Maslow's Hierarchy of Needs

“The need to be safe is even deeper than the need to love and be loved.”
(Abraham Maslow)
Design Application
Does It Apply on Robots? Sure, It Does!

Maslow's Hierarchy of Robot Needs

- Eat Robot Food
- Update Antivirus Software
- Vacuum Living Room
- Become Self-Aware
- Self-Esteem
- Self-Actualization
- Destroy Humans
Example 2: Perception

People perceive things in a predictable way
Gestalt Principle of Proximity

Objects or shapes that are close to one another appear to form groups.

Already know how to group links on your website?
Example 3: Emotions and Affection

Psychological processes:

Cognitive

Affective

Conative

Why everybody talks about emotional design these days?

Credit: ahlec.net
Rationality Is Not Always The Key

Designers sometimes see users as entirely rational beings

Credits: zencast.com
Emotional Design And Affective Response

Credits: Matilda Sundén Ringnér in Inventorspot.com
Example 4 – Experimental Psychology

People read web pages fast
People read web pages in an F-shaped pattern
People do not read word-by-word

*Jacob Nielsen, 2006 (N=232)*
F-Shape
Example 4 – Experimental Psychology

300 – 500 pixels from the left is most sensitive area
69% of the time spent on the left part
Not applicable on right-left reading countries

Takeaways:

Place the critical content to upper left area
Avoid horizontal scrolling (vertical is fine)
First two paragraphs are essential for delivering the information
Do not underestimate an impact of culture
Example 5 - Irrelevant Choices
Hungry for More?

Buy a good alarm clock and attend the following lectures!

Credits: bandai.com
Resources

UXmatters.com
Uxmag.com
Userfocus.co.uk

https://medium.com/personal-growth/learning-on-a-dime-10-great-psychology-courses-you-can-take-for-free-a5358bd791#.9eenjyg72

https://www.mockplus.com/blog/post/146-top-20-ux-design-blogs-and-resources-you-should-follow-in-2016/?r=cherry
Rules of the Game
Attestation requirements

1. Practice: 3 deliverables
   40 points (>20 to pass)
2. Active participation on the workshops
   (+ self-reflection for the full day WS)
   30 points
1.+2.: 70 points (>40 to pass)
3. Written exam (zápočtový test)
   30 points (>10 to pass)
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<tr>
<td>October 12</td>
<td>7:30</td>
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Full-Day Workshop - Saturday

Let us choose the date

Option 1: November 17, 9.00 – 18.00
Option 2: November 24, 9.00 – 18.00
Option 3: December 1, 9.00 – 18.00
Practice – Think About Topic

NUR students:
1. Autonomous Cars – Visually Impaired
2. Autonomous Cars – Aging Population
3. Behavioral Change – Conversational Interfaces
4. Improving well-being - Combined Disorders

Non-NUR students:
Choose your own topic
Thank for your attention
See you after the break in K5

mynname.mysurname@gmail.com