Course Description

Characterizing Future User Behavior on the Web

Contents

Big picture

The course Characterizing future User Behavior on the Web introduces a concept and a set of tools to model and better understand the intent and need a user has when accessing the web.

The concept is applicable in projects when new web applications get designed, strategies for the web presence of a company are developed or new business models are investigated. Interdisciplinary teams who start to design a solution need to apply a strict, but pragmatic human-centric approach to discover the real needs and intents of the users.

The goal of the course is to teach the students to pragmatically apply the concepts introduced by other modules/courses of the curriculum (e.g. Human Computer Interaction in the module Foundations and Principles I, module Web Trust and Security, module Web and Society, module Web and Society etc.). Once anchored into the project in early phases, these concepts can then be used and applied through-out the rest of the project.

In the course students will derive in teamwork some sample hypothesis describing basic generic patterns of future web user behavior.

Starting point for each of the basic patterns will be antipodes (opposing pairs) describing basic user intents and needs as conflicting pairs, e.g. convenience/ease of use vs. privacy/security. These opposing pairs will be stepwise turned into hypothesis by discussions in working groups and the plenum, thereby carving out basic human behavior patterns. The discussions and result presentations are structured by using tools which originate in the discipline of Human Centered Design (Design Thinking).

The work on the user intents/needs and the hypotheses provide students with the capability to further-on avoid design mistakes and wrong assumptions as they often occur during early phases in development of strategy, web business models and web application design. The tools applied are easy to understand in these typical business tasks.

The course centers strictly on human behavior, i.e. on the demand humans have in the real world when using the virtual web world in order to communicate with other humans, accessing their data or performing transactions with web applications. It provides means to systematically discover and study patterns of human behavior.

Intended Learning Outcomes

1. Students will develop an understanding for basic patterns which drive humans to accept or dislike a web application or a web business model.

2. This knowledge will allow them to improve design decisions made in early phases of development and avoid mistakes made by classical engineering focused on technical aspects only.

3. The students will have a set of tools at hand which allow them to better engineer business solutions in general from an user perspective.

4. The learned tools do not only apply to web business but can be used in day-to-day business life for developing presentations, preparing decisions, performing evaluations, presenting business cases etc.

Structure of the course

The course uses seven opposing pairs (antipodes) of user intents as practical examples. Each of these opposing pairs will be stepwise developed into a hypothesis of user behavior patterns. The seven opposing pairs used as examples in the course are:

- M0 Fun vs. Efficiency: User tend to use the web for entertainment/fun but as well for goals which they want to perform efficiently (e.g. buying goods, business interactions). Which of the two usage patterns is the main motivator for the user in the future?
- A1 Synchronous vs. Asynchronous Communication: If humans want to communicate with other humans they can basically make use of two different patterns of communication: synchronous communication where both communication partners interact at the same moment in time, e.g. skype/telephone call, video conference etc. or asynchronous communication where the recipient can reply with a delay, e.g. messaging services, WhatsApp, Twitter, SMS, etc. Which of the two will be more important in the future?
- A2 Convenience/Ease-of-Use vs. Privacy/Security: Users want to experience easy access to their data, fast purchases, simple eBanking etc. On the other side they know about a lot of threats on the web and expect a maximum of privacy and security. Are they willing to sacrifice convenience for more privacy/security?
- B1 Telephone Number vs. Account Name: Traditionally telephone numbers have been the major mean of determining a communication partner. Today the global players in the web offer means based on the constructs around account names, e.g. email address, twitter

account, nick names etc. Will the telephone number disappear as means of establishing communication? (see exhibits 7 and 8 in this reference [1])

- B2 Participating/Consuming vs. Interactive Communication: Television is a one way channel with a broadcaster at one end and a consuming mass of "coach potatoes" at the other. Interactive use of the internet has turned this usage pattern around and ever more people spend a considerable amount of their free time "leaning forward" into their devices (PCs, Laptops, Tablets, Smartphone). Will TV and other participating/consuming communication disappear? [2][3]
- C1 One Device vs. Many Devices: Typical consumers own more than one device connected to the web. Will this fact remain or will there be one single device per user in the future?
- C2 One-time Purchase vs. Subscription Models: More and more companies go away from the model of selling the customer a product as a one-time purchase. They try to turn their business model into selling subscriptions. Subscriptions allow them to bill recurring charges over a longer period of contract time. E.g. Microsoft now sells Office 365 on base of a yearly subscription. Before Office was sold as a package with a one-time fee. New releases had to be bought when they appeared and outdated older releases (Office 2003 -> 2007 -> 2010). What do users think about this?

The above opposing pairs cannot be strictly separated from each other. They are rather related and interlinked. Each opposing pair just offers one perspective on basic human usage patterns. And there are many more of those patterns than these seven. The letter/number pair in front of each opposing pair refers to the didactic structure.

Didactic Concept and Schedule

During the course the following simple, but effective tools from the discipline Human Centered Design will be introduced and applied to the above opposing pairs:

- Divergence/Convergence [4][5]
- Brainstorm [6]
- Empathy Map [7][8]
- HBDI: Herrmann Brain Dominance Instrument [9][10][11]
- User/Customer Experience Journey [12][13]
- NABC: Need-Approach-Benefit-Competition Template [14][15]

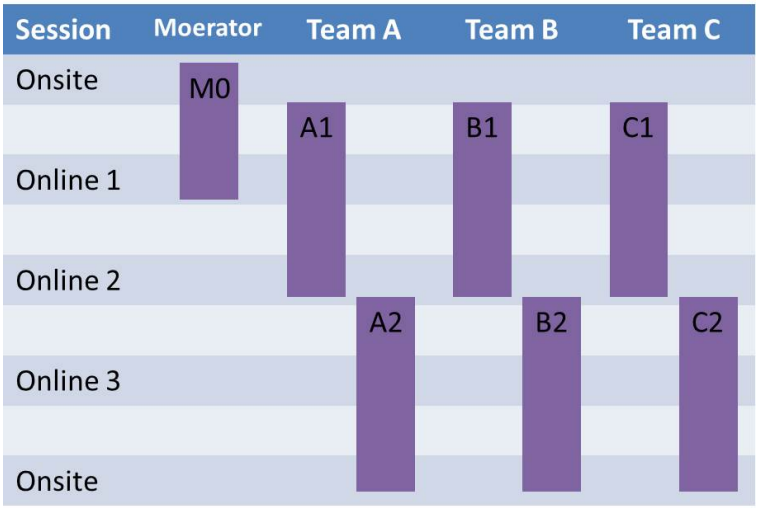
The course representative will give an introduction to each of these tools, giving hints to use them in practice and avoid pitfalls associated with them.

Each working team A, B and C is assigned two of the opposing pairs (A1, A2; resp. B1, B2 etc.) taking the task to transform each opposing pair into a hypothesis. The course representative will use opposing pair M0 to explain the use of the tools.

With the help of the above tools each of the opposing pairs is stepwise turned into a hypothesis, better said into a belief (hypothesis in which we jointly strongly belief). I.e. to each of the opposing pairs a sequence of steps is applied:

- Step 1, teamwork before online session: The course representative has prepared a video introduction to the opposing pair. The team brainstorms some ideas around the opposing pair and prepares a presentation for the online session.
- Step 2, presentation by the team during online session. Feedback from plenum on the presentation. The team collects the obtained input. The course representative adds some additional insights.
- Step 3, teamwork between online sessions: The responsible team transforms results from step 1 und the feedback obtained in step 2 into a hypothesis and prepares a (second) presentation of this hypothesis.
- Step 4, next online session: The team delivers the prepared (second) presentation. The team receives feedback from the plenum and collects the obtained input. The course representative adds some additional insights.

These steps are distributed over the course as follows:



The course finishes with a practical exercise in presentation techniques (2.5h during the final onsite session).

Preparation for the Course, Assignments and Study Time needed

The course requires no preparation work before the introductionary onsite session.

There is only very limited effort/time required for individual study work (watching short videos provided by the course representative and reading the references).

The work between the sessions is mostly team work. Teams will be assigned opposing pairs and will be asked to turn them into beliefs during team discussions/work. The results of this team

work will be presented at the next session. Teams also need to deliver work reports to the course representative.

This requires the teams to arrange for joint meetings between the sessions.

Beyond the team meetings some additional time is needed for preparing the presentations and work reports.

Grade and Examination

The grade will be based on documents to be delivered into and before the sessions.

Each team delivers one presentation into each of the 3 online session and one into the final onsite session. Each team also needs to send a work report before each online session and before the final onsite session to the course representative describing their team work.

These 8 documents (4 presentations and 4 work reports) will be rated as the course grade for each team member.

There is no examination at the final onsite session. Those students who want to, can participate in a verbal examination at the final onsite session upon their request.

References

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↑ Richard Hayward. "d.school Customer Experience Methodology". https://librarydata.wordpress.com/2014/04/14/d-school-customer-experience-methodology/. Retrieved 10.01.15.

↑ XOLab at Sheffield Doc/Fest. "NABC: How to develop an idea". https://www.youtube.com/watch?v=iHiLAJGDGt4. Retrieved 10.01.15.

↑ Niels Christian. "The NABC Method from Stanford Research Institute, SRI". https://nielschrist.wordpress.com/2012/07/13/the-nabc-method-standford-research-institute-sri/. Retrieved 13.01.15.

The first references are meant as input for the discussion around the opposing pairs. There is only limited scientific research and published materials available for these topics. More input to these topics will be provide during the course.

The rest of the references (from 4 on) describe the original meaning of the tools from Human Centered Design. In the course variants of the tools will be used.

Weitere Referenzen: http://www.portioresearch.com/en/blog/2013/there-is-no-sms-versus-ott-battle!.aspx

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