User Experience Theory and Practice — Individual Portfolio

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Abstract

This paper documents my personal visions and understandings of the User Experience (UX). I first introduce my personal point of view on UX, the goals and objectives of this course. I reflect on my weekly activities of the first three weeks of the course, as well as the choices and motivations of the relevant key aspects of theory, tools and attitudes. Then I reflect on my past work and discuss how to integrate new knowledge and interpretations of UX design on this project, last but not least, I envision my UX proposition for my future work as a UX designer.

1. Introduction

My name is Yiwen Shen, I am a master student studying in the TU/e at the Department of Industrial Design. In my opinion, UX plays an important role in the process of RDD (research, development and design). The aim of this paper is to deepen my understanding on UX design and facilitate me as an ID student to develop attitude, skills and knowledge that are needed to contribute to succeed in the RDD projects. The purpose of this portfolio is to show my understanding of UX through 3 weeks of study and how to apply the knowledge to my future projects.

2. UX — Definition and Description

Definition: UX are the interactions exist between human, artefacts and environment. The platform of UX design can be tangible or digital or the mix of both. UX design provides users with services and functionalities in order to fulfil their psychological, physical and emotional needs [1]. Well-designed UX products or systems do not require a user to spend a lot of time and effort to learn it.

Description: UX design must be based on respect for human empathy and serves to fulfil their needs. Working in UX industry, it requires designers to have a deep understanding of UCD (user-centred design) and strong analytical abilities. UX designer must also develop theoretical knowledge, skills and social awareness, to be able to deal with the interplay relationship between companies, users and products. When conducting a user research project, designers should able to use appropriate tools and frameworks to generate user insights in order to contribute design solutions (or a prototype).

3. Activity Overview

This section shows the activities during the weekly study. A detailed description of logbook can be found in the appendix 1. In each week, a mind-map hierarchy regarding the selected literature was generated, it served to clarify and structuralize the selected literature in an articulated manner. The mindmaps (appendix 1) facilitate me to generate knowledge as deep, coherent and productive as possible.

Week1

The first-week study brought me useful insights on UX design, 10 satisfying user needs and value-based design. First of all, the UX white paper offers a fundamental overview of UX in three perspectives:UX as a practice, phenomenon and field of study[1]. It helped me to understand UX design in a wider scope. When designing experience in systems or products, it is important for a designer not only to understand the user's individual context but also ensure that predefined experience satisfies their needs. The framework [2], [3] from Hassenzahl brings indeed useful guidance to facilitate designers on how to design experiences that are perceived valuable and enjoyable by users.

Week2

The second-week study deepened my understanding of UX in both psychological and social aspect. The SDT [5] helped me to understand at a greater level of human needs. It can empower my design with strong theoretical and psychological expertise when designing RDD products and system.

To design tangible product seems easier because designers could observe users and generate insights through onsite observation. However, how to design a virtual system, which is not only perceived as positive user experience in their context, but also add social awareness? The social

translucence theory [7] brought me insights to address this problem.

Week3

The last week study brought me knowledge of empathy, empathic design, innovation and UX design frameworks. As a UX designer, it is important to know what is empathy and able to develop it further. The study of this week, for me it felt like that I was introduced a lot comparison between design techniques and frameworks. To summarize:

- The Co-Constructing stories [10], this technique have two phases: sensitization and elaboration. Buskermolen compares this technique with cultural probes and generative techniques. He concluded that co-constructing story requires fewer efforts, while also offers big change to elicit future concept [10].

- Incremental and radical innovation [9]. I consider that incremental innovations are the results of using CDR [14] methods when designing systems or products. The tools and iterative process reminds of what I have learnt from the CDR course. The definition and evolution of radical innovations inspired me further on how to distinguish two types of innovation.

- Comparison of different frameworks and UX definitions [11]. This paper introduces a lot of frameworks of UX design and definitions, since I am working on my M1.2 researcher project, I consider that knowing more than only one design framework and the differences between them would positively guide me through the upcoming project.

4. Key UX Aspects

Reflection from week 1: From a microscopic point of view, I used to believe that UX was defined as a design practice. This was how I envisioned UX as a design practice: designers need to observe and study users' behaviors when they were asked to experience certain systems or products. Then they apply appropriate methods or tools to collect, visualize, and analyze user's data. This design sequence serves to help designers to capture insights, create meaningful products to add values to people's lives. However, As the UX white paper discussed: UX is also a phenomenon, which means that UX design is sometimes not technology-driven (not just a beautiful user interface design) or observable, but it is rooted in social, physical, and cultural contexts [4].

From a macroscope perspective, with the historical development economy models, the above-mentioned "creating meaning and add values" aspects of user experience design are also gradually and evolutionally adopted [4]. People living in different periods cherish and appreciate different values. Therefore, it is challenging to design a product or system that meets people's needs based on the same value or the same contexts. However, there are some frameworks can facilitate UX designers to quickly apply them into their RDD process. Hassenzahl's framework [2], [3] is very helpful in solving this problem. There are still lots of differences in fulfilling people's contexts, but their needs are basically the same [2]. He took a psychological approach and claimed that experience can be designed adoptively to the development of economy model, but also be able to fulfill people's needs.

Reflection from week 2: The SDT [6] is the follow-up study of the '10 satisfying needs'. It brought me to a higher level on understanding of people's psychological needs. This theory enlightened me in such a way that when designing experience in systems or products, the use of context and technological parameters play a part of role in design, designing aesthetic

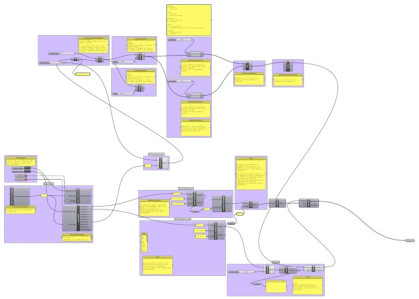

Figure 1: Grasshopper code

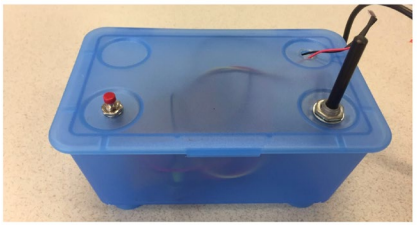

Figure 2: TUI box

interactions not only requires designer respect on basic human skills such as cognitive skills, social skills and bodily skill [13], but also respect personal values [5]: competence, autonomy and relatedness.

When designing a system, it is important that the system or product not only provides aesthetic interaction [13], but also provides a good user experience. Thomas and Wendy referred social translucence theory (which is used in the field of architectural design) to facilitate UX designers to address social needs when designing such digital systems.

Reflection from week 3 Zaki explores empathy in a greater manner. He claims that empathy can be trained and developed [8]. Developing empathy skills is important for a UX designer. From what I have learnt from the previous two weeks: the goal of designing a positive experience in systems or products is to fulfil people's needs. In a design practice, UX designers need to "get closer" to the users and understand their current needs, in terms of expectations and functionalities. Designing with empathy can help designers to "get closer" to users. As discussed by Thomas and Wendy [7]: having conversations is the key to achieving reliable and accountable outcomes. The empathic design uses a similar approach, which is also using the conversation approach. Through on-site observational research, designers can gather, analyze and apply their findings to their prototype in order to contribute design solutions and sometimes even lead innovations.

When it comes to innovations, Norman and Vergati discussed two types of innovations, radical innovations and incremental innovations [9]. I consider that empathic design is more likely to bring incremental innovations. Radical innovations were done without design research or careful analysis of a person's or even a society's needs [9]. Vergati discusses that radical innovation can be driven by technology changes and meaning changing. This reminds of the development of different economic models discussed by Brand [4]. The development of technology can lead to a new economy model entering life. As a result, it can lead to the changing of meaning in a daily context.

Looking back to empathic design, designers need to follow a framework as a guide. Pettersson discusses different frameworks and UX definition. He documented the development of each framework and compared them. This is very inspiring and helpful, especially for my research project.

5. Reflection on Past Work

The example presented in this section serves two goals. First of all, this project showcases my experience in designing a TUI (tangible user interface). Second, I will reflect on what theory and tools or methods can be used in this design in order to improve the user experience.

In the elective "Golden Ratio and Generative arts" offered by Prof. Loe Feijs in Q2, I was asked to make a 'pattern generator' using mathematical theories and programming language to generate graphical contents. I was the only student who used grasshopper 3D (parametric design software) as the main platform for generating 2D patterns or 3D models, while other students used processing. In the midterm demo, when showcasing the code (Figure 1) to my fellow students, it seemed that no one really understood, not only because of the unfamiliarity of the terminology, but also the interactions within this pattern generator brings a lot of confusions. I asked several fellow students as users to try out, but nobody was willing to do it because they have almost no experience with using grasshopper.

In order to tackle this problem and involve them in the design process, bringing them the freedom to customize and manipulate patterns (competency). In the final product, I built a tangible user interface (Figure 2) that allowed users with little or no programming experience to not only generate patterns, but also customize input variables. The idea of having this TUI has proven to be a useful medium for bridging the gap between physical interaction and the digital world.

When I reflected back on this project, I realized that in order to create positive user experience, first of all, it is important as a UX designer to have empathic skills, during the midterm, according to my observations that I discovered that users were encountering difficulties to follow my explanations (relatedness), simply because they were lack of interests and knowledge (autonomy) about grasshopper programming, so they didn't see the value and power of this pattern generator. After I introduced this lo-fi interface prototype as the final product to them, they could generate patterns by themselves without knowing programming. At that moment, I realized that user experience could be designed. The functionality (do-goals) and interaction (motor goals) were provided in the midterm demo, but the holistic experience and needs (be goals) were not being satisfied.

6. Future UX Work

Our lives are surrounded by new technologies and data. Industrial designers should always be open minded and creative, adopting and exploring new technologies and turn them into pleasant experiences and innovative ideas. In order to do this, in the future, I will

Design with the user:

The design of everyday artefacts is not always user friendly and intuitive, and sometimes it can frustrate users. The essence of design is to facilitate people's lives and create meaning for their daily lives. Good interaction and user experience are shaped by one's feelings, feelings, motivations and behaviours (Hassenzahl, 2001). In order to design a product that provides functions and a superior user experience, designers are required to have a deep understanding of the user and their contexts.

Design with data:

Data has become an important part of people's lives. Data-driven design can provide designer insights to assist with their design process. For technology companies, users, products and data are always intertwined. Companies can collect data from users and then optimise their solutions to meet their design goals while ensuring that their decisions meet the desires of stakeholders. Using data to design can take the design company to the next level.

Design for aesthetics:

Aesthetics is important to industrial design. It increases the level of user commitment to the product, also creates an engaging and intriguing experience. Aesthetics exists not only in the form of products, but also in their interactions and functionalities.

Design for respect:

The users of the product is human, when designing systems or products, the design process always involves the whole human being, designer should always respect human skills: cognitive, perceptual-motor, emotional and social skills (Hummels, Djajadiningrat, and Overbeeke, 2001). In my design, I try to take user as the center and their skills as the radius; it is used to establish a harmonious relationship between people and artefacts, to maximize the potential of human beings and thereby to improve user experience.

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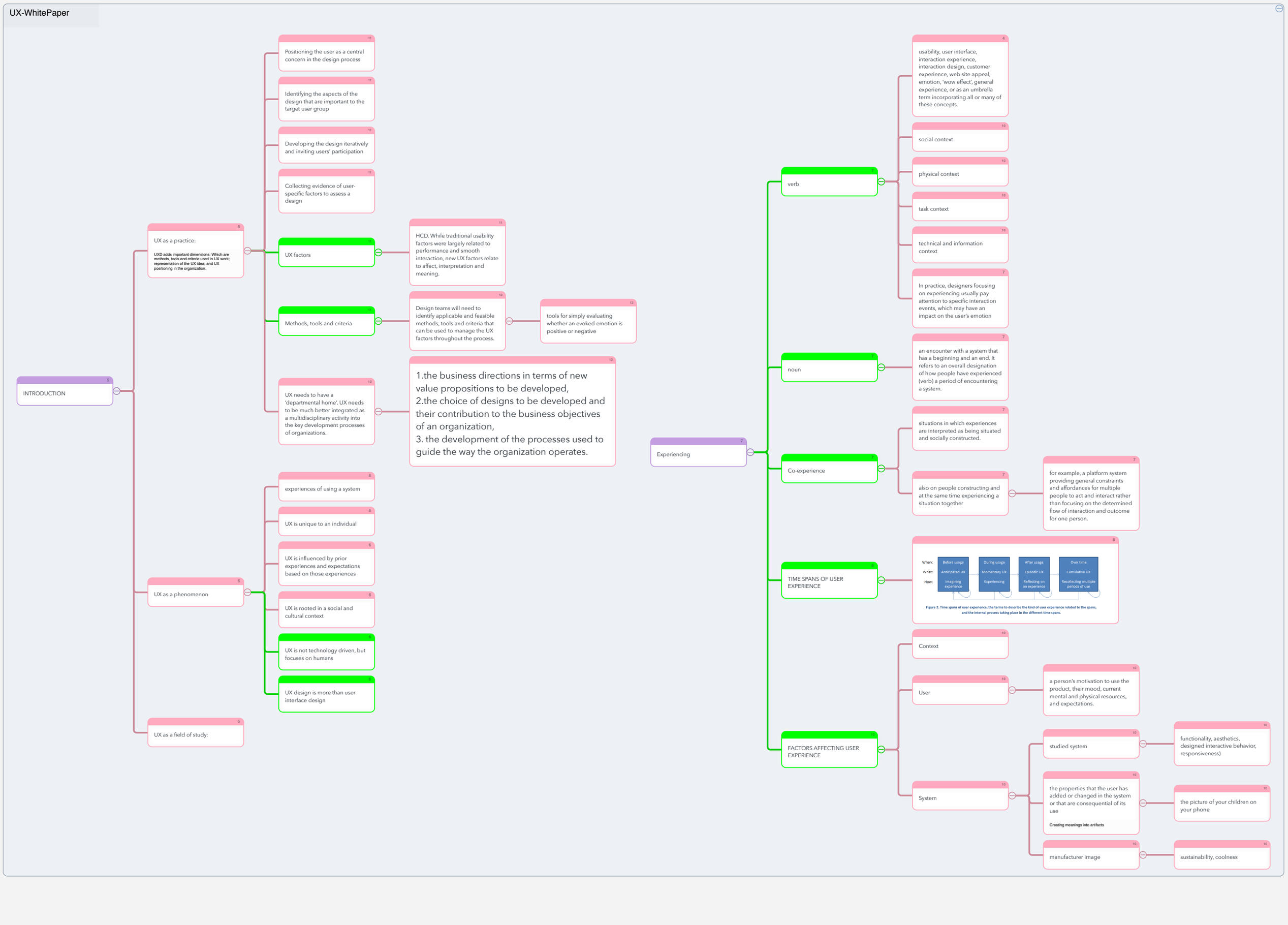
Appendix 1 Mindmaps



Rethinking value in a changing landscape

- Historical legacy of value creation
  - The Neolithic Agricultural Revolution started around 10,000 years ago and led to settlement, which completely transformed every aspect of human existence.
    - people were thus born into the role and identity that they would fulfll in the community.
  - The French Revolution in 1789 and the ensuing 'Age of Reason' or Enlightenment
    - Much of the current paradigm of business wisdom and value delivery - industrialization, division of labor and mass produc- tion - has its roots in the Age of Modernity.
      - people were not working to fulfll their destiny in their com- munities, but to earn monetary compensation for their labor that could be exchanged for consuming the output of industrial production in order to modernize their lives.
- The industrial economy
  - people abandoned their pre-destined roles in agricultural communities to relocate to cities where they typically worked in factories or service industries
    - mass production and organized labor.
    - the emergence of large companies
- The experience economy
  - This economy was dominated by the rise of lifestyle brands.
    - relied on media and brand management as a core competence.
    - Internet
      - TV, lifestyle magazines, radio, newspapers, and billboards.
      - The Web 1.0
        - easy for compa- nies to share messages and information.
          - People became increasingly cynical and skeptical of brand messages and brands in general.
      - Web 2.0
        - the experience economy has reached its peak in economic value creation.
  - value was cre- ated by companies who had the power to invent, mass produce and deliver.
    - value was cre- ated by companies who had the power to invent, mass produce and deliver.
  - Businesses in the knowledge paradigm have to shift the focus of their value contribution from selling products and brand experience propositions to creating enabling platforms that fulfll and support these changing socio-cultural ambitions.
- The knowledge economy
  - ordinary people could create content in the form of blogs, photos and video, and create value that could compete with traditional business, newspapers and magazines.
    - 从电视广告上的宣传变成淘宝，微商模式。人们成为使用者，公司成为服务，平台提供者
      - Instead of talking, businesses are being forced to start listening. Finding ways of participating in on-line dia- logue requires very different tools, talent and thinking than in traditional top-down brand management practices
        - brought benefits related to per- sonal empowerment to multitudes of people who have access to the Internet.
- The transformation economy
  - Many entrepreneurs and corporations are starting to explore value creation and new business models that go beyond fulflling personal consumer needs and desires.
  - provide meaningful context-specifc proposi- tions built around long-lasting, proftable, ethical, and fair busi- ness practices, and based on multiple stakeholder collaboration and value sharing.

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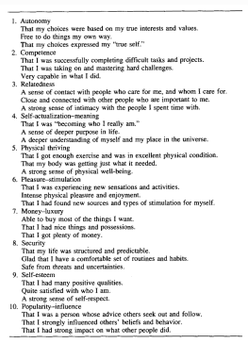
- 6 experiential purchases make people more happy than material purchases
- 7 music industry
  - 8 Experience or User Experience is not about technology, industrial design, or interfaces. It is about creating a meaningful experience through a device.
- 8 experiences
  - 8 meaningful, personally encountered events
  - 8 memorized stories of use and consumption and distinct from the immediate moment-by-moment experience
- 9 Psychologically
  - 9 emerges from the integration of perception, action, motivation, and cognition into an inseparable, meaningful whole
  - 9 An experience is a story, emerging from the dialogue of a person with her or his world through action" (Hassenzahl 2010, pp. 8). An experience is subjective, holistic, situated, dynamic, and worthwhile.
- 9 where does the pleasure come from
  - 9 the need for autonomy or stimulation
  - 9 A speci?c look at technology-mediated positive experiences revealed stimulation, relatedness, competence, and popularity as the salient sources of pleasure (Hassenzahl et al. 2010).
    - 9 a sweet 'I love you'(Figure 3). This is an example of a relatedness experience, which gets its positive meaning through ful?lling a need for social relationship and intimacy.
  - 10 The mobile phone is instrumental to creating this experience, but the positive emotions and the meaning are evoked through the ful?lment of a universal psychological need. Need-ful?lment is what makes an experience pleasurable.
- 13 The challenge of designing interactive products for the post-materialist is to bring the resulting experience to the fore - to design the experience before the product
  - 13 Aesthetics of Interaction
    - 13 the success of Apple's iPhone
      - 13 featuring a so far unique aesthetic of interaction, but basically ful?lling the same tasks as any other mobile phone.
      - 14 the mobile phone was used as a tool for creating a relatedness experience. But the mobile phone is neither especially adapted to this, nor does it in any way imply the creation of this experience. It is nothing more than an awkward piece of infrastructure: even with the most elegant shell or navigational structure, it does not re?ect the love put into the message.
      - 14 While a telephone is certainly able to connect distant lovers, it embodies a strictly conversational model. However, feeling close is not about good conversations only, it is a about a feeling of presence and emotional expression.
- 16 Buddha Machine
  - 16 It is a technology that offers a meaningful, valuable, and aesthetic experience and not just a bunch of functions, leaving it to the users to ?gure out how to incorporate them into their daily lives.
  - 16 an excellent example of a full-blown post-materialistic device.
- 18 What
  - 18 is often intimately tied to the technology itself or a certain product genre
- 18 How
  - 18 operational, sensory-motor level: Buttons pressed, knobs turned, menus navigated, touch screens stroked, or remotes waggled. The How is even more tied to the actual object to be designed and its context of use
  - 18 to make given functionality accessible in an aesthetically pleasing way
- 19 Why
  - 19 way to ful?l their need for relatedness
  - 19 it determines functionality that is able to provide the experience (the What) and an appropriate way of putting the functionality to action (the How).

what is satisfying about satisfying events

- SDT theory in one sentence
  - Supporting self-determination theory postulates (Ryan & Deci, 2000)—autonomy, competence, and relatedness, were consistently among the top 4 needs, in terms of both their salience and their association with event-related affect. Self-esteem was also important, whereas self-actualization or meaning, physical thriving, popularity or influence, and mbney-luxury were less important.
    - feel effective in their activities (competence), to feel that their activities are self-chosen and self-endorsed (autonomy), and to feel a sense of closeness with some others (relatedness).
- Maslow's theory of personality
  - five fundamental needs: physical health, security, self- esteem, love-belongingness, and self-actualization.
- Epstein's cognitive-experiential self- theory
  - self-esteem, relatedness, pleasure (vs. pain), and self-concept consistency.
- In sum
  - the two models together suggest seven different psychological needs that might be tested: autonomy, competence, relatedness, physical, security, self-esteem, and self-actualization.
- "American dream
  - happiness results when individuals acquire popularity-influence and money- luxuries
  - win friends and influence people
- 10 needs
  - autonomy, competence, relatedness, physical thriving, security, self-esteem, self-actualization, pleasure-stimulation, money-luxury, and popularity-influence
- Study 1
  - support for our hypotheses based on self-determination theory, concerning which needs are most fundamental.
    - autonomy, competence, and relatedness emerged within the top four in terms of salience
    - popularity-influence and money-luxury are least important and may even be negative for well-being
    - limitations
      - it addressed only satisfaction within a single time frame
      - par- ticipants came from a single (highly individualistic) culture,
    - 

      - 322 students in introductory psychology at the Uni- versity of Missouri
      - According to the current research, the answer is autonomy, competence, relatedness, and self-esteem.
      - Security may also be a need, which becomes salient in times of privation.
      - Pleasure-stimulation, self-actualization- meaning, popularity-influence, and physical thriving are less im- portant, and we would tend to deny them "need" status.
      - Least deserving of need status is money-luxury.
- Study 2
  - autonomy, competence, relatedness, and self-esteem emerged as the most important set, both in terms of mean differences and association with event-related affect.
    - Feelings of relatedness were especially salient within South Koreans
    - feel- ings of self-esteem were less salient in Korea compared with the U.S
  - The South Korean sample consisted of 200 students in introductory psychology at Hanyang University in South Korea
  - Specifi- cally, self-determination theory's three proposed needs again emerged as important determinants of satisfaction by the "sa- lience" criterion.
  - self- esteem again emerged as very important by both criteria. These findings help to enhance confidence in the earlier results and also help establish that the sources of satisfaction tend to be the same across different temporal frames.
  - Autonomy, competence, and relatedness again emerged as very important needs by the "salience" criterion
- Study 3
  - longer time frame.
- Summarizing the Results
  - First, we found relatively consistent re- sults across our two criteria for determining needs. This is impor- tant because it lends greater confidence to our conclusions, and it also suggests that participants are aware of "what's satisfying about satisfying events."
  - Second, we found largely consistent results across three different time frames (i.e., the most satisfying event of the last week, of the last month, and of the entire semester). This is important because it indicates that our results are not artifacts of the particular time frame addressed.
  - Third, although our results were generally consistent across two different cultures, there were also meaningful and interpretable differences. This is important because it suggests that our measurement approach is able to detect effects consistent with other findings in the literature.
  - Finally, the method yielded results quite consistent with theory, in particular Deci and Ryan's (1985, in press) self-determination theory but also with the many theories that posit self-esteem as a fundamental human need (Epstein, 1990; Greenberg et al., 1995; Leary, 1999). This consistency is important because it suggests that our new approach may supply a fruitful new means of con- firming and perhaps extending existing theories of optimal experience.

An approach to designing systems

- how to design such systems so that they support communication that is deep, coherent, and productive.
  - It is difficult to conduct a long-running, productive conversation through the digital medium,
    - social information like this provides the basis for inferences, planning, and coordination of activ- ity.
  - Digital systems are generally opaque to social information.
    - goes unused.
    - In the digital world we are socially blind
- get inspired from social translucence in architecture & urban studies
  - approach to designing digital systems that emphasizes making social information visible within the system
  - inspiration from work in the areas of architecture and urban design.
    - concerned with creating contexts that support various forms of human-human interaction.
    - What architecture and urbanism have to offer is long experience in exploring the interrelationship between physical spaces and social interaction
  - Visibility, Awareness, and Accountability
    - 我看到玻璃后面有人，我意识到玻璃后面的context，所以我小心的打开门
    - I do not open the door quickly because I know that you are on the other side
  - three properties of socially translucent systems--visibility, awareness, and accountability
    - translucent systems的优点
    - In socially translucent systems we believe it will be easier for users to carry on coherent discussions; to observe and imitate others' actions; to engage in peer pressure; to create, notice, and conform to social conventions. We see social translucence as a fundamental requirement for supporting all types of communication and collaboration.
- 2.2 Translucence and the Power of Constraints
  - It would be a mistake, however, to think that translucence is only about the tension between privacy and visibility
  - translucence stands in more generally for the power of constraints
    - physical constraints.
    - participants were aware of the others'awareness of the constraints.
    - Awareness of and experience with the physics of real- world interaction enabled smooth interaction among the group.
    - participants were able to anticipate the ways in which the constraints structured the group's interaction and adjust their own actions accordingly.
- 2.3 Summary
  - We have discussed two dimensions of social translucence
  - Neither of these dimensions of social translucence is a given in the digital domain.

HCI
3. APPLICATION DOMAIN: KNOWLEDGE MANAGEMENT

- Knowledge Management as a Social Phenomenon
  - Knowledge management is often seen as a problem of putting useful information into databases and provid- ing schemes for organizing and retrieving the information
    - data mining and text clustering and databases and documents
  - a system
    - predicated on the assumption that knowledge is and distributed throughout a network of people, and that only a small propor- tion of it is captured in concrete form.
  - A knowledge community
    - a place within which people would discover, use, and manipulate knowledge, and could encounter and interact with others who are doing likewise.
- From Knowledge Management to Knowledge Communities
  - Why should those who produce and use knowledge take the time to engage in such interactions?
    - social translucence
      - making knowledge work visible (thus allowing people to observe and contact one another) also enables those who are skilled at unearthing, applying, and adapting knowledge to receive credit for what is all too often an invisible form of work.
    - How
      - Conversation: Knowledge Work Made Visible
        - Conversation is essential. We use conversation as a medium for decision making. It is through conversation that we create, develop, validate, and share knowledge.
        - conversation has two characteristics that are central to its power and ubiquity
          - it is a deeply interactive intellectual process
            - a superb method for eliciting, unpacking, articulating, applying, and recontextualizing knowledge
          - it is a fundamentally social process
      - The Vision: Conversationally Based Knowledge Communities
        - functionality
          - Activity Support
            - to support the initiation and conduct of social activity via digital media
          - Conversation Visualization and Restructuring
            - The knowledge embedded in conversations should be reuseable.
            - participants should be able to add structure to conversa- tions: summarizing, highlighting, linking, and otherwise annotating them.
          - Organizational Knowledge Spaces
            - a semiprivate environment--a relatively small community where knowledge workers feel "safe" enough to venture tentative interpretations and conjectures

CONCLUSION

- metaphor
  - for a very general problem with technological systems today.
    - system creates a barrier between users; the remedy requires that they do extra work--noticing the sign, interpreting its words, and adjusting their actions just in case
    - the system reveals the presence of those using it, enabling the already established social rules and mechanisms to come smoothly into play.

5. SOME RESEARCH ISSUES

- social proxy
  - private chats visible is that it might increase awareness of the feature
  - Supporting Coherent Activity
    - proxy will begin to look out of balance, thus supporting awareness and accountability.
  - the nature of on-line conversation
    - Visualizing Conversation
    - overwhelmed
    - casual approach to spelling
  - need for mechanisms that support the visualization of conversation.
    - Restructuring Conversation
    - Organizational Knowledge Spaces
      - (or have had new elements like summaries, glossaries, and edited paths added on) is only part of the solution to making the knowledge produced through conversations accessible

4. IMPLEMENTATION: SOCIAL TRANSLUCENCE IN DIGITAL SYSTEMS

- Abstract Representations of Social Information: The Babble Prototype
  - work that is applicable to designing socially translucent systems
    - particularly interested in the abstract approach
      - Text and simple graphics have many powerful characteristics: they are easy to produce and manipulate;
  - focusing on the way in which it uses textual and graphical representations to make socially salient information visible
    - 
    - 

  - 功能简介 in connection with property of social translucences
    - the length of comments is apparent, as is the informality of the conversation (inferable from the simplified syntax and the absence of punctuation), and degree of humor and politeness. In short, the persistent trace left by textual conversation is a rich source of socially salient information (awareness), and its power is enhanced because participants know that the representation is shared and thus that everyone is privy to the same set of cues (accountability).
  - Social Activity in Babble
    - has been in daily use by its implementers for two years, and has been deployed to about eight other groups who have used it for periods of two to six months
    - initiates a conversation via private chat
    - supports the maintenence group awareness
    - regarded as a semiprivate place, and conversations were often frank and unguarded, since they were produced for a small and well-known audience that shared considerable contxet
    - social proxy, a minimalist graphical representation of users that depicts their presence and their activities

Self determination theory and work motivation

- Vroom's (1964) expectancy-valence theory of motivation
  - **Motivation from yourself**
    - Intrinsic motivation
    - For instance, Vincent loves reading, it his hobby and he finds it is interesting to do
  - **Motivation from outside environment**
    - Extrinsic motivation
    - There is a reward.
      - we can motivate people to do things which they don't have interests by offering them extrinsic motivation, such as tangible or verbal rewards
- Porter and Lawler
  - work environment
    - **Intrinsic motivation**
      - making the work more interesting to do
    - **Extrinsic motivation**
      - higher payment or promotions
- Deci, 1971
  - tangible extrinsic rewards undermined intrinsic motivation whereas verbal rewards enhanced it
    - 实物奖励可能暗中破坏内部动机，然而，口头奖励加强内部动机
      - thus implying that intrinsic and extrinsic motivation can be both positively and negatively interactive rather than additive.
- **自我感知提升理论**
  - Cognitive Evaluation Theory
  - 外在的factors，类似于物质奖励，deadlines,监视 往往趋于减少自主的能力，并且暗中破话intrinsic motivation。相反，一些外在的factors，例如提供项目管理的工作，会增加自主的能力。
  - feelings of competence and feelings of autonomy are important for intrinsic motivation
    - 正面的反馈鼓励，负面的反馈减少，最终导致amotivated
  - assumption
    - 最初的assumption： 物质奖励会暗中破坏intrinsic motivation
    - 后来的实验中，物质奖励会enhance intrinsic motivation, relative to a comparison condition.
    - people need to feel autonomous and competent, so social-contextual factors that promote feelings of autonomy and competence enhance intrinsic motivation,
    - positive feedback enhances intrinsic motivation, tangible rewards significantly undermine it
      - specified limiting conditions
        - tangible rewards enhanced intrinsic motivation relative to a comparison condition with no rewards and no feed- back.
  - tangible rewards and other extrinsic fac- tors such as competition and evaluations can be detrimental to outcomes such as creativity, cognitive flexibility, and problem solving which have been found to be associated with intrinsic motivation
    - 如果把竞争体制作为一个外在条件，很有可能激发出新的creativity，cognitive flexibility and problem solving
  - assessed satisfaction of employees' needs for competence, autonomy, and relatedness at work and found direct positive relations in both countries between the degree of need satisfaction and both work engagement and well-being on the job.
- Self-Determination Theory
  - incorporated CET but is much broader in scope.
- externally regulated
  - controlled motivation
    - When externally regulated, people act with the intention of obtaining a desired consequence or avoiding an undesired one, so they are energized into action only when the action is instrumental to those ends
- Intrinsically motivated behavior
  - people's interest in the activity itself

- Other types of extrinsic motivation result when a behavioral regulation and the value associated with it have been internalized.
  - internalization
    - introjection
      - I work because it makes me feel like a worthy person)
    - identification
      - the nurses would feel relatively autonomous while performing such tasks (e.g., bathing patients), even though the activities are not intrinsically interesting
    - integration
      - the nurses would not only identify with the importance of the activities for maintaining their patients' comfort and health, but regulation of the activities would be integrated with other aspects of their jobs and lives.
      - become intrinsic motivation but is still con- sidered extrinsic motivation (albeit an autonomous form of it) because the motivation is characterized not by the person being interested in the activity but rather by the activity being instrumentally impor- tant for personal goals.
- Kanfer's task-specific motivation
  - is not well equipped to predict types of perfor- mance (algorithmic and heuristic) and does not give consideration to the affective or well-being out-comes that accompany different types of motivation and performance.
- Job characteristics theory

- Basic psychological needs
  - We argued earlier that the needs for competence and auton- omy underlie intrinsic motivation–that people need to feel competent and autonomous to maintain their intrinsic motivation
  - but a third basic need–the need for relatedness–is also crucial for internalization
  - Social contexts and internalization
    - **结论，conclusions of all the previous experiments**
      - In sum, field and lab studies have found that supports for the basic needs for competence, related- ness, and autonomy facilitate internalization and integration of extrinsic motivation, with supports for autonomy being the most important for facilitating integration. Supports for autonomy fall within two general categories: (1) specific factors in the social context, such as choice and meaningful positive feedback, which can be thought of as being analogous to specific aspects of job contents and contexts; and (2) the interpersonal ambience, which can be thought of as being analogous to the organizational climate and managers' interpersonal styles.
    - First, people do not necessarily require structures, limits, or contingencies to maintain intrinsic motivation, but these are essential elements for internalization because it is they that get internalized. Second, internalization is facilitated by explicit or implicit endorsement of behaviors by significant others, whereas that is less important for maintaining intrinsic motivation.
- Individual differences: general causality orientations
  - autonomy oriented, control oriented, and impersonally oriented.
    - suppor- tive and to be self-determined
      - autonomy orientation is positively related to self-actualization, self-esteem, ego development, integra- tion in personality, and satisfying interpersonal relationships;
    - controlling and to be controlled;
      - public self-consciousness, the Type A behavior pattern, defensive functioning, and placing high importance on pay and other extrinsic motivators
    - to be amotivated.
      - self-derogation and depression.
- In sum: an overview of the structure of SDT
  - SDT distinguishes between amotivation (i.e., lack of motivation) and motivation. Amotivation involves not having an intention to act, whereas motivation involves intentionality. Within motivation, SDT distinguishes between autonomous motivation and controlled motivation. Autonomous motiva- tion includes intrinsic motivation and well-internalized extrinsic motivation. Thus, being autono- mously motivated means being motivated by one's interest in an activity (i.e., intrinsic motivation) and/or because the value and regulation of the activity have been integrated within one's self (i.e., inte- grated extrinsic motivation). Controlled motivation consists of external regulation (the only type of extrinsic motivation that was considered when research focused on the dichotomy between intrinsic and extrinsic motivation) and introjected extrinsic motivation. Thus, the degree of one's controlled motivation reflects the degree to which one feels coerced or seduced by external contingencies or by their introjected counterparts.
- Goal-setting theory
  - predict work outcomes, but no attention is given to the fact that different goal contents and different types of regulation of goal pursuits lead to different qualities of performance
- Action regulation theory
  - Hacker went so far as to say that greater decision latitude promotes greater intrinsic motivation, but the theory does not make differential predictions for intrinsic and extrinsic motivation.

3. Leonard and Rayport - Spark Innovation

customers' ability to guide the development of new products and services is limited by their experience and their ability to imag- ine and describe possible innovations.

empathic design can help resolve those dilemmas

demands creative interac- tions among members of an interdisciplinary team.

Empathic- design techniques can yield at least five types of information that cannot be gathered through tradi- tional marketing or product research.

techniques

gathering, analyzing, and applying information gleaned from observation in the field

is a relatively low- cost, low-risk way to identify potentially critical customer needs.

technological capahilities toward entirely new businesses

Triggers of Use.

What circumstances prompt peo- ple to use your product or service?

Interactions with the User's Environment.

User Customization.

. Observing these users helps designers at Nissan and Toyota envision the potential evolution of specific models

Intangible Attributes of the Product

Unarticulated User Needs

The application of empathic design that holds the greatest potential benefit is the observation of current or possible customers encountering problems with your prod- ucts or services that they don't know can be ad- dressed and may not even recognize as problems

Some stunning product ideas come from an engi- neer or designer who actually uses the products he or she develops because this individual combines knowledge of unexpressed needs with knowledge of how to fill those needs.

Empathic-design techniques thus exploit a company's existing technological capabilities in the widest sense of the term.

One important note: empathic-design techniques cannot replace market research; rather, they con- tribute to the flow of ideas that need further scien- tific testing before a company commits itself to any full-fledged development project.

observation-watching consumers use products or services.

What We Learn from Observation

Watching consumers has always yielded ohvious, but still tremendously valuable, basic information.

usability:

Is the package difficult to open? Does the user have to resort to the manual,
Are handles, knobs, and distances from the floor designed ergonomically?

When Questions Don't Yield Answers

don't think to ask for a new solution-even if they have real needs that could he addressed.

Market research is generally unhelpful when a company has developed a new technological capa- bility that is not tied to a familiar consumer para- digm.

Empathic Design: the Process

five-step proces

Step One: Observation.

It's important to clarify who should be observed, who should do the observ- ing, and what the observer should be watching.

A human-factors specialist may note body positions; an engineer may notice angles and me- chanical interactions; a designer may see spaces and forms.

Observing behavior in that vir- tual realm can yield many of the same benefits as ob- servation in the physical world.

company can harvest insights into future needs by observing how users cus- tomize and critique their products.

Empathic design requires researchers to think ahout a body of data as a window into consumers' behavior and then to use that information as the basis for innovation.

Companies observing in cyberspace also face the issue of where to draw the line when it comes to pri- vacy

It is worthwhile for com and to explore the potentia niques in the marketspace ward and inexpensive to o in the virtual world, but m collecting the raw materia know it or not, simply by tivities in marketspace c consumers make in tbe vi fingerprint; collectively, th outlines needs and desires successful innovation.

member of any team should have experience in behavioral ob- servation and another should have a deep under- standing of the organizational capabilities the de- velopment team can draw upon. When the team comes from an outside consulting firm, some of the client's employees should be included to provide that deep understanding

Step Two: Capturing Data

. Thus empathic-design teams very frequently use photogra- phy and videography as tools.

Video can capture subtle, fleeting body language that may convey large amounts of information and store it for future review and analysis

Inquiry Versus Observation: What's Different?

Inquiry	Observation
1. People can't ask for what they don't know is technically possible.	1. Well-chosen observers have deep knowledge of corporate capabilities, including the extent of the company's technical expertise.
2. People are generally highly unreliable re- porters of their own behavior.	2. Observers rely on real actions rather than re- ported behavior.
3. People tend to give answers they think are expected or desired.	3. People are not asked to respond to verbal stim- uli; they give nonverbal cues of their feelings and responses through body language, in addi- tion to spontaneous, unsolicited comments.
4. People are less likely to recall their feelings about intangible characteristics of products and services when they aren't in the process of using them.	4. Using the actual product or a prototype, or en- gaging in the actual activity for which an in- novation is being designed, stimulates com- ments about such intangibles as smells or emotions associated with the product's use.
5. People's imaginations - and hence their de- sires - are bounded by their experience; they accept inadequacies and deficiencies in their environment as normal.	5. Trained, technically sophisticated observers can see solutions to unarticulated needs.
6. Questions are often biased and reflect inquir- ers' unrecognized assumptions.	6. Observation is open ended and varied; trained observers tend to cancel out one another's ob- servational biases.
7. Questioning interrupts the usual flow of peo- ple's natural activity.	7. Observation, while almost never totally unob- trusive, interrupts normal activities less than questioning does.
8. Questioning stifles opportunities for users to suggest innovations.	8. Observers in the field often identify user inno- vations that can be duplicated and improved for the rest of the market.

. Using the actual product or a prototype, or en- gaging in the actual activity for which an in- novation is being designed, stimulates com- ments about such intangibles as smells or emotions associated with the product's use

Step Three: Reflection and Analysis.

Step Four: Brainstorming for Solutions

Brain- storming is a valuable part of any innovation process; within tbe empatbic-design process, it is used specifically to transform the observations into graphic, visual representations of possible solu- tions.

five rules: defer judgment, build on tbe ideas of otbers, hold one conversation at a time, stay focused on the topic, and encourage wild ideas.

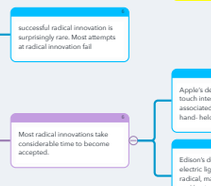
Step Five: Developing Prototypes of Possible Solutions.

Prototypes clarify the concept of the new product or service for the development team.
• They enable the team to place its concept in front of other individuals who work in functions not formally represented on the team.
• They can stimtilatc reaction and foster discussion witb potential cus- tomers of the innovation because of tbeir concreteness.

two prototypes are used, one tbat emulates the function but not tbe form, and anotber tbat illustrates tbe ideal physical appearance of the intended product but doesn't work.

Good observations, allows designer creating stuff to give meanings to everyday life

4. Norman Verganti

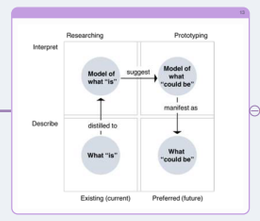
- Norman
- TWO TYPES OF INNOVATION: INCREMENTAL AND RADICAL
  - Radical innovation (Improvements within a given frame of solutions ("doing better what we already do").)
    - seeks the highest hill
    - radical innovation he investigated was done without design research, without careful analysis of a person's or even a society's needs.
      - simply because their inventors thought they were interesting things to try
      - radical innovations were driven by technology changes, without any design research or formal analysis of needs. Once the radical innovation had been developed, however, then HCD was invaluable as a way of improving the product and enhancing its appeal, a good example being the way that both Facebook and Twitter have modified themselves since their initial introduction.
    - successful radical innovation is surprisingly rare. Most attempts at radical innovation fail
    - Most radical innovations take considerable time to become accepted.
      - Apple's development of multi-touch interfaces and their associated gestures to control hand- held and desktop systems.
      - Edison's development of the electric light bulb resulted in a radical, major revolution in home and business, but he did not invent the light bulb.
  - incremental innovation
    - attempts to reach the highest point on the current hill.
    - Human-Centered" Design
      - framework
        - an iterative cycle of investigation, usually characterized by observations, ideation phase, and rapid prototype and testing. Each iteration builds upon the lessons learned form the previous cycle, and the process terminates either when the results are appropriate or the allotted time has run out.
    - Incremental product innovation refers to the small changes in a product that helps improve its performance, lower its costs, and enhance its desirability or simply to announce a new model release.
    - innovation
      - business models, of products, of services, of processes, of organizations, of institutional arrangements
    - Radical innovation brings new domains, new paradigms, and creates a potential for major changes.
      Incremental innovation is how the value of that potential is captured.
      Without radical innovation, incremental innovation reaches a limit.
      Without incremental innovation, the potential enabled by radical change is not captured.
  - 

    - 1. Technology-push innovation comes from radical changes in technology without any change in the meaning of products. The invention of color TV sets (on top of the existing black and white TV sets) is an example. Technology Push innovation definitely does not come from users (Christensen 1997; Dosi 1982).
    - Meaning-driven innovation starts from the comprehension of subtle and unspoken dynamics in socio-cultural models and results in radically new meanings and languages, often implying a change in socio-cultural regimes. The invention of the mini-skirt in the 1960s is an example: not simply a different skirt, but a radically new symbol of women's freedom that recognize a radical change in society. No new technology was involved.
    - Technology Epiphanies that bring a radical change in meaning enabled by the emergence of new technologies or the use of existing technologies in totally new contexts.
    - Market-pull innovation that starts from an analysis of user needs and then develops products to satisfy them. We put both Human-Centered Design and traditional market-pull methods here: both start from users to identify directions for innovation.
      - HUMAN CENTERED DESIGN
        - The critical components of HCD are:
          - 1. HCD starts by analyzing user needs and then searches for technologies (or methods) that can better satisfy them or updates product language to respond to existing trends.
            - design researchers immerse themselves in the existing context
            - starts with extensive design research to determine user needs.
          - 2. HCD then goes through an iterative process of rapid prototyping and testing, each cycle developing a more refined, more complete prototype. This cycle guarantees that the needs are met and that the resulting product is usable and understandable.
            - is a method of iterative testing, evaluation, and refinement.
            - this guarantees continual improvement to the top of the current local hill, but it can never lead one to the highest hill. Step 2. therefore, is fundamentally restricted to incremental change: it cannot lead to radical change.
- TYPES OF DESIGN RESEARCH
  - One perspective sees research as exploration and experimentation that leads to the advancement of knowledge, the development of theories and the application of theories. This perspective has been the subject of reflections, definitions and effective classifications by design theorists, for example Frayling's well-known three-part classification of design research: research into design, research through design, and research for design (Frayling 1993). See also Cross (1999), Friedman (2003), and Feast and Melles (2010).
  - This perspective is used by practitioners to indicate their activities such as ethnographic research or observations on people's activities to understand user needs, product research on possible solutions, market research on the kinds of products people would buy and price sensitivity, and usability research on the interaction between people and products.
- Verganti
  - the definition of design as "making sense of things
    - The deliberate and reasoned shaping and making of our environment in ways that satisfy our needs and give meaning to our lives
    - Both agreed about the importance of technology change in driving radical innovation. But Verganti went one step more: he demonstrated that radical innovation could also come about through meaning change.

- TECHNOLOGY AND MEANING DRIVEN INNOVATION
  - Video games
    - Early commercial video games were deployed on specialized game consoles and home computers.Because reviewers and players of the games all expressed a desire for even better graphics and faster response times, product innovation was directed toward the creation of faster processors and higher quality graphics.
      - Sony PlayStation and the Microsoft Xbox was a radical innovation in technology
        - The Wii redefined the playing field by combining a simple technology shift with a massive meaning shift. Sony and Microsoft struggled to catch up. It took a few years for Microsoft to respond with its technology advance, the Kinect
        - MEMS accelerometers were already known to all manufacturers of game consoles, but Microsoft and Sony disregarded their potential because they were not helpful in targeting existing user needs.
      - Nintendo, as we will soon see, decided to follow a different path.
        - developing games that were more playable and enjoyable for less expert players.
        - The success of the Nintendo Wii was the clever application of MEMS accelerometers and infrared sensors. These components allow the console to sense the speed and orientation of the controller, therefore creating a completely new experience for game players
  - Watches
    - watches were considered jewelryaccurate time (usually even better than the more expensive mechanical ones), coupled with the addition of multiple additional functions such as timers, stop watches, alarms, games, and calculators. By this meaning change, the Japanese became the world leader moving the center of watch production from Switzerland to Japan
    -

  - Basic Design Research.
    - Ettore Sottsass
      - They pioneered the exploration of post-modern philosophies and languages applied to experimental artifacts.
        - the vision of postmodernism in products.
      - It aimed a deep understanding of why people buy products, and how one could transform kitchenware into items that people buy for their emotional, playful and symbolic components as much as for their functional usage.
      - Sottsass on postmodernism
  - Design-Driven Research
    - Shift meanings
      - new meanings that are intended to be applied in products
  - Human-Centered Research
    - current meanings
      - current meanings of products aimed at detecting existing meanings and needs in order to design products that fit those meanings and needs.
  - Tinkering.
    - with no goal, neither for enhancement of meaning nor for practicality.
    - Tinkering can lead to brilliant insights and new products, but when this happens it is completely accidental
- design research
- CAN DESIGN RESEARCH LEAD TO RADICAL PRODUCT INNOVATION?
  - Radical innovation
    - Technology first, needs last
    - They are not driven by formal studies or analyses. They usually do capture a need identified by the inventor, but the need might be real or imagined.
    - Radical innovation driven by meaning change can be design driven through better understanding of potential patterns of meanings.
  - Research based on interpretation processes is capable of leading to radical change that is recognizable and replicable

5. Pettersson Chapter 2

- 2.1? UX background and definitions
  - 太多的UX的定义，有的过于宽泛，有的过于狭窄，所以无法apply正确的methodology
    - UX design defination
      - some common patterns can be found, as UX appears to be situated in the dynamics between the product, the use context and the user.
    - focus on ergonomics and usability with a wider acknowledgement of everyday life product use, including the pleasurableness and leisure of using systems
    - Nielsen Norman Group
      - : "User experience encompasses all aspects of the end-user's interaction with the company, its services, and its products".
    - Alben's
      - All the aspects of how people use an interactive product
    - ISO
      - s "A person's perceptions and responses that result from the use or anticipated use of a product, system or service".
    - Hassenzahl (2008)
      - a momentary, primarily evaluative feeling (good-bad) while interacting with a product or service'.
      - "a consequence of a user's internal state, the characteristics of the designed system and the context within which the interaction occurs".
    - not only a consideration of the nature of the specific interactions taking place between system and user, but the overall experience, as typically occurs in everyday life.
    - a dynamic concept influenced by contextual aspects, such as place, social and temporal aspects of use, as well as the users' varying emotional states (see for example Hassenzahl & Tractinsky, 2006; Roto et al., 2011).
    - . Don Norman
      - : "I invented the term because I thought human interface and usability were too narrow. I wanted to cover all aspects of the person's experience with the system including industrial design, graphics, the interface, the physical interaction, and the manual."
  - UX research
    - can be found in the intersection of fields such as cognitive science, design, psychology, philosophy, sociology, marketing and engineering
      - . From the perspective of psychology research, knowledge and methods adopted to the UX field have for example resulted in questionnaire-based research building on salient human needs, motivations, satisfactions and emotions (see for example Hassenzahl, 2004), as well as psychophysiological research (Ganglbauer et al., 2009)
- 设计product & system 是考虑到的framework
  - 2.2? UX frameworks
    - In conclusion, a wide range of frameworks exists, from which can be learnt that user experience is multi-layered and affected by the use context, but a difference can be seen between more holistic and reductionist approaches
  - 'Four Pleasures' frameworks to measure the UX
    - Patrick Jordan
      - pioneer in the exploration of the concept of interactive products 'qualities beyond usability and functionality,
    - Physio-pleasure
      - evoke physical pleasure
    - Psycho-pleasure
      - rewarding experience
    - Socio-pleasure:
      - enabling social relatedness
    - Ideo-pleasure:
      - user's values, beliefs and ideals
  - emotional design - use experience of product
    - Don Norman
    - 本能设计
      - Visceral Design
      - product's appearance and appeal to the user's senses
    - 行为设计
      - Behavioural Design
      - efficiency and ease of us
    - 自省设计
      - Reflective Design
      - user's self-image, personal satisfaction, and meaning-making,
  - Desmet and Hekkert
    - The meaning level
      - assigned personality or other expressive characteristics, resulting in personal or symbolic significance.
    - The emotional level
      - : emotions that are evoked by a product
    - The aesthetic level
      - : a product's capacity to delight one or more of the sensory modalities.
  - Hassenzahl (2004)
    - why
      - addresses people's needs for using an artefact, such as establishing relatedness with another person through a telephone call
    - what
      - at what specifically can be achieved with the product (e.g. make a call),
    - how
      - how the interaction is enabled by functionality and design.
    - 务事型，功能性
      - pragmatic
      - usability and controllability
      - practical goals of interaction such as making phone calls
    - 享乐，娱乐性
      - hedonic
      - : stimulation, identification (e.g. the user building identity with the help of the product), and evocation (e.g. provoking past memories and feelings).
  - 可以用来回忆或者传播的
    - Forlizzi and Battarbee（可以借鉴到我的research paper）
      - to say a memorable event that the user is able to communicate to others
    - fluent
      - automatic and skilled interactions
    - cognitive
      - interactions that focus on the product at hand, such as encountering a new product with an unknown interaction style
    - expressive
      - interactions from which a relationship is built with the product
  - Grounded in Dewey's
    - The Sensual Thread
      - sensory engagement
    - The Emotional Thread
      - positive or negative emotions are connected to the experience
    - The Compositional Thread
      - relationships between the parts and the whole of an experience
    - The Spatio-Temporal Thread
      - experience relates to the user's past and future and the place where the experience takes place
- 2.3? Temporality of UX
  - , the temporal aspects of UX are important, and different experiential aspects can be addressed by focusing on different stages of use.
- 2.4? Implications of UX theory
- 2.5? The design process
  - The core of UX design process work is the focus on the user, and especially the context and the nature of the interaction taking place
  - fuzzy situation
    - designers need to deal with "an unknown or only partially known situation, with demanding and stressed clients and users, with insufficient information, with new technology and new materials, with limited time and resources, with limited 24 knowledge and skill, and with inappropriate tools..."
  - Archer (1984)
    - analytical phase
      - understanding the design problem and opportunities
    - , a creative phase
      - (ideating and exploring ideas
    - execute phase
      - (transforming the ideas into final designs through an iterative process
  - Jones
    - divergence
      - understanding a design problem
    - , transformation
      - extending the boundary of a design situation
    - convergence
      - result of iterative evaluation
  - . Eppinger and Ulrich
    - of planning, concept development, system-level design, detail design, testing and refinement, and production ramp-up
      - analysis
      - ideation
      - evaluation
  - Dubberly and Evenson
    - 

    - Data collection
      - lower left
      - first collect concrete data
      - 调研方法
        - approaches
        - observing daily life and practices
        - cultural probes
          - given tools to record impressions from a situation
        - contextual inquiry
        - context mapping
      - understanding user needs and context
      - When researching for future, as yet non-existing products
    - Data analysis
      - upper left
      - analysing the data and producing models that connect the pieces of findings into comprehensible patterns and gaps for innovation and/or improvement.
        - brainstorming
        - s Future Workshops
        - f Interaction Relabelling and Extreme Characters
        - experience prototyping
        - Convivial Toolbook
    - The ideation phase
      - upper right
      - suggesting and exploring rather than excluding and refining
    - The evaluation phase
      - lower-right
      - generating tangible concepts
        - iteratively prototyped and typically tested with users
- 2.6? UX in industry
  - There are certain differences in how academia and industry approach design processes (Stolterman, 2008) and UX evaluation
  - Novel and specific academic UX evaluation methods are often slow in transferring to industry, for example due to the relevance, cost and efforts associated with the methods
- 2.7? Automotive UX research
  - . The experiences are situated in the car, an object that tends to evoke strong attachment and emotions
- 2.8? Summary
  - analysis
    - apply "open-ended" methods, considering the layered, multi-faceted aspects of experience
  - ideation
  - evaluation

2. Zaki - Empathy a motivated account

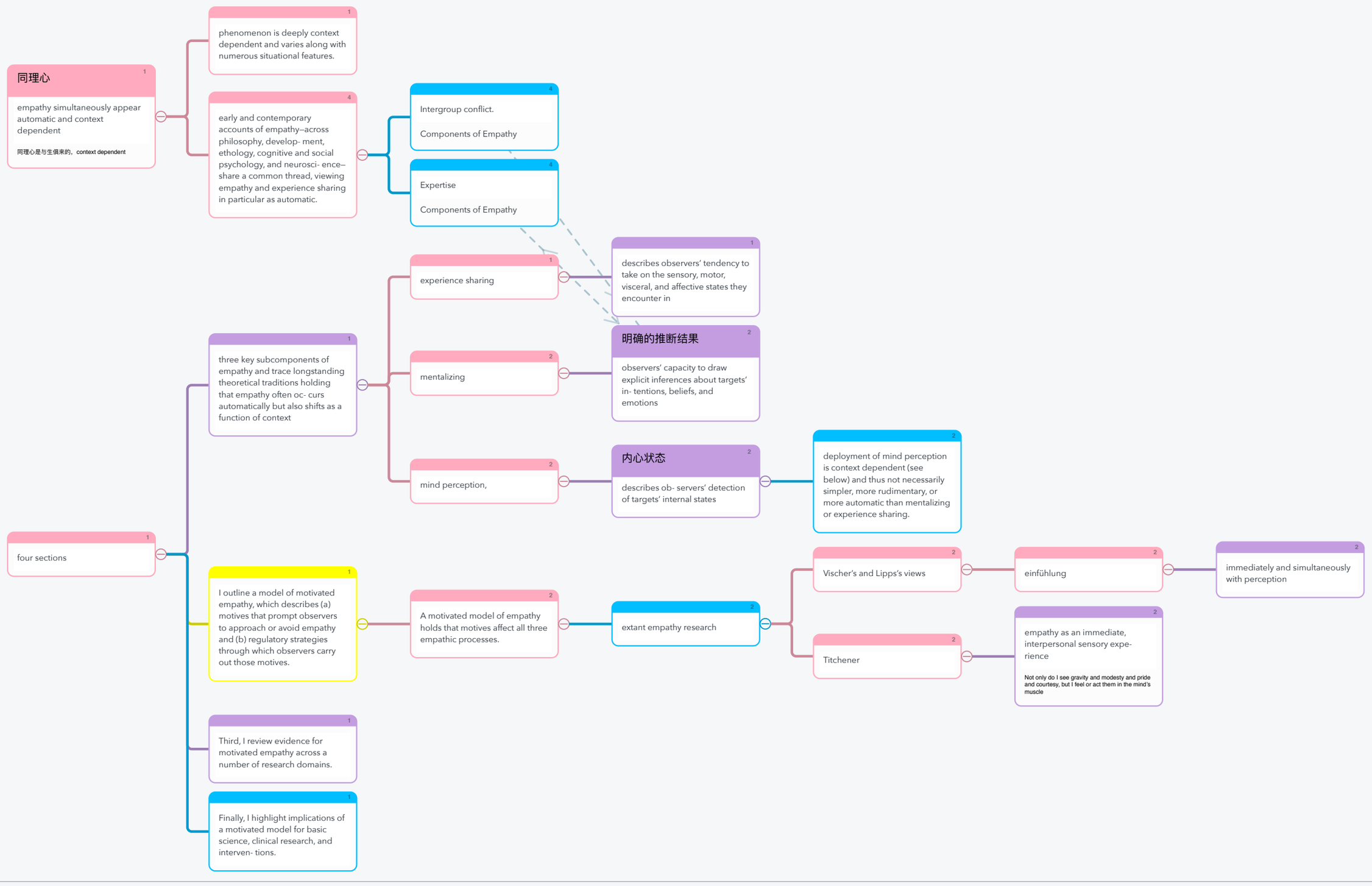
Empathy: A Motivated Account

Automaticity and Context Dependency in Empathy

Components of Empathy

Intergroup conflict.

Expertise



Automaticity as a Theme in Empathy Research

Contemporary theory

Foundations and Structure of a Motivated Model

Co constructions

- it is challenging to design for user experiences, as individual differences and the situations in which people interact with the products are influential in shaping the experience
  - to inform their design process, designers need to have a deep understanding of users and the use contexts.
  - feedback designers consider valuable
    - contextualized and grounded feedback most valuable.
    - appreciate real-life stories of users as these are informative, inspiring and trustworthy.
- co-constructing stories
  - The technique utilizes storytelling and sketching to elicit past experiences of users and anticipated future experiences enabled by the design concept
  - two phases:
    - sensitization
      - make participants think about their past experiences
        - starts by a basic fictional story told by the designer introducing the context of interest and setting the stage for dialogue.
    - elaboration
      - envision the future.
- The cultural probes technique
  - It is a projection technique, aiming to gather information about people and their activities through self-documentation by using the materials (diaries, cameras, recorders) provided by the designer.
    - do not address people's expectations about the future
  - co-constructing stories serves several different purposes. The first phase helps users to relive relevant past experiences which facilitates thinking about the future, and it provides designers with materials helping to establish empathy with users.
- generative techniques
  - With our technique we are aiming to elicit stories about past and future experiences that are relevant to the design in a more direct manner, creating empathy with the user.
- contextmapping
  - it requires quite some time and effort in comparison to traditional user studies regarding the preparation and execution of the study
  - With co-constructing stories we are aiming to elicit similar type of data in a shorter period of time
- Storytelling
  - Thus in co- constructing stories we intent to reach the reasoning behind the futuristic visions of people by asking them to build these visions based on their past experiences.
  - these techniques and methods are effective in revealing people's dreams about the future, we miss the information about where these dreams are grounded.
- starts with designer's fictional story that introduces the concept in an envisioned context.
- Our experiences so far have shown some advantages of the technique over similar tools and methods. First of all, the technique elicited feedback about the future concept which is both deep and specific to the concept. Designers find such feedback both useful, as it is inspiring and trustworthy, and usable, as it is specific to the concept and structured (Ozcelik Buskermolen et al., 2012).
  Secondly, the technique elicits stories from the users, thus it reveals grounded feedback as stories indicate reasoning.
  Moreover, stories are easily remembered, communicated and they establish a shared vision among the members of the design team (Gruen et al., 2002). Last but not least, the sensitization takes less effort in comparison to other similar techniques as it is integrated in the session itself, rather than being a prior activity. However it is still effective, as participants can talk about two to three cases in twenty minutes and reveal several anecdotes. To conclude, we believe that the technique will help eliciting in-depth feedback that is specific to the concept, in relatively little time.