

# Extracting Insights from Experience Designers to Enhance User Experience Design

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**Abstract.** User Experience (UX) summarizes how a user expects, perceives and assesses an encounter with a product. User Experience Design (UXD) aims at creating meaningful experiences. While UXD is a rather young discipline within product development and traditional processes predominate, other disciplines traditionally focus on creating experiences. We engaged with experience designers from the fields of arts, movies, sports, music and event management. By analyzing their working processes via interviews and observations we extracted triggers that can possibly lead to outstanding experiences in the original disciplines as well as in UXD: incorporating and shaping the atmosphere of interaction, balancing new and established aspects, connecting products with attributes of living beings, providing challenge and competition, enabling inductive and multifaceted learning and interaction processes, and using souvenir artifacts for connecting user and product after usage.

**Keywords:** Management of DUXU processes · User Experience · Emotional design · Product development

## 1 Introduction

### 1.1 Motivation

It is not a product in itself which is decisive for its success, but perception and assessment of the product by the user. Besides traditional product characteristics like speed of interaction, usability, etc. users assess products due to subjective feelings and complex criteria. The concept of User Experience (UX) incorporates these issues. UX describes how a user expects, perceives and evaluates a product in a certain context. User Experience Design (UXD) aims at enabling joy and fun [1], eliciting emotions [2] and satisfying psychological needs [3]. In other words: creating experiences. Yet, UXD is a rather young discipline within product development. Although new technologies enable more than mere functionality, differentiating products in one category and designing experiences is still often left to marketing. On the other hand, disciplines like arts, films, sports, etc. traditionally focus on creating experiences for their customers. It is an opportunity to learn from those disciplines for designing experiences with technical products [4].

## 1.2 Goal

The work presented in this paper is part of a broader research approach which aims at analyzing experience focused disciplines and transferring findings to product development in three categories [4]: characteristics of experience products (e.g. video game, sports event, movie), design processes which eventually lead to those products (e.g. game design process, film production process) as well as competences and tasks of experience designers involved (e.g. creative director, film producer). This paper focuses on characteristics of experience products, aiming at the question: Which triggers enable inspiring experiences in the areas of arts, movies, sports, concerts and events? The following aspects specify our goal:

**Analysis of Experience Design Practice.** In a previous study we performed a literature review and extracted factors that possibly lead to experiences in sports, gaming and tourism – according to theoretical experience models. According to the design thinking approach [5], we now engaged with experience designers and studied their design processes in practice: Which factors do experts in the analyzed disciplines design in order to enable inspiring experiences?

**From “Mainstream” to “Avant-garde”.** The previous literature review was focused on mainstream experiences. We only considered those areas of life in which most people already have had experiences. Due to the importance of newness and relevance of going beyond traditional boundaries for the emergence of unique experiences, we conducted experience designers of so called sub cultures for the study presented in this paper (e.g. event manager for socio cultural activities for teenagers without prospects).

**Insights for Subsequent Analysis.** We want to extract insights as validation and confirmation for experience factors that we analyzed in the previous literature review. As well we aim at finding new insights to start consecutive deeper analysis. Our findings should be a starting point to finally transfer approaches for designing experiences to product development and more specifically to UXD.

## 2 Previous Work

Based on a literature review we analyzed a broad range of theoretical models from sports, gaming and tourism which explain the emergence of experiences in these fields. We joined the different approaches into the ExoUX model (from **Ex**perience oriented disciplines to **U**ser **EX**perience) [6]. This model (see Fig. 1) presents factors that can possibly lead to experiences both in the original domains as well as in user product interaction. The ExoUX model splits 44 identified experience factors into 5 main categories (setting, aesthetics, interaction, user mind and technology), 5 subcategories (mechanics, user guidance, cognition, emotions and instincts) and 34 specific experience elements (e.g. environment, rules, story,...). 5 additional subcategories specify the aesthetics segment (visual, sound, feel, taste, smell).

The setting defines the overall topic for all other categories. Taking into account the environment of interaction this category defines an overarching theme, arranges the

experience orchestration and finally aims at creating a certain atmosphere with the user product interaction.

The **aesthetics** category realizes experiences connected to all human senses – going beyond traditional focus on aspects like shape and size.

In the **Interaction** category, mechanics define rules and possibilities of action. E.g. experiences can arise due to precisely addressing and shaping skills of the user. The user guidance determines the interplay and timeline of the interaction.

**User mind** refers to the user's psychological characteristics. In the sub category cognition, e.g. experiences can arise when perfectly satisfying or even exceeding expectations. Furthermore, products can enable unique UX by evoking certain emotions (e.g. fun, fear,...) or addressing instincts (e.g. competition, greed,...).

The **technology** is the medium that realizes the intended experiences in the other categories. At the same time the application of outstanding technologies itself can enable the emergence of positive UX.

There are different possibilities how to apply the ExodUX model: applying the whole model in a top down or bottom up approach, using single elements as starting point for potential experience design or aiming at integration of existing experience ideas.

In ongoing research we specify the experience elements – analyzing characteristics of each factor and interrelations between certain elements and developing methods how to design experiences based on these experience factors with technical products.

### 3 Analysis Approach

Our methodology is based on the design thinking approach. It was split into two major parts. Firstly, we had to analyze in which areas experiences arise in the life of people and what the decisive aspects of these experiences are. Therefore, we performed an interview study with 7 persons between the age of 20 and 30. Also being called generation Y this group should have a high interest in innovative experiences. We collected experience stories and categorized them with respect to underlying psychological needs and connected experience disciplines.

After having analyzed the users we chose arts, movies, sports, music and event management as most promising for further research. In the second and main part of our study we engaged with 6 professional experience experts in these fields: an artist for abstract paintings, an arts curator for contemporary art, a director for political, social and philosophical documentary movies, a sports coach, a DJ and an event manager of a socio-cultural non-profit organization. As newness played an important role for the experiences in the first part of our approach we also chose experts outside the mainstream. According to the step “empathize” of the design thinking approach we observed, interacted and took part in the work of these persons and analyzed motivation, target group, methods used and the experience design processes. For each process we discussed which aspects can be transferred to UXD. We show our summarized results using the example of the arts curator.

- *Motivation*: The arts curator defined his motivation as critically scrutinizing society. He wants to make exhibits publically available – using existing knowledge of visitors, activating it towards new ways of thinking and creating new associations.
- *Target Group*: The interviewee described his target group as arts-related and interested in social-political topics. He defined two sub groups: the first one being impressed from previous exhibitions and wanting to experience something similar again; the second one wanting to experience newness and dynamics and striving for surprise.
- *Design Process*: 1. Inspection of potential exhibits; 2. Inspection of the exhibit environment; 3. Designing a story structured by drama theory; 4. Matching of exhibits and story; 5. Adapting exhibit environment according to story; 6. Guiding visitors through the exhibit environment; 7. Providing souvenir artifacts to visitors.
- *Insights for UXD (see Sect. 4)*: Incorporating and shaping atmosphere. Balance between new and established aspects. Multifaceted and inductive learning processes. Using souvenir artifacts.

## 4 Insights

In the following we present experience principles which we extracted from all disciplines as main result of our study and which are worth transferring to UXD. We divide our insights from experience designers into two categories. Section 4.1 presents possible triggers for experiences. This is the main part of our analysis – highlighting characteristics of each trigger in the original disciplines and possibilities to transfer them to User Experience Design. Besides these factors that can shape experiences, Sect. 4.2 summarizes recommendations for design processes on the way to successful experience products.

### 4.1 Possible Triggers for Experiences

**Incorporating and Shaping Atmosphere.** Much more than already done in product development, the considered experience experts design with respect to context factors. Choosing the right atmosphere can be decisive for the generation of an experience. The arts curator, the film director, the DJ and the event manager highlighted the importance of the place and surrounding of their products' presentation. Particularly it is not the design of the art object, movie or music but the way they are presented in a museum, theatre or concert and the people taking part which count most for the users' evaluation. Figure 2 shows the example of a planned choreography at a football match of Germany against Italy in Munich. It is also possible to watch sports on TV – usability and comfort is even higher. But the atmosphere is what makes the difference and it is the reason why spectators visit the stadium. Product development should consider two aspects: Firstly, it is relevant to precisely analyze and incorporate all context factors that highly influence the product experience of a user. Secondly, product designers

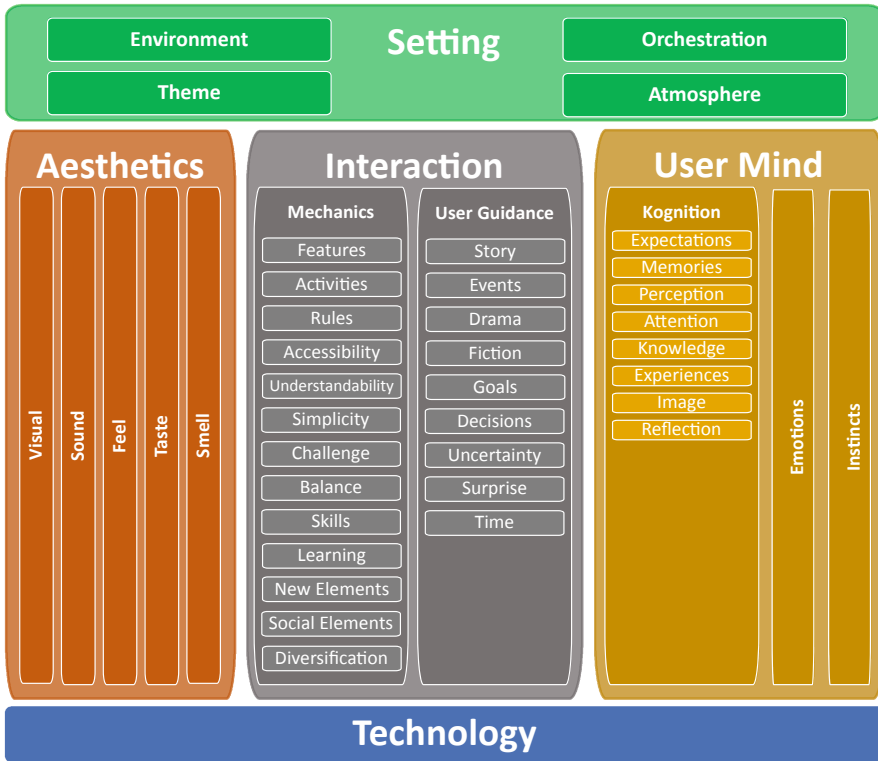


Fig. 1. ExodUX model (according to [6])

should aim at shaping an intended atmosphere rather than merely concentrating on the product itself.

**Balance Between New and Established Aspects.** Introducing new elements is a key factor for meaningful experiences in product development and all other disciplines which we examined. Yet, it is crucial for most users not to overexert newness but rather to keep them in a situation they are still comfortable in. The sports coach we interviewed organizes his sports events for teenagers in the following way: Activities stay more or less the same every year. But by changing certain factors like field size, group constellation etc. the game changes, adapts to the players’ skills and provides new experiences. Similarly the arts curator provides a familiar environment in which it is then possible to challenge social norms and provoke experiences. These design processes are dynamic. Experiences in general as well as User Experience in interactions with technical products change over time [7]. This is a starting point for future research – analyzing how experience oriented disciplines shape this balance between new and established aspects. E.g. earworms in music have the exactly right balance between well-known and surprising aspects and are worth further investigation.



**Fig. 2.** Atmosphere in a football stadium (© by Simon Kremer)

**Connecting Products with Attributes of Living Beings/Endorsement.** It is a challenge to evoke meaningful emotions with technical products. Looking at other disciplines, experience designers work with connecting their “products” with attributes of living beings. The documentary film director stressed the possibility to win over his audience and to convince them of his concern by introducing animals or humans that represent the main topic. By identifying oneself with characters the viewer moves from passively watching towards taking a fictional experience role (e.g. Indiana Jones, Fig. 3).

Also in sports and event management building fictional relationships with the protagonists is a main source for experiences. Furthermore, endorsement is an established tool in marketing [8]. Companies use celebrities to promote intended values and characteristics of their products. We aim at adapting this approach by selecting a person with an intended image in an early analysis phase of product development, analyzing his characteristics and subsequently transferring these aspects into product properties.



**Fig. 3.** Identifying oneself with movie characters: e.g. Indiana Jones (© by Disney)

**Inductive and Multifaceted Learning and Interaction Processes.** This insight consists of two main aspects. Firstly, the experience designers plan step-by-step learning processes for their users. Letting the user solve unexpected and unknown problems and learn accordingly plays an important role in the processes we analyzed. The artist and arts curator take the visitors from their daily life step by step towards understanding complex contents and the underlying visions. In sports it is also essential to “feel” the learning progress on your own. Furthermore, behind movies theoretical models explain the process how viewers understand the presented fictional world: from perception of colors, shapes, etc. to recognizing objects, identifying characters, realizing events and timelines, summarizing contents and final interpretation [9].

Besides this step-by-step learning there is a second main point of this insight. Dramatic stories support learning and other interaction processes. The film director uses an arc of suspense to build his story and create an emotional experience bonding between user and movie.

Concluding, this insight can be transferred to User Experience Design by consciously developing strategies how to introduce new products at first time of usage and how to continuously convince the users with diversified interactions. It is crucial not to doubt the users’ competence. Instead, the interaction should challenge the user but at the same time not overexert him. An underlying partly dramatic story can support a multifaceted product interaction.

**Challenge and Competition.** Competition is another factor that can enable meaningful experiences – originally coming out of sports. The sports coach uses challenge and competition as tool to motivate his participants. According to him, experiencing competition and coping with challenges in a group together with other people can even increase this kind of experience. Traditionally products should be designed to work without excessive effort of the user. But analyzing experiences, it is not the summary of only positive emotions which matters. An evenly positive emotional curve during interaction might lose its excitement. Positive could become normal. Meaningful experiences are highly related to the difference between negative and positive emotions. In sports, physical and mental effort and stress require a high amount of training. And still there is a chance of losing. It is very much this possibility to lose which facilitates the experience of winning to even exist. Losing and failure are not covered in product development so far and worth further research. Finding the right balance between easy to use and challenging usage is decisive.

**Using Souvenir Artifacts.** Physical artifacts coming out the process of experiencing connect users with temporary interactions and can help creating long lasting experiences. The arts curator mentioned interactive concepts where visitors take a physical object home to inspire them and to remember after visiting an exhibition. Figure 4 shows such a souvenir artifact from the German Pavilion at the universal exhibition EXPO 2015. When entering the pavilion every visitor received a specific card board with reflectors. Inside the exhibition you could place this cardboard at specified points of information. The cardboard served as screen, content was projected onto, as well as an interface for choosing the presented information (by moving and turning the cardboard). Afterwards it remained property of each visitor – reminding him or her of experiencing the technology and the exhibition. An example for a technical product

that already serves as souvenir artifact is a car key which is used to unlock and start an automobile and which is carried around, maybe placed on a table, etc. by the driver. Transferring our insight to product development we could enable a User Experience by a smartphone which is used as an interface in an automobile. After driving the user takes the smartphone with him. It is a physical artifact connected to the experiences faced while driving and might even provide information about the experienced while apart from the car (e.g. at home).



**Fig. 4.** Souvenir artifact from German Pavilion at EXPO 2015 (© by Simon Kremer)

## 4.2 Recommendations for Experience Design Processes

**Open Development Goal.** To create something really new (e.g. in arts) it is important to challenge norms and to keep the development goal changing dynamically. The artist who we interviewed emphasized the wish to create something unique. Instead of knowing what to paint in the beginning and focusing on a certain goal, he starts his design process with maximizing the influence of his environment. Starting with this inspiration, only in the iterative process of action and reflection the artist defines goal and meaning of his paintings. To transfer this recommendation to User Experience Design we have to define criteria in which situation the development goal should be kept open or focused.

**Integrating and Excluding User Feedback.** Integrating users is an important aspect of user centered design approaches. But e.g. in arts it is important to also exclude the users in order to go beyond obvious user motives. Our interview partner paid high intention to including dynamic influences of his environment. But no possible buyer



was included in his creative process. Only after having finished a painting he confronted a customer with his piece of work. According to the demands of and interpretation by the customer, the artist named the painting. Similarly, theatre productions usually do not include spectators' feedback until the premiere. But during and after the performance there is an immediate and direct feedback from visitors to experience designers (e.g. actors, director,...). Therefore, it seems to be important not to include user feedback in general but in the right moment in the design process. Our approach for transfer to product development: Combining strength of both technology *push* (mainly without users) and market *pull* (user centered demand analysis) and bringing it to the next level of *excite* (by exceeding users expectations with experience triggers from this paper and previous work – see Sect. 2).

## 5 Discussion

Our study is not based on a representative survey. Much more we extracted key insights to work with when designing experiences both in the original disciplines and with technical products. This relates to the nature of User Experience which is hard to analyze and design in all details. But making the difference in one specific aspect can shape outstanding User Experience.

Moreover, the triggers for experiences are not fundamentally new and maybe seem to be obvious. Nevertheless, making researchers and experience designers consciously aware of these aspects can bring forth User Experience Design. We do not present elaborated design approaches but starting points which allow consecutive deeper analysis. Furthermore, this paper just presents an overview over main aspects of our insights and does not cover all details from the interviews.

Extracted triggers for experiences are often related to factors of the ExodUX model which we derived from literature (see Sect. 2). For example the importance of creating an intended atmosphere can be found in both approaches. As well, learning and challenge are experience factors in the ExodUX model which we also extracted from experience experts. This means similar factors lead to and influence experiences both in mainstream and avant-garde. Furthermore, many experience triggers are relevant in a broad range of analyzed disciplines.

## 6 Summary and Outlook

User Experience Design (UXD) aims at creating exciting experiences but is a rather young discipline within product development. On the other hand, other disciplines traditionally focus on creating experiences. We engaged with experience designers from the fields of arts, movies, sports, music and event management. By analyzing their working processes via interviews and observations we extracted triggers that can possibly lead to outstanding experiences in the original disciplines as well as in UXD: incorporating and shaping atmosphere, balance between new and established aspects, connecting products with attributes of living beings/endorsement, inductive and multifaceted learning and interaction processes, challenge and competition, and using souvenir artifacts.

Future work will focus on specifically analyzing the extracted insights. Our goal is to develop methods for addressing and implementing these experience triggers in product development and including them in the User Experience Design process [10].

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