The experience monitoring

Francesca Di Mari
Michela Perotti
Abstract

In the Customer Age, people remain loyal to products and services that give them good experiences and, therefore, guarantee the success of those organizations that are able to offer them.

It is necessary to identify rigorous and concrete assessment tools to rate the quality of the experience offered and be able to clearly trace a path towards improving one’s very own business performance.

UX Monitoring is a protocol designed by Sketchin that evaluates the quality of the user and customer experience, identifies obstacles and opportunities as well as provides design and product management with a series of practical tips for its evolution and improvement.

Consistent measuring allows verifying the effectiveness of one’s own choices to be able to provide quality products and services characterized by a lasting success to one’s own clients.
1. The User Experience

1.1 What is the User Experience?

Everything is experience. Experience is generated whenever people interact with the world. This term defines a personal and subjective dimension and therefore not precisely and clearly describable.

However, the quality of experience gained by each of us defines our relationship with other people, things and situations, influence our choices and condition them. Our judgement derives from the interaction between information obtained from experiences and the projection of memories that we are presently living.¹

Expectations are created on the facts that will happen, on the experiences about to be had and creates prefiguration, or rather constructs anticipated memories, based on events already lived.²

This article will focus on the experiences that users can have with digital products and services or with products and services mediated by digital technology. However, many of the considerations that follow can be equally applied to non-technological contexts.

For us in Sketchin, the use and consumption experience is what a person feels when interacting with a product, a system, a service or a brand. Before – expectations –, during – experience – and after – recollection –, purchase and use. The user experience goes beyond the merely functional aspects. It has a number of more qualitative dimensions such as emotional, social and cultural components, which are equally critical in defining the overall quality.

Fig.1 - The use and consumption experience: is what a person feels when interacting with a product, a system, a service or a brand.

¹. Bergson H.; Matière et mémoire (1896).
². In a famous speech at TED, the Economics Nobel Prize winner Daniel Kahneman stated that our self consists of experiences: there is a part of us “that lives for experiences, that lives in the present and then there is the self that remembers and like a storyteller, tells us about our lives”.
1.2 The importance of UX

Digital systems have an increasing importance in our daily lives: we interact almost constantly with these products and services and also with analogical ones that have intangible components such as cars, kitchens, boards and “intelligent” vase holders for plants.

The pervasiveness of digital technology requires the latter to respond in a meaningful way when people deal with it. Thus being able to offer a good User Experience becomes fundamental, as well as the ability to design artifacts that influence it.

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The attention to the quality of the experience, even in the field of economics, has gained an increasing importance from the 70’s and onwards. The experience economy brought the awareness that the experiences lived by customers and users are the key to success of an organization.

In the Customer Age, more and more often people remain loyal to products and services that give them good experiences and, therefore, guarantee the success of those organizations that are able to offer them. Extraordinary business results of organizations such as Starbucks, Apple, McDonald’s and Tesco, just to name a few, are proof of this. In the not too distant future, a good User Experience will be the distinction between the success and failure of digital products and services.

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Each of these organizations has designed artifacts and services that arouse experiences lived by their clients, making them unique, alluring and meaningful while giving them a value that people are willing to pay. In other words, making them become an essential part of a client’s identity.\(^5\) An example of this is Nespresso: a brand that bet everything on the user and consumption experience as an essential part of the consumer’s life.

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5. The sociologist and economist James Rifkin theorized this concept when he spoke of the era. According to Rifkin, the fuller form of global citizenship, which marks the difference between exclusion and intrusion in contemporary society, is not related to the tangible but at the chance to participate in optimal experiences.
1.3 The dimensions of the UX

Numerous studies have shown that products and services that offer superior user experiences in terms of utility, simplicity and pleasantness⁶ are the most used, appreciated and divulged, therefore, have more success. This does not only refer to modern times but these dimensions go back to the Vitruvian ⁷ of firmitas, utilitas and venustas architectural greats. According to the great architect, a well-done building must be solid, satisfy the needs of its inhabitants, be nice and arouse positive emotions in people. **We can compare these aspects to the components of a successful story: the plot, the storyline and the style.⁸**

**Utility: is the plot of the experience.**
The plot is the sequence of events necessary to the story’s unfolding, it represents the story’s logical and chronological sequence of events. Similarly, utility deals with the ability to satisfy people’s needs, enabling them to achieve the goals that they had set for themselves. **It is the sequence of steps considered necessary and sufficient for the user to accomplish a task.** Take for example the Google search engine: its utility is obvious because it serves a unique function, which is research, allowing a person to look up information effectively and without running into errors or misunderstandings.

**Simplicity: is the storyline of experience.**
The storyline is the sequence in which events are presented, the balance between the events as well as the ability to manage the suspense and upheaval of the story. Simplicity accomplish the same task by creating order in the complexity of information, with a sincere content and appearance. The simplicity is the ability to make people live memorable and sincere experiences without burdening them with a cognitive load, without losing them in redundant, confused and complex information: **provide simple services and simple functions focused on the goal.** Again, the Google search engine is a great example of simplicity: it is a one and only understandable field, clear, and not ambiguous that hides behind the scenes the enormous complexity on which it is based.

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Pleasantness: is similar to style.
It’s the way in which events are told such as the tone, the recording and the choice of words. The pleasantness deals with the delight originating from the interaction with that particular product or service. Google is a perfect example of pleasantness: research tickles our curiosity and sometimes a Google doodle appears to amuse us and makes us discover important facts or characters.

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In order to be a really good one, experience must be natural, intuitive, clear and selfexplanatory, making people feel at ease with the products they use and services they benefit from. Continuing with the metaphor of the story, it must happen like when reading a good book: you immerse completely in the story, forgetting the narrator and the author who thought out that story.9

Never ignore the ending of a story. Let’s remember the endings that have surprised, involved and excited us. We get attached to books that have exciting endings but not inconsistent, contradictory, trivial or sloppy conclusions.10

Similarly, a good user experience must be characterized by a memorable and fulfilling ending so that the users get maximum satisfaction from what they have just experienced, want to repeat the experience and perhaps suggesting it to friends.

Good experiences are therefore those that exceed people’s expectations, giving them a higher value than what they expected to receive and, by doing this, they leave the mediocrity11 to enter the success.

2. The importance of measuring

2.1 Why evaluate the user experience

The experience is complex, personal as well as subjective and its assessment is a daunting task. On the other hand, more and more researches demonstrates that it is precisely the UX quality that divides the success and failure of digital products or services.¹²

Just one example to show the risk incurred by products and services with a mediocre UX: everyone uses Google as a normal part of their daily lives and no one remembers the many search engines that preceded it, that have disappeared slipping into oblivion.

Up until now we have mentioned the “good” experiences, but the term “good” implies a judgement or a comparative evaluation. Each and every one of us is able to assess the quality of the experiences lived, often in an purely instinctive manner. However, if the UX quality is so important for the survival and the success of a product or service, more rigorous and concrete evaluation tools are required.

2.2 Benefits for the design and for the project management

At Sketchin we understand and design experiences for customers and users. Project development begins with the mapping of the current situation in order to identify opportunities and evolve them. At this stage that a suitable instrument was needed to measure the experience. We had to find a method that allow us to reconcile the analysis of consumer behaviour to identify problems and opportunities on one hand while on the other, provide project management with a tool to rule the main strategic choices. It is an ambitious reconciliation considering that in most cases the user-centred design and the business objectives are treated as strictly separate areas and not as a whole.

A systematic long-term and not unexpected assessment of the User Experience has definite advantages for many such as the designers who have to formulate and make it real as well as for those wanting to make a profit.

¹². Eckert P.; 2016: The User Interface Revolution Underway; article n.624; UXmagazine, 2011.
Having a synthetic assessment of the quality of experience that people live through the products and services designed represents an indicator of a designer’s work effectiveness.

An evaluation of the User Experience becomes crucial when you face complex projects by choosing the Lean or Agile approaches based on evolutionary design. The ability to identify feedback as well as strengths and threats of the experience lived by users turns out to be an essential guide for a solid future evolution of the offer.\(^\text{13}\)

Since a user’s experience of use and consumption varies over time and conditions, context and habits change, it is important to assess their quality in a sufficiently long period of time to permit changes while repeating measurement interventions at regular intervals.

**Even product management and clients gain a strategic advantage by the UX evaluation.** Having synthetic information on the use of quality experience provides guidance regarding the consistency with the client’s business goals.

First, by estimating the quality of experience provides precise information on the strengths and weaknesses of the offer. It can also define the priorities for action in order to achieve the pre-established business goals on the basis of objective evidence acquired through a consistent and systematic detection, gaining critical insight \(^\text{14}\) to operate the change in time.

In order to have a successful long-term result of the business initiative, a user experience assessment traces a path towards improvement of the business performances.

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Klein L.; *UX for Lean Startup. Faster, smarter User Experience, Research and Design*; O’Reilly, Sebastopol CA; 2013.

2.3 Measuring the UX: need and threats

Measuring the use and consumption experience is not easy especially because of the abstract and multifaceted nature of the object in question. However, not doing so would leave us blind when taking decisions.

Difficulty is also the base of one of the great objections set up against a UX analytical approach. If it is difficult to define what is meant by experience, attempting an estimate is pure fantasy.

We have a different point of view: finding an objective measure for the User Experience is impossible; however, we can think of indicators able to estimate its quality.\textsuperscript{15}

If a totally quantitative approach to measuring experience is not possible, the opposite one being totally qualitative would be equally misleading. It would be based solely on personal, fleeting and subjective impressions and would leave us in a world of approximation.

So how can the issue be addressed? How can the User Experience be measured in a systematic and effective manner?

3. The UX Monitoring

We responded to the question above by developing the UX Monitoring. **We introduced this tool in our projects to measure the experience and make it evolve.** Thanks to the results obtained, the protocol was transformed so that it can be used with any type of project.

To develop the UX Monitoring, we combed through literature looking for information that could support us. By identifying the main measurement scales developed over the years, we gathered concepts and data on the various constitutive elements of the experience.

We realized that every expert had given his or her interpretation based on his or her professional experience. Each one had strengths and weaknesses but none was adequate to our needs. **We have chosen to build our assessment matrix using the theories developed by the psychologist Daniel Kahneman**, Nobel Prize winner for Economics in 2002, as a reference. His studies were focused on understanding humans’ choices and their effects with an approach divided between the human and economic aspect.

Our protocol is based on his **experience curves**\(^\text{16}\) because they allow us to analyze the experimental flow of people\(^\text{17}\), highlighting obstacles and development opportunities.

We have linked these concepts to the three main dimensions of experience: **utility, simplicity** and **pleasantness**. The combination of these three metrics is crucial to ensure that people have a good user experience.\(^\text{18}\) For each of those we identified a series of sub-metrics\(^\text{19}\), such as readability, comprehensibility, consistency and affordance, totalling **41 evaluation parameters**. The ensemble of the sub-metrics is an assessment guide from which experience curves can be obtained.

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16. Kahneman D.; *The riddle of experience vs memory*; TED 2010
19. The metrics developed by Norman, Nielsen’s heuristics, Fogg’s principles, Marville’s matrix, the guidelines developed by Shneiderman and several parameters taken from standard scales for measuring SUS, QUIS
FOCUS

What is an experience curve

An experience curve (or UX curve) is a graph displaying the progress of the quality of experience lived by people and highlights the obstacles and opportunities of development.

It maps the number of actions that a person must accomplish to conclude a task in order to achieve his or her goal and allows you to view the entire experience and differentiate amongst several aspects such as the introduction, execution and conclusion stages, its composition in terms of utility, simplicity and pleasantness as well as identifying pain points and win points.

The pain points indicate the presence of problems and stand out because they are below the curve average. These points must be resolved to guarantee that people will have a good user experience. On the other hand, the high peaks indicate the presence of a set of positive factors (win points) and represent opportunities for further improvements of the experience up until the evolution stage of the Wow moments.20

Daniel Kahneman and Amos Tversky used the experience curves during the development of the Prospect Theory to describe the behaviour of investors and economic agents in situations of uncertainty.21

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3.1 What are the characteristics of a good experience curve?

Every experience is subjective and therefore variable depending on the context and influenced by many factors. For this reason, we identified some characteristics that distinguish a good experience curve as well as the factors to be taken into account to correctly read a UX curve.

A UX curve is divided into three important parts: the **introduction**, the **execution** and the **conclusion**. In the first stage, the person builds the expectation, in the second, he or she carries out the experience and in the last stage, he or she concludes the last steps. Each stage has its own peculiarities because it represents a specific phase of the experience. **All are important because together they represent the average pace of the experience but particular attention must be given to the introduction and conclusion and verify the presence of Wow moments.**

![The metrics](image)

**Fig.3 - The metrics.** The curve displays its composition in terms of utility, simplicity, and pleasantness.

In the first introduction, the person builds the **expectation** that is highly subjective and fruit of a previous personal experience. It begins when the person becomes aware of a service or product. A person must be encouraged to use a service or purchase a product. The information that he or she receives must indicate the advantages and benefits to be obtained as well as understand the needs that it will satisfy and what goals may be reached.

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In this stage, a good experience curve is distinguished by having a peak at the top. In most cases, the initial moments of the experience are very important because during these moments, the person decides whether to delve into the actual experience.

The instants following the introduction are when the execution begins. This is when the person uses the service or product. It consists of a set of actions conducted by the person in order to reach his or her goal. The main part of the experience is the execution because this is when the person actually uses the service or product, formulates an opinion and above all, a memory. A good experience curve can remain in the mean but it must have some positive peaks.

The conclusive phase is the most important because it is the one that people remember more easily and that significantly influences the memory of the entire experience. The conclusive phase is formed by the moments preceding the objective and it is for this reason that they must be particularly cared about and pleasant.

As stated by the peak-end-rule theory, a good experience occurs when the conclusion exceeds the initial expectations.²³

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Fig. 4 - The shape of the curve. Each phase of the experience shapes the curve. Special attention should be given to pain and win points, as well as to the ending.

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A UX curve also displays its composition in terms of utility, simplicity and pleasantness. An actions during the experience should be useful, simple and pleasant but unfortunately it is not always so. There are useful actions which are not very pleasant (ex. standing in line at cashes, looking for parking, accounting software procedures) just as there are simple but useless actions (ex. printing a document when only one code is needed). The composition of the UX curve allows you to understand at a glance what the metric (or the metrics) is that negatively impact the quality of the overall experience so as to define the list of observed interventions.

The UX curves display the pace of the experience during the three phases: from the introduction, to the execution and conclusion. The study of the shape of the curve and of its structure allows the identification of specific obstacles, their location and on what metric they have most influence.

Thanks to a UX Monitoring, we can obtain a list of pertinent insights concerning experience curves as well as a series of practical tips to develop the experience.
3.2 How a UX Monitoring is conducted

To carry out UX Monitoring, it is important to identify and define the main **flows and contact points with the clients**. They primarily involve digital touch points but can be integrated with the physical ones. The starting point of each monitoring is the same: **identify the processes that have the most impact on business objectives**.

Subsequently, each flow is split in single task that the person must accomplish to achieve the objective (ex: opening a bank account, buying a ticket, hotel booking, etc...).

For each action, the actual usage data are collected and **41 metrics of experience** are analyzed. Each is assigned a **score** that indicates, in every single action, if the metric is fully satisfied (2), if improvement is needed (1) or if it is absent (0). The scores are factored and transformed in decimal base indices for an easier comparability.

**The analysis** is conducted **by an expert evaluator** that critically analyzes the experience flow in order to identify the **critical** and **opportunities of development**. The expert analyzes the UX curves by describing the characteristics of shape and identifying a series of insights and suggestions to improve the experience offered. **The only way to see the result of the choices made is to repeat the measurement over time**.

For this reason, the UX Monitoring is a **repetitive tool** applied cyclically over a year. This way, it is possible to assess the impact of the changes suggested and made.

![Comparing the experience curves](image-url)

**Fig.5 - Comparing the experience curves.** Comparing the data obtained from previous measurement allows the team to assess the impact of the improvements.
In the Monitorings following the first, analyses are carried out on the same flows pinpointed initially but by comparing the data obtained from previous measurements. The expert is responsible for integrating the analysis with the relative considerations to the variations that surfaced and to the evolution of the curve.

The UX Monitoring is a repetitive tool applied cyclically over a year. It is possible to assess the impact of the changes suggested and made.

3.3 Limits and advantages of the UX Monitoring

The experience is lived in a different way by each person. However, it is possible to identify a common behaviour trend in order to pinpoint the areas that most persuade people to use one service over another.

The UX Monitoring differs from other analytic quantification procedures since it allows the measuring of the experience, the display of the UX curves and a list of practical recommendations for the evolution of the experience.

An expert and subjective analysis is obtained from the UX Monitoring that we standardized with real indexes of use in the introduction protocol. These trace the adoption by persons and its changes. This means that within the same instrument, we integrated a qualitative as well as quantitative assessment.

The assessment of experience from both a qualitative and quantitative point of view is a distinctive feature of the UX Monitoring. If taken individually, both approaches have limits. By nature, qualitative data are a source of subjective interpretation while on the other hand, the objectivity of numbers is limited if there is no possibility of entering in the merits of examining the situation. The presence of both has enabled us to exceed limits and exalt the advantages of both.

The UX Monitoring allows you to analyze the users’ true behaviour by specifying for each individual action the problems encountered and the opportunities for development.

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Expert analysis is focused on both the current situation as well as the consecutive developments. It also highlights the adoption term differences throughout the entire monitoring period. Measuring the experience constantly allows the verification effectiveness of your choices. Evolution means changing the experience to adapt it to users’ habits.

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Conclusions

The UX Monitoring is the first tool that aids the ruling of change based on a rigorous assessment of the quality of the experience offered.

The analysis provides a series of insights on the strengths and weaknesses of one’s own offer with numerous practical guidelines on removing barriers that compromise the experience. At the same time, it identifies the existing potentials not yet developed.

The UX Monitoring turns out to be an extremely useful resource in ruling the project choices available to the design team as well as the project management.
We are a user experience design studio that focuses on digital products and services.

We work with your company to discover, design, and drive evolution of successful digital products and services by working with the people who will use them.

We are specialized in making the user experience of your digital products and services evolve over time while steadily improving them.