

# Startup Rio: User Experience and Startups

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**Abstract.** UX design and UX research play an important role in startups and their projects. The expressive growth of startups around the world encouraged the Rio de Janeiro State government to foment entrepreneur culture in the city in an attempt of transforming Rio de Janeiro in a digital technology center of reference and created the Startup Rio to encourage startups' growth in the city. This paper presents the launchpad method used around the world as well as the experience and results collected during UX mentorship on the 5-day Google event (startup launchpad) with 50 startups in Rio de Janeiro, showing the close connection between startup culture and user experience.

**Keywords:** User experience · Startups · UX mentorship

## 1 Introduction

Startup is a term that has been used widely on the business market around the world. Many consider that any small company that starts with a great idea is entitled to receive the denomination startup. As companies with low maintenance costs, startups has advantages over traditional companies and can grow rapidly with high lucrative results, if balanced with the right mix of products, services, tools and processes. According to the Brazilian Association of Startups (abstartups - [www.abstartups.com.br](http://www.abstartups.com.br)), startups are companies in the beginning stage that develops innovative products or services, with potential fast growth. Eric Ries [1], in his book *the lean startup*, defines it as “a human institution designed to create a new product or service in conditions of extreme uncertainty”. New resources like cloud storage, digital distribution, crowd-sourced funding, global outsourcing are some of the tools that can contribute to manage and fight these uncertainties.

The author proposes that startups should optimize productivity and make quick tests throughout the development process. The iteration cycles have to be fast and with low costs in order to the startup validate and discard hypothesis on the new product or service. The lean startup proposal, derived from the lean methodology, endorse the idea of

creating fast low fidelity prototypes to validate market hypothesis and investigate users' feedback to involve them as part of the development process. The idea of using low fidelity prototypes with the minimal number of features is to identify flaws in a fast (with low money investment) pace and iterate fast to solve the pointed problems.

There has to be more than just develop a new smart product ou increment something that already exists. The startup needs to consider a number of integrated factors, like hypertexts of Levy's [2] semantic connections, that goes far beyond features and functions of a new product in order to fascinate users and make them fall in love with it. It must be planned to bring experiences to the user. Even with innovative solutions in daily routines, needs and processes change faster and faster in a dynamic market. The reputation of a product derived from the experience of users is imperative to the success of the product or service.

The entrepreneurs need to find balance between technology, process and market expectations. They need to identify and involve people and find what delights them and them transform them in users. To achieve users' delight, projects have to be proposed, conceptualized and developed focusing in good usability experience and great user experience (UX). Braden Kowitz [3] (Google Ventures) during the startup panel at Form SF 2014, points out that even if every startup experience is unique, the fastest you can test the idea of your project, the better: the entrepreneur have a fast feedback and can make decisions on what is working and what is not. And adds: find a mentor.

## 2 User Experience Design

Nielsen and Norman [4] summarize the concept of UX as "User experience encompasses all aspects of the end-user's interaction with the company, its services, and its products". Following how the authors distinguish between usability and UX, where usability covers whether the system is easy to learn, efficient to use, pleasant and objective; UX covers a much broader concept.

As usability covers the easiness of using and learning a specific system by a user, the research on user experience analyses the whole experience of the user outside the system, the scenario and circumstances in which the user may open the system and what happens during the interaction, inside and outside the system.

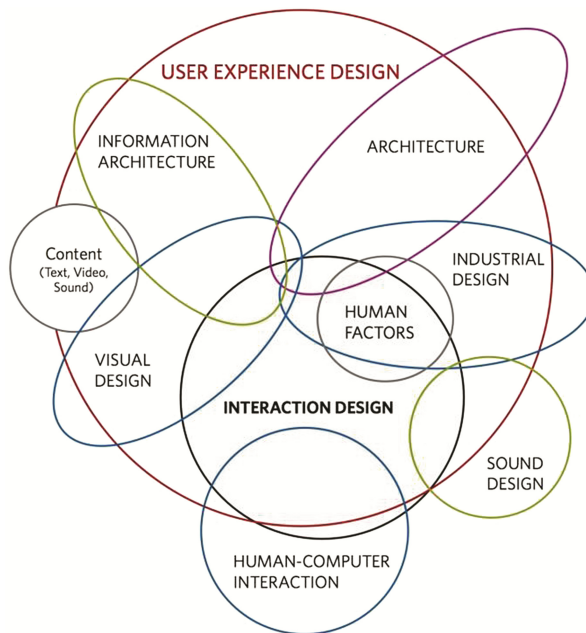
Leaving the system scenario, Jared Spool [5] on his lecture regarding mobile and UX, compares the usability of performing tasks (activities) with user experience, using theme parks to portray the idea. The theme park known as Six Flags can be found on few states (of USA) and it is possible to see a pattern of use: people get in the park, choose the closest ride, get in a long line, ride the roller coaster and then choose another ride and re-start the cycle. The map distributed at the entrance helps customers to find themselves and make these choices showing all rides that exists in the park. The goal of the map is to pin point where the users are and which choices of activities (tasks) they have. Each individual activity is enjoyable and fun.

On the other side the author shows the Disney Magic Kingdom's map where is hard to understand specific rides unless you are a fan and recognize the architectural structures drawn on the map. The rides are not pointed out as in the six flags' map because Disney

doesn't think of themselves as a place with rides, but a place people take their kids for an adventure. Disney focus on things to construct this adventure: breakfast with characters, lunch with princesses, princess beauty shop, photographers throughout the park taking pictures from people's adventures for later download and the day ends with lightning parade and lots of fireworks. After it, parents carry their very tired children back to the Disney Resort and as entering the room, the first thing to notice is that there are animals and characters made of towels on the bed. The Disney's slogan is seen by everyone as they reach the entrance: let the memories begin.

Using Spool's examples, activities are distinct things (tasks) that happens (are performed); experience is making sure everything blends, everything is connected, even afterwards when people leave the park. The concept of the whole Disney experience of building new memories goes far beyond specific tasks, it considers the whole "adventure" that starts even before the arrival at the airport. As shown in Garret's diagram, UX design research englobes many field studies of design, as it has to understand what happens with the users from different points of view and knowledge.

The UX design approach could diminish the risks of new enterprises, financially and timely, for startups when conceptualizing new products or services. There are many things happening, a sequence of moments, outside the app that determine the user's interest and flow of interaction within the app. The user experience design can be the key to make users fall in love with a new product and help filter ideas that seemed incredible at first (Fig. 1).



**Fig. 1.** J.J. Garret graphic representation of user experience field of studies compared to other disciplines related to design

Daniel Szuc [6], Principal and Cofounder of Apogee Usability Asia Ltd., and Jo Wong, Principal and Cofounder of Apogee Usability Asia Ltd., point a few factors that should be considered to create great UX design:

- meets user needs that a business fully understands and nurtures
- maps to business needs, whose improvement we can track over time
- connects to data points that speak to the product or service story
- uses a well-defined and well-understood design framework that scales well and promotes consistent and usable interactions
- leverages design patterns that promote useful, usable, and delightful interactions
- maps to well-defined design principles that connect to brand principles and business goals and directions
- undergoes continuous improvement through customer and business feedback
- tries out new ideas and conducts experiments that do not disrupt the core value
- is led and owned by people who are well educated and grounded in deep knowledge of design foundations
- is visible and improves through structured and balanced critique

In the same article by UX matters [6], Jim Nieters (Global Head, User Experience, of HP's Consumer Travel Division, UX matters columnist) adds "The large majority of well-designed products have been designed following a user-centered design (UCD) approach. In this process, user researchers first identify user task flows, challenges, and emotional triggers, providing insights that will inform the proposed design solution. Then UX designers leverage this research in their designs, ensuring that they are both easy to use and satisfy the emotional needs of the user. And finally, usability specialists validate the designs through usability testing, or evaluative research. This basic approach pretty consistently results in useful, usable products. However, while usability is absolutely necessary, it's not always sufficient. If you want to produce a truly great design, you'll need a few additional ingredients... Finally, to produce great user experiences repeatedly, you need a UX leader whose voice is equal to that of the leaders in Product Management and Engineering. You need a leader who knows how to structure an organization in the right way. One of a UX leader's goals is to identify and put the right processes in place, ensuring that User Experience is a key part of the process."

UX designers [7] use knowledge and methods that originate from psychology, anthropology, sociology, computer science, graphic design, industrial design and cognitive science. The role of the UX design should always be derived from people's problems and aim at finding a pleasurable, seductive, inspiring solution. The results of that work should always be measurable through metrics describing user behavior. Many methods of usability testing, questionnaire and observation can help put together the pieces of the puzzle that could represent users' scenario of experiences.

Marcin Trader [8], in his book UX design for startups, indicate its importance in the world of startups: user experience design at its heart is an optimization: an iteratively improved solution to a general problem. UX is the air successful startups breathe.

### 3 The Startup Rio Program

The expressive growth of startups around the world encouraged the Rio de Janeiro State government to foment entrepreneur culture in the city in an attempt of transforming Rio de Janeiro in a digital technology center of reference. From a public-private initiative, it was created then the Startup Rio program (<http://www.startuprio.org/>). According to the official site, entrepreneurs with digital projects could apply to be part of the program. The 50 selected startups would receive financial help from the government as well as a co-working space (with auditorium, conference rooms, wifi, lounges, skype rooms and coffee shop) and an educational program to help the entrepreneurs develop abilities and knowledge for digital tech to act in the Brazilian and foreign markets and develop business, generate knowledge for the execution of digital tech prototypes, act in an environment of innovation and entrepreneurship and develop an entrepreneur mindset and culture.

As part of the educational program offered, the startups would participate in the first Google Startup Launchpad in Brazil. The launchpad, developed by Google Inc., is spread around the globe with successful results “provides startups in all stages with the platform, resources, online content, mentorship and training they need to succeed. From first idea to successful implementation and growth, its mission is to help startups worldwide become successful on the Google Developers platform and open-source technologies”.

The Startup Launchpad event had the duration of 5 days in Rio de Janeiro and had organizers, presenters and mentors flight in from several different countries. The 50 startups were separated by 9 themes: multi-sided platforms, B2B, Education, e-commerce and retail, events and social, health, media, tourism and entertainment and tourism and entertainment 2. Each group formed with 4–6 startups. The event where divided by time schedule and after first introductions, offered lectures on UX, web and mobile development, tips, monetization, pitch preparation during the mornings and individual mentorship in the afternoons.

Four types of mentoring were offered for the afternoon sessions: UX, Product, marketing and Tech. Each theme group had at least one of each type of mentor to show the projects, receive feedback and knowledge lecture focused on each specific topic. At the final day, 10 startups were sorted out to present a pitch video and have feedback from real investors.

### 4 The Google Startup Launchpad Model

The Google’s Startup Launch program provides startups in all stages with the platform, resources, online content, mentorship and training they need to succeed. As shown in its webpage, the program offers coaching in three basic steps: Start, Build and Grow. The three stages include startup launchpad events worldwide, online trainings, online sections for designing and developing apps, free resources and credits, mentorship from startup launch’s network, UX review by google’s developers, early access to upcoming product releases, access to developer relations and startup’s mentor network and online section on distribution and monetization.

The Startup Launchpad events have until now occurred in London, Paris, Barcelona, Tel Aviv, Berlin and Rio. And from organizers' observation and experience, although events at different parts of the world, there is much in common regarding the startups and the involved challenges to help prepare them:

- Usually, startups don't know much what UX is exactly – thinking it is all about graphics/buttons locations etc.
- most of startups don't know their users – in many cases startups has only vague idea of who their users are and don't invest enough time in checking it out.
- startups think they know their users, but they don't. In this case, they think they know who they are, but they don't. UX wise, they use “personas” technique without any research done. Which in many cases, is even worst then not knowing their users.
- afraid to meet their users – in many cases, they don't feel comfortable getting out there, talking to users.
- don't use any Lean/agile methodologies. This results in a long in-startup design, development and only then, they find out that the customers don't need this and that.

The Startup Launchpad events tries to introduce the UX concept to the startups in four approaches: (1) give them an introduction lecture to UX, even as a very general talk, it has been noted that it helps focus them; (2) give user research lectures and talks; (3) provide them with the self-use UX document we have created; (4) give them mentorship by UX experts.

The self use UX document gives a general idea of what is UX research: what is used for, when to use it and how to use the kit. It is divided in five tasks to help startups re-think and test their products:

- Task 1: defining the users and usage-model – In order to fit the product to its user's needs and abilities, it is important to first know them. Define the users, refer to all the listed criteria and be specific (“everybody” is not a good answer).
- Task 2: defining the main processes and workflow - using a product does not end with one click. It is important to identify the main processes which the users will be going through. Whether having detailed design at this stage or not, it is important to be able to identify the main logical stages users should be going through, such as: registration, selecting a route etc.
- Task 3: identify hidden assumptions - Startups assume a lot about who their users are, what do they want to do with the product and what are their needs. Actually, you have a bunch of assumptions about how your product is going to be used. These assumptions are already shaping the product, but if some of the assumptions are wrong, that would mean that the Startuo is either building the wrong product or building it in the wrong way. So in comes UX research helping you to validate these assumptions.
- Task 4: find people/places who fit the profile – Starting with a list of people, places and/or online communities who fit the profile and context you described in the previous tasks, methods of information collection might be interviews, observations, surveys and similar products analysis making sure what they want to learn.

Task 5: collecting information about relevant behavior – From this point, Startups should initiate contact with at least 3 names/groups of the list and plan finding ways to quantifiably measure users’ behavior. How to measure it and what would be considered a success should be decided in advance. All must be documented and analyzed in comparison with previous assumptions.

The tool kit provided by google developers add 10 golden rules to help collect information, since the way you collect the information heavily influences what it is learned:

- Your target is to collect relevant information. Not to sell your product. You should be listening/observing, not talking.
- In any direct interaction, both you and the people you are collecting information from are always biased. Avoid using phrases like “Why don’t you” “Shouldn’t you” or any other phrasing that will influence the other person by revealing what you think and what answer you expect to receive.
- Analytics help you understand what the behavior is. Direct contact lets you understand motivation for behavior.
- Do not use the observations/interviews to ask people what they think of your product. It is not a good indication of their future behavior.
- If you are talking to people ask them to describe the last time they did whatever it is you are collecting information about (this is focus on behavior rather than opinions). For example, for Drively I would ask about the last time they had a long drive, and ask them to describe before during and after in detail.
- Help them expand upon relevant points by asking “why/when/who/what/how” questions.
- The aim of the observations/interviews/analytics is to map relevant behavior. The more maps you have, the more you can compare real behavior to your assumptions. A good minimum is 5–8 people. You want to keep going until you recognize some patterns that help you group the users into archetypes. Each archetype or profile (also known as persona) has its own needs and motivations.
- Document the conversation/observation/analytic report. Later go over it with your team and discuss its details and how they compare to your assumptions.
- Map the tools and surroundings that are used/present during the relevant behavior.
- Prepare a list of points of interest in advance. Use your assumptions list as a basis.

## 5 Mentoring UX for the Startups

The objectives of the Launchpad event were not to turn the startups into UX experts, but to have them better understand what UX is all about, gain an understanding of what user research is, get a grasp on the processes underlying UX design, receive some limited tools, including our document and build better UX.

During the 5-day launchpad event, each UX mentor was responsible for at least 2 themes groups of startups (previously each mentor had to choose a minimum of 3 different preferred themes), resulting in a group of at least 10 startups for counseling. Due to the size of the audience, there were more presentations in the beginning of each

day to get people prepared for the task at hand. As an introductory move, UX mentors were suggested to evaluate the startups by asking the CEOs to introduce their startup and answer questions relevant to your mentorship topic. Although suggested to choose 2–4 startups that show the highest potential for improvement and work with them as an example for the whole group, it was possible to focus on a few startups with more complex problems in group sessions and act individually with each startup on specific problems and approaches. All startups were given research homework, based on each startup's specific problems, to develop after the mentoring sessions and return the next day with preliminary results and more questions for a follow up.

During the group mentoring sessions, startups were encouraged to work together and share opinions on each other's projects. Projects that were in beginning of conceptual phase were lectured on specific research tools for understanding better their future users and their cultural conventions and interaction expectations. Projects with more advanced development were lectured on usability tests and user research according to each particularity. Startups were suggested to approach startups from other groups to apply the tests. On the final mentoring day during the launchpad event, UX mentors changed theme groups in order to give a different point of view on the projects.

## 6 Results

It was possible to perceive positive results after the Startup Launchpad event and the UX mentoring. At least 3/4 of the startups didn't have knowledge about what would be UX design and almost the totality of the participants didn't any basic knowledge on how to include it as part of the conceiving and building processes of their new product.

The lectures on affordance, UX Design, usability and user-centered design, even if presented with generalized information, helped get the attention and focus of the groups and set the ground for the UX mentoring later on. As the mentoring occurred at the same time as programming lectures, startups divided themselves in order to attend everything. At least one member of each startup participated in the UX mentoring, but mostly more than one member participated if the event schedule permitted.

Getting more specific on the startups and their process, it was observed during the UX mentoring that 1/3 of the startups felt the need to re-think the whole basic concept of their main product from a new approach: the users' point of view. On the last day of mentoring these startups had at least planned out how they would research and see how much they would need to alter the concept and the project. It was also perceived that at least 3/4 of the startups understood they didn't have enough data on their future users nor on the experience that happens inside and outside their product. The experience exchange and UX mentoring they understood the necessity of doing more research to map the users' expectations and the situations in which the product would be used and needed.

Only 1/4 of the startups began the event with advanced concept and development. In these few cases, the mentoring brought up some new questions about their product experience and helped test usability and affordances. These influenced a few changes (some structural) on the final product and helped the creation of new plans.



## 7 Conclusion

After applying the startup launchpad in 6 cities from different countries (London, Paris, Barcelona, TLV, Berlin and Rio), the challenges with the startups have much in common. On the first day of the launchpad, User Experience seems out of the process in most startup cases. Lectures on the subject (even generalized ones) can bring startups to turn everything around on their products/services concepts and re-start from the beginning.

The individual and group UX mentorship helped the different startups exchange experiences and brought new points of view to each entrepreneur about their projects/services and made each startup re-think their approach. The tutoring and testing demonstrations brought a base knowledge for them to investigate their future users.

Although the participants didn't leave the event as UX experts (as it was not intended to), it was important to observe that they changed their way of thinking and planning after the launchpad. Each one of them understood the importance to include UX design in the process of product/service creation and development in order to make it work. Some of the startups shared their future plans of having one of the team members to start a UX design or usability specialization or at least to integrate an UX designer as an employee of the startup or as a consultant. Each and every participant entrepreneur understood the need to include UX research into their process to increase the probabilities of their success.

The process of investigating users' expectations and needs, the fast iteration cycles during development, understanding the tools to test the product in several stages of its construction can minimize the risks and uncertainties of the new product and help diminish financial and time losses. As Braden Kowitz [3] (Google ventures) indicated on 2014 San Francisco Forms, every startup experience is unique, you should find mentors. The fastest you can test the idea of the project, the better.

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