TECHNICAL NOTE

"How to use pretotyping to be sure to launch the right product/service, to the right people, in the righ way?"

Note written as part of the Capstone Project

Academic year 2017 -2018

Student: Perrine MERCENIER

Coach 1: Luc PIRE

Coach 2: Romain SIMAR

Table of contents

1. Executive summary

This technical note presents the concept of "pretotyping", that is to say, a way to test an idea quickly and inexpensively to help validate the real potential of it. Throughout the text, the entrepreneur will be able to realize that by making one/several pretotype(s), it is possible to avoid spending time and money unnecessarily and to prevent the risk of failure. In fact, pretotyping makes it possible to gather concrete data to help the entrepreneur to develop the right product / service, to the right people and in the right way. Over the pretotypes, the entrepreneur is thus led to find his *Product Market Fit* and to find concrete hypotheses to face the investors and other project stakeholders.

In this note, we will first talk about the concept of pretotyping, namely its definition, the reasons for integrating it into the entrepreneurial process, the data it collects, the best practices for setting it up and mistakes to avoid.

Answers will then be given to questions raised by young entrepreneurs having experienced pretotyping. These will allow new entrepreneurs to prepare this step for their own project. We will discuss questions such as "Is the pretotype suitable for any type of project?", "How long does it take to test the idea?", « Must we say that it is a test?", "What are the possible risks of pretotyping?" ...

Finally, a section containing examples of pretotypes made by young entrepreneurs and their results will help readers to illustrate the various points discussed and assimilate them with their own project.

A final point will be presented with various biblio / webographic references and contacts of start-up coaches in the area of pretotyping to allow readers to know more.

2. Context

A question that the entrepreneur developing his idea is worried about is: "... what if it did not work?". Indeed, 80 to 90% of new products fail once launched on the market and 78% of projects disappear within 4 years after their creation. Investors and other project stakeholders also ask this question before deciding or not to support the project. So, how can we develop a good product/ service from the beginning and convince the project stakeholders of its success? This technical note aims to present the concept of "pretotyping", which, when used at the right time in the entrepreneurial process, helps to launch the right product, to the right people, in the right way without having invested time and money unnecessarily!

Why project fail once launched on the market?

Most projects fail not because the entrepreneurs are not qualified or because their projects have been poorly developed, but because their original idea does not fit the market. We could say that they did not have the *Product Market Fit*, that is to say that there is a mismatch between the product (or service) proposed and users and their needs.

Indeed, a project is promising if it creates value for its users. To do this, it is essential to understand the needs and desires of potential users. With the information gathered, it is thus possible to adapt the target users and/or the solution to ensure the "fit" between the two. After several face-to-face tests with the users (interviews, tests, etc.) and adaptations of the project, when we are sure that the customers will buy / use our product (or service), we can say the *Product Market Fit* is reached.

How to prevent the risk of failure before launching the project?

To prevent the risk of failure, we must understand the needs and desires of users to be able to adapt the solution and reach the *Product Market Fit*. To do this, it is necessary to meet the users face-to-face and interact with them. However, we notice that it is a difficult step for some entrepreneurs for several reasons:

- Technical profile: The entrepreneur with a technical background usually wants first to develop a perfect idea and then to meet the users.
- In love profile: The entrepreneur who has already worked on his idea for too long time is convinced of it and is not ready to listen to the feedbacks or to modify it.

- Face-to-face fear profile: The entrepreneur who does not like face-to-face prefers online polls.

How to find the *Product Market Fit?*

We recommend several steps to assess if the idea meets the market:

1) Filling the *Business Model Canvas* with the original business idea. It will offer the possibility to identify potentiel users and hypotheses to be checked on the field. Then, filling in the *Value Proposition Design Canvas* in order to identify jobs, pains and gains of your potential users.
2) Writting an interview guide for potential users and experts, based on the hypotheses defined at the previous step. Meeting potential users (diversified profiles and habits).
3) Updating canvas (1) based on the informations gathered through interviews (2).
4) Determining new hypotheses to be tested on the field and setting up **pretotypes**.
5) Updating canvas (1) throughout the pretotypes (4).

What is pretotyping?

« Pretotype » is a word created by A. Savoia[1] referring to the step between the project as an abstract idea and as a functional prototype. He defines pretotyping as follow:

Pretotyping = "A way to test an idea quickly and inexpensively by creating extremely simplified, mocked or virtual versions of that product to help validate the premise that "If we build it, they will use it"."

By this concept, A. Savoia insists on the importance of confronting the project with users before spending time and money on it without being sure that it is the right one:

«Make sure you are building the right **it** before you build **it** right ».

The following sections explain why integrating pretotyping into the entrepreneurial process and concretely how to put it into place.

[1] A. Savoia is *Director of Engineering and Innovation* at Google, lecturer at Stanford University and initiator of the « pretotyping » concept.

3. Key learnings

The purpose of this third section is to provide the entrepreneur with advice on the "pretotype", the reasons for developing it, the different ways of doing it, and the use of the resulting data.

Why do we use pretotypes?

Pretotype, unlike interviews and market studies, makes it possible to collect **objective data** on the potential of the project. Indeed, with oral or written explanation of a project, respondents tend to give a subjective answer, either to please or because they are not in a position to really understand the product / service. The risk is that they say: “it's a great idea!”, but that the conversion rate does not represent what they think.

With a simplified version of the project, a pretotype, the entrepreneur is able to:

- Make the idea tangible and sharable;
- Collect objective and constructive feedbacks.

Pretotyping cannot turn the idea into *Product Market Fit*, magically, but it helps identify areas of improvement and make a “Go/no go decision” based on concrete data.

How to create pretotypes?

Pretotype, unlike prototype, is not functional. The objective is to give potential users a concrete overview of the concept, the form, the ergonomics, the process, ... To do so, there are **several techniques**:

Names[2]	Techniques	Use case	Examples[3]
The M*echanical Turk*	Replace algorithms, computers, etc. by "hidden" humans.	When we want to develop technical products that need expensive development and research.	Foot 24/7 & IBM Speech-to-Text
The P*inocchio*	Create a non-functional and simplified version of the product.	When we want to test the height, weight, size, ... of the product.	Palm Pilot
The *Provincial*	Test the product at a small scale before launching it at a larger scale.	When we would like to check the opportunity of a large-scale development.	Virgin Airlines
The *Fake Door*	Create a fake « entry » for a product to give the illusion it exists already and then tell people it is not available anymore.	When we want to test hypthesis such as the target profile, functionalities, price,	Folding Lamp par Test-it & Mc Donalds
The *Pretend-to-Own*	Rent or borrow material to give the illusion of owning it.	When the project is based on expensive starting investments (e.g. a place).	Norah Blake
The *Re-label* or *Imitator*	Take an existing product/service and make some adjustments to give an overview of your product/service (e.g. replace the label of an existing product).	When your product/service is close to existing ones that are possible to adapt.	Tesla
The *Infiltrator*	Take advantage of an existing point of sale to stick an artifact of your idea on the shelves.		Walhüb at IKEA
The *Youtube Pretotype*	Make the product/service comes to life with a video.		Dropbox & Google Glass
Le *Minimum Viable Product*[4]	Create a first functional version of the product/service but simplified (minimum required features).	After non-functional pretotypes, when we have elements to develop a functional version.	Foot 24/7

There is no one best approach, it is up to the entrepreneur to define which, or what **combination of these**, is the most suitable and would be most useful to test his project in order to gather constructive information for the future. Any technique that makes the product/service more tangible and shareable is a pretotyping method, as long as it allows to test the idea quickly and cheaply. It is interesting to note that start-up studios often encourage using legos, storytelling boards, models, etc. to realize a first pretotype really quickly.

[2] Names given by Savoia. See section *To know more*.
[3] Examples underlined are from the section *Examples and illustrations* of this note. Examples non-underlined are from Savoia, A. (2015), see section *To know more – illustrated examples.*
[4] The *Minimum Viable Product* comes from the *Lean Start-up* theory by Eric Ries, see section *To know more – bibliography.*

What kind of information is collected through pretotypes?

Pretotype makes it possible to **collect data, and not just opinions**. Indeed, creating a pretotype makes it possible to make the entrepreneurial idea concrete, even tangible. As a result, the "testers" can imagine themselves with the product or using the service, and thus they give more objective opinions when we ask them: "Are you interested in this product?".

Different data can be collected through the pretotyping process. We can for example assess the interest for the product, opinions regarding certain functionalities, regarding the price, ... Any type of data is interesting in the improvement of the project and there is not only one good measure. However, two basic measures are interesting to highlight. These are very useful for the following steps of the entrepreneurial process, allowing the entrepreneur to justify the potential of the project in front of investors and other stakeholders:

- The **initial level of interest (ILI)** = number of people interested / number of people submitted to the pretotype

  It represents the percentage of people interested among those who have been submitted or invited to the pretotype. This measurement is very easy to calculate and provides a concrete overview of the interest in the project. However, the ILI is to be interpreted with reflection. Indeed, an ILI of 12.5% for example can be considered very favorable in some cases but unfavorable in others. It is interesting then to know the market in which the product will develop and compare this interest to projects in the same field. An easy way to evaluate the ILI is to use the *Fake Door* technique (see *How to create a pretotype?*).

  However, the success of some projects does not only depend on the initial interest but requires continuity in the visits or use of the product. In these particular cases, it is important to calculate interest over the long term.

- The **oingoing level of interest (OLI) =** the level of interest of people over time.

  This measure is best represented by a table or graph showing the level of interest over time[5]. With the OLI, it is interesting to observe the data and answer the following question: "Does the

[5] You can find an example with data gathered in a table in Savoia, A. (2011), pp. 52-54.

level of interest increase / decrease over time?". In the case of the OLI, the *Fake Door* technique is no longer sufficient, whereas the *Pretend-to-Own* technique is more adequate.

In parallel with these numerical measures, it is important to understand the reactions of the "testers", especially in the case of a lack of interest. Indeed, it is the only way to be able to adjust the project and thus finally obtain higher levels of interest. That is why it is important to communicate with the "testers" during the pretotyping or after thanks to the techniques of the empathic interview[6]. Note that obtaining feedback from "testers", whether favorable or unfavorable, is a positive sign. Indeed, when you don't hear from users, chances are they are either not using your product, or don't care enough to send feedback on how enhance it or improve it.

<u>And after the pretotyping?</u>

After the pretotyping, there are different possibilities:

- **Fundraising and product launch.** In this case, the pretotyping has demonstrated a satisfying level of interest, the project has a potential. The entrepreneur found his *Product Market Fit*, that is to say the right product (or service), the right people (targets and market) to whom he is going to offer it and the right way to do it. A good indicator of this stage is to be able to answer the following 3 questions by a "yes":
  - Does my target audience understand my offer?
  - Does my target audience buy my product?
  - Does my target audience recommend it around her?

  The data collected during the pretotyping is then used to establish the business plan, convince investors and other project stakeholders.

- **The entrepreneur realizes the inadequacy of the project with his personal desires and stops the project.** Indeed, pretotype makes the project concrete for the others but also for oneself. Some entrepreneurs realize the inadequacy with their desires or personal means and stop the project. It is important to note that this is not a failure because the entrepreneur saved time, money and energy that he can invest in the reflection of other projects!

[6] You can find the empathic interview techniques in Osterwalder, A., Pigneur, Y., Bernarda, G., & Smith, A. (2015), pp. 112-113. *6 Techniques to gain customers insights. Ground rules for interviewing.*

- **Pivot based on the "failures" of the pretotype.** This is the most common case. Thanks to pre-typing, the entrepreneur has identified the causes of the disinterest and, based on these elements, he can again challenge his original idea. He creates pivots in his *Business Model*, which will be tested and adjusted, by a new confrontation with users, until he reached first situation above, that is to say find the *Product Market Fit*.

What are the most common errors?

- **Do not be perfect:** the better the pretotype, the less "testers" dare to make negative feedback, because they are afraid of rushing the project leader. On the contrary, with a very basic pretotype (even made by simple drawing, legos, ...), it is easier for the "testers" to find ways to improve (see example Chatman Café, section *Examples and illustrations)*.
- **Do not limit your pretotype to your community:** the relatives tend to give positive opinions because they want to please, thus these opinions are not those which will allow to improve. Idea must be tested with neutral people who face the problem day-to-day. It is even better to confront extreme views (see example Chatman Café, section *Examples and illustrations).*
- **Do not try to pretotype all:** it is not possible to pretotype the entire product/service. It is necessary to focus on the key elements of the project (see example Chatman Café, section *Examples and illustrations*). Once the basic product is in line with the expectations of future customers then it becomes interesting to test the additional elements (e.g. colors, features).
- **Do not stop after one pretotype:** it is necessary to pretotype more than once to test several hypotheses and several times the same hypotheses (see example Norah Blake, section *Examples and illustrations*). Even when the project is launched, it must continue to be tested when new modifications or investments are considered.

4. Additional questions

This point provides additional information concerning the practical aspects of setting up and monitoring pretotyping. The questions are based on those expressed by young entrepreneurs who have themselves experimented pretotyping or who are about to put it in place.

Is pretotyping suitable to any type of project?

It is possible to make a pretotype for both a **service and a product, both in the B2C sector and B2B**. To do this, the pretotyping approach has to be adapted to find the best way to test the assumptions. The examples presented in the next section give an overview of pretotyping in different contexts. However, in some niche sectors it could be more difficult to test given a small number of potential users[7].

What is the best time for pretotyping?

The best time to develop a pretotype is **as early as possible** in the entrepreneurial process, before the idea is too developed and the entrepreneur is too convinced of his project. Indeed, the more advanced it is, the harder it is to turn back. Keep in mind: "Fail early to succeed sooner".

However, it is not possible to pretotype everything, it is necessary to concentrate on the key elements of the project. It is then advised to have go through the following stages before pretotyping :

1) Fill the *Business Model Canvas* and *Value Proposition Design Canvas* to determine the first hypotheses;
2) Interview potential users and experts following an interview guide in order to test the first hypotheses (1);
3) Update the canvas (1) with field findings (2);
4) Define the key elements to be tested on the field through pretotype.

How much time does pretotyping last?

There is **no fixed duration** for pretotyping. The goal is to find the *Product Market Fit*, the ideal is to stop the test once the feedback from the "testers" no longer lead to changes.

However, even when the project is running, it is always interesting to carry out test phases for new modifications or new investments (e.g. the case of the development of a website). This leads to check the adequacy with the expectations of the customers before investing large amounts.

Should we say that it is a test?

Not saying that it is a test can lead to a very concrete evaluation of the real interest of the potential customer. Through the techniques of the *Fake Door*, the *Pretend-to-Own* or the *Impostor*, it is possible to make the "tester" buy the product without him realizing that it is a test, and then, once the

[7] For example sectors where there are only 10-30 people affected or the sector B2G (Business to Governments).

act of purchase made, telling him that it was a test (see example Folding Lamp by Test-it, section *Examples and illustrations*). However, if pretotyping includes a face-to-face relationship with the "tester", it is more difficult to pretend, and this could lead to ethical questions (see question: *What are the potential risks of pretotyping?*).

Saying that this is a test involves the "testers" in the project, they feel they are actors of it and are motivated to give their opinion to improve it. Even in this case, it is possible to evaluate the real interest of the customers, for example by proposing to follow the project thereafter (e.g. propose to leave contact details).

Should we charge the "testers"?

Charging the « testers » during the pretotyping helps to:

- Evaluate the real interest of the potential users for the product/service. We are sure that if the product/service existed, there would have been an act of purchase.
- Test the pricing, in particular by testing several prices.
- Have some income and thus reduce expenses.

However, charging is **not necessary or adequate in all cases** because the pretotyping has first to provide something that can be priced.

What are the potential risks of pretotyping?

- **Ethical questions:** with the techniques of the *Fake Door*, the *Mechanical Turk*, the *Pretend-to-Own* or the *Impostor*, ethical questions may arise: "Is it ethically correct to make people believe that the product/service already exists?". There may be different points of view. One of them could be that pretotyping allows the entrepreneur and his potential customers to avoid wasting time and money on a wrong product and therefore is ethical.
- **Clients expectations:** make potential customers test the product/service creates a risk that they like it and want it right away. However, the entrepreneur does not have the final product yet. Communication is therefore very important with future customers to ensure that, when the time comes, they will always be there to buy the product (see example Foot 24/7, section *Examples et illustrations*)[8].

[8] Some entrepreneurs, for example, offer pretotyping users an advantageous access to the product when it is actually launched (e.g. a percentage discount on purchase).

What are the additional advantages of pretotyping?

Testing his project concretely on the field does not only permit to evaluate its interest or its practical aspects, we notice other positive consequences, such as:

- **Increases the entrepreneur's confidence in his project:** pretotyping helps the entrepreneur to be aware of his own project and the adequacy with his desires.
- **Creates a community for the future:** the entrepreneur can contact the "testers" again when the project is started (see example Chatman Café, section *Examples and illustrations*).
- **Provides some income (if paid by the "testers"):** the entrepreneur can move the project a step further by investing this money in small investments (see example Norah Blake, section *Examples and illustrations*).
- **Stimulates creativity, allows to find new ideas:** the entrepreneur takes a step back from his project.

How to use pretotyping in parallel with the *Business Model* and the *Business Plan*?

At each change in the project, the ***Business Model*** can be updated. The *Business Model Canvas* is a useful tool to express these changes. Thus, over the pretotypes, the entrepreneur evolves in new versions of his *Business Model Canvas* to reach a valuable *Business Model*.

The ***Business Plan*** is the step after. The data collected during pretotyping can be used as assumptions for the Business Plan (e.g. price that potential customers are ready to pay, attendance of potential customers, etc.). These realistic assumptions create credibility when speaking with investors and other project stakeholders who are not as convinced of the project (see example Norah Blake, section *Examples and Illustrations*).

5. Examples and illustrations

This section presents concrete examples of the use of "pretotyping" by entrepreneurs in product or service projects.

[9] See this video example: Strategyzer Academy. (2014). *International Business Model Competition - OWLET.* Online: https://vimeo.com/84423056

Example 1 – Norah Blake[10]

Norah Blake is a project consisting in selling quality clothing through a shopping experience away from traditional in-store shopping. This buying experience is characterized by a different buying place. This is the project of Caroline and Florence.

Pretotyping time: 9 months after the start of the project, after questioning potential customers in the street and following a training at ID Campus (in collaboration with the Venture Lab) in pretotyping.

Components tested over pretotyping: the point of sale, people's reaction to the concept, logistics.

Pretotyping approach: *Pretend-to-Own*. The entrepreneurs tested their concept in different places: caravan, loft, tent. For this, they rented the places for a short time and arranged them with loaned or private decorations. For the clothes, they worked with a piece of each size, the customers tried the piece of clothes on the spot and could order then, which limited the costs. They did several tests over a period of 3 months. To evaluate their test, they distributed satisfaction surveys to the "testers" and brainstormed together. **Investment (time and money):** Very low. 2 weeks of preparation + the time on the test, costs of the pieces of clothing bought for fitting, some decoration material.

➔ **Large number of visitors and buyers, visitors came back from test to test.**

Results	Comments
Information on the cost of delivery and order preparation time.	"We prepared the orders and the deliveries ourselves, we could compare time and cost with the service of the Post."
Choice of the ideal place for the development of the project and its layout.	"We realized that the caravan was not ideal for the fitting room and the weather. In the loft, guests felt better, felt at home and wanted to stay, which is more in line with our concept."
Awareness of the organization (e.g. order preparation time).	"We realized the energy to prepare an order, to adapt to the weather, etc."
Adaptation of the *Business Plan* based on real costs.	

[10] See Norah Blake online: https://www.norahblake.com/ or on Facebook @NorahBlake.

Next step: Caroline and Florence took some time to evaluate the impacts of the tests. They have now improved their basic idea by choosing their point of sale, their logistics, and are planning a launching event to bring their community back together around the project.

Testimony: "We had a pre-made image of our project. We imagined that our customers would love such products, that it was on certain points that we really had to work, and some others were not necessarily important ... Pretotyping allowed us to realize on the ground what mattered and especially the organization, at lower costs."

Example 2 – Chatman café[11]

The Chatman café is a project of cat café where it would be also possible to adopt cats. This is the project of Boris and Benoit.

Pretotyping time: 5 months after the start of the project. After an online questionnaire with potential customers and a training at ID Campus (in collaboration with the Venture Lab) in pre-typing. **Components tested over pretotyping:** The atmosphere of the café and the questions of potential customers. **Pretotyping approach:** *Minimum Viable Product*. The entrepreneurs have arranged the space of ID Campus (which makes it available to students incubated for free) to create the atmosphere of the future cat café. They welcomed people interested in their project for 2 days (Saturday and Sunday). These people came for free and could enjoy pastries, teas, coffees while asking their questions about the concept. The cats were not present because it represented a risk for them (a cat must live at least 30 days in a place to feel good). To bring these people together they used their Facebook community and the community of the association with which they will collaborate for the cats. **Investment (time and money):** Very low. Sponsoring for the coffee machine, reduced prices for teas, place available for free, volunteers.

➔ **70 persons came over the 2 days.**

Results	Comments
Awareness of customers fears and verification of suitability with the concept.	"We realized that customers were asking about hygiene, about cat hair on clothes, the smell. It was in line with what we had already planned."

[11] See Chatman Café online: http://www.chatmancafe.com or on Facebook @chatmancafé-liège.

Reassure the community about the concept	"We were able to explain to future customers concretely our solutions in relation to their fears and reassure them."
Understand extreme profiles	"With our previous questionnaire, it was not possible to touch all the profiles. With this test, we had very diversified profiles: mad with cats, 16 years old, old person ... This allowed us to discover new important adaptations to bring to the project."

Next step: Benoit and Boris took some time to evaluate the impacts of the test and could quickly launch a crowdfunding campaign thanks to the community created. This will allow them to launch their café quickly.

Testimony: "Pretotyping makes it possible to talk to people about concrete things, so that in everyone's mind there is the same image. People can explain their opinions by showing what they are talking about, explaining."

Example 3 – Foot 24/7[12]

Foot 24/7 is a project consisting in an application for connecting people who want to play football. With users' data, the app would form teams and find fields for a certain time. This is Ryan's project.

Pretotyping time: at the very beginning of the project, as soon as Ryan met the problem himself (difficulty finding people with whom to play football when you do not know many people).

Components tested over pretotyping: Existence of a community of football players who can become potential customers and frequency of use of the service by customers. **Pretotyping approach:** *Mechanical Turk* and *Minimum Viable Product*. **Pretotype 1** The development of such an application represented a minimum of € 60,000. To test the attraction before developing this project, the entrepreneur gave his contact information to diversified audiences (via flyers, communication by the University of Liège, Facebook advertising), inviting them to contact him if they wanted to play football. He encoded their data into an excel file and he then created teams using players' data. Finally, he contacted the players by telephone to notice them of the place, the time of the game, etc. **Pretotype 2** The entrepreneur has evolved his pretotype by creating a website allowing people to

[12] See Foot 24/7 online: http://www.foot24-7.com/ or on Facebook @foot24-7.

register directly. The site then sorts the data to create the teams more quickly. Players are always contacted by phone. **Investment (time and money):** Pretotype 1: Facebook ad and video = € 500, Pretotype 2: website development = € 12,000 but could have found cheaper.

➔ *50 games organized in the first months.*

Results	Comments
Players attendance information.	
Information about the elements to integrate in the application	"I noticed that people do not like calling or sending an email."
	"Players would like to be able to change their availability. For the moment with the site it is not possible."
Awareness of the risks.	"I noticed that I have to communicate regularly to keep the users loyal."

Next step: Thanks to pretotyping, Ryan was able to negotiate monetary contributions with football halls. He is developing the application based on the observed results.

Testimony: "Pretotyping has its limits, people expect more. It is necessary to be able to evolve towards the real version fast enough otherwise they will not use the application."

<u>Other examples:</u>

IBM Speech-to-Text[13] **:** IBM wanted to develop a mechanism for transcription, that is to say a software to transcribe on screen the text said in a microphone. However, this represented a significant investment and a lot of research time. To evaluate the real potential, they made a *Mechanical Turk* by making "testers" believe that the software worked already by replacing it with people hidden in a room next door transcribing their words. They discovered that users were less convinced than before because of sore throat, a noisy environment and lack of confidentiality. This experience has saved IBM a lot of money and time!

Folding Lamp by Test-it[14] **:** The Folding Lamp is an innovative design lamp. The entrepreneur had to invest € 30,000 to develop a first production and he could only choose one model and one color. To validate that a market existed for this product and to determine its production, Test-it realized

[13] To know more about IBM speech-to-text experiment: see Savoia, A. (2015). *Quick review of pretotyping techniques*, p.6. Online: http://www.pretotypelabs.com/uploads/1/4/0/9/14099067/summary_of_pretotyping_techniques.pdf
[14] To know more about the experiment of Test-it with the Folding Lamp: case study online https://test-it.io/use-cases/

for the contractor a pretotyping in the form of *Fake Door*. A landing page was created with pictures of lamps of different colors, then an advertisement was posted on Facebook. Interested persons clicked, came to the page and could buy the lamp, a message was then sent to them that it was out of stock and they would be notified during a new production. This allowed to evaluate the interest, the favorite color and the price that people were ready to put. The entrepreneur quickly made decisions for production.

Tesla[15] **:** For the production of its Model 3, Tesla decided to give the possibility to pre-order (without having started any production), a kind of *Pretend-to-Own* pretotype. Those interested paid a small fee to book one of the new cars. Some people retracted afterwards. This allowed Tesla to evaluate the real appeal, to program the production and to have cash to realize it.

6. To know more

Bibliography/ Webography

- Osterwalder, A., Pigneur, Y., Bernarda, G., & Smith, A. (2015). *La méthode Value Proposition Design : Comment créer les produits et les services que veulent vos clients*. Pearson.
- Ries, E. (2012). *Lean startup : Adopter l'innovation continue.* Pearson.
- Savoia, A. (2011). *Pretotype-it* (second pretotype edition). Online: http://www.pretotyping.org/uploads/1/4/0/9/14099067/pretotype_it_2nd_pretotype_edition-2.pdf
- Savoia, A. (2012). *The Pretotyping Manifesto - Stanford Graduate School of Business.* Online video: https://www.youtube.com/watch?v=t4AqxNekecY

Good references that help develop pretotypes

- **Creation of fake apps**: Possibility to create a "fake" application or website without codes. It gives an overview of what it will look like to generate feedback. Cost: Free then monthly payment depending on usage and duration.
  - https://marvelapp.com/
  - https://bubble.is
  - https://www.invisionapp.com

[15] To know more about the pre-orders for the Tesla model 3: online https://www.numerama.com/tech/280384-tesla-model-3-455-000-precommandes-en-un-an-encore-1-800-par-jour-en-moyenne.html

- **Creation of landing pages to create *Fake Door*:** http://www.cloud-press.net/ Cost: free.
- **Test-it**: Test-it helps start-ups to test their project by evaluating the market and validating other hypotheses by a personalized methodology. They use digital marketing to gather concrete data. Cost: € 3,500 + digital marketing budget (one test-it offered per month to Venture Lab incubated).
- **ID Campus**: ID Sprint Pretotyping training conducted in collaboration with the Venture Lab for its incubated. Cost: Free for Venture Lab incubated.

Illustrated examples of pretotyping

- Keychain project tested at IKEA by the Upwell studio design (2014). Online video: https://vimeo.com/79313674
- OWLET project presented for the International Business Model Competition (2014). Online video: https://vimeo.com/84423056
- Savoia, A. (2015). *Quick review of pretotyping techniques*. Online: http://www.pretotypelabs.com/uploads/1/4/0/9/14099067/summary_of_pretotyping_techniques.pdf
- Case studies by Test-it. Online: https://test-it.io/use-cases/