worxwide

Best Design practices & Importance of
Rapid Prototyping
to build an MVP

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Introduction

When one has trouble using things – be it figuring out whether to push or pull a door, functioning of digital applications – it's not their fault. Blame the designer! It's the fault of the technology and design, more precisely.

The new products and emerging technology are foisting confusion at a faster pace than ever before. The companies also happen to forget the lesson from failed products and let their engineers build fanciful applications, totally driven by marketing insistence on the proliferation of set of unique features. Hence, increase in confusion and distractions.

> *This paper throws light on the split between aspirational techies and practical user experience theorists to understand what goes into successful MVPs.*

Chapter 1

Fantasy of Technologists Vs Design Feasibility

> *Remote control is one such popular fantasy that divides tech fantasy and design affordability. Think of controlling one's home appliances while driving, having a hot pot of coffee prepared when you reach home. Well, some companies offer such applications, however, think of the complexity that such tech would offer while driving.*

It is right to assume that all great products have the right balance and harmony of usability, aesthetics, cost, safety, and functionality.

In increasingly competitive world, companies are getting their product faster to the market via Minimum Viable Product, a.k.a MVP. However, knowing and providing the key features to give utmost value to a wider customer base is still a jigsaw for many with major pieces missing. Hence, attracting clients and investors when market provides opportunity is missed by many.

> In 'Design of Everyday Things', Don Norman writes, 'Technology may change rapidly, but people change slowly.'

Design community understands that design must sophistically convey the essence of operations of an application/device; possible actions; functions and features and a feedback loop to understand the functions at any particular moment. It is right to say that Design is an act of communication, it is a must for the designer to have deeper understanding of the person to establish an effective communication.

Let's start with a fine example of effective communication.

AIRBED&BREAKFAST MVP

AIRBNB has become a popular tool for travelers and people looking for vacation stays, it cuts the middlemen out to provide opportunities to homeowners to list their properties for short-term stays. Brain Chesky and Joe Gebbia, , the co-founders themselves faced difficulty paying rent while they were living in San Francisco. They tested the idea by providing accommodation to the design conference attendees. For communicating their idea, Joe and Brain created a simple web page, uploaded pictures of their loft and had 3 respondents to their MVP. The business expanded organically as the third co-founder; Paul Chesky started living off Airbnbs to dogfood the product.

Interpretation

The AirBnb MVP was simple website, it conveyed what the problem statement that cofounders were trying to solve – to provide accommodation to IDSA attendees.

The foremost iteration towards a company's success is Idea.

Idea – The germ of creation

THE STARTUP WAY

People

Culture

Process

Accountability
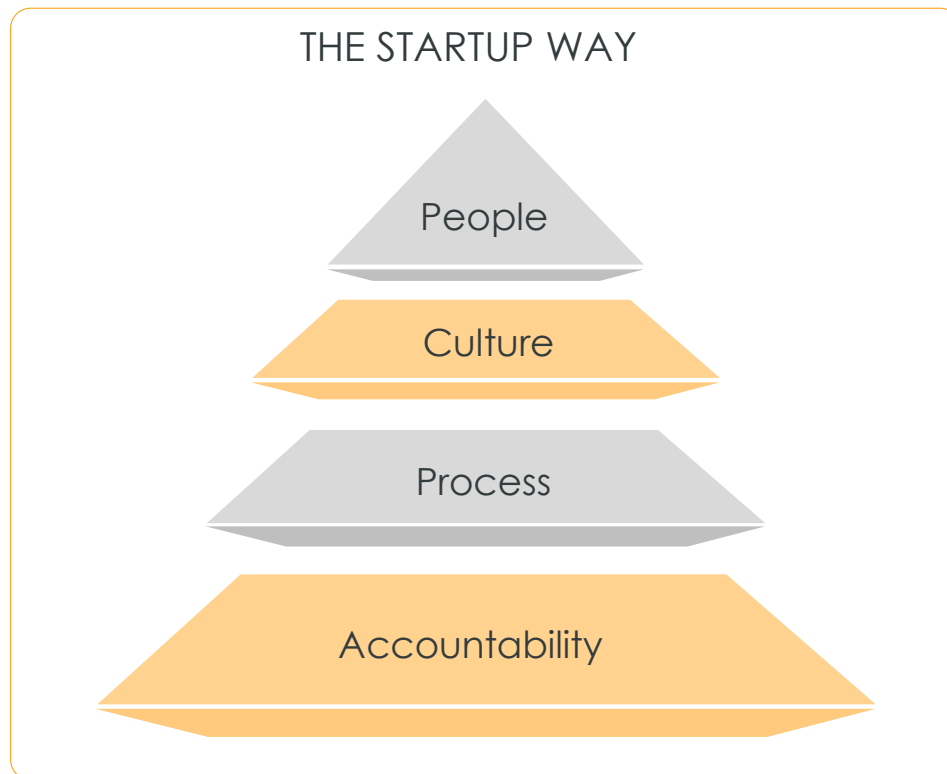
Eric Ries in 'The Learn Startup' elaborates, a startup transforms ideas into products. And further, when customers interact with those products, it generates data and a feedback loop. Thus, the product is also an experiment to build a sustainable business in the long run. Simple as it sounds, however, not all startups run past 3 years!

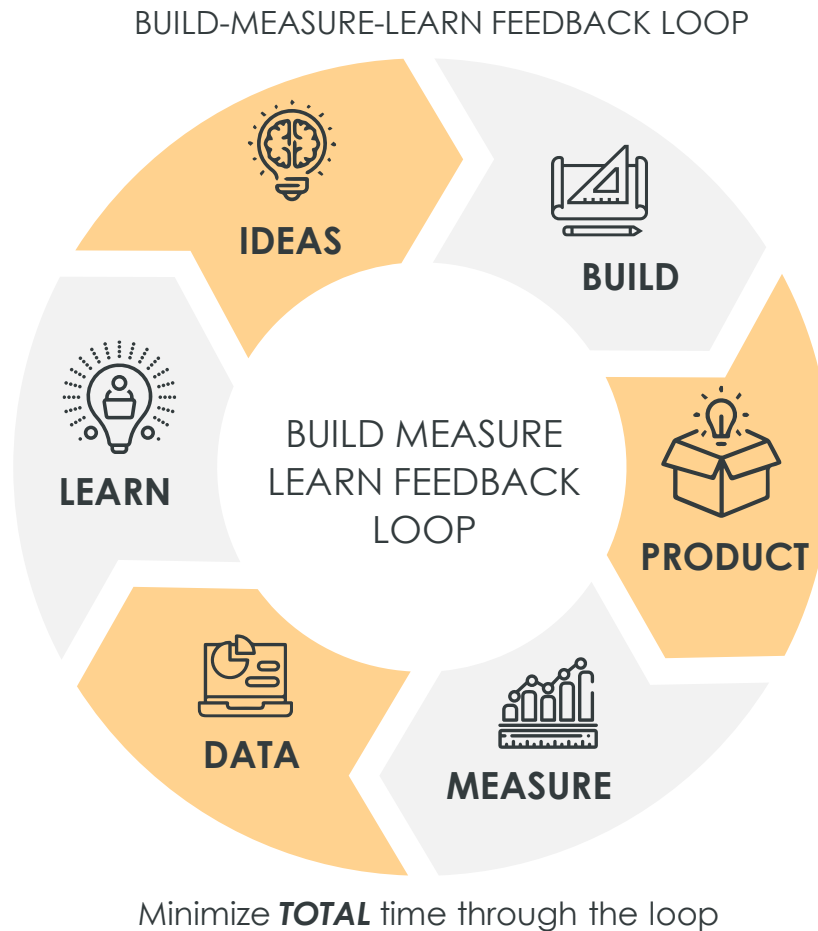**According to an interesting insight, in 2020 the failure rate of startups exceeded 90%.**

Reason?

It is EITHER lack of demand – among the users in the market – OR poorly designed product that failed to communicate effectively with the user!

A lousy process results in insufficient user-generated data for the feedback loop, and the novel product idea fails to sustain its life force. Giving in to its unfortunate fate.

Feedback Loop - Survival is based on Constant Validation

BUILD-MEASURE-LEARN FEEDBACK LOOP

BUILD MEASURE LEARN FEEDBACK LOOP

IDEAS

BUILD

PRODUCT

MEASURE

DATA

LEARN

Minimize *TOTAL* time through the loop

Not To Do ✕
Avoid rushing into building a fully-featured product and spending months on hard work.

To Do ✔
Aim for Proof of Concept.

Feedback loop provides life force to the idea for sustenance.

ETSY MVP

Etsy, a craft-focused site, used eBay as their proof of concept to find their target audience that needed their own MVP. Etsy focused on catering crafters and their products; craft sales has boomed with their market presence. They learned where eBay was doing well and where it let audience down.
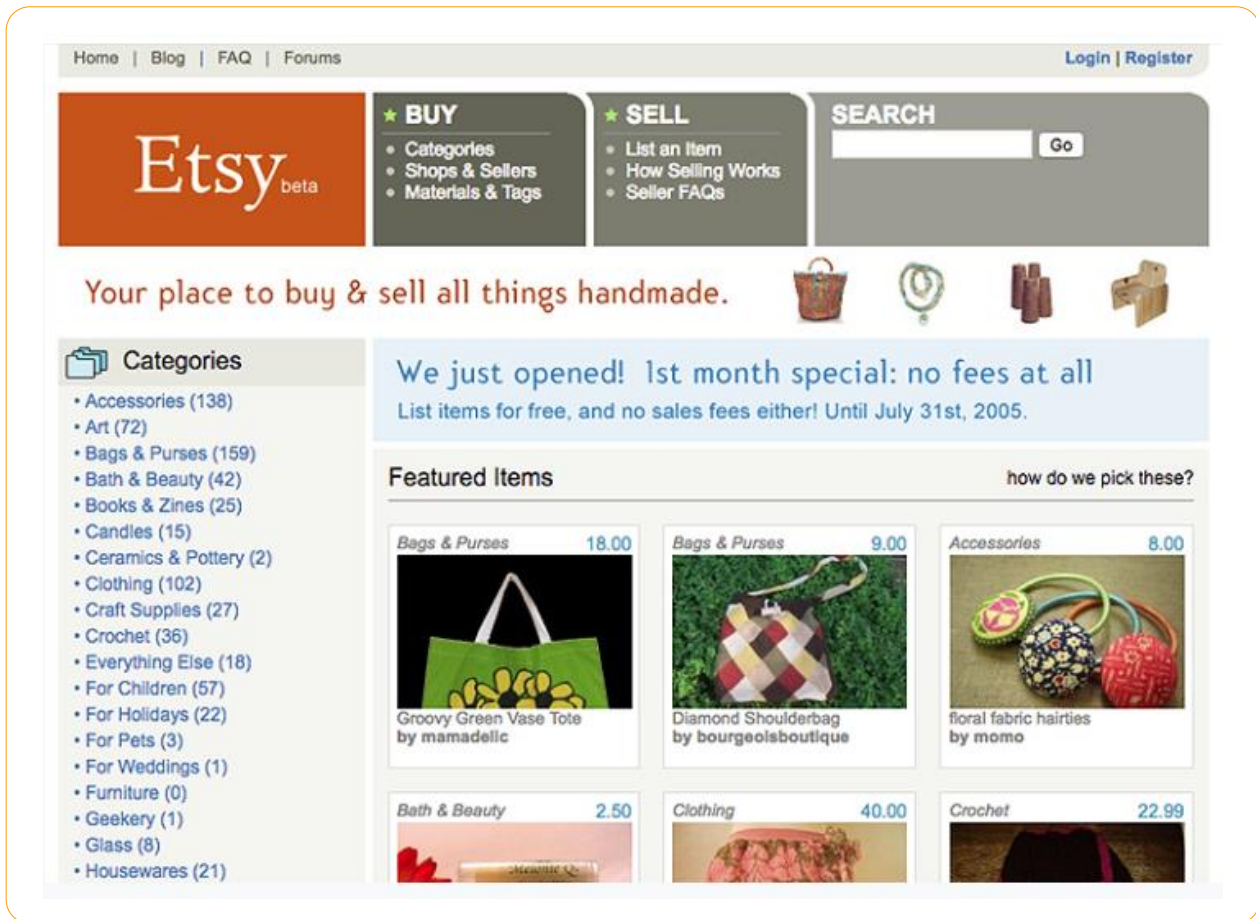
Interpretation

Etsy used the tested business process of eBay to study their target audience and deduced which audience was left out. They deduced the audience by the user feedback they gained from eBay, artisans needed a platform that could help them connect with buyers. Etsy MVP explicitly called out 'Your place to buy & sell all things handmade', it generated sufficient data for the feedback loop to validate their million-dollar business idea.

To gain clarity around the million-dollar business idea, the management, along with engineers and designers, must try answering 4 questions:

1. Do consumers even recognize the problem that you're trying to solve?

2. If there was a solution, would they be willing to buy it?

3. Would they buy it from you?

4. Can we build a solution for that problem given the time and resource constraint?

The common tendency and the biggest blunder of product development team is to skip straight to the 'Can we build a solution for the problem?' And building a solution before validating that customers have the problem.

Chapter 4

Validating Idea with a Prototype

Prototype   MVP   Product

After locking the idea, substantiate your idea with market research and solid competitor analysis, and before you dive into investing in a Minimum Viable Product, CREATE a time- and cost-effective Prototype.

FOURSQUARE MVP

Foursquare worked with a single-featured MVP to validate their idea. Dennis Crowley and Naveen Selvadurai built a limited functionality MVP that allowed users to check-in different locations and further gamified the experience by providing different badges as part of the process. Once the MVP was validated by its user, they added more features to build a sophisticated application of city guide.
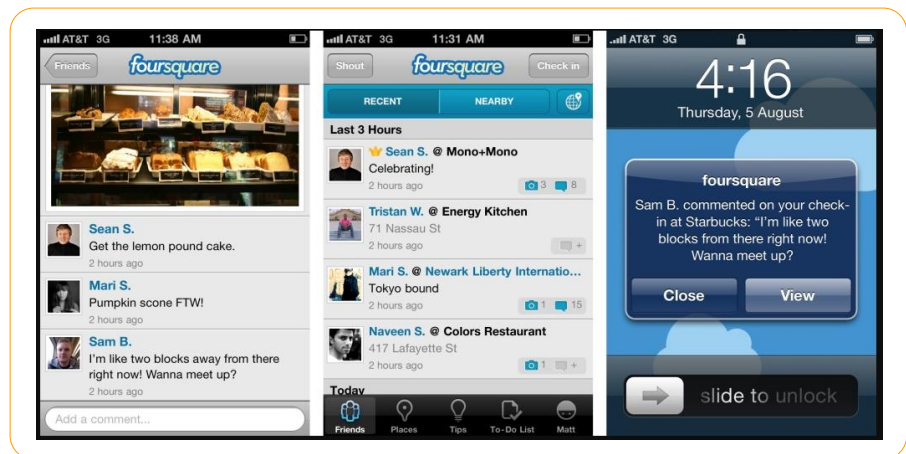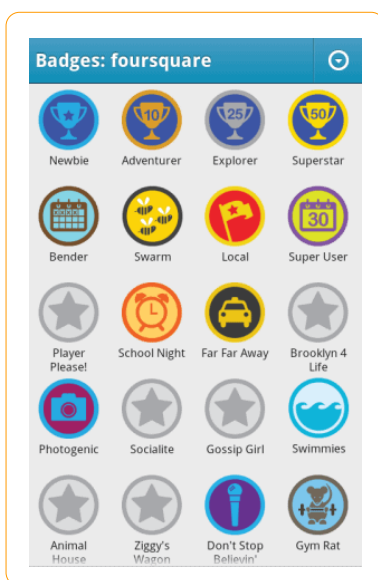
foursquare badges - Bing images

Prototype – Seven Stages of Action as Design Aid

A good prototype doesn't happen in isolation; it is a test and trial over multiple design iterations. Don Norman has laid down down Seven Stages to Ask Design Questions:

How easily Can One:

Determine the function of the device? ✓

Tell what actions are possible? ✓

Determine mapping from intention to physical movement ? ✓

Perform the action? ✓

Tell if system is in desired state? ✓

Determine mapping from system state to interpretation? ✓

Tell what state the system is in? ✓

While answering the Seven Design Questions, the 4 characteristics of good design must come out:

Visibility: The features must be visible, the user must be able to guess the course of action/ alternative action.	**A Good Conceptual Model:** Designer must provide a good conceptual model for the user with consistency in the presentation of operations and the results that follow.
Good Mapping: A clear causal relationship between actions taken and the results, control and effects, what's visible and the system state.	**Feedback:** The user must receive continuous feedback about the actions taken.

Multiple design iterations accomplish more in a shorter span, designers follow a rapid design sprint to cast out the features that do not resonate with the user.
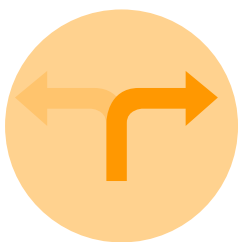
Chapter 6

The 5 Stages of Design Sprint

The Design Sprint is an ideal prototyping exercise, this could be an iterating new product or reiterating an old one for a product market fit. Jake Knapp, a former product owner at Google Ventures, laid down the principles that follows step-by-step process.
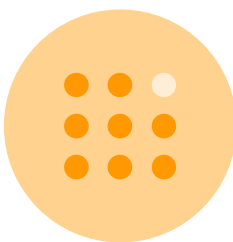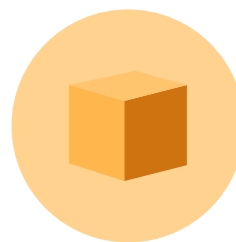
The 5 stages

| Understand | Diverge | Decide | Prototype | Validate |

Validating idea with prototype set straight the steps towards the future product.

What do we achieve in prototyping?

Prototype Validated

Prototype is tested with real users at the end of the sprint, providing feedback and at times rating the prototype.

Insights on Product and its features

The Design sprint gives clarity to proceed, at times multiple sprints can be utilized to refine the focus on user needs.

Chapter 7

What happens in a design sprint?

Engage Users Early in the product lifecycle

1. Understand: Building modern interactive prototype by gathering insights from target audience by developing User Persona(s), coupling them with goals and performance indicators.

2. Brainstorming followed by Decision Making.

3. Ideate and brainstorm on the best solution that fulfils both business goals and user needs.

4. Speed up product adoption as the user is involved since the beginning of the product cycle.
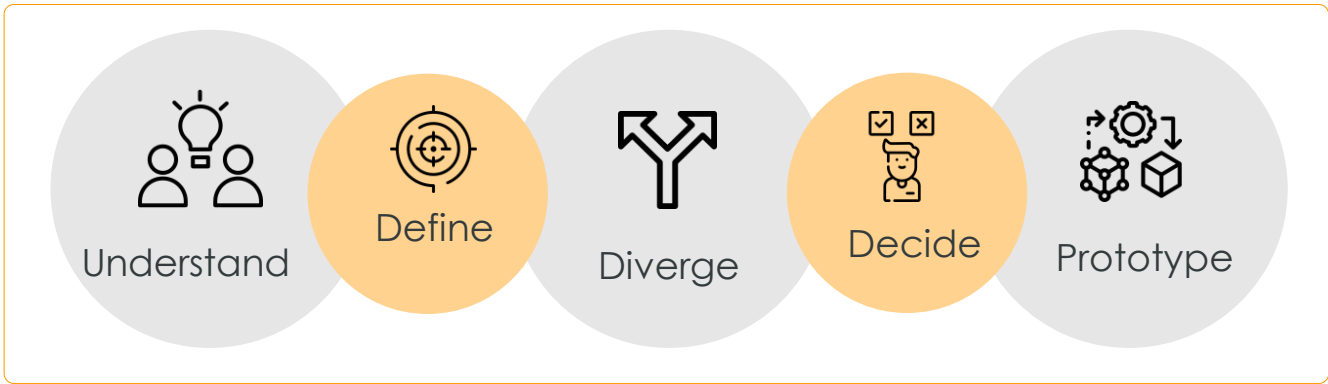
What is Rapid Prototyping?
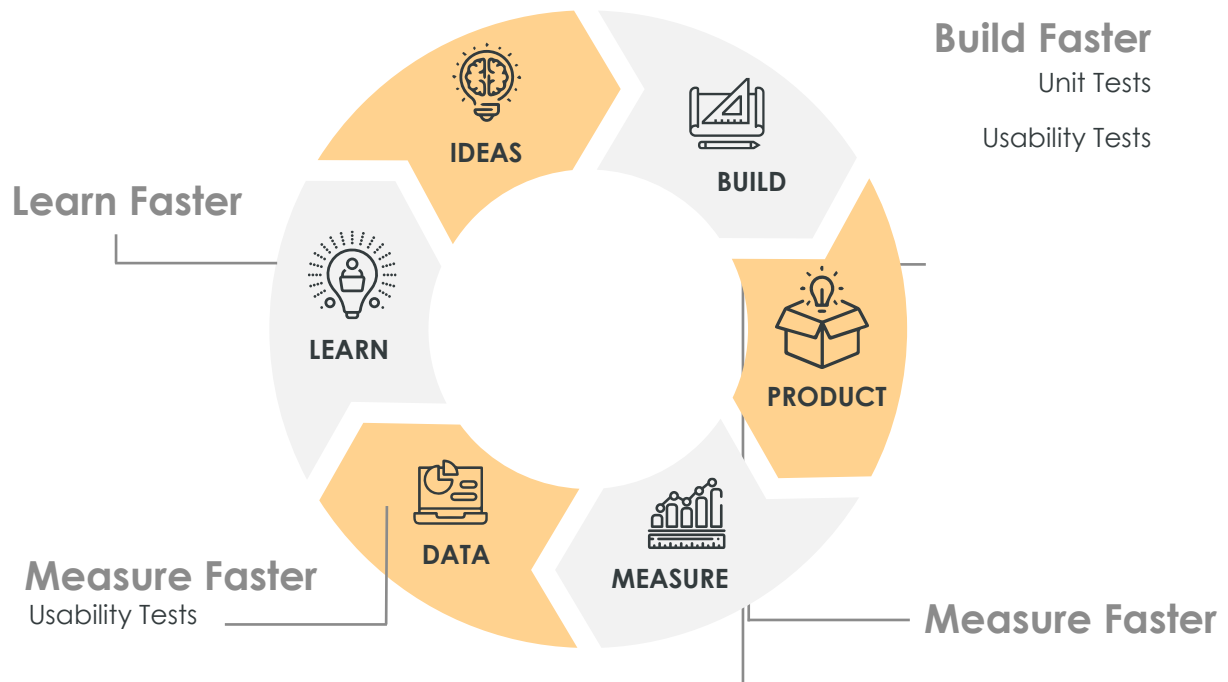
It usually takes five or six attempts to get a product right.

Rapid **prototyping** is a design process followed to build an early interactive, working and visual model of the product. It consists of many traditional design products (e.g., wireframes), to some interactive models that have modern features.

A rapid prototype consists of the following:

1. Screen Flows

Basic User Flow of the experience
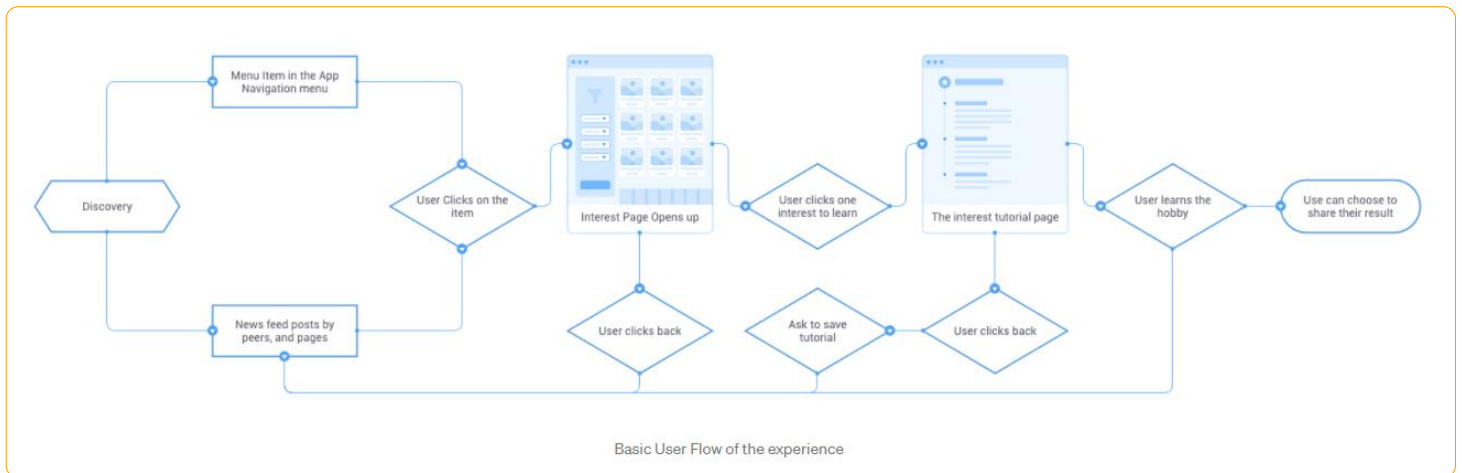
Example Courtesy:
Facebook

2. Low Fidelity Wireframe/Paper Mockups

Rough Prototypes on paper
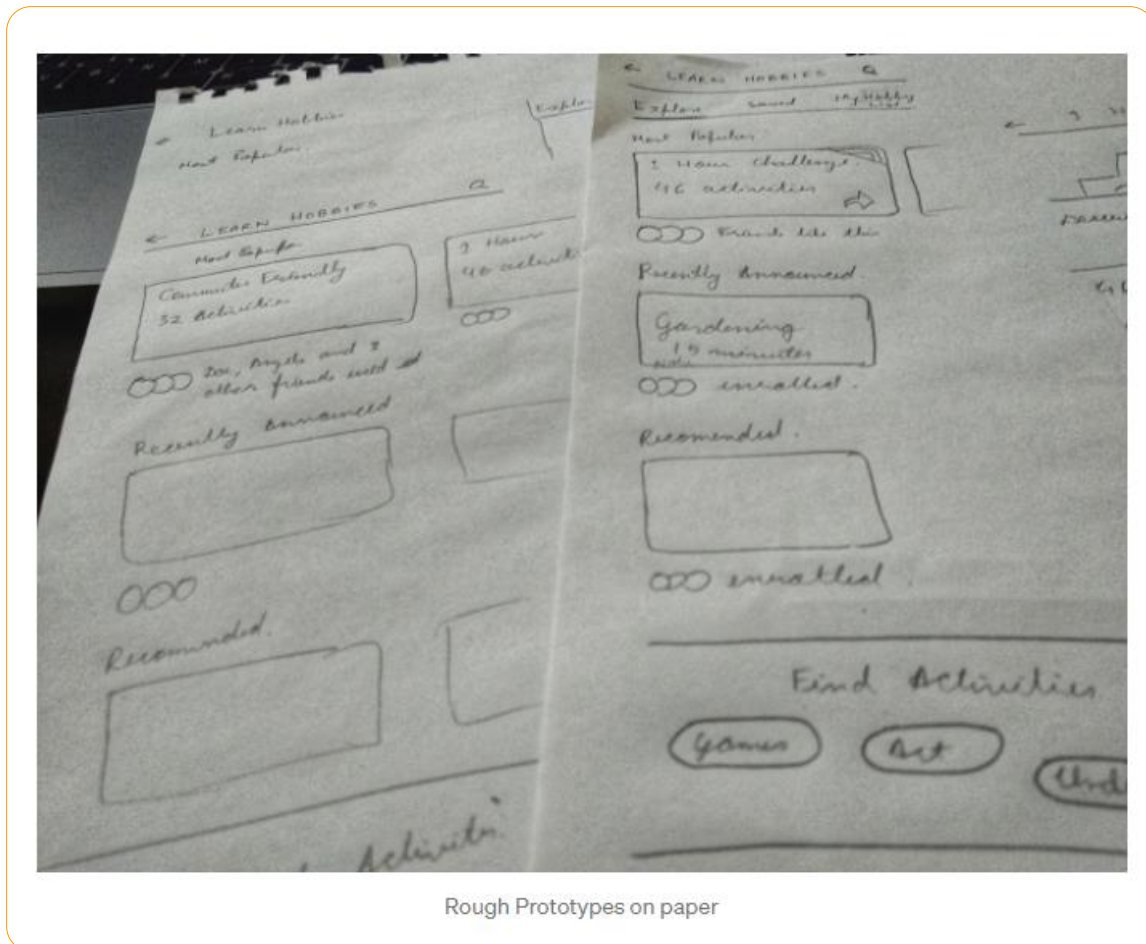
Example Courtesy: Facebook

3. Low-Fidelity Prototype and High-Fidelity Prototype

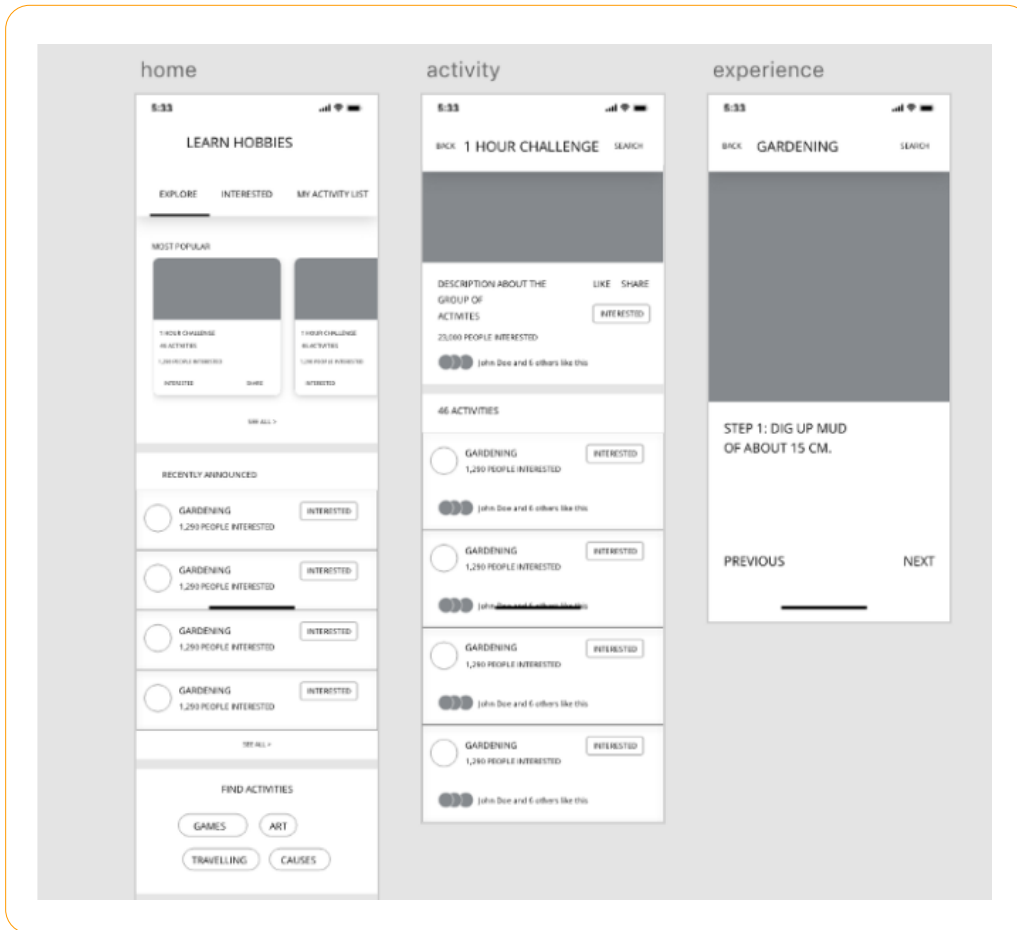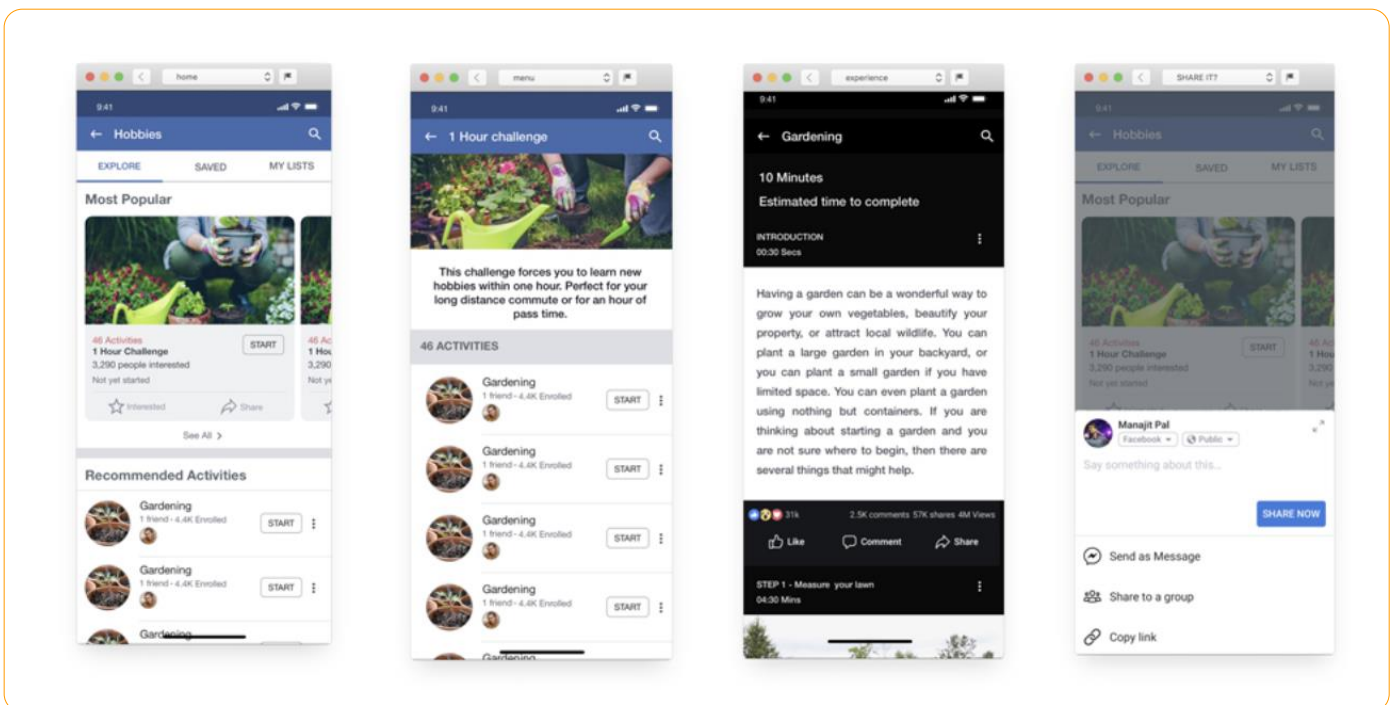Example Courtesy: Facebook

High-fidelity prototype (including interactive components, e.g., buttons and navigational features)

> **Prototype Vs Wireframe**
>
> A prototype is more effective as it gives glimpse of the finished product, whereas static wireframes are lifeless. It also bridges the gap between concept and realization for the product development team, potential investors and your future customers too.

Chapter 8

Testing the MVP against the market force

A minimum viable product (MVP) initiates the learning process quickly. 'It is not necessarily the smallest product imaginable, though; it is simply the fastest way to get through the Build-Measure-Learn feedback loop with the minimum amount of effort.' Traditional product development involves a long thoughtful incubation period along with struggle for product perfection. MVP on the other hand helps begin the learning process, not end it.

Unlike a prototype or concept test, an MVP not only answers product design or technical questions. It also aims at testing fundamental business hypotheses.

What is an MVP?

The term "minimum viable product" comes from Lean Startup methodology. It emphasizes the influence of learning in the process of building a new software product.
It will help you understand what users need and can create an offering that they are ready to pay for.

In a nutshell, MVP in software development refers to the process of learning to build an application with enough (minimum) functionality to attract early adopters. Once beta users submit feedback form, development team uses the knowledge to improve or iterate the product.

In some ways, MVP requires extra work: we must be able to measure its impact.

A prototype **build** that is solely evaluated by engineers and designers is inadequate. We need to put it across potential customers to gauge their reactions, even try to sell them prototype. When we enter the **Measure** phase, the biggest challenge is determining whether the product development efforts are leading to real progress.

Chapter 9

How Innovation Accounting works—3 Milestones

Three steps in innovation accounting:

1. Setup Minimum Viable Product to gather real data and establish the status of the company. Clear status will help you set achievable goals and track your progress against it.

2. Tuning engine from the baseline towards the ideal. After making all the micro changes and optimizing features towards the ideal the company reaches a decision point.

3. Pivot or Persevere

A good progress towards the ideal signifies validated learning, it makes sense to continue. If not, the team eventually must conclude and accept that its current product strategy is flawed and needs a serious change.

"I'm not leaving you. I'm pivoting to another man."

By: Liza Donnelly

When a company pivots, it starts the product development process all over again.

Re-establishing a new product baseline and then tuning the engine from there.

A successful pivot results in engine-tuning activities that are more productive after the pivot.

For example, a startup created a completely new prototype of its product and started to sell it to real customers through its different marketing channel. This single MVP would test features and establish metrics for each assumption. In another case, a startup might aim at building an MVPs to get feedback on one feature at a time.
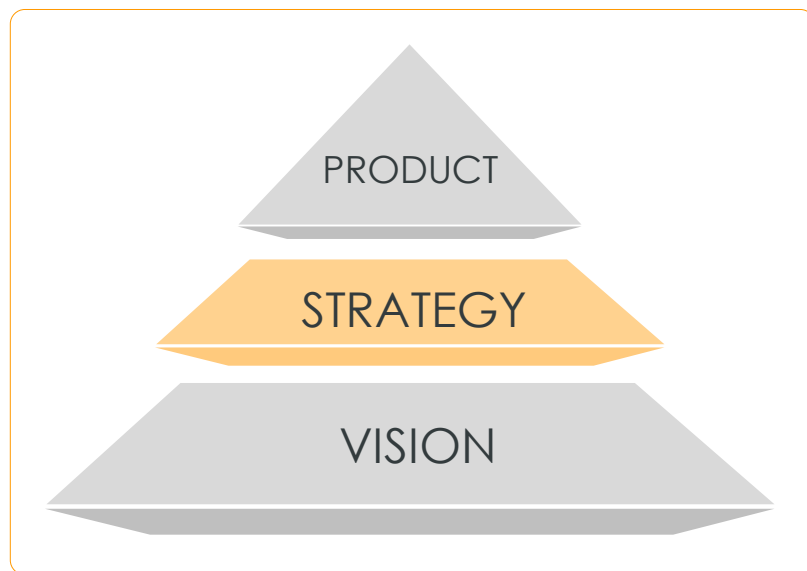
Prior to the prototype, the company generally performs a smoke test via its marketing channels. This is an old direct marketing technique in which the company make its product available for preorder to customers which is not built yet. Such a smoke test helps measures whether customers are interested enough in trying a product.

DROPBOX MVP
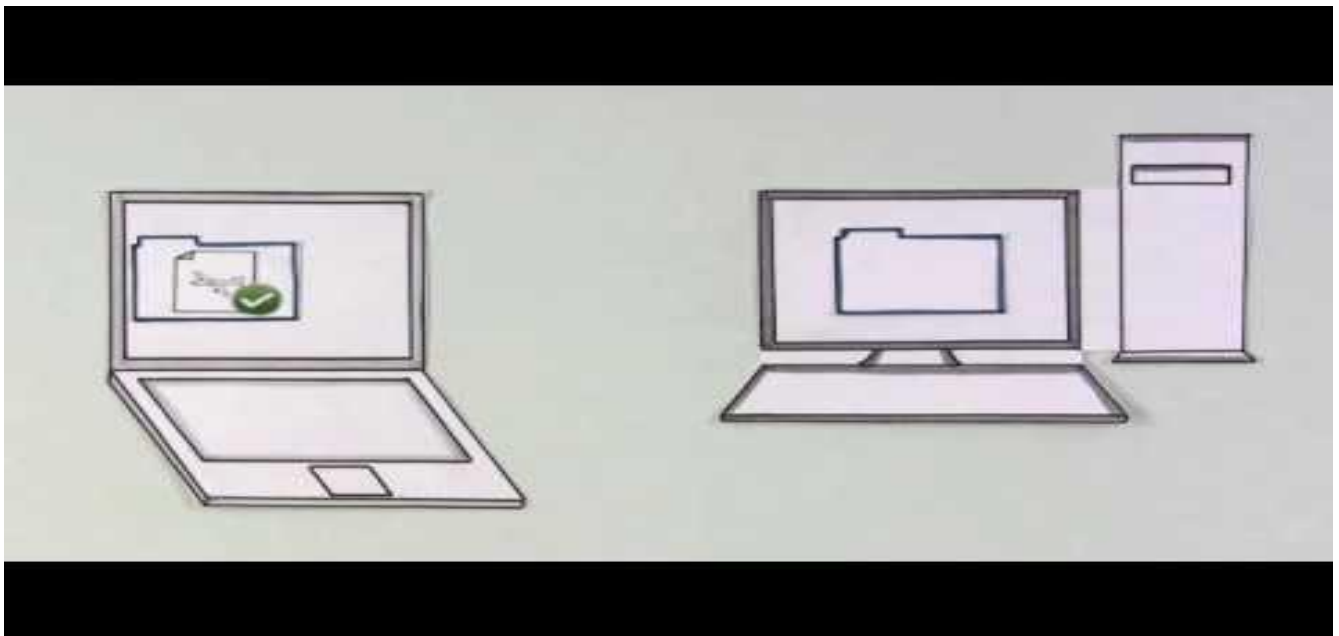
Dropbox Explainer Video

Talking about advertisements used as smoke tests, one cannot put Dropbox aside. Dropbox pretended they had the product ready and made an explainer video of file-syncing idea to check if it is of interest to people. They avoided the risk of failing at all cost, Arash Ferdowsi and Drew Houston attracted over 70k people overnight who left emails expressing their interest in getting the product as soon as possible.

ENGINES OF GROWTH

- Engine of growth is what drives the underlying Business Model

- Helps the business to stay focussed on the metrics that matter

	STICKY	VIRAL	PAID
METRICS	New customer acquisition rate, churn rate	Viral Coefficient	Cost per Acquisition, customer's lifetime value (CLV)
EXAMPLES	Database solutions	Hotmail, Facebook	IMVU

MVPs provide the first example of a learning milestone. An MVP allows a startup to pull in real baseline data in its growth model via conversion rates, sign-up and trial rates, customer lifetime value, and so on – this is valuable learning about potential customers and their reactions to a product even if that foundation begins proving early assumptions wrong.

The ability to learn faster from customers is the essential competitive advantage that startups must possess.

How Worxwide is helping in creating a compelling user experience for its clients?

At Worxwide, we use the Design Thinking Framework to create a seamless user experience for the products we design and develop. We have been helping small and big companies alike in ideating, conceptualizing and designing user journeys for their digital products. We do it by segregating users according to their goals, followed by laying down a strategy for improving user experience to further enhance the usability, and hence growing the overall market share of the product.

Design Sprint Framework we follow:

We first Research and Brainstorm around competitive products that already exists in the product market.

We then Empathize with the user and Analyse their needs. We put down a design strategy revolving catering these needs.

From Design Strategy we define User Profile, Task Profiles, Personas Scenarios. Based on these, we make our task prioritizations and task flows.

Based on Information Architecture create multiple paper prototypes, the best prototypes are used to create High Fidelity Wireframes.

These are then tested out through various tests to reanalyze the usability and design structure.

High Fidelity Wireframes are used to create a Design System by which we design and finalize the High Fidelity Prototypes.

Once final designs are created, we conduct various Usability Tests to ensure a seamless experience by the end-user.

Help in GTM content and collaterals of the product to develop a value proposition

Our UI/UX certified experts practice Design Thinking Agile approach with the right mix of content, creativity and user experiences.

How Worxwide can help you?

Connect with us

Worxwide will handhold you from ideation to design to market; including business and technical brainstorming. We have a dedicated team of digital innovators, growth consultants and UI UX designers to help you build long-term relationships beyond revenues with your clientele.

**Book your
Free Consultation with our experts
Right Now**

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