Service Science
UniMiB
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Minimum Viable Product

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Start-up Definition (repeated)

- "A start-up is a **human institution** designed to create a **new product or service** under conditions of **extreme uncertainty**"
  Ries, Eric. The Lean Startup. The Crown Publishing Group

- Learning is the most vital function of organizations building under conditions of extreme uncertainty

- Start-up learning goal
  - Discover how to perform a **sustainable** (long term) **business**
  - Learn about which **elements of a strategy are working**, what **customers really want**, ...

- Sustainable business:
  - To provide value to Customers
  - ... and to Stakeholders
  - Long lasting (e.g., longer than initial aggressive advertisement campaigns)

… (more Details on the previous Lesson)

- (Failure Case) pets.com (on-line selling of pet products)
  - Very well-known strategy: Get Big Fast (GBF)
    - Massive advertisement campaign
    - Initial aggressive below-the-cost pricing
  - Business model was not sustainable over time
    - Low profit margin sector (2% to 4%)
    - Not enough to cover the delivery costs
  - They failed to understand before running out of money
- (Success Case) Consumer Financial Protection Bureau (CFPB)
  - Tasked with protecting citizens against predatory financial services
  - Hotline (Call Center) as initial experiment to identify user needs

Traditional Approaches & Uncertainty

- Traditional Service Design and management *Strategies (*and related *metrics)* might be **not well suited** for highly **uncertainty scenarios**

- They strongly rely on existing knowledge
  - Planning and forecasting are only accurate when based on
    - a **long, stable operating history** and
    - a relatively static environment
  - Uncertain scenarios have neither

Two equally wrong Solutions

- Analysis (paralysis)
  - Endlessly refining strategies and plans
  - Unfortunately
    - most of the strategy **errors cannot be detected** at **whiteboard** level …
    - … because they depend on **subtle interactions** between **services/products** and **customers**
- "Just Do It" school
  - Summary: reduce planning/design activities and start work as early as possible
  - Unfortunately, this doesn't work either. Suggested reading "Robots slow down Tesla Model 3 production"
    https://www.theguardian.com/technology/2018/apr/16/elon-musk-humans-robots-slow-down-tesla-model-3-production

Very frequent Failures in Innovative Scenarios

- A lot of "start-ups" / "new services"
  - either fail
  - or waste a lot of resources before working correctly
- Even if they have
  - a good plan
  - a solid strategy
  - prepared thorough market research
- **Call for a methodology**

Minimum Viable Product

Introductory Case

IMVU Case

- IMVU
  - The world's largest avatar-based social network (… this is what they claim on their web site)
  - Already Introduced in previous lessons
- https://about.imvu.com/
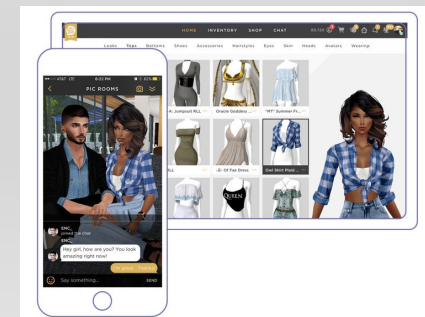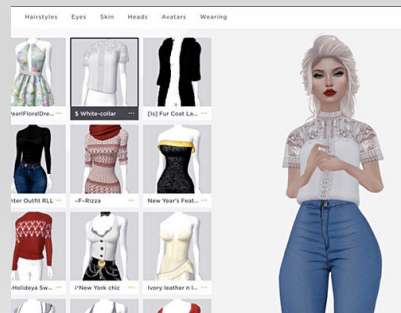
IMVU Beginning

- Start-up focusing on Instant messaging (IM) (e.g., MS Messenger, AOL Messenger, Yahoo Messenger, … <nowadays> Facebook Messenger)

- Idea: 3D Avatar based interaction

- Pictures of the (actual) avatar design process
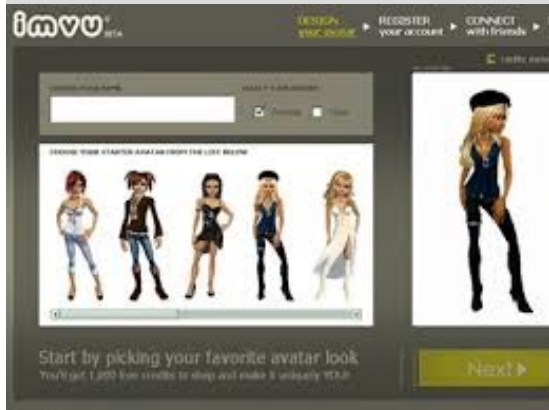
Existing Knowledge & Assumptions

- The value of a Instant Messenger is on the customer base size (and of social network in general)
- Challenge: how to quickly build a large customer base?
- What would you do?
- IMVU initial choice: Plug-in for existing IM clients
  - Leverage existing IMs platforms and people connections
  - Further advantage, **avoiding "yet another IM application"**
- Underlying assumptions (in your opinion)?
  - People are likely to install the plug-in
  - Customers expected to invite friends
    - Leveraging existing contacts on Instant Messenger networks
    - Viral diffusion as expected growth strategy

Early Prototype Launch

- Decision: early release of a *Low Quality* product
  - Deadline: **6 months to launch**
  - Product implications
    - A lot of missing features
    - Long discussions about priorities (which features to be in first prototype, and which features to be added later)
    - A lot of bugs (i.e., not enough time for bug fixing)
  - Developers team very worried of loosing reputation
- What happened after launch?
  - **No downloads** at all
  - **Low quality** was **not a problem**, since **nobody was using the product**!

After launch Activities

- **Improvement activities** were immediately executed to counteract the disastrous beginning
- No noticeable improvement on download numbers
- Still (very) few people downloading the software
  - Many friends and family members were begged to download and use the product
  - But when they "run out of friends and family" … **customers'** behavior remained unchanged: they **still wouldn't use the product**

… We have a Problem!

- Customer interviews
  - Customers were not able to tell what they wanted
  - They revealed useful insights only through their action (or inaction) during experiments and interviews
- Interview example

Interviewer: Company CTO (Chief Technical Officer)

Interviewed: a 17 years old Girl

Please, try this new product!

Oh, this is really fun

Please, … invite one of your friends to chat

No way! I don't know if this thing is cool yet … I'm not risking with my friends

#*&%!, I got the wrong one, let's move to the next

… but several customers came and said the same

Some more Experiments …

- "… I don't know if this thing is cool yet …"
- The management tried to add "single player mode" (expression borrowed from the gaming industries) to let people easily evaluate the product
  - Unfortunately, after single player mode customers still keep refusing … "No way, … I'm not inviting friends, …"
  - To summarize: the users called for a "feature" but eventually they didn't use it
- Users can hardly explicate what they want …
- … but they can recognize it when they see it

The turning Point…

- The "chat now feature" was created
  - The customer push a button …
  - … and is randomly matched with somebody else anywhere in the world …
  - … pushing the button at the same time.
- It worked and lead to a very interesting discovery

Interviewer: Company CTO

Interviewed:

Hey, I want to add [the just met guy] to my buddy list. Where's my buddy list?

Oh, no, you don't want a new buddy list; you want to use your [existing IM] buddy list.

Are you kidding me? A stranger on my [existing IM] buddy list?" I want here the buddy list

But you should manage yet another IM client

So what? **I already run 8 different IMs**. I want the buddy list!

Knowledge Harvested

- The customers did not want an add-on for existing IMs; they wanted a new IM
  - "Yet-another-IM" was supposed being a problem …
  - … while the early adopters **already use many different IMs**
- Further experiments
  - Wrong assumption
    - "Customer want to use avatar-based IM with existing friends"
  - Discovery
    - Customers want to **make new friends** and …
    - … 3D avatars are particularly well suited

Post-Mortem Analysis

- 6 Months thrown away to build a product that customers refused to use
    - Better not doing the work at all?
    - No, otherwise the insights would never have been learnt
- **If the goal is learning, can it be done faster?**
    - E.g., an experiment offering a "fake download" / early adopters waiting list
        - No implementation. The download leads to a message: " We are sorry … the product will be ready soon … would you like to join the waiting list?"
        - Goal:
            - Product/features appeal measured by the # of attempted downloads, #waiting_list_signin
            - Different feature sets can be tested with multiple experiment
            - Some customers can be contacted, given a demo, and interviewed
    - Real customer behavior observation is much more than asking them what they want

Reality Check

- Do you think the previous showed approach (i.e., fake_download/waiting_list) is not real?
- Web site meetingvr.net visited Oct 15th 2019