On the development of Quantified UX Metric

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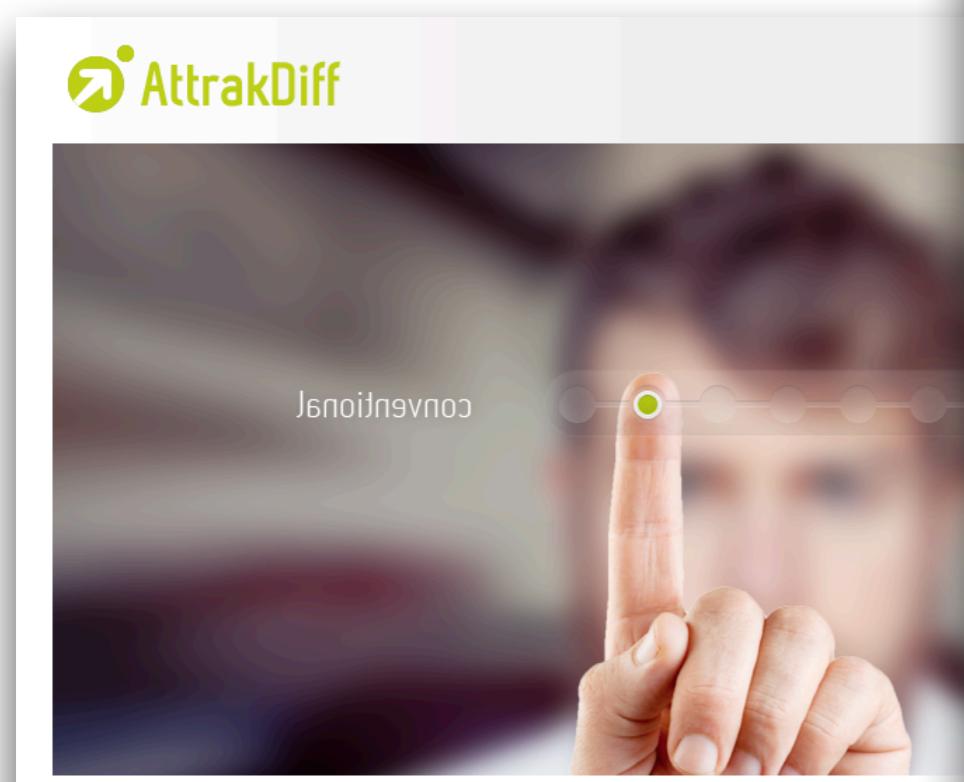
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Supervisor

Agenda

- **Motivation**

- **Design & Dev Process**
  - Stage 1: Paper Wireframe
  - Stage 2: Development
  - Stage 3: Working System
  - Demonstration

- **Design Principles**
  - Ant Design
 - ElementJS v.s. iViewJS

- **Summary**

Motivations

Understanding The Theory

Area	Dimension	Scales	ID	Related Work
Look	Appealing Visual Design	How balanced and harmonic do you find the product? Do you like the design, colors, fonts used in this product? Do you find the text:image ratio appropriate?	d1	
	Communicated Information Structure	Does the product provide clear navigation and orientation? How consistently is the content and information organized? Do you find the provided information understandable?	d2	[11, 20, 37, 61]
	Visual Branding	Do you trust this brand? Do you think this is an honest brand? Do you feel the brand is safe?	d3	
Feel	Mastery	Do you find this product easy to use? Do you find it easy to learn (and to remember) how to use the product? Do you feel you have full control over the product?	d4	
	Outcome Satisfaction	How satisfied are you with the outcome? To what extent are you feeling successful with the outcome? How happy are you with the outcome?	d5	[29, 36, 35, 50]
	Emotional Attachment	How pleasurable do you find using the product? Does the process of using the product provide you with gratification? Do you feel excited when you are using the product?	d6	
Usability	Task Effectiveness	Do you think the product does what it is supposed to do? Do you find the product effective? Does the product help you fulfill your task?	d7	
	Task Efficiency	Is the product the fastest way to achieve your goal? Is the product the most convenient way to achieve your goal? Does using the product fit with your schedule?	d8	[26, 29, 49, 57]
	Stability and Performance	Does the system run smoothly? Are errors handled well? Does the product work fast and responsively?	d9	
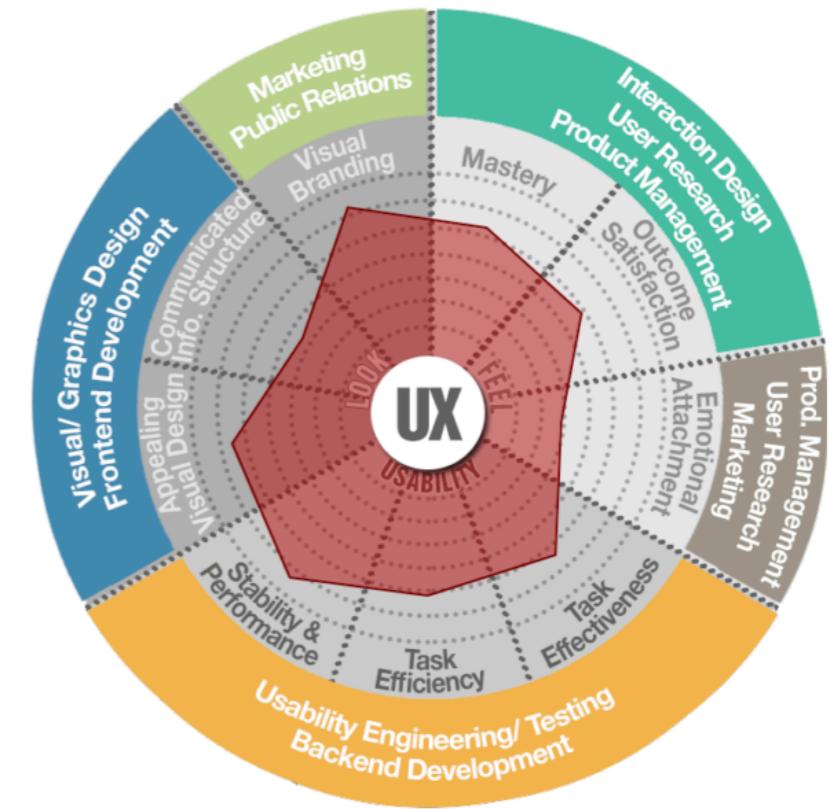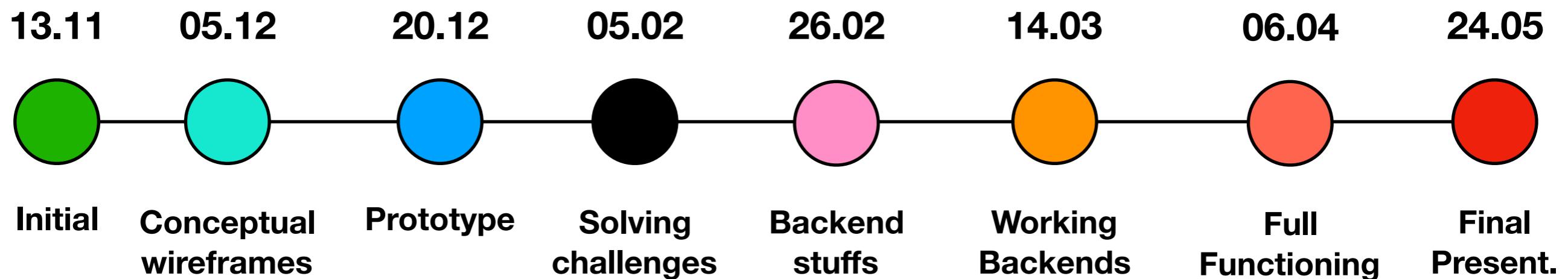
Table 4. Interdisciplinary UX dimensions with corresponding questionnaire items and related work for in-depth, follow-up analyses.

[Lachner et al. Quantified UX: Towards a Common Organizational Understanding of User Experience, NordiCHI'16]

General Goal
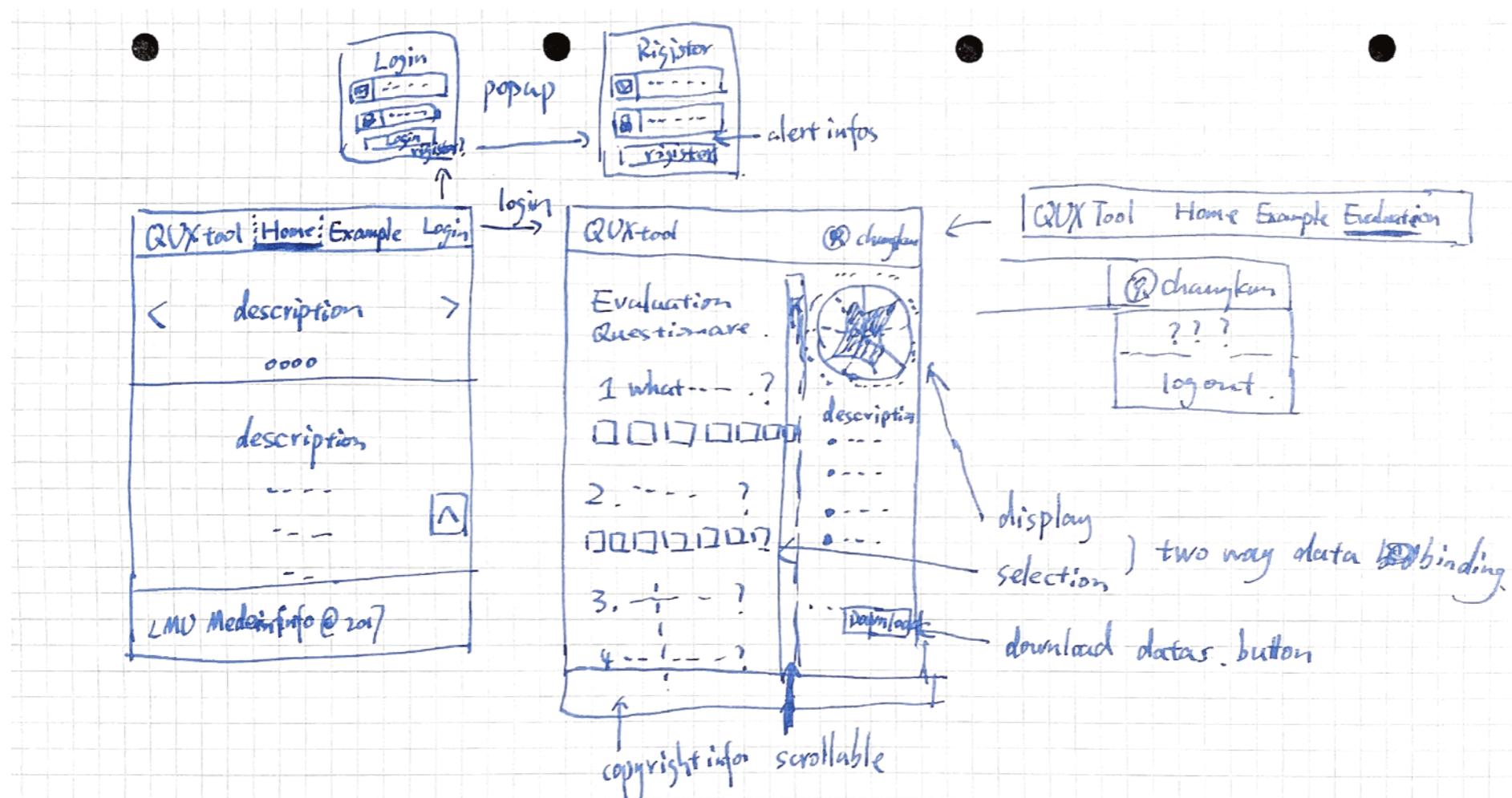
- *Developing a website serve the theory*

Design & Dev Process

13.11 **05.12** **20.12** **05.02** **26.02** **14.03** **06.04** **24.05**

Initial **Conceptual wireframes** **Prototype** **Solving challenges** **Backend stuffs** **Working Backends** **Full Functioning** **Final Present.**

Stage I: Paper wireframe v1

- Requirement Engineering: Misunderstanding of requirements
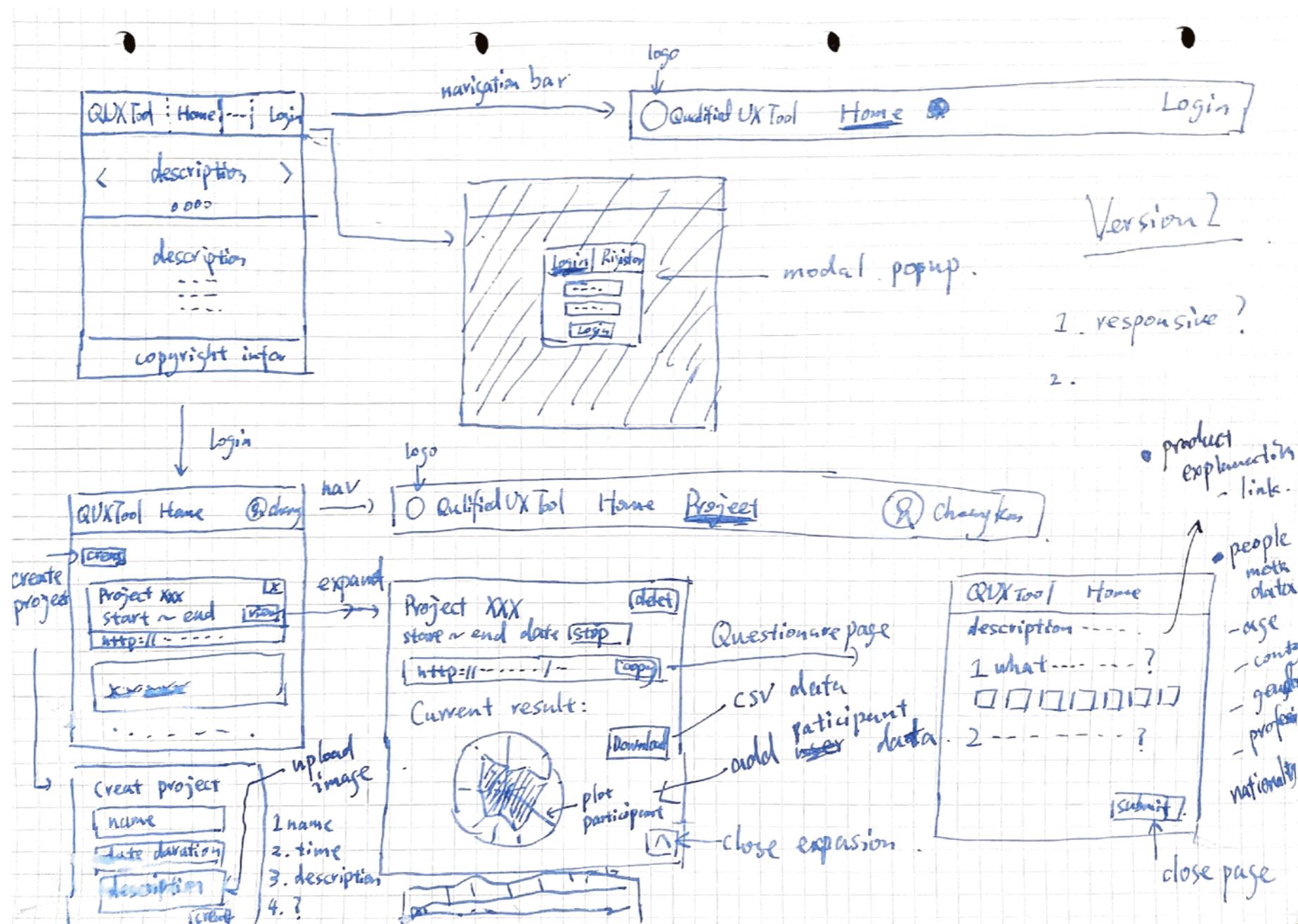
Stage I: Paper wireframe v2

- Overall wireframe, requirements verification
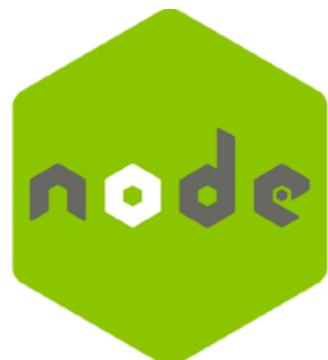
Framework Selection: Fullstack JavaScript
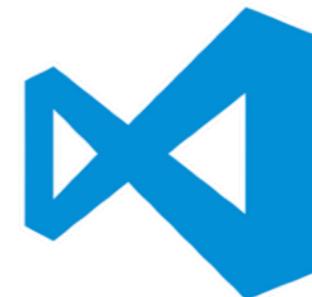
Frontend

Backend
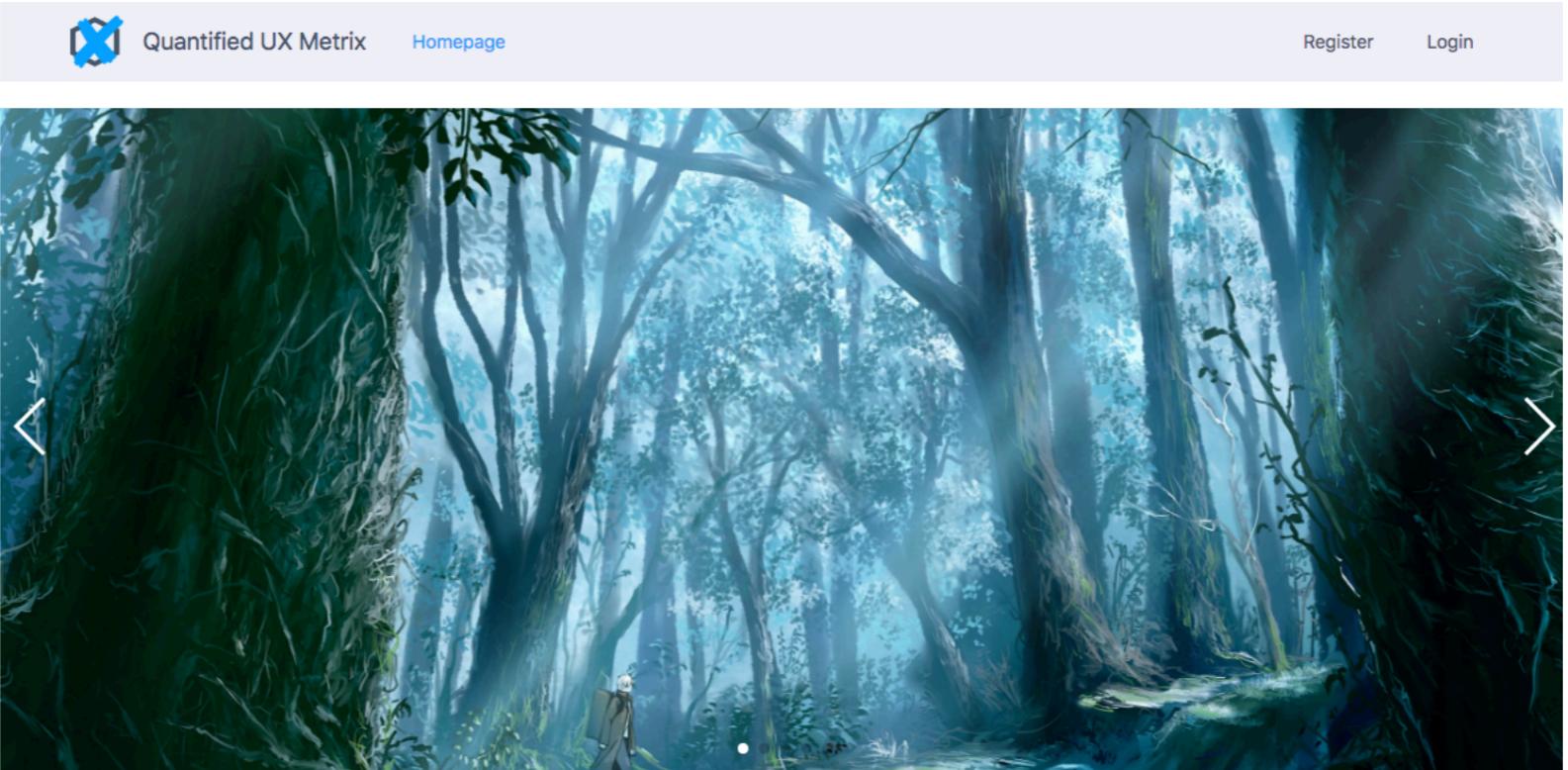
Devtool

Others: *lodash, swiper, vue-router, vuex, babel, eslint, mockjs, vue-loader, webpack…* ***More than 70+ state-of-the-art technologies***

Stage II: Frontend

- Main Challenges
  - Design
  - Capabilities between frameworks
  - New technologies

Stage II: Working Backend

- Testing APIs...

Stage III: Full Functioning System

- Main features:
    - Register/Login
    - Questionnaire Authorization
    - UX Project Management
    - Data Visualization
    - Report Download
    - …. 20+

Project Description

Calendar Chart

The UX Radar Chart

Participants Statistics

Demonstration

Online Testing
at

www.ouchangkun.com

Available until the end of May 2018
Submit Bugs: hi@changkun.us

Design Principles

Should *Luke Wroblewski* responsible for the "Death" of Material Design?

https://www.zhihu.com/question/66894704
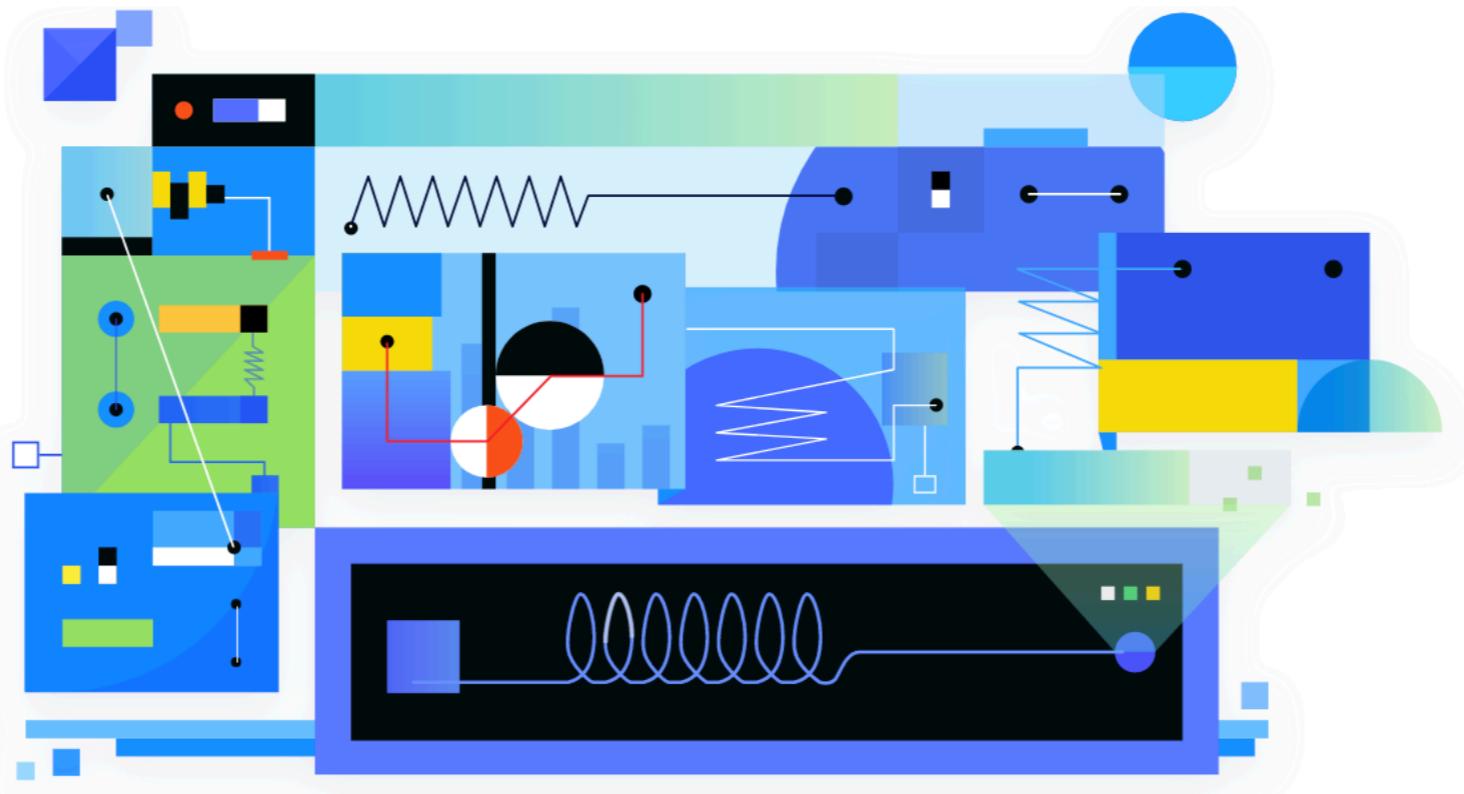
TL;DR: Material design hasn't died yet, but its reputation and influence have reached a low point; the reason for the status quo is largely due to Google's own destruction of the norm, which has begun with Luke.

Design Language: Ant Design (Pro)

- Proposed by Alibaba Inc.

- Integrated in every Alibaba Inc. Products

- 1,000,000,000+ users, large-scale applications

- Only for *ReactJS*

TL; DR: Ant Design is a UI design language, which is abstracted and applied to enterprise-level back-office products.


https://ant.design/
https://pro.ant.design/
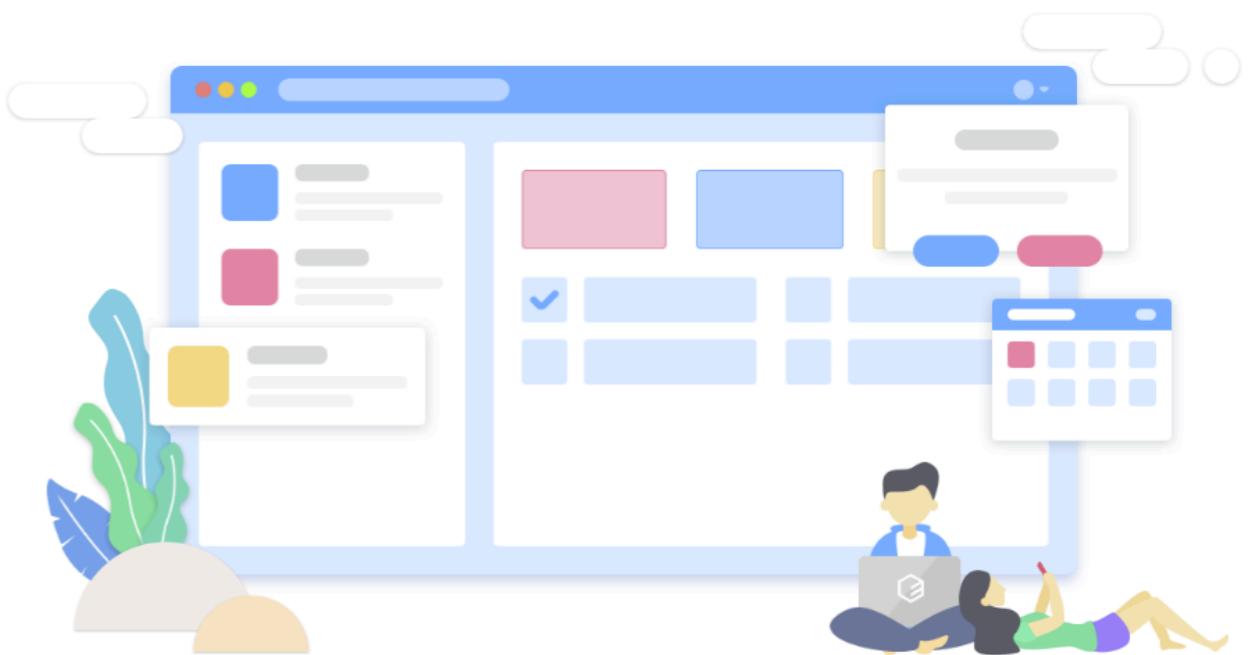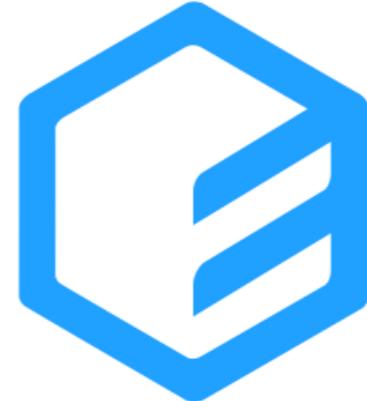
Framework Adaption: ElementJS v.s. iView

- Other implementations of Ant Design
- Capable with VueJS

https://element.eleme.io/

https://www.iviewui.com/

Summary

- Lessens learned
    - Ant Design
    - Massive frontend technologies combination
    - The first time write both everything in JS

- Challenge
    - D3JS in VueJS
- Outlooks
    - Future features: Administrator UI
    - Machine learning analysis: outlier detection, etc.
    - ….