

### **Beyond Sketches**





Beyond sketchesComputer methods



# **Prototyping Dimensions**

## ▶1. Representation

- \* How is the design depicted or represented?
- Can be just textual description or can be visuals and diagrams

## ▶2. Scope

Is it just the interface (mock-up) or does it include some computational component?



# **Dimensions (contd)**

➤ 3. Executability

- Can the prototype be "run"?
- If coding, there will be periods when it can't

## >4. Maturation

What are the stages of the product as it comes along?

Revolutionary - Throw out old one Evolutionary - Keep changing previous design



# **Terminology (1)**

## Early prototyping

- Used to evaluate function and interface
- Typically non-computer

## Late prototyping

- Used to evaluate performance
- Usually computer-based





Low-fidelity prototype

## High-fidelity prototype



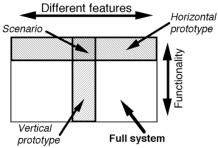
# **Terminology (3)**

## Horizontal prototype

Very broad, does or shows much of the interface, but does this in a shallow manner

## Vertical prototype

Fewer features or aspects of the interface simulated, but done in great detail





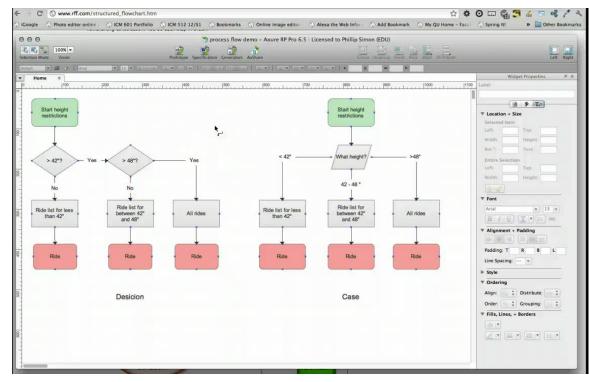
# **Computer-Supported Methods**

## Can support more rapid changes to simple mockups

- Can support more functionality for prototypes
- Can lead to "stale" design, can focus user (or customer) too much on the details of the interface, too early in the design process

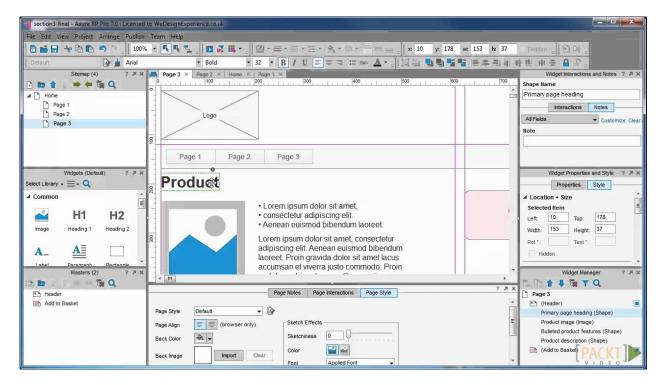
## **Axure**

#### www.axure.com



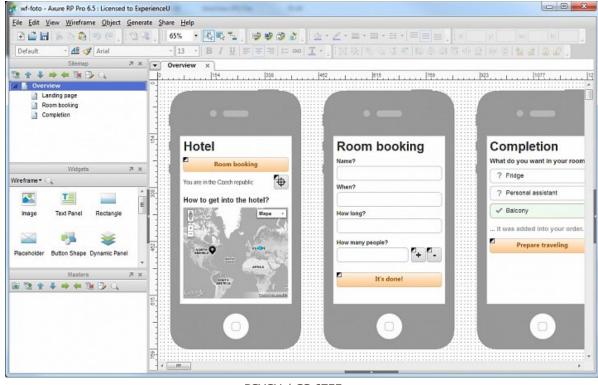


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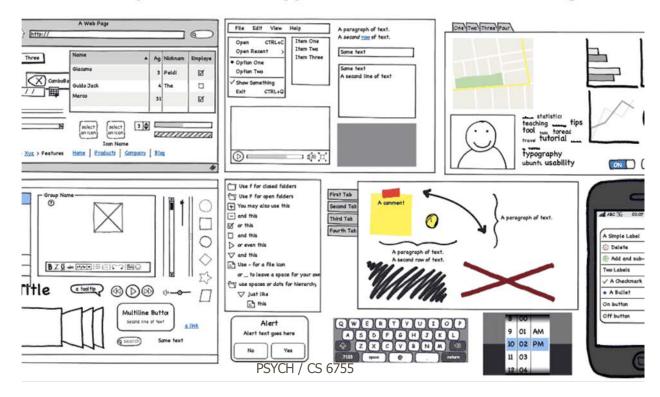




## **Balsamiq**

#### http://www.balsamiq.com

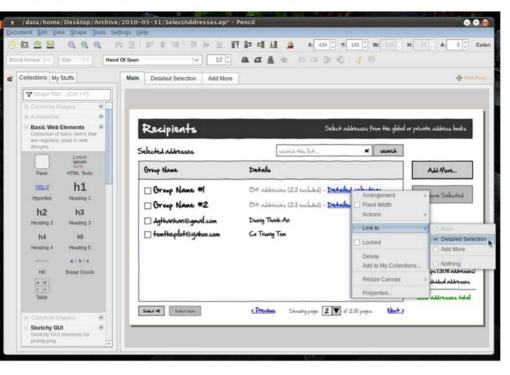
#### Components for Web, Application, and Mobile Interface Design



## Pencil

- http://pencil.evolus.vn/en-US/Home.aspx
- Similar to Balsamiq
- > Open-source
- > Works with Firefox
  - or as an app
    - OSX
    - Windows
    - ✤ GNU/Linux

#### Inter-page Linking





# **Microsoft SketchFlow**

- http://www.microsoft.com/Expression/products/SketchFlow\_Overview.aspx
- Demo: <u>https://www.youtube.com/watch?v=vIdxeRxhO3c</u>

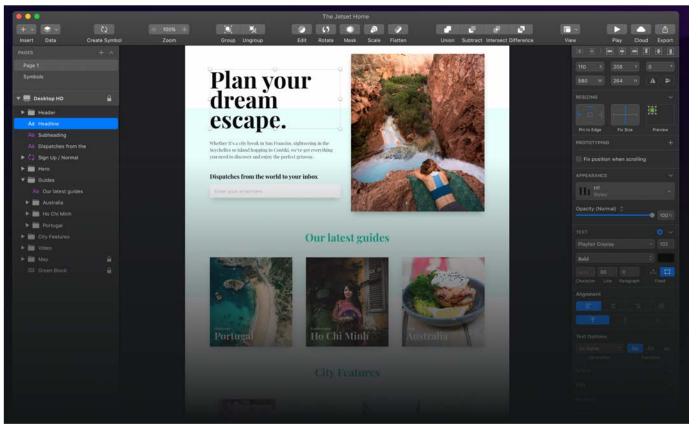
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## Sketch

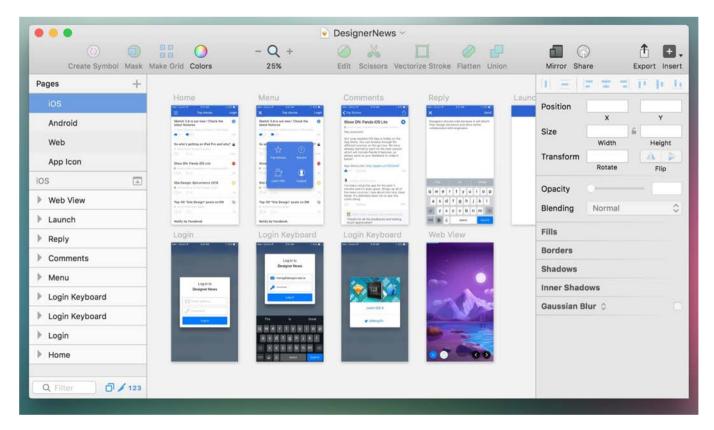
- https://www.sketch.com
- https://designcode.io/sketch-learn





## Sketch

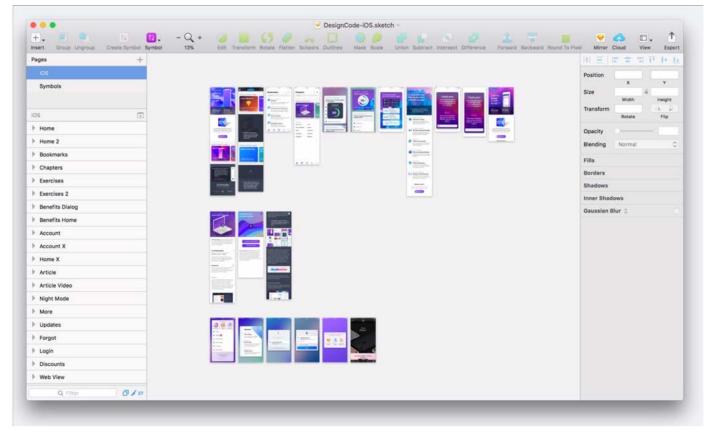
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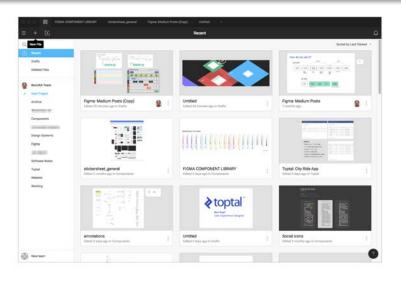




Figma

- https://www.figma.com
- https://www.toptal.com/designers/ui/figma-design-tool

Figma is a cloud-based design tool that is similar to <u>Sketch</u> in functionality and features, but with big differences that make Figma better for <u>team collaboration</u>. For those skeptical of such claims, we'll explain how Figma simplifies the design process and is more effective than other programs at helping designers and teams work together efficiently.







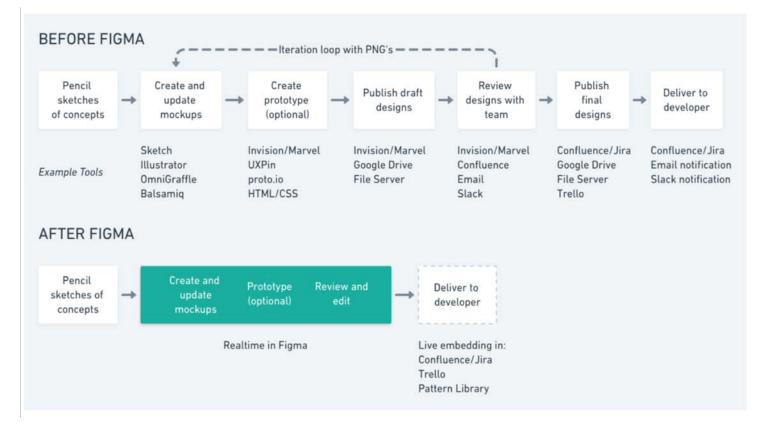
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# Figma

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https://www.figma.com

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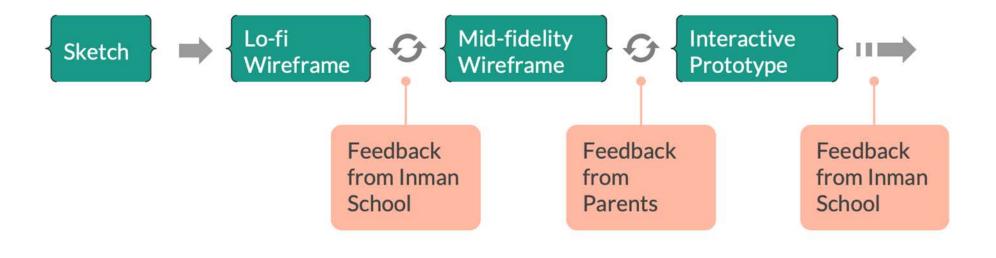




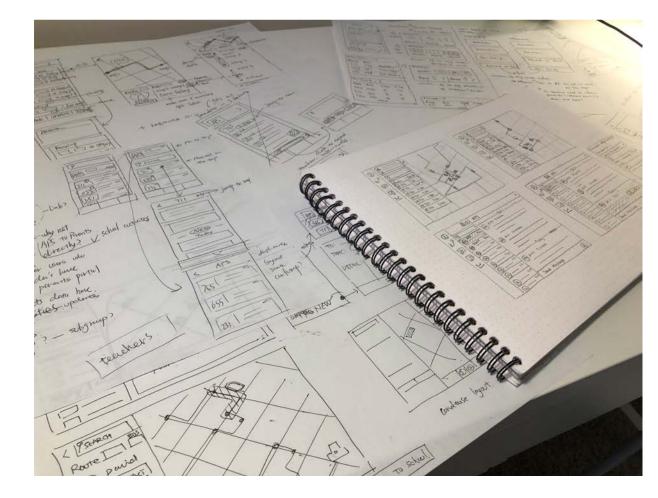
# Figma in Use

School Bus Information App

### **School Portal - Design Process**



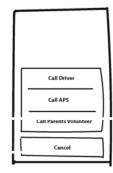
## School Portal Sketch

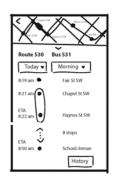


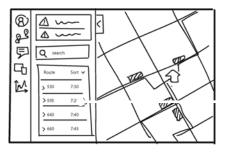
## School Portal Wireframes



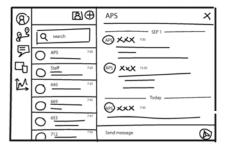


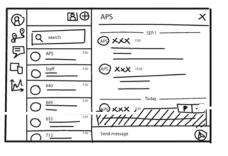


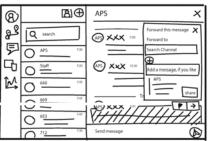


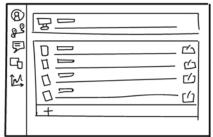






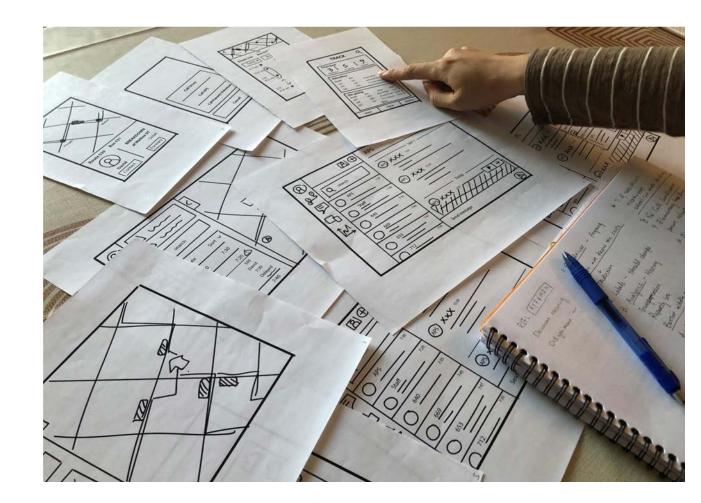




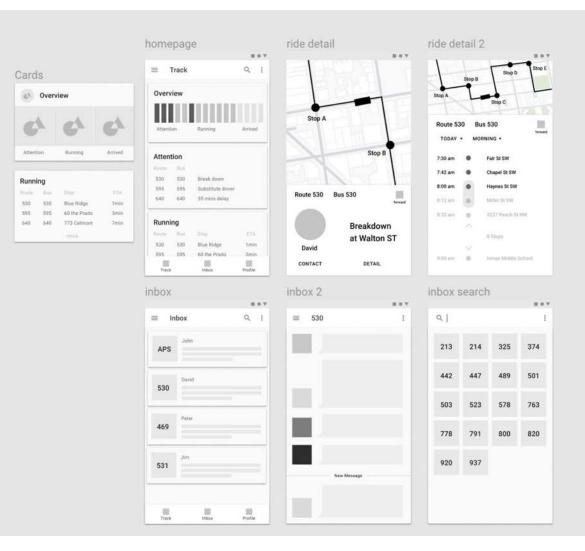


## School Portal Feedback

- Multiple Tiers
- Substitute Drivers
- Add Field Trip
- Route Analytics
- ...



## School Portal Mid-fidelity Mobile Interfaces



## School Portal Mid-fidelity Desktop Interfaces



## School Portal Feedback

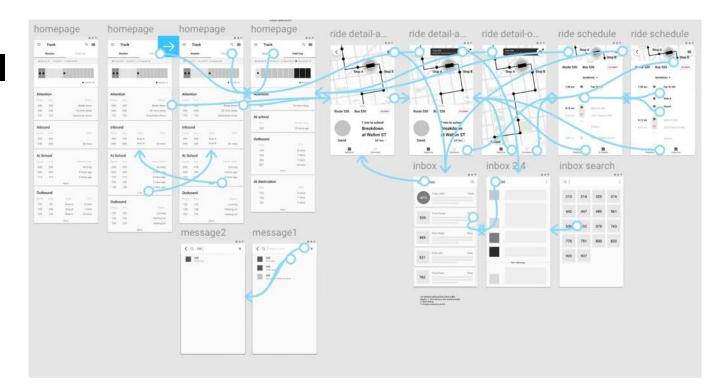
From Parents



## School Portal Prototype

#### Link:

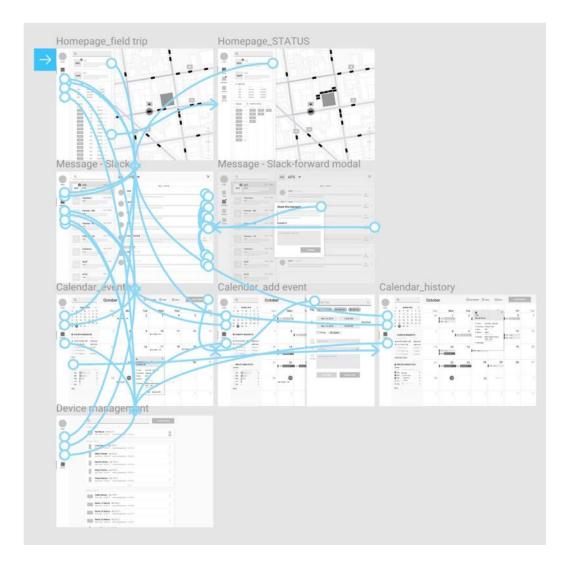
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## School Portal Prototype

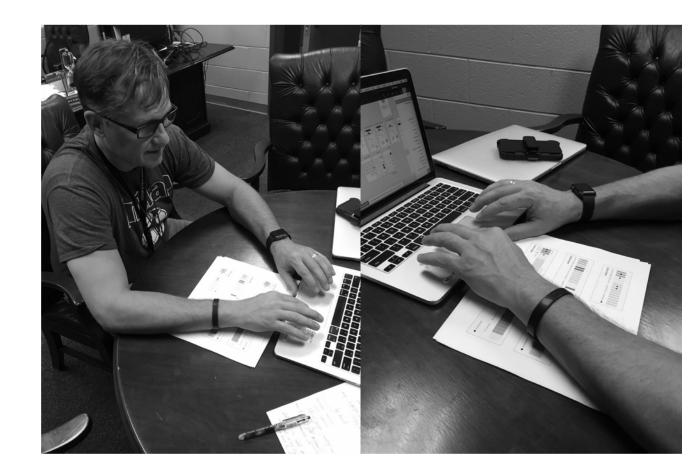
#### Link:

https://www.figma.com/proto/Fdq WgnwkorJYda8yA1bv5CCC/Sch ool-Portal?nodeid=262%3A2&scaling=min-zoom



## School Portal User Testing

From
Principal of
Inman
Middle
School



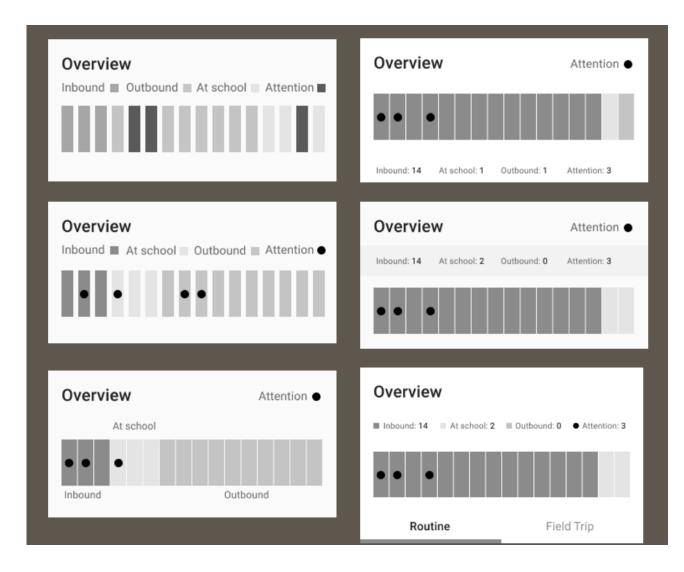
## **School Portal - Iteration**

Based on meetings with advisor, feedback sessions from stakeholders and user testings

We iterate our design constantly during the process...

## School Portal Iteration on mobile platform

• Overview evolution



## **School Portal - Iteration on desktop platform**

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Midterm ExamPoster Session