Service front-ends:

software developed by designers

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My background



```
component myapp {
clip c (0, 0, 100, 100)
load (file://scene.svg)
connector (accelerometer/x, c/x)
connector (accelerometer/y, c/y)
component xdrift {
  value x
  value dx
  clock c (100)
  incr i (x, dx)
  binding (c, i)
}
connector (xdrift/x, clip/x)
connector (accelerometer/x, xdrift/dx)}
```

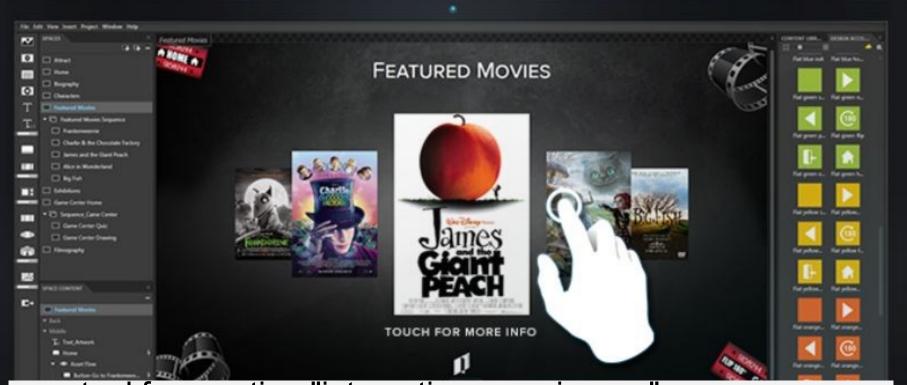
User interface designer

- -air traffic control engineer, 1992-2000
- -head of design services, IntuiLab, 2000-2006

Computer scientist, tool designer

- code for operating systems (X, Linux)
- tools for programmers (Xtv, Whizz, IntuiKit, ...)
- tools for design teams (djnn)
- tools for designers (IntuiFace)

a UI tool for designers: IntuiFace



- a tool for creating "interactive experiences"
- world leader for digital signage and in-store interaction
- used by 3M, Perceptive Pixel, Microsoft's design agency, etc
- also used for MOOCs, cockpit prototypes, etc.

IntuiFace

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- aimed at users of PowerPoint and Adobe products
- instantiate and connect assets to create interactions
- interaction as a media: created, deployed, consumed

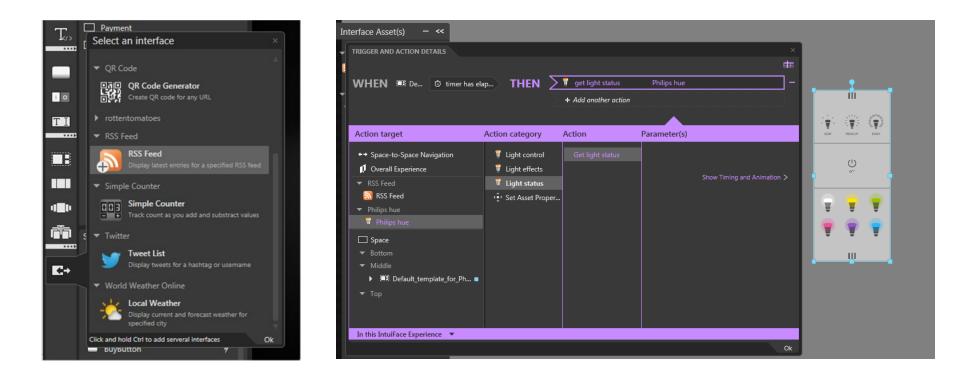
UI development: a changing market

• 2000-2008: IntuiLab designs and develops UIs

• 2008-2012: IntuiLab sells tools to IT firms

• 2012- now: IntuiLab sells tools to design agencies with extension/connection mechanisms for IT firms

Interface assets



- developed by "real programmers"
- connected to Web services
- manipulated by designers as assets like the others

Result



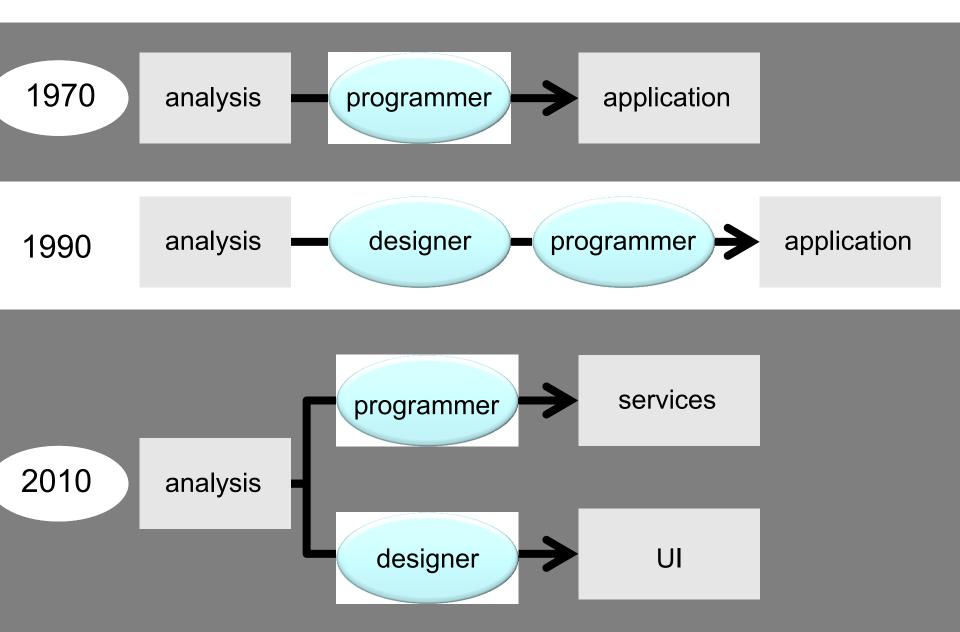
Philips Hue, web service, interface asset, IntuiFace experience

Example application



- shopping kiosk
- layout and interaction built by designers
- data-base accessed through web services
- interface asset developed in C#
- run by Intuiface Player

UI production is now the job of designers



Research directions

- UI-compatible standards for exporting services (similar to Google Descriptors?)
- Platforms for orchestrating the UIs of IoT services
- EUD/EUP for interactive systems
 - Sound and general concepts
 - Visual representations, interaction styles for programmers
 - Programming assistance (not typing, not colored keywords)