#### Service front-ends:

#### software developed by designers

Stéphane Chatty June 2014



# 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)}
```

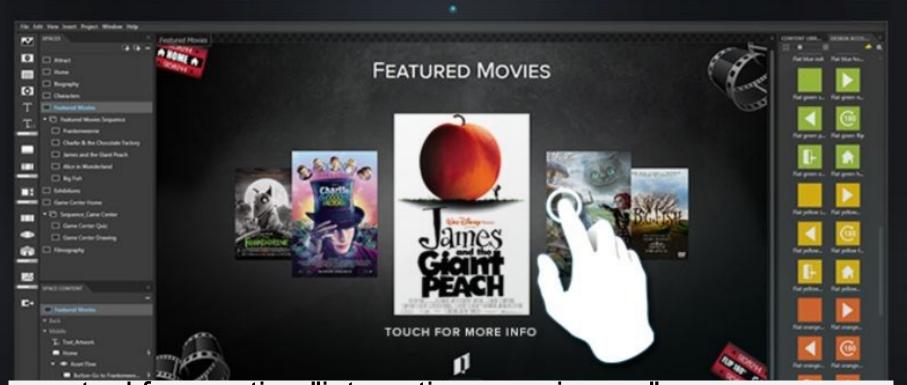
#### User interface designer

- -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

File Edit View Insert Project Window				
SPACES	× Space 1			
Space				
Space 1				
0				
			<u></u>	No.
Т	But	ton 🖣		
Τ.,				
****		·······		
TI			211-11	
••••	TRIGGER AND ACTION	DETAILS		
				0s  1s  2s
1 <b>2</b> 1	WHEN	🖑 is relea THEN 🔎 🖗 p	revious 👘 Carousel	
			ld another action	
SPACE CONTENT	-		<u> </u>	8
Space 1	Action target	Action category Action	Parameter(s)	Timing and Animation
- Back	++ Space-to-Space	Navigati 🍈 Carousel Close all	one Go to the previous item.	Start time 🌒 0,0 seconds
✓ Middle	4 Ø Overall Experien			
■ ■ Button ■ @ Carousel	7 🔤 Space 1	💮 🄅 Position, si Open ite	m	
M Beetle		Snapshot Previous		
💌 Birds	▼ Middle	Visibility & Scroll to		
Dandelion	Button   Garousel	Scroll to		
Ducklings				
🖾 Ducklings				
🖾 Ducklings	× Top			
🖾 Ducklings	▼ Top X P PROPER	erience 🔻		

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

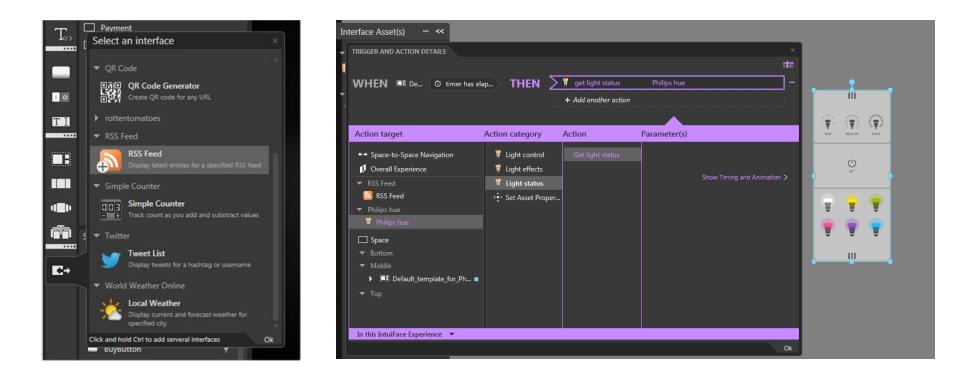
# UI development: a changing market

• 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



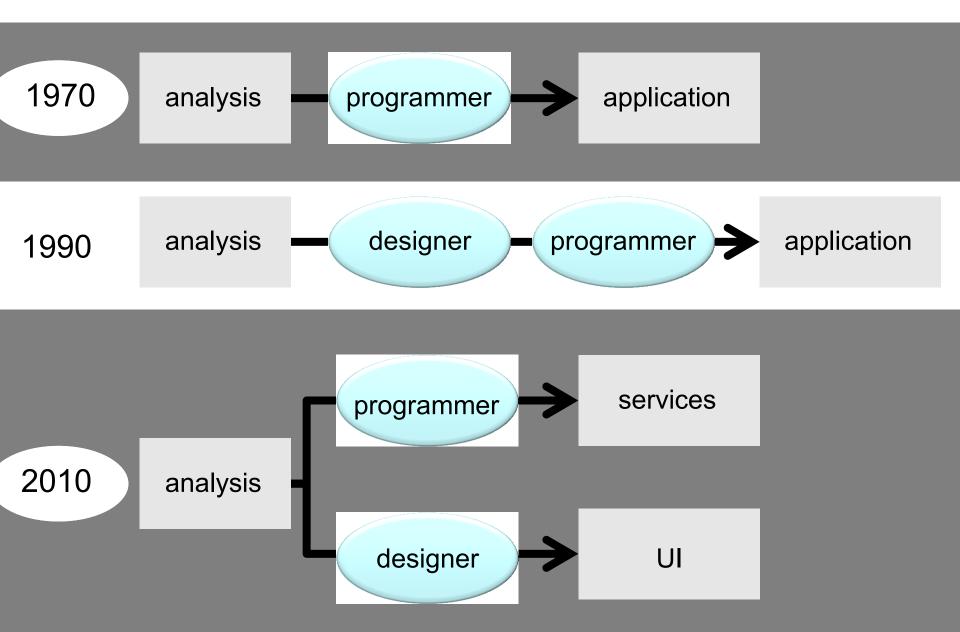
# Philips Hue, web service, interface asset, IntuiFace experience

# **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)