HCI and Design

Today

Assignment 1 is graded Assignment 3 is posted

Understanding prototype fidelity What is Digital Prototyping? Introduction to various digital prototyping tools

Reminder: What is a prototype?

A prototype is an incomplete, early version of a product

There are many approaches to building prototypes for software user interfaces

UI prototypes can be as simple as a drawing on a piece of paper or as complex as functional web application • Or anywhere in between those extremes!



Lo-Fi vs. Hi-Fi

Traditionally, prototypes are categorized as either lo-fi (low fidelity) or hi-fi (high fidelity)

Fidelity can be thought of as how close of an approximation of the final product is being attempted

In this class, we will often use lo-fi as a synonym for paper prototyping and hi-fi as a synonym for digital prototyping

Your design process should use *multiple* levels of fidelity as you move from an idea to a fully designed product

Dimensions of Fidelity

Concept Tille Overer Nome Goolen Dale Blackes	Plan an Exhibit						Fidelity can be broken down into
(Overvian) (Endiversibles) Terrin (Berthau) Hill Addi Rossen to your Terrin Sobrit (Coldina andres a second as [sobrit 246] 15 [Over] [Consel]	Expotence I House fill out all Exhibit Title ? Summary ? Author School	Feida, Por Isola					four basic dimensions: • Breadth • Depth • Look • Interaction
	Gaude broght Primary Subjec Corriculum Toy Fahibit Beacrip	R Ealence RcQ()≩					
	Time Frame ?		Serger 3 become as 2 mesonal with				
http://www.sapdesignguild.org/editions/edition7/ proto_design.asp	Gree		E III. E III. P III. Randarda be Randarda indical			UVIA UVIE UVIE UVIE UVIE Nie Polet	

Breadth

The "breadth" of a prototype refers to how much of the product's functionality is represented in the prototype

- A very narrow prototype only represents a single feature
- A broad prototype represents all intended functionality
- Prototypes should generally be as broad as needed to cover basic or most important tasks, but not much more

Depth

The "depth" of a prototype refers to how much of the prototype is functional, and how robust it is

- A very shallow prototype has no backend at all and is hard-coded to respond as though the user had provided ideal input
- A deep prototype has some logic and error-handling capabilities
- At first glance, depth may seem unimportant, but it affects the amount of **exploration** a user can do
- Thus depth can actually have a *profound* influence on user testing!

Look

"Look" is probably what most people think of when they think of prototype fidelity

It refers to how accurately a prototype represents the product's intended appearance, including fonts, colors, and graphics

It's generally a good idea to hold off on something that has a high fidelity look until later in the design process

- People are less likely to point out flaws and mistakes
- People can easily fixate on the "little" things
- You are less likely to throw it out and start again

Interaction

"Interaction" refers to how the prototype handles input and output

Interaction can often be simulated

For example, you might create a digital prototype for an iPad application which runs on your desktop and responds to traditional a traditional mouse and keyboard

You might use hyperlinks or animation to simulate clicking interaction (e.g., in Powerpoint)

Hi-Fi Prototyping

Once you have developed a lo-fi prototype and solicited feedback on it through peer critique and user testing:

- You may wish to create another lo-fi prototype
 - (isn't iterative design fun?)
- Or you may be ready to move on to a hi-fi prototype

Remember, a high fidelity prototype is a substantial time investment!

It is good for evaluating a working design that has been derived from a few rounds paper prototyping

Things you will need to consider...

Choice of tool (more in a minute)

Typography / font

Color palette

Device

Interaction

Implementation

Start by creating a digital version of your paper prototype Then iterate through user testing and feedback *Don't design a beautiful prototype that can't be implemented!*

Digital Prototyping Tools

There are literally hundreds... And more released every day. *I don't know them all!*

What you choose will depend on a variety of factors...

Choosing a tool: Considerations

- Learning Curve
 - How long will it take me to learn this tool?
- Usage
 - Which device will it be used on?
- Fidelity
 - Will it showcase layout structure or complex interactions?
- Sharing
 - Can I collaborate with others on the prototype?
- Cost
 - How much am I prepared to pay for this tool?

Comparing prototyping tools

A cool tool to help you do this: <u>http://www.prototypr.io/prototyping-tools/</u>



Powerpoint or Keynote

All platforms Costs money ... but many of you have it already



Only for Mac Costs money (\$99) Student discount (\$49?)

DesignerNews Q + fi 6 Create Symbol Mask Make Grid Colors 25% Edit Scissors Vectorize Stroke Fatten Union Mirror Share Export Insert 127 + 12 Pages 15 It It -Menu Home Comments Repty Leting Position. х Y Android Noted 7.4 is not not 17 hour file. Saura 7.4 months and the -8 6 0 10001010 +71102100 Size Markel State . . -And Nors, "As an assess Principal of the Wab Width Height a sense an instant and the address of the sense industry or an end of the first of the sense of the sense is hard to be a sense in the sense of the sen Iran storm 14 -App Icon Print Die Liness #10 Lite . AND TATALOW THE DESIGNATION OF THE Rotate Mip. and the second iOS . the Bangs, Speciations 1988 the test way, he list to be test? Opacity representation of park Poly, and it the New Inscisle -the New York Section Sector Y additional and Units participants 4 4 4 4 4 4 4 4 4 4 4 4 4 4 Web View tap 48 "Statistics" parata 89 (g) Toy 31 We Bright plats will 0 Blending Normal 3 5 2 5 7 8 9 8 8 TV man had been a real state ball Launch Parallel Brokerwiscole and Social Rule Marcall 10.00 140.0 metty by functions theory is the date Fills Login Keyhoard Login Keyberri Web View Reply Borders Comments Up nis **Designer News** Shadows Menu - attained a 10210-0 Inner Shadows Or styring Promy Login Keyboard Gaussian Blur 0 ALC: NO Y Login Keyboard Login Home

Sketch

120

G. Friter

All platforms 3 projects free



000 © meanware	TTM MAN 2. 6									
≡ 📴 ສະບ- 🗞 າ		атномань — 🛞 🚾 🕞 е ем								
r 🙏 Tveri Citovite (Wriedda)				EREN PERSONN C						
- 189				DACKERCUHD						
1000										
O 1968			•	PC16863 15/4						
~				2 three margines						
 [2] Group [2] See 36 2007 				PIED, PREVION						
1	English Calencias (Monti) (Ereni Calenia (Daletial) Ereni Detelo	Erreni Detelle Adv							
0 m	= Provet Subgroups 🖓	🗏 Burt Selenar 🐵 🗏 Burt Selenar 🔮	🗧 🛛 Electric 🐨	PadProlev						
T concentration	< September 5	< Stylester 2 < Innovation Tour	< Innovation Tour	∠ RedOrd						
T InterNations All Hands litter	sienna 🗸 🛗 🖽	steens v 🖄 🔚 Sydney	Sydney							
++++ Pentanale +	10 00 10 WE 10 10 10			DPGFI						
> D bei		Menore Luman	Capturetar 16, 1007	Clob - to add an export setting						
> 🗇 bes	1.1.1.1.1.1.1.1.1.1.1.1	Interventen (der gesen)	d Address							
> 🗇 bei		Antonian (in State Carlos 1971 Control 1971	Add the set of the set							
> D bei		Execute Constants	Tanan da							
> [] 5mi	Seatorter 18	The start for The start of Patient end and the start of t	C - new way, but these with index a surgery and the second							
C Anvianula 4	HEREFT SATURE	👔 ç gyreş Anmer 🔬 Hiş (Brin, 191) 📧 Administrative andreas generative alternative attendende attendende terrative attendende attende atte	Advectation surveyorset assessment assessment assessment as well-there is the threading assessment as page ranks							
1 Dresi Galendar (Munik)	The second	Ratalay haven at the second to be set of the	the second second second second second provided the second s							
- Um 4	A share your () the same too.	Jacobia Bistores a								
- Antonaly 10	Construction Galaxies	Bandard All Rendation V Services Se 12 Set 20, 1977 C	And event to colordar							
2 (1. 9mm	🐑 Ress fant 👘 Salaria	🕘 Anna Facel 📋 Talamba 😸 Rena Facel 📋 Talamba	🔁 Anna Sant 😁 Salawha							
> (1) Gilevier										
5 CT UNIVER										
🗸 👌 generil al losset therein devention										
Ser Parks										

T Al menia

Manih Geletter

-(b) LD

All platforms Free trial (15 days) Then monthly fee

••• • • • ŵ ii lovely proto. io C. ۵. 0 5 proto.io < Share 🛛 🖸 Preview Screens To Containers LOSFOLDS GROS G., Tinder > Screens > Tinder UI 10 A Auto seve in 30 seconds Save Project (0) 108.7 Jump to... State 1 C Item browser Basic iii Navbar (model) COSMOTE ♥ 18:36 1 💼 🕬 A Christing Action Buttons (certained) Action Buttons Actina Action Buttons Action Buttons Action Buttons Marchisters anderiganet gebreigter Seattleaders print (prom is inene Action Buttons (contained) Interactions for "Christina" J X Maria Action Buttons (container) Text Return Position Rich Text Rectangle e Christing (container) **Return Position** Title iii irene (container) Trigger On Drag End iii Maria (container) Action Change property. -Horizontal A Backdrop (image) A Circle line Vertical line Screen Tinder UI (Current) (portrait) Barris . Christina -Ð 1 Property Tap Value type Custom value -Animation Interaction Area target Image New Value 145 Duration 200 ms 0 C Ease out - Quad Easing: . Delay No dolay -Icon Placeholder Web View Callback Executed after the action is completed </> Christina, 28 Save Interaction Cancel HTML Code Audio Video Tooitip Teolbars

Proto.io

All platforms One project free, then monthly subscription

InVision



Comparing prototyping tools

A cool tool to help you do this: <u>http://www.prototypr.io/prototyping-tools/</u>



Let's Practice

Goal: work through a tutorial using a *new* digital prototyping tool.

Comparison tool: http://www.prototypr.io/prototyping-tools/

Suggestions (But you can also find your own.....)

Sketch: <u>http://megumi.co/learn/sketch.htm</u>

Figma: <u>https://www.creativebloq.com/how-to/create-a-responsive-</u> <u>dashboard-with-figma</u>

InVision: <u>https://support.invisionapp.com/hc/en-us/articles/</u> 203009719-How-do-I-get-started-

Proto.io: <u>https://support.proto.io/hc/en-us/articles/221499147-Step-by-step-Tutorial-Getting-Started</u>

Submit: Upload a screenshot of your work to this google folder.

<u>http://bit.ly/2FtoMW1</u> THE FILENAME SHOULD BE YOUR NETID!