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So Many Faces:

Web 2.0 XD Experience with JSF and JavaFX Technology, Flex and WPF

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Share lessons learned and gotchas in User Experience Design (XD) Using JSF and JavaFX technology, Flex and WPF

GOAL

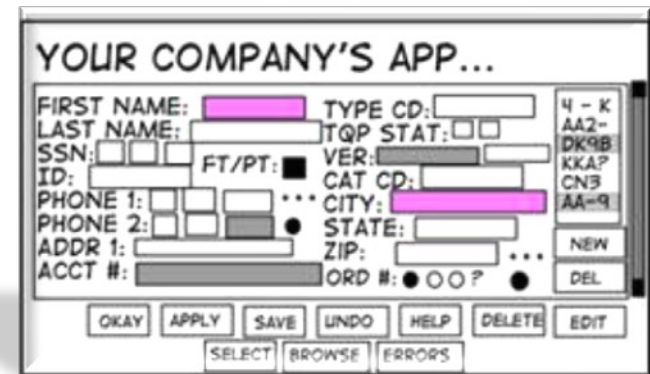
Agenda

- **What Makes Great Web 2.0 XD Experience**
- **Interactive XD Session**
- **Enhanced Demo**
- **Lessons Learned**

What Makes Great Web 2.0 XD Experience



Which item gives you a better user experience?
And *why*?



Visual
Experience

Simplicity

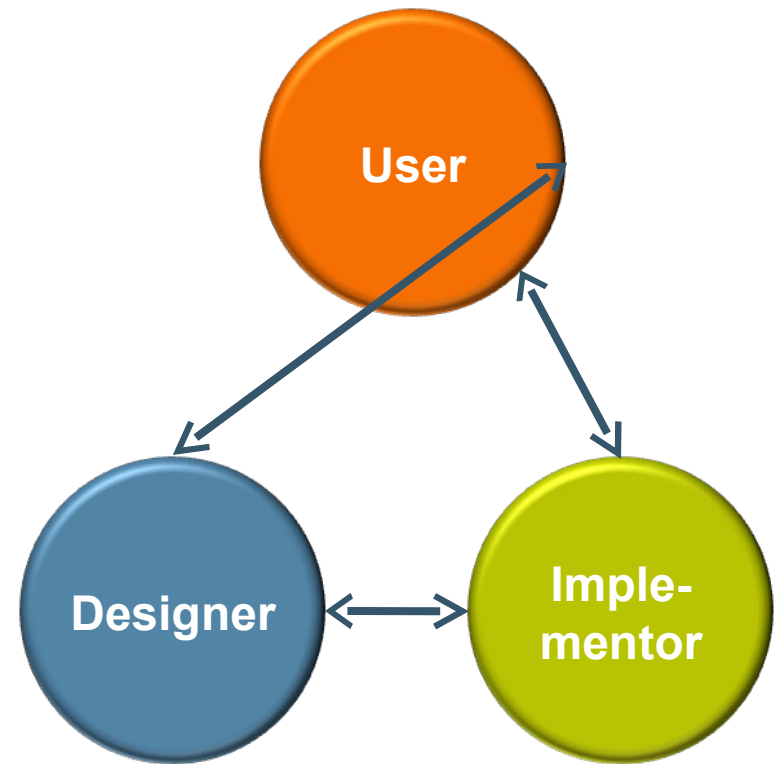
Productivity

Accessibility

What is XD?

➤ User Experience Design is a subset of Experience Design

- Design of products, services and environment based on a holistic consideration of the user's experience
- Interactions of customers with products, services and companies



Examples of Web 2.0 XD Design

XD Principles	Characteristics	Visual Themes / Color	Advanced Features
Simplicity	Centered design Round edges White space	Bold logos Strong / complementary colors Subtle 3D Simple icons	AJAX
Productivity	Alternate navigation	Fade effect	Auto-complete Previews Subscribe Save Mash-up
Familiarity		San serif, large fonts Lower case	Drag-n-drop Maps
Personalization	User preference Widgets		Comment Rating/review Share

Examples of XD Design Principles

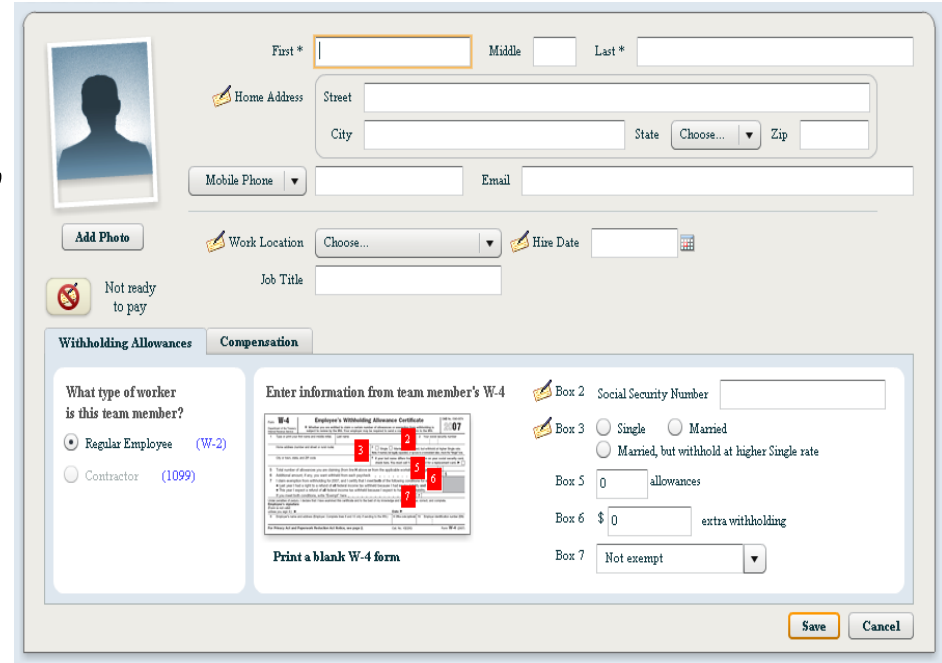
XD Design Principles	Examples
Simplicity	<ul style="list-style-type: none"> • User tasks fade into background, and allow users to work efficiently • Function included only on needs basis • Clarity, e.g. establish a hierarchy of tasks
Productivity	<ul style="list-style-type: none"> • Give users in control of the sequence, not restricting them to accomplish a task in “correct” sequence, e.g. expert short-cut, user assistance
Familiarity	<ul style="list-style-type: none"> • Mimic real world objects or sequences that users are familiar with • Use familiar objects or icons, e.g. trash can, telephone • Avoid consistency without understanding your users, their tasks and shared experience (gotcha)
Personalization	<ul style="list-style-type: none"> • Allow users to customize their preference and to create their own system personality

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Interactive XD Session Use Case

- You need to create an employee information system to manage employee personal data.
- Your architect provides you a summary of Web 2.0 options, and asks you to produce a prototype within 1 week.
- We are using 4 different languages to implement this use case to compare user design experience.



The screenshot shows a web form for entering employee information. It includes fields for First, Middle, and Last names; Home Address (Street, City, State, Zip); Mobile Phone; Email; Work Location; Hire Date; and Job Title. There is a photo upload section with an 'Add Photo' button and a 'Not ready to pay' status indicator. Below these are tabs for 'Withholding Allowances' and 'Compensation'. The 'Withholding Allowances' tab is active, showing a question about the worker's type (Regular Employee or Contractor) and a section for entering information from a team member's W-4 form. The W-4 form includes a Social Security Number field, marital status options (Single or Married), and fields for allowances and extra withholding. A 'Print a blank W-4 form' link is also present. At the bottom right are 'Save' and 'Cancel' buttons.

Web 2.0 UI Technology Options

	JSF	JavaFX	Flex	WPF
Platform	Windows, Mac, Linux, Solaris	Windows, Mac, Linux, Solaris, Mobile devices	Windows, Mac, Linux, Solaris	Windows
AJAX Support	Embed JS		Async calls & JS interface	Async calls & JS interface
Animated Effects	No	Some	Multiple	Multiple
Performance	Compiled JSF pages are cached	Byte codes	JIT Compiled on client	JIT Compiled on client
Backend Integration	Bind to EJB	Bind to Java classes	LCDS or Remoting	WCF, Web services

Interactive XD Session

DEMO

From an XD Perspective

	JSF	JavaFX	Flex	WPF
Rich graphical design tool	Varies	JFXBuilder	Flash Pro Flex Builder	Blend Visual Studio
Programming components, e.g. add multiple containers	HTML	Frame	Application (multiple containers)	Page
Visual effect, e.g. gradient, 3D, morph	+	++	++++	++++
Code-oriented	++++	+++	++	++
Style sheet support	Yes	No*	Yes	Yes

Enhanced Demo

DEMO

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Lessons Learned

➤ Top 3 XD Principles

- Simplicity, e.g. # of controls per page, multi-step wizard, when visual effects are helpful
- Productivity, e.g. navigation, tabbed pane
- Personalization, e.g. collapsible control, hide/show

➤ Some Gotchas

- Overuse of visual effects for data input screen
- Use of style sheets
- Developer-centric versus XD-centric
- Accessibility and Section 508 Compliance

XD Design Principles Scorecard

XD Design Principles	JSF	JavaFX	Flex	WPF
Simplicity				
Productivity				
Personalization				

From our demo, could we rate how easy or how difficult (using scale 1 to 3, with 3 denoting very easy) each technology can achieve XD Design Principles?

For More Information

➤ User Experience Design

- [http://msdn2.microsoft.com/en-us/library/aa373647\(VS.85\).aspx](http://msdn2.microsoft.com/en-us/library/aa373647(VS.85).aspx)
- http://www.masternewmedia.org/information_design/information-design.html
- <https://www-306.ibm.com/software/ucd/designconcepts/designbasic>

➤ Accessibility

- <http://www.section508.gov/>
- <http://www.w3.org/WAI/intro/wcag.php>

➤ JSF

- <http://livedemo.exadel.com/richfaces-demo/richfaces/jQuery.jsf>
- <http://www.irian.at/myfacesexamples/home.jsf>

For More Information (cont'd)

➤ JavaFX

- <https://openjfx.dev.java.net/>
- <http://learnjavafx.typepad.com/>
- <http://java.sun.com/developer/technicalArticles/scripting/javafxpart1>
- <http://techbrew.net/articles/200706/slick-javafx-demo/>

➤ Flex

- <http://flex.org/>
- <http://www.adobe.com/devnet/flex/>
- http://labs.adobe.com/wiki/index.php/Flex_3:Feature_Introductions:

➤ Windows Presentation Foundation

- <http://msdn2.microsoft.com/en-us/netframework/aa663326.aspx>
- <http://silverlight.net/default.aspx>

THANK YOU



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