### The Story of the Ribbon

Jensen Harris Principal Group Program Mgr. Office User Experience Team

### Why am I here?

08



- Office 2007 introduced a totally redesigned user experience
- How and why did it happen?

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| Office 2007 Timeline  |  |
|---|--|
| August 2003<br>• Product Cycle Begins                             |  |
| September 2005<br>• First Public Demo of the New Office UI at PDC |  |
| November 2005<br>• Beta 1   |  |
| May 2006<br>• Beta 2  |  |
| November 2006<br>• Released to Manufacturing                      |  |



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# Good Enough

### "Good Enough"

- Conventional wisdom:
  - "Office is good enough."
  - "People only use the same 5% of Office."
  - "Everything I need was in Office [95, 97, 2000]."
- Asking real people told us a different story:
  - "I'm sure there's a way to do this, but I can't figure out how."
  - "Office is so powerful, I would be better at my job if I knew how to use it more."

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### The user interface was failing our users.

### User Interface Breakdown

- We added new features...
   ...but hardly anyone found or used them
- Office seemed increasingly complicated...
   ...and that seemed to get worse every year
- People want better ways to get things done...
   ...but they assume nothing will ever change

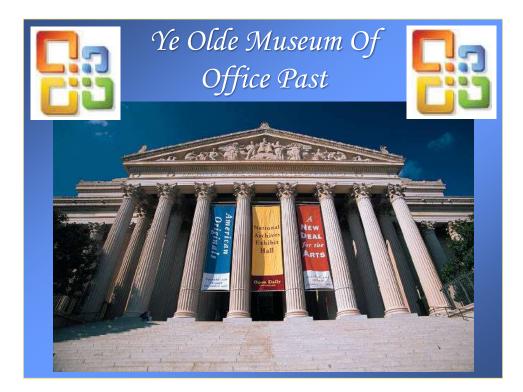
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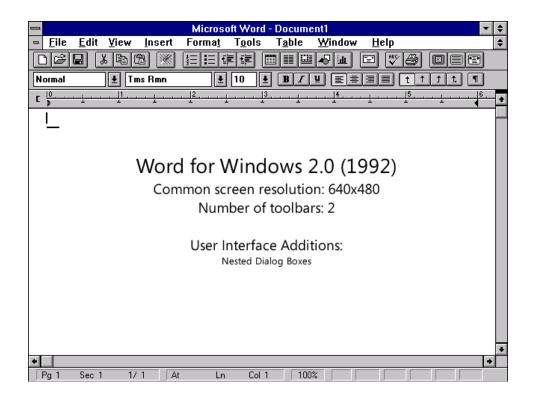


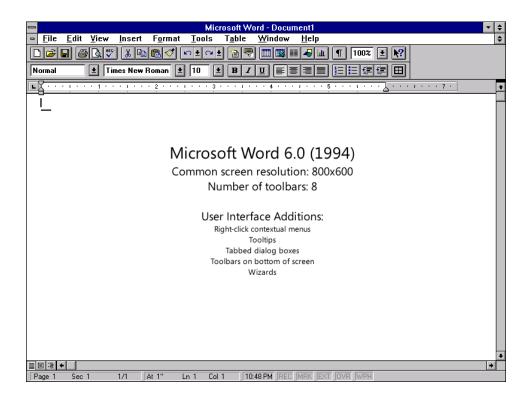
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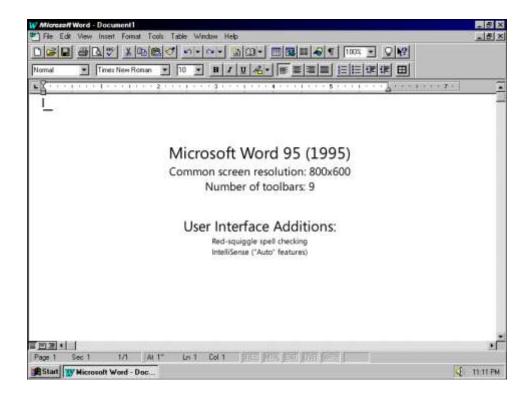
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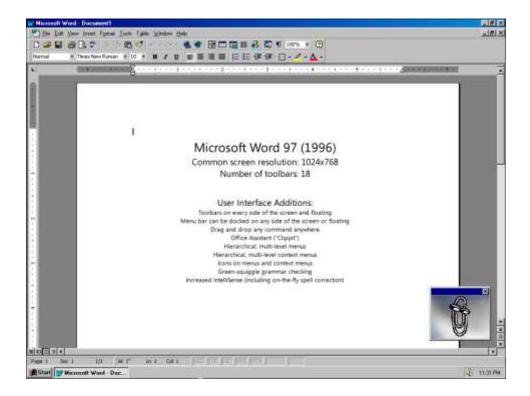




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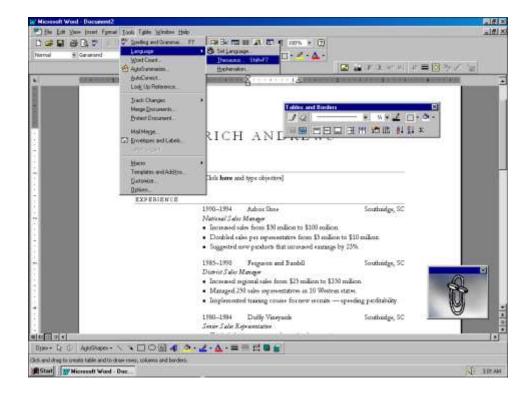
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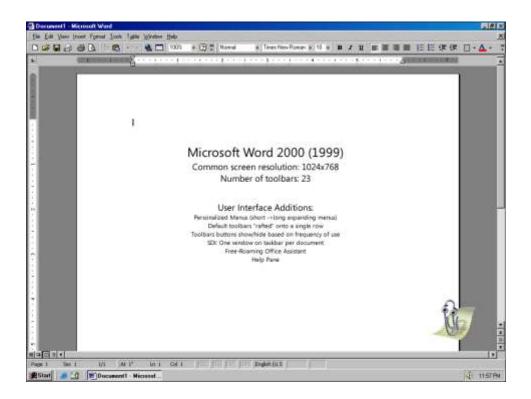




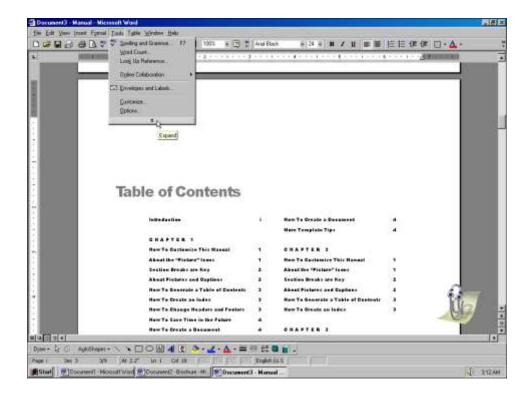
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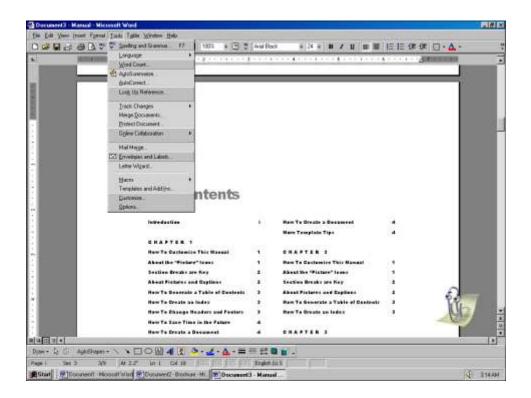
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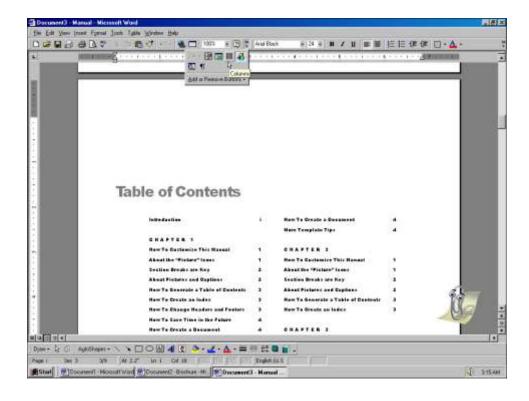


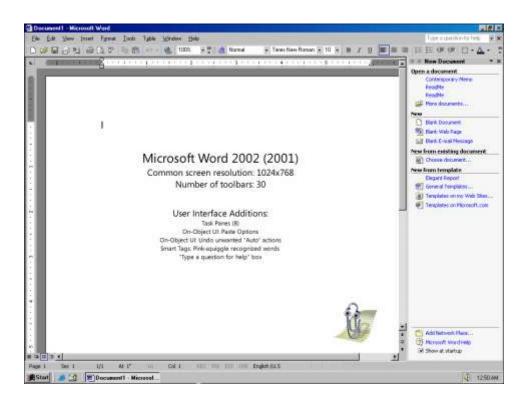
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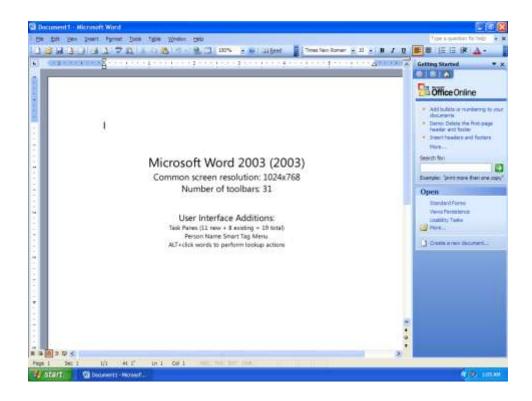
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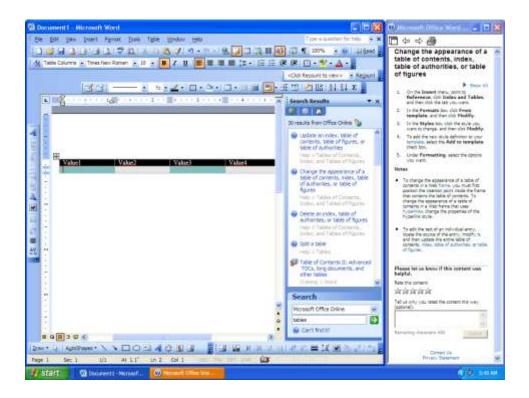




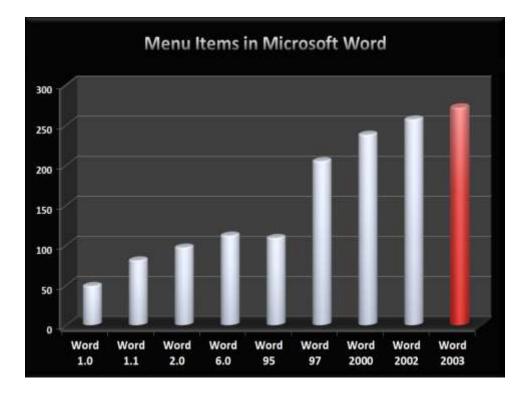
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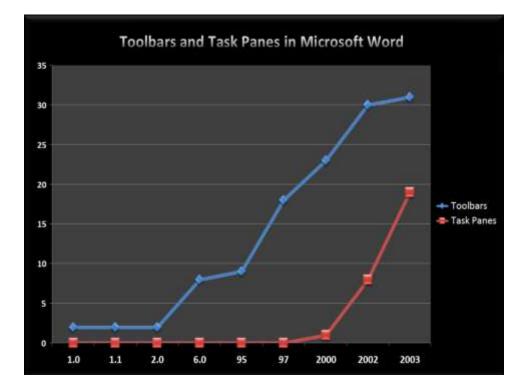
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### Why a New User Experience?

- Menus and Toolbars were designed for less full-featured programs
- The feature set of Office had grown and stretched existing UI mechanisms to the limit
- It was harder to find functionality than it was a decade ago
  - "There must be a way to do this..."
  - "I don't even know where to start looking."

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A new user interface was needed...

...to reawaken the soul of the software.

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### The New UI Framework

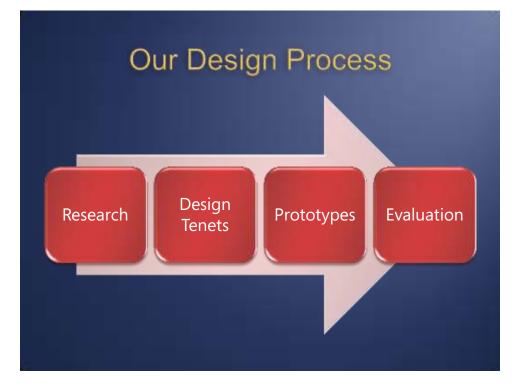
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- Galleries
- Live Preview
- Contextual Tabs
- Quick Access Toolbar
- Mini Toolbar
- Enhanced Tooltips

- Enhanced Status Bar
- Live Zoom
- Customizable Status Bar
- KeyTips and Keyboard Navigation
- Streamlined Options
- Context Menus
- Office Menu

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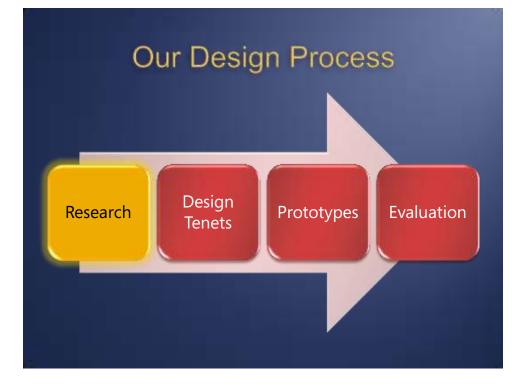
### **Results-Oriented Design**

- Think about *features* instead of *commands*
- Present functionality at a higher level
- Illustrate features by their results
- Use galleries to get the user close to the result they want to achieve as quickly as possible
- Visual! Tactile! Responsive!
- Compare to: Command-Oriented Design



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### Art: Language and Emotion

- User interface is the language by which software communicates to a human what it's capable of
- People have an emotional relationship with their computer
  - On average, Office users spend more 1-on-1 time with Office than with their spouse

### Art: Learning From Real People

- Visited people at their workplace
- Visited people in their home
- Invited people into our labs for freeform working and discussion
- We amassed over 10,000 hours of video of people using Office

How did people <u>feel</u> when using Office?

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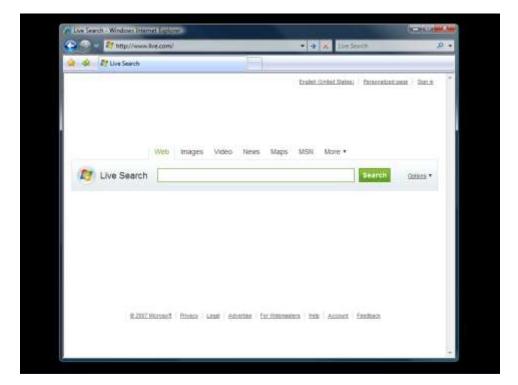


### **Revelation:**

The "Sense of Mastery" was gone

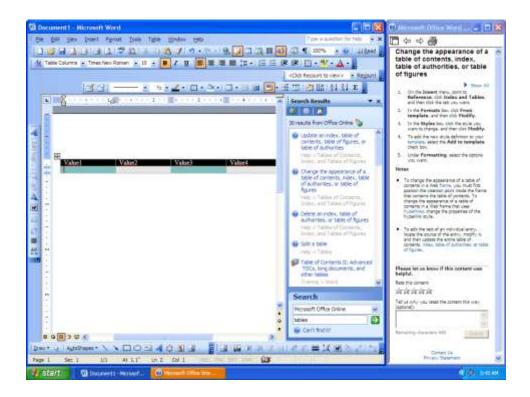
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### Science: The Role of Data

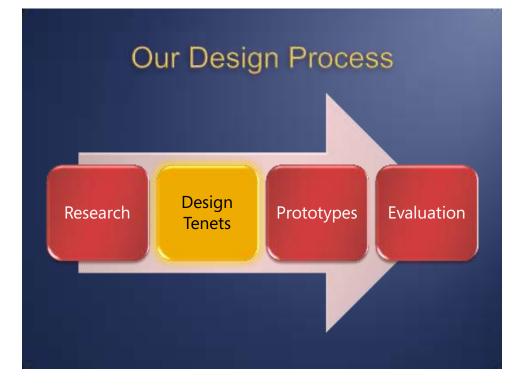
- Over 3 billion data sessions collected from Office users
- ~2 million sessions per day
- Over the last 90 days, we've tracked
   352 million command bar clicks in Word
- We track nearly 6000 individual data points
- We couldn't have done this without data!

### Science: Using Data

- Which commands do people use most?
- How are commands commonly sequenced together?
- Which commands are accessed via toolbar, mouse, keyboard?
- Where do people fail to find functionality they're asking for (in newsgroups, support calls, etc.)?

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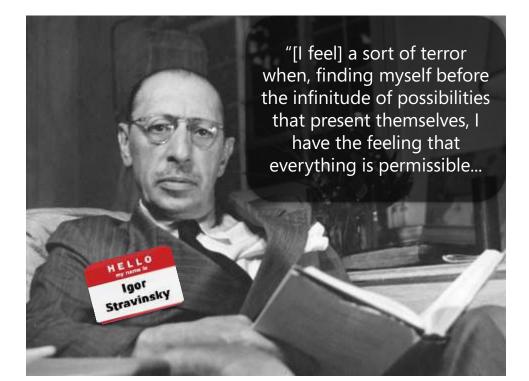




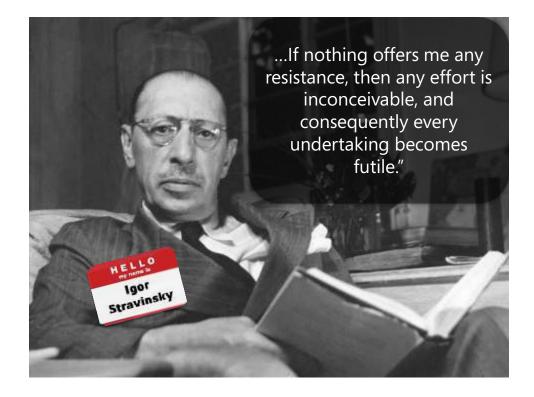
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### **UI Redesign Goals**

- Make the software easier to use
- Help people save time
- Help people to discover more of the power of Office
- Help people create beautiful, powerful documents

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### Our Design Tenets (Summer 2003)

- A person's focus should be on their content, not on the UI. Help people work without interference.
- Reduce the number of choices presented at any given time.
- Increase efficiency.
- Embrace consistency, but not homogeneity.
- Give features a permanent home. Prefer consistent-location UI over "smart" UI.
- Straightforward is better than clever.

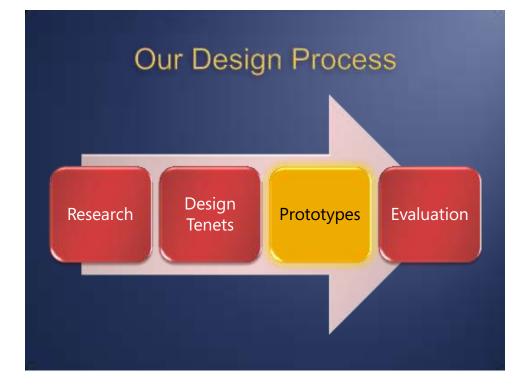


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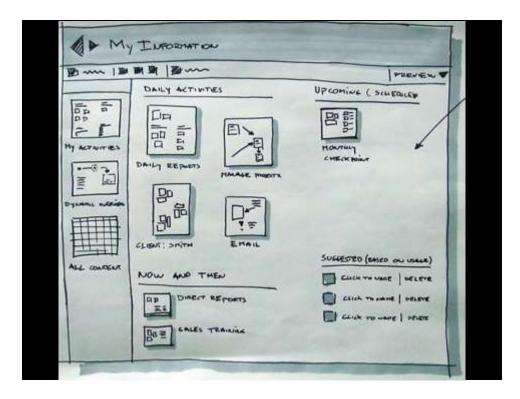
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### Prototypes

- You can do anything in the world. What should you do?
- Hundreds of discrete prototypes were created
  - Over 25,000 images alone
- Everything from scratches on the whiteboard to elaborate Flash prototypes
- Lots of late nights...

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### **Conceptual Prototypes**

- First step: Conceptual Prototypes
- Designed to explore a few key concepts deeply (as opposed to broadly)
- A few examples:
  - The Configurator
  - Fluid Menus
  - The Strawman
  - Full-Page UI
  - Ring Task Guide

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### How Different Should It Be? (September – October 2003)

Designing the Office UI

prototypes

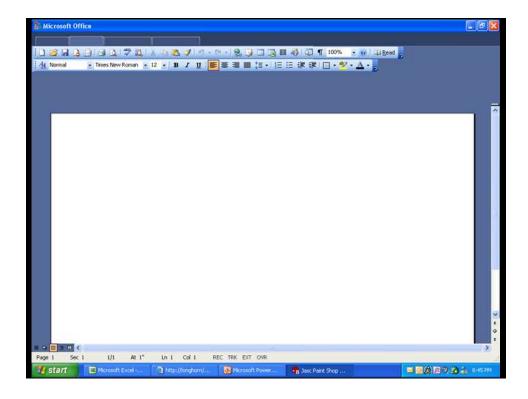
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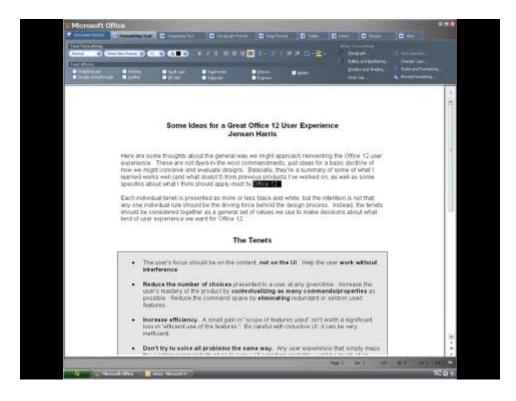


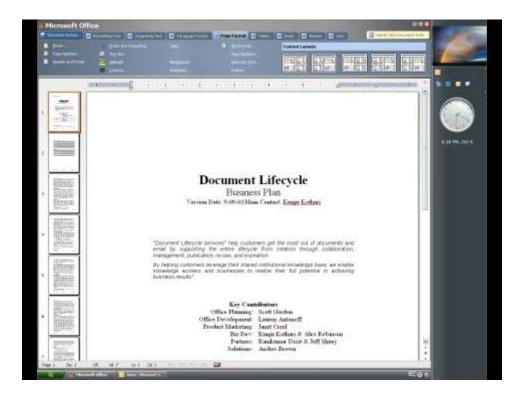
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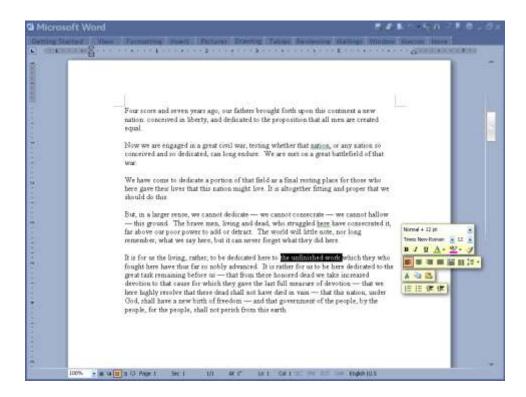


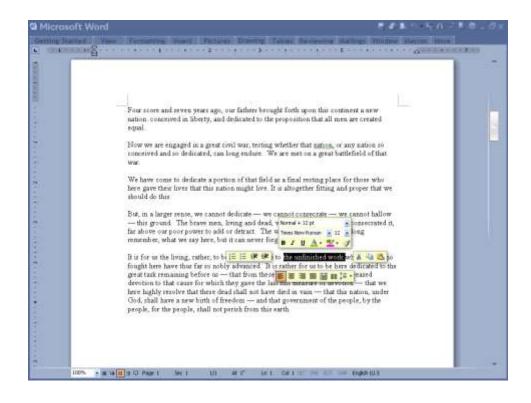
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#### Floating Nearby (August - October 2003)

Designing the Office UI

prototypes



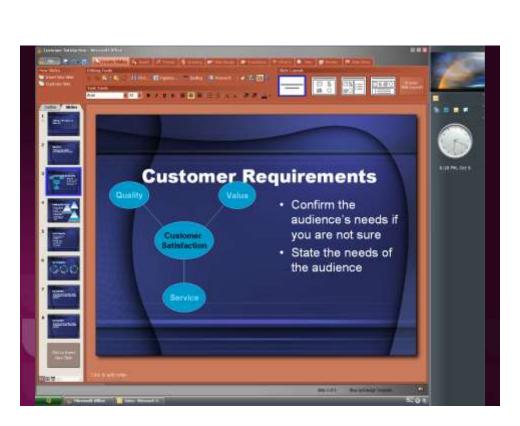


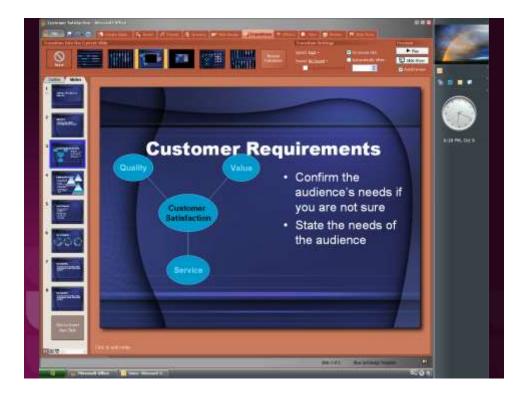
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|                      | Four score and seven years ago, our fathers brought forth upon this continent a new nation. Conceived in liberty, and dedicated to the proposition that all men are created equal.   |       |
|                      | Now we are engaged in a great civil war, testing whether that <u>nation</u> , or any notion so<br>conceived and so dedicated, can long endure. We are met on a great battlefield of that<br>war.   |       |
|                      | We have some to dedicate a portion of that field as a final verting place for those who<br>here gave their lives that this nation might live. It is altogether fitting and proper that we<br>should do this  |       |
|                      | But, in a larger sense, we cannot dedicate — we cannot consecrate — we cannot hallow<br>— this ground. The brave men, living and dead, who straggled <u>here</u> have consecrated it,<br>far above our poor power to add or detract. The world will little note, nor long<br>remember, what we may here, but it can never forget what they did here  |       |
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|                      | It is for as the living, rather, so be dedicated here to <b>are unifinited works</b> which they who<br>fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the<br>great task remaining before us — that from there honored dead we take increased<br>develop to that assue for which they gave the last full measure of divotion — that we<br>here highly resolve that there dead shall not have died in wan — that the nation, under<br>God, shall have a new birth of firedom — and that government of the people, by the<br>people, for the people, shall not periab from this earth |       |
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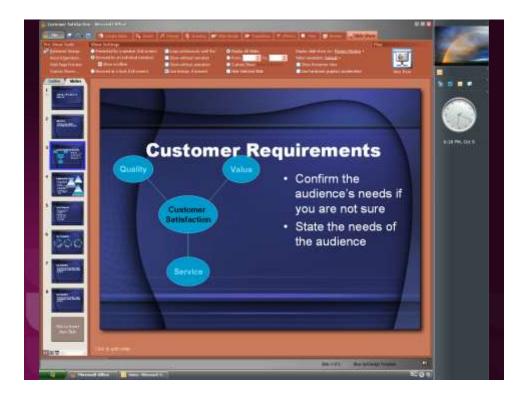
Tomatoey (October 29-31, 2003)

Designing the Office UI

prototypes







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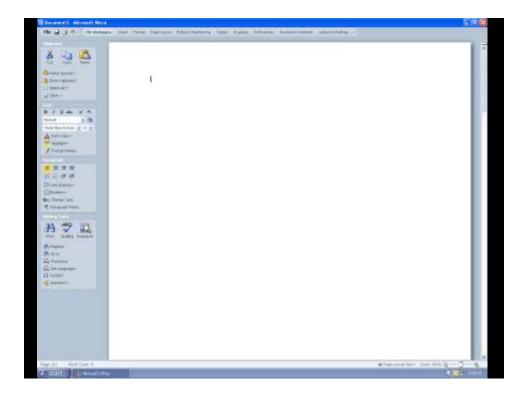
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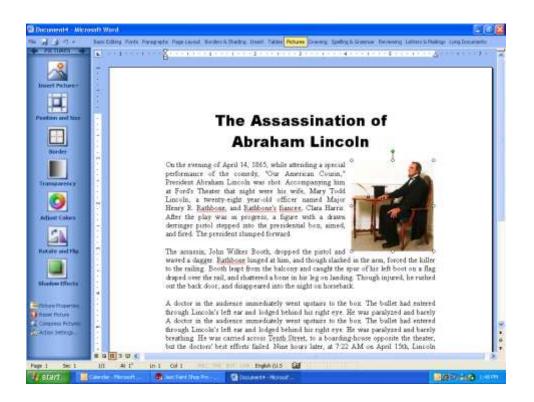
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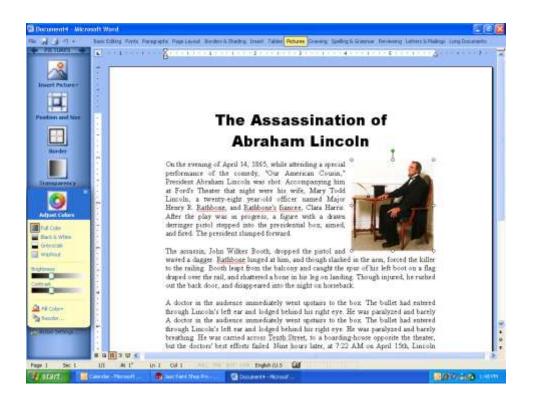
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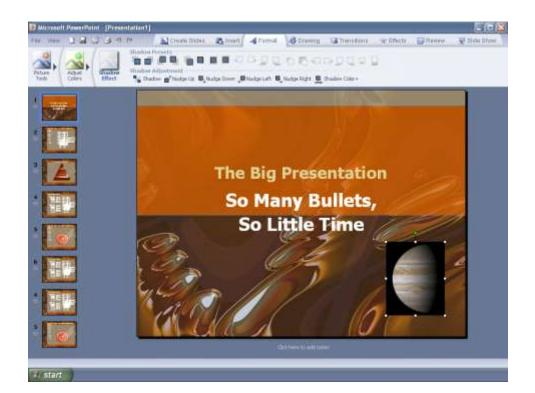
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#### Scaling: Slidey Tabs November 2003

Designing the Office UI

prototypes





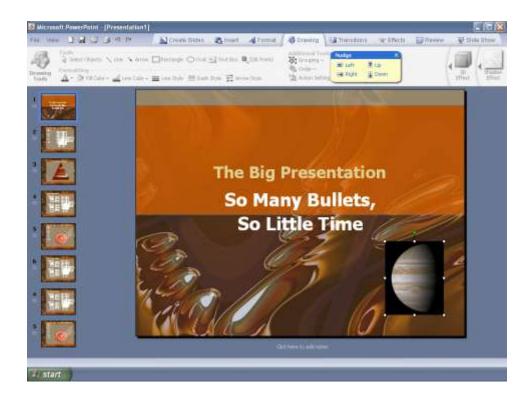


#### Scaling: Dialogettes November 2003

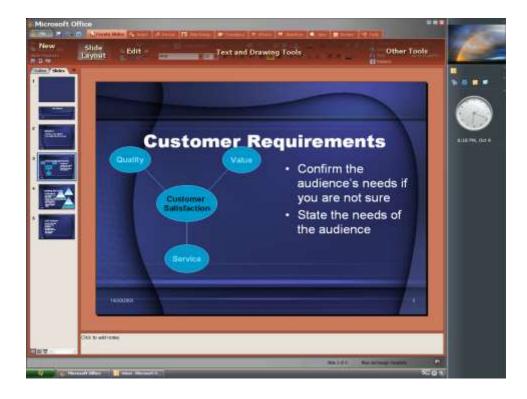
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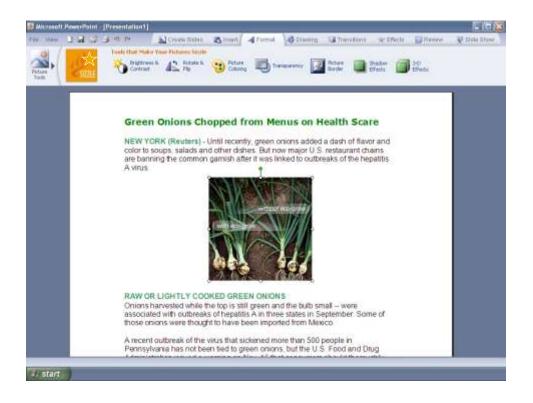


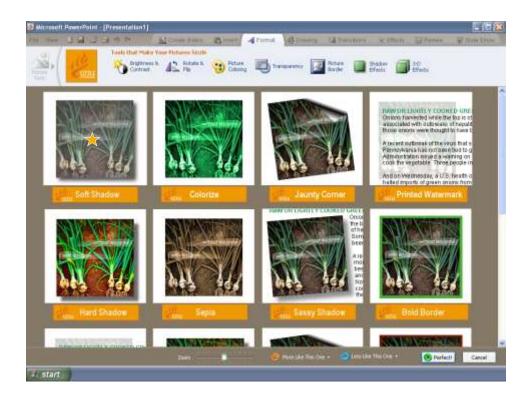


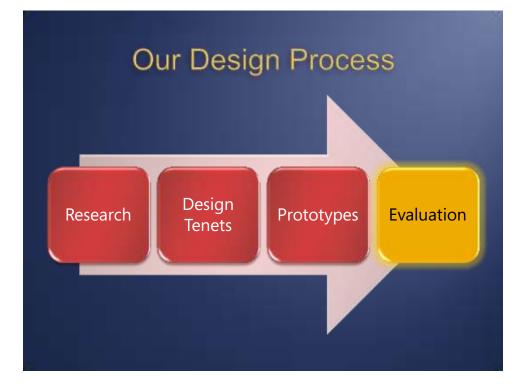












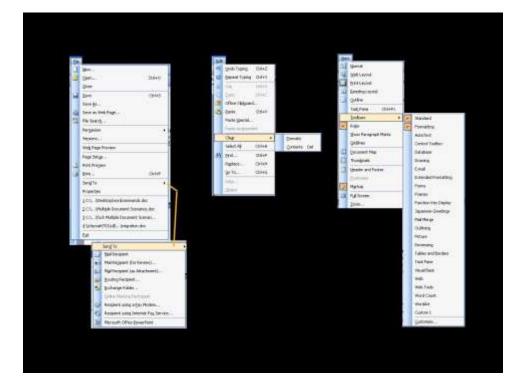
#### Evaluation: Is it Good or Not?

- Beta Users (internal and 3 million external)
- Anecdotal Feedback (blogs, forums)
- Benchmarks and Metrics
- Observations and Interviews
- Usability Studies (around the world and remote)
- Card Sorts and Paper Prototypes
- Surveys
- Longitudinal Usability Studies
- Long-Term Deployments (5 months+)
- Truman Show
- SQM (Customer Experience Improvement Program)

#### Longitudinal Usability

- Measures the impact of the product on someone over a number of months
- Rich, direct feedback mechanisms (both anecdotal and raw instrumented data)
- Studying learning curve, feature depth of usage, efficiency
- The single most valuable source of actionable feedback for us

# Feature Organization



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52

#### **Evaluating Feature Organization**

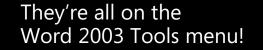
- Card Sorts
  - Physical and Virtual
- Feature Affinity Research
- Command Loops
- Beta Feedback
- Longitudinal Usability

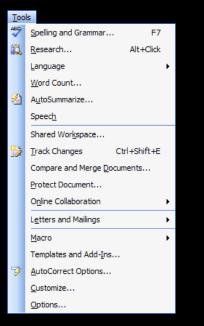
Needed to keep getting fresh eyes!

#### The Myth Of Ideal Organization Game Show

#### What Do These Have In Common?

- Find out the current number of words
- Turn on speech command and control
- Create a SharePoint Document Workspace
- Print Envelopes
- Open the Visual Basic Editor
- Turn on hyphenation
- Merge the contents of multiple documents
- Start a web conference
- Tweak AutoCorrect settings





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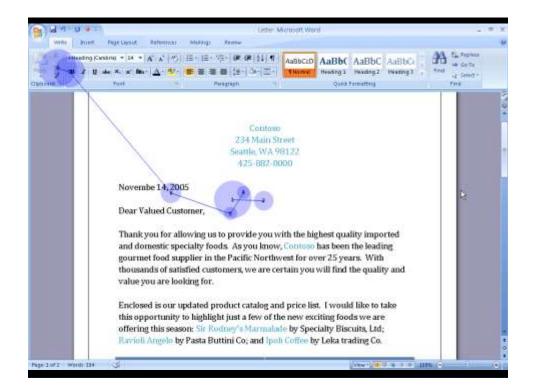
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#### Eye Tracking

- Learn how people interact with the UI by watching where they look
- Two types used:
  - Heat map
  - Gaze tracking
- Help to understand linguistic similarities and differences
  - Right-to-left reading languages
  - Vertical text languages

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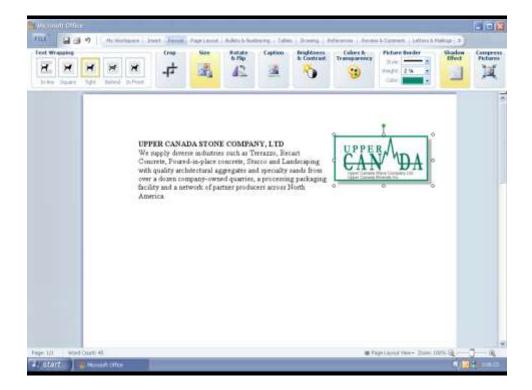
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#### Planning to Iterate

- Planted the "culture of iteration" in the team
- Time to iterate was accounted for in the dev schedule
- Certain things we knew we'd need to do 3 times to get right
- Our architecture was designed to make it possible for us to iterate late in the cycle
  - Only way to respond to longitudinal usability



## **Try 1: The "Format" Tab** Case Study: Object Formatting

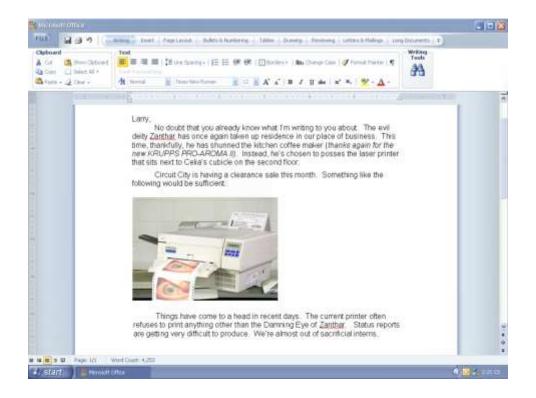


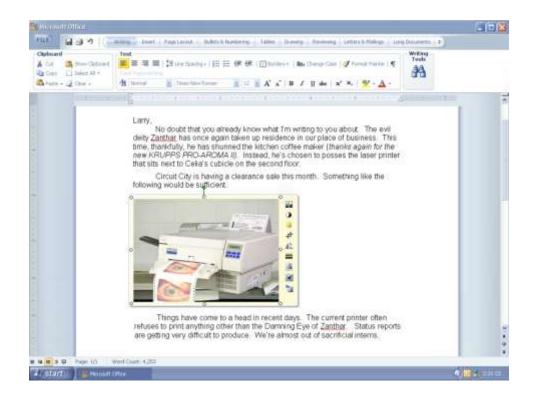
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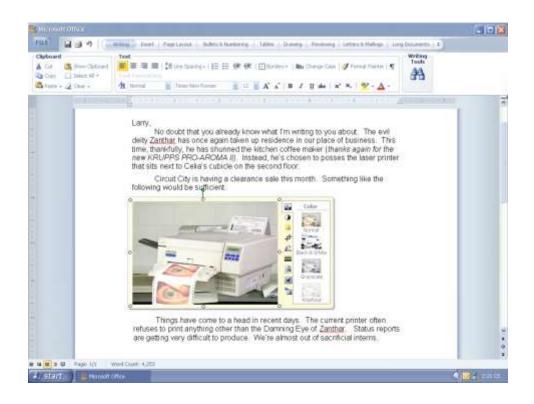
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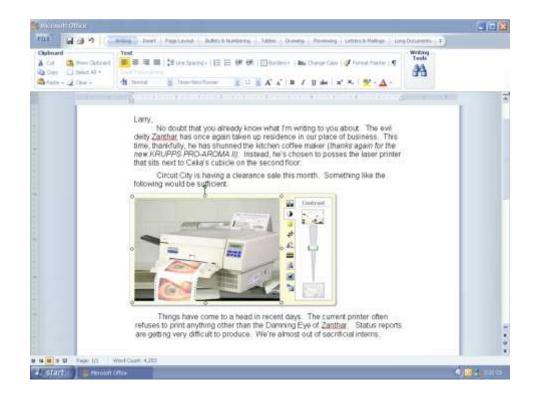
#### Try 2: On-Object Commands

#### Case Study: Object Formatting



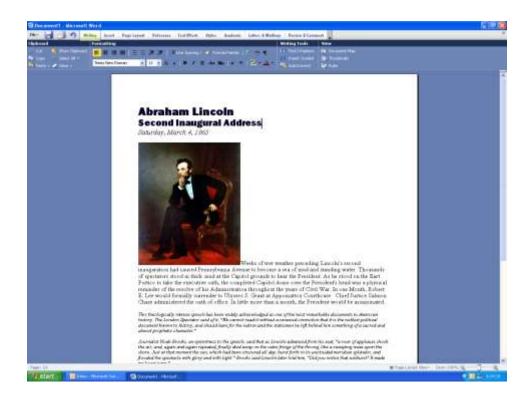






#### Try 3: Immersive Experiences

Case Study: Object Formatting

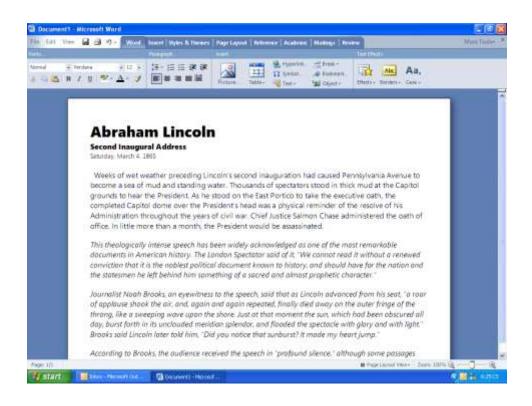




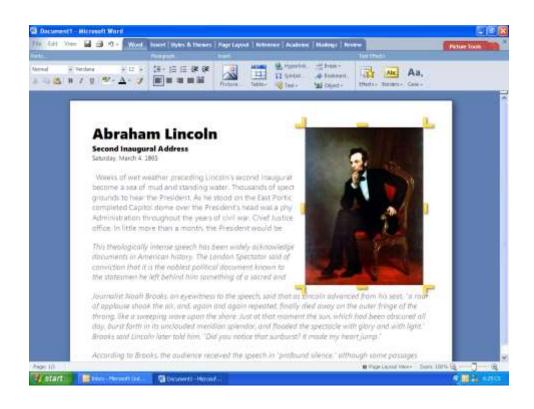
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#### Try 4: Contextual Tabs

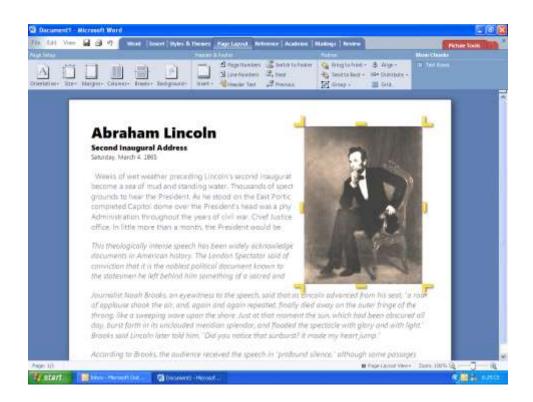
Case Study: Object Formatting

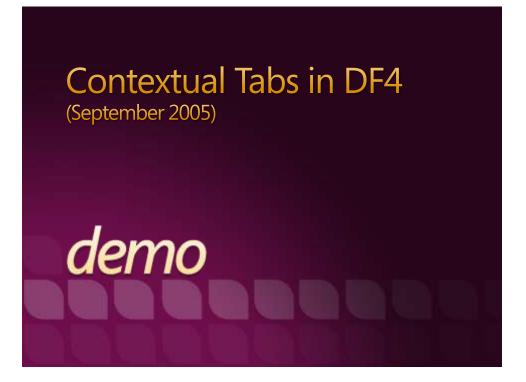








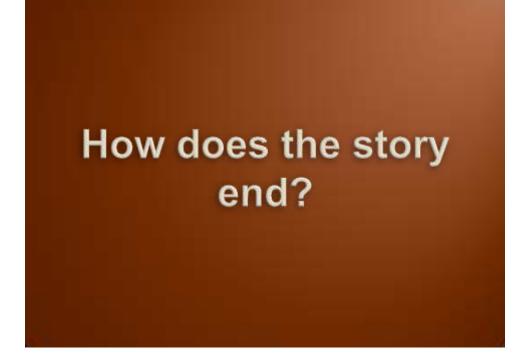




#### Try 5: Contextual Tabs with Eat Dismiss Clicks

Case Study: Object Formatting





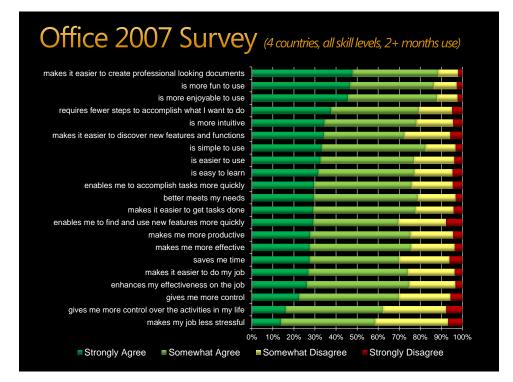
#### Attention to Design Pays Off

 PC World: #1 Most Innovative Product of 2007

- Consumer Electronics Show (CES):
   2007 Innovations Award in Software
- Office 2007 #1 on Amazon.com software

#### Flashback: UI Redesign Goals

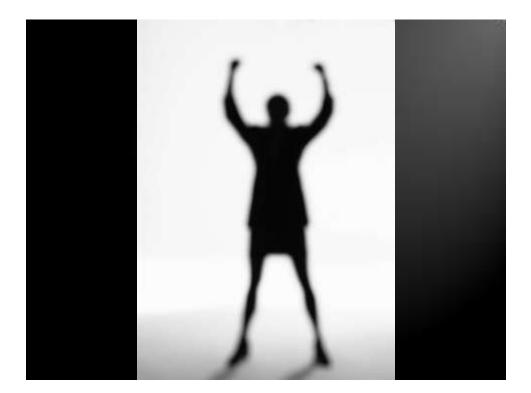
- Make the software easier to use
- Help people save time
- Help people to discover more of the power of Office
- Help people create beautiful, powerful documents



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#### **Questions and Answers**

My Office User Interface Blog: http://blogs.msdn.com/jensenh



