What we’ll cover in this session

- What exactly is an inductive UI?
- What do we mean by embedded user assistance?
- What types of information does the user assistance for an inductive UI need to provide?
- What is the best way to provide this information?
- How can we cater for the diverse needs of a mixed audience?
What exactly is an inductive UI?

- Inductive: inducing or influencing; leading on
- Inducing: leading or moving, as to a course of action, by influence or persuasion
- Inductive UI design says: "a screen with a single, clearly stated, explicit purpose is easier to understand than a page without such a purpose".

Compare to eCommerce web applications

- Goal-oriented
- Task-based
- One task step per screen
- Text-rich
- Application designer has a significant interest in users completing tasks and achieving goals successfully
ePurchasing a memory upgrade

- Potentially a technical and difficult task, made simple by an inductive UI

The user is led through a series of simple decisions.
ePurchasing a memory upgrade

- Screen contains lots of text and few controls (buttons)

- Transition buttons are action-oriented

- Embedded user assistance

- Progress toward objective is clearly signposted
ePurchasing a memory upgrade

- All checkout screens contain Helpful Information (FAQs)

```
City
Region
Postal Code
Country: United Kingdom
Phone Number
Fax Number
```

Screen required scrolling to bring this into view

Features of inductive UI

- One task (or activity) per screen - not one control per screen
- Text explanation of task and controls
- Web-like navigation controls to other tasks
- Sequence or flow of screens to achieve an overall objective or super-task
Designing Embedded User Assistance for an Inductive UI

Extract from Microsoft Inductive UI guidelines

- "IUI is an extension of the common Web-style interface.
  - In the Web environment, pages have to be simple and task-based because each piece of information has to be sent to a server over a relatively slow connection. The server then responds with the next step, and so on.
- Good Web design means focusing on a single task per page and providing navigation forward and backward through pages.
- Similarly, inductive navigation starts with focusing the activity on each page to a single, primary task."

Flow of inductive UI

Start

Optional steps

Objective achieved
Consumer example: Microsoft Digital Image 2006

Traditional menus organized by function

Task-based organization and wording

Single-screen task

Controls are numbered and labeled with actions

Additional text provides sense of flow

'Done' conveys sense of task completed
Designing Embedded User Assistance for an Inductive UI

Multi-screen task

Web-like navigation

Optional tasks

Multi-screen task
What do we mean by embedded user assistance?

- Cheryl Lockett Zubak:
  - “User assistance that is part of the real estate and behavior of the software, rather than a separate window that (sometimes) floats above the software”.
  - “Assistance and knowledge in the interface (performance support)”.
  - “not just context-sensitive, but becomes an aspect of the user interface...without user request”
Advantages of embedded user assistance

- Offers assistance at the point of need
- Keeps users on task and does not interrupt workflow
- Can provide links to more information
- Users see embedded user assistance as part of the application rather than “Help”

So there's an overlap...

- By definition, an inductive UI contains embedded user assistance

Inductive UI

- Action-based labels
- Instructional text
### Traditional Help information types

<table>
<thead>
<tr>
<th>Information Type</th>
<th>Included in inductive UI</th>
<th>Additional UA required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field/control descriptions</td>
<td>✓</td>
<td>(✓ detail)</td>
</tr>
<tr>
<td>Dialog/screen descriptions</td>
<td>✓</td>
<td>(✓ detail)</td>
</tr>
<tr>
<td>Quick ref. (shortcuts, etc.)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Procedures</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Troubleshooting</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Concepts</td>
<td>(✓)</td>
<td>✓</td>
</tr>
<tr>
<td>Application overview</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Process overview</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Orientation/getting started</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

### Procedural information

- "How to..."
- Often the core of a traditional Help system
- Provides a sequential layer on top of essentially non-sequential UIs
- Separate step-by-step Help is redundant for inductive UI
- Risk of procedural Help being less intuitive and more complex than the UI itself!
Designing Embedded User Assistance for an Inductive UI

So what kind of user assistance is appropriate for an inductive UI?

- Any answers to frequently asked questions
  - Discover these by testing wireframes of application
- Answers to:
  - "What if...?"
  - "How do I solve the problem of...?"
  - "Why would I...?"
  - "Tell me more about..."
  - "Why can't I...?"
  - "What are the restrictions on...?"
  - "What does ... mean?"

Traditional Help busier and more complex than UI

Microsoft Digital Image 2006

Create a Photo Collage

1. Click Picture Collage
2. Select a layout for the photos
3. Selecting a template for the collage
4. Adding photos to the collage
5. Adjusting the collage's appearance
6. Saving the collage

Any answers to frequently asked questions
- Discover these by testing wireframes of application
- Answers to:
  - "What if...?"
  - "How do I solve the problem of...?"
  - "Why would I...?"
  - "Tell me more about..."
  - "Why can't I...?"
  - "What are the restrictions on...?"
  - "What does ... mean?"
**Embedded Help components**

- Static snippets of user assistance throughout the UI
- Dedicated user assistance pane
- Links to pop-up user assistance
- Links to Help window

**Notes:**
- All the above need to be designed in from the start
- A user assistance specialist must be involved in the UI design/creation process

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**Dedicated user assistance pane**

- Useful for providing screen overviews and related concepts
- Takes up valuable screen real estate, therefore benefits need to be compelling
- Ideally optional (user can switch it off)
- May contain:
  - User assistance
  - Links to user assistance
  - Mixture of both
- Vertical or horizontal orientation (fight for left or top position)
Designing Embedded User Assistance for an Inductive UI

**Vertical user assistance pane**

![PowerQuest Drive Image 7.0](image1)

- Links to user assistance
- Can be collapsed

**Horizontal user assistance pane**

![QuickBooks Online Edition](image2)

- Links to user assistance

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Designing Embedded User Assistance for an Inductive UI

Pop-up user assistance

- Useful for:
  - defining terms
  - explaining concepts
  - describing controls
- Pop-up topic may contain a link to a separate Help window for more detailed information

Pop-up providing conceptual information

You can use your photos to decorate the background of your computer’s screen (called the Desktop). You can select either a single photo, or arrange multiple photos.
Pop-up providing inductive information

This user assistance proactively identifies the next step in the workflow.

Links to Help window

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Don't design embedded Help in isolation

- App
- Embedded UA
- Separate Help
- Email from Tech Support
- Web-based resources

- Web-based Help
- Knowledge base
- User forum
- Tutorials
- FAQs

Catering for mixed audiences

- Enable users to choose whether or not they see the user assistance
  - Use hyperlinks to user assistance (in pop-ups or separate Help window)
  - Enable users to close or collapse the Help pane
  - Automatically hide user assistance after a specified level of experience
  - Enable users to express their preference for the level of user assistance
Designing Embedded User Assistance for an Inductive UI

Putting the user in control

Key tips and guidelines for designing Help for an inductive UI

- Answer users’ real questions
- Reduce the amount of thinking required
- Provide definitions, examples, reasons, tips, shortcuts – where possible, within the UI itself
- Enable the discovery of new features
- Constantly consider the experience of new or infrequent users
- Provide access to a separate Help system as text hyperlinks
- If possible enable users to switch off or customize the embedded user assistance