The Future Of Access

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Adobe

Outline

- **What is UI anyway?**

- **GUI –Generic User Interface.**

- **Speech interaction.**

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What Is UI?

1. **Obtain user input**

2. **Compute on the information**

3. **Display the results**

$$UI = Input + Output$$

What Is UI?

Application

data   **result**

I   **O**

attention

intention

User
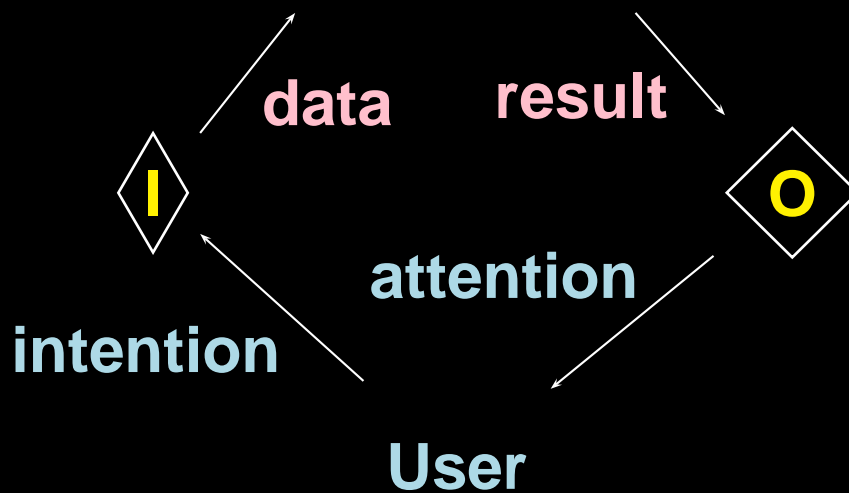
Expressing Intent

- **Typing on a keyboard.**

- **Pointing and clicking a mouse.**

- **Issuing a spoken command.**

Supply information to the application

Output

Present Information

- **Visually**

- **Aurally**

Display derived from information.

Java And Access

- **More than just access to applets.**

- **Enable universal, multimodal access?**

A Challenge –and An Opportunity

Generic User Interface

- **Separate modality specific interaction from application logic.**

- **Modality specific interface objects implement specific UI.**

Enable multiple interaction techniques!

UI Toolkits

- **Building blocks for interaction.**

- **Low-level widgets are modality specific.**

Application logic lost in complex UI

Generic UI Toolkits

Generic Interface Objects:

- **High level dialog components encapsulate application logic.**

- **Can be subclassed to implement modality specific behavior.**

Speech Interaction

- **Don't read aloud the visual display.**

- **Don't have user say what can be typed.**

Treat speech as a first-class IO medium.

Speech Enabling Applications

- **Treat speech as a first class medium.**

- **Application produces its own feedback.**

- **Exploit features of the spoken medium.**

Independent Audio and Visual Output.

Prerequisites

- **Access to application logic.**

- **Access to computed information.**