Smart Documents

The Way Ahead!

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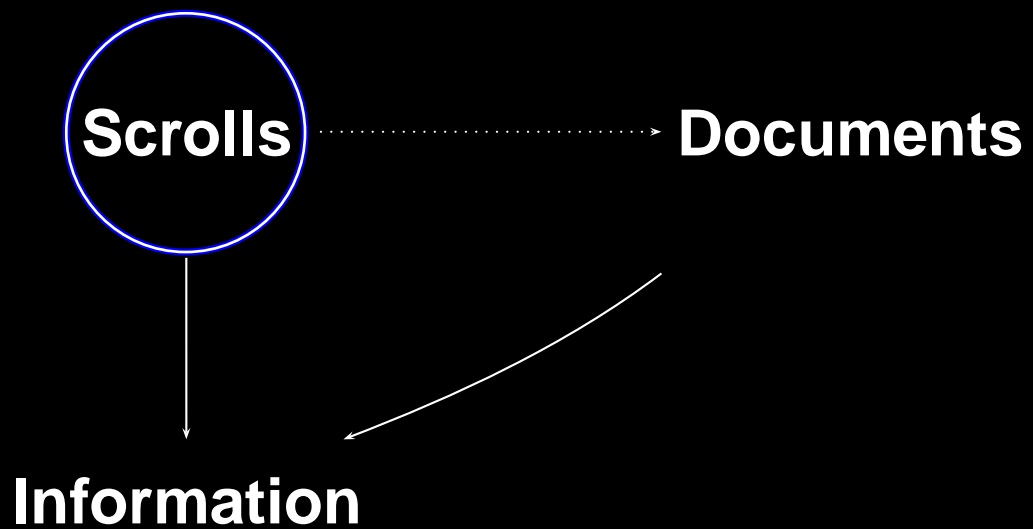
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Outline

- **The Information *R*Evolution.**

- **Information is not *just* for viewing!**

- **The WAI Ahead!**

Information Evolution

Scrolls ·····································▶ **Documents**

Information

The Written Word

- **The repository of information.**

- **The vehicle for information exchange.**

The message *is* the medium.

Availability

- **More information is available.**

- **Information is available to more.**

A level playing field.

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Half-life Of Information

Publications increase in frequency:

Monthly ┄┄┄➤ Weekly ┄┄┄➤ Daily ┄┄┄➤ . . .

Information goes out of date faster.

Printed Documents

- **Rely on a passive intermediary.**

- **Store and convey content.**

Electronic Documents

Information exchange is:

- **Mediated by an active agent.**

- **Separates repository and agent.**

Information Is Display Independent!

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The Digital Age

- **Information originates digitally.**

- **Print is *only* one display.**

- **Information remains *live*.**

Separate message from medium!

Smart Documents

Profound impact on information:

- **Generation, Archival, Retrieval**

Produce, consume multimodal content.

Formatted Output

- **Permits direct perception.**

- **Reduces cognitive load.**

Audio formatting for spoken renderings.

AsTeR

Document

$(L^A)T_EX$ → **Print**

AsTeR → **Audio**

Information is display independent.

CSS

Speech style sheets enable:

- **Audio formatted WWW pages.**

- **Repurposing of WWW content.**

Encourage universal WWW access.

Challenges Ahead

Preserve and encourage:

- **Simplicity of the WWW.**

- **Multiple access to Webformation.**

- **Multiplicity of WWW clients.**

Global Digital Libraries

- **Structurally rich content,**

- **Mediated by an intelligent agent,**

- **Enable smart documents.**

Client Server Systems

Information is accessible:

- where the user wants,

- when the user wants, and

- the way the user wants!

Speech And Audio

A New Dimension In UI!

Enrich Our Information Experience!

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WWW Resources

Please visit:

- **http://access.adobe.com**

- **http://cs.cornell.edu/home/raman**