



Personalization of Digital Information Services

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Outline

- Industrial Society vs. Information Society
- Collection management
- Disintermediation
- Personalization of digital information services
- Issues
- Conclusion



Production Factors

- ❖ Labor
- ❖ Capital
- ❖ Knowledge
- ❖ Labor + material = **economic success**
- ❖ Material and service management is most important in the Industrial Society



Industrial Society

❖ Mass production

- Standardized goods and services
- “Any customer can have a car painted any color that he wants, as long as it’s black” (Henry Ford)

❖ Mass distribution

- Newspapers, radio-TV, etc.

❖ Competition

- In US: 260 different brands of cars, 87 colas, 3000 beers, 340 cereals, 50 bottled water, etc.

❖ “Make, store, sell” (Mitchell M. Tsang)

❖ “The Age of the Terrific Deal”: “as you want them”, “from anywhere”, “at the best price and highest quality” (Robert R. Reich)



Organization in Industrial Society

- Based on mass production and mass distribution
- “Mechanistical organization”
- “Continuous development”
- Traditional education and training
- Rigid / hierarchical administration
- Economic models based on centralization



Knowledge . . .

- ❖ “None of the sources that are used to create wealth is as important as knowledge.”
- ❖ Knowledge → “lifeblood of development”
- ❖ Knowledge → the *sine qua non* of competition



Information Society

- “. . . pre-automation technology yields standardization, while advanced technology permits diversity.”
- “Unstandardized” goods and services (Toffler, 1970s)
- Cheaper to produce personalized goods and services using advanced IT: “. . . as technology becomes more sophisticated, the costs of introducing variations declines” (Toffler 1970, p. 236)
- “Sell, make, deliver” (Mitchell M. Tsang)



Organization in Information Society

- Based on mass customization and personalization
- Mass customization is an indication of a rich and complex society.
- “Dynamic organization”
- Customer focused education / continuous education
- Loose / horizontal administration
- Economic models based on customization



Customization / Personalization

❖ Customization

- Changing or customizing goods and services according to customers' needs

❖ Personalization

- “. . .selecting and filtering information objects or products for an individual by using information about the individual.” (Koch, Möslin, Schubert, 2002):

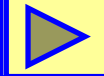
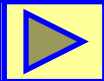


Information Services & Internet

- ❖ Removal of temporal and spatial barriers
- ❖ Provision of information services to remote users (24X7)
- ❖ “Instant gratification”



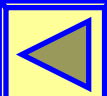
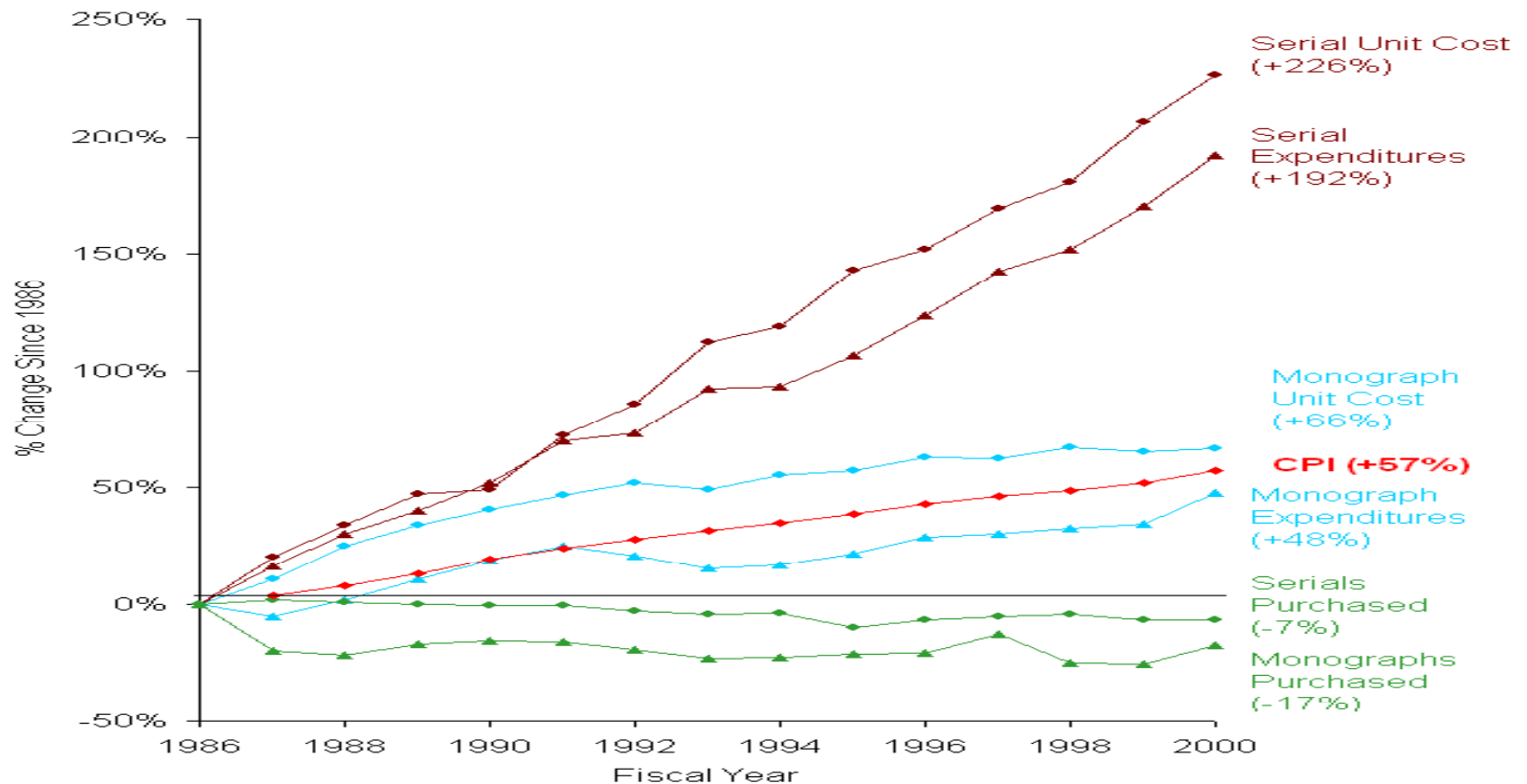
Collection Management

- ❖ Increasing costs of information sources 
- ❖ One source – one user → One source – multiple users
- ❖ “Ownership vs. access”
- ❖ Ownership dictates use of centralized information management models
- ❖ Budgets devoted to electronic information resources increasing (%15-%20)
- ❖ Cooperative/consortial collection management practices 



Increasing Costs

Graph 2
Monograph and Serial Costs
in ARL Libraries, 1986-2000





Collection Manager's Responsibilities

- Separate policies of licensing, processing, maintenance, storage and usage
- “Interdependence” on other information centers, library consortia, information producers/providers and aggregators



Disintermediation

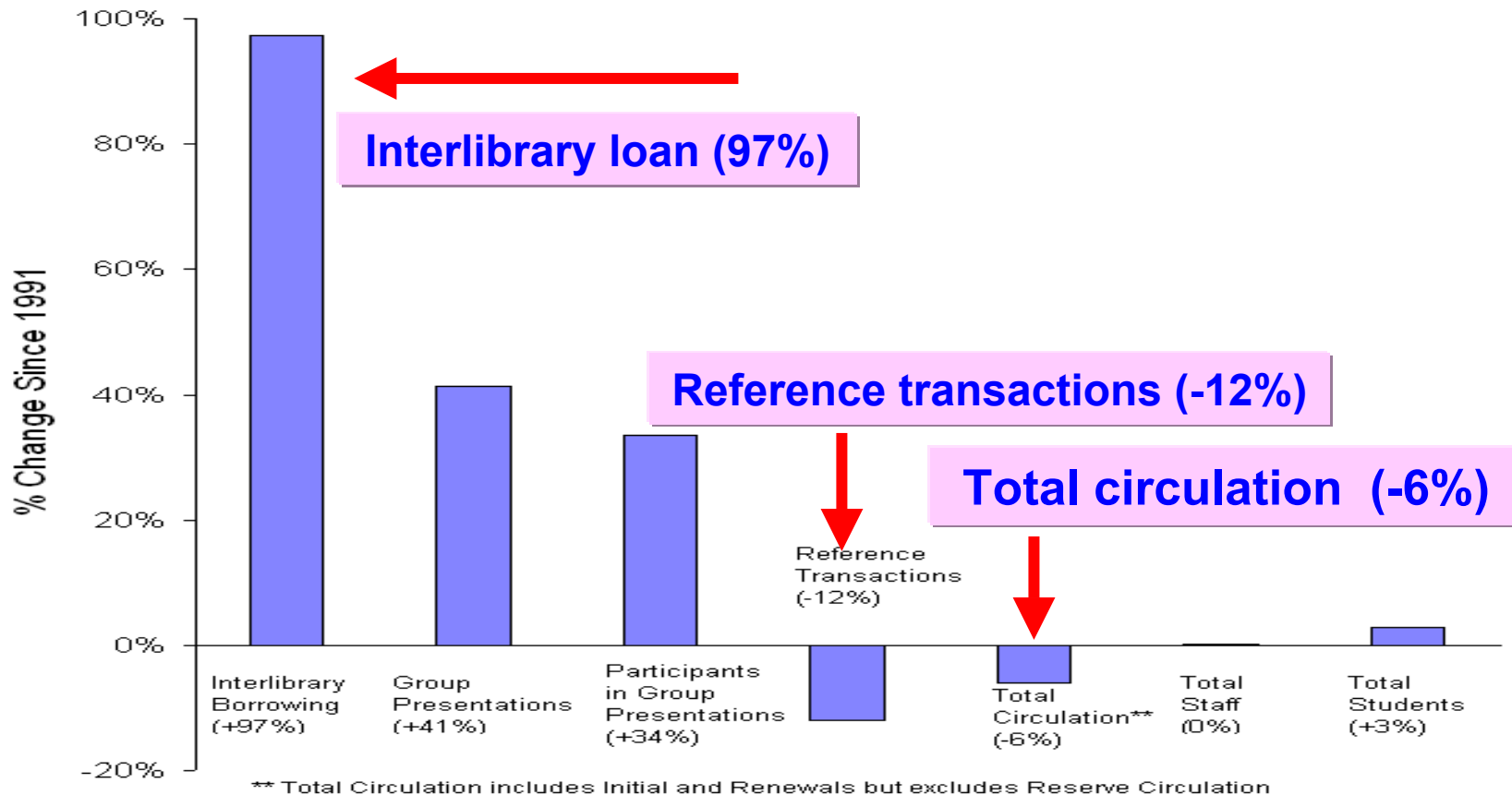
- Intermediation
 - requires centralization
 - is expensive
 - usually means long lines
 - doesn't serve remote users
- IT makes information management less centralized, more distributed
- Disintermediation
- Increase in interlibrary borrowing transactions
- Decrease in reference and circulation transactions



Impact of Remote Access

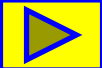
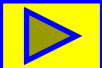
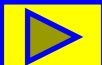
Graph 1

Service Trends in ARL Libraries, 1991-2000





Personalization of Information Services

- ❖ Explicit / implicit personalization
- ❖ Active / passive personalization
- ❖ Personalization of display environment 
- ❖ Personalization of collections / content 
- ❖ Personalization of services 



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Issues in Science & Technology Librarianship

Number 28 Fall 2000

Articles

Theme: Instruction in Science and Technology Libraries

-  Board accepted [Collaborative Instruction by Writing and Library Faculty: A Two-Tiered Approach to the Teaching of Scientific Writing](#)
by Deborah Huerta and Victoria E. McMillan, Colgate University
-  Board accepted [Library Instruction in an Interdisciplinary Environmental Studies Program: Challenges, Opportunities, and Reflections](#)
by Laurie A. Kutner, University of Vermont
-  Board accepted [Promoting Information Literacy for Science Education Programs: Correlating the National Science Education Content Standards with the Association of College and Research Libraries Information Competency Standards for Higher Education](#)
by Jennifer Laherty, California State University, Hayward
-  Board accepted [Designing and Delivering a Public Health Informatics Course](#)
by William Olmstedt and Cole C. Harrison, Texas A&M University





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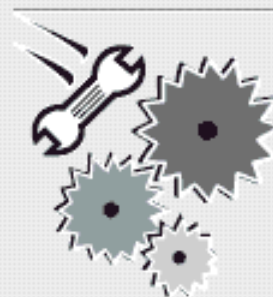


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





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Personalized Information Services

- Portals 
- Personal banking services
- On-demand publishing, on-demand video
- Automatic current awareness, ToC services 
- Electronic document delivery
- “desktop librarian” (www.liveperson.com)
- Recommender systems (e.g., amazon.com) 
- Information agents 



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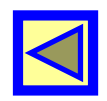
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Press Contacts 

Personalization & Alerting to be Added to ISI Web of Knowledge



Philadelphia, PA USA November 25, 2002 —Today, Thomson ISI announced that personalization and alerting will be added to the [ISI Web of Knowledge](#)SM platform in 2003. With the personalization feature, users will be able to save search strategies on their desktop or on the *ISI Web of Knowledge* server. Search strategies saved on the *ISI Web of Knowledge* server can be retrieved by users who have access to *ISI Web of Knowledge* from within an institution, or from any remote location where they can get access to the library's services. An alert management page will allow users to quickly change search and alert options, and a personal journal list feature will offer seamless integration between *ISI Web of Knowledge* and the most recent journal table of contents information in [ISI Current Contents Connect](#)[®].

Initially, the alerting enhancement will be made available through *ISI Current Contents Connect* and [ISI Web of Science](#)[®]—two pre-eminent resources within the *ISI Web of Knowledge* platform. Additional resources will be equipped with this powerful new alerting feature during 2003. The new alerting feature will allow users to receive results of a search via email. The alerts are delivered in a format preferred by the user, including HTML and ISI ResearchSoft tagged files. Each alert will include a link to the related bibliographic record and the full-text of the journal literature.

"Introduced this year, *ISI Web of Knowledge* is the single Web-based environment from which users can access, analyze and manage essential research information," explained Jim Pringle, ISI Vice President of Development for

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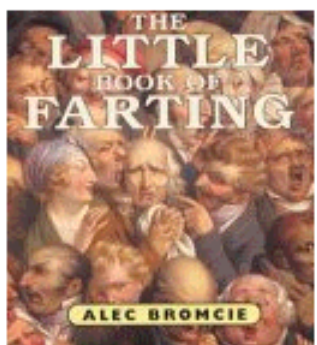
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Personalization Issues I

- ❖ Standard content is offered to all users
- ❖ Recognize users when they log on and personalize the content based on their rights and privileges
- ❖ Providing information services using “pull” and “push” technologies
- ❖ Personalized electronic books
- ❖ Need to move from “resource-centric” approach to “relationship-centric” approach



Personalization Issues II

- ❖ Difficult to implement in a distributed environment
- ❖ Network infrastructure
- ❖ Security & privacy concerns
- ❖ Interoperability
 - with library automation systems, student information systems, financial systems, etc.
 - With e-banking, e-commerce, e-health, e-government, e-(l)earning systems
- ❖ More sophisticated budgeting, pricing, use and training models



Conclusion

- ❖ Transform information services and make them available through distributed networks
- ❖ Abandon “one-size-fits-all” approach and emphasize “relationship-centric” approach
- ❖ Instant gratification is only possible with instant access to personalized information sources and services
- ❖ If not satisfied with remote and personalized information services, users may ignore information centers altogether and “take their business elsewhere”



Personalization of Digital Information Services

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