

American Library Association

ACRL
English and American Literature Section
(EALS)

Miami, Florida 26 June 1994

Stage Hypotheses - References:

Repetitive/Cyclical:

- Nolan: Nolan, Richard L. "Managing the Crises in Data Processing." Harvard Business Review. 57(2): 115-126, March/April 1979.
- McFarlan: McFarlan, F. Warren; McKenney, James L.; & Pyburn, Phillip. "The Information Archipelago - Plotting a Course." Harvard Business Review. 16(1): 145-156, Jan./Feb. 1983.

Non-Repetitive/Linear:

- Marchand: Marchand, Donald A. "Strategies and Tools in Transition?" Business and Economic Review. 29(5): 4-8, May 1983.
- Rockart: Rockart, John F.; Scott Morton, Michael. "Implications of Changes in Information Technology for Corporate Strategy." Interfaces. 14(1): 84-95, 1984.
- Gibson & Jackson: Gibson, Cyrus F.; Jackson, Barbara Bund. The Information Imperative: Managing the Impact of Information Technology on Business and People. Lexington, Mass.; D.C. Heath; 1987.
- Koenig: Koenig, Michael E.D. "The Convergence of Computers and Telecommunications: Information Management Implications." Information Management Review. 1(3): 23-33, Sept. 1986.
- Zachman: Koenig, Michael E.D. "Entering Stage III-The Convergence of the Stage Hypotheses." Journal of the American Society for Information Science. 43(3): 204-209, April 1992.

INFORMATION SYSTEMS DEVELOPMENT STAGE HYPOTHESIS (Koenig)

Stage	Exponential Growth of:	Stasis in:	Date
1	Computation	Storage Communication	Pre 1971
2	Computation Storage	Communication	1971 - 1989
3	Computation Storage Communication		1989 -
4	Computation Storage Communication, and Continuous Speech Recognition		?

*start of NPLS,
OCLL, Middle*

start of Internet

Koenig, Michael E. D. The Convergence of Computers and Telecommunications.: Information Management Implications. Information Management Review. 1(3): 23-33, Sept. 1986.

Comparison of Developmental Stage Hypotheses for Information Management

Marchand Stages (1983)	Rockart Eras (1984)	Gibson & Jackson Domains (1987)	Koenig Stages (1985)	Zachman Stages (1990)	
Stage 1 Management of Automated Technology	First Era Clerical & Accounting	First Domain Efficiency and Effectiveness of Unit Operations	Stage I Exponential Growth of Computation, Stasis in Storage & Communication	Stage I Custom Software	T I M E ↓
Stage 2 Information Resources Management	Second Era Operational	Second Domain Efficiency and Effectiveness of the Individual's Operations	Stage II Exponential Growth of Computation & Storage, Stasis in Communication	Stage II Off the Shelf Software	
Stage 3 Knowledge Management	Third Era Managerial	Third Domain Efficiency and Effectiveness of the Organization & Transformation	Stage III Exponential Growth of Computation & Storage & Communication	Stage III Assemble to Order Software	
			Stage IV Exponential Growth of Computation & Storage & Communication plus Continuous Speech Recognition		

(= Roughly the Present Time)

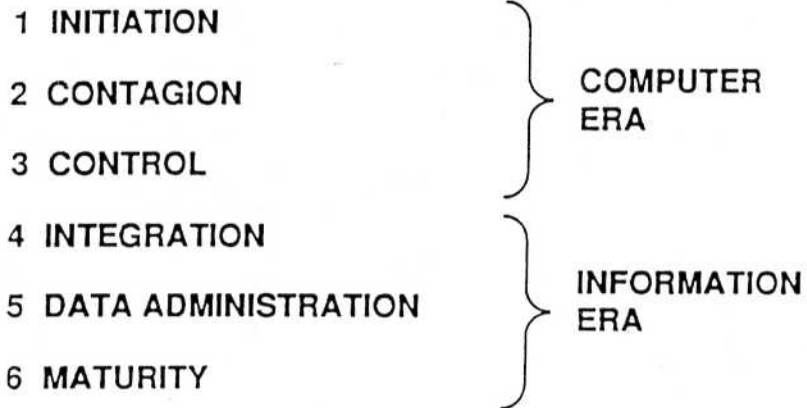
Note: We have taken the liberty of excluding Marchands' first stage (Physical Control, 1900-1950s) as out of scope (pre-computer), and renumbering the other three stages.

GIBSON & JACKSON DOMAINS (BENEFIT/BENEFICIARY MATRIX)

BENEFICIARY BENEFIT	Individual	Functional Unit	Organization
Efficiency	Domain II	Domain I	Domain III
Effectiveness	Domain II	Domain I	Domain III
Transformation	Domain III	Domain III	Domain III

Gibson, Cyrus F.; Jackson, Barbara Bund. The Information Imperative: Managing the Impact of Information Technology on Business and People, Lexington, Mass.; D.C. Heath; 1987.

NOLAN STAGE HYPOTHESIS



Nolan, Richard L. Managing the Crises in Data Processing.
Harvard Business Review. 57(2): 115-126, March/April 1979