

## LEVENT V. ORMAN

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### **Education:**

- 1975 - 1979 Northwestern University  
Graduate School of Management  
Ph.D. in Management Information Systems
- 1973 - 1975 Northwestern University  
Graduate School of Management  
Master of Management in Management Information Systems,  
Managerial Economics and Decision Sciences

### **Employment:**

- 1980 - Professor of Management Information Systems  
Cornell University, Johnson Graduate School of Management  
(Assistant 1980, Associate 1986, Full 2000)
- 1978 - 1980 Assistant Professor of Management Information Systems  
University of Wisconsin, School of Business
- 1977 - 1978 Lecturer  
Northwestern University, Graduate School of Management

### **Publications:**

"An Information Base for Procedure Independent Design of Information Systems,"  
*AFIPS Proceedings of National Computer Conference* 50, 1980.

"An Array Theoretic Specification Environment for Decision Support Systems," *Journal of Policy Analysis and Information Systems* 6, 4, 1982.

"A Familial Model of Data for a Multilevel Schema Framework", *Information Systems* 7, 4, 1982.

"Information Independent Evaluation of Information Systems," *Information and Management* 6, 6, 1983.

"A Familial Specification Language for Database Applications," *Computer Languages* 8, 3, 1983.

"Fighting Information Pollution with Decision Support Systems," *Journal of MIS* 1, 2, 1984.

"Nested Set Languages for Functional Databases," *Information Systems* 9, 3, 1984.

"Familial Model of Data," *Computer and Information Sciences* 13, 3, 1984.

"A Multilevel Design Architecture for Decision Support Systems," *Data Base* 15, 3, 1984.

"An Array Algebra for Database Applications," *Journal of MIS* 1, 4, 1985.

"Design Criteria for Functional Databases," *Information Systems* 10, 2, 1985.

"Functions in Information Systems," *Data Base* 16, 4, 1985.

"Functional Data Model Design," *Information Systems* 11, 2, 1986.

"Redundancy in Functional Databases," *Information Systems* 11, 3, 1986.

"Flexible Management of Computational Models," *Decision Support Systems* 2, 3, 225-234, 1986.

"Information Intensive Modeling," *MIS Quarterly* 11, 1, 73-84, 1987.

"Functional Database Constraints," *Computer Journal* 31, 4, 336-343, 1988.

"Functional Development of Database Applications," *IEEE Transactions on Software Engineering* 14, 9, 1280-1292, 1988.

"Evolutionary Development of Information Systems," *Journal of MIS* 5, 3, 19-32, 1989.

"Public Information Systems," *Information Society* 6, 69-76, 1989.

- "Production Management and Information Systems," *Interface* 11, 1, 26-28, 1989.
- "Proof Procedures for Detecting Redundancy of Database Constraints," *Information and Software Technology* 31, 9, 497-504, 1989.
- "Production Rules for General Database Users," *Journal of Database Management* 1, 2, 18-28, 1990.
- "Functional Semantics of Accounting Data," *Journal of Accounting Systems* 1, 2, 6-29, 1990.
- Elements of Information Systems*, MacMillan, 1991.
- "Constraint Maintenance as a Database Design Criterion," *Computer Journal* 34, 1, 73-79, 1991.
- "Complexity of Database Languages," *Information Systems* 16, 2, 169-184, 1991.
- "Granularity as a Determinant of System Architecture", *Systems Practice* 4, 3, 237-254, 1991.
- "Visual Development of Database Applications," *Interacting with Computers* 3, 3, 302-318, 1991.  
(Earlier version in Proceedings of *HICSS Conference on Systems Sciences* 1991.)
- "Rule by Example: An Example Based Approach to Knowledge Base Management," *Knowledge Based Systems* 4, 2, 81-86, 1991.  
(Earlier version in Proceedings of *HICSS Conference on Systems Sciences* 1992.)
- "A Visual Data Model," *Data and Knowledge Engineering*, 7, 227-238, 1992.
- "A Multilevel Design Architecture for Knowledge Base Management Systems," *Applied Artificial Intelligence*, 6, 2, 131-145, 1992.  
(Earlier version in *Proceedings of ACM Expert Systems Conference*, 1990.)
- "Knowledge Management by Example", *Intelligent Information Systems*, 2, 3, 207-223, 1993.
- "Information Cost as a Determinant of System Architecture," *Information and Software Technology*, 36, 3, 165-172, 1994.
- "Constraint by Example", *Decision Support Systems*, 17, 1, 3-12, 1996.  
(Earlier version in *Proceedings of WITS Workshop on Information Technology and Systems* 1993.)
- "Queries = Examples + Counterexamples", *Information Systems*, 21, 8, 615-635, 1996.  
(Earlier Version in *Proceedings of ISICIS Symposium on Computer and Information Sciences*, 1994.)

“Systems to Improve Data Quality”, with V. Storey and R. Wang, *Proceedings of Conference on Information Quality*, 1996.

"Relational Database Constraints as Counterexamples," *Acta Informatica* 34, 3, 167-189, 1997.

“A Model Management Approach to Business Process Reengineering”,  
*Journal of MIS* 15, 1, 187-212, 1998.  
(Earlier version in *Proceedings of HICSS Conference on Systems Sciences*, 1995.)

“Differential Relational Calculus for Integrity Maintenance”, *IEEE Transactions on Knowledge and Data Engineering* 10, 2, 328-341, 1998.  
(Earlier version in *Proceedings of WITS Workshop on Information Technology and Systems*, 1996.)

“Storage and Retrieval of Database Constraints”, *Information Systems* 23, 6, 401-421, 1998.  
(Earlier version in *Proceedings of ISCIS Symposium on Computer and Information Sciences*, 1997.)

“Electronic Commerce to Electronic Management: Managing the Organizational Impact of Information Technologies. *Proceedings of ICTEC Conference on Telecommunications and Electronic Commerce* 1999.

“Database Audit and Control Strategies”, *Information Technology and Management*, 2, 1, 27-51, 2001.  
(Earlier version in *Proceedings of ICIS Conference on Information Systems*, 1997.)

Transaction Repair for Integrity Enforcement. *IEEE Transactions on Knowledge and Data Engineering*, 13, 6, 996-1009, 2001.

Electronic Markets, Hierarchies, Hubs, and Intermediaries. *Information Systems Frontiers* 4, 2, 207-222, 2002.

Design and Implementation of Electronic Communities. *Information Technology and Management* 6, 1, 163-179, 2005.  
(Earlier version in *Proceedings of CIST Conference on Information Systems and Technology* 2002)

Optimum Design of Electronic Communities as Economic Entities. *Information Systems Frontiers* 8, 3, 179-194, 2006.

Consumer Support Systems. *Communications of ACM* 50, 4, 49-54, 2007.

Knowledge-Based Intermediaries. *International Journal of E-Business Research* 4, 2, 1-13, 2008.  
(Also in *Transforming E-Business Practices and Applications: Emerging Technologies and Concepts*. IGI Publishing 2009.)

Database Browsing with Constraint Hierarchies. *Electronic Commerce Research* 8, 1,

29-56, 2008.

Electronic Services as a Tool of Resource Sharing. *IEEE Technology and Society* 27, 2, 51-60, 2008.

Service Semantics, Structure, and Design. *E-Service Journal* 6, 2, 57-75, 2008.

Virtual Organizations as Electronic Services. *Communications of AIS* 24, 1, 701-718, 2009.

Virtual Money in Electronic Markets and Communities. *ICAST Journal* 4, 3, 2010.  
(Also in *Economics of Networks E-Journal* 2, 70, 2010.)

The Potential of Virtual Institutions. *IEEE Technology and Society* 30, 1, 56-64, 2011.

Technology as the Driver of Knowledge, Belief, and Culture. *ICAST Journal* 2012.

*Technology and Its Discontents: The Deadly Embrace of Technology and Society*. Create Space Publishing 2013.

Bayesian Inference in Trust Networks. *ACM Transactions on Management Information Systems* 4, 2, 1-26, 2013.  
(Earlier version in *Proceedings of WITS Workshop on Information Technology and Systems* 2010.)

Technology as Risk. *IEEE Technology and Society* 32, 2, 22-31, 2013.

*Electronic Commerce*. Online Course. EdX 2014.

Information Paradox: Drowning in Information, Starving for Knowledge. *IEEE Technology and Society* 34, 4, 63-73, 2015.

The Design of Trust Networks. *Communications of the AIS* 37, 41, 2015.

Information Markets Over Trust Networks. *Electronic Commerce Research* 16, 4, 529-551, 2016.

*Information Overload Paradox: Drowning in Information, Starving for Knowledge*. Create Space Publishing 2016.

## **Professional Activities:**

### Courses Taught:

Database Management (1980-1997)	(ratings= 4.40-4.88 size=150)
Information Systems (1980-1984, 1990-1992)	(ratings= 3.10-4.62 size=200)

Systems Analysis (1985-1989)	(ratings= 4.60-5.00 size=10)
MIS Policy (1993-1996)	(ratings=4.24-4.68 size=40)
Electronic Commerce (1998 —)	(ratings=4.42-4.94 size=250)

Editorial Board:

Journal of Database Management (1992-2007)  
International Journal of Electronic Commerce, Special Issue on Services (2008)  
Information Technology and Management (1997- )

Conference Committees:

WITS Workshop on Information Technology and Systems (1993, 1996, 1998, 2002, 2003, 2007, 2008, 2009, 2010)  
EMMSAD Conference on Systems Analysis and Design (2003)  
ICIS Conference on Information Systems, Services Track (2009)

Recent Presentations: Invited Talk: Information Overload Paradox. Academy of Management Annual Conference 2017.

Recent Ph.D. Committees:

Tuan Cao Ph. D. 2013 (Computer science)  
Sudip Roy Ph.D. 2014 (Computer Science)  
Qi Huang Ph.D. 2014 (Computer Science)  
Haoyan Geng Ph.D. 2015 (Computer Science)  
Amit Sharma Ph.D. 2015 (Computer Science)  
Deniz Altinbuken Ph.D. 2016 (Computer Science)  
Qin Jia Ph.D. 2016 (Computer Science)  
Efe Gencer Ph.D. 2017 (Computer Science)

Cornell University Committees:

FACTA Faculty Advisory Committee on Tenure Appointments 2005-2007  
University Faculty Senate 2009-2018  
MBA Customized Program Coordinator 2010-2011  
FABIT Faculty Advisory Committee on Information Technology 2011-2014