

Conceptual Modeling Education: What, Who, Why, and How

Nenad Jukic

Nenad Jukic

- Professor of Information Systems
*Department of Information Systems
and Operations Management
Quinlan School of Business
Loyola University Chicago*
(contact: njukic@luc.edu)
- Founder of ERDPlus, a free, web-based
conceptual modeling tool available at
erdplus.com

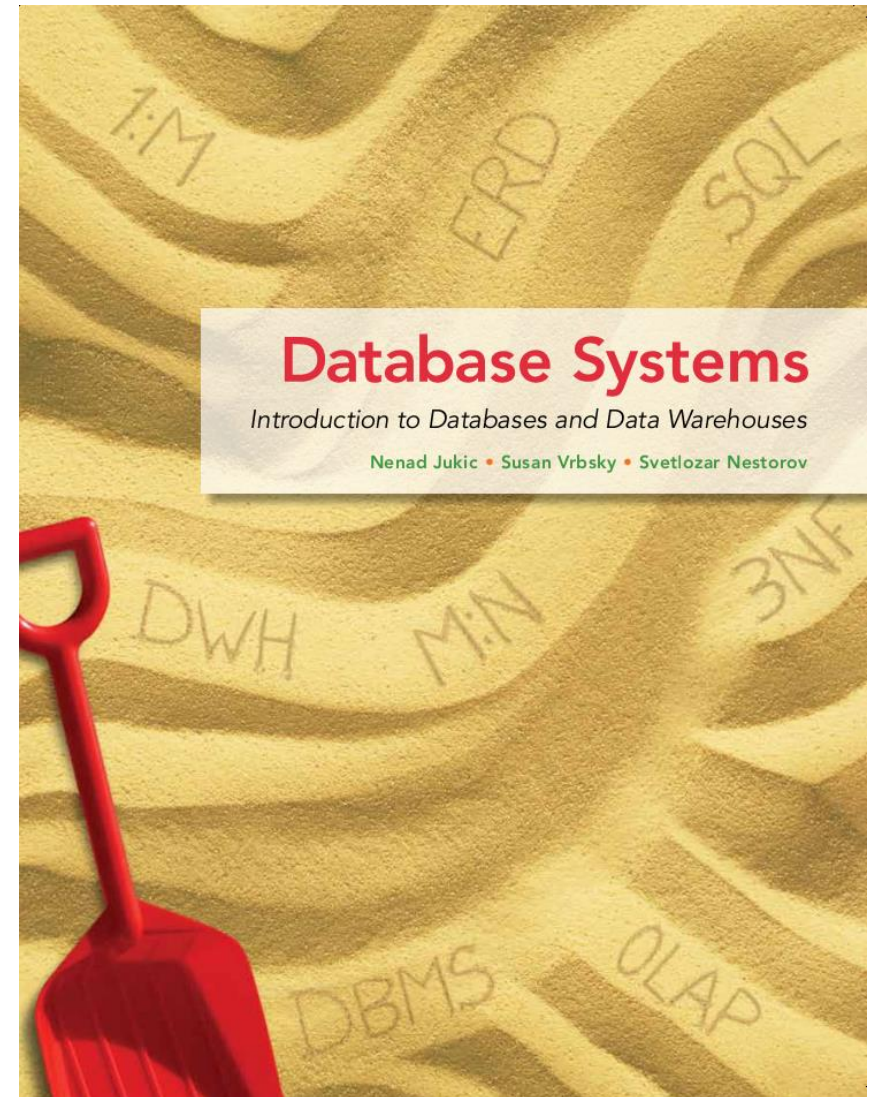


QUINLAN
SCHOOL of BUSINESS



Nenad Jukic

- Author of “Database Systems: Introduction to Databases and Data Warehouses”, a conceptual model-centric textbook published by Pearson/Prentice Hall in 2013 (Book website dbtextbook.com)



Courses and Degrees with Conceptual Modeling Content

- Courses taught (that include conceptual modeling):
 - Undergraduate:
 - INFS 247 Business Information Systems
 - INFS 346 Database and Data Warehousing Systems
 - Graduate:
 - INFS 492 Database Systems
 - INFS 796 Data Warehousing
 - HCMT 510 Health Care Information Systems
 - Executive Education:
 - Variety of courses for a variety of industries and constituencies
- Majors offered (that include courses on conceptual modeling):
 - Undergraduate:
 - All Business Majors at Quinlan (Loyola)
 - Information Systems major in particular
 - Graduate:
 - Graduate Certificate in Business Intelligence and Data Warehousing
 - MBA

Conceptual Modeling Education

- Who are we teaching?
 - Undergraduate Business Students
 - MBA students
- What are we teaching them?
 - ER Modeling for conceptual modeling of operational databases
 - Dimensional Modeling (Star-Schemas) for conceptual modeling of analytical databases (data warehouses and data marts)
- Why are we teaching these things to these students?
 - So our students can become competent conceptual modelers and requirements collectors
 - These are extremely valuable and extremely high-in-demand business skills (virtually 100% placement rate for students with these skills)
- How are we teaching conceptual modeling?
 - Step 1) Lecture with immediate examples and student participation
 - Step 2) In-class exercises, exercises, and more exercises (using erdplus.com)
 - Step 3) Homework assignments (using erdplus.com)
 - Step 4) Original requirements group projects (using erdplus.com)
 - Step 5) Exams

Conceptual Modeling Education

- Few additional assorted notes (nuggets)
 - Conceptual modeling skills + understanding of business processes + social & presentation skills = \$\$\$
 - ER Diagram as a business communication device (MBA and EMBA experiences)
 - Big Data note
 - Industry practice – unfortunate avoidance of conceptual modeling
 - Free resource for database educators: **Teradata University Network (TUN)**

