



# A Real-World Education

*At the University of Arizona's MIS Department, students learn how data really works*



The Management Information Systems (MIS) graduate program at the University of Arizona, part of the Eller College of Management, is one of the top rated programs of its kind in the United States. It has been recognized for the strength of its academic program in rankings published by *US News* and *World Report*, as well as for the influential research published by the faculty.

The department's flagship is the Master's degree in MIS; a dual MBA/MIS degree is also offered, as well as a doctoral program. There are approximately 100 students in the graduate program, and another 250–300 in the related undergraduate program. Many of the Master's candidates are returning to school after a few years in the workforce, sometimes in fields other than MIS or IT. That, according to Dr. Sudha Ram, McClelland Professor of MIS, is one of the strengths of the program.

"We have a clear focus not just on how technology works, but how it supports the business," Dr. Ram says. "Our faculty is research driven, but they also consult with companies to develop solutions to business challenges, and they bring that into the classroom. Almost every class involves practical tasks and assignments."

## An enterprising approach

Dr. Ram's own research focuses on Business Intelligence, Web/Social Media Analytics and Enterprise Data Management, encompassing such areas as interoperability among heterogeneous databases, business rules modeling and data quality assessment. She provides consulting to government agencies and global corpo-

rations. She has published her research in leading journals and serves on a number of editorial boards. She is director of the Advanced Database Research Group based at the University of Arizona.

Recently, Dr. Ram has been examining how data management is being reshaped by the availability of data from different sources, particularly the Web and social media. She has co-authored a study of collaboration patterns on Wikipedia, building a new model of how roles can be defined in order to improve the quality of the articles. She has founded a new center at the university, called **INSITE**, to formally study the impact of social media on business intelligence and analytics.

In the classroom, Dr. Ram teaches both core courses, such as Enterprise Data Management, and courses on Business Intelligence and Web/Social Media Analytics. As with other classes in the program, Dr. Ram's courses involve students undertaking practical tasks that they might face in a business environment. "These are demanding classes," she explains. "I want to show them more than the theoretical aspects of the subject."

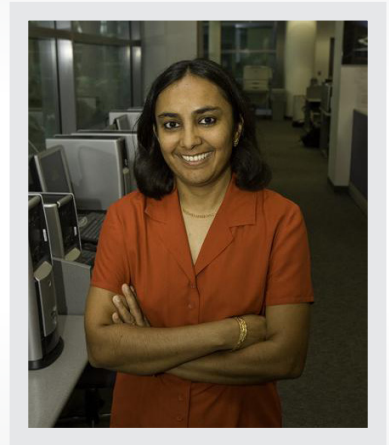


Photo credit: Tom Veneklasen

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McClelland Professor of MIS



## Finding the right tool

In her Business Intelligence course, Dr. Ram had a specific task in mind for her students. “One of our major topics is collecting data from different sources, then using it to create a data mart or data warehouse,” she explains. “Part of the pipeline is understanding what the data looks like, so I wanted to set up a practical assignment on profiling data, how to measure the quality of different data sources.”

To do that, Dr. Ram wanted to supply the students with a tool that would help them profile the data. She chose Ataccama DQ Analyzer.

Ataccama is a software company that specializes in solutions for data quality management, master data management and data governance. DQ Analyzer (DQA) combines advanced data profiling and analysis capabilities with a point-and-click interface that’s simple enough to use without extensive training. It is a powerful tool that includes the robust, high-performance engine from Ataccama’s flagship product, Data Quality Center.

After finding DQ Analyzer on the Web and viewing the video tutorials on Ataccama’s site, Dr. Ram took advantage of the free download to try out the product. “I looked at some other tools, but DQA was very easy to use.” Dr. Ram taught the class how to assess data, provided them with a custom dataset representing customer data from a large bank, then told them to use DQA and create a report about the state of the data.

“We were expected to provide the results of profiling one of the subsets of a transactional database of a large bank,” says Chris Hsieh, a Master’s student who took the class. “We had to provide an explanation of the profiling plan, the various profiling tests performed, our findings and our recommendations.

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## A passing grade

According to Dr. Ram, many students tell her, at first, they don’t think the assignment is very realistic. “They can’t believe data can be that dirty,” she says. Then, when they return from an internship, they admit that they’re surprised to find that corporate data is actually even dirtier.

Which, of course, is part of the reason for Dr. Ram’s approach. “What I hope they take away is a clear understanding of Business Intelligence and how to apply what they’ve learned when they go to work for companies. And that includes learning how to use tools like Ataccama DQA.”

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—Chris Hsieh,  
Graduate Student,  
University of Arizona

