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TUTORIAL 3 THE STATE OF THE ART IN GROUP SUPPORT SYSTEMS RESEARCH

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TUTORIAL 3

THE STATE OF THE ART IN GROUP SUPPORT SYSTEMS RESEARCH

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There is a rapidly growing interest in the use of information technology to support groups. Over the past two years, more than fifty universities have established GSS research programs, and many more organizations have installed GSS software. The number of books, research papers, popular press articles, and conferences focusing on GSS has also increased dramatically.

This tutorial will provide an overview of the current state of the art in GSS research and a glimpse into the future. Our objective is to share knowledge that will provide a firm foundation for newly established research programs and invigorate well established ones. The tutorial will include presentations as well as dialogues between us and you, the audience. We intend to use a GSS to better gather and summarize input from the audience on selected topics.

The tutorial will cover a number of key areas including:

- **GSS Technology**
The different types of GSS technology and their differential effects on group performance and attitudes. This will include a discussion of the effects of facilitation.
- **Useful theories**
The key theories of past, current, and future GSS research, including macro versus micro theories, media richness, and structuration.
- **What we know**
This section will focus on assessing the state-of-the-art of GSS empirical research. Individual studies will not be reviewed in detail; instead, we will paint a general picture of the cumulative research results, including field, laboratory, and systems development research streams.
- **Using GSS as a Research Tool**
GSS has typically been seen as a research construct in its own right (e.g., studying GSS effects on group and organizations). But GSS are much more versatile tools. In this section, we examine how GSS can be used to provide an environment to facilitate the research process.
- **What we don't know**
This section will examine fruitful topics that need to be addressed. This will be driven by the audience, but our discussions will likely include use of GSS over time and distributively, special applications, and failures.

TUTORIAL 4

TOTAL QUALITY AND THE IS FUNCTION

Steven Alter

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In today's competitive environment, delivering quality products and services is essential for success. Total Quality Management (TQM) is a focused management philosophy encompassing leadership, training, and motivation for continually improving an organization's business processes. TQM differs radically from some traditional management practices. Quality is not considered an overlay, but is built into business processes. As more companies adopt TQM, IS organizations are being challenged to incorporate TQM principles into their own operations.

This tutorial has three parts, starting with a general introduction to TQM. This summarizes alternative definitions of quality, TQM principles (e.g., management by fact, customer focus, continual improvement, employee involvement), TQM tools (e.g., flow charts, fishbone diagrams, Pareto charts), and implementation mechanisms (e.g., improvement teams, quality councils, training programs).

The second part discusses a year-long project in which SIM (the Society for Information Management, a leading organization for IS managers) identified ways to apply TQM to the IS function. Results from several regional working groups will be discussed. One group used the criteria for the Commerce Department's Baldrige Award as an organizing framework for assessing an IS organization's processes in TQM. Participants in several task forces provided brief write-ups of particular techniques for a proposed catalog of "best practices" related to TQM in IS. Overall, many ways to apply TQM techniques were identified, although most participants felt their organizations were near the beginning of a long road. Challenges in applying TQM to the IS function include the nature of key business processes, the inertia of existing systems and methods, and the unstable business environment surrounding these efforts.

The third part shows how TQM principles can be combined into a general framework any business person (a user, a manager, or a system developer) can use to analyze an information system. The framework focuses on business processes and views an information system as a business process that is always part of a larger business process. The framework's elements include the business process itself, its customer and stakeholders, controllable results it produces, its participants, and the information and information technology it contains. These six elements and interactions between the elements can be used to summarize a system, identify key issues for the analysis, outline the system's formal structure, and describe system characteristics and evaluation criteria. This framework will be used to summarize several information systems used by IS groups in TQM efforts.