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Chapter III

"Excellent" Systems Analysts: A Grounded Theory Approach to Qualitative Research

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There is evidence which suggests the software crisis still exists and is negatively impacting both information systems (IS) development and maintenance. Kendall (1992) has reported IS development backlogs averaging 30 work-months. Others (Senn, 1985; Yourdon, 1989) including Kendall (1992) suggest a hidden backlog, users' plans not even submitted as requests because of the identified backlog, may result in IS development delays of up to four to seven years. Further Laudon and Laudon (1998) have determined that 51 percent of software development projects require up to three times more than the initial budget for both cost and time.

The situation regarding IS maintenance is also of concern. Kendall (1992) suggests the IS maintenance software crisis has resulted from problems created in phases prior to programming. This situation is further confounded by the fact that the later in the System Development Life Cycle (SDLC) that an error is discovered, the more it costs to fix (Boehm, 1981).

Understanding the reasons for these circumstances, and identifying ways of reducing them, are clearly in the interests of both IS professionals and business professionals. Boehm (1981) has suggested three components of potential productivity improvement: People, Process, and Technology; and that the first component, People, will have the greatest relative impact. Thus, while it is acknowledged that Process and Technology components are important, this research project has focused on the People component. On one hand, rapid advances in technology have caused changes in the means by which IS are developed and maintained. On the other hand, various skills are used throughout the process of IS development and maintenance. It is not clear which specific skills and personal characteristics

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of systems analysts contribute to the appropriate IS development and maintenance. What do "excellent" systems analysts do that is different from other systems analysts? The answer may contribute to a better understanding of the functions performed by systems analysts and to the overall effectiveness of the IS development and maintenance function.

The dilemma in evaluating professional work performed by systems analysts in this research project is to determine a consensus of what is considered "excellent". Because of this dilemma, it is necessary to adopt a research method, which is particularly suited to measuring relativity. That is, "excellent" could be regarded as a relative concept when determining and comparing the skills and personal characteristics of systems analysts.

More specifically, two major research objectives were originally identified (see Hunter, 1993 and 1994; and Hunter and Beck, 1996a and 1996b). The first objective was to determine a better understanding of "excellent" systems analysts skills and personal characteristics. This research project investigated what the research participants expected "excellent" systems analysts should be able to do. The project gathered data relating to how research participants interpret what contributes to an interpretation of an "excellent" systems analyst.

The second objective was to determine whether it is possible to differentiate systems analysts based upon skills and personal characteristics. It was anticipated the results would advance the currently accepted body of knowledge regarding systems analysts to a point where, based upon the research participants' interpretations, a relative priority of importance may be attributed to the identified skills and personal characteristics. While it may not be possible to identify an "excellent" systems analyst, it may be possible to identify which skills and personal characteristics contribute towards an interpretation of "excellent".

NEW APPROACHES TO INFORMATION SYSTEMS RESEARCH

Turning to IS research in general, it has been suggested that newer approaches be adopted. Klein and Lyytinen have suggested that information systems as an academic discipline "...will remain a doubtful science as long as it continues to strive to develop its stock of knowledge primarily through the practice of the so-called scientific method." (Klein and Lyytinen, 1985:133). Hirschheim has contended "...that information systems epistemology draws heavily from the social sciences because information systems are, fundamentally, social rather than technical systems" (Hirschheim, 1992, p. 28). Boland discussed phenomenology as an approach to IS research. He defined phenomenology as "...the intuition of essences" (Boland, 1985, p. 193). Boland suggested phenomenology "...does not assert the existence of absolute knowledge. In the end, a phenomenological study cannot claim to have a proof of its findings, only a reliance on its method and the hope that others will "see" its descriptions as true and accurate" (Boland, 1985, p. 194). Boland concluded with the following comment, "Data becoming information is what information systems are: Data becomes information in the consciousness of a human subject, and that is where we must look if we are to understand