

Preface

With the expansion of the Internet and the resulting globalization of business activity, the scope of the influence of information technology (IT) has increased significantly. Many innovative business practices are being enabled by IT. The capacity for integration of information in numeric, text, voice, and video form will give rise to an even greater proliferation and impact of IT in the future.

Also, the information systems (IS) development profession has been maturing and IS has been recognized as a socio-technical endeavor for some time. For system developers, the need to communicate effectively with users and team members has been increasingly emphasized.

A recent (1993) survey of 192 human resources persons responsible for hiring new IS graduates in the Denver, Colorado, area revealed that, in addition to knowledge in applied computing and business, it was very important that a new IS hire be educated in: i) the ability to learn, ii) the ability to work in teams, iii) oral and written communication, iv) algebraic reasoning, and v) an orientation to health and wellness. In short, adaptability, communication, and stress management are seen as key skills for the IS professional. Yet, such skills are not developed through logic alone, but involve the “soft areas” of intuition, feelings, and senses.

Over 20 years ago, U.S. researchers Couger and Zawacki reported that, while IS professionals (systems analysts and programmers) had the lowest needs for social interaction on the job, they reported much higher “growth needs” than the other professionals surveyed. While, at the time, growth needs were largely understood as greater development of professional competencies, there now appears to be evidence that the IS development profession may be ready for a more wholistic approach to growth.

For example, a management scientist, in his book on IS management, has called for extending Maslow's hierarchy of needs beyond self-actualization to "self-donation" and has provided a concrete example of such a stage in the career of a systems analyst. An article in *Computerworld* has called for "emotional literacy among IS professionals" in the context of personality awareness. At a recent national convention of the Canadian Information Processing Society (CIPS), a keynote speaker proposed that "love" and not confrontation be the model for organizational communication, and received a standing ovation. A job advertisement for IT professionals within an insurance company in a prominent U.S. software center points out that this employer is interested in contributing to the employee's professional and personal life, and advises candidates to "listen to their inner voice." A prominent U.S. textbook author has referred, in the dedication of his text on IS for the Internetworked Enterprise, to "experiencing the Light within." In a recent Canadian survey on stress among IS professionals, the most frequently mentioned desired coping resource was "personal development seminars," closely followed by "conflict resolution seminars."

Also, the concept of "emotional intelligence" is being increasingly emphasized in management literature. It is being recognized that, while the traditional IQ (intelligence quotient) can help a person to *get* a job, it is the EQ (emotional quotient) that will allow the person to *keep* the job and to progress satisfactorily in his/her career.

Thus, the stage appears to be set for a preliminary attempt to address specific psychological factors as applied to the work of various IT professionals such as system and data analysts, programmers, project managers, help desk personnel, and also software engineers, telecommunications designers, and others. In this context, the term IT is considered to encompass a broader range of positions, whereas IS is more restricted to the activities of planning, analysis, design, development, and deployment of computerized business application systems.

The book is divided into two parts. In the first part, four psychological factors are considered: two personality type categories, cognitive style, and awareness of the inner self. Each area is introduced assuming no prior knowledge and then is related to situations from the work of information system developers. In the second part the focus is on *application* of the material presented in the first part to IT work.

Chapter I outlines in some detail the Myers-Briggs personality typing system. Prominent applications to IT that were made known in the form of published research studies and trade magazine articles are then highlighted. Since this system is well-structured and has been accepted in a significant

number of managerial settings, most readers should be able to find the material both thorough and relevant. In this chapter questions for further research are also brought forth, and suggestions are offered for a person beginning his/her investigation of Myers-Briggs typing and IT work.

Chapter II follows up with a fairly comprehensive introduction to another personality typing system, the Enneagram. While Myers-Briggs focuses on *how* we function, this system offers insight as to *why* we do so and proposes an underlying emotion for each of its nine types. The Enneagram has also gained considerable acceptance in personal development circles and more recently in business and work. Each Enneagram type is outlined for a beginner's orientation, and then attempts are made to postulate strengths and shortcomings of each type in the course of IT work. Relationships between Myers-Briggs and the Enneagram are discussed, as is the complementarity of the two systems. As this is likely the first known attempt to link the Enneagram specifically to IT, references to existing research are replaced by considerable suggestions for future such endeavors.

Chapter III focuses on what may be considered a specific aspect of personality—cognitive style. The topic is introduced with the main distinction of sequential vs. intuitive (wholistic) approaches to perceiving. The reader is then introduced to a considerable number of significant research efforts in applying this factor to IT, since this area has indeed been researched more extensively. Cognitive styles are then expanded to include, specifically, creativity styles as well as learning styles, both very relevant to IS work. Again, research efforts are highlighted. Suggestions are also provided for the IT professional who is just becoming initiated with such perspectives.

Chapter IV is likely the most pioneering. It addresses the “deepest inner self” as a human component distinct from intellect, feelings, and body. Comprehensive, authoritative sources are used to present the material with a structured, analytic approach. In this fashion is also addressed the potential of human spirituality to empower IT workers with “psychological robustness.” It is in this perspective that a structured, operational definition of “emotional intelligence” is developed, and the potential of such an intelligence in IS efforts is promoted considerably.

Part I concludes with Chapter IV. The intent for this part is, primarily, to provide a thorough introduction, particularly for a novice IS worker, to four prominent psychological factors. The reason for addressing these specific factors is largely the recognition that IS workers could benefit from greater awareness of themselves and others “as people,” in order to develop “soft skills.” An additional aim of Part I is to establish particular relevance of the addressed factors to IS work and to show how awareness of these factors

can positively influence such work. Lastly, the chapters offer considerable material for consideration by MIS and interdisciplinary researchers.

Part II, consisting of Chapters V to VII, attempts to address application of the four major factors more specifically. Chapter V considers several specific areas of IT where the factors from Part I could make a difference, e.g., teamwork, end-user relationships, project management, interaction with organizational management, stress management, and human resource issues. This chapter, however, is an *initial* attempt to relate and to motivate. In time, after considerable feedback, a sequel book may be developed that would expand considerably on approaches of the chapter.

Chapter VI is written with a view towards developing an “emotionally intelligent IT organization.” To this end, a growth stage model is presented, with five hypothesized stages as to how material from this book can be progressively and collectively adopted by an IT organization in the course of daily IT work. Chapter VII, which concludes the book, issues a “call to action” on the part of IS workers, their managers, higher executives, professional IT bodies, and academic researchers in facilitating the integration of psychological awareness into the IT skill set.

Thus, this book was written with two main objectives: i) to arouse awareness, among a broad spectrum of IT workers, of psychological factors that can contribute to their maturity and effectiveness at work; and ii) to catalyze specific, continuing efforts among both IT professionals and MIS academics, which would lead towards a deeper understanding and broader application of psychological issues in a variety of IT work situations. The book provides conceptual knowledge, reports on research findings, and presents both real and hypothesized anecdotes from the IT field. An attempt was also made to refer to both genders alternately when using pronouns; however, in most places, such pronouns should be easily interchangeable, reflecting no intended gender bias.

In this light, it is hoped that the book becomes more than “interesting reading” in one’s spare time (if one has any). It is hoped that many IT professionals will consider this an introductory handbook to another dimension of their work, and will refer to it in an ongoing manner, learning from its insights, challenging its assumptions, and extending its boundaries. Likewise, it is hoped that MIS academics will be motivated by this book to conduct more research, so as to understand more profoundly the possibilities for increased effectiveness, efficiency, and fulfillment among IT professionals, resulting from increased psychological awareness.

However, communication is essential for such hopes to be realized. Questions, insights, and suggestions from all concerned must be publicized.

Ongoing development of emotional intelligence in IT must be a communal effort. To this end, a specific website related to this book is being planned. Communication provides motivation, and motivation begets creativity.

Just as medical doctors have realized that, in addition to scientific knowledge, bedside manners are essential to the profession, IT workers have also realized, at least in principle, that “soft skills” are increasingly required in the course of their work. However, specific applications have been sporadic and often incidental. May this modest effort motivate, both through what has been said and what has been omitted, awareness, discussion, and indeed definitive, coordinated and publicized action in expanding the boundaries of one of the most impactful professions of this decade.

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