Chapter II
Could the Work System Method Embrace Systems Concepts More Fully?

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ABSTRACT

*The **work system method** was developed iteratively with the overarching goal of helping business professionals understand IT-reliant systems in organizations. It uses general systems concepts selectively, and sometimes implicitly. For example, a work system has a boundary, but its inputs are treated implicitly rather than explicitly. This chapter asks whether the further development of the work system method might benefit from integrating general systems concepts more completely. After summarizing aspects of the work system method, it dissects some of the underlying ideas and questions how thoroughly even basic systems concepts are applied. It also asks whether and how additional systems concepts might be incorporated beneficially. The inquiry about how to use additional system ideas is of potential interest to people who study systems in general and information systems in particular because it deals with bridging the gap between highly abstract concepts and practical applications.*

BACKGROUND

The idea of using the concept of **work system** as the core of a systems analysis method for business professionals was first published in Alter (2002), although the ideas had percolated for over a decade. Experience as vice president of a manufacturing software company in the 1980s convinced me that many business professionals need a simple, yet organized approach for thinking about systems without getting swamped in details. Such an approach would have helped our customers gain greater benefits from our software and consulting, and would have helped us serve them more effectively across our entire relationship. A return to academia and production of an

IS textbook provided an impetus to develop a set of ideas that might help. Starting in the mid-1990s I required employed MBA and EMBA students to use the ideas in an introductory IS course to do a preliminary analysis of an information system in their own organizations. The main goal was to consolidate their learning; a secondary benefit was insight into whether the course content could actually help people understand systems in business organizations.

To date over 300 group and individual papers have contributed to the development of the **work system method** (WSM). At each stage, the papers attempted to use the then current version of WSM. With each succeeding semester and each succeeding cycle of papers, I tried to identify which confusions and omissions were the students' fault and which were mine because I had not expressed the ideas completely or clearly enough.

Around 1997 I suddenly realized that I, the professor and textbook author, had been confused about what system the students should be analyzing. Unless they are focusing on software or hardware details, business professionals thinking about information systems should not start by describing or analyzing the information system or the technology it uses. Instead, they should start by identifying the work system and summarizing its performance gaps, opportunities, and goals for improvement. Their analysis should focus on improving work system performance, not on fixing information systems. The necessary changes in the information system would emerge from the analysis, as would other work system changes separate from the information system but necessary before information system improvements could have the desired impact.

After additional publications (available for download at www.stevenalter.com) helped develop various aspects of WSM, the overall approach became mature enough to warrant publication of a book (Alter, 2006) that combines and extends the main ideas from the various papers, creating a coherent approach that is organized, flexible, and based on well-defined concepts. Use to date by MBA and EMBA students (early career business professionals) indicates that WSM might be quite useful in practice. Recent developments motivated by widespread interest and concern about services and the service economy led to an attempt to extend the work system approach to incorporate the unique characteristics of services. The main products to date of those efforts are the service value chain framework and service responsibility tables. (Alter, 2007, 2008) Further development of WSM might proceed in many directions, including improving the concepts, testing specific versions in real world settings, and developing online tools that make WSM easier to use and more valuable.

WSM uses system concepts, but the priority in developing WSM always focused on practicality. System concepts and system-related methods that seemed awkward or difficult to apply were not included in WSM. For example, WSM might have incorporated certain aspects of soft system methodology (SSM) developed over several decades by the British researcher Peter Checkland (1999). An area of similarity is SSM's identification of 6 key aspects of a "**human activity system**." Those include customers, actors, transformations, worldview, owner, and environment. Based on an unproven belief that SSM is too abstract and too philosophical to be used effectively by most (American) MBA and EMBA students, WSM was designed to be very flexible but also much more prescriptive than SSM and much more direct about suggesting topics and issues that are often relevant for understanding IT-reliant work systems.

At this point in the development of WSM it is worthwhile to ask whether additional systems concepts might be incorporated beneficially and might contribute to its value for practitioners. Searching for possibilities is a bit awkward because there is very little agreement about what constitutes general systems theory and general systems thinking.