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# SERIE RESEARCH MEMORANDA

## **Beyond the Espoused Goals of IS/IT Strategy Planning**

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## Beyond the Espoused Goals of IS/IT Strategy Planning

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“ ... the cause of the origin of a thing and its eventual usefulness, its actual employment and incorporation into a system of aims, lie worlds apart . . .” - Friedrich Nietzsche in *Toward a Genealogy of Morals* (1887)

No grand idea was ever born in a conference, but a lot of foolish ideas have died there.

• F. Scott Fitzgerald in *The Crack-Up* (1945)

Abstract: The paper uses a sociological concept to study the uses of strategic information systems/information technology planning (SISP) beyond its espoused goals. The concept is termed unanticipated or unintended consequences of social action (Merton 1963; Giddens 1984), and it has a long intellectual history, going back to at least the writings of Adam Smith.

The main goals of SISP are to align investment in IT with business goals, to exploit IT for competitive advantage, to deliver efficient and effective management of IT resources, and to develop technology policies and architectures. The research findings of the uses of SISP are focused on these goals and produce a rather mixed picture (Runge and Earl 1988; Segar and Grover 1998).

However, another way is to look at the uses of SISP beyond its proclaimed goals. Based on such approach, a study of IS and organization literature suggests that SISP can be employed in ways which may seem alien to the original designers of these methods, but which make sense from the perspective of interpretative organizational studies and sociology. Our study suggests that SISP is used in the following ways: (1) to organize thoughts and articulate ideas about information planning activities, (2) to present and

interpret past activities, (3) to provide a sense of control, (4) to provide norms as part of social legitimization, (5) to serve as diagnostic tool.

We invited two former Chief Information Officers to reflect on our findings. Their reflections provide some empirical support for our findings.

Our approach **conceptualises** SISP as a communicative, sense-making and **socio-cultural** process, highlighting interpretative, communicative, ritualistic and sense-making activities. It has profound implications for the design of SISP methods. Rather than pretending to produce a blue-print for developing strategic information systems, these methods should be designed to be simple to learn and to use so as to function adequately as a conceptual tool to support the cognitive, psychological and social needs of those involved in IT strategy activities.

Key words: unanticipated or unintended uses, IS/IT strategy, structured methods, deconstructionist approach, interpretation, diagnosis, assigning blame, control, legitimization.

## 1 INTRODUCTION

The aim of this paper is to examine the uses of strategic information systems planning (SISP) beyond its espoused goals. In doing so, we hope to contribute to the growing body of knowledge in the area of IS strategy, IS planning and methods used to support them (Lederer and Gardiner 1992; Galliers 1993; Reich and Benbasat 2000).

One working definition of SISP is provided by Lederer and **Sethi** (1988). It refers to “the process of deciding the objectives for organizational computing and identifying potential computer applications which the organization should implement (p.445).” More broadly, SISP may be used as a generic term to covering the following activities: information planning, IT planning, information strategy formulation and IS strategic planning. Some of the more celebrated methods and frameworks designed to support SISP are Strategic Planning for MIS (McLean and **Soden** 1977), Business Systems Planning (IBM 1981), the Strategic Grid (Cash et al 1998) and the Strategic Alignment Model of the **MIT90s** Research Program (Henderson et al 1992):

IS literature recommends that the aims of SISP be focused on the:

- alignment of investment in IT with business goals,

- exploitation of IT for competitive advantage,
- delivery of efficient and effective management of IT resources,
- development of technology policies and architectures ( Baets 1992; Blumenthal 1969; Earl 1993; Henderson et al 1992; Theeuwes 1988).

However, empirical studies of the users' satisfaction with SISP have produced a mixed picture. **Lederer** and **Sethi** (1988) conducted a survey its use in 80 organizations and reported the following: on a scale of zero to six, the respondents' average rating for satisfaction with the SISP methods was 3.55; that with the SISP process was 3.68; that with the SISP output 3.38, that with the SISP resource requirements 3.02 (p.453). The results present a picture of very modest success. Another empirical study was undertaken by Runge and Earl (1988) of 35 telecommunications-based information systems in industrial sectors covering finance, manufacturing, petrochemicals and computers. They find that of 80 percent of the systems investigated, IS planning and project selection procedure were either purposely circumvented or simply ignored. This was in contrast to their espoused practice of having "established formal procedures for planning and justifying investment in new information systems (p.141)." In a more recent study, Segars and Grover (1998) investigate the success of SISP based on the dimensions of alignment, analysis, co-operation and planning.' They found that the effectiveness of SISP is an aggregate of these four dimensions, and while each of these dimensions is distinct, success along one is co-related with the others.

Critical studies of SISP often take these intended goals of SISP to examine its efficacy. This approach is intuitively appealing and enjoys some methodological underpinning. "A scientific concept has meaning only because scientists mean something by it. The meaning is scientifically valid only if what they intend by it becomes actual: problems are solved and intentions are fulfilled as inquiry continues. (Kaplan 1964, p.46)"

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<sup>1</sup> Alignment refers to the extent to which IS strategy and business strategy have become tightly linked together.

Analysis refers to the extent to which a clear understanding has developed of how information is used within the organization and of how information systems might be applied in furthering the aims of the organization.

Co-operation refers to the extent to which general agreement has been reached regarding development priorities, schedule and responsibilities.

Planning refers to the extent to which the planning system itself has improved capabilities over time in its basic capabilities to support the organization.

Winch (1958) insists that the fundamental criteria for identifying actions are taken from the rules according to which the activity under investigation is itself carried out (p.87). In other words, a theory or concept is to be judged by its own claims, and critics are justified in **deconstructing** any internal inconsistencies\*. One such study is by Ciborra (1997) who writes: “In the 1990s the concept of strategic alignment, the dynamic fit between business policy and IT, has been widely applied both in research and consulting. . . It turns out that the two pillars of strategic alignment, i.e. strategy and technology, are far from being ‘problem free’: in many modern corporations strategy is closer to tinkering and IT keeps drifting. Are managers really in control of both ?” Other critical studies (Waema and Walsham 1991; Huysman et al 1994) adopt a conceptual stance, but they still conduct their discussion with reference to the proclaimed goals of SISP.

However, what we invent might turn out to be useful but could also be dysfunctional or pathological in ways that depart from our original goals. This pattern is quite common in the fields of medicine, engineering and economics and is referred to by sociologists such as Giddens (1984) as unintended consequences of social action. It has a long intellectual history, going back at least to the works of Adam **Smith**.<sup>3</sup> A possible explanation is offered by Kranzberg (1985), “Technology’s interaction with both the social and cultural milieus sometimes leads to developments that are far removed from the original goals of the technical elements themselves.” It is in the spirit of such thinking that we propose to investigate some of the “unintended consequences” of SISP, be they positive or negative for the organizations concerned. We first look at what the organizational and IS literatures have to say about the phenomenon of planning beyond the usual rational and purposive dimension. We will show in section 2 that a careful examination of IS and organisational studies literature suggests that SISP can be useful in the following ways: (1) to organize thoughts and articulate ideas about information planning activities, (2) to present and

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<sup>2</sup> **Deconstruction** may be seen as a demonstration of the incompleteness or incoherence of a philosophical position using concepts and principles of argument whose meaning and use is legitimated only by that philosophical position. A **deconstruction** is thus a kind of internal conceptual critique in which the critic implicitly and provisionally adheres to the position criticized. (Wheeler 1995)

<sup>3</sup> In his *Wealth of Nations* (1776), Adam Smith argued that general welfare depends on allowing the individual to promote his own interest freely as long as he does not violate the laws of justice; in this way he frequently promotes the interest of the society more

interpret past activities, (3) to provide a sense of being in control, (4) to follow norms as part of social legitimization, (5) to serve as diagnostic tool.

These five ways may seem alien to the intentions of the SISP, but they make sense from the interpretative tradition of organizational studies. Our approach would **conceptualise** SISP as a communicative, sense-making and socio-cultural process, highlighting interpretative, communicative, ritualistic and sense-making activities. It has profound implications for the design of SISP methods. One possibility is this: rather than pretending to produce a blue-prints for **developing** strategic information systems, these methods could be designed to be simple to learn and to use so as to function adequately as a conceptual tool to support cognitive, psychological and social needs of those involved in IT strategy activities. However, whether this alternative would work or not remains an empirical question which needs further research.

Subsequently, we invited two former Chief Information Officers to reflect on our approach and to jolt down their thoughts in writing. We then make copies of their notes and send the whole set to both of them, followed by a joint discussion with them. The findings are presented as they occur chronologically. because we wish to provide our readers a favour of the whole exercise.

These five ways are discussed in more detail in the next sections, followed by our empirical findings. The paper concludes by examining some implications of our findings for looking at SISP and for the design of such methods to support SISP.

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effectually than when he really intends to promote it.

<sup>4</sup> Alignment refers to the extent to which IS strategy and business strategy have become tightly linked together.

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## 2 SOME INSIGHTS FROM ORGANIZATIONAL LITERATURE

In this section we describe some uses of (more or less) structured planning which are beyond the espoused scope of SISP described in the previous section. Such findings are based on organization and IS literature.

### 2.1 To Organize Thoughts and Articulate Ideas

Innovation tends to exhibit non-linear, slightly chaotic, usually sloppy, sometimes random, and often up-and-down nature (Quinn 1985). Activities related to formulation and implementation of IS strategy, as a kind of organizational innovation involving the use of IT, share such features. They present a picture difficult for experienced practitioners to grasp. They are confusing and at times frightening to the newcomers. At the same time the social actors participating in such projects must be able to make sense of the situation in order to function effectively. As structured approach, SISP offers a helpful conceptual tool for the IT professionals participating in projects to organize thoughts and articulate ideas about these activities. This is similar to the practice of authors in organizing their books into different chapters, and of thinking about the main points in each chapter, and the relationship between the various chapters. The structure of a book does not reflect the way the book is written, but it does help the author to think through the organization of ideas, the cogency of arguments and the relevance of including certain facts, episodes and events. The more complex a book, the more we need the structure of book to help us organize the thoughts. Such structuring process is part of the process of making sense of a complex and confusing situation. As suggested by **Weick (1995)**, the feeling of order, clarity, and rationality is an important goal of sensemaking. And this feeling of order is a better basis for action than a sense of confusion and chaos.

If we may use the example of the book further, attempts to use the form of book as a means to organize a piece of writing for the readers produce interesting features like an index and content pages. SISP , as a kind of top-down formulation of IS strategy, has developed concepts such as information architecture, information systems architecture, and alignment of business strategy with IS/IT strategy.

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position criticized. (Wheeler 1995)



As a result of providing some order to the chaotic and confusing picture in the process of sense making, and of producing terms to describe concepts in the IS/IT strategy activities, SISP provides a framework and vocabulary for IS practitioners to converse among themselves about a cloudy and woolly phenomenon. This is quite like software engineers using the water-fall model of software development life cycle and its vocabulary to talk about the progress of their software engineering activities even though they are aware that the model does not function well as a prescriptive model.

As a tool to support the structuring of thoughts, SISP methods may help key players and organizational members to appreciate the potential of IT for the organization. This however is not the same as saying that it can serve the four stated goals of SISP. In other words, awareness of the promises of IT for a business firm is not the same as a reliable blue print to achieve success.

## **2.2 To Present And Interpret Past Activities**

Related to the above is the use of SISP in the presentation of ideas to others. Heng et al (1999) describe how SISP has been used to present an organised, ex-post account of a strategic IS project. A champion initiated an IS project against all odds and which he successfully nurtured to completion. The resulting information system was a considerable technical and commercial success and it won a top IT prize in the Dutch transport sector. However, the process was particularly messy. Yet when the manager of the champion presented the story to the public, he gave an orderly, top-down, planned, structured, and step-by-step account of the process. Though a well-organised or structured presentation has the merit of making a disorderly phenomenon understandable to outsiders, it runs the risk of presenting a false account of the reality. Those without adequate experience may mistake the i-e-processed account to be a faithful version of the facts.

However, to those experienced in IS/IT strategy process, the SISP model is useful in drafting a plan which can serve as an interpretative scheme for past activities (March 1971). "Planning in organizations has many virtues, but a plan can often be more effective as an interpretation of past decisions than as a program for future ones. It can be used as a part of the efforts of the organization to develop a new consistent theory of itself that incorporates the mix of recent actions into a moderately comprehensive structure of goals (March 1971: 264)." This is not too different from the observation of Mintzberg (1978) that strategy

consists of observed patterns in past decisional behaviour. Strategy is very much an ex-post activity, a retrospective insight or hindsight. With the benefit of hindsight, we often appear wiser. We are made aware of possible opportunities to choose which are usually observable ex-post (Rosenberg 1994). In this sense, SISP has the potential to i-e-construct different stories of past events, thereby providing us with an avenue to diagnose mistakes and to learn. It is akin to the idea of recovering, uncovering and discovery in interpreting organizational texts (Newman and Boland 200 1).

### **2.3 To Provide A Sense Of Being In Control**

The previous two sections describe how planning is used to serve the cognitive needs of participants of IS/IT strategy activities. SISP methods can function as supportive tools to help us cope with understanding, interpretation, presentation, and concept development — issues which can broadly be classified as cognitive or intellectual. Below we deal with issues of a psychological or emotional nature.

It has been observed that when people feel out of control there is a tendency towards inactivity (Gimpl and Dakin 1984). In the course of history, social actors have developed certain means to cope with this very real challenge of organizational life. One well known method is uncertainty avoidance (Cyert and March 1963). Our modernist and rationalist culture has bequeathed us with forecasting, prediction and planning techniques with their corresponding theoretical underpinning. These sophisticated techniques serve the same function as age-old practices of rain dance, caribou bones oracle, tea leaves reading, and other magical rites. Gimpl and Dakin contend that “management’s enchantment with the magical rites of long-range planning, forecasting, and several other future-oriented techniques is a manifestation of anxiety-relieving superstitious behaviour, and that forecasting and planning have the same function that magical rites have (p. 125).” This point has also been made by Brunsson (1982) who talks of the need to boost confidence in success, to engage management in supporting the proposals by arousing commitment and strengthening the expectations that the projects would succeed. “Actors should elicit commitments from those who will evaluate their actions afterwards, because committed evaluations are more likely to judge actions as successful (p.33).” From this perspective, a planning exercise boosts confidence, reduces anxiety, affirms managerial action, strengthens commitment and makes the managerial group more cohesive. In other words, when

organizational members have a sense of control they can act more confidently and positively. Having a planning system allows the managers to sleep more peacefully even if it does not really work (Hofstede 1980). For a delightful examination of managers' tendency to get things under control, please refer to Law (1994).

A word of caveat is in order. Beyond the limits of reducing anxiety, boosting confidence and promoting group cohesion, planning and other such-like rituals can lead to a wrong perception that the techniques could really make reliable forecasts, or provide a useful' guidelines for action. In a case study of use of structured information systems analysis and design, Waste11 (1996) finds some evidence of such dysfunctional properties. The structured method encouraged a rigid and mechanical approach in which the method was applied in a ritualistic way which inhibited creative thinking. By donning the attire of rationality, the method may "operate as an irrational ritual, the enactment of which provides the designers with a feeling of security and efficiency at the expense of real engagement with the task at hand (p.25)."

#### **2.4 To Follow Norms As Part Of Social Legitimization**

This section touches on the social and cultural dimensions of the use of planning. Activities associated with IS/IT strategy do not occur in a social vacuum. In other words, they are embedded in the broader societal milieu and operate under the influence of its dominant business norms. Such norms attach value to rationality-based business practices such as the formulation of a business plan. Knights and Morgan (1991) remark that the whole concept of corporate strategy can be perceived as a discourse (Foucault 1980). It shapes the way in which organizational members see themselves and their world; it also constitutes the problems it claims to solve. In particular, strategic discourse is seen as having a number of specific power effects that tend to reinforce the position of management in organizations. For example, strategy can provide managers with a rationale for their actions, legitimize their power and prerogatives, and support their sense of identity. The view of strategy as a discourse has empirical underpinning in the study of IS strategy formation in a British district health authority by Jones (1994).

The whole exercise related to SISP can be seen in this light and it would appear to be an issue of convention, legitimacy and survival. This suggests that as part of formal

practice, SISP methods have symbolic properties. “Organizations are driven to incorporate the practices and procedures defined by prevailing rationalised concepts of organizational work and institutionalized in society. Organizations that do so increase their legitimacy and their survival prospects, independent of the immediate efficacy of the acquired practices and procedures “(Meyer and Rowan 1977, p.340). There is ample empirical data to illustrate this point. Based on his study of the French national planning, Cohen (1977) observes that planning is either political or decorative. In their study of the organizational life of universities, Cohen and March (1976) describe plans that become symbols. For example, an organization that is failing can announce a plan to succeed; one that lacks a piece of equipment can announce a plan to get it; what is frequently called a plan by a university turns out to be really an investment brochure, i.e. an advertisement. Companies publish prospectus to raise capital from the money market which contains a rational account of their past achievements and use such “pattern” of success as a guide for their future strategy. In doing so, they are responding to the norms of influential players in the money market rather than presenting a reasonable account of their past and a useful plan for the future.

A critical description of such practice sees it as gesture process, which is cunningly designed to suggest trappings of objectivity (Nutt 1984). This view has some degree of validity. The down side of such organizational “game” is that organizations are forced to articulate strategies that are not really there, and get caught up in all kinds of wasteful behaviours (Mintzberg 1993). “One is the pronouncement of platitudes – ostensible strategies that no one has any intention of implementing, even if that were possible (ibid).” As Mintzberg sadly reflects, if planning is fashionable, then it appears that every well-dressed organization must wear it. Planning becomes a game, appearing sometimes under the name public relations or window dressing. The issues raised in the previous sub-section and this sub-section remind us of Carl Jung’s appreciation of the role of irrational faith in giving society its coherence (quoted in Joll 1990).

## **2.5 To Serve as a Selection Tool and a Diagnostic Tool**

- SISP can be used as an ex-ante selection tool and an ex-post diagnostic tool. Used in ex-ante selection and filtering, planning is to ensure that no time, money, or other resources will be wasted on blind alleys. Referring to research and development of

weapon systems, Klein (1958) writes, “Before any major project is begun, the planners painstakingly figure out what performance characteristics the weapon system is supposed to have and the technological innovation it will contain. The development program is spelled out stage by stage and then reviewed by numerous agencies within the armed forces...(p.112)” Such vetting and monitoring may be seen as an integral part of the institutional setup of the established order to resist change. However, conservative attitude to change is not only normal but also even necessary and desirable. “An organization totally devoid of resistance to change would fly apart at the seams. . . .Because of commitments to existing technology and to forms of social organization associated with it, management must act against the eager acceptance of new technical ideas, even good ones. Otherwise, the technical organization would be perpetually and fruitlessly shifting gears. (italics in the original, Schon 1963, p.82)” To paraphrase F. Scott Fitzgerald quoted in the beginning of this paper, SISP may not be useful in bringing about IT innovation, but it has screened out many wasteful IT projects. A point to make here is that it may also screen out some very promising projects, thereby operating as an immense hurdle for innovative ideas.

While the role of SISP in ex-ante selection and filtering is ambivalent, its role in ex-post analysis is more positive. It provides a framework for a critical examination of what has gone right or otherwise in IT projects, especially complex projects involving more than one party. One example of this is provided by Johnston and **Yetton** (1996). They use a modified model of the Strategic Alignment Model (Henderson and Venkatraman 1993) to study IT integration in a merger of two large Australian banks. Another example is provided by Sauer et al (1997) who use the idea of configurational fit or alignment to do a case study of IS failures. They suggest that incompatibilities in organizational configuration can explain many organizational aspects of IS failures.

### **3 RESEARCH METHOD**

Our research method is based on the idea of a reflective practitioner proposed by **Schon** (1983). By drawing upon their own rich experiences derived from the world of practice, competent practitioners are in a position to extract patterns, to propose tentative explanations, to question dominant thinking and to suggest new ideas. The relevance of

this method for IS research is discussed by Heiskanen and Newman (1997, 1998). Its main asset, they point out, is that the practitioners are in the middle of the action and they do not need to justify their presence in their organizations.

As part of our research we used the services of two former Chief Information Officers who were known personally to us. We considered interviewing them to elicit their opinions on our findings, but we decided that it would be more rewarding both for them and the research process to let them reflect for a few days on our findings reported in the previous section.<sup>6</sup> We then made copies of their notes and send the whole set to both of the **ex-CIO's**, with a short letter inviting them to participate in a discussion of their thoughts with us. They were then asked to comment on the discussions. The findings are presented as they occur chronologically in this paper because we wish to provide our readers as much as possible the whole flavour of the whole exercise. In doing so, we hope to give some substance to the principle of interaction between the researchers and the subjects, and the principle of dialogical reasoning advocated by Klein and Myers (1999).

Getting ideas down on paper is intended here to be a means of facilitating reflection and analytic insight. It does suffer from the constraints of time and the need to supply immediate answers to questions during interviews. However, being aware of the positive effects of face-to-face conversation in generating ideas, we supplement the **reflection-in-writing** with an intensive discussion with both of the two **ex-CIOs**.

Guus Holtgreffe was the CIO of Dutch Rails in the period 1987 - 1997. During this period, Dutch Rails was undergoing a change from a centralized hierarchical organization to a decentralized organization which operated like a managerial holding. Like other state-owned railway companies, it was a huge company, employing around 28,000 people and having a turnover of around 3 billion guilders.

Steve Peters was the CIO of ANB-AMRO Lease Holding in the period 1987- 1997. The holding company owned a number of lease companies in Europe, America and Australia. Its main functions were financial control and coordination of global activities.

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<sup>6</sup> Heng and Newman (2000) is an earlier version of this paper; it contains only the first round of the reflections of the two **ex-CIOs** and no subsequent discussion conducted by the authors with them.

These activities varied from setting up businesses in foreign countries to coordinating international IT activities. The later task is taken care of by the CIO. The company was started by entrepreneurs in the early 1960s and the culture of innovation persisted into the 1990s.

#### **4 REFLECTIONS OF TWO FORMER CHIEF INFORMATION OFFICERS**

The findings of the previous sections serve as tentative probes and insights for two experienced chief-information-officers to reflect upon. They read the whole of section 2 and wrote down their reflections on paper, reported below. These reflections were subsequently sent to the other CIO for comments; the comments are printed in italics below.

##### **4.1 to organize thoughts and articulate ideas about these activities**

Guus: Indeed, modern versions of integrated information planning where market, product, process, information systems and information technology are considered and analyzed together, are especially useful to organize the multitude of ideas and partial plans of people in a company. Such a plan need to give answers to questions like:

- are the present and the proposed projects consistent to each other and to the kind of organization we are or we want to be?
- do new markets and products need new information systems and new information technology?
- do redesigned processes need new information systems and new information technology?
- which set of projects fit into the available budget?

The result of the planning process is not a recipe for the future but it may serve as a survey of coherent present and advisable future activities. Such a planning process is the more valuable if it is discussed with many people in the organization and if it contributes to the common understanding of interesting and important projects. That communication process itself is even more important than the resulting set of activities and projects.

My conclusion and experience is that the value of SISP is not only that it contributes to the organization of thoughts but that it also can be used **as a vehicle for communication.**

Steve's comments: *: I wonder why a planning mechanism is necessary as a vehicle for communication. I fully agree with the idea, that planning makes the world a bit more clear by analyzing the environment describing the necessary activities etc. In that way the planning process is indeed important. But it is just the analysis process and the planning itself is not used apart from the fact that other people can read the analysis. This is nowhere near the planning ideas **of** the central planning **offices** in history.*

Steve: Planning is a good method to organize thoughts and ideas about activities. Especially for people who are not aware of the real content of a project or future activities planning gives them some kind of feeling of being in control.

This feeling is completely wrong, because in all known cases things are happening during the project, which were not foreseen. Lucky enough there are again other methods to decide what to do and to readjust the planning.

My experience is that a planning is always adapted several times during a project because of these unforeseen events. In fact the best planning was to ask several senior people to tell their guts feeling about the expected time frame. In most cases the bandwidth of expectations was less than 10% between the different opinions. Only after that a planning was made using the original gut feeling.

The major problem in organizations is, that when a project is finished everybody forgets about the original planning. Apparently everybody is so relieved that the project is finished, that an evaluation of the original planning plus the adaptations made is forgotten.

In my opinion the learning effect of planning is small. As mentioned people do not evaluate planning processes, but assume that they know how to plan. Very often I have seen, that the planning was based on figures given by project members without any relation to reality. The figures were just given to protect their own work and to give them enough freedom without a possible penalty.

Methods like function points try to solve this but again work only well for known activities. When something new, innovative, has to be done nobody knows anything about the possible amount of time needed to complete the activity.



To my knowledge the prototype method without planning on activities, but only steering on time works for innovative project much better than planning. But of course this is a problem for consultants and managers, who have no idea how to steer an innovative project. They need indeed a method to decrease their uncertainty and apparent foolishness. They give an impression of control by showing figures given by project members, which can be used as scapegoats when the project fails.

**Guus' comments:** *Steve and I agree about the false idea that planning can be used as a tool to get control. I am more positive about the value of planning as an organizer of thoughts and ideas. The famous models and concepts like the value chain and the strategic grid are in fact useful examples of such attempts to organize thoughts and ideas. However, things are going wrong when those models are seen as surrogate reality. Steve correctly states that the real world changes faster than plans and models. The continuous search of people towards stability and certainty will be overruled by continuous change. Perhaps it is the reason why lessons learned from planning are scarce.*

#### **4.2 to present and interpret past activities,**

Guus: Naturally it is possible to rewrite the history of successful information systems as if an organisation worked according to a structured and strategy oriented planning process. It can be considered as a way of using SISP, but it is certainly not useful. Just the opposite description of history might be valuable because that would urge people to think about the real processes that caused the success.

**Steve's comments:** *Does this mean Guus is not in favour of planning as a way of describing the history (interpret past activities) and presenting it? In my opinion each planning is based on past experiences and as such a repetition of the history projected on the current situation because humans can not look in the future. Whether it is useful is another question.*

Steve: Planning is used sometimes to present the past or interpret the past activities, but as mentioned above, this is not done very often. My experience is that most people plan based on their *experience in the past*. They are building up a feeling how things should go. Of course this is a false feeling because each time a project is different. But

apparently having the experience is already a big plus compared to all other project members.

Guus' comments: *The statement **of Steve** is that people might learn to win the wars **of the past but not **of the future**. It is a pessimistic statement but true if the topics **of planning** have been changed completely. Where I am afraid **of** is the falsification **of history**. The real reasons offailures and successes have been forgotten in many cases.***

#### **4.3 to provide a sense of being in control**

Guus: Indeed, SISP and other planning systems are used as an instrument of control. To some managers it is a “kill complexity” operation. The planning instrument is used as a simplifier. Simplified situations seem to be managed in a better and more straightforward way. If the main goal of SISP or planning in general is being in control then it is, to my opinion, not useful at all. It can even be dangerous for an organization to work that way. Control cannot be achieved by a planning process. The best possible planning process is an arena, an exchange of opinions and a set of continuously changing conclusions. It may clarify the reasons why certain activities and projects are necessary or useful but it is not a reassurance for the manager. There is no guarantee that those activities and projects actually will take place. Using SISP as an instrument of control is bad management.

**Steve's comments:** *No comments, I fully agree*

Steve: Planning gives indeed a sense of being in control for the project managers and the management to whom he/she reports. But the control is only based on the progress in time. Very often it happens that either the original planning figures are based on thin air or that in case of delay functionality of the system is adjusted without telling the management. So to my opinion planning is only a way to organize the activities known beforehand based on experience of previous projects. It gives no control whatsoever in innovative projects.

Guus' comments: *: I have exactly the same opinion.*

#### **4.4 to follow norms as part of social legitimization**

Guus: Dominant business norms are highly influenced by best selling literature and the consultants practices. The absence of a SISP or an information plan is appears to be seen as a serious omission. The advocates of SISP point at successful organizations who improved their effectively or efficiency with  $x\%$ . However, the measurement of the effects is extremely difficult and the histories of failures of top down SISP are piling up. Social legitimization should not be an argument to use a new management instrument.

Steve's comments: *: Again, no comment, I fully agree. We should put all those consultants claiming to have the truth in Iran, where they can try to convince the priests. I have not seen any project succeed just because there was a planning.*

Steve: My very first experience with planning was a full denying that planning was necessary. The current management wanted to convince me that planning was necessary by explaining the way planning was done. Only after some fierce discussions taking more than an hour the only viable argument appeared, which I used thereafter to convince others. People can not plan their work over a period longer then fourteen days. So when an activity is taken more then fourteen days the project manager has to divide it into smaller activities. What I indeed have seen happening with activities planned over a period of more then fourteen day people started to work on it later because they had in their mind that it would take them shorter (of course not taking into account illness, meetings etc. because nobody likes to think about those taking away 30% of the time).

So planning is a way of becoming a member of the group, the project team.

Guus' comments: *If our planning time horizon is so extremely short why do we put all that effort in long term and strategic planning. Do you suggest that the best way of planning is: "we shall tackle what we shall see?"*

#### **4.5 to serve as selection tool and diagnostic tool**

Guus: My experience with ex-ante selection of IT-projects is that it is usually limited to the use of classic financial methods (like Return on Investment, Pay Back Period and Discounted Cash Flow). Methods using non-financial criteria are suspect and considered to be non-economic. Many managers express their suspicion by stating that at the end all

investments need to have their effects on the financial result of the organisation. It means that all the non-financial criteria (like strengthening the competitive power or supporting strategy) need to be translated in a financial value. This aversion of managers to the use of multi-criteria methods might be a hurdle for innovative ideas.

Many selection methods systematically consider the risks and uncertainties of IT projects. In practice risks and uncertainties are neglected or underestimated in many organisations. People who propose projects emphasize the expected beneficial results and avoid mentioning and calculating the effects of risks.

A comparable phenomenon appears at the use of the ex-post diagnostic tools. Diagnostic tools or evaluation instruments are useful as well as painful. It is important to learn from IS failures but people who proposed, supported, developed and built a system are generally not in the mood to cooperate with a thorough analysis of the reasons of the failure. Evaluation and diagnosis is the stepchild of IT/IS. The ex-ante selection depends on the results of the ex-post diagnosis of former projects. This feedback mechanism is extremely important but is scarcely used.

Steve's comments: *It is true that the financial aspects play the major role, certainly compared to the other factors he mentions. But I have seen many cases where the financial aspects are neglected. He himself brought up, that once you have started a project of 10 million and at 8 million spend one asks for another 10 million to finish it, suddenly the financial aspect plays another role<sup>7</sup>.*

*I fully agree with him, that in case of the ex-post decision process, evaluation is not used as it could be. Somehow everybody wants to forget failures as fast as possible without learning from it.*

*In the other side, I think that the experience of a previous success or failure plays a major role in the decision process, although it is not said so. There are enough ways to use figures to support your own decision which was already made before.*

Steve: In case of the ex-ante selection one has to realize what the background or reason of the project was. In many cases the project is necessary, maybe not at any cost but certainly without a clear cost conscience.

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<sup>7</sup> Steve made this point after our round table discussion where Guus referred to the

Especially in cases, where the project starts because of a new client or group of clients, some indication of costs were (hopefully) introduced before the contract was signed, but in most cases one just assumes that the future profit will pay for the project costs.

Other reasons for new projects, which are often uncalculated or very poorly calculated, are organizational reasons as mergers, acquisitions or major problems like the millennium change or the change over to a new infrastructure. Especially in the case of mergers, the value of the existing systems and the costs of introducing the systems in the other part of the organization is often underestimated or just denied.

The financial aspects in the decision process of managers are the major ones, although I have noticed some peculiar side effects.

It appeared for example, that each manager has his own level of costs, which he wants to accept with or without an explanation. Sometimes it was easier to get a project accepted by cutting it into pieces and presenting the pieces one after the other. It is a bit like the signing authority; when you wanted something sold in the organization, you better offered it split up instead of one big thing.

Another side effect is the amount of scoring for that manager, who had to decide. I clearly noted, that projects with the same costs for the company were differently judged, because one was in the interest area of the manager and the other was not. So, despite the financial aspects, there are other elements to consider, which are difficult to measure.

In case of ex-post selection it is clear, that experiences with previous projects have their influence on the decision process. Again, however, these experiences are not externalized. This means, that during the decision process they play a different role for each different decision taker.

From the amount of failures in projects and my own experiences I must conclude that we do not learn enough from previous experiences in such a way that we can better calculate the costs and risks of new projects. Apart from that, I noticed how seldom experience from outside is sought. Although many organizations are involved in similar projects, no one comes to the idea to ask the other. Instead one goes to consultants, who have often a financial benefit of continuing the project (with their help, of course).

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tendency of IT project costs to escalate.

Again I have noticed a peculiar side effect. Somehow there seems to be a cycle in the contents and proposed solutions of projects. When a project with a certain solution fails completely, other similar projects are not accepted until a completely new management appears. Apparently they have not asked the previous management (which could be outside the company by then).

Guus' comments: *Do people learn from previously failed projects? Steve and Z have serious doubts about it. Perhaps we have to train people to learn from failures. In various courses to managers and academic students Z presented a fictitious case of a delayed project with rising costs and a given present value of the benefits. This present value was assumed to be higher than the expected costs. Additional information about the project was not presented. The question was: "must the project be stopped or not?". To my surprise most of the people advise to continue the project, without even asking for additional information. Then Z introduced a new reason of delay and additional costs and Z put the same question again. Z continued this process of increasing costs and project time until people refused to continue the project. It was amazing that even experienced managers refused to stop the project even when the costs were more than double the present value of the benefits. People were inclined to base their decision on the future costs and time of the project and to neglect the past and the sunk costs. Some participants of the courses accused me of cheating by not mentioning the risks of the project beforehand. Most people recognized the real life value of this case and wondered why they did not stop the project earlier. Such a case might be a start of learning to carefully select new projects.*

## 5. DISCUSSION

The reflections of the two former CIOs provide some empirical evidence to support our findings based on a study of organization and IS literature. Both of them appreciate the value of SISP as a means to structure thinking and ideas about IS activities. The process of SISP serves as a vehicle of communication which contributes to a common understanding of interesting and important projects. They recognize the use of SISP to present and interpret past activities, but they tend not to value it.

They confirm the use of SISP in providing a sense of control for the managers, but for cognitive reason. The planning instrument is used to simplify a complex situation,

rather than for psychological reason for providing the users a sense of being in charge. It is not used as a means of controlling or monitoring the progress of a project.

One CIO recounted his experience of being pressured by the management in his early career to adopt planning. Though he experienced it, he did not use planning as a way to follow norms as part of social legitimization. Rather, participating in a planning project is a way of becoming part of the project team, as a socialization ritual. The other CIO said that the absence of a SISP would be perceived as a serious omission. However, **given the** general perception that top down SISP failed to deliver the goods, SISP would appear to lose its value as social legitimization.

## 6 CONCLUSION

From the point of conceptual foundation, SISP is essentially an application of the ideas of strategic planning, which in turn draws heavily from the decision model of Simon (1945). Business strategy and IS/IT strategy are seen as problems to be solved based on the Simon's three-stage model of intelligence, design and choice. It is essentially a rational model which perceives in negative light irrationality and hypocrisy. An alternative position is given by Brunsson (1982, 1990) who argues that these "negative" traits of organizational life can be a mobiliser for creating strong commitment and a preference for action to talk and analyses. Commenting on accounting research of rational choice, Mouritsen (1994) observed that attempts to install rationality appear to prevent organizations from learning, from experimenting, and from developing new and better systems. It is essentially a debate between those who emphasize rationality and those who emphasize the sociological approach. Our sympathy lies with the latter school. However, it does not mean that SISP and its methods have no *raison d'etat* at all. For example, the benefits of the process of conducting an IS planning could far outweigh the specific analytic results (Markus 1999). In an interesting way, the value of SISP is to be found in the tradition of sociology and anthropology, namely the study of organizational activities from the vantage points of signs, symbols and meaning. Such approach may **conceptualise** SISP as a communicative, sense-making process, highlighting interpretative, communicative and sense-making activities (Berger and Luckmann 1967; Geertz 1973; Schutz 1970). One way to appreciate the value of such approach is to frame the whole use

of SISP more broadly: formulating IT strategy is an organizational activity which takes place within a societal context with its culture, dominant management theory and practice, institutions, and business systems. It is an activity carried out by real people with their intellectual and psychological limitations. Looking at the whole issue this way, one can see why SISP has not been able to live up to its noble aspirations, but one can use it to serve the needs of the participants of IS/IT strategy.

The above discussion suggests that we have to re-think the design of SISP methods. If we adopt the rationalist approach underpinning the SISP methods, then there is not much to **criticise** about the current methods. as they are pretty comprehensive, coherent and instructive. If things go wrong, the problem could be with the users of the methods – their lack of understanding, experience and skill. There is however no empirical evidence to buttress such a view.

One implication of our findings is that the current SISP methods are too bulky, too complex, and too difficult to apply. This is true even for their seasoned practitioners, let alone for those less experienced. This brings us to make some concrete suggestions for the design of SISP methods. Here we wish to draw some insights from the postulate of commensurate complexity of Thomgate (1976). The postulate states that it is impossible for a theory of social behaviour to be simultaneously general, accurate, and simple. The more general and simple a theory is, the less accurate it will be in predicting specifics; the more accurate and general it is, the more complex it becomes; and so forth. As a method to structure thoughts, to articulate thinking, to communicate with others, etc rather than to draw a map for others to follow in the future, an SISP should be simple rather than be accurate and general. It must be added that whether this suggestion would work or not has to be empirically tested in practice. For example, would this simplified method produce in its turn unintended consequences?

There is an additional reason why the SISP methods cannot be accurate and general. Successful practices of strategic information systems seem to favour improvisation, experimentation, and learning (Feeny and Ives 1989; Ciborra 1994). Organizational members are in the business of enacting the future as a more or less uncharted territory, and problems have to be discovered, analysed and solved in ways that are related to the



prevailing conditions . These characteristics of the endeavour would rule out the assumption that the model underpinning the SISP methods can be both general and accurate.

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