A Comparison of Dutch Methodologies for Information Planning and Policy

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In this paper a comparison is given of dutch methodologies for information planning and policy. This is done on the basis of three frameworks: Galliers, Stegwee and Van Waes, and Theeuwes. Galliers is used to give an overview, the other two frameworks are used to give a more detailed picture. The frameworks are joined, to be useful as a tool for positioning the selected methodologies. Most of the methodologies we describe were developed between 1989 and 1992. They mostly cover business-issue-driven characteristics. SDM is an exception. First developed in 1974, it gives a view of information planning in the earlier years. However, there is not much difference between the recent methodologies and SDM. In general, one can say that pro-active and strategically oriented methodologies are lacking. Moreover, most methodologies lack a sound foundation with respect to the design and development aspect. This conclusion corroborates empirical findings, which report that the link between information systems planning and information systems design and development is cumbersome.

Methodologies for information planning and policy formulation are developed and used in a great variety of ways. In this paper we try to position dutch methodologies, for information planning and policy. Because of the different meanings given to information policy and information planning we like to present the definitions we have applied in this paper. For information policy we use the definition Boersma (1992) has given:

Information policy is a framework of statements that functions as a guideline for the development and implementation of an information plan.

For information planning we use the following definition:

Information planning is the articulation of a decision making process aiming at the specification of an information plan, which is to be used as the basis for the development of information systems as specified by the plan. As such, it involves planning the application of information technology and the development of information systems support throughout an organization (Stegwee, 1992b).

The methodologies are positioned on the basis of a framework that is constructed by Galliers (Galliers, 1990; Hirschheim, 1982). Galliers’ framework will be explained in the first paragraph. This framework is a rather broad picture, so we have also made use of more detailed frameworks, which will be explained in the first paragraph as well. Stegwee and Van Waes (1990) give a framework for mature ISP-processes. Another framework for positioning the methodologies is Theeuwes’ framework (1988). He describes the levels of planning in his information planning pyramid. After having described these frameworks we try to analyze the methodologies by positioning them in the frameworks. This will be done in the second paragraph. For this paper eight dutch methodologies were analyzed. In the third paragraph we will give a conclusion on the basis of the analysis of the methodologies within the three frameworks.
Frameworks for Analysis

The following paragraph will provide a description of the applied frameworks. The frameworks will be presented separately in the following sections. The final section of this paragraph will attempt to integrate the frameworks. The combined frameworks will be used as our tool for positioning the selected methodologies.

Galliers’ framework

Galliers made his framework while placing trends over the years. As time passed the focus of Information Systems Planning (ISP) changed. In the early writings of ISP, the IS function was somewhat isolated from the on-going business of the organization. The attention was focussed on computer efficiency and matters of computer management generally. Later the attention was given to business-driven information system plans, due to a growing concern on the part of management. These plans had to be capable of dealing with the business problems/issues that management faced. Examples of the business-driven planning methods are IBM’s Business Systems Planning and Rockart’s Critical Success Factors. The approaches were reactive, mainly concerned with top-down planning. Management realized that they were concentrating too much on issues of the present, rather than on future goals/concerns. As a result, much attention was focussed on business-driven approaches that were focussing on the latter. Although these approaches were still reactive they paid attention to the future opportunities of the application of IT. Identifying IT opportunities through ISP efforts, “middle-out” approaches became more common. ISP became more proactive; the attention was on an organization’s business environment as much as on internal processes. In the mid- to late 1980s elements of each of the foci are likely to be more or less required in different circumstances. Examples are the more eclectic/multiple methods (Sullivan, 1985; Earl, 1989). Galliers gives an outline framework for classifying information systems planning approaches (Figure 1).

There are three domains of information systems planning, distinguishing those that are concerned with efficiency (‘bottom-up’), effectiveness (‘top-down’) and competitiveness (‘inside-out’) (Sinclair, 1986). Combining Galliers’ framework with the three domains, results in a single, coherent frame in order to provide a clearer understanding of information systems planning (Figure 2). A business-driven methodology takes a management point of view as the starting point for analysis (top-down), in other words ‘business’ initiates the study. The focus will usually be on IT. Looking at it from IT (bottom-up), ‘business’ is the study-object. The more eclectic/multiple methods (inside-out) try to combine the approaches. They recognize that the older approaches (in time) should not be forgotten, but are still useful in information systems planning.

ISP approaches can be used to review the motivations of various stakeholders in the process. These can be compared with (i) the prevalent motivations that exist amongst different stakeholder groups in any given situation and (ii) the kinds of outcomes produced by different ISP approaches; for example, the focus of the ISP process can be on producing an applications portfolio or on specifying a database architecture.

Although the framework of Galliers is a useful tool for a rough positioning of the methodologies, it does not give a detailed view of the differences between the methodologies. In order to give a more detailed judgment, use has been made of more detailed frameworks.

The framework of Stegwee and Van Waes

The framework developed by Stegwee and Van Waes (1990) is the second model that will be used to describe the dutch methodologies for information policy and planning. Their model is based on a description of stages of growth in information planning, along the same lines as described by Galliers (see previous paragraph). In the mature stage of information planning, comparable to Galliers’ eclectic/multiple methods, they render the following picture of information planning (Figure 3).

Several remarks can be made on the basis of this figure. Foremost is the realization that ISP need not be derived from business planning, but can be used, in a more pro-active way, as one of the key determinants of business strategy. Information planning is no longer viewed as a comprehensive, one time only, process. Rather, several options are available,
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