

# Challenges and Pitfalls in Portal Information Management

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## INTRODUCTION

One major objective for information portals is to provide relevant and timely information to their intended target groups. The main challenge from an information management perspective, however, is that the portal itself does not have full information ownership, and therefore cannot guarantee information quality. Poor information quality severely decreases the actual business value of a portal, but the quality of the portal information is inherited from the underlying sources. The case study we present illustrates the evolution of the Swedish Travel and Tourism Council's (STTC) national Internet portal through three phases, thereby unmasking some of the core problems in portal information management: information ownership, stakeholder incentives, and clear business roles in the content provision process.

Information portals have been on the business agenda since the hey-days of the Internet era, and can as a concept originally be attributed to Yahoo! Inc., an Internet search service that has categorised Web information since 1994 (see [www.yahoo.com](http://www.yahoo.com)). However, the portal concept has during the last 10 years emerged to encompass much more than merely a set of links to Web pages. In early 2000, industry trend-watchers forecasted that portal development in corporations would skyrocket. Delphi Group reported that 55% of Fortune 500 companies already had corporate portal projects in progress and Gartner Group predicted that more than half of all major companies by the end of the year 2001 would have corporate portals as the primary method for organising and discovering corporate resources (Detlor, 2000). The hype can partly be attributed to highly overtoned statements found in management literature: "The corporate portal is the most important business information management project of the next decade" (Collins, 2001) or *Information Week's* speculation whether portals will become "the next generation of desktop computing [and] ... do for global knowledge-work what the railroad did for the industrial revolution" (Koulopoulos, 1999). However, as Dias (2001) points out in her review of portal literature, the benefits are still to be seen. Following her review, it is evident that there is still no scientifically sound proof and most of the claimed

benefits are merely anecdotal with Detlor (2004) as the obvious exception. Dias concludes by calling for more real case studies of portal implementations in order to verify these claims and we therefore intend to make a contribution by reporting from an actual case study. In our work we focus on the back-end side of enterprise portals, that is, the integration point with all underlying information resources.

## BACKGROUND

This work has been carried out in close collaboration with the Swedish Travel and Tourism Council (STTC), as a longitudinal qualitative case study (Landqvist & Stenmark, 2006). In 1999, STTC, the Swedish Tourist Authority and the Swedish Tourist and Travel Industry Federation started two inter-organisational development projects, one aiming to increase knowledge sharing within the tourism industry (see Landqvist & Teigland, 2005), and one that intended to enhance the visibility of Sweden on the Internet (Visit-Sweden). In this text, we focus on the latter, and have interviewed the infomaster and CIO of STTC.

The tourism industry has already been recognised as highly fragmented and in need of various collaboration and coordination efforts. Research on tourism development has hence highlighted the importance of engaging all potential stakeholders, and to do so early in the development process (Aas, Ladkin, & Fletcher, 2005). When it comes to stakeholder participation and IT projects, Irani (2002) showed a relationship between the level of involvement in the concept justification phase and the level of commitment towards project success. Beecham, Hall, Cottee, and Rainer (2005) show that lack of stakeholder input in requirements engineering processes is a major problem and a cause of project failure.

Regarding portal design, researchers have acknowledged the need to involve stakeholders. To illustrate, Detlor (2004) advocates participatory design (PD), that is, an approach which lets the users take active part in eliciting requirements and making decisions. According to Detlor (2000), PD is a "robust and comprehensive method by which to secure a

useful and well-utilised portal system” (p. 78). Three factors contribute to this. First, without actual users it is difficult for developers to correctly identify how knowledge is being utilised across the organisation. Second, portals span the entire organisation and must thus be based on the input from all stakeholders. Third, a portal changes the daily routines of the organisation. To ensure the buy-in from as many users as possible, they should be involved early in the development process.

However, Detlor’s suggestions relate to the design of the portal *per se*. Even though no single definition of what a portal is has emerged most commentators seem to agree that a portal should be understood as the integration of application software and information infrastructure, able to aggregate a selected subset of information to through a central location (Shilakes & Tylman, 1998). A portal’s primary function is thus to provide *easy access to information and service already available elsewhere and not itself act as such a source* (Detlor, 2000) (emphasis added). For this integration to work, the underlying information and services must be very precisely aligned, but it is unclear how this alignment is supposed to happen. This back-end side of the portal has not been covered by previous academic work nor is it described in the trade press or in the vendors’ brochures. It seems that the integration is tacitly understood as trivial, but, as our case shall illustrate, this is far from the case. On the contrary, the work required to align information and services in such a way may exceed the benefits for the information owner, and hence overturn the entire portal implementation.

The focus of the business case will not be on the technical aspects of the portal itself but on the demands the portal places on the underlying information resources and how stakeholder involvement affects the degree to which these demands are met.

### SWEDISH TRAVEL AND TOURISM COUNCIL PORTAL

The Swedish Travel and Tourism Council is a national organisation, responsible for the promotion of Sweden as a business and leisure travel destination. STTC is owned equally by the Swedish Government and by the Swedish tourism industry. The main focus is marketing, information, coordination and distribution to the travel trade, media and consumers. The business objectives are to ensure attractive and enriching experiences while traveling in Sweden, improve profitability for companies and cooperative organisations in Sweden, and increase income and enhance prosperity for Sweden as a nation.

In the rise of Internet as the main channel for communication and marketing within the tourism industry in the late 1990s, STTC realised an urgent need to provide an

Internet platform for easy access to the Swedish travel and tourism experience. This was the starting point for STTC’s information portal Visit-Sweden.

The Swedish tourism industry as such is very entrepreneur driven, dominated by small and medium sized enterprises, geographically spread, and very branch specific. In addition, there are also some very large entities within the industry, for example, hotel associations or strong Swedish tourism brands that stand out such as Glasriket (the Crystal Kingdom). The tourism industry also has political dimensions, since all regions and cities do their best to draw attention to their particular offerings. The complexity of the underlying information environment was (and still is) overwhelming. The information resources could either be a simple home-page for a one-man company out in the bushes, a portal with several context-specific features and applications, for example, a hotel booking systems or a regional content intensive site. The diversity and chaotic nature of the information sources made the application development extremely intricate.

A set of stakeholders from the tourism industry was allocated and tightly involved in the identification of the requirements as well as in the incremental site construction as such. A market analysis was also carried out to illuminate the end-user demands on a tourism portal of Visit-Sweden’s magnitude. Throughout all the different development phases described, STTC used end-user involvement through usability testing in a test lab. This was combined with industry stakeholder involvement to set the priorities corresponding to end-user needs. The industry stakeholders had a broad representation of the industry as such, but none of them were also owners of the key information resources that needed to be aggregated into the portal.

### First Appearance: Pilot (1999)

The business driver behind the first pilot of Visit-Sweden was to allow visitors to find Swedish tourism experiences. This vision led into the domain of search portals, that is, a search engine-driven Web site. It did not go as planned, however.

Even though a multitude of tourism sites were readily available, they were hard to track down in the information gathering processes. The fine tuning of the different Web crawlers was cumbersome and very manually intense, and the central administrators were not particularly experienced with search engine configuration. Another problem with the sites that actually were indexed was that the information quality was so low. The Web sites contained both test data and outdated information that cluttered the index and hid the more useful pieces, since the awareness of searchability was not present in the mindset of most site owners. Consequently, neither a guide to the site structure (robots.txt file) nor relevant metadata were present.

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