

# How Groupware Systems Can Change How an Organisation Makes Decisions: A Case Study in the Publishing Industry<sup>1</sup>

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## INTRODUCTION

In this article, a newspaper company which has implemented a computerised editorial system is studied in an attempt to understand the impact that groupware systems can have on the decision making processes of an organisation. First, the case study protocol is presented, and the findings of the case are described in detail. Conclusions are then presented which pertain both to this case and to the implementation of decision support systems that have a groupware dimension.

## BACKGROUND TO THE CASE

XYZ Publications Ltd (XYZ) is a news organisation which has published two newspapers: a national morning newspaper and a local afternoon newspaper, since the 19<sup>th</sup> Century. The publishing industry is one which has faced many challenges over the last 20 years and XYZ has undergone considerable change of both structural and commercial nature consistent with what has happened in the rest of this industry.

In XYZ, the researchers interviewed key actors in an attempt to understand the nature of the changes undergone by the firm and their implications for the decision making routines of the firm. One of the key changes was the implementation, at the end of a long process of analysis, of a collaborative computer system to support the creation of the newspapers.

A case study protocol was put together which focused on understanding in detail how editorial and commercial decisions are made, that is, how knowledge is collected, stored, selected, organised, and circulated.

We also analysed the impact which the implementation of the groupware editorial system has had on decision making processes. Our interest in this case was motivated by the observation that XYZ has a very open decision making style, a highly developed circulation of information, and very quick decision making cycles reflecting the nature of the industry in which XYZ operates. This gave the opportunity to observe many repetitions of editorial decision making cycles within a short timeframe.

## MAIN FOCUS: THE STUDY AT XYZ

Management and decision making at XYZ is overwhelmingly characterised by the nature of the firm's activity, whereby the publication of two daily newspaper titles dictates the pace of every aspect of operational decision making. One interviewee likened this situation to working for a company which must produce two new products every day; each of these products having a life span of 6 hours maximum! This cyclical process has implications for every aspect of XYZ's business as key decisions related to the information content of the papers and the key steps that lead to them are repeated every few hours following highly informal processes nevertheless routinised by usage.

Thus, whatever happens, the national title must be ready for 2:00 a.m. while the local title must be ready by 12:00 p.m. and all the work is organised around these two daily deadlines. The natural leaders of the organisation are the editor-in-chief, the sales manager (in charge of selling the advertising space without which no newspaper can exist) and the Managing

Director (MD). The finance department plays more of an arbitration role, reminding actors that maximising revenues is also critical to XYZ's success (even good newspapers can go bankrupt) as some editorial decisions are sometimes very costly and have an uncertain impact on the short term and long term success of the paper. This dichotomy between editorial decision making and editorial expenditure on the one hand, and the financial success of the newspaper on the other hand, is a fundamental feature of this case study.

## CHARACTERISING DECISION MAKING AT XYZ

Decision making in XYZ is characterised by two dominant types of problems. These are: editorial decisions and decision about the sales of advertising space, which overall must "balance the books." In these two areas, XYZ's managers display different styles and use different routines as explained in the next sections.

### Editorial Decision Making

The core decision making process at XYZ is concerned with the creation of the two newspaper titles, twice a day. It is characterised by an abundance of routine, unstructured decisions made by the editorial team from its core position at the centre of a complex network of information-rich relationships with a large number of actors inside and outside the firm. The production of a newspaper necessitates the availability of news and its selection and organisation in order to create an interesting and relevant end product. Access to information and information sharing are, therefore, fundamental factors in enabling an editorial team to perform its task. There are also key internal linkages between the editors and the manager for sales of advertising space (because the news can be used as an incentive for certain organisations to advertise) and the finance manager (to establish whether the newspaper can afford certain high profile reports).

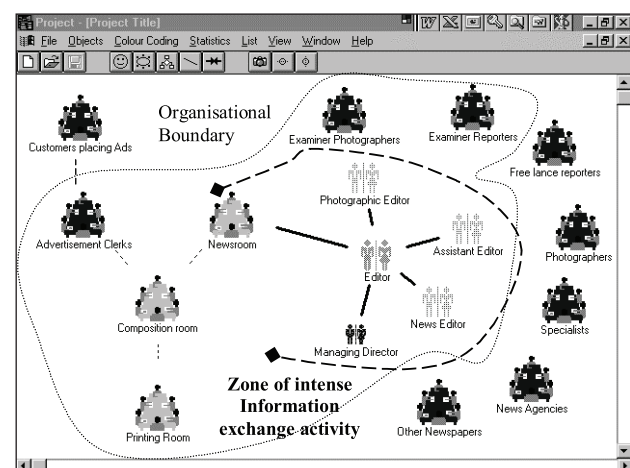
### Sourcing Information

The Editor-in-Chief explained that XYZ's sources of information are plentiful, which is required in order to guarantee the continuous flow of news, pictures, and opinion pieces that make up a daily newspaper. Thus,

even though the newspaper employs around 300 people, XYZ is connected to dozens of free lance journalists from whom material is purchased. Similarly, foreign reports are purchased from international agencies or exchanged or purchased from local newspapers. This highlights a fundamental aspect of the newspaper business: newspapers sell as much information as they buy. Thus, networking, that is, creating webs of contacts in order to trade information, is the most fundamental aspect of the work of senior managers at XYZ. This applies in particular to the MD, the two full time editors, the five assistant editors, and the many subeditors.

This aspect of XYZ's business is illustrated by the area of dense information exchange between internal actors and the external sources of information represented in Figure 1 (production process at XYZ). Figure 1 shows one of the dense clusters of relationships that exist in XYZ and highlights the density of relationships with the outside. This illustrates XYZ's information web and the two dense clusters structured around the editorial and ad sales functions. However, our observations revealed that the networking aspect of XYZ's business is primarily an individual activity. Contacts provide information to their usual source, not to anyone indiscriminately. Much collaboration is required to create a newspaper, but the "address book" of editors and assistant editors is their private asset and the management of this key organisational knowledge escapes any form of central control. In this case, the only way to manage the overall company's address book is to get (and keep) the proper mix of people.

*Figure 1. Production process at XYZ*



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