The Information Overload Paradox:
A Structural Equation Modeling Analysis of Data from New Zealand, Spain, and the USA

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ABSTRACT

The information overload phenomenon has been studied for many years, and has proven to be more complex than researchers believed it to be. The study presented here aims at shedding some light on the complexity of information overload, by examining the relationship between perceived information overload intensity and three traditional and one nontraditional information overload predictors. The nontraditional predictor was power distance, which was manipulated through the collection of data from 184 local managers and professionals in New Zealand, Spain and the USA. The data analyses employed partial least squares-based structural equation modeling, and led to one surprising conclusion: perceived information overload intensity seems to be more strongly related to power distance than to the volume of written information or number of information transactions processed by an individual. This conclusion is referred to here as the information overload paradox. [Article copies are available for purchase from InfoSci-on-Demand.com]

Keywords: Hofstede’s Model; Information Overload; New Zealand; Partial Least Squares Method; Power Distance; Spain; Structural Equation Modeling; USA

INTRODUCTION

Typically information overload has been viewed as problematic and as leading to losses in work productivity and quality of work outcomes. Information overload has also traditionally been a driver of information technology developments; information technology solutions have often been developed specifically to help individuals cope with information overload (Foley, 1995; Turetken & Sharda, 2004). As early as 1970, the award winning writer and futurist Alvin Toffler argued that information overload would become one of the main problems facing modern society and organizations (Toffler, 1970). The emergence of the Internet and its increasing use by individuals and organizations (Chung & Tan, 2004; Teo, 2007) has been presented as
contributing to increasing levels of information overload (Kiley, 1995), apparently lending support to Toffler’s (1970) prediction.

Generally speaking, information overload can be defined as a state in which the amount of information an individual must process exceeds the individual’s information processing resources (O’Reilly, 1980). This does not necessarily mean that if an individual’s own mental information processing resources are limited information overload will necessarily ensue. Some individuals may use tools, such as information systems, or even other individuals (e.g., assistants) to effectively cope with information overload. Therefore, it is possible that an individual may be responsible for processing a great deal of information, much more than he/she could process alone, and yet experience little or no information overload.

That one can effectively cope with information overload through technology and human assistants highlights the complexity of the information overload phenomenon, and the need for more creative studies addressing it. Such studies arguably should include investigations involving different organizational cultures, since the nature of the interaction between individuals in an organization may strongly affect perceived and actual levels of information overload experienced by the various members of the organization. Certain organizational cultures may incorporate unstated rules of interaction that push information overload away from individuals higher up in the organizational hierarchy, and onto their subordinates’ shoulders. That may happen if there is a perception among managers and professionals that this is an acceptable state of affairs; a perception that may be motivated by large differences in organizational power held by different organization stakeholders.

The study presented here aims at shedding light on the complexity of the information overload phenomenon by looking at it from a different and arguably novel lens. The study examined the relationship between perceived information overload intensity and one non-traditional and three traditional information overload predictors. One of the goals of the study was to compare the influence, if any, of the nontraditional predictor against the more traditional ones.

Power distance was the nontraditional predictor. Power distance is part of Geert Hofstede’s model of cultural dimensions (Hofstede, 2001; Lippert & Volkmars, 2007), and is defined as the extent to which less (and more) powerful members of organizations (e.g., employees and their supervisors) accept that power is distributed unequally.

The traditional information overload predictors were the volume of written information processed by individuals, in terms of pages read and written on a daily basis; the number of information transactions, or the average number of information giving and information receiving interactions per working day; and business process knowledge, assessed as the number of months of formal education and hands-on practice needed to perform work-related activities well.

This is a cross-cultural research study (Hunter, 2006) in which variations in the power distance predictor were incorporated into the study’s design through the collection of data from three different countries, which also differ significantly in terms of power distance. Data were obtained from 184 local managers and professionals in New Zealand, Spain, and the USA. The data were analyzed employing partial least squares-based structural equation modeling. The analysis led to one surprising conclusion, which is that perceived information overload intensity is more strongly related to power distance than to the volume of written information or the number of information transactions processed by an individual. This surprising conclusion is referred to here as the information overload paradox.

**RESEARCH BACKGROUND AND HYPOTHESES**

Much research on information overload has taken the view that the phenomenon has both organizational and societal implications (Ed-
Gendering Professionalism in the Internationalization of Information Work
www.igi-global.com/chapter/gendering-professionalism-internationalization-information-work/62875?camid=4v1a

ERP Misfit-Reduction Strategies: A Moderated Model of System Modification and Organizational Adaptation
www.igi-global.com/article/erp-misfit-reduction-strategies/73789?camid=4v1a