Chapter 15

Information Culture and Effective Use of Information Tools at Work:
Conceptualizing and Measuring Group Adoption

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ABSTRACT

Office work is increasingly collaborative in the 21st century. 'Information culture' is a broad set of values and behavioural workplace norms pertaining to information management and use. To investigate whether information culture influences use of collaborative information tools, conceptualization and measurement instruments are presented for information culture and measuring effective use. 'Group adoption' is a behavioural proxy for effective use, and 'information sharing' and 'proactive information use' were selected as behavioural proxies for information culture. In a study of an engineering firm, group adoption was correlated with actual use of an information tool and with two tool attitude measures. Group adoption was also correlated with both information culture measures. The findings here suggest new avenues of research into the broader applicability of group adoption, and the ways in which conceptualization and measurement of information culture may be further developed.

INTRODUCTION

Overview

This chapter explores two complex and inter-related constructs. The first is *information culture*, lying at the intersection of organizational culture and how information is used at work. The second is *group adoption*, resolving the multiple ways of conceptualizing and measuring effective use of knowledge sharing tools. Having defined these, the central research question is then explored: what impact might information culture have on group adoption of tools intended to promote knowledge sharing and use?

This chapter unfolds in four parts. The balance of this introduction provides a general foundation for information use in workplace groups. The second section develops a definition of information culture, rooted in organizational culture and related theories that focus on behaviours and norms concerning the use of information in a group. The third section explores ways in which effective use has been conceptualized in the literature, making the case that group adoption is a useful construct for studying the role of information culture on the use of tools to support knowledge work. The final section presents empirical evidence that information culture and group adoption are measurable and clearly related.

When considering aspects of culture, workplaces, and collaborative tools, the level of analysis is necessarily the workplace "group," a term that requires a clear definition. For some researchers, the term refers to an assembly of strangers brought together temporarily, as for a lab experiment; for others, the term denotes a stable collection of people who work together regularly. This latter definition is how "group" is used in this chapter. In the words of Guzzo and Dickson (1996), a group is one whose composition is stable over time, who work together with a set of shared goals, and:

Who see themselves and who are seen by others as a social entity, who are interdependent because of the tasks they perform as members of a group, who are embedded in one or more larger social systems (such as an organization) and who perform tasks that affect others outside the group. (p. 308)

What is important here is that "group" is a relatively amorphous construct; groups are bounded by their particular conditions of membership, be they formal/functional (e.g., project teams), professional (e.g., communities of practice), geographical (e.g., employees of a branch office), or predominantly social (e.g., communities of interest). Thus, within an organization, groups may be constructed at many levels, including that of the organization itself. Individuals may therefore belong to several groups in an organization, and groups may have their own distinctive norms.

Information Processing in Groups

Most twenty-first century offices are increasingly characterized by collaboration among groups of workers using tools to support this work, as opposed to lone, individual work. There is considerable evidence that the way individuals think and use information can be quite different in a group setting than on their own. For example, it has been known for a long time that, at least in some situations, a group will outperform an individual (e.g., Chartier & Abele, 2017; Shaw, 1932) and that a group typically shows emergent characteristics that are very different in many respects than those of its individual members (e.g., Smaldino, 2014; Davis, 1969). There is also broad evidence that group discussion can produce a shift in final group consensus from the mean initial opinions of its individual members. This has traditionally been known

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