Ownership of Collaborative Works in the Cloud

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ABSTRACT

Increased usage of cloud storage and other networking technologies in knowledge management (KM) systems leave companies vulnerable to loss of proprietary rights as intellectual property law struggles to keep up with these advances. This paper reviews the current legal environment surrounding cloud and collaborative KM, discusses the implications for KM, and makes recommendations for how gaps between legal protection for intellectual property and KM can be overcome/corrected. Additionally, the paper explores how aware KM personnel are of this risk and proposes a further study using the who owns it game.

Keywords: Cloud Storage, Intellectual Property, Knowledge Management, Knowledge Management Systems

INTRODUCTION

Knowledge Management (KM) is about capturing knowledge created in an organization and making it available to those who need it to make decisions. KM achieves this by helping organizations leverage what they know and by improving connectivity between knowledge sources and/or knowledge users. Much of the emphasis in KM research is focused on creating and measuring knowledge impacts on organizational performance and competitive enhancement (Alavi and Leidner, 2001; Davenport and Prusak, 1998; Jennex and Olfman, 2005, 2006) and explores how to mitigate knowledge sharing barriers and organizational issues to enhance the flow of knowledge to those who need it to make decisions and create products/services (Cleveland and Ellis, 2015). Additionally, technology research focuses on how to improve technologies to make knowledge discovery, creation, storing, transfer, sharing, and use easier. One such technology being adopted for facilitating knowledge storage and sharing is cloud computing.

Cloud technologies are service based products such as Software as a Service (SaaS), Infrastructure as a Service (IaaS), and Platform as a Service (PaaS) that are hosted on the web by providers who offer the services internally or externally to other organizations. Cloud services provide cost savings to organizations by allowing organizations to utilize only the services

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they need while at the same time being easily scalable to meet future needs. Organizations use the cloud to support KM by providing storage and tools for knowledge manipulation, capture, and/or use in a central location that can be accessed by users who can be located anywhere in the world (Kajiyama, et al., 2013). Since the cloud is available to anyone on the Internet it is supporting the need for collaboration resulting in knowledge creation and innovation and is encouraging organizations, particularly smaller organizations, to create and use virtual teams and knowledge networks, small intra-organizational groups tasked with knowledge sharing, creation, and innovation.

While improving knowledge flow, sharing, and use is very beneficial to increasing innovation in organizations, and there is much research focused on these aspects; there is little research looking at the potential risks. Cloud technologies are easy to use and are widely adopted for helping teams and organization innovate and do KM. However, there are many risks associated with the security of knowledge on the cloud (Sophos, 2013, 2014). Jennex and Durcikova (2014) summarized the literature associated with KM security and found it to be focused on the technical issues associated with cyber security technologies and technology risk assessment (including cloud technologies). Little to no literature was found on the legal risks to intellectual property associated with using cloud technologies and approaches for KM and innovation. An additional concern is that the literature shows that small organizations tend not to have the expertise needed to address security risks (Dimopoulos, et al, 2004; Jennex, Addo, and Walters, 2004) making them even more susceptible to the loss of intellectual property.

This paper explores the legal risks of applying cloud based KM to managing knowledge and intellectual property in networked environments. Specifically, there is a gap between the current state of intellectual property law and the current state of technology and KM practice. This gap leaves companies vulnerable when using KM systems that utilize modern networking technology such as cloud storage. Additionally, the current state of intellectual property law leaves companies vulnerable to loss of proprietary interest over knowledge shared on knowledge networks and cloud based KM systems, suggesting the need to provide default statutory rules over network transactions. Also, collaboration between companies presents a large risk to the intellectual assets of the participants; intellectual property law needs to provide guidelines for these interactions. Companies need to be aware of the risks provided by both cloud usage and collaborative efforts so that they may protect themselves and push for change in the industry. Finally, how aware are KM managers and personnel of these risks to intellectual property when using the cloud to facilitate? This paper explores the literature and reports an exploratory study based on a survey developed to explore if KM practitioners are adopting cloud technologies and to determine how aware respondents were of the legal environment for intellectual property and the cloud.

The scope of this paper is limited to the intellectual property landscape in the United States. It is recognized that much collaboration and innovation is occurring across national boundaries and as such the issues discussed are impacted by the intellectual property laws of these other countries also. However, it is considered a good first step to first understand the legal environment of the United States due to the importance of the United States in the world economy.

**METHODOLOGY**

This paper utilizes legal research methodology. Legal research methodology is not conducted the same as social research in the information systems (IS) tradition. IS research tends to be quantitative (using surveys) or qualitative (case study, action research, design), or a mixed method. Legal
A Novel Practical Triangular Approach to Process Innovation: VDF Model
Daniela Butan, Emma O'Brien, Mark Southern and Seamus Clifford (2011).
Knowledge Management for Process, Organizational and Marketing Innovation: Tools and Methods  (pp. 165-181).
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