Motives for Participation in Formal Standardisation Processes for Geographic Information: An Empirical Study in Sweden

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ABSTRACT

The purpose of this article is to investigate the personal motives for participation in formal standardization processes for geographic information. The method involved interviewing members of technical committees at the Swedish Standards Institute, SIS. The results are that the majority of the interviewees are very motivated in their work and they think their participation is well-financed by their organizations allocating them to a technical committee. The main motives are to contribute to development of society and be at the forefront of development. However, this article also shows that several members participating in this study felt that they do not have sufficient time for working with tasks related to their technical committees. Their daily work in their respective organizations often has higher priority in relation to standardization work. This contrasts with the organizational goals of the participating organizations and may slow down the development of standards and other publications due to lack of resources.

KEYWORDS

Cultural Historical Activity Theory, Geodata Infrastructure, Geographic Information, Motivation, Motivation in Projects, Project Management, SIS, Standardization, Swedish Standards Institute

INTRODUCTION

This article explores motives for participation in formal standardization processes for geographic information in Sweden. Geographic information is a common term for information describing the physical world around us (for example buildings, roads, forests and administrative boundaries, and e.g. presented on maps) and related information. To participate in a formal standardization process may require huge resources from the participants (Riillo, 2013). Standards are however not “trade secrets”, but available for others, such as competitors, for a fee after acceptance by the standardization body. The motives for participation in standardization processes do therefore not solely rely on the protection of ideas for the companies involved, but can also for example be motives such as to share technical and/or strategic knowledge and/or access to markets (Bild & Mangelsdorf, 2016; Riillo, 2013), thus gaining either technical and/or economic advantages.

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Geographical information has gained much interest during the last decades due to the increased use and exchange of digital data describing geographical and administrative features. Standards and related documents, such as technical reports, play an important part in this. Examples are the technical guidelines (data specifications) specifying common data models, code lists, etc., to be used when exchanging geographic datasets in accordance with the European INSPIRE directive providing a spatial infrastructure for Europe (European union, 2007). The benefits of standardization in the field of geographic information are well known and the development of formal standards have been in focus for several years, e.g. by private and public stakeholders participating in technical committees, TC, at the Swedish Standards Institute, SIS, for more than two decades.

The authors have not identified research on how individuals are motivated in standardization work in geographic information and hope this article will be a contribution to this field of study.

There is a long tradition for implementing international standards for geographical information and to develop national standards when international standards are not available. Examples are the International Organization for Standardization’s [ISO] 19100 series of standards for geographical information, i.e. specifying how to describe geographic information (ISO, 2014), the Swedish standards for application schemas for municipal zoning plans, SS 637040:2016 (Swedish Standards Institute [SIS], 2016) and road and railway networks, SS 637004:2009 (SIS, 2009). Sweden has recently adopted a national strategy for advanced cooperation for open and usable geographic information via e-services (Lantmäteriet, 2016). The strategy state, among other things, that the use of standards is of major importance for achieving an effective infrastructure for, among others, data exchange, digitization of public administration, more effective social planning processes, defense and civil contingencies. Standards are in other words an important part of the nation’s “invisible infrastructure”, a term coined a decade ago by the Swedish government in regard to increased cooperation concerning IT standardization in the public sector (Swedish government, 2007).

Standardization in the field of geographic information is a central part in the Swedish land use and planning infrastructure and, for example, play a vital part in the national Swedish strategy for geographic information infrastructure 2016-2020 (Lantmäteriet, 2016). An example is the initiative providing governmental agencies, municipalities and other organizations easy access to data within the Swedish geodata cooperation initiative. A third example illustrating the importance of geographical information standards is the financial agreement between SIS and Lantmäteriet, the Swedish mapping, cadastral and land registration authority, allowing the free-of-charge use of a number of standards within the Swedish geographic information sector (SIS & Lantmäteriet, 2017).

**Research Question**

This article presents the results of an investigation regarding participants’ personal motives for participating in formal standardization work at the Swedish Standards Institute, SIS, concerning the production of standards and related documents (such as national profiles and other publications) for geographic information. The Swedish Standards institute’s TC for geographic information stated in 2012 that it sometimes is difficult to recruit new participants to the technical committees (SIS, 2012). This is also an observation shared by one of the authors after having been involved in TC-work for more than a decade.

The research question investigated here is how a standardization project, intended to develop standards, technical reports and other guidelines for geographic information, is perceived as motivating by the project team members?
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