Experiences of Wiki use in Finnish Companies

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ABSTRACT
The objective of our study was two-fold. The first and most important objective was to gather experiences on the use of wiki software in Finnish companies. The second objective was to study the frequency of the use of wikis among Finland's 50 biggest companies. Twenty answers on wiki use experiences were received, the responses were divided fairly evenly into different sized companies which operate within different branches. The following questions were surveyed: reasons for the introduction of wikis, purposes of use, motivation methods, introduction processes, present purposes of use, integration of wiki applications to other operating systems, experienced problems and advantages, and tailoring of wiki applications.

Categories and Subject Descriptors
K.6.0 [Management of computing and information systems]: General - *economics*

General Terms
Design, Economics, Experimentation, Security, Human Factors.

Keywords
wiki software, company use, adoption, user experience, motivation

1.INTRODUCTION
Wiki software and platforms have gained attention as a technology that promises to change forms of work, education and commerce [1]. While the best-known example of wikis, the Wikipedia, is already receiving considerable scientific attention, at the same time companies and other organizations are starting to adopt the technology [2], [3]. However, the motivations and reasons for adoption as well as the gains and problems are little known. The purpose of the preliminary study presented here is to shed some light on the questions of wiki adoption, implementation, use, benefits for users and problems in the context of Finnish companies.

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2.RESULTS FROM THE STUDY
For the first part of the study, the 50 biggest Finnish companies in terms of turn-over [4] were contacted: we caught about 80% of them. Among the companies examined, over one fourth used wikis and in addition to these a little under one fourth was considering testing or use (see Figure 1). In total, 59% of the companies were either using, testing use or considering using wikis. The figure is relatively high, considering that a large part of the 50 biggest companies operate on so-called traditional sectors, where the penetration of social media and web 2.0 applications is often lower than in companies working with ICT and telecommunications.

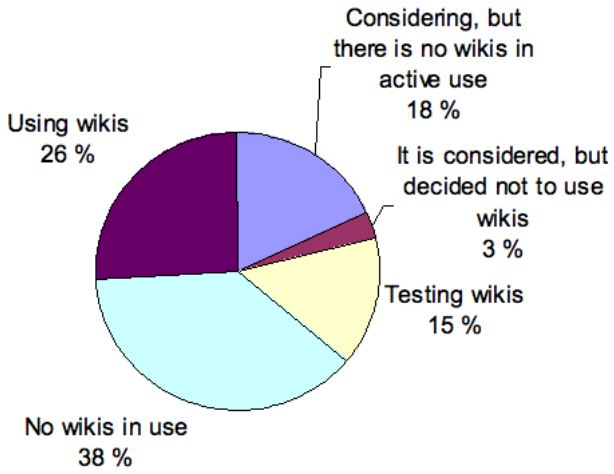


Figure 1. The use of wikis in the 50 biggest Finnish companies in March 2008.

None of the companies that had started using wikis had later discarded them. In sum, it can be observed that the implementation of wiki use is well on its way, but there is still a lot of ground to cover.

For the second part of the study, the wiki-users inside the 50 biggest companies as well as a group of smaller companies that were known to use wikis were asked to fill in a questionnaire; 20 answers to the request were received. The companies that responded are from various sectors and of different sizes. Consequently, the results are preliminary and exploratory, but do seem to reveal certain interesting trends.

2.1Adoption and use

The companies were divided into three groups in terms of the sectors they represent (industry, services/consulting, IT/telecommunications), and into three groups in terms of their size (small; less than 50 employees, middle-sized; between 50 and 249 employees and big; over 250 employees).

Some differences were found in terms of when wiki software had been taken into use in these three groups (see Figure 2).

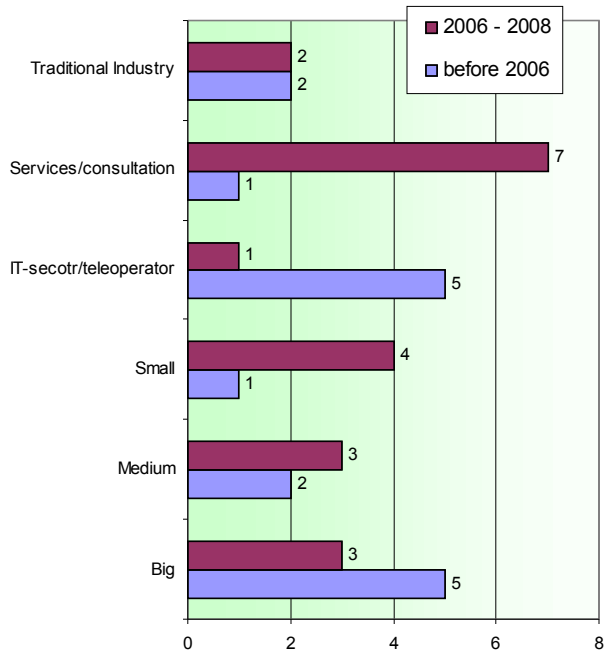


Figure 2. Year of wiki adoption and size/sector of company

As expected, ICT/telecommunications companies had adopted wiki software before year 2006 more frequently than both companies in industry and consulting/services. Seven services/consultation companies had adopted wikis in 2006-2008 in contrast to just one before 2006, indicating strong potential growth in this area.

When asked how the companies became aware of wikis and their potential, the answers proved to be very variable. Interestingly, none of the companies using wikis reported having adopted wikis after a suggestion from or a marketing campaign by a wiki provider. Ideas for adoption had primarily been received from peers: other companies, employees, research partners and so on.

The choice and implementation of wiki software was, likewise, done in very many different ways. One frequent model was that a group of employees inside the company started using a wiki platform, and due to positive experiences the use spread from the initial germ either through word-of-mouth or through company policy. Also more extensive top-down processes that involved the comparison and testing of different software platforms were employed. Here the tables available on the Internet (including in the Wikipedia) comparing the features of different wiki software were reported to be useful.

In the questionnaire, a multiple choice question on the reasons and motivation for adopting wiki software was presented. These were gauged on a Likert scale from 1 to 5, with 5 indicating strong agreement with the claim. In figure 3, the results are presented in two groups: reasons and motivations before adoption and reasons and motivations for continued use.

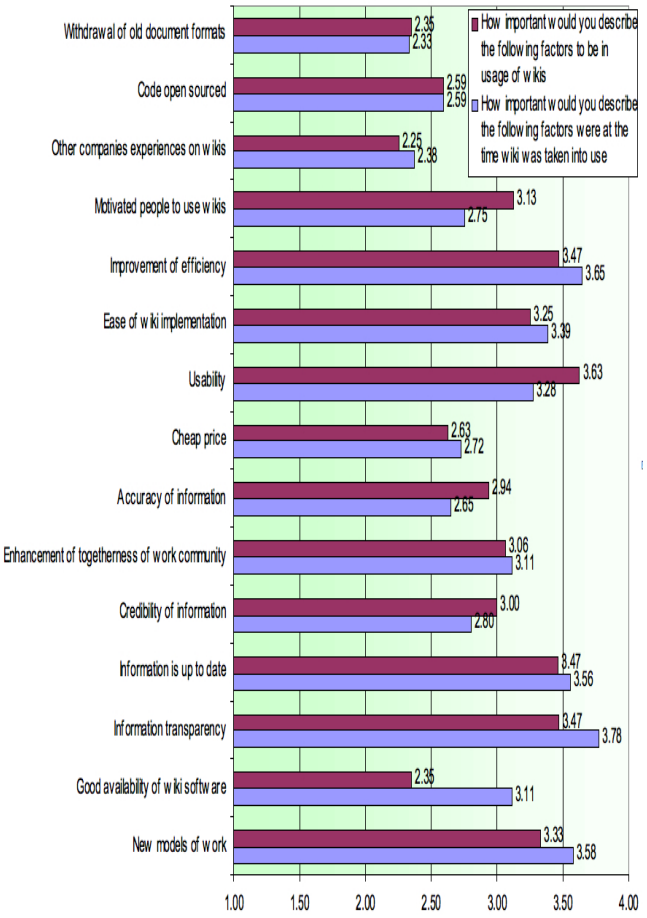


Figure 3. The reasons and motivations for adopting wiki software initially and at the time of study.

Information transparency and improved efficiency were the strongest initial reasons fro adopting wikis. It is noteworthy, that the importance of usability grew with use: this indicates that the software was found to be even more pleasant than anticipated. The importance of price and availability were not high, and decreased with time.

Also, the respondents were presented with a multiple-choice question on the purpose of wiki software use, with 13 preset alternatives (formed on the basis of previous interviews of companies relying on wikis) and an open alternative; the open alternative was not used by any of the respondents (see figure 4). Respondents could and did choose several alternatives, the average being 4,2 purposes of use per company.

The most common purpose of use is as a knowledge base, followed closely by use in collective document writing and idea generation and sharing. Thus, organizational "memory" seems to be the main use area. It is noteworthy that the "creative" and

properly "wikified" use in collective writing and idea generation seem to gain when the wikis have been utilized for some time.

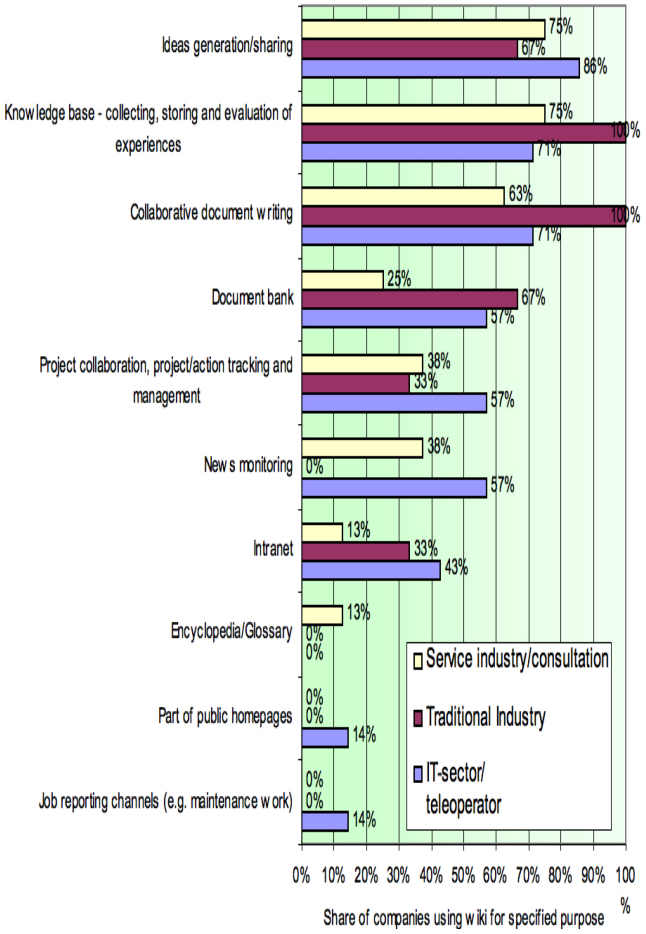


Figure 4. Purpose of use of wiki software in the companies.

There were some differences in purpose of use according to the sector of the company; significantly, for example, no company representing industry used wikis as a news channel or for news monitoring, and only companies in the IT/telecommunications sector used wikis as public home pages.

2.2Benefits and problems

It seems that the companies have found the use of wikis beneficial. Benefits were assessed by 8 assertions to which the respondents' could answer by using, again, a Likert scale from 1 to 5, and one open field question. In addition to the preset claims presented in Figure 5, the open field question yielded the following reported benefits:

- flexibility of wiki solutions
- increased interactivity inside the company
- more commitment from project partners
- gathering of new experiences.

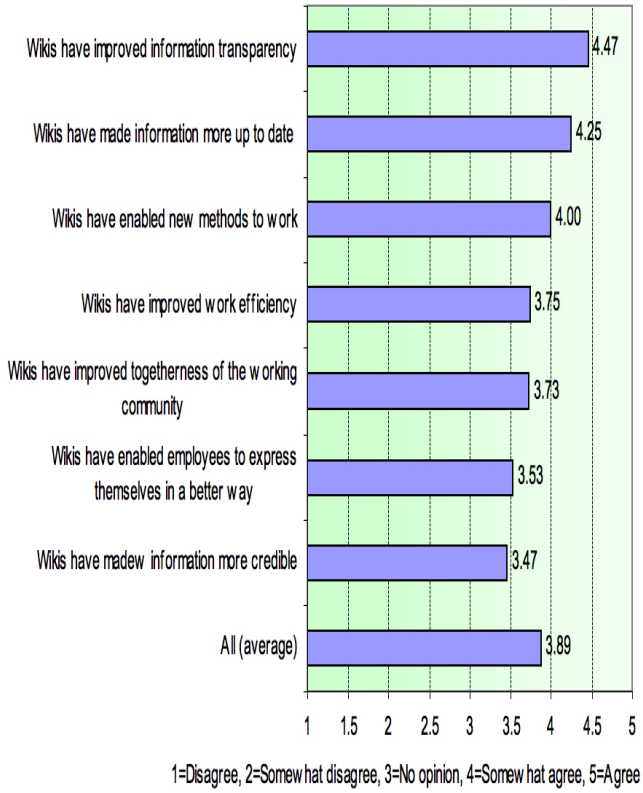


Figure 5. The benefits of wiki use.

The biggest reported benefits were improved information transparency, increased up-to-dateness of information and enablement of new methods of work. Especially the agreement rate (4.47) to information transparency indicates a strong observed benefit.

In the case of problems of wiki use, 26 claims and one open field question were used. The main problem by far seems to be that users do not update the wikis frequently enough. This problem is closely connected to the second one, how the benefit for the users will be manifested and, consequently, how the users can be motivated. This can be interpreted as meaning that the min challenge in wiki adoption is the initial phase of introduction and motivation: the freedom of wiki use is not easy to handle if the organizational culture has supported mainly hierarchical and one-way channels of communication.

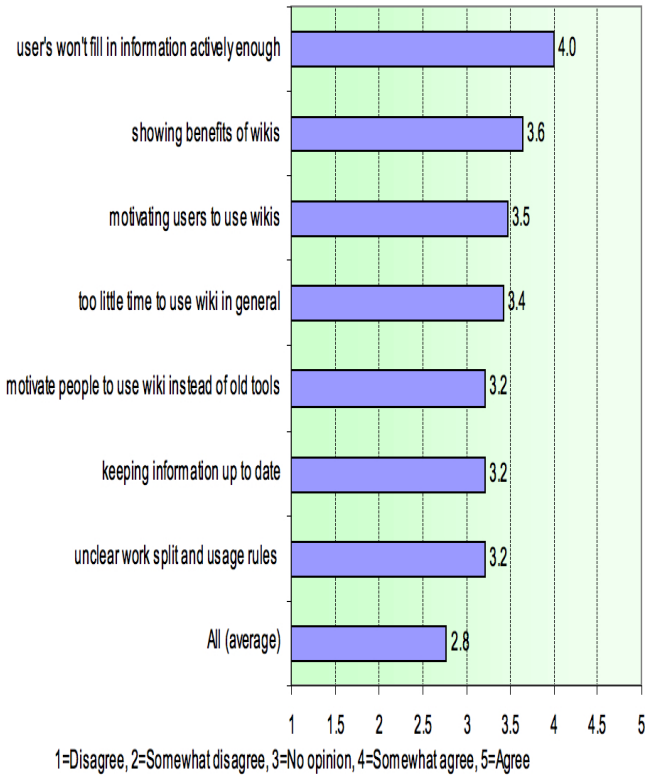


Figure 6. The problems in wiki use.

2.3 Lessons learned

We also asked with an open field question what the companies would do otherwise, given the chance. Many of the companies were happy with the implementation process, and would not do things differently, as one respondent put it "I doubt we would do it differently. Though we have learned more about different wikis and their areas of application." However, also improvements were considered:

- "The purpose of use and day-to-day practices would have to be better defined"
- "Wider implementation from the beginning."
- "First would be needed some education for the community, so that common rules and practices could be agreed on."
- "Replace the intranet with the wiki, do not run them side by side."
- "First education on wiki use, since some people lack the courage of documenting their own experiences."
- "More motivation & education for the users."

As seen above, the main problems were seen to be in updating the wikis, manifesting user benefits and user motivation. This tallies well with the reported "lessons learned."

3. CONCLUSIONS

Both the user experiences reported and the range of use in the top-50 companies suggest potential for further growth both in wiki use and a need for wiki providers and support. There are a large number of potential users and several companies are thinking about testing a wiki platform. At the same time, wiki users, in general, report that they have found wikis useful (see figure 5) and that providers of wikis have not been approaching them in abundance.

The user experiences show that those companies which had had time to use wikis or to experiment for a longer time, regarded wikis as more useful. This sounds a very promising note. However, also problems were observed. For instance, the dissemination of wiki-culture was problematic, which is seen in the fact that the biggest problem was the lack of updates in the wikis (see figure 6). Some differences between business areas can be observed: predictably, in the IT/telecommunications sector the adoption of wiki practices was a smaller hurdle than in other sectors.

It seems that wikis are mostly used in companies as knowledge bases, i.e., as an explicit organizational memory. Another relatively popular use was to use wikis as tools for expressing new ideas and as collaborative documentation tools. Furthermore, it is noteworthy that these two uses (idea-generation and documentation) seem to increase after wikis have been used for some time.

Companies have not experienced that wiki software solutions would have been actively marketed to them. Rather, the software has "sold itself". In other words, typically an innovative person or group inside the company has begun to spread "the good news", and once wiki use has stuck in one group, it has spread to others. It would seem that on the software front there is a quiet revolution from the individual users' enthusiasm towards the IT policies of companies. The future will show whether the enthusiasm holds when wikis are adapted to bigger organizations.

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