



Open licensing of creative work in an online environment



Aspholm, Laura

2011 Leppävaara

Laurea University of Applied Sciences
Laurea Leppävaara

Open licensing of creative work in an online environment

Aspholm, Laura
Business Management
Thesis
April, 2011

Aspholm, Laura

Luovan työn avoin lisensointi Internet-ympäristössä

Vuosi 2011 Sivumäärä 60

Opinnäytetyön tarkoituksena oli tutkia avoimien lisenssien markkinapotentiaalia suomalaisten luovan alan ammattilaisten keskuudessa. Markkinapotentiaalia tarkastellaan tässä työssä kohderyhmän halukkuutena käyttää avoimia lisenssejä sekä ammatillisiin, että yksityisiin tarkoituksiin, nyt ja tulevaisuudessa. Opinnäytetyö myös arvioi kohderyhmän tietopohjan kattavuutta avoimista lisensseistä ja tutkii, tarvitseeko kohderyhmä lisää koulutusta aiheesta. Tämän kaltainen tutkimus oli tärkeä suorittaa, koska sen tulokset tarjoavat arvokasta tietoa yhdestä avoimien lisenssien potentiaalisesta käyttäjäryhmästä. Tätä tietoa voidaan hyödyntää lisenssien kehityksessä ja markkinoinnissa. Avoin innovaatio ja tietämyksenhallinta muodostavat teoreettisen pohjan empiiriselle tutkimukselle. Tämä tutkimus suoritettiin osana Laurea-ammattikorkeakoulun Open Rendering Environment- projektia.

Tutkimusmenetelmäksi valittiin kvantitatiivinen menetelmä ja tutkimusmuotona oli mielipidetutkimus. Kysely lähetettiin ATL:n (Arkkitehtitoimistojen Liitto Ry), SIO:n (Sisustusarkkitehdit SIO Ry), TKO:n (Teolliset muotoilijat TKO Ry) ja Satu Ry:n (Suomen Audiovisuaalisen alan tuottajat Ry) jäsenille. Kyselyn ensimmäinen sivu sisälsi kahdeksan taustakysymystä, jotka kartoittivat tutkittavan henkilökohtaista ja ammatillista taustaa. Nämä kysymykset mahdollistivat tutkittavien keskinäisen vertailun, sekä tarjosivat tietoa mahdollisista taustavaikuttimista. Kyselyn seuraava sivu sisälsi 17 väitettä, joihin kyselyn vastaanottajaa neuvottiin vastaamaan asteikolla 1-5 (1= täysin eri mieltä, 5= täysin samaa mieltä). Kyselyn kolmas sivu sisälsi kolme avointa kysymystä.

Tutkimustulokset osoittavat, että otokseen osallistuneet luovan alan ammattilaiset eivät näytä uskovan avoimien lisenssien ammatilliseen käyttöön, ainakaan edustamissaan yrityksissä. Näyttää siltä, että kohderyhmä olisi silti halukas käyttämään avoimia lisenssejä yksityisiin tarkoituksiinsa. Tutkimustulokset paljastavat, että suomalaisilla luovan alan ammattilaisilla on tiedon puutetta avoimista lisensseistä. Kohderyhmä on kuitenkin halukas saamaan lisätietoa ja koulutusta aiheesta. Avoimet kysymykset poikivat muutamia tarkkoja kehitysehdotuksia lisensseille ja antoivat osviittaa toivotun koulutuksen järjestäjästä ja muodosta.

Näiden tulosten valossa opinnäytetyön tekijä suosittelee koulutuksen järjestämistä avoimista lisensseistä suomalaisille luovan alan ammattilaisille. Tekijä suosittelee myös, että aihetta tutkittaisiin lisää vielä yksityiskohtaisemmin tulevaisuudessa, erityisesti lisenssien kehityksen ja markkinointisuunnitelman parantamisen kannalta.

Asiasanat: avoin lisenssi, Avoin innovaatio, tietämyksenhallinta, Kvantitatiivinen menetelmä, mielipidetutkimus

Aspholm, Laura

Open licensing of creative work in an online environment

Year	2011	Pages	60
------	------	-------	----

The purpose of this thesis was to investigate the market potential of open licenses among Finnish creative professionals. Market potential has been viewed as the target market's willingness to use open licenses for both professional and private purposes for now and in the future. This thesis also estimates the current state of knowledge that the market has about open licensing and investigates if it needs more education about the subject. This sort of research was necessary to conduct because it provides valuable information about one of the biggest potential user groups of open licenses, creative professionals. This information can be used in license development and to improve the marketing plan of open licenses. Open Innovation and Knowledge Management form the theoretical background of the study. The research was conducted as a part of the Open Rendering Environment- project of Laurea University of Applied Sciences.

A quantitative research method was chosen and conducted in the form of an opinion survey. A questionnaire was sent to the members of ATL (The Association of Finnish Architect's Offices), SIO (Finnish Association of Interior Architects), TKO (Industrial Designers of Finland) and Satu Ry (Association of Independent Producers in Finland). The first page of the questionnaire contained eight questions that investigated the personal and professional background of the respondent. These questions enabled a comparison between the respondents and gave information about the features that might influence their opinions. The second page of the questionnaire contained 17 claims. The respondent was instructed to answer the claims on a scale of 1-5 (1= totally disagree, 5= totally agree). The third page of the questionnaire contained three open questions.

The results of the research show that the Finnish creative professionals who participated in the study do not seem to believe in the organizational use of open licenses, at least in the companies they currently represent. This target market still seems more willing to use licenses in their private life. It was also discovered that there is a lack of knowledge about open licensing among Finnish creative professionals. This target market still seems willing to get education about the subject. Open questions provided some exact development suggestions for the licenses and gave information about the desired form and source of the education.

In the light of the research results, the author of this thesis suggests that additional education should be organized about open licenses for Finnish creative professionals. The author also suggests that the subject should be investigated further and in more detail in the future, especially from the perspective of license development and improving the marketing plan of open licenses.

Key words: Open license, Open Innovation, Knowledge Management, Quantitative method, Opinion Survey

Table of contents

1	Introduction	6
1.1	Purpose of the thesis	8
1.2	Research questions and hypotheses	8
1.3	Research method	9
1.4	Theoretical background	9
1.5	Framework of the thesis	9
2	Definitions of the aspects involved	10
2.1	Open source	10
2.1.1	An example case: Wikipedia	11
2.2	Open license	11
2.2.1	An example of the license provider: Creative Commons	12
2.2.2	Examples of the Creative Commons licenses	13
2.2.3	Creative Commons in Finland	14
2.3	Copyright	14
2.4	Finnish copyright legislation and Creative Commons licensing	15
3	Theoretical background	15
3.1	Innovation	15
3.2	Knowledge management	18
3.2.1	Definition of knowledge	18
3.2.2	Knowledge creation and knowledge transfer	19
3.2.3	Knowledge management process	19
3.3	Knowledge management for open innovation	20
3.4	Summary of the theoretical discussion	21
3.5	Theoretical framework	23
4	Research approach	24
4.1	A qualitative method	24
4.2	A quantitative method	24
4.3	Methodology of this research	24
4.3.1	Hypothesis	25
4.3.2	Variables	25
4.3.3	Significance test	26
4.3.4	Validity and reliability	26
5	Empirical study	27
5.1	Introduction	27
5.2	Sample description	28
5.3	Average answers to claims 1-17	30

5.4	License practises and attitude towards open licenses in general	32
5.5	Current knowledge base and the need of more education	36
5.6	Conclusions and recommendations.....	41
5.7	Theoretical linkages	44
6	Summary	44
	List of References.....	46
	List of Figures.....	48
	List of Tables	48
	Appendices	50

1 Introduction

Openness is a growing trend in the present world of business. It aims to challenge the old structure of power within the organizations that is built on business secrets and “all rights reserved” copyright legislation. It also enhances innovation and creates new ways to achieve a competitive advantage.

Open licensing provides an alternative way to publish and share creative material via the internet. The main idea is that the creative artist gives the public permission to reshape his/her material without losing rights to the original work. Open licensing provides free licenses and legal tools to mark the creative work with the freedom the creator wants it to carry. The most restrictive license can act as a free advertisement, allowing others to only share it in the online environment.

There are many advantages that come from using open licenses. These are, for example, the increased volume of innovation, decreased legal costs and the more explicit description of the rights the author of the work wants to reserve (Creative Commons 2010, Oksanen 2007). Open licensing also raises problems that include the duration of the license and the incompatibility with the membership of some of the copyright organizations (Oksanen 2007).

This thesis investigates the theory behind these licenses and their current market potential among one of their target groups, Finnish creative professionals. The market potential is viewed as the market’s willingness to use the licenses in the corporate environment as well as for personal purposes. The research was carried out in July 2010 in the form of a questionnaire that was sent through Finnish professional organizations. The results were analyzed with SPSS software and the results are presented in the empirical section of this thesis.

Innovation and Knowledge Management (KM) form the basis of the theoretical section. Because of the complexity of the research subject, the related aspects are defined and explained before the theoretical section of the thesis.

1.1 Purpose of the thesis

The objective of this thesis is to investigate the market potential of open licenses among creative professionals. This is done by exploring the current opinion of the target market and how the future of open licenses is seen from the perspectives of organizational and private use. The background variables enable the comparison between the examinees and help to establish what factors might influence their opinion. The second objective of this thesis is to identify the level of knowledge that the target market has of open licenses and its willingness to be educated about the subject. This research was necessary to complete, because it provides valuable information about one of the biggest target groups of open licenses; creative professionals.

This thesis is a part of the ORE (Open Rendering Environment) project that has been carried out at Laurea University of Applied Sciences. Rendering can be defined as the project of creating an image from a model by using computer software. One of the achievements of the ORE project is the Renderfarm.fi webpage, which is an open platform for doing distributed rendering in the online environment (Tuomisto 2010). Renderfarm.fi users must license their rendered picture with an open license. The connection between this thesis and the ORE project is consequently within the open licensing which the project promotes by restricting the licensing options to the alternatives of Creative Commons. This thesis was commissioned by Julius Tuomisto who acts as a project manager in the ORE project.

1.2 Research questions and hypotheses

The research was carried out in the form of a questionnaire that was originally created to serve other needs as well. These needs are related to the ORE project and renderfarm.fi but will only be covered as a short review in this thesis because of the delimitations of the research questions. The focus of this thesis will be on the open licenses and specifically on the research questions: Is the target market willing to use open licenses? What sort of professional or personal features might explain this sort of motivation? What is the level of knowledge that the target market has about open licensing and does it need more education about the subject?

In the beginning of the research it was assumed that there would be a significant difference among the opinions of different professionals. It was also assumed that the background variables (especially age and years of service) will have a great effect on the attitude towards open licenses. One hypothesis was that the architects and interior architects would view the potential of open licenses in a more negative way than the other professional groups.

1.3 Research method

This research is an opinion survey which was carried out in the form of a questionnaire. A quantitative research method was chosen to measure and analyze the target market's opinions and knowledge about open licenses. It was also used to evaluate the future potential of open licenses among the investigated firms. Open questions on the other hand help to clarify the possible problems and benefits that the target market sees within the open licenses and define how they would like to receive education about the subject.

1.4 Theoretical background

The precise defining and clarification of the aspects involved was needed to base the theoretical context of the thesis. The main objective of open licenses is to boost innovation and utilize the potential that exists in the online environment, outside the company boundaries. Innovation and specifically Open Innovation explicate the philosophy behind these licenses.

Knowledge Management (KM) as a value adding process is essential for the license users, helping them to manage the risks and advantages that come from knowledge inflows and outflows enabled by the license conditions. Knowledge Management (KM) and KM for Open Innovation will ground the research and complete the theoretical context of thesis.

1.5 Framework of the thesis

This thesis is divided into three different main sections. The first chapters explain and describe the thesis process and assist the reader to understand the basics of the research subject. The second section outlines the theoretical context and the last section is dedicated to the empirical study and its results. Figure 1 illustrates the framework of this thesis.

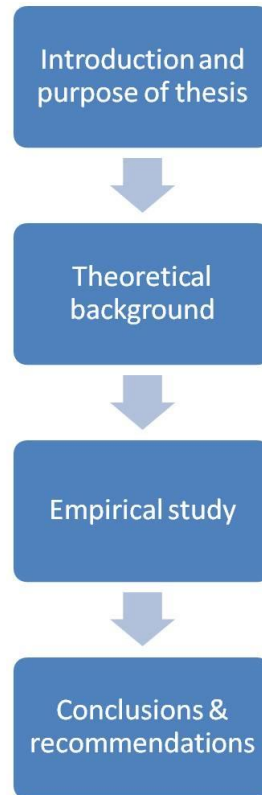


Figure 1: Framework of the thesis

2 Definitions of the aspects involved

2.1 Open source

The term “open source” was at first a way to describe software source code, referring to development that was done through collaboration. Today it can mean a lot more, describing for example a culture and a way of doing business. Open source Initiative (OSI) is an organization that aims to promote the use of open source software. It has defined the distribution terms of open source software (see Table 1).

1. Software must not restrict free distribution and sharing	6. The license must not allow discrimination against fields of endeavor
2. The source code must be freely available	7. The rights attached to the program must apply to all to whom the program is redistributed without the need for execution of an additional license by those parties
3. The license must allow derived works and their distribution	8. The license must not be specific to a product

<p>4. The license may restrict source-code from being distributed in a modified form only if the license allows the distribution of "patch files" with the source code for the purpose of modifying the program at build time. The license must explicitly permit the distribution of software built from modified source code. The license may require derived works to carry a different name or version number from the original software</p>	<p>9. The license must not place restrictions on other software that is distributed along with the licensed software. For example, the license must not insist that all other programs distributed on the same medium must be open-source software</p>
<p>5. The license must not discriminate against any persons or groups</p>	<p>10. The license must be technology-neutral (no provision of the license may be predicated)</p>

Table 1: The Open Source Definition (Open Source Initiative 2010).

Red Hat is one of the first companies, who built a business model around open source and its five main principles. These principles are openness, transparency, collaboration, diversity and rapid prototyping. Today Red Hat is one of the most trusted providers of Linux and other open source technology (Redhat 2010) .This Open Source business model is built on broad cooperation that appears as open sharing of information. It has produced many international success stories, such as Wikipedia and Facebook.

2.1.1 An example case: Wikipedia

Wikipedia is a free encyclopedia that is being written in fact by its users. It was created in 2001 on the base of an openly-editable model and is written collaboratively by internet volunteers who wrote for free. Anyone with web access can edit Wikipedia, but the quality and style of its articles is supervised by its authors and the 75 000 editors from expert scholars to casual readers, who regularly edit the content of Wikipedia. Nowadays Wikipedia is one of the world's most extensive collections of information. Most of the text and images in Wikipedia are licensed with open licenses such as the Creative Commons Attribution Sharealike 3.0 Unported License (CC-BY-SA) and the GNU Free Documentation License (Wikipedia: About 2011).

2.2 Open license

A license is a document that grants permissions and determines restrictions, specifying what can or cannot be done with the original work (Guide to Open Licensing 2010). This document

must meet the same explicit conditions as open source (See Table 1) to be perceived as an open license. Most of these conditions are related to the accessibility, redistribution and re-use of the work. In general, the works that are licensed under an open license are free to be shared, improved or built upon with the restrictions that the author wants to command.

2.2.1 An example of the license provider: Creative Commons

Creative Commons is an example of an organization that offers cost-free open license options for private and corporate users. Creative Commons website documentation provided the information about the organization below.

Creative Commons was founded in the United States in 2001 with the support of the Center for the Public Domain. It is led by a Board of Directors that includes, for example, intellectual property and cyber law experts, Michael Carroll, Lawrence Lessing and a noted Japanese entrepreneur Joi Ito. In 2002, Creative Commons released its first set of copyright licenses, all free to the public. Creative Commons was inspired by the Free Software Foundation's GNU General Public License (GNU GPL) and developed its licenses and a web application platform that helps the user to license his/her work freely for certain uses, on certain conditions, or dedicate the work to the public domain.







In the following years the CC licenses have grown and developed even further. They have also been ported to over 50 international jurisdictions. Creative Commons consists of four semi-autonomous programs operated by or through itself. These are Creative Commons, Science Commons, ccLearn and Creative Commons international (CCi).

Science Commons was developed from the Creative Commons model to bring the openness and sharing that made CC licenses a success in the arts and cultural fields to the world of science. Science Commons designs strategies and tools for fast and more efficient Web-enabled scientific research. It promotes a policy that helps organizations and people to open and mark their research and data sets for reuse. Science Commons began its operations in 2005 and has an annual budget of approximately \$ 750 000.

ccLearn is a division of Creative Commons that is dedicated to realizing the full potential of the internet to support open educational resources and open learning. ccLearn was launched in 2007 and is lead by Ahrash Bissell. It aims to minimize the legal, social and technical barriers to sharing and reuse of educational materials and so integrate CC into open education. Creative Commons international (CCi) works to port the core CC licenses to different copyright legislations around the world. In 2008 Creative Commons was estimated to have 130 million works under its licenses.

2.2.2 Examples of the Creative Commons licenses

Table 2 describes the six main licenses that the Creative Commons offers its users. These licenses have been translated into Finnish and are available for users in Finland.

 <p>Attribution</p>	<p>This license lets others distribute, modify and build upon the author’s creation, even commercially, as long as they credit the author of the original work. This is the most accommodating of Creative Commons licenses, in terms of what others can do with the “Attribution” licensed works.</p>
 <p>Attribution Share a like</p>	<p>This license lets others distribute, modify and build upon the author’s work even for commercial purposes, as long as they credit the original author and license their new works under identical terms. This license is often compared to open source software licenses. Any derivatives will also allow commercial use.</p>
 <p>Attribution No Derivatives</p>	<p>This license allows commercial and non-commercial redistribution, as long as it is passed along unchanged and in whole, crediting the original author.</p>
 <p>Attribution Non-Commercial</p>	<p>This license lets others redistribute, modify and build upon your work non-commercially. Although their new works must acknowledge the original author and be non-commercial in nature, they don’t have to license their derivative works under the same terms.</p>
 <p>Attribution Non-Commercial Share alike</p>	<p>This license lets others redistribute, remix, modify, and build upon the author’s work non-commercially, as long as they credit him/her as the original author. Others must license their new creations under the identical terms, so all new work based on the original will also be non-commercial in nature.</p>
 <p>Attribution Non-</p>	<p>This license is the most restrictive of the described six main licenses, allowing redistribution. This license is often called the “free advertising” license because it allows others to download</p>

Commercial No Derivatives	the author's works and share them with others as long as they mention the original author and link back to him/her. Others are not allowed to change the work or use it in a commercial way.
---------------------------	--

Table 2: Description of the six most common CC licenses (Creative Commons site documentation).

2.2.3 Creative Commons in Finland

Creative Commons website documentation informs that in Finland the organization is supported by Aalto University of Art and Design and Helsinki Institute for Information Technology HIIT.

The research group of digital economy from Helsinki Institute for Information Technology HIIT has been involved with the Creative Commons project since 2002. In 2003 it translated the first 11 CC licenses to Finnish and by the following year it had published the official Finnish versions of these licenses. HIIT does legal research related to open content and is responsible for the translation of CC licenses.

Aalto University of Art and Design has its own research group called Arki that operates from the University's Media Lab. Since 2005 Arki has lead the Creative Commons Finland project together with HIIT. It is also responsible for updating the creativecommons.fi webpage (Creative Commons 2010).

2.3 Copyright

The Ministry of Education and Culture explain on their web pages that "Copyright protects and promotes intellectual creation in its different forms. By recognising the right of individuals to control the use of their works, society encourages creativity at the same time promoting the production and distribution of immaterial products and investment and trade in them." (Copyright in Finland 2010)

Copyright laws were created in the eighteenth century as a way to protect the intellectual property of the author (MacQueen, Waelde & Graeme 2007, 34). Copyright can be defined as a set of exclusive rights that are granted to the original creator of the work including the right to copy, distribute and retract the content of the work. It protects the intellectual creations in its different forms. It does not protect the ideas or thoughts of the author, only their expression and fixation (Oksanen 2007).

Copyright legislation in Finland is governed by national legislation, EU directives and International conventions. In the year 2005 it was amended to meet the current demands of the Internet and digital environment (Copyright in Finland 2010).

2.4 Finnish copyright legislation and Creative Commons licensing

The licensing of a creative work under Finnish copyright legislation can be complicated for the first timer, especially on the internet. One reason for this might be that there have not been enough options for the usual copyright system that reserves all rights. Creative Commons licenses offer an alternative way to reserve some of the copyrights and give up those that are not needed or do not serve the purpose of the original work. It offers a service that gives an opportunity to the authors to include a description of the rights that are reserved (and those that are not) to their original work (Creative Commons 2010). It helps the users to know in which way they are allowed to copy or use the published work. "There is a growing controversy over who owns the intellectual property of product design, creative advertisements and the like" (Awad & Ghaziri 2004, 392). Open licenses aim to clarify the uncertainty that is attached to the rights of the copyright holder and the user.

The original Creative Commons licenses were written taking the U.S legal system in to consideration, so they could be incompatible with different local legislations. For this reason Creative Commons has started to port the various licenses to comply with local copyright and private law. Finland is one of the countries that have joined this worldwide project (Creative Commons 2010).

Specific country teams are responsible for introducing the Creative Commons open licenses to its public and key stakeholders by facilitating discussion and pervading consultations. This is all done to adapt the licenses to local circumstances and jurisdictions (Creative Commons 2010).

3 Theoretical background

3.1 Innovation

Innovation differs from invention. Invention is the embodiment of something new (such as a device, composition, process). According to Henry Chesbrough, innovation means invention implemented and taken to market. Innovation is a process that can change social practices; the way we live, work and learn. This sort of innovation is called disruptive innovation.

In the organizational context innovation process has an effect on changes in the quality, productivity, efficiency and competitive positioning of the firm. Traditionally this process took place within the boundaries of the firm (See Figure 2).

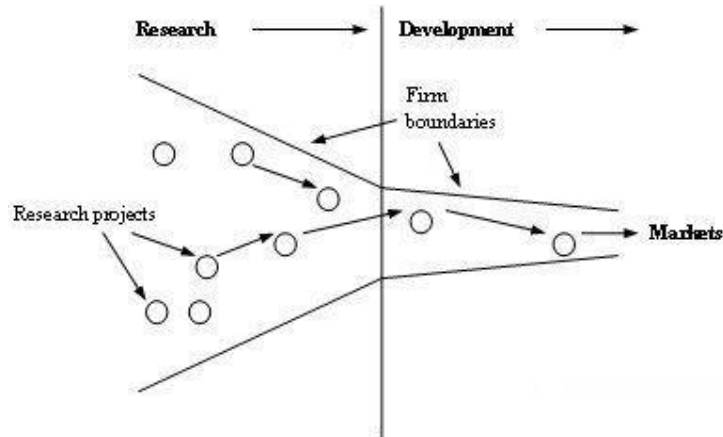


Figure 2: The Closed Innovation Paradigm for Managing Industrial R&D (Chesbrough, 2006; Figure 1-2 p.xxii)

Several factors have led to the erosion of the closed innovation. Chesbrough points out that there has been a significant increase in the mobility and availability of skilled and educated workforce. It can be concluded that a large amount of knowledge exists outside of the big companies and their R&D laboratories (2006, 34.). Since employees take their knowledge with them when changing jobs, there is substantial knowledge flow between firms. Also the availability of venture capital has increased, making it possible for promising ideas to be further developed outside the firm. This can happen, for example, in the form of licensing agreements (Chesbrough 2006, xxiii.). Venture capital also helps new products to enter the market faster, meaning that the life of a particular technology is ever shorter. “When these erosion factors have impacted an industry, the assumptions and logic that once made Closed Innovation an effective approach no longer applied” (Chesbrough 2006, xxiii.).

Due to the shifts within the knowledge landscape, companies are seeking new ways to innovate and develop their products. A new approach that can be called the Open Innovation is emerging to the markets (See Figure 3). It assumes that firms can and should use both internal and external ideas as well as paths to market, when developing their technology/product. External market paths are seen as an opportunity for the firm to create additional value, outside of the current businesses. This business model utilizes both internal and external innovation potential to create value while defining internal mechanisms to claim some portion of that value (Chesbrough 2006, 57.).

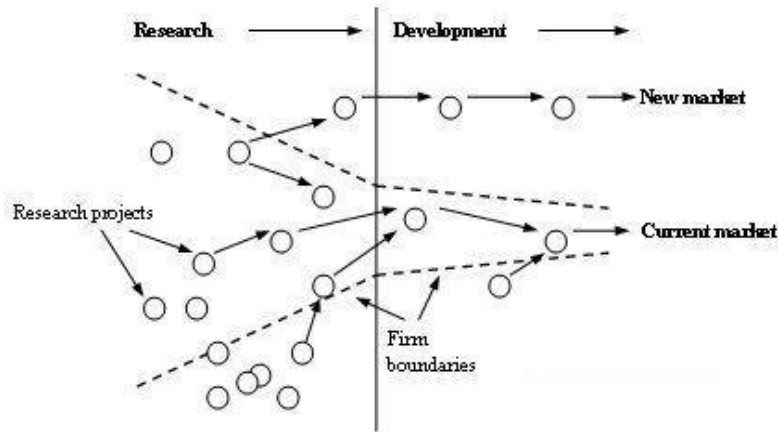


Figure 3: The Open Innovation Paradigm for Managing Industrial R&D (Chesbrough, 2006; Figure 1-4 p.xxv)

The logic of the Open Innovation Paradigm is based on abundant knowledge which, according to Chesbrough, must be used unhesitatingly if it is to provide value to the company. The knowledge that a company's R&D department uncovers cannot be restricted to only its internal pathways to market. At the same time the internal pathways to market cannot be restricted to using only the company's internal knowledge base. This perspective commands very different organizing principles for both research and development (2006, 51-53.)

As mentioned, this business model requires taking a risk that the ideas that start in the firm, might leak outside. This might be disturbing, especially for the people who are familiar with the closed innovation paradigm, but accepted by those who want to benefit from the changed innovation landscape. Organizations that offer open licensing options for creative artists offer one tool/path that can help the companies to share their ideas and utilize the innovation potential that exists outside of the firm. Table 3 contrasts the main principles of the open and closed innovation paradigms.

Closed innovation principles	Open Innovation principles
The smart people in our field work for us.	Not all the smart people work for us. We need to work with smart people inside and outside our company.
To profit from R&D, we must discover it, develop it and ship it ourselves.	External R&D can create significant value; internal R&D is needed to claim some portion of that value.
If we discover it ourselves, we will get it to the market first.	We don't have to originate the research to profit from it.

The company that gets an innovation to the market first will win.	Building a better business model is better than getting to market first.
If we create the most and the best ideas in the industry, we will win.	If we make the best use of internal and external ideas, we will win.
We should control our IP, so that our competitors don't profit from our ideas.	We should profit from others' use of our IP, and we should buy others' IP whenever it advances our business model.

Table 3: Contrasting Principles of Closed and Open Innovation. Chesbrough, H. 2006. p.xxvi

3.2 Knowledge management

The knowledge landscape of today creates complexity and new challenges for the business environment worldwide. Changes in information technology have renewed the access and control of information and knowledge. “Companies need to address knowledge sharing, knowledge collaboration and knowledge dissemination to be able to compete in an unpredictable marketplace” (Awad & Ghaziri 2004, 27)

3.2.1 Definition of knowledge

Knowledge has long been a debated subject in the world of business. “Even in the new millennium, there is no one widely agreed definition of the main aspects of knowledge in a strategic perspective” (Lynch 2006, 378.) Despite the complexity of defining knowledge, awareness of its importance as the ultimate competitive advantage for companies has increased. To manage knowledge that exists within companies it is still important to define it some acceptable way. For the purposes of this thesis the following definition was found to be the most comprehensive.

“Knowledge is a fluid mix of framed experience, values, contextual information and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practises and norms” (Davenport & Prusack 1998, 5.)

As Davenport and Prusack points out, knowledge of an organization exists not only in paper documents or databases but also in the minds of the employees. The structured and recorded form of knowledge is called explicit knowledge and the knowledge that exists in norms, values and practises within the people’s heads is called tacit knowledge. Tacit knowledge is often complex and difficult to specify. Both forms of knowledge can lead to competitive

advantage but the tacit knowledge may be particularly important because it is more difficult for competitors to copy or replicate (Lynch 2006, 406.)

3.2.2 Knowledge creation and knowledge transfer

Knowledge creation can be defined as the process of the development and circulation of new knowledge within the organization (Lynch 2006, 384.). This offers a dynamic strategic opportunity for the company to gain competitive advantage. According to Lynch, there are three key elements for knowledge creation, even though the full mechanism is yet unsolved. These three key elements are conversion and communication of existing knowledge, knowledge creation and acquisition process and knowledge transfer process (2006, 385.). For the purposes of this thesis it seemed to be necessary to examine the knowledge transfer process more closely.

Lynch points out, that the knowledge transfer process requires the company to make a proactive decision to share knowledge (2006, 387.). According to him the process usually starts from the insight that new ideas are unlikely to deliver their full potential if they remain with the originators in an organization; new knowledge needs to be transferred and shared with others. Lynch is clear about the fact that knowledge transfer involves people and groups and because of that it is not a simple task. People may feel threatened by new development and might not want to tolerate the mistakes and misunderstandings that may occur during the process of transferral. Groups of people may see themselves as the main owners of certain types of knowledge and think that their status would be lowered if that knowledge is shared. These matters must be addressed before the transfer process and this may require changes in the organizational culture (2006, 387.).

3.2.3 Knowledge management process

Knowledge management (KM) is an interdisciplinary business model that has roots in many disciplines, including business, psychology and information management. The objective of knowledge management is to gather and make use of a firm's collective expertise and increase the competitive advantage by creatively identifying, applying and integrating knowledge. KM involves the three assets of the firm in overlapping parts. These assets are people, technology and organizational processes (Awad & Ghaziri 2004, 2.).

There are many factors that contribute to successful knowledge management. Lynch points out that it is important for a company to build a knowledge-sharing community that works both in technical terms and terms of a willingness to share knowledge. The company should

also recognize the various channels that are needed for knowledge gathering and transfer and contribute knowledge to the economic performance as a way to create profit (2006, 381.).

KM process has four phases that create its life cycle (Awad & Ghaziri 2004, 24.). First is knowledge capture, where all the information within the company is gathered and scanned for later purposes. Awad and Ghaziri underline that it is important not to focus only on the explicit form of knowledge, but capture also the tacit information through for example brainstorming and interviews. The next phase is to organize the gathered knowledge in a way that can be retrieved and used to generate useful information. The third phase is the refining of knowledge, where the organized information is made more contextual and compact. The last phase is the dissemination of this refined knowledge inside the company and/or with other organizations.

Awad & Ghaziri indicate that a sign of a successful knowledge management process is an organizational environment that has its focus on generating new knowledge, transferring existing knowledge and finally submerging knowledge in their services and products (2004, 3.). This environment aims to facilitate knowledge growth accessing valuable knowledge inside and outside of the firm.

3.3 Knowledge management for open innovation

The present knowledge landscape enables improvements in many of the organizational processes through collaboration. Knowledge management is closely linked to innovation (See Figure 4). The networking, technology and data communication environment have made knowledge sharing and innovation more feasible and worthwhile.

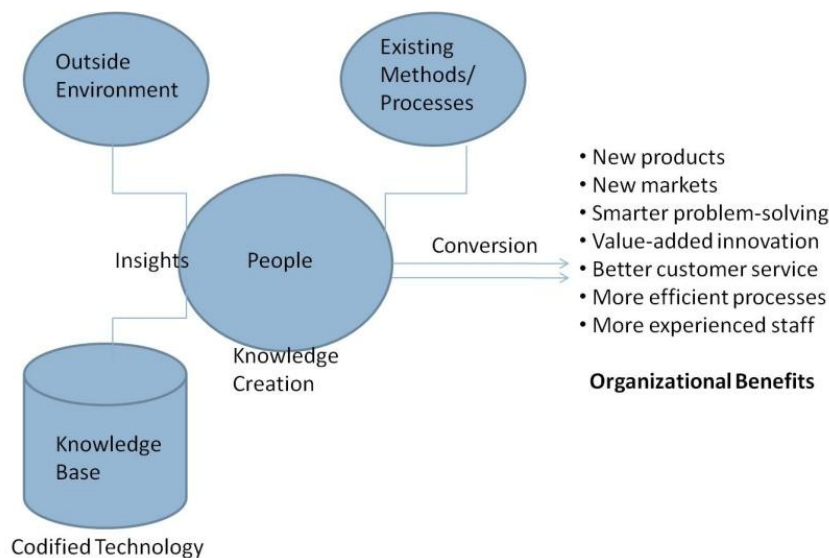


Figure 4: Knowledge Management and Innovation (Awad & Ghaziri, 2004; Figure 1.5 P.8)

Knowledge management is essential for open innovation, because it acts as a value-adding process. KM is needed to develop stable interaction between internal and external innovation and exploit the innovation potential of organizations such as academy, government and SME's. It involves people in a strategic process and adds value to technical and business challenges to foster innovation development (Paci, Lalle, Chiacchio, 2010).

This KM process for open innovation can be called Collaborative Knowledge Management (Co-KM). A new model of knowledge management for open innovation was developed in Rome, Italy by Augusta Paci, Cecilia Lalle and Maria Chiacchio (See Figure 5).

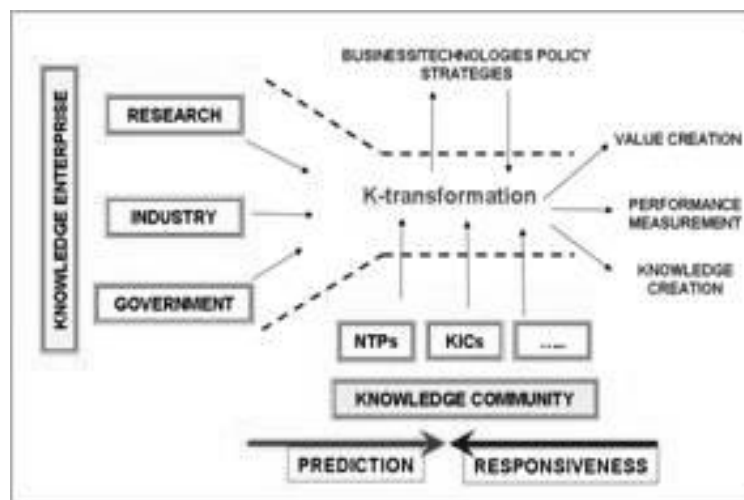


Figure 5: Collaborative Process Based On Open Model (Paci,Lalle,Chiaccio 2010, Journal of Knowledge Management Practice Vol 11 No 1).

In this open information model, the convergence of knowledge concepts, coming from stakeholders of the knowledge enterprise, permits the creation of a collaborative knowledge management environment. From this convergence, information modelling receives the support for an unstable environment and sustains people and their capability of placing their knowledge to future innovation needs through a collaborative process (Paci, Lalle, Chiacchio 2010). The development of the model (see Figure 8) integrates prediction and responsiveness for continuous innovation.

3.4 Summary of the theoretical discussion

The term “open source” was at first a way to describe software source code, referring to its development that was done through collaboration. Nowadays the word can describe for

example a culture and a way of doing business. A license on the other hand is a legal document that grants the permissions and states restrictions, specifying what can or cannot be done with the work (Guide to Open Licensing 2010). Open Source Initiative (OSI) is an organization that promotes the use of open source software. It has defined the exact terms of open source and a license must meet the same conditions to be viewed as an open license (see Figure 3, page 8)

In this thesis, Creative Commons was chosen as an example of an organization offering open licenses. The six main Creative Commons licenses was also introduced.

Copyright is a set of exclusive rights that are granted to the original creator of the work. Copyright legislation protects the intellectual creations of the author. It does not protect the ideas itself, only their fixation and expressions (Oksanen 2007). Licensing of work under copyrights in the web environment might be complicated mainly because of the uncertainty that is attached to the rights of the copyright holder and the user. Some of the copyrights might not even serve the purpose of the work. Open licenses offer a cost-free service that provides a description of rights that can be included to the work, explaining what rights the author wants to reserve and what he/she wants to let loose.

Changes in Information Technology and innovation practices have renewed the access and control of knowledge within companies. The erosion factors of the Closed Innovation Paradigm have lead to the era of Open Innovation (Chesbrough 2006, xxii). This shift in innovation practices has been caused mainly by the insight that a large amount of knowledge exists outside of the company's boundaries. To gain some portion of that knowledge and to maintain the one that is already inside the company, knowledge management tools are needed.

Knowledge can be divided to two categories. The explicit knowledge is recorded and saved in files, documents and papers. Tacit knowledge can be fuzzy and hard to recognize. It exists in people's heads and might reflect from their actions and personal values for example. This tacit knowledge might be particularly important for a company, because it is more difficult for competitors to replicate or copy (Lynch 2006, 406.).

Knowledge creation can be defined as the process of development and circulation of new knowledge within the organization. One of the key elements of this process is knowledge transfer, which requires the company to make a proactive decision to share knowledge (Lynch 2006, 387.). This usually demands a change within the organizational culture.

Knowledge management is an interdisciplinary business model which aims to gather and make use of a company's collective expertise and increase the competitive advantage by creatively identifying, applying and integrating knowledge (Awad & Ghaziri 2004, 2.). The KM process has its focus on both explicit and tacit knowledge and can be implemented in four phases that include capturing, organizing, refining and distribution of knowledge.

KM is closely linked to innovation as knowledge can be viewed as the raw material of any insight that leads to a new product entering the market. The knowledge management process aims to create an environment that facilitates knowledge growth by generating new knowledge, transferring existing knowledge and finally embedding it to products and services (Awad & Ghaziri 2004, 3.).

In the Open Innovation approach, KM is needed to exploit the innovation potential that lies outside of the company and to create stability between the internal and external knowledge flows. This KM process of Open Innovation is called Collaborative Knowledge Management (Co-KM).

3.5 Theoretical framework

Figure 6 illustrates the theoretical context of the thesis and the relationships between the concepts involved. Organizations need knowledge management tools to receive the benefits of open innovation environment and to audit the existing knowledge which is valuable for its business operations.

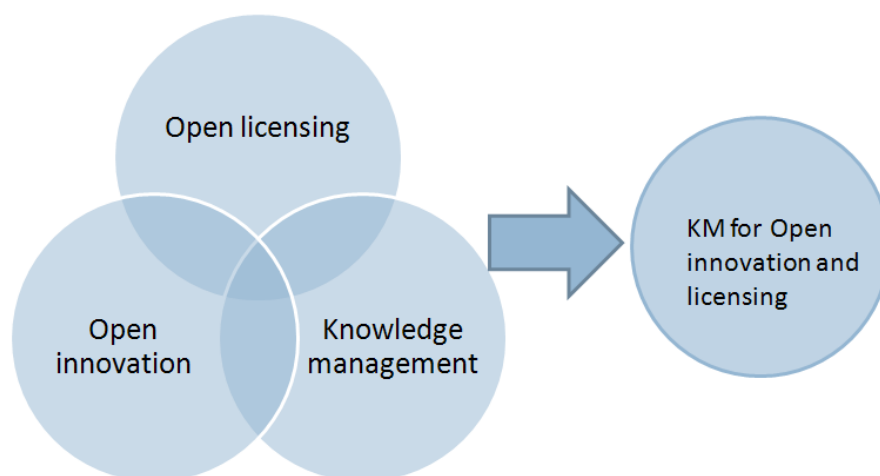


Figure 6: Theoretical Framework

4 Research approach

The main objective of any research process is to produce new knowledge. Empirical research produces it usually in a scientific form, based on evidence. It is usually conducted to test a hypothesis or to answer a specific question. The collection and handling of research data is important. “Accurate analysis of data using standard statistical methods is critical in order to determine legitimacy of empirical research “(Hani 2009). Empirical research is usually conducted using a qualitative or quantitative research method.

4.1 A qualitative method

There are various research methods that can be viewed as qualitative in their nature. The main difference with the quantitative research is that the qualitative research method produces data that is not numerical and does not include any statistics or precise measurements. This data can be collected in various ways, for example through observation, in-depth interviews or case studies (Boeree 2005). Qualitative research methods have traditionally been used in philosophy, psychology and social sciences but can also be used when for example a company wants to conduct market research.

4.2 A quantitative method

Quantitative research is focused on the collection and analysis of data that comes in a quantifiable form. Counting and measuring are commonly used in data collection. This type of research aims to produce a result that is a number or series of numbers that can be presented in tables and graphs or in other statistical form. Quantitative methods are mostly used in the physical and biological sciences and they provide an excellent way to prove or disprove a hypothesis (Shuttleworth 2008). Quantitative and Qualitative are commonly seen as opposite of each other, but the methods might also work efficiently together. Using quantitative methods it is possible to give an exact and testable expression to qualitative ideas and test the hypothesis of qualitative research.

4.3 Methodology of this research

The empirical research started with the choice of the subject and the method of the research. After this the next step was the determination of research questions and contacting the professional organizations, whose members created the research population. These organizations were ATL (The Association of Finnish Architect’s Offices), SIO (Finnish Association of Interior Architects), TKO (Industrial Designers of Finland) and Satu ry (The

Association of Independent Producers in Finland). The quantitative method was chosen, because it suited the nature of the research better than the qualitative method.

A questionnaire was sent to the addresses that the unions provided. This research population was bigger than 696, but the exact number cannot be calculated because one of the unions handled the posting itself and did not provide the number of questionnaire recipients. The number of the returned questionnaires was 80, but three of them were left out from the research sample because they did not contain any information.

The first page of the questionnaire contained eight background variables that enabled the comparison between the respondents. There were 20 questions in the questionnaire, from which 17 were claims and three were open questions. The respondent was instructed to answer the claims on a scale from one to five, where number one meant that the respondent totally disagreed and number five meant that he/she totally agreed. The purpose was to measure the spontaneous opinion of the respondent. If the respondent didn't have opinion at all, he/she could leave that section blank.

The quantitative data (that the returned questionnaires provided) was then analyzed and statistically tested with SPSS software and the results will be presented later in this thesis. There are several aspects to the research methodology that is used in quantitative research, so it was appropriate to determine the most common ones in a more specific manner.

4.3.1 Hypothesis

In scientific research, hypothesis is a suggested explanation of a phenomenon. During the research the researcher tries to prove or disprove the hypothesis that has been posited at the beginning. There are two types of hypotheses: a null hypothesis and an alternative hypothesis. The null hypothesis usually corresponds to a general or default position. The alternative hypothesis is the opposite of the null hypothesis (Experiment Resources 2008). Few hypotheses were suggested at the beginning of this research and those are mentioned in the first section of this thesis. The results and conclusions show if these hypotheses were proved or disproved.

4.3.2 Variables

A variable can be anything where the value can change. During the research process the researcher defines the variables according to what will be measured. The independent variable is the variable which the researcher wants to measure; it is usually the cause of the phenomenon. The dependent variable is the effect or assumed effect of the phenomenon, dependent on the independent variable (Experiment Resources 2008). Variables are usually

named after the scale that they are measured. In this research there are ordinal, scale or nominal variables.

4.3.3 Significance test

Quantitative research uses a significance test to prove or disprove the hypothesis (Experiment Resources 2008). In this research the statistical tests that were used are Spearman's Rho, Chi-Square Test and Cronbach's Alpha. These tests determine if a correlation can be found between two variables and if the correlation is statistically noticeable. Tests also show if the conclusion can be generalized to a larger population. Cronbach's Alpha measures the consistency of the measure used and helps to determine if certain variables can be combined or not (KvantiMOTV, 2008).

4.3.4 Validity and reliability

In scientific research, all conclusions that come as a result of the research must be based on reliability and validity (Henrichsen 1997). Validity in data collection means that the findings of the research truly represent the phenomenon that is measured. Internal validity is affected by flaws within the study, for example not controlling the major variables or collecting the data improperly. External validity refers to the extent to which the researcher can generalize the findings to a larger group. The lack of external validity means that the conclusions of the research cannot be applied to other contexts than the similar in which the research was carried out (Henrichsen 1997).

Reliability means the consistency of the measure. A reliable test produces the same results repeatedly. Even though reliability of the research cannot be calculated accurately, it can be estimated in different ways. In the test-retest approach, the test is administered twice at two different points in time. This reliability test assumes that there will be no change in the quality or construct being measured. In the inter-rater reliability approach two or more independent judges score the test and then the results are compared to determine the consistency of the estimates of the same phenomenon. Parallel-forms reliability is assessing the consistency of the results of two tests constructed in the same way from the similar content domain. Internal consistency reliability assesses the consistency of results across the different items within the test (Trochim 2006).

When assessing the validity and reliability of this research it must be noticed that the number of returned questionnaires was a little bit low when considering the size of the research population. From the 80 returned questionnaires 77 was approved to the sample. Those three

that were not approved were returned blank. A small sample size might affect the validity of the research, if it is not in balance with the size of the research population (Marion 2004). Several factors still support the validity of this research. Validity was one of the main concerns when the questionnaire was made and the questions were designed to be as valid as possible. Extra attention was also paid to the scale that measures the respondent's opinion. Only valid percentages were used when presenting the results in graphs or tables.

The reliability of this research is good, because conclusions were drawn very carefully and mainly only within the sample group. Statistical results show if the results can be generalized in a larger population or not.

5 Empirical study

5.1 Introduction

The questionnaire that was sent during the first week of June 2010 through professional organizations is the basis of the empirical study (See Appendix 1). It contained eight background variables that narrated important information about the respondents and enabled a comparison between them. A covering letter was sent to the receivers that explained the background of the study and instructed the respondents to respond to the questionnaire within two weeks. The questionnaire contained three sections. The first page contained the eight background variables, the second page contained 17 claims that were to be answered on a scale of one to five (1= totally disagree, 5= totally agree) and the third section contained three open questions.

The questionnaire was produced to serve other needs of the ORE project as well, with the result that some of the questions in the questionnaire did not serve the purpose of this thesis. Those questions are handled in a more casual way and the main focus is within the questions that directly give information about the subject of this thesis. One of the objectives of the ORE project is to promote the professional usage of the 3D modeling software Blender and the newest version of this software was sent to the respondents with the questionnaire.

The members of the professional unions created the research population of this study. The questionnaire was sent to the street addresses that the unions provided. The size of the research sample was 77. From the 80 answers that were returned, three was left out from the research sample. The reason for this was that they were returned blank. Satu Ry handled the posting of the questionnaire to their members itself, but the other unions provided only the street addresses. The questionnaire was not sent to foreign addresses because the postal costs would have been too expensive.

200 questionnaires were sent to the members of TKO and their response rate was the highest of the unions (11%). From the 250 questionnaires that were sent to the members of ATL 10.8% was returned. 246 questionnaires were sent to the members of SIO and the union's response rate was 6.9%. Satu Ry sent the questionnaires itself and failed to provide the exact number of receivers, so the union's specific response rate could not be calculated. Eight background variables that formed the first page of the questionnaire describe the sample in a more detailed way.

5.2 Sample description

The first background variable was the date of birth. This varied a lot, the oldest respondent was born in 1920 and the youngest in 1984. The actual age of the respondents was calculated and the majority of the respondents were 46-62 years old. Figure 7 shows that 21.6% of the respondents were older than 62 years, which can be considered as a typical retirement age in Finland.

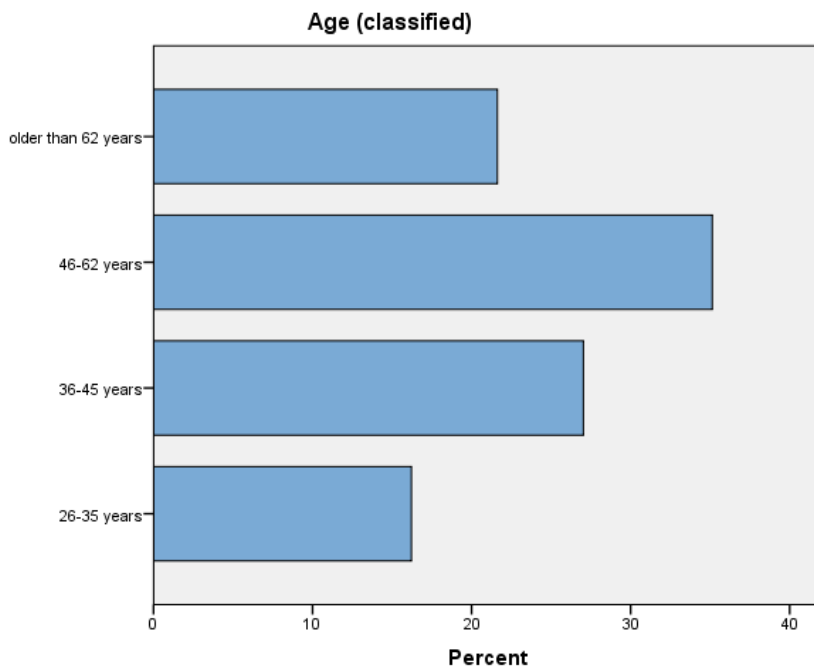


Figure 7: Age of the respondents

The sex of the respondents was one of the questions that aimed to give background information about the respondents. As can be seen from the Appendix 2, a clear majority of the respondents were male (67.5%).

One background variable concerned the education of the respondents, which was asked in a form of an open question (See Appendix 1). Most of the respondents reported “Architect” and “Master of Arts” as their education. This is consistent information with the number of questionnaires that were sent to the professional unions and the response percentages of single unions (TKO and ATL had the biggest response rate). However, the answers varied so much that it was not feasible to categorize them.

To investigate the background of the respondents, they were asked how many years they had served in their line of business and the size of the company they represent. A clear majority (54.5%) of the respondents had served more than 20 years in their line of business (See Appendix 3). This is coherent information with the age structure of the sample.

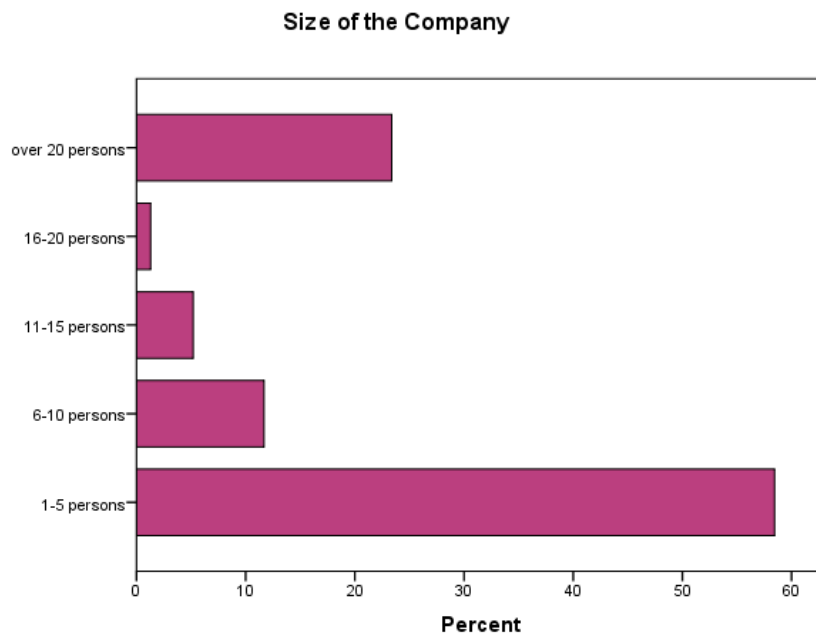


Figure 8: Size of the company

As can be seen from Figure 8, the companies that were represented in this research are mainly small companies. Almost 60% (58.4%) of the companies employed 1-5 persons. On the other hand, 23.4% of the companies employed more than 20 persons.

It was asked how old the represented company is in years. As can be seen from Table 4, more than a half (52.6%) of the companies were over 20 years old. Also young companies were represented in the research; almost 15% of the represented companies had been operating less than four years.

Age of the company in years

		Frequency	Percent	Valid Percent
Valid	0-4 years	11	14,3	14,5
	5-9 years	7	9,1	9,2
	10-14 years	12	15,6	15,8
	15-19 years	6	7,8	7,9
	20 years	40	51,9	52,6
	Total	76	98,7	100,0
Missing	System	1	1,3	
Total		77	100,0	

Table 4: Age of the company in years

The professional title of the respondents was also asked in an open form (See Appendix 1). Many announced “CEO”, “Architect”, “Interior Architect” or “Designer” as their current title. However, titles varied so much that it was not feasible to categorize them.

The last question on the first page of the questionnaire was the information channel through which the respondents received the questionnaire. Most of the answers came from the members of ATL, SIO and TKO (See Table 5). Five answers came from the members of Satu Ry and four through other channels.

Information channel

		Frequency	Percent	Valid Percent
Valid	ATL	27	35,1	40,9
	SIO	17	22,1	25,8
	TKO	22	28,6	33,3
	Total	66	85,7	100,0
Missing	Satu Ry	5	6,5	
	Other	4	5,2	
	System	2	2,6	
	Total	11	14,3	
Total		77	100,0	

Table 5: Information channel

5.3 Average answers to claims 1-17

Figure 9 gives an overall picture of the results of the research. It shows the mean of the respondent’s answers to the claims 1-17. As Figure 9 shows, the claims that ranked the lowest value are “Our company has educated its employees about open licensing” and “I believe that our company will license its material under an open license in the next 24 months”. The

claims that ranked the highest value are “I think I need more guidance in using open licenses” and “I am familiar with Finnish copyright legislation”.

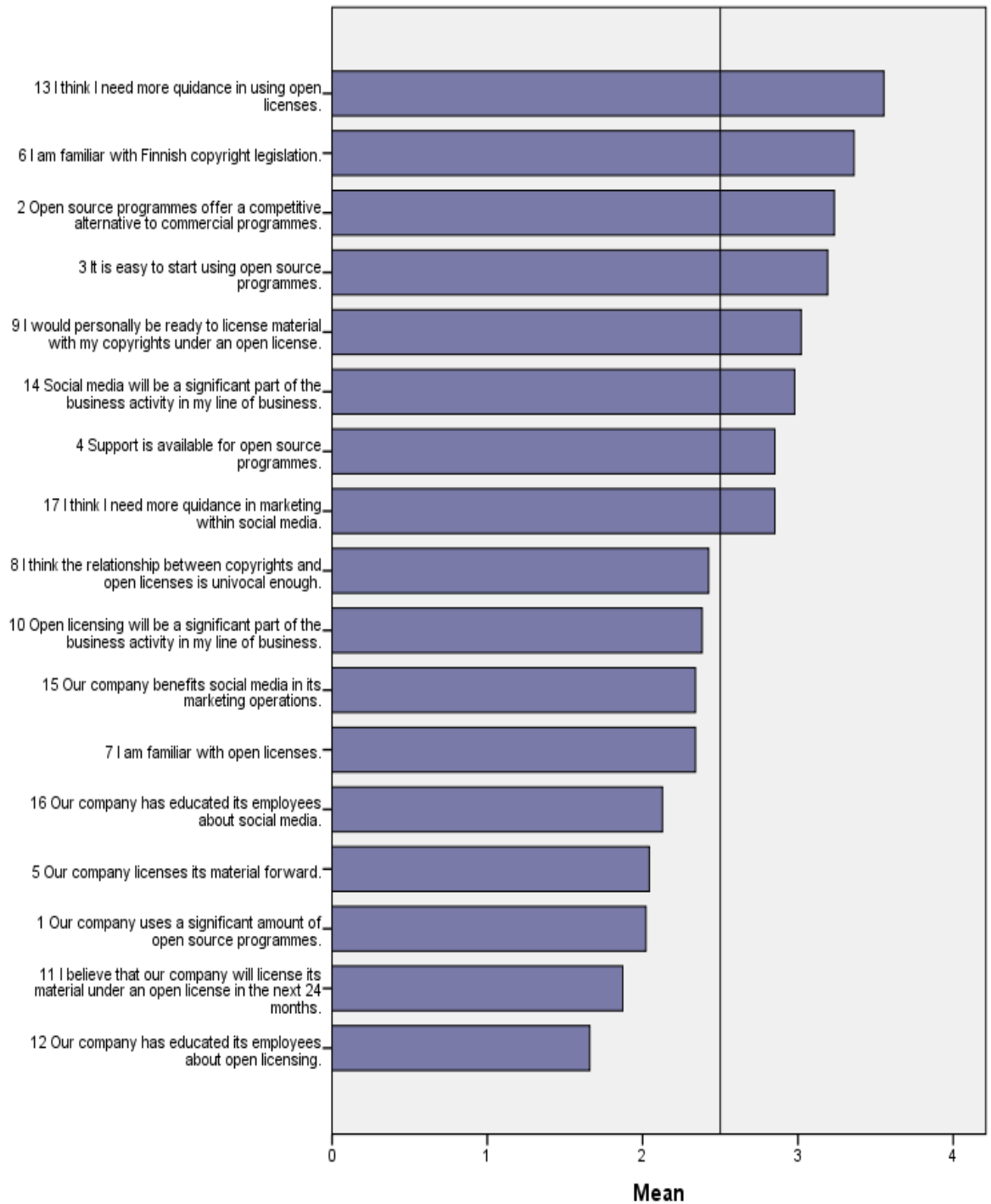


Figure 9: Claims 1-17 (average answer)

5.4 License practises and attitude towards open licenses in general

From the 17 claims in the questionnaire, four were attached directly to open licensing. These claims (See Appendix 1, claims 5, 9, 10 and 11) aimed to give information about the current and future licensing practices of the represented company and the respondent.

As regards the licensing practices of companies that were represented in this research, a clear majority of the respondents (66.7%) reported that their company does not license its material forward (See Figure 10).

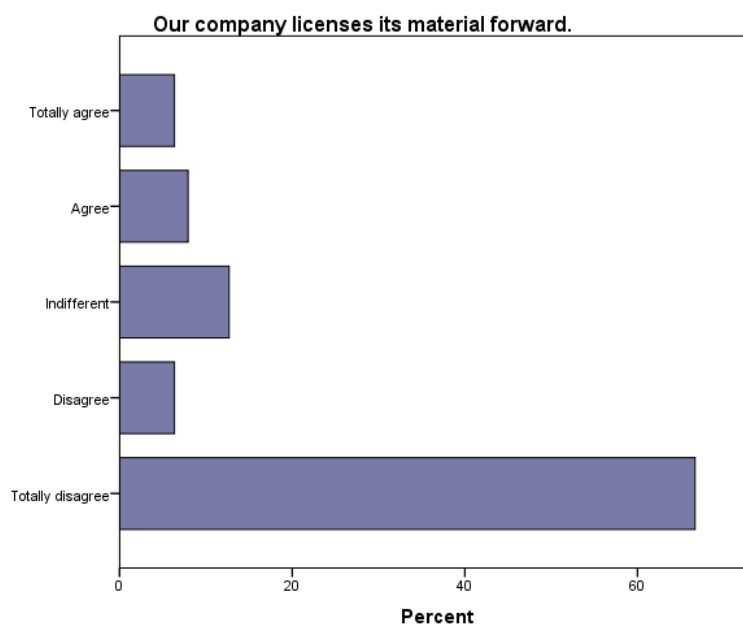


Figure 10: Our company licenses its material forward

It was asked how many of the respondents believe that open licensing will be a significant part of the business activity in the line of business they represent. This question was asked to find out how the sample group sees the future of open licenses. Variation of opinions was high in this question, but as can be seen in the frequency table (see Table 6). “Totally disagree” and “Agree” were the most frequent answers. The majority of the respondents (36.5%) totally disagreed with the claim. Only one of the respondents answered that he/she totally agreed that open licensing will be a significant part of the business activity in the line of business he/she represents.

10 Open licensing will be a significant part of the business activity in my line of business.

		Frequency	Percent	Valid Percent
Valid	Totally disagree	23	29,9	36,5
	Disagree	13	16,9	20,6
	Indifferent	9	11,7	14,3
	Agree	17	22,1	27,0
	Totally agree	1	1,3	1,6
	Total	63	81,8	100,0
Missing	System	14	18,2	
Total		77	100,0	

Table 6: Open licensing will be a significant part of the business activity in my line of business

The next claim (See Appendix 1, claim number 11) concerns the near future of open licenses. It was asked indirectly whether the respondents believe that their company will license some material it has produced with an open license within the next 24 months. As can be seen from the figure 11, the clear majority (56.1%) of the respondents answered that they totally disagree with the claim. Only 1.5 percent of the respondents believed that their company licenses its material under an open license within the next two years.

I believe that our company will license its material under an open license within the next 24 months.

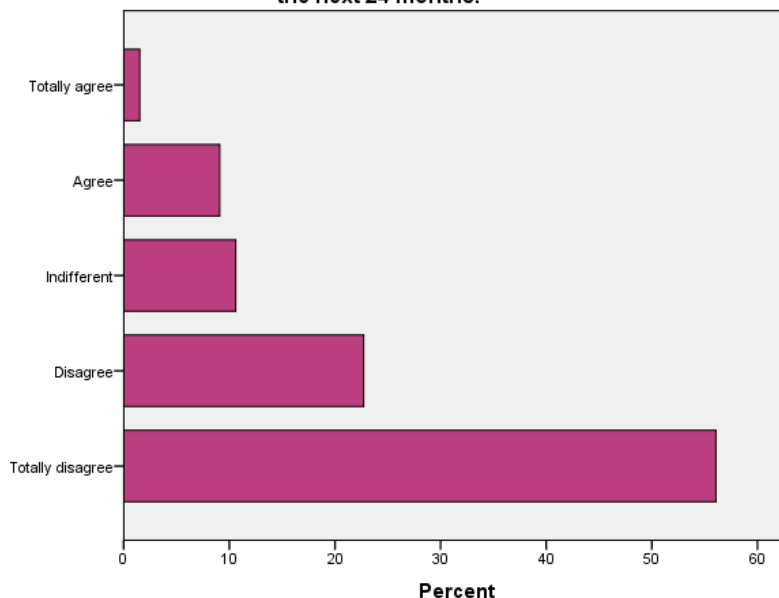


Figure 11: I believe that our company will license its material under an open license within the next 24 months.

The results of the research show that even if the organizational use of open licenses and its future is viewed to some extent pessimistically, the respondents seem to be willing to use

them for their personal creations (see Appendix 4). A third of the respondents (31.2%) agreed with the claim “I would personally be ready to license material with my copyrights under an open license”. High variation was found here as well; over 20% (21.9%) totally disagreed with the claim.

It was investigated if a correlation could be found with the answers of the claim “I would personally be ready to license material with my copyrights under an open license” and the background variables. Spearman’s rho correlation coefficient was applied. As can be seen from Appendix 5, it seems that the respondent’s membership union or years of service have no impact on their answer. Age and years of service do correlate with each other but this was expected (an older employee has more professional experience). From these background variables only age seems to have had some impact on respondent’s willingness to use an open license for their personal work. To find out what is the dispersion of the answers of different age groups, both variables were cross tabulated.

9 Ready to license Classified * Age classified Crosstabulation

			Age classified				Total
			26-35 years	36-45 years	46-62 years	older than 62 years	
9 Ready to license Classified	Totally disagree or disagree	Count	1	7	10	7	25
		% within Age classified	9,1%	43,8%	43,5%	53,8%	39,7%
	Indifferent	Count	2	3	4	2	11
		% within Age classified	18,2%	18,8%	17,4%	15,4%	17,5%
	Totally agree or agree	Count	8	6	9	4	27
		% within Age classified	72,7%	37,5%	39,1%	30,8%	42,9%
	Total	Count	11	16	23	13	63
		% within Age classified	100,0%	100,0%	100,0%	100,0%	100,0%

Table 7: Crosstabulation for variable 9

It seems that the younger the age, the readier the respondent is to license material under an open license. In particular this readiness can be seen among the 26- 35 year olds. The Chi-Square Test shows that with 61.7% certainty (P-value 0.383) this is true and the conclusion can be applied to a larger population. This conclusion is not still statistically qualified, because 50% of the cells contained too small amount of the expected count (See Table 8).

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6,367 ^a	6	,383
Likelihood Ratio	7,141	6	,308
Linear-by-Linear Association	4,376	1	,036
N of Valid Cases	63		

a. 6 cells (50,0%) have expected count less than 5. The minimum expected count is 1,92.

Table 8: Chi-Square Test for variable 9

To find out what the current attitude towards open licenses is in general it was necessary to combine the variables that measure it the most. Claims 2,3,7,8,9,10 and 11 (See Appendix 1) seemed to fill this requirement better than other claims of the questionnaire. According to Cronbach's Alpha these claims could be combined to create a new variable, which was named as "Positive attitude towards open licensing" (See Appendix 6).

Spearman's rho was applied to find out the possible correlations with the "Positive attitude towards open licensing" and the background variables. As can be seen from Table 9, it seems that there are no correlations with this variable and union membership, sex, age or years of service.

			Correlations				
			Positive Attitude Towards Open Licensing	Age classified	Years of service classified	Information Channel	Sex
Spearman's rho	PositiveAttitudeTowards OpenLicensing	Correlation Coefficient	1,000	-,167	-,160	,187	,213
		Sig. (2-tailed)	.	,167	,181	,148	,074
		N	71	70	71	61	71
Age classified	Age classified	Correlation Coefficient	-,167	1,000	,868**	-,360**	-,155
		Sig. (2-tailed)	,167	.	,000	,004	,187
		N	70	74	74	63	74
Years of service classified	Years of service classified	Correlation Coefficient	-,160	,868**	1,000	-,399**	-,280*
		Sig. (2-tailed)	,181	,000	.	,001	,015
		N	71	74	75	64	75
Information Channel	Information Channel	Correlation Coefficient	,187	-,360**	-,399**	1,000	,397**
		Sig. (2-tailed)	,148	,004	,001	.	,001
		N	61	63	64	66	66
Sex	Sex	Correlation Coefficient	,213	-,155	-,280*	,397**	1,000
		Sig. (2-tailed)	,074	,187	,015	,001	.
		N	71	74	75	66	77

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 9: Correlations between "Positive attitude towards open licensing" and background variables.

From the three open questions on the last page of questionnaire, one aimed to find out how the represented companies could benefit from open licenses and what kind of problems the respondent sees with the usage of open licenses in his/her line of business (See Appendix 1, question 19). Over half of the respondents (65%) left this section blank and the received answers show that this question was in some cases misunderstood. In these cases it seems that open licenses in the context of this question were confused with open source software programmes.

From the point of view of the received answers it seems that the respondents see the possible benefits of cost-efficiency and faster and increased rendering capacity. Few respondents

answered that they think open licenses should be used more and saw no problems with the professional usage in their line of business. One respondent answered that he was excited about the open licenses because they increase the competitiveness of small companies.

Still most of the respondents saw many possible problems when using open licenses. The biggest problem seems to be the fear of information leaks and legal actions. Some respondents pointed out the confusion with the rights of the author and the user who wants to modify the licensed work. Also the compatibility with some commercial rendering software was seen as a possible problem, as well as the lack of information about the licensing options.

5.5 Current knowledge base and the need of more education

From the 17 claims in the questionnaire, five were attached to the respondent's current knowledge base about the open licenses and his/her need of additional education (See Appendix 1, Claims 6, 7, 8, 12, and 13). The purpose was to map out the amount of knowledge that the respondent thought he/she had from the open licenses and the copyright legislation and to find out if the companies had educated their employees about the open licensing.

Claim number six (See Appendix 1) measured, whether the respondents were familiar with the Finnish copyright legislation. The results show (See Appendix 7) that the most of the respondents regard themselves as being familiar with the copyright legislation. The clear majority of 38% agrees with the claim. A little bit over 21% answered "Indifferent" and 15.5% totally disagreed with the claim.

The next claim (See Appendix1, claim number 7) measured whether the respondents were familiar with the open licenses. The results presented in Figure 12 show that a clear majority of 38% answered that they totally disagree with the claim. Only a little bit over one percent of the examinees regarded themselves as being totally familiar with open licenses. It seems that the research sample doesn't have a moderate knowledge base about open licenses. This can also reflect to their attitude and prejudice towards the open licensing as an option.

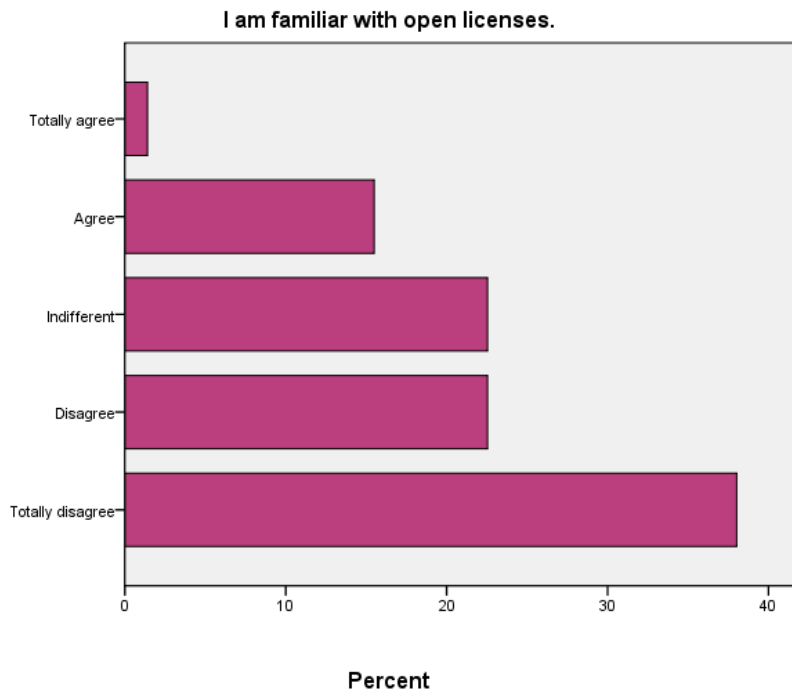


Figure 12: I am familiar with open licenses.

The next claim on the questionnaire (See Appendix 1) combined these two claims about the knowledge base concerning copyright legislation and open licenses. Claim number eight “I think the relationship between copyrights and open licenses is univocal enough” produced answers with wider dispersion, as can be seen from the table 10 below. A slight majority of the respondents (31.6%) disagreed with the claim. No one answered “Totally agree”, but 19.3% agreed with the claim. From these results it can be concluded that there might be some confusion and uncertainty with the relationship of copyrights and open licenses.

8 I think the relationship between copyrights and open licenses is univocal enough.

		Frequency	Percent	Valid Percent
Valid	Totally disagree	13	16,9	22,8
	Disagree	18	23,4	31,6
	Indifferent	15	19,5	26,3
	Agree	11	14,3	19,3
	Total	57	74,0	100,0
Missing	System	20	26,0	
Total		77	100,0	

Table 10: I think the relationship between copyrights and open licenses is univocal enough.

Our company has educated its employees about open licensing.

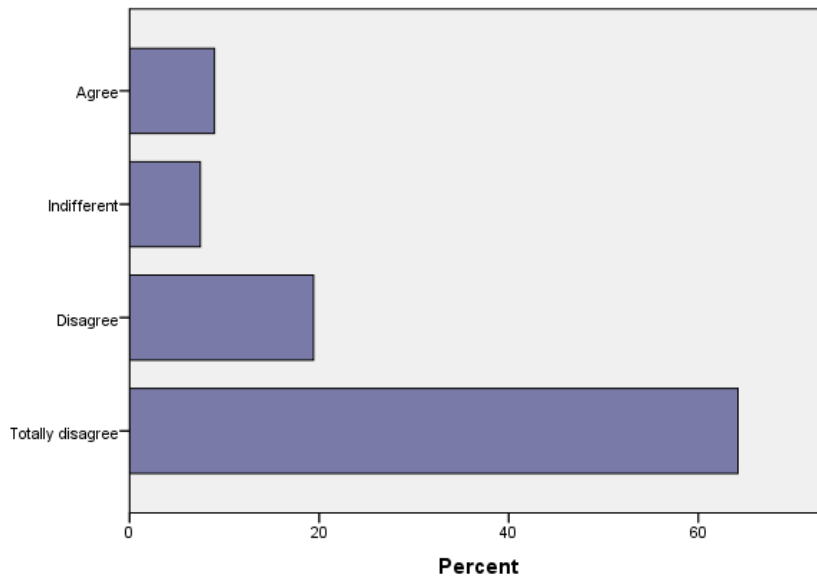


Figure 13: Our company has educated its employees about open licensing.

Claim number 12 (See Appendix 1) asked indirectly whether the represented companies have educated their employees about open licensing. The results can be seen from Figure 13 above. The clear majority (64.2%) of the respondents answered that they totally disagree with the claim and over 19 percent disagreed. Only nine percent of the respondents agreed with the claim.

It was investigated if the represented line of business would have had an impact on the employee's answer to this claim. Professional unions, who provided the addresses where the questionnaires were sent, give important information from the business field of the examinee. When investigating the matter among the most frequent unions, the results seem very similar and it can be concluded that the answer of an ATL member do not differ a lot from the answer of someone, who belongs to TKO Union instead, as can be seen from Table 11.

12 Our company has educated its employees about open licensing. * Information Channel Crosstabulation

			Information Channel			
			ATL	SIO	TKO	Total
12 Our company has educated its employees about open licensing.	Totally disagree	Count	17	11	11	39
		% within Information Channel	65,4%	78,6%	61,1%	67,2%
	Disagree	Count	6	2	3	11
		% within Information Channel	23,1%	14,3%	16,7%	19,0%
	Indifferent	Count	1	0	2	3
		% within Information Channel	3,8%	,0%	11,1%	5,2%
	Agree	Count	2	1	2	5
		% within Information Channel	7,7%	7,1%	11,1%	8,6%
	Total	Count	26	14	18	58
		% within Information Channel	100,0%	100,0%	100,0%	100,0%

Table 11: Cross tabulation of the claim 12 and information channel.

Claim number 13 was one of the most important ones for the study, because it asked indirectly whether the respondents feel that they need more education about open licenses. As can be seen from Table 12, the majority (35.2%) of the respondents reported that they totally agree with the claim. Also over 20 percent answered “Agree”. A bit over 12 percent totally disagreed with the claim.

13 I think I need more guidance in using open licenses.

		Frequency	Percent	Valid Percent
Valid	Totally disagree	9	11,7	12,7
	Disagree	7	9,1	9,9
	Indifferent	15	19,5	21,1
	Agree	15	19,5	21,1
	Totally agree	25	32,5	35,2
	Total	71	92,2	100,0
Missing	System	6	7,8	
Total		77	100,0	

Table 12: I think I need more guidance in using open licenses.

The factors that might influence the respondent’s acknowledgement of the need of more education were investigated. As can be seen from Table 13 below, the sex of the respondent does not seem to have had an impact on the answer.

13 I think I need more guidance in using open licenses classified * Sex Crosstabulation

			Sex		
			Male	Female	Total
13 I think I need more guidance in using open licenses classified	Totally disagree or disagree	Count	11	5	16
		% within Sex	22,4%	22,7%	22,5%
	Indifferent	Count	12	3	15
		% within Sex	24,5%	13,6%	21,1%
	Totally agree or agree	Count	26	14	40
		% within Sex	53,1%	63,6%	56,3%
	Total	Count	49	22	71
		% within Sex	100,0%	100,0%	100,0%

Table 13: Cross tabulation of sex and classified claim number 13.

Table 14 proves that this is statistically true. The P-value indicates that too big a risk would be taken if it were claimed that the sex of the respondent would have had an impact on his/her acknowledgement of need to get more education.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1,148 ^a	2	,563
Likelihood Ratio	1,214	2	,545
Linear-by-Linear Association	,235	1	,628
N of Valid Cases	71		

a. 2 cells (33,3%) have expected count less than 5. The minimum expected count is 4,65.

Table 14: Chi-Square Test for cross tabulation

When analysing the correlations with the acknowledgement of need to get more education (See Appendix 1, Claim 13) between other background variables than sex, it was found that no statistically noticeable correlations could be proven to exist. The only variable that seemed to explain the respondent's answer to claim 13 was the size of the company he/she represents. When these two variables were cross tabulated (See Appendix 8) the Chi-Square Test gave a P-value that encouraged the conclusion that the smaller the company, the larger the need of education. This is still not statistically noticeable because of the 55% of cells contained too small amount of the expected count.

From the three open questions in the questionnaire (See Appendix 1), question number 20 asked on what kind of subjects relating to open licenses and social media would the respondents like to get education and in which form and through what channel this sort of education in their opinion should be executed. Slightly less than 39% of the respondents answered this question.

The majority of the respondents who answered this question (80%) announced that they need more education about one or many aspects of this field. One fifth of the respondents felt that they are familiar with the subjects and don't need more education in any form.

From the point of view of the received answers it seems that the respondents would like to get education about Blender, 3D software in general, marketing in social media and about open licensing options. From the field of open licensing, the subjects that were found interesting were the legal issues (rules and limitations), the best licensing options for a specific line of business and the license development. Many of the respondents also pointed out their need for education about the subject in general.

Most of the respondents who answered this question would prefer to have their education through a professional union or some other reliable source (for example Aalto University was suggested). The desired form of education varied a lot; some respondents suggested internet courses and some wanted practical education. The common factor in most of the suggestions was that the preferred education should be fast ongoing, precise and not too expensive.

5.6 Conclusions and recommendations

The questionnaire originally aimed to provide information about the respondent's opinions and thoughts about open licensing, about how he/she sees the future of open licenses and what possible problems the respondents see in their usage. It also aimed to determine the current state of knowledge, on which the respondent bases his/her opinion and if additional guidance would be desired and needed.

From this point of view the questionnaire served well as an information source. Although some questions produced answers that varied a lot with each other, many of them provided bar charts and frequency tables that are easy to read and interpret.

It seems that many of the represented companies do not license any of their material forward (See Figure 10). One explanation might be that licensing is not needed, because the customer handles it when and if they publish the ordered work in web environment.

Two of the claims provided information about the future of open licenses in the organizational context (See Appendix 1, Claims 10, 11). Approximately one third of the respondents do not believe that open licensing would be a significant part of the business activity in their line of business in the future. On the other hand, almost the same amount agreed with this claim. This leads to the conclusion that the examinees see the future use of

open licenses very differently. Claim number 11 “I believe that our company will license its material under an open license within the next 24 months” produced clearer differences among the research sample. Over 56% of the examinees answered that they totally disagree with the claim and only 1.5% totally agreed. People do not seem to believe that using open licenses would work in their company at all.

Although the professional usage of open licenses does not seem popular among the respondents, it seems that the personal usage has more potential. The majority of the respondents would be ready to license material with their copyrights under an open license (See Appendix 4). It was investigated what factors and features might have influenced on the respondent’s opinion. The results show that the union membership or years of service had no statistically significant impact on the respondent’s answer. Actually from all the background variables only age seemed to have had some impact on the respondent’s willingness to use open licenses. It seems that the younger the age, the more willing the respondent is to license his/her copyrighted material under an open license. But as Tables 7 and 8 show, this conclusion can be applied only to the sample group and should not be generalized to any larger population because some of the cells contained too less amount of the expected count.

To find out what is the current attitude towards open licenses in general it was necessary to combine the variables that measured it the most. Claims 2,3,7,8,9,10 and 11 (See Appendix 1) seemed to fill this requirement better than other claims on the questionnaire and they were combined to create a new variable called “Positive attitude towards open licensing”. It was investigated if correlations could be found with this variable and the background variables. Spearman’s rho was applied (See Table 9), but no significant correlation was found.

Open question number 19 aimed to find out how the represented companies could benefit from open licenses and what kinds of problems the respondent sees with the usage of open licenses in his/her line of business. It seems that the respondents see the possible benefits of cost-efficiency and faster and increased rendering capacity. Few respondents answered that they think open licenses should be used more and saw no problems with the professional usage in their line of business. One respondent pointed out the possible increase of competitiveness, benefiting especially small companies.

Still most of the respondents saw many possible problems when using open licenses. The biggest problem seems to be the fear of information leaks and legal actions. Some respondents pointed out the confusion with the rights of the author and the user. Also the compatibility with some commercial rendering software was seen as a possible problem, as well as the lack of information about the licensing options.

The respondents seem to be aware that their current knowledge base about open licenses could be better. Most of them disagreed totally with the claim “I am familiar with open licenses”. The respondents still seem to be familiar with Finnish copyright legislation, the claim that concerned this matter (See Appendix 1, claim number 6) produced opposite results. It was also asked indirectly if the respondents think that the relationship between copyrights and open licenses is univocal enough. This claim number eight produced answers that varied a lot with each other (See Table 10). The majority still disagreed and one fifth answered that they “Totally disagree” with the claim. It seems that there is some uncertainty and confusion with the matter, at least among the research sample.

As Figure 13 shows, it can be concluded that most of the represented companies have not offered education about open licenses for their employees. This is coherent information with the lack of knowledge about the subject that the results of the claim “I am familiar with open licenses” reveal (See Figure 12). It was investigated that do the union membership correlate with the claim “Our company has educated its employees about open licensing”. No correlation was found, so Architect or Interior Architect companies do not seem to differ from companies who practice another type of business with this matter.

Claim number 13 (See Appendix 1) was one of the most important ones for the study, because it asked indirectly, whether the respondents feel that they need more education about open licenses. As Table 12 reveals, there is a recognized need for more education among the research sample. It was then investigated whether some of the background variables correlate with the answers of this claim. Only variable that seemed to have had an impact on the respondent’s answer was the size of the company. As can be seen from the Appendix 8, it seems that the smaller the company, the larger a need for more guidance about using open licenses. Still, too big of a risk would be taken if this conclusion would be generalized to a larger population.

The open question number 20 in the questionnaire (See Appendix 1) asked from what kind of subjects relating to open licenses and social media the respondents would like to get education and in which form and through what channel this sort of education in their opinion should be executed. The majority of the respondents who answered this question would like to get education about Blender, 3D software in general, open licensing options and marketing in social media among other things. From the field of open licensing, the subjects that were found challenging were the legal issues, the best licensing options for a specific line of business and the license development. Most of the respondents would prefer to get their education through professional unions or some other reliable source. According to the respondents the desired education would be fast ongoing, precise and not too expensive.

The answers for the research questions were found. It seems that the sample group does not believe in the professional usage of open licenses within the companies they currently represent but is more willing to use the licenses as private persons in their personal life. The lack of knowledge and education about open licenses was uncovered. It was found out that at least the research sample is willing to get more guidance about many subjects from the open licensing field and the form and source of the desired education was identified.

In the light of these research results and conclusions, the author of this thesis strongly recommends that education about open licenses in general would be organized through professional unions or Finnish open licensing authorities (for example Creative Commons). It might be likely that there is a severe lack of knowledge about open licensing among the Finnish creative professionals in general. Creative professionals are still very important potential user group, because they would offer a possibility for professional usability development and a wider distribution channel for open licenses.

The author of this thesis also recommends that to prove or disapprove this development suggestion, this subject would be investigated further in Finland with an even larger and more diverse research population.

5.7 Theoretical linkages

In this thesis the theoretical background consists of open innovation and knowledge management that combined create a new way to benefit from KM tools in managing open innovation in its different forms. Theories that were applied in the thesis create a solid base of information that supports the empirical research that took place. Open licenses represent one part of open innovation activity and strongly support the philosophy behind it. Knowledge management on the other hand is essential for the company to gain intellectual profits and benefit from using open licenses. KM tools are also necessary to protect the knowledge capital that already exists within the company.

6 Summary

To conclude this research, it is necessary to go back to the starting point. As it was mentioned in the beginning, openness is a rising trend in the present world of business. It will continue to be a debated subject, whether it brings more positive or negative features to the business activity within the companies who have adopted the open philosophy. The answer to that question is dependent on the perspective which through the matter is evaluated. It is clear that one can choose to focus on the possible risks that the openness creates almost inevitably or to the benefits and possibly larger business profits.

This thesis investigates the open philosophy on the perspective of open licensing and the empirical results show the high variation of opinions and attitudes towards this specific form of openness among the sample group. It might just be that open business models become more and more popular in the future and it is a fact that open licenses act a part in this transition. The companies who acknowledge this might get a leading position and increase their competitive advantage. One stumbling block is the lack of knowledge about the licensing options and open licensing in general, but for the companies who follow their time this is still just a matter of future investment to the professional skills of the employees and will surely be fixed.

To the author of this thesis it has been interesting and positively challenging to get acquainted with the research subject, which is large and multifaceted. This thesis investigates one expression of open business activity, but a lot is yet to be investigated in this field. The next step would be maybe to repeat this research with an even larger and more varied population. The organizations who offer open licensing should also pay attention to the marketing plan (especially through the user concerns and development suggestions), if and when they wish to receive a more stable footing on the professional user market.

List of References

About Creative Commons licenses. Creative Commons site documentation. Accessed 10 Sept 2010.

<http://creativecommons.org/about>
[www.creativecommons.org/about/licenses](http://creativecommons.org/about/licenses)

About Creative Commons history. Creative Commons site documentation. Accessed 10 Sept 2010.

<http://creativecommons.org/about/history/>

About Creative Commons in Finland. Creative Commons site documentation. Accessed 10 Sept 2010.

<http://creativecommons.fi/ota-yhteytta/>
<http://creativecommons.fi/usein-kysyttya/>

About Redhat. Redhat site documentation. Accessed 15 Sept 2010.

<http://www.redhat.com/about/>

About Science Commons. Science Commons site documentation. Accessed 15 Sept 2010.

<http://sciencecommons.org/about/details/>

Awad, E., Ghaziri, H. 2004. Knowledge Management. New Jersey: Pearson Education, Inc

Chesbrough, H. 2006. Open Business Models: How to Thrive in the New Innovation Landscape. Boston: Harvard Business School Press.

Chesbrough, H. 2006. Open Innovation: The New Imperative for Creating and Profiting from Technology. Boston: Harvard Business School Press.

Davenport, T H., Prusack, L. 1998. Working Knowledge: How Organizations Manage What They Know. Boston. Harvard Business School Press.

Experiment Resources. 2008. The Research Methodology. Accessed 8 Oct 2010.

<http://www.experiment-resources.com/research-methodology.html>

Guide to Open Licensing. Open Definition site documentation. Accessed 16 Nov 2010.

<http://www.opendefinition.org/guide/>

Hani, Dr. 2009. Empirical Research. Accessed 10 Oct 2010.

<http://www.experiment-resources.com/empirical-research.html>

Henrichsen, L. 1997. Validity. Accessed 10 Oct 2010.

http://linguistics.byu.edu/faculty/henrichsenl/researchmethods/RM_2_18.html

KvantiMOTV, 2008. Mittaaminen: Miittarin luotettavuus. Accessed 11 Jan 2011.

<http://www.fsd.uta.fi/menetelmaopetus/mittaaminen/luotettavuus.html>

Li, C and Bernoff, J. 2008. Groundswell: Winning in a world transformed by social technologies. Boston: Harvard Business School Press.

Lynch, R. 2006. Corporate Strategy 4th Edition. Essex England: Pearson Education, Ltd.

MacQueen, Hector L; Charlotte Waelde and Graeme T Laurie (2007). Contemporary Intellectual Property: Law and Policy. England: Oxford University Press.

Manor College. 2006. What is Empirical Research? Accessed 8 Oct 2010.

<http://library.manor.edu/tutorial/empiricalresearch.htm>

Marion, R. 2004. The Whole Art of Deduction: Research Skills for New Scientists.
http://www.sahs.utmb.edu/pellinore/intro_to_research/wad/wad_home.htm#contents.
 Accessed 4 Jan 2011.

Ministry of Education and Culture. Copyright in Finland. Accessed 21 Sept 2010.
<http://www.minedu.fi/OPM/Tekijaenoikeus/?lang=en>

Moody, G.2006. Learning the Lesson: Open Content Licensing. Accessed 16 Nov 2010.
<http://lwn.net/Articles/181374/>

Null hypothesis definition. Accessed 8 Oct 2010.
<http://www.businessdictionary.com/definition/null-hypothesis.html>

Oksanen, V. 2007. Basics of the copyright. Accessed 21 Sept 2010.
<http://www.oksanen.net/blog/wp-content/uploads/2007/04/tekijanoikeus07.pdf>

Paci, Lalle, Chiaccio.2010. Knowledge Management for Open Innovation: Collaborative Mapping of Needs and Competencies. Accessed 28 Nov 2010.
<http://www.tlinc.com/articl212.htm>

Shuttleworth, M. 2008. Quantitative Research Design. Accessed 12 Oct 2010.
<http://www.experiment-resources.com/quantitative-research-design.html>

Suzor, N. 2010. Approximating moral protection through open licensing. Accessed 20 Sept 2010.
<http://nic.suzor.net/wp-content/uploads/2010/06/20100621-NS-OpenLicencesMoralRights.pdf>

Suzor, N. 2010. Graduated response schemes and the rule of law. Accessed 20 Sept 2010.
<http://nic.suzor.net/wp-content/uploads/2010/06/20100622-NS-GraduatedResponses.pdf>

Taanila, A.2009. Spss opas. Accessed 12 Dec 2010.
<http://myy.haaga-helia.fi/~taaak/k/spss.pdf>

The Open Source Definition. Open Source Initiative site documentation. Accessed 10 Oct 2010.
<http://www.opensource.org/docs/osd>

Trochim, W.2006. Types of Reliability. Accessed 10 Oct 2010.
<http://www.socialresearchmethods.net/kb/relytypes.php>

Tuomisto, J.2010. About Renderfarm.fi. Accessed 3 Sept 2010.
<http://www.renderfarm.fi/about>

George Boeree, C.2005. Qualitative methods. Accessed 8 Oct 2010.
<http://webpace.ship.edu/cgboer/genpsyqualmeth.html>

Wikipedia: About. 2011. Accessed 3 Sept 2010.
<http://en.wikipedia.org/wiki/Wikipedia:About>

List of Figures

Figure 1: Framework of the thesis	10
Figure 2: The Closed Innovation Paradigm for Managing Industrial R&D (Chesbrough, 2006; Figure 1-2 p.xxii)	16
Figure 3: The Open Innovation Paradigm for Managing Industrial R&D (Chesbrough, 2006; Figure 1-4 p.xxv)	17
Figure 4: Knowledge Management and Innovation (Awad & Ghaziri, 2004; Figure 1.5 P.8)	21
Figure 5: Collaborative Process Based On Open Model (Paci,Lalle,Chiaccio 2010, Journal of Knowledge Management Practice Vol 11 No 1).	21
Figure 6: Theoretical Framework	23
Figure 7: Age of the respondents	28
Figure 8: Size of the company	29
Figure 9: Claims 1-17 (average answer).....	31
Figure 10: Our company licenses its material forward	32
Figure 11: I believe that our company will license its material under an open license within the next 24 months.	33
Figure 12: I am familiar with open licenses.	37
Figure 13: Our company has educated its employees about open licensing.....	38

List of Tables

Table 1: The Open Source Definition (Open Source Initiative 2010).....	11
Table 2: Description of the six most common CC licenses (Creative Commons site documentation).	14
Table 3: Contrasting Principles of Closed and Open Innovation. Chesbrough, H. 2006. p.xxvi.....	18
Table 4: Age of the company in years.....	30
Table 5: Information channel	30
Table 6: Open licensing will be a significant part of the business activity in my line of business	33
Table 7: Crosstabulation for variable 9	34
Table 8: Chi-Square Test for variable 9.....	35
Table 9: Correlations between “Positive attitude towards open licensing” and background variables.	35
Table 10: I think the relationship between copyrights and open licenses is univocal enough.	37

Table 11: Cross tabulation of the claim 12 and information channel.	39
Table 12: I think I need more guidance in using open licenses.	39
Table 13: Cross tabulation of sex and classified claim number 13.	40
Table 14: Chi-Square Test for cross tabulation	40

Appendices

Appendix 1	51
Appendix 2	54
Appendix 3	55
Appendix 4	56
Appendix 5	57
Appendix 6	58
Appendix 7	59
Appendix 8	60

Appendix 1

Laurea-ammattikorkeakoulu, ORE-kysely 2010. Kyselyn taustatietoja:

1. Syntymävuotenne: _____

2. Sukupuolenne:

- Mies
 Nainen

3. Koulutuksenne: _____

4. Vuosia edustamallanne alalla:

- 0-4 vuotta
 5-9 vuotta
 10-14 vuotta
 15-19 vuotta
 yli 20 vuotta

5. Edustamanne yrityksen koko:

- 1-5 henkeä
 6-10 henkeä
 11-15 henkeä
 16-20 henkeä
 yli 21 henkeä

6. Edustamanne yrityksen ikä vuosissa:

- 0-4 vuotta
 5-9 vuotta
 10-14 vuotta
 15-19 vuotta
 20 vuotta

7. Tehtävänne yrityksessä: _____

8. Yhdistys tai liitto, jonka kautta saitte kyselyn:

- ATL, Arkkitehtitoimistojen Liitto
 SIO, Sisustusarkkitehdit SIO Ornamo
 TKO, Teolliset Muotoilijat TKO Ornamo
 Satu, Suomen Audiovisuaalisen Alan Tuottajat ry
 Muu

Mitä mieltä olette seuraavista väittämistä? Ympyröikää mielipidettänne vastaava numero (vastaa 1-5, 1 = täysin eri mieltä, 5 = täysin samaa mieltä). Jättäkää kenttä tyhjäksi mikäli ette osaa sanoa.

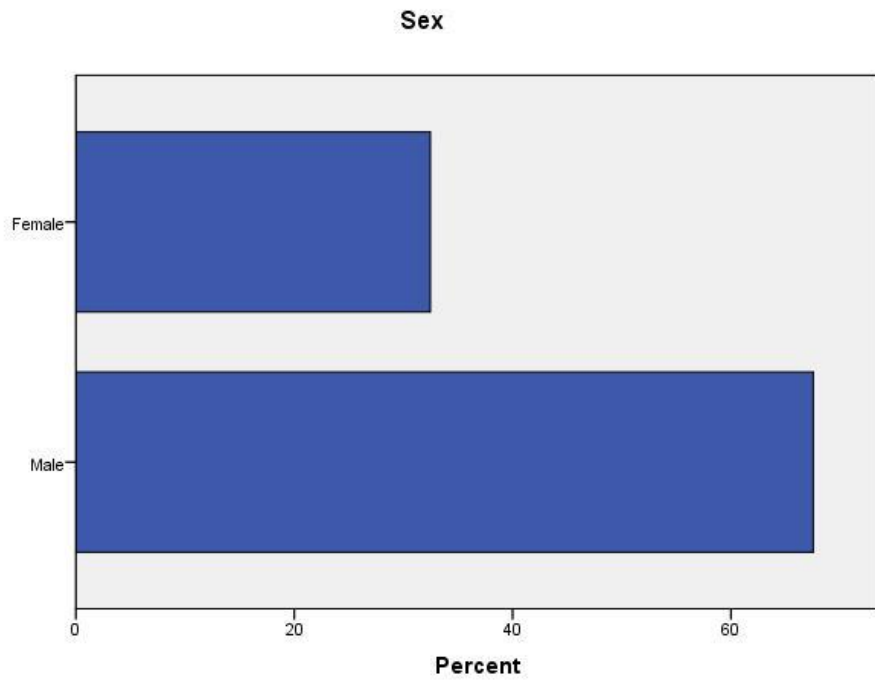
1. Yrityksemme käyttää huomattavissa määrin avoimen lähdekoodin ohjelmistoja	1	2	3	4	5
2. Avoimen lähdekoodin ohjelmistot tarjoavat kilpailukykyisen vaihtoehdon alallani käytettäville kaupallisille ohjelmistoille	1	2	3	4	5
3. Avoimen lähdekoodin ohjelmistojen käyttöönotto on helppoa	1	2	3	4	5
4. Avoimen lähdekoodin ohjelmistoihin on saatavilla tukea	1	2	3	4	5
5. Yrityksemme lisensoi tuottamaansa materiaalia eteenpäin	1	2	3	4	5
6. Olen perehtynyt Suomen tekijänoikeuslainsäädäntöön	1	2	3	4	5
7. Olen perehtynyt avoimiin lisensseihin	1	2	3	4	5
8. Tekijänoikeuksien ja avoimen lisensoinnin suhde on mielestäni riittävän yksiselitteinen	1	2	3	4	5
9. Olisin henkilökohtaisesti valmis lisensoimaan avoimella lisenssillä materiaalia, jonka tekijänoikeudet omistan	1	2	3	4	5
10. Avoin lisensointi tulee olemaan tärkeä osa alan liiketoimintaa	1	2	3	4	5
11. Uskon että yrityksemme tulee lisensoimaan tuottamaansa materiaalia jollakin avoimella lisenssillä seuraavien 24 kuukauden kuluessa	1	2	3	4	5
12. Yrityksemme on ohjeistanut työntekijöitään avoimien lisenssien käyttämisestä	1	2	3	4	5
13. Koen tarvitsevani ohjeistusta avoimien lisenssien käyttämisestä	1	2	3	4	5
14. Sosiaalinen media tulee olemaan tärkeä osa alan yritysten liiketoimintaa	1	2	3	4	5
15. Yrityksemme hyödyntää sosiaalista mediaa markkinoinnissaan	1	2	3	4	5
16. Yrityksemme on ohjeistanut työntekijöitään sosiaalisen median käyttämisessä	1	2	3	4	5
17. Koen tarvitsevani ohjeistusta markkinoinnista sosiaalisessa mediassa	1	2	3	4	5

18. Avoin kysymys: Mitä kolmiulotteisen grafikan tuottamiseen tarkoitettuja ohjelmistoja yrityksenne käyttää ja missä työvaiheissa? Mainitkaa ohjelmien nimet. Mainitkaa myös mikäli suunnittelette näiden käyttöönottoa tulevaisuudessa.

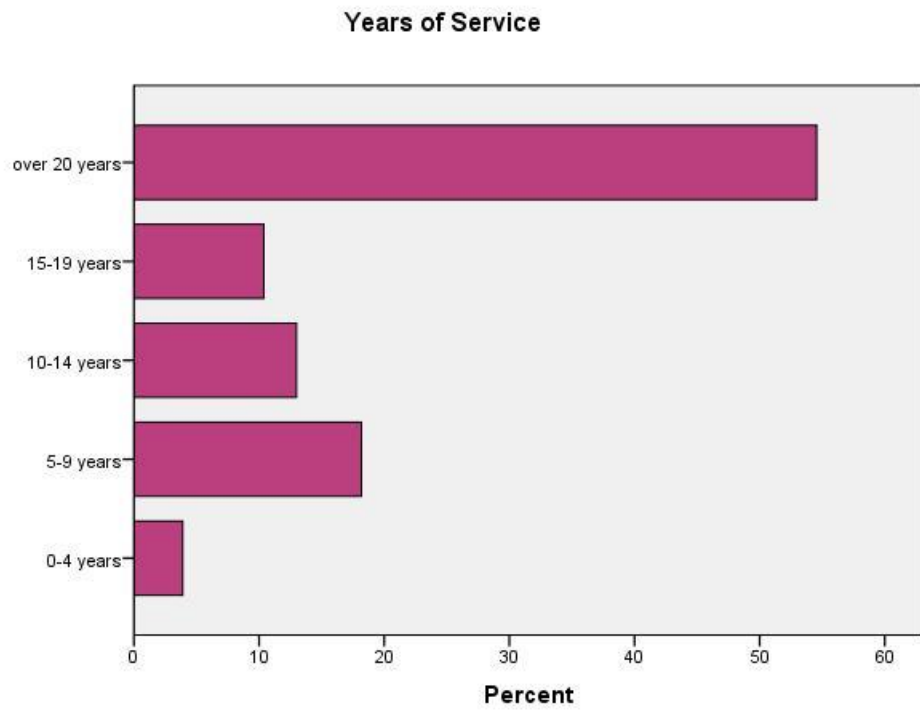
19. Avoin kysymys: Millä tavoin alanne yritykset voisivat hyödyntää avoimia lisenssejä? Mitä ongelmakohtia näette avoimien lisenssien käyttämisessä alallanne?

20. Avoin kysymys: Mistä avoimiin lisensseihin tai sosiaaliseen mediaan liittyvistä aiheista haluaisitte koulutusta? Mitä kautta ja missä muodossa tämä koulutus tulisi mielestänne toteuttaa?

Appendix 2

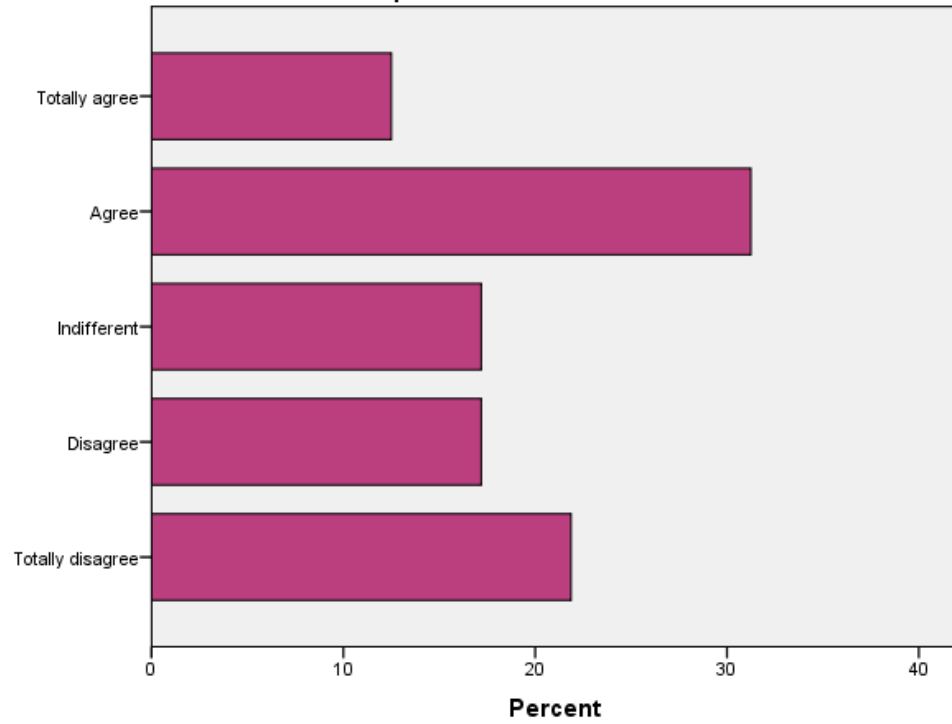


Appendix 3



Appendix 4

I would personally be ready to license material with my copyrights under an open license.



Appendix 5

Correlations

			Information Channel	Years of Service	Age classified	9 I would personally be ready to license material with my copyrights under an open license.
Spearman's rho	Information Channel	Correlation Coefficient	1,000	-.347**	-.360**	,175
		Sig. (2-tailed)	.	,004	,004	,196
		N	66	66	63	56
	Years of Service	Correlation Coefficient	-.347**	1,000	,876**	-.179
		Sig. (2-tailed)	,004	.	,000	,158
		N	66	77	74	64
	Age classified	Correlation Coefficient	-.360**	,876**	1,000	-.269*
		Sig. (2-tailed)	,004	,000	.	,033
		N	63	74	74	63
	9 I would personally be ready to license material with my copyrights under an open license.	Correlation Coefficient	,175	-.179	-.269*	1,000
		Sig. (2-tailed)	,196	,158	,033	.
		N	56	64	63	64

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Appendix 6

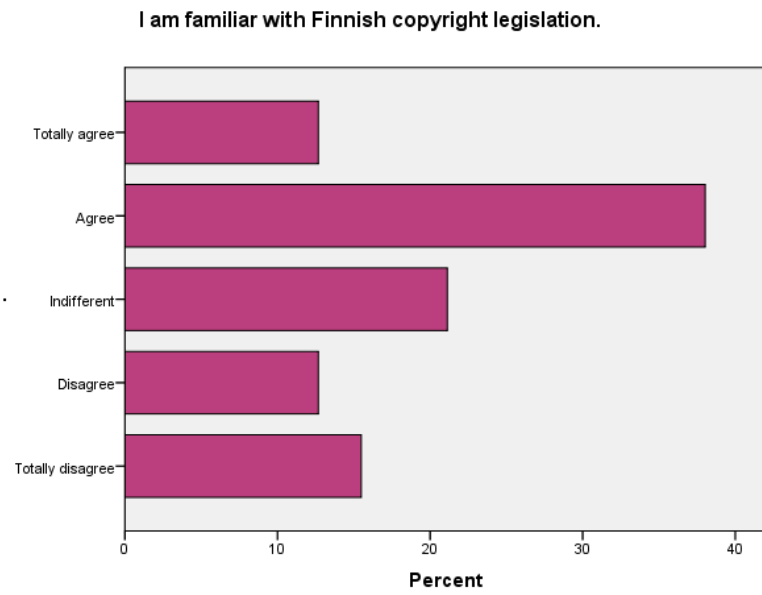
Reliability Statistics

Cronbach's Alpha	N of Items
,764	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
2 Open source programmes offer a competitive alternative to commercial programmes.	15,31	20,300	,412	,750
9 I would personally be ready to license material with my copyrights under an open license.	15,49	18,495	,504	,731
10 Open licensing will be a significant part of the business activity in my line of business.	16,18	18,428	,526	,726
11 I believe that our company will license its material under an open license in the next 24 months.	16,71	19,772	,472	,737
7 I am familiar with open licenses.	16,16	18,935	,547	,721
3 It is easy to start using open source programmes.	15,33	21,467	,446	,745
8 I think the relationship between copyrights and open licenses is univocal enough.	16,12	20,146	,493	,734

Appendix 7



Appendix 8

Crosstab

			Size of the Company Classified			
			1-10 persons	11-20 persons	more than 21 persons	Total
13 I think I need more guidance in using open licenses classified	Totally disagree or disagree	Count % within Size of the Company Classified	6 12,2%	2 40,0%	8 47,1%	16 22,5%
	Indifferent	Count % within Size of the Company Classified	12 24,5%	1 20,0%	2 11,8%	15 21,1%
	Totally agree or agree	Count % within Size of the Company Classified	31 63,3%	2 40,0%	7 41,2%	40 56,3%
	Total	Count % within Size of the Company Classified	49 100,0%	5 100,0%	17 100,0%	71 100,0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9,835 ^a	4	,043
Likelihood Ratio	9,281	4	,054
Linear-by-Linear Association	6,533	1	,011
N of Valid Cases	71		

a. 5 cells (55,6%) have expected count less than 5. The minimum expected count is 1,06.