Handelshögskolan vid Göteborgs Universitet/
Juridiska Institutionen
Uppsats 20p: Tillämpade studier på
Programmet för Juris kandidatexamen

Författare: Anders V Kvist
Handledare: Filip Bladini

Work group:
Management of IT-structures:

e-book

A study of *law management* issues, launching a new product within the IT-sphere

Table of Contents

Abbreviations

1. Introduction

1.1. Setting

1.2. Purpose

1.3. Methodology

1.4. Implementing The Law Management Model On Relevant e-Book Structures

1.4.1. Product Structure

1.4.2. Market Structure

1.4.3. Business Structure

2. The E-book (Product Structure)

2.1. History

2.2. Product Presentation

2.3. General development

2.4. Different Technology Solutions

2.4.1. Hardware

2.4.2. Software

2.5. Proprietary Rights Concerning the E-book

2.5.1. Patent

2.5.2. Copyright

2.5.3. Trademark

2.6. Standardisation Issues

3. Drawing up a new Market (Market Structure)

3.1. Project on E-books

3.1.1. School of Economics and Commercial Law

3.1.2. City Library of Stockholm

3.2. Current Market

3.3. Future Market, a Scenario

3.3.1. Initiating the Market

3.3.2. Market Target Groups

3.3.3. Distribution and Marketing

4. The Actors (Business Structure)

4.1. The Actors

4.2. Co-operation

4.3. Differences Between the Traditional and the Electronic Publishing Business Structures

4.3.1. Real changes

4.3.2. Possible changes

5. Strategic Law Management Issues

5.1. Introduction

5.2. Launching the e-Book Concept in Sweden

5.3. Technology and Standards

5.3.1. Technology Solutions

5.3.2. An Outline on Strategic Standardisation Issues

5.4. Information Technology Law

5.4.1. An introduction

5.4.2. Intellectual Property Rights

5.4.2.1. Copyright

5.4.2.2. Patent

5.4.2.3. Trademark

5.4.3. Contracting, the International Perspective of the Internet

5.4.3.1. National Contract Law

5.4.3.2. International Contract Law

5.4.4. Electronic Commerce

5.4.4.1. Legal Aspects on Marketing

5.4.4.2. Distribution and the Security Measures

5.4.4.3. Consumer/Customer protection

5.5. Business Performance Issues

5.5.1. E-commerce of Intellectual Property, An Uncertain Business

5.5.2. Economic Aspects on the Sale of IP Goods and Services

5.5.3. Proposals of Strategic Action Plans

6. Summary

List of References

Abbreviations

Equipment, technology
e-book, Electronic Book
e-reader, Electronic Book Reader
PDA, Personal Digital Assistant
DOI, Digital Object Identifier
PC, Personal Computer
CPU, Central Processing Unit
DSP, Digital Sound Processor
USB, Universal Serial Bus
LCD, Liquid Crystal Display
Dpi, Dots Per Inch
OS, Operative System
WWW or Web, World Wide Web
HTML, Hyper Text Mark-up Language
ISP, Internet Service Provider
MP3, Moving Pictures Experts Group, Layer 3
PDF, Portfolio Document Format
TCP/IP, Transmission Control Protocol/Internet Protocol

Commercial- and Legal Terminology
IP, Intellectual Property
IPR, Intellectual Property Rights
ICM, Intellectual Capital Management
IT, Information Technology
R&D, Research and Development
CRM, Customer Relation Management

Conventions, Legislation
PC, Paris Convention, Industrial Intellectual Property Protection (1883)
BC, Bern Convention, Protection of Literary and Artistic Creations (1886)
WC, World Convention on Copyright, (1952)
WCT, WIPO Copyright Treaty (1996)
WPPT, WIPO Performances and Phonogram Treaty (1996)
TRIPs, Trade Related Intellectual Property Aspects (1994)
CISG, UN Convention on *Contracts for the International Sale of Goods*, (1980)
TBT, WTA/WTO Agreement on Technical Barriers on Trade
VML, Varumärkeslagen (SFS
FirmL, Firmalagen, (SFS
URL, Upphovsrättslagen, (SFS 1960:729)
DMCA, US Digital Millennium Copyright Act (1998)
PL, Patentlagen
EPL, Europe Patent Law
PCT, Patent Co-operation Treaty
AvtL, Avtalslagen (SFS 1915:218)
KöpL, Köplagen (SFS 1990:931)
KKöpL, Konsumentköplagen (SFS 1990:932)
IKL, lag om Internationella avtal om köp
UDPR, The Uniform Domain Name Dispute Resolution Policy
DNS, Domain Name System

Organisations, Authorities
WTO, World Trade Organisation
WIPO, World Intellectual Property Organisation
UNCITRAL, United Nations Commission on International Trade Law
UN, United Nations
EU, European Union
EPO, European Patent Organisation
PRV, Patent och Registreringsverket
NIST, National Institute for Standardisation and Technology
NIC-SE, Network Information Centre Sweden AB
EBX, Electronic Book Exchange Working Group
ISO, International Standardisation Organisation
OEB, Open e-book Organisation
SRS, Swedish Standards Council
CEN, The European Committee for Standardisation
NCITS, National Committee for Information Technology Standards
ETSI, European Telecommunications Standards Institute
ITS, Information Technology Standardisation
SIS, Swedish Standards Institute

1. Introduction

1.1. Abstract

Information technology has come to stay as it rightly used would bring benefits like increased market shares, enhanced quality and higher profits for the user.[1] Modern IT has the ability to simplify ongoing processes of development in today's society, which in particular in the IT area itself are explosive. This has brought a need of effective management for enterprises with connections to IT, almost every single business actor today that is, to coop with the new possibilities but also the risks IT brings up. Management not only from an ordinary view but also in a *law management perspective*[2], because the field on the whole is previously unregulated, as it is a new one and withholds several legal issues of significant weight for the future IT-society.

Law management provides for the business performer to take the right decisions in respect of matters linked to the legal infrastructure of the business. Furthermore it has to give guidelines when it comes to legal matters as for example intellectual property rights, marketing laws and competition regulations in respect of the product and market areas where the businessman or -woman is or in the future are going to be active.

The accomplishment in this essay is an addition to a workgroup called *Management of IT-structures*[3] with the purpose of giving a contribution to the discussion of certain problem areas within the IT sector. To be more specific about this paper, it will highlight the need of certain important considerations and decisions to be made when putting forward a new product within the IT sphere. It will also provide a background and a presentation of the actual product.

The targeted product is a type of information bearer, which might revolutionise the way we read books, newspapers and other printed information sources, the *electronic book*. It contains of two different parts: First, the hardware called *electronic book reader* or as in the following, *e-reader*. Second, the electronic content, the text to read, stored in a data file format called electronic book or preferable *e-book*, visualised on the e-reader

[1] Ulf Arnetz, "Strategisk IT" p. 17
[2] Law management perspective is briefly described under the headline Methodology

or if formatted for it, any computer. To avoid confusion and mix-ups I have adopted solely the distinguished names given above, e-reader and e-book.[4]

I find it suitable to start up with an explanation of the purpose of this essay and then introduce a model, which will illustrate the legal (and other) issues of managerial character and their relation towards each other's. In the next step I will attempt to use the model on the e-book concept. Finally I am specifying and discussing some legal areas of strategic importance.

1.2. Purpose

The aim of this study is to introduce the e-book concept as a commercial product. The work will highlight certain issues that are strategically interesting from a law management viewpoint for a publisher entering the business. The matters must, to delimit the work, therewith be selected with the presence of eventual legislative work, standards formation, future IT solutions and consumer demands in mind. But also with regards of how to manage the intellectual properties, which mainly concerns copyrights, in order to cover investments and avoid losing control over one's immaterial assets.

It all comes down to the main purpose, which is to give some guidelines for the publisher or other interests having thoughts of commercialising the e-book idea.

1.3. Methodology

What is the *law management* perspective about? Traditionally the lawyer is a *conflict solver* that tries to sort out problems along the way, not an origin of strategic knowledge. A source that might give less legal implications such as legal processes descended from *inter alia* disputes with competitors, customers, authorities, employees' or even third parties claiming proprietary rights to a product of yours. The law management idea is on the contrary concentrating upon the necessary considerations one have to do before going into business or before any action is taken. It offers an approach to business performance in respect of the economic interests, that will make you do things right from the start to avoid, as in the example above, costly and discrediting disputes. As well as for example the technology-, marketing- and

[3] Workgroup formed by an assembly of final term law students at the School of Economics and Commercial Law, Gothenburg, autumn 1999

[4] Names proposed by eBookNet at http://www.ebooknet.com/, (10 august 1999)

financial management the law management should provide solutions and guidelines of strategic quality to improve the business performance, enlarge profits etc.

Strategic considerations have become more important today, why? Could it be the flourishing technology progress and the wrought-up speed of news and information sent trough the *ether* and the *cyberspace*. Today's technology will be old and outmoded tomorrow. IT is an area where this is truer than most other fields. The rapid progress calls for research work regarding future developments. Not to forget the important awareness about future IT legislation to come, which might influence the e-book business.

Drawing up business strategies is much of an attempt to shape a well working enterprise or to enhance business performances, in accordance to a vision. Further on it could be how to, at the best, handle preferences and interests and make correct valuations of these or, from another view, attempt to explain the legal infrastructure of a product, market or business. That is which *rules* and/or *regulations* will affect the state of business, in which direction these will affect the business and how to handle it. Moreover strategies will be an important derivation to legitimate action taken by the business performer.

When going into business several issues has to be regarded. Using a general model can eliminate the risk of forgetting any important consideration. The law management model on page 8 is sketched out for the purpose of finding out which considerations a publisher has to do, when commercialising the e-book concept in Sweden. This work is divided in two principal parts. First comes a part that presents the structural themes of the model, which is the product-, market- and business structures, in a somewhat empirical study briefly described hereunder.

I will start up with a brief look on the history behind the product. Then the present product appearance and the most important R&D within the field are recapitulated. The product itself is to be protected by a system of proprietary rights spanning from copyright and trademarks to patents. But there are also technology solutions and contractual measures giving cover. These elements are to be examined in this work.

Another matter that has shown to be of importance, especially to new

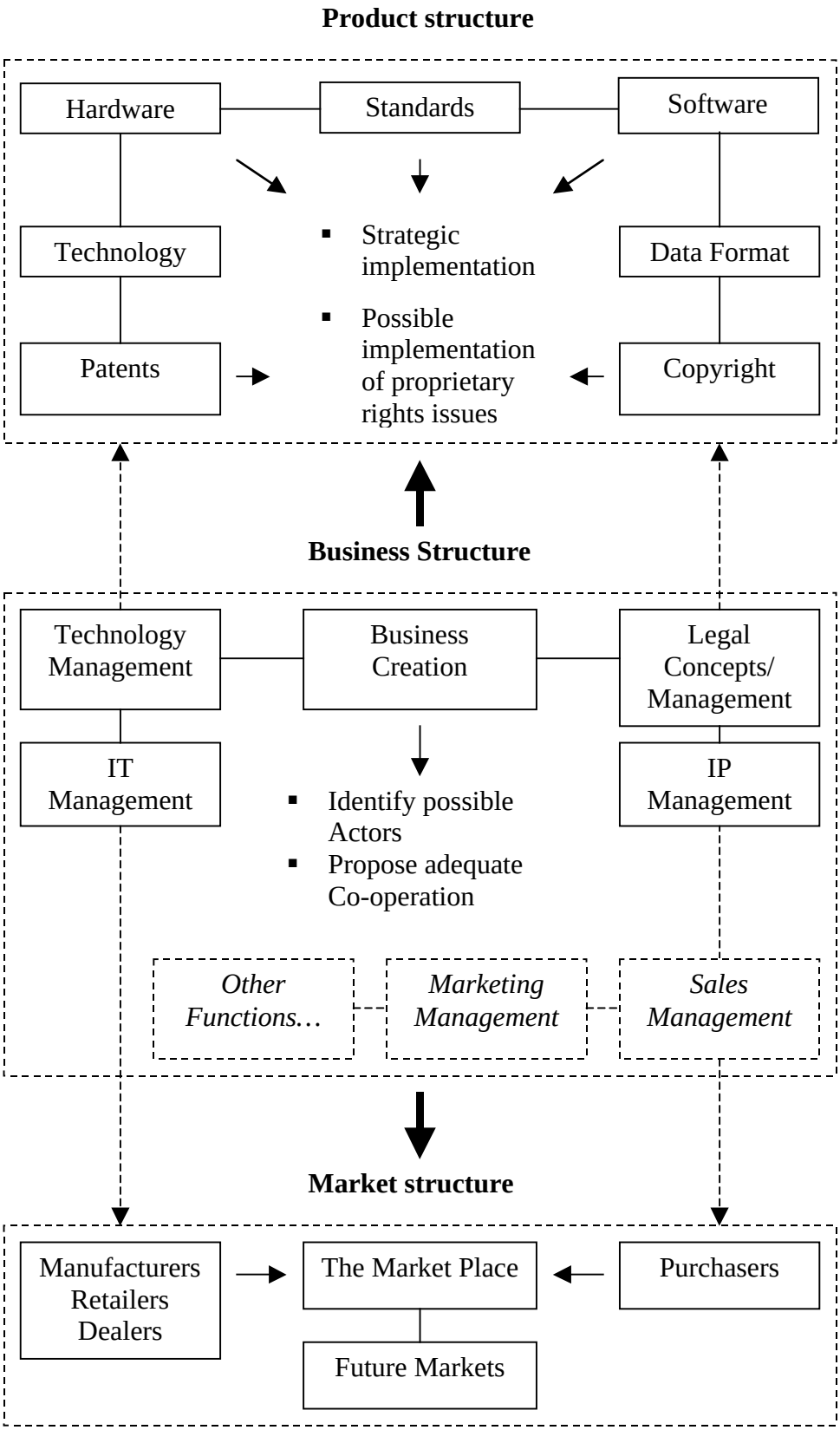
consumer orientated products, is the eventual lack of compatibility between different systems on the market. The solution is creation of a common standard. Awareness of standardisation issues is important for the e-book business as well as the IT branch as a whole.

We have in the year of 2001 been seeing the first steps establishing a Swedish e-book market, but are there a real market potential in Sweden? The marketplace is ready for e-books but it is rather unique, as the Internet is able not only to bring the parties together but also to provide for the distribution and the payment transaction in an all automated process. This is the case for e-books and gives the branch interesting economics.

We will finally view a comparison between the traditional publishing industry to the e-book business, in order to visualise the great changes in the business structure to come. Matters concerning the business structure have however a wider scope and can therefore not be more than briefly described in this work.

The second part in this work has an ambition to explain the essence of certain legal and to some extent commercial issues, which will influence an e-book market and follow up the empirical study. Besides an effort to explain which strategic considerations could be necessary is to be found in this part. The purpose is here to gather relevant information to launch some conclusions on the commercial strength and weakness in the e-book concept.

The Law Management Model on IT Structures[5]

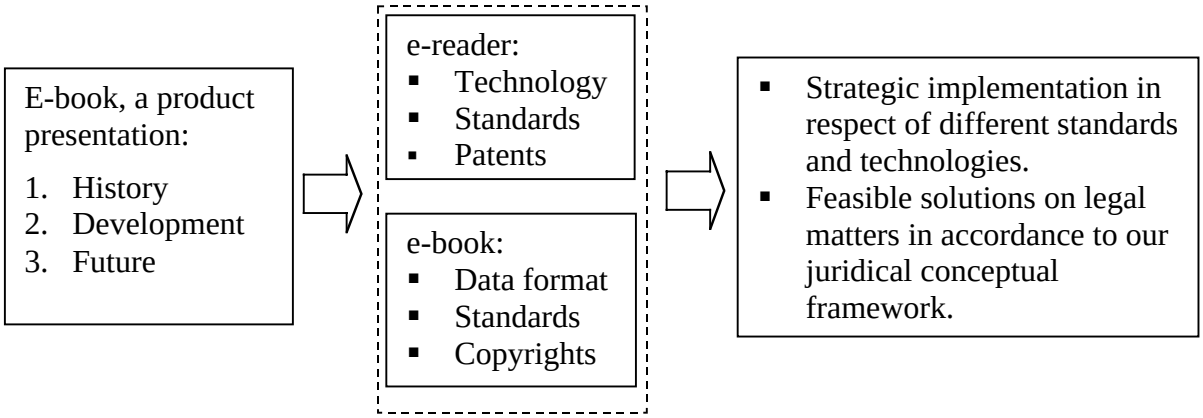


[5] The model proposed by Ulf Petrusson at seminar on Management of IT-structures October 1999.

1.4. Implementing the Law Management Model On E-book Structures

Application of the law management model on relevant e-book structures according to the general model gives us the following appearance, divided into three steps: 1) Product structure, 2) Market structure and 3) Business structure.

1.4.1. Product Structure



In the product structure part, we are introduced to the e-book concept from different angles as to the historical background, the present performance and how it might appear, by technology improvements, in the future. Awareness of these matters is essential when trying to make the right decisions and to take proper action in order to succeed with a commercialisation of the e-book idea. The alignment above shows a simplified picture of subjects, which will be presented under this chapter but to some extent, mainly the legal matters, more thoroughly under chapter 5.

While trying to obtain the most out of electronic publishing one have to make some substantial decisions. First, which technologies are going to be seized in respect of standards on IT, on IP management issues and customer demands? Second, could any legal regulations be used as tools to achieve advantages during the steps in the commercialisation act?

Standardisation matters are not easy to get hold of. The fast technology development making it harder. When a standard finally is settled there are no guaranties for it to be established. Business actors with strong market positions may ignore a standard and continue to manufacture or publish their proprietary product lines. In another scenery the standard can be

outmoded in a short time.

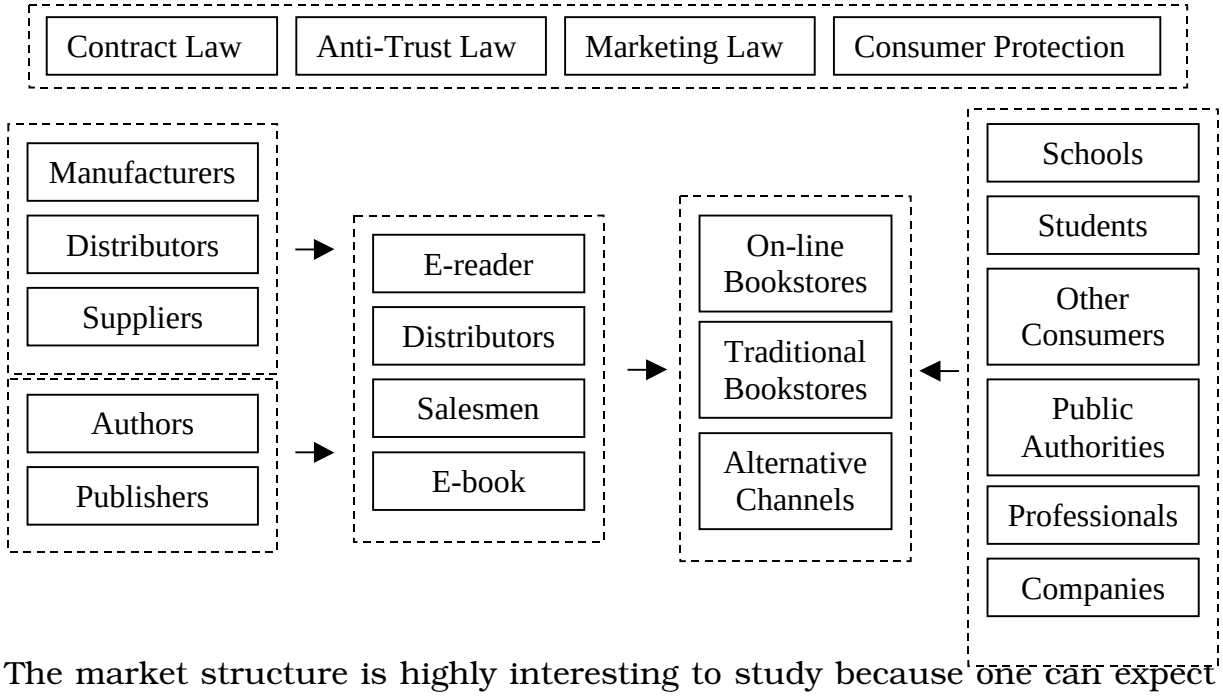
The question of legal issues is apparently important; how do we approach the legal topics addressed in a correct practice. Is it really possible to use the laws as instruments to gain and keep control over the intellectual capital that the e-book in reality consists of? Or do one have to relay on technology solutions to protect the proprietary rights, maybe in combination with contractual agreements like the licensing agreements of computer software.

Technology developments changes the e-book concept constantly and without knowledge of the R&D within the field of handheld computing devices it is not possible to get a proper opinion of what format the e-book should be published in. Two main alternatives are given; there are hardware e-reader devices or the software e-readers fitted for open OS and network solutions. In this perspective a brief description of relevant R&D work of interest for the nearest future in the business are enclosed.

The technology evolution is a matter of genuine *high-tech* R&D. To design and manufacture these handheld computing gadgets needs both commercial strength and great technological knowledge. The use of such technology in the e-readers devices will be dependent on licensing arrangements or other forms of joint measures, as current e-book developers and manufacturers on their own neither has the ability nor the capacity to be in the frontline technology development.

If summarising the product structure there are three fundamental issues crystallising before us: Technology solutions and their advance potential, intellectual property management and finally standardisation matters.

1.4.2. Market Structure



The market structure is highly interesting to study because one can expect great differences between the traditional book market and the e-book market both when it comes to the parties involved and to the marketplace final shape. The changes will take place immediately when publishers put the e-book on the market but the impact on the traditional book market will not mean, at least for a period of 3-8 years, a serious threat.[6] The market structure will be examined under chapter 3.

The e-book is part of and a child of our modern IT society. The concept may now be possible to realise not only as a result of the technology improvements concerning the hardware but also as the Internet provides a smart but also necessary marketplace for the e-book. The idea of immediate and inexhaustible sources of literary works is depending on the deliverance via the Internet or any similar network. The infrastructure of the Internet has become maturer and e-commerce has being established and is now about to be generally accepted. We'll see how the future developments may strengthen the idea of e-commerce on products and services, which has various electronic contents based on copyrighted intellectual property, suitable for deliverance's via the Internet.

[6] According to a common impression from an almost unanimous branch expertise, on the NIST hosted e-book conference in 1999, www.ebooknet.com, (10 August 1999)

The e-book commerce is expected to be an all automated process from order and delivery to payment transaction. The anonymous tendency is built up and calls for secured delivery systems and payment routines to avoid any attempt of computer fraud like theft of IP, piracy copying and credit card misuse etc. These matters are almost purely legal and very important to the e-book publisher but not significant just for the e-book commerce and will therefore not be more than briefly reviewed.

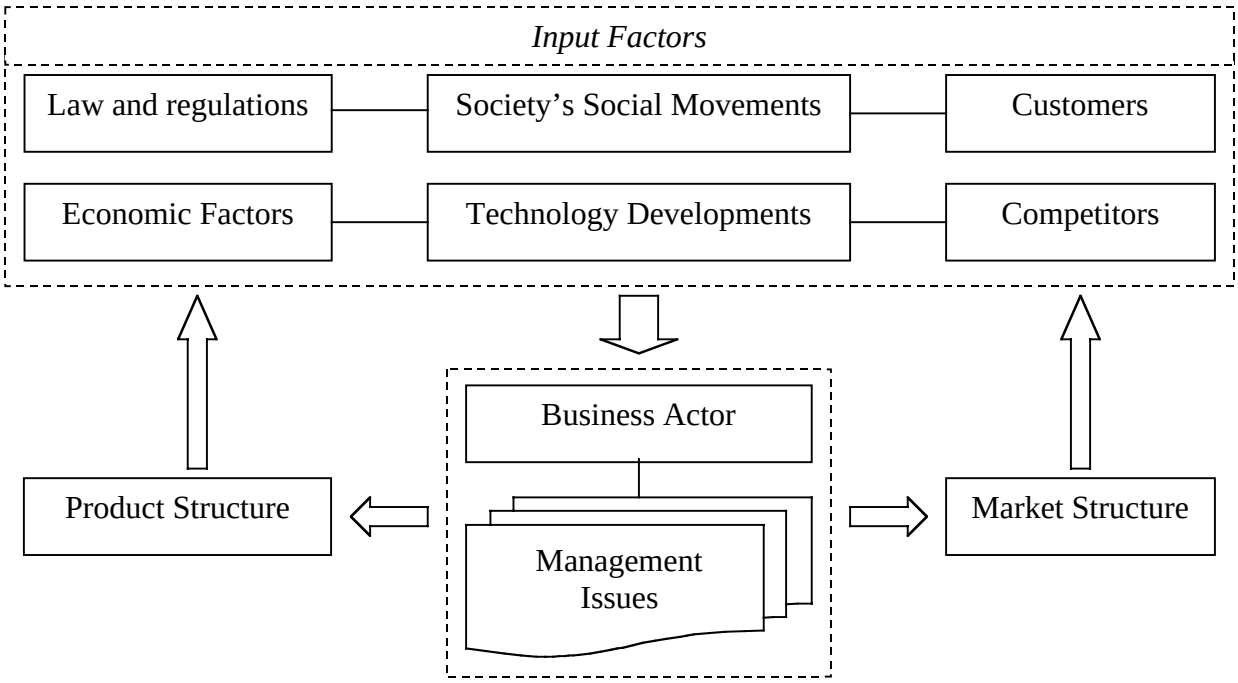
In the legal perspective on the market structure besides integrity and consumer protection, significant weight must be emphasised on marketing-, competition- and contract law too. The Internet has an impact worldwide that makes any illegal action in the market perspective grave.

One important issue, besides who the parties with interests in the market will be, is the one of how to estimate the future market. When doing so a wide range of matters has to be considered at the risk of faulty prediction: Technology improvements, society's social movements, mandatory new regulations and competitive new IT solutions which brings products out of date etc.

Will there at all be an interest of the E-book from potential buyers when it finally hits the market in Sweden? In Sweden some parties, publishers and bookstores, have recognised the need of co-operation in order to achieve a flourishing e-book market. The co-operation has nothing but one goal, to catalyse the e-book market in Sweden.

The market structure withholds a great variety of matters of which we must pick a couple to study if it should be possible to reasonably delimit the work. It is my believe that the points where the direct interaction between vendors and consumers are most important. Therefore we must understand how to secure the transaction, a contracting view, and also how the rules aiming at consumer protection are operating.

1.4.3. Business Structure[7]



The figure above tells us something about the situation that e-book publishers will face as well as any businesses within the IT sphere. That is the *process of ongoing development*. The product is becoming different not only as a consequence of technology improvements but also by influences from other sources like for example customer demands and new mandatory regulations. The same goes for the market, which will change depending on factors mentioned in the model. The purpose of the business structure model is to give a basis for the business performer to interact with the system and to provide solutions with the intention to affect, by effective management, the input sources at the aim of bringing the product and market to preferable positions. The reasons are obvious; the business has to be profitable. This goal is being reached just by providing demanded products.

If the goal is to control the product and the market developments in order to be profitable which are the means? The way I see it there are three main fields of business performance with certain importance, which have to be considered. First, one has to define the market actors and their strength and second, which co-operation is thereby necessary (and to which form) and last drawing up strategies to reach desired managerial effects?

[7] Input from the surrounding environment, Ulf Arnetz, Strategisk IT p. 57.

It is likely that we in the future can divide the market in two separate product lines, the e-readers and the e-books but not until common standards is settled. Besides the e-reader devices on the market has not reached the state of art that is needed to be competitive. The tendency right now is therefor in general, that companies whom has an interest in the e-publishing industry is focusing to get e-books accepted and to build up a market for them, leaving the thought of an e-reader device replacing the hardcover book, to rest for now.

The e-reader devices will face regular costs of manufacturing and deliveries etc, while e-book publishers has a chance to gain profits in a greatly cost reduced business, compared to traditional book publishing that is. When it comes to e-reader devices a lot of parties are involved. Not so for e-book publications however, which simply might be an affair between the author and the publisher alone. So in fact following the above, future e-book industry will have two groups of actors.

While the business performance is almost all about management competence there is an explanation why a publisher has to give these issues a thought and to make some reflections of it, from the law management perspective.

I will try to point out the supposed actors in the e-book business and examine the need of co-operation between the single actors or groups of them in the effort to commercialise the e-book concept.

As one can see in the model on page 8, the structural part goes from business creation on to business performance sorted in managerial competence areas. Noticeable is the fact that the business exercise influence on the product and market structures. Rightly so, I can't see the point of creating a business without having a possibility to supervise and govern its activities.

2. **The E-book** (Product Structure)

2.1. History

Since a couple of decades there has been a discussion about the paperless society and if it is in reach. The computer should be the tool in making it a reality. The screen would replace books, newspapers and other printed

works, but so far the computer has only helped us to produce even more papers.

In the long run the enormous waist of paper must come to a stop. The more people we will become on earth the more paper will be consumed. This means that the woodlands are going to be, in fact they already are, in a threatened position and that will have a major environmental effect. Not to mention the detrimental effects from the manufacturing and worldwide distribution of the printed word.

Why, by the way, are we so anxious to have the text printed out, when it is much lesser spacious and easier to handle in the digital format? Considering this it would not hurt to do the reading from some sort of computer screen and in addition use the splendid distribution channels provided by the Internet.

To change the inherited and habitual way of reading a good book though, it takes more than just scanning a text and formatting it for reading from a screen of any kind. Because reading long stretches of text on a computer screen usually is done with a slight strain. Improvements of technology are essential if electronic media ever will substitute the printed word.

As things are now you read onscreen what you have to, like e-mail, web pages, documents you are word-processing but hardly anyone does it by choice. It is hard on the eyes. Any eventual sharp light nearby creates a glare on the screen making you strain to see and reduces the texts visual appearance. The texts onscreen are usually not designed to give comfortable reading, like insufficiently leaded Times or Arial type. Moreover one becomes restrained from moving around by the desktop. Even if you have a portable laptop computer, your position hunched over the display is far from that relaxed position you are in when reading a book in a comfortable chair or lie reading in bed. It has simply not been an alternative to read a good traditional book, trying to read an electronic edition of it onscreen.

Now it is likely that computer reading will be more common. Technology improvements in the hardware sector, the e-readers and other handheld devices, and the Internet's exploding numbers of users with access providing a distribution solution for this new media, has given the vision of a paperless

society fuel to takeoff. At least that was the expectancy and hope of e-book manufacturers and publishers in the late 1990's.

These companies are situated in the US and were the ones to start pushing for the late –90's vision of electronic reading. Unfortunately the vision do not seem ready to face the market. Though the technology has improved, the solutions are not good enough to attract a larger amount of readers. In fact, besides two companies, Gemstar Inc. And Franklin Electronic Publishers Inc., there are no other companies manufacturing and selling dedicated e-readers even if there were several parties with that intention earlier. The interest in the US for these e-readers was more focused back in 1999. Although a handful of these companies have in the past four years built up catalogues of literature for distribution by electronic bookstores, worked out royalty rates and distribution formats for electronic publishers, for the US market. They were still unsuccessfully trying to initiate production of the e-reader models developed. The e-readers they hoped someday would replace the printed and bound books and other paper media. But as we now know this new industry has changed a lot in just a couple of years.

Publishing book texts for reading on a computer is not anything new, however. The idea has old roots. Electrical engineers who were working with the vacuum tube computers during World War II saw electronic books in their dreams.[8] The technology to turn these dreams into hardware was not available then. Today it is not only available, but also abounding and cheap.

When the Apple PowerBook was introduced, old classic books like Alice in Wonderland but also later contributions to the literacy as Jurassic Park was about to be published for the portable computer. *Project Gutenberg*[9] began digitising as many public-domain texts as it could get hold of for download from the Internet when the use of the Web increased. Public domain means in this case that the period of copyright protection expired, nowadays generally 70 years.

Peanut Press was another company with interests in digital publishing. They published texts for Palm Computing devices, Glassbook have originated a system to publish texts for Windows and Windows CE devices, which has gained interest from Adobe and has been the injector for a co-operation

[8] Wilson Jim, "Read My Screen", Popular Mechanics, Aug 1999, Vol. 176 Issue 8, p. 92

between the two companies. Librius.com was yet another company aiming at the electronic publishing. [10] Other actors will be presented later. However, none of those solutions approaches the problems. There still is the glare, the bad layout, and other annoyances of reading onscreen. The e-reader addresses these problems but does it succeed?

Electronic book readers have been developed in the past, but never caught on. The new line of e-readers is leaner, lighter and less expensive besides they have higher resolution screens than past ones. This explains why the new generation of e-readers could be of interest to us. They are more of a book than any other previous device for onscreen reading and could very well substitute the ordinary book, at least to some extent. In the longer perspective it might even give the traditional book a hard round because of technology developments which in a few years are ready to hit the market.[11]

But is this new generation of e-readers enough competitive to challenge the traditional book market? Business actors are hesitating and the engagement from software developers has given a solution that gives the electronic edition of books the same performance abilities like the e-reader devices but on common PC's, Laptops and PDA's.

[9] http://www.promo.net/pg/ (16 October 1999)
[10] See respective Internet based homepage on the Web, addresses under "Sources"
[11] See under section 2.3, General Development

2.2. Product Presentation[12]

e-readers from SoftBook Press and NuvoMedia, two of the frontiers.

The idea of electronic books could possibly imply a great change in the way we read and deal with information. Imagine being able to download a newspaper or the latest best seller into your e-book. Then you can leave your computer and read it when and wherever you like.

The e-readers are an example of hybrid products that combine the printed word with the flexibility of a computer. Equipped with touch-screen display technology and software enhancements including font resizing, an on-board dictionary and a built in virtual keyboard you can use to make annotations. The e-readers have their pros and cons but the e-readers out now is the first generation and enhanced versions will come.

Using one of the first e-readers as the Rocket eBook, the model I have tried for some weeks, is a new experience. While reading text on a computer feels like reading text on a computer, reading an e-book almost feels like reading a book. The LCD-screen is far from ideal but the weight and the distance from the page feel familiar and comfortable.

To starter with e-readers try to provide an experience similar to traditional books. The size and form reminds of a hardback book. Just turn the e-reader on and then start to read. Reading along you turns pages touching a push-button, forward or back. When you want to quit there is a possibility to mark your place with an electronic bookmark. The e-reader models have a *stylus*, which let us write notes as margin- or footnotes, as well as highlighting and underlining text. You are then saving your personal marks along with the e-book until you don't need it more.

[12] Product information at http://www.rocket-ebook.com and http://www.softbook.com, (1 November 1999)

One good thing with the e-readers is the background light of the screen allowing you to read in the dark. Another helpful function is the on-screen dictionary. Accessing the dictionary is easy, one model let you just point at a word with a slight touch of a finger or the stylus and then the synonyms are visible on the screen. The dictionary could be handy, especially for people not having English as their mother tongue, when reading English texts. There is no need to make a break to look up the word in a traditional dictionary, which is practicably, expressly when travelling. You can also use the e-reader as a dictionary beside traditionally textbooks.

Moreover a clever utility is the possibility to load the e-reader with your own documents. This feature I believe is going to be valued among professionals, who often or almost always are on business trips. It saves carriage and it becomes easy to read on the move.

The e-readers now developed need a connection to the Internet for downloading of electronic content as books, magazines, reference material, newspapers etc. The e-book provides some advantages compared to the traditional book benefits but also some disadvantages. To the benefits must the easy access to reading material be counted, while the price is questionable adjusted.[13]

The alternative e-readers are a software application to your computer, whether it is the PC, laptop or the PDA. Many publishers with plans on electronic publishing have for time being published books only in formats assisted of these software solutions. This must however be seen as a preparation for the future e-book market in my opinion.

2.3. General Development

E-reader developers, with just electronic publishing in mind, have staked out the way for an e-book market with their work but the last year we have been noticing traditional publishers and well established IT companies join the scenery. The early, dedicated work was focusing on making the e-book concept well known, to develop the hardware solution and to get the rights to publish texts edited for the e-reader devices. The e-book business up-runners even took active part of negotiations to set royalty rates. In the US it has been hard to reach a mutual standpoint on the matter because the

[13] More differences listed in SVB #15/98.

authors have taken position for higher royalty rates when it comes to e-books, arguing that the profits of cost reduction for publishers has to be shared mutually. That position is not however supported by the new e-book publishers. The matter will be discussed under the headline of section *4, The Actors*.

The development of technology for the e-readers is however continuing. Currently there is however only a couple of manufacturers in business (not counting Palm Inc.'s PDA's or other handheld computing gadgets). The RCA Company, which has a licence agreement with Gemstar to manufacture and sell the RCA brand - Gemstar eBook – models RCA- REB1100 and REB1200. RCA in turn has an agreement with Thomson Home Electronics, the manufacturer, while RCA is marketing the e-readers. These models are based on and are almost identical to the former models from SoftBook Press and NuvoMedia. The other company is Franklin Electronic Publishing Ltd, which is marketing three models of the Franklin brand name eBookman. These models are more the like of a PDA in form and function though. The core developing is however not focused on the e-reader device now. The development is in fact concerned of technology that is not suitable only for e-readers but all portable electronic devices.

What will future e-reader and e-book look like? It is hard to predict, but it will be exciting to watch how they evolve. If, for example, arguing for the traditional book format, an e-reader made of paper or thin soft plastic and bound in the familiar codex format that in a matter of seconds can become any book you want to read, could be the future. But why be satisfied with a device trying to imitate the institutional traditional book, when the small electronic devices of the future could be like multimedia central units with loads of features? Let us now take a look at the progress of the R&D. The future of e-reading are definitely not software e-readers adapted for today's computers.

The cost of e-readers at the present seems a bit high for a new device in the computer sector with competitors like laptops and palm pilots, which have a broader area of use but this may be justified for some audiences. Furthermore the price for each e-book is levelled a bit too high in comparison with the traditional book, I believe. The e-book parties as well as consumers hope that the price of the hardware and the e-book editions will

drop. But disappointingly there is no expectance that the prices on e-books are going to be much lower than the printed book prices, not even in the future.[14]

Therefor technology development rapidly changes the e-book concept to be even more competitive. One technology, which may lower costs for the hardware unit, is ultra-light LCD's on plastic instead of glass. - "Within three years, the glass will be out of the screens, and it provides for inexpensive displays."[15] We are not there yet. The display technology of today is one dilemma for the small portable electronic devices. Can the problem be solved?

As one example we might pick the company E-Ink Corporation, in Massachusetts, working on a *substance* it calls Immedia, *which can be printed, like ink, on any substrate.*[16] It is made of tiny microcapsules that can appear either black or white, depending on the electrical charge applied to them. A radio signal describing a new text could be sent to the page to reformat it instantly. But E Ink still need time to improve resolution, contrast, reflectivity, and other characteristics to more closely approximate the quality of standard ink on paper. E-Ink Corp. and Lucent Technologies will work together to develop this technology for electronic books and newspapers. Based on the Immedia substance and the *plastic transistors* developed at Lucent's Bell Labs, *which have the same properties as conventional silicon chips but are flexible and can be printed.*[17] The objective of the Lucent and E Ink collaboration is to print the plastic transistors onto a flexible plastic film coated with the electronic ink.

Then the companies will have a flexible, plastic electronic display to commercialise, entirely made with a process analogous to ink-on-paper printing, rather than the more costly silicon-chip manufacturing process. The same technology, which allows for instantaneous updating via computer link, (radio signal or via cable), may be used for lightweight displays. Which appears in consumer electronic devices like cellular phones, personal digital

[14] Martin Eberhart, Exec Director NuvoMedia Inc, article on the 2 August1999 in "Svenska Dagbladet".
[15] SoftBook Press C.E.O. predicts future technology at NIST e-book conference 1999, www.nist.gov (10 November 1999).
[16] http://www.eink.com/, (10 May 2000)
[17] http://www.lucent.com/ and http://www.bell-labs.com/org/physicalsciences/, (11 May 2000)

assistants and of course e-readers. A system now used is the so-called blue-tooth technology.

Electronic paper is another technology enhancement addressing the problems of poor flexibility and high costs for computer screens. It is *a reusable display material*, which also has properties similar to the ones of ordinary paper. It stores images of texts or pictures, it may be viewed in reflective light, it has a wide viewing angle, it is flexible and it is relatively inexpensive. The material has many potential applications in the field of information displays, including low power portable displays suitable for e-readers but also wall size displays. Electronic paper utilises a new display technology called *gyricon* invented by Xerox.[18]

> "A gyricon sheet is a thin layer of transparent plastic in which millions of small beads, somewhat like toner particles, are randomly dispersed. The beads, each contained in an oil-filled cavity, are free to rotate within those cavities. The beads are bichromal, with hemispheres of contrasting black and white, charged so they exhibit an electrical dipole. Under the influence of a voltage applied to the surface of the sheet, the beads rotate to present either black or white. A pattern of voltages can be applied to the surface to create images such as text and pictures. The image will persist until new voltage patterns are applied to create new images."[19]

For use with devices like the e-reader, rapid and direct electronic updates have to be made however. The gyricon material has to be, in this case, supported by a simple electrode structure on the surface if it is going to be used like a traditional display. As the use of backlight are not necessary and the requirement to refresh the display is gone, along with improved brightness compared to today's reflective displays, lightweight and low power applications will take favour of this technology.

Maybe the best way to read though is with a pair of glasses, not ordinary ones but with a LCD-screen concealed in the lens.[20] Just put on your glasses, it could be sunglasses, safety glasses or glasses with corrective lenses as well. When the user wears the glasses and turns the display on, an image of a computer or video screen appears, with possibility to adjust the focus and therewith allowing the user to place the image at a comfortable distance. The resolution is as good as 320 x 240, in greyscale mode. Higher resolution displays, 640 x 480 and 800 x 600, with colour mode are being developed by the company.

[18] http://www.xerox.com/, (20 May 2000)
[19] http://www.park.xerox.com/dhl/projects/epaper/, (20 May 2000)

The display can be connected to for example, a laptop or a personal digital assistant like the Palm Pilot. These or other electronic devices like VCRs generate a signal to be communicated with the small micro display to generate the image that the user sees. The light rays are relayed to the eye through reflectors within the eyeglass lens. The reflectors operate so that the image can be viewed comfortably. The image visualised appears to float in front of the eyes. The display can be turned off. The computer image will then disappear and the glasses become just like ordinary glasses, the user can see normally through the eyeglass lens. The integrated eyeglass display is still in development and not for sale.

The three examples above is trying to handle the display technology problem, which must be considered as one of the most important tasks. But the focus is however right now set on the software. Software that actually making the e-books more spread. Software giants as Adobe and Microsoft have joined the race, so has the media concern Gemstar done and they is buy acquiring NuvoMedia and Softbook Press. Furthermore the traditional publishers are beginning to show interest as well as on-line bookstores. Software enhancement aims at better e-business solutions and better visibility on-screen. You should be able to read e-books on an ordinary computer-screen, so that you do not have to buy an expensive e-reader, just to read books on. These companies are not really interested in e-reader devices as the committed ones that pushed for e-books from the middle of the 90's up to date. They are more interested in the digital publishing, which now has started to grow explosively.

The most important and now somewhat lacking part of the hardware system is the display, which has to improve a lot to challenge the traditional book. By the research work presented above we understand that the future e-reader will be more competitive.

While research work for future electronic publishing concerns display technology and software enhancements, for good reasons I believe, as on-screen reading and business systems are the most important parts to make improvements to, the e-reader developers have to improve other things as well. Just like the traditional book, e-books are designed for you to leaf through static pages of text. But give them time, divorced from paper and ink

[20] http://www.microopticalcorp.com, (3 June 2000)

and married to electronic media, the literary work one-day becomes even more of a total experience. But then of course it is not longer about reading a book…

2.4. Technology Solutions[21]

2.4.1. Hardware

Current technology solutions for the e-book are changing by the research work I briefly described above. This goes both for the e-reader and the e-book's supporting software. However we have to face things as they are right now, not just future developments, if the purpose of this essay is going to be fulfilled, because an e-book publisher has to know on which conditions he or she are going to business on. Does the available solutions provide defensible marketable qualities, are there any standards, if so, are they open or is there any proprietary rights concerning these standards.

What device will be in advantage, the dedicated e-readers, laptops or maybe the palm-pilots (PDA's) or the web-pad[22], what OS will support the user, which type of screen will be preferred and how to download e-books to the e-reader? The matter of technology solutions can be divided in two areas, hardware and software. As a consequence of the lack of standards on deliveries and of software systems, the publishers and on-line bookstores has to offer more than one format of the e-books they are selling.

If you buy an e-reader, you have to stick with a special edition, as with Gemstar's e-readers. While a laptop would manage all formats, one just need to install the software needed for reading. But then you are stuck with the laptop, which is clearly not developed to read books on. The same goes for palm-pilots of different kinds; furthermore their screens are not in an acceptable size for reading books. The web-pad provides an interesting solution that is not far from the e-reader, but it is more competent. The web-pad is primarily intended to be used when surf the web. This ability is positive for the e-book readers as they easily can connect to Internet and then download an e-book directly. The security matter, which is necessary to protect the IPR investments, has not been an issue to the constructors of the

[21] Information on technology solutions provided by the Internet homepages of companies mentioned. Please refer to list of references.

web-pad yet, but on the other hand it is likely that they will be able to use Microsoft Reader or Adobe Acrobat e-Reader. Microsoft is now also beginning to argue for a new product, their ”web-pad”, called Tablet PC.

It leaves us with the e-book concepts of Gemstar or Franklin, the e-reader software’s provided by Adobe or Microsoft or the PDA solution through publishers Mobipocket and Palm Inc. The characteristics of an e-reader with today’s technology are as follows. One single display, touch screen, of LCD-type with average 150-400 x 300-600 display resolution, background lightning, greyscale or colour, with controls for adjustment of background light, contrast and brightness. At the size of about 15x20x3 cm and a weight of 0.5-1 0,5-1,0 kg it matches the size of a typical hardback book.

In the case of the hardcover-size RCA Gemstar eBook RCB1200 reader and the paperback-size RCB1100, they display only one page at a time, giving the position in the book by side numbering or in percentage. In comparison to the e-readers, reading a Palm Inc text downloaded to a Palm Pilot must be even more unpleasant, because the screen is only of the size, 5x5 cm. In Japan two members of the E-book Japan consortium are manufacturing LCD screens suitable for the e-reader the consortium deliver, Sharp and Toshiba. Their displays have a bit better performance than the ones used by the US manufacturer RCA.

The power source of an e-reader is rechargeable batteries with approximately 10 to 40 hours of life length before recharging is necessary, depending on which model you use. The number of e-books you can load in the e-reader varies with upgradeable memory cards but there are great differences, from the capacity of 4.000 and up to 100.000 pages.

Downloading books might be done from a normal phone jack via the e-reader built-in modem or via a computer with the e-reader connected to the serial port. Another solution was used in EBJ’s field test. There you have to go to a store, which provides a special download station. This could be a good solution as bookstores have possibilities to form large libraries and well built up search engines for text materials. Furthermore the protection of the intellectual rights in this case would be easier I figure. But in the long run the customer certainly would appreciate to acquire the literature directly on

[22] http://www.ebooknet.com/ (Planned e-reading devices, Webpad), 20 March 2001.

the Internet, from home or work. Even if it requires a computer or other device to access the Internet and therewith get the most out of it, like searching for e-book titles on the web, visit online bookstores and so on.

When talking about the different e-readers function one interesting issue is the OS, which by all means are the component making the user able to communicate with the software displaying the text, downloading material or communicate with other systems like a PC. The reason for bringing this matter up under the hardware solution headline is that the topic has neither direct connection with the software displaying e-books nor the electronic content. The OS processes orders given, for example by touching a button one can have information sent to the program viewing the e-book that the next page shall be displayed or that another book shall be loaded.

Most common for small portable electronic gadgets is the Windows CE OS or the new Pocket PC OS, which is not very hard to understand as Microsoft made them compatible with the Windows series OS. A reason as good as any for Microsoft to engage in the e-book industry. Microsoft has taken the decision to support the OEB standard, which not surprisingly is compatible with their products, e.g. Microsoft Reader. More about OEB in the following part. This ensures a reader using a PDA or another device with the Pocket PC or any Windows OS to have access to a great amount of electronically published texts.

As Gemstar is using a proprietary system for use in their products, it represents an example of a closed system that has to be opened up to be compatible with other products. There are advantages with closed systems. The most important is the protection of the intellectual property, which is easier to manage if the system is not an open one.

Franklin EP's eBookman represents a solution, which is a multimedia content player that allows you to read books, listen to audio books and music, and record your voice, all on a device. The e-reader also incorporates organiser functions, natural handwriting recognition, and a multimedia Card slot that lets you expand device memory by up to 64 MB presently. The eBookman features a 200x240 display that shows 87% more information than ordinary PDA's.

Franklin designs its own OS and CPU's. No other chips are required other than memory and LCD drivers. Expensive external IC's such as DSP chips to decode audio or USB chips for communication are not needed. Franklin accomplishes this in its single integrated 32 Bit RISC CPU and through its software

Franklin also offers digital rights management and the world's first open but secure architecture assuring both publishers and application developers security and availability. How about the additional supporting hardware and software applications, which makes the e-reader work as intended? The issues are to remain uncommented herein, as there are no chance of explaining all the different software solutions in a satisfying manner. Let's take a look at the software displaying the e-book.

The PDA's works in a similar way, connected to the computer you load them with e-books that are downloaded from the Internet sites of Palm Inc and Mobipocket, while there is no such ready concept for the so-called web-pads.

2.4.2. Software

The literary work is prepared as a digital edition, which is displayed on the e-reader. Which technology is the best suited to do this. The Open eBook's Publication Structure Specification, OEB[23] is a content format for e-books, based on HTML and the enhanced XML standard. OEB has become a first standard format and serves as a base for all e-book editions. The Open eBook group has presented a detail specification on the content format in the 21st of September -99.

Even if OEB is accepted as a first attempt to reach a standard for the e-book text format, no common standard exists yet. Not for electronic copy protection or distribution either. Publishing e-book titles require the publisher or author to pick an e-reader model, or a software reader, and work with the manufacturer's own publishing and distribution tools. Each company has its own technologies for page layout, copy protection and deliverance, effectively locking each text to a specific e-reader platform. Besides that the design of the texts themselves, some consider not to be successful.

[23] Specification on: http://www.openebook.org/, 15 April 2001.

The situation is not surprising at an early stage in a new IT product's development, such as the e-book. It could be compared with the scenario recently played in another IT-field, the Web. The first product manufacturers to the market are staking out their territories with proprietary features, but most of them also recognise that the market will require open standards in order to flourish. A standard will benefit publishers by allowing them to format their texts just once for a wide variety of e-reader platforms. As result of this, booksellers will be encouraged to a quick build-up of content that will attract readers to the e-book idea.

Regarding the design of the texts both Gemstar RCA e-readers and uses text formats based on HTML. The OEB standard is implemented into the system.

Other members of the Open eBook group as publishers Bertelsmann, HarperCollins Publishers, Penguin Putnam, Simon & Schuster, and Time Warner Books have declared that they will utilise the new standard. One must remember though, that the font appearance is far from perfect when using the OEB and the e-readers from RCA suffers from their relatively low-resolution and small screens. Franklin EP has besides the hardware e-reader also developed a software e-reader application, which is suitable for Palm OS, Windows CE/Pocket PC and Psion devices.

Some of the limitations of the e-readers above seemed to be addressed by Everybook's *EB Dedicated Reader*, which presents, besides the two-page spread on 300-dpi colour screens, texts in PDF, which strives to mimic the printed works. EveryBook's contribution on the e-reader market is however delayed.

Microsoft has their own solution to improve the font appearance on the screen. Microsoft Reader with ClearType technology, which is designed for Windows machines, is a new product to make it easier to read from a computer screen.[24] The e-reader also works with Pocket PC 2002. It seems that it is Microsoft's intention to defeat the hardware e-reader industry and as an alternative to these make electronic reading comfortable on computing devices containing a Microsoft OS. This recalls how Microsoft managed to make their Internet Explorer market leading Web reader. In order to use the e-reader one must activate it, which can be done on up to four devices with a

[24] http://www.microsoft.com/news/, (10 September 2000)

single persona. The activation of Microsoft Reader means that you identify yourself as the person who will be using your reading device.

The activation process adding special software to the Microsoft Reader installed on your device so you are able to read content packaged for secure distribution. It is a software module unique to you and your device called a "Secure Repository". This module uses a Microsoft Passport account number and information unique to your device to protect e-book titles against unauthorised copying or distribution. The process is a necessary part of the Microsoft e-book system, because the requirement of strong copy protection for e-book titles.

An activation certificate is also downloaded during this process, which certifies that your copy Ms Reader is enabled for viewing protected content. This security provides you with access to many premium e-book titles that have been copy protected. The Activation Certificate is encrypted for privacy reasons and used when you purchase or download copy-protected titles.

Another interesting contribution in the e-book business was represented by Glassbook Inc, a company now acquired by Adobe, which worked towards a vision about future electronic reading.[25] They were mainly working with publishing of electronic content for Windows machines, though. Glassbook developed a software application called the *Glassbook Reader*, now a part of Adobes e-reader software.

2.5. Proprietary Rights Concerning the E-Book

2.5.1. Copyright

This is a presentation of the technological and contractual solutions, which in combination with legal protection are used to protect the electronic published texts of today's actors. I will then describe the legal matters addressed under chapter 5.4.1.1.

The main e-reader actors, Gemstar and Franklin with their hardware solutions, Microsoft and Adobe with their software e-readers and Mobipocket and Palm Inc with readers for PDA's, are aware of that they has to create generally accepted solutions for the protection of the copyright. And that compatible secured forms of e-commerce is being implemented. Solutions

[25] http://www.glassbook.com/ (2 February 2001)

that are used for copyright protection at the present are combining legal and technological protection with agreements on sale. If not, the publishers has to consider their participation at great risk of loosing control over their material.

Copyright protection can be divided into two separate systems. First, most countries of the world has copyright legislation, which declare that copyright infringements are considered criminal where the offender can be prosecuted and that may carry a fine or imprisonment, look up the Swedish Copyright Act *URL 53§*, as an example. Furthermore the law prescribes that the offender shall indemnify the owner to a copyright protected work, *URL 54§*.

Second there is the copyright protection that the author or the owner of the copyright can implement when transferring a copy of the protected work to a customer. There are two ways of doing this. One way is to use technology in a way that secures the work from being copied but also to implement a system that ensures that the origin of the work is at present in every copy being made. By these measures one might be able to trace down the infringing party. Another way is to delimit the use of the work by contractual clauses between the copyright owner and the customer.

The reader will find solutions chosen by the e-reader manufacturers hereunder to the extent of technology and contractual matters. The law given protection will be discussed later as well as the possible ways to implement copyright protection in a business system like the e-book concept.

Gemstar's two e-reader models uses as mentioned a closed proprietary OS not known as a flexible one as the literary work, is being locked to a specific e-reader. However it is an effective measure to protect copyrights. The system has a complex function and manages the most matters of e-commerce together with important copyright protection and authentication solutions.

Franklin and EveryBook have chosen another path. Franklin are not only publishing e-books for their eBookman but also in other open formats and if the EB Dedicated Reader will be released, market has yet a contribution of an e-reader platform with an OS that is as described above an open solution. By this the EB-reader will come closer to a PDA solution or the laptop.

What do this imply on matters of copyright? First there is a risk that the copyrighted material will be easier copied and second the system could be more vulnerable for unauthorised attempts of entering it.

Another example that can be of interest is the Swedish e-book publisher e-Lib, which is a co-operative initiative between a number of interests on the Swedish publishing market. The policy of e-Lib is to accelerate the e-book market and the electronic reading in Sweden through an open co-operation for those who are willing to join the mission.

In accordance with the selected path e-Lib are not offering e-book editions for the Gemstar e-reader models but only for the software e-readers from Adobe and Microsoft and Mobipocket, which are applicable on open OS. The effects on copyright protection due to this choice will be examined further on.

2.5.2. Patents

The matter of patents in the e-book industry is not a topic as hot as the copyright issues. To some extent this may depend on that the technology mix that is used in the e-readers are not spectacular or not even brand new. The matter is more of how existing technologies are being used together with the new software applications, a sort of conceptual thinking.

NuvoMedia had for instance just a US design patent[26] granted, for their Rocket eBook but others concerning the function, pending. SoftBook Press on the other hand had patented a system covering secured deliveries and copyright protection etc.[27] (Gemstar are now holding the patents). EveryBook has for example patents in US, Canada and Australia but pending within EU. The patent concerns *a personal electronic book system*, though their EB dedicated reader is not available yet, it is uncertain when or if it will be. [28]

One make the reflection when studying the patent files in the online register at the US Patent and Trademark Office that there are several of patents aiming on devices like the e-book though.[29] However there are not only patents aiming at the E-book concept as it is described above but also a great variety of technologies that might show handy for the e-reader

[26] US Design Patent No d404 761
[27] US Patent No 5956034
[28] US Patent No 5761485
[29] http://www.uspto.gov/ (4 May 2000)

platforms. Patents of this kind can be found in the register of patented products back to the middle of the 80's.

While putting together a product like the e-reader it might be necessary to use existing patented technologies if the aim is to assembly a competitive hardware e-reader platform. When for example a product like the E Ink is finally developed it might be of highest interest for the e-reader manufacturer to use the technology within the E-book concept. Issues of patent licensing are then rising. I think this is one of the main fields of the patent area where some considerations have to be made, because the current manufacturers do not develop the underlying technology for their e-readers. They simply have to use technology from the high-tech companies in the frontline of R&D concerning handheld computing and IT. This must be done by patent licensing agreements, I figure. Which laws and regulations is apparent concerning these matters and how to contract a patent license? The issues are briefly discussed under the headline *5.5.1 Patents*.

2.5.3. Trademarks

US companies within the e-book business are aware of the importance trademarks will impose in the future as a proprietary asset. Rightly marketed registered and then aggressively protected by not allowing any form of infringement on the trademark, it could very well stand for a great amount of the company's value. Hereunder is a brief commentary of the most important issues on the trademarks in the business.

New markets tend to change a lot during the initial stage. The pioneers NuvoMedia was pushing hard for making their trademark Rocket eBook well known in the market both in consumer and business actors' mind. SoftBook Press did follow marketing their SoftBook while for example Everybook, which not has put their product on the market yet is not using this aggressive trademark employment that the two with products on the market. Why is that? One can assume that NuvoMedia as the first developer marketing an e-reader on the market has had developed their trademark strategy a lot. Further on they have grown maturer in the sense of marketing, which is an area where trademarks are and will be even more important.

When Rocket e-Book and SoftBook were becoming established trademarks in the e-book business the conditions changed. Gemstar acquired the both e-book companies. The trademarks were then by necessity outmanoeuvred when Gemstar launched recent releases of modernised models of the e-readers in co-operation with RCA and Thomson. Was all the time and efforts spent on making these trademarks known, wasted then? The answer must be that it depends on whether the profit from the transfer did cover the costs of developing and marketing the products, for NuvoMedia and SoftBook Press. If Gemstar where judging the concept strong and the trademark were considered identifying the product niche, a higher price was naturally gained and the efforts were then justified.

Trademarks will also be important within the use of licensing agreements when business actors chooses to use trademarked products owned by others in their concept. This is only some general reflection on trademark/brand name issues. The trademark as an intellectual property will be briefly examined under section 5.4.1.3.

2.6. Standardisation Issues

When parties involved in a product or product market agreeing to do something in a certain way as to use the same technology solutions, it is actually the formation of standards, which by definition is *recommendations or specifications to design a product or employ a production method.*[30] The purpose of the standardisation process is to reach the best possible practice for a product, in both a commercial perspective and from demands of practicability. Common standards are important because they free consumers from the fear of investing in new technologies that soon could become obsolete. When a variety of industry participants agree on a standard, consumers can choose products from any manufacturer that supports the standard, facilitating early adoption and a proper market definition.

The companies within the IT sector has approached the standardisation issues mainly by collaborating in *fora and consortia*[31]. The obvious reason is the need for faster lead-times developing standards and direct participation for the industry, which supports the commercialisation processes. At first

[30] S Nyström, page 4. (Referring to Standards – The Common European Language, SIS).

the old structure, which is described later on in chapter 5.3.2, for approving of standards was unable to meet the new demands on the accelerated technology progress. Now we have been seeing a development towards a unity.

Because the intense research activity in the IT sector a need for standards to facilitate commercialisation and create new markets is of vital importance. E-book technology is new and consumer oriented so industry players such as NuvoMedia, SoftBook (now Gemstar), EveryBook, Microsoft, Glassbook and Adobe recognised the need of a general standard, designed to catalyse the adoption of the electronic reading and to stimulate the growth of the industry. Therefore it was not surprising when National Institute of Standards and Technology (NIST)[32] initiated a forum for the E-book industry parties, the *OpenEbook Organisation*, that almost all of the parties become engaged in the matter. NIST has the US government mission to develop and promote measurement, standards, and technology to enhance productivity, facilitate trade, and improve the quality of life.

The OEB group was formed in October 1998 at the first annual conference for the e-book industry. NIST was leading the effort to bring industry actors together in the purpose to create a voluntary, common standard.[33] Participants included more than 100 major software companies, book publishers and e-reader manufacturers. The forum were interesting in the perspective of how the already established proprietary solutions in the fledging e-book market could be combined, or if the matter of prestige would hinder the formation of a standard.

The existence of an industry forum like the OEB does not guarantee total conformance to the proposed standard, and the OEB Forum lacks naturally any kind of enforcement power. But the number of organisations signing up as charter members is a strong sign that both producers of e-books, e-readers and supporting software applications perceive an advantage in sharing content across platforms. Co-operation of this kind aims towards a common use of same or similar and *compatible technology*.

---

[31] Read further on the formation on standards, under section 5
[32] Please, for information on the organisation visit: http://www.nist.gov/
[33] http://www.nist.gov/public_affairs/, (3 November 1999)

This issue has not been of any great concern in Japan however as the EBJ consortium has gathered a group of interested companies and these together already, before the start of manufacturing and marketing, have created a frame for the concept. An opposite situation appeared, as we know in the US, where a handful of developers did their own race to reach a market leading position, which meant that different non-compatible solutions were developed.

For a period of the last three years the lot of publishers, e-book manufacturers and even software developer giants Microsoft and Adobe has had a co-operation on e-book related matters through mentioned forum. NIST was then in September 1999 arranging a second e-book workshop to set an open standard.

The workshop furthermore examined other factors affecting the E-book industry, like technologies that allow readers to download text from web sites directly into their e-books to legal issues involving digital right management. The meeting approved as a first standard for the E-book content the draft specification known as the Open eBook Publication Structure Specification or, the OEB standard mentioned earlier.

The choice of standard for text layout was not definitely however as Adobe's PDF were competitive and preferred by at least one e-reader manufacturer, EveryBook. Finally Adobe acknowledged the OEB standard when acquiring Glassbook concept and by this implemented the OEB in their PDF system, which already worked like a standard within the publishing industry and it also offers publishers an easy way to e-book publishing.

Though an open standard concerning the text format has been approved it is not enough. The additional supporting software, as for example solutions for deliveries has no standardised structure yet, neither are the techniques for copyright protection. The solution of standardised and compatible deliverance systems is an issue, which is critical for future e-book commerce.

Each publisher has developed proprietary technologies for copy protection, ensuring that books, once downloaded, can't be copied, printed, or distributed to other e-book users. Gemstar encrypts each title so that it can be displayed only on a specific e-book unit. Librius.com was planning to offer

publishers a secure delivery method that streams titles through the customer's computer into the e-book's storage, so no copy exists in the file system. EveryBook had the intention to use digital certificates and storage-device serial numbers to authenticate anyone downloading a title; it would then save text files on the e-book's storage cards in read-only format. If you lend an EveryBook digital text to another EveryBook user, your own copy is disabled until the text is returned.

The Electronic Book Exchange working Group, which was organised on the initiative of the company Glassbook has been working on a specification draft for copyright protection and distribution of e-book material, aiming to be a standard solution. The EBX specification complements the Open eBook specification and is designed to be content format neutral, but specifically supports both Open eBook's HTML-XML format and PDF.[34] Former frontiers, NuvoMedia and SoftBook Press were not part of the EBX Working Group because they on the other hand, believed that proprietary copyright and distribution systems are requirements due to their business models. The EBX Working Group does however include several important actors as, Amazon.com, Adobe Systems, Philips Electronics and publishers as Houghton-Mifflin and Lightening Print. Other companies with interests are Microsoft, HarperCollins, and Xerox.

Besides the EBX Group and the leading distributor of e-readers, the American Association of Publishers took an initiative to investigate the security in available solutions. The survey involved testing of technological solutions for open network protocols to provide a security assessment of certain e-book systems. Those are the proprietary systems of Rocket eBook and SoftBook, now joined under the Gemstar, and Peanut Press. The result was presented in a report from the Global Integrity Corporation.[35]

The matter of standardisation is generally described under section 5.4, *Technology and Standard,* where also a couple of strategically important reflections are done.

[34] http://www.techweb.com/news (E-book Standards Process Faces Rough Road), (11 November 1999)
[35] E-Book Security Assessment: General Report from the Global Integrity Corporation, 1999

3. **Drawing up a New Market** (Market Structure)

3.1. Project on e-books

The School of Economics and Commercial law

The School of Economics and Commercial Law in Gothenburg have had a project on e-books going on. The idea of using e-books is a result in regard to an expressed need of the possibility giving students on the *ICE programme*[36] whom studying abroad a chance to update their literature fast and easy, from teachers on the ICE programme.

The thought was that a great opportunity to test a new device that might be useful for students at the University of Gothenburg should be seriously examined. The e-book could be useful not only as an information bearer but also as a tool in a creative process using the e-book to publish work done by students and therewith learn more about one of the most recent released IT products.

NuvoMedia's Rocket e-Book was the only e-reader available at that time, so it had to be the one bought. The school had got the hardware but how to get the literature. No publisher in Sweden had started to sell e-book editions yet. A few had given the idea some more thoughts, but it seemed that all of them have adopted a wait and see policy.

At this stage the school's library was involved to take further contact with the publishers of certain works of interest for the students at the ICE programme. The library managed at last, to get hold of some titles of interest.

The students, who tested the e-reader has been questioned about their opinion of the e-book concept and if they appreciated the test period. Here are some conclusions of the brief survey and the project as a whole.

Students given an e-reader have not been able to use it in their studies, as the relevant literature was not available at the time the course began. When summarising their opinions there is a remarkable predominance in their experience that the e-books are not very well suited for reading of student or professional literature. This is a conclusion totally on the opposite of the early e-book industry's which meant that students and professionals were

considered a primary market target group.

Because of the relatively delimited employment for the e-reader out in the hands of the students the survey are not to rely on but it recalls my own experiences well enough.

What can we learn from the project then? One thing is sure, there is no ready market for the e-book in Sweden, but that will change now when publishers are beginning to publish e-books. It will take more than just start up the publishing though. Another reflection has to be made of the experience from reading on an e-reader. It is not the perfect tool for a student or a professional that one might have hoped, as functions like making annotations and underlining text are not by any means as effectively done as in a traditional book.

The City Library of Stockholm

In a joint field test the City Library of Stockholm has given the community members possibilities to borrow e-books. This is done in co-operation with eLib and they are offering e-book editions for Adobes e-reader, but no evaluation of this trail is available at this time.

3.2. Current market

This section will introduce the current market. So far the development on the market has been most moderate but it is not unbelievable that the market will increase significantly, one might compare with the revolutionary increased usage of the Internet. There are a number of actors at this market but only two companies' offers an e-reader device. Other parties are simply formatting texts for computers like the laptops and the palm pilots.

The market leader must be considered Gemstar with the RCA e-reader models REB1100 and RCB1200, which has sold around 20,000 units up to date.[37] Not that much compared with the figures of PC's, laptops and PDA's sales, devises on which e-books also can be read.

The market is not settled and the e-book seems to be a bit from a breakthrough. What is the market like then? The vendors and the customers

[36] ICE, "Internationella Civilekonom Programmet" at the School of Economics and Commercial Law in Gothenburg.
[37] 25 March 2001

have not been interacting at all yet, so what is the response to the new product and is there a future for e-books?

The parties initiating the market were the same as the early e-reader developers in the US. They did believe in that their products were going to be successful and that they represented a new way to read, which may conquer the traditional published book.

At the US market there are now several on-line bookstores offering e-book editions.[38] In Sweden it is also possible to buy e-books from a limited line of editions. Publishers have established co-operation channels and by this they can provide the market with e-book titles. This is done in an easy way. Publishers format text editions suited for the software e-readers. It is up to the customer to decide which e-reader to use. The customer's choice is made from a practicable view concerning the use, as the e-readers are free to download and at no cost for the publisher or on-line bookstore either.

In case of the dedicated hardware e-readers, there are only two bookstores on-line offering e-book titles. Gemstar e-books are sold at Powells, while Franklin offers e-books on their own on-line bookstore, formatted for the eBookman. The reason is that were any proprietary technology is involved the cost seems to be higher. Why e-books haven't grown in popularity and established a marketplace can depend on a couple of issues, 1) the screen resolution technology and, 2) Availability and public awareness of the product. With today's technology, so the argument goes, it is too difficult for the human eye to strain through a whole novel at 150 dpi. Fix the font resolution on the screen, and the e-book market will materialise, if the availability is before hand.

3.3. Future market in Sweden, a Scenario

3.3.1. Initiating the Market

Who may take initial action of the commercialisation in Sweden, the established publishers, a new e-book publisher or any electronic device retailer (-net)? So far the publishers in Sweden has shown no or little interest of the E-book concept. It might though be a deliberately chosen strategy not to show what they are up to. E-book publishers or online bookstores might be the correct answer to the question. I have been spoken

with the Market Manager of bokus.com and he seemed eager to find a way of selling e-books. But as yet a proof for the variable new market, bokus.com is now a part of BOL, which have no interested in e-books at this stage.[39]

An e-publisher might serve well as partner for an on-line bookstore. The e-publisher could search actively for writers willing to publish their works in electronic editions. A complication in this though could be that the rights to already published works in almost all cases belongs to an established publisher in one way or another, only new works are then available for e-publishing. But then again the right to make e-books of a certain literary work and distribute and sell these, is of course for sale if the price is right.

I am convinced that it would not be easy to contract a writer as long as the volumes are low. It seems more profitable for the author to sell the publishing rights to a traditional publisher company and let them decide to which extent the book ought to be digitally published.

If the traditionally publishers let the ”e-book scene” for other actors but the online bookstores not themselves or in co-operation with an e-publisher are able to make the e-book competitive, are there some more alternatives?

This is why the Swedish company eLib has an interesting model of doing business. First the company is established by some traditional publishers, this means availability of literary works for conversion into e-book editions. It also means knowledge of the literary market as a whole. Second the eLib has recognised the need of an open model where any actor with interests in the branch are invited, which means even greater possibilities. To make arrangements of secured distribution a co-operation with Microsoft is initiated.[40] There is a snag in eLib’s model though, that its built on the assumption that readers are willing to read e-books from a computer or a PDA, which obviously are not dedicated to read from.

What if someone is starting to sell e-readers in Sweden addressed to Swedish customers? Will a demand for e-book titles prepared for the Swedish market and that specific e-reader rise then? And when the demand grows strong enough will the publishers enter the market in a broad sense? What sort of business has the capacity to start selling e-readers? It has to be one of the

[38] Amazon, Barnes & Noble, eBook.com, Powells among others
[39] At www.bol.se, 15 October 2001
[40] www.elib.se (24 June 2001)

large Swedish retailers in consumer electronics like SIBA, ELGIGANTEN or ONOFF I figure. Is there an interest from these market actors towards the e-reader and the e-book concept at all?[41]

Furthermore, is it possible for writers to bypass the publishers by publishing the work on their own? It is by no means impossible and not too expensive either.

3.3.2. Market target groups

Students is the first target group according to the e-book companies. They are assumed to have a need, or at least going to, of this kind of resource to assist them.[42] And in a couple of years they are so used to this equipment that they probably will go on to use it even after their studies. Students are also in general more open for new technology.

In this segment it is rather likely that the schools as well will have an interest, it may very well hold down costs for them and make the handling of course literature easier.[43] And as we have seen above the thesis are supported by the e-book project described. E-book businesses are working aggressive towards the schools and it is understandable, as this market is enormous.[44]

But also professionals like lawyers, doctors and others would have benefits from this product at least according to the manufacturers. Over all, companies with lot of updates in their manuals and instruction books should think about this possibility. As the IS manager at SAAB automobile AB says – ”the solution is of interest to us, but standards and compatibility are important issues”. The GM concern has a team that constantly seeks for better IS solutions and ways to integrate them into existing systems.[45]

3.3.3. Marketing and distribution

Real growth of volumes has not been sighted yet in the US or anywhere else and there is not really an existing market in Sweden. Is it then possible for a single business in Sweden to start selling e-books exclusively for the Swedish market? Well, the answer is that it depends on which actors that

[41] Companies say they are not planning to market any e-reader in a foreseeable future.
[42] Art. market survey www.ebooknet.com/topics.jsp?topic=Home:eBook+Business:Markets/, 20 March 2000
[43] Check for example at; www.civic.com/news/archives.htm, 20 March 2000
[44] Read on; www.ebooknet.com/topics.jsp?topic=Home:eBook+Business:Markets/, 24 May 2000
[45] Interview with Lars G Magnusson at SAAB Automobile, IT department, February 2000.

start up the business, but also what the intention is. For example an Internet based bookstore like BOL[46], would with small investments be able to have a download section on their site, where customers easily could buy e-books online. But the literature would then be only on English and the assortment would be the same as in the US, simply because it is the only market where electronic editions of literary works is present and then only to delimited extent insofar. Are the Swedish readers *that* interested of e-books? No, it is not likely. It will be necessary to provide literature on Swedish if the e-book shall be marketable. But then it seems more or less impossible to go on without co-operation with a publisher. Another question for the new business is whether or not it shall provide the e-reader by post delivery or let the hardware marketing and selling to some other party.

Distribution

Deliverance can be done via computer networks as the Internet or in the format of CD-ROM or memory cards, which is the most suitable way to go? Is the best to buy a system for the commerce from a product developer or is it better to develop a system from scratch. Internet can be used from home, in a regular bookstore, Internet cafés, book automates or any other marketplace available. To starter with it seems adequate to choose distribution only via the Internet and then directly to the customer.

Deliveries should then be done within a system like the one Microsoft has developed to support the Microsoft Reader, the Microsoft Digital Asset Server, which is a comprehensive end-to-end framework for enabling secure distribution of digital works. It safeguards intellectual property and manages to deliver digital content to broad audiences.[47] These issues are but so important for authors and publishers.

Marketing

The online marketing withholds several topics of interest, mainly because the marketing can be much more refined than traditional marketing and there are also great differences. We have two initial advertising components in online marketing that differs, first the instantaneous market size (worldwide) and second the growth of Internet and e-commerce. There are

[46] Bertelsmann on-line, (www.bol.se)
[47] www.microsoft.com (21 October 2001)

some tools to manage the online marketing, like: CRM and personalisation of marketing, the use of e-mail and spam, affiliate programs, which can mean utilisation of search engines, incentive campaigns and co-branding. There are also viral and direct marketing and branding efforts. I believe that e-marketing is important and must be implemented into the e-book actor's business plans.

So how does it work in the e-book business up to date? Internet advertising is an important aspect of online marketing but so far we have seen little of it within the e-book business. According to some actors, the medium is dead. Can it be? We have seen the IT-boom coming to a brutal stop. The flourishing IT society has had a down period, yes, but is it not only adjusting to the changing landscape of technologies and maturer electronic environments? The future will tell.

How does the online marketing correspond to national marketing laws and are there any applicable international rules to this highly international fact? See further under chapter 5.4.1.

Electronic commerce

Let's say that the distribution technology is set and that the marketing efforts succeeded, the next step must be to create a system managing the e-commerce. How to verify the agreement, by digital signatures, is it necessary at all? Is the business dependent on an encryption solution at delivery, to minimise piracy copying? More over is there a need of authenticode solutions to guarantee that the rights of a literary work belong to the provider of a downloadable work?

One solution available is Adobes technology the "PDF merchant", managing encryption of PDF files and distributes keys to access them and as a complement "Web Buy" to ease up the net distribution in a digital secure manner, a system similar to Microsoft's Digital Asset server. The e-reader distributor Gemstar also supplies a proprietary safety deliverance solution.

The payment method is also a part of the transaction system of e-commerce. Several ways of handling the payment are possible even if Credit cards are the number one choice right now. There are also transfers via buyers' bank directly (charging the customer's banks account directly) to the seller online, cash on delivery etc.

Some words of consumers right to privacy has to be stated as the computer networks in some way or another are gathering and storing data of personal character. Hereunder is the privacy policy of Gemstar, which could serve well as an example of how the e-commerce business tackles the problem. The legal issues are addressed under chapter 5.5.5, Consumer Protection.

> "…committed to protecting the privacy of its customers and their personal electronic communications with the Company. We do not sell, trade, rent, or share your email address or any other specific personal information without your consent. When we do ask for information it is for a specific purpose—such as sending you free software or product and service information that you have requested, or processing an order you have placed. Our order-processing system uses secure server technology to protect your credit card information. We may provide our publishing and other strategic partners with aggregate statistics about sales and customers, but these statistics will be anonymous, without any personally identifiable information…".[48]

[48] www.gemstar.com (23 November 2001)

4. The Actors, Business Structure

4.1. The Actors

A comparison on the traditional book business structure and the new e-book business structure will show significant differences. The publishers are in a key position and have to make up their mind about an eventual marketing and selling of e-books, likewise the authors. Furthermore how will the role for the lot of manufacturers, suppliers and distributors, not to mention the dealers which are involved in the traditional book industry, all seeking for a good deal of the turn over, going to change when e-book hit the market? How are the retailer and distribution nets going to be formed etc.?

Are the authors and the publishers going to get along in the digital environment? Is there a need for any other actor in the e-book publishing? Not really, because the product *e-book* will be ready for deliverance in just two steps, the author post his electronic version of the book to the publisher, who formats the file to a standard e-book edition, makes proofreading, fixing layouts and does alterations at will. Thereafter the publisher have two choices: 1) Setting up an on-line bookstore for direct sales to customers or, 2) Start a co-operation with an established on-line bookstore as for example Amazon.com or BOL.com. The actors can then be counted to three, authors-publishers-on-line bookstores. The product flow will be much faster and there will also be great possibilities to cut expenses.

The other side of the business will be to provide e-readers to the market. This industry sector will be working more or less without connections to the publishing industry, if satisfying standards can be settled. The large companies developing and manufacturing electronic devices for home and professional use will probably not be interested of marketing an e-reader before the e-book market has been established. This is by the way one of the reasons to why software e-readers for use on PDA's, PC's and laptops has been developed and now widely distributed for free, *to establish an e-book market*. Publishers are aware of this matter and seem to be more open minded for the solution these software e-readers offering than the closed proprietary system of Gemstar, which now is considered not to have the ability to boost the e-book market.

Publishers can and should make even stronger positions within the e-book business structure as they have the experience of ordinary book publishing and already have the proprietary rights to almost all of the commercial copyright protected literature on the market.

But in the future authors will be free to choose if they are going to publish the book via a publisher or, this is thrilling for the publishers, to do it by themselves. A well known author might very well bypass the publisher and post his book to an on-line book store, which placing the e-book in it's library and take care of the marketing and selling. One should not however underestimate the need of proofreading, layout work and marketing etc.[49] The fact is that I, myself have tried to display a document of mine in the e-reader but it was not easy to get a proper layout.

Even if publishers have to face radical changes when they are entering the e-book market, it is nothing to the outcome of printing facilities and the infrastructure of deliveries and regular bookstores must face. The e-book is a real long-term threat to their very existence. Some changes will be more or less automatically done as the need of printing facilities no longer appears and as distributors for the electronic literature likewise are not needed, there are no physical copies to deliver!

In the relation authors-publishers the issue of royalty agreements must be focused, which is done later on. Such agreements are giving the basic economic rights to the publishers, which are the ones who actually take the economic risks of a failure. If the publishers decide to go for the e-book, it is my opinion that the e-book concept sooner or later will be a reality not only for enthusiasts as a niche product. But if they choose to leave the thought of electronic publishing to rest, the way might be open for other actors, or is it anyway?

Hereunder are some of the most active actors in e-book business listed.

- Franklin Electronic Publishers, Inc

  Franklin introduced a handheld e-book in 1986 and the company has been exploiting the potential of e-books up to date. Franklin has created

[49] Jerker Fransson, at Swedish Publishers Association, interview in November 1999.

an e-reader with a proprietary OS, which has open but at the same time secure architecture. Franklin is also offering e-books to a wide audience by making them available for any open platform. The company has also opened an e-book store where readers can come to find a wide range of titles. Their focus is to make electronic reading established.

- Gemstar Inc.

  Gemstar has acquired the two e-book business company pioneers NuvoMedia and SoftBook Press and licensed the right of manufacturing and marketing to RCA, which in turn contracted Thomson Home Electronics for R&D and manufacturing. Two new e-reader models were released in 2001, with some small enhancement but in all based on the e-readers from NuvoMedia and SoftBook. This does a replacement of the trademarks Rocket e-Book and SoftBook only so natural. The RCA brand names now used in the marketing are Gemstar eBook REB1100 and REB1200.

  Gemstar withhold a lower profile on the e-book market than the merged companies did. Gemstar inherited by the acquirement an e-book dedicated Internet site *ebooknet.com*, which were a co-operative project between parties in the e-book business, where NuvoMedia and Softbook Press were the most active participants. Gemstar were in the spring of 2001 about to shout down the best source of e-book business related information on the Internet. The site has probably worked well as one among other catalysts for the e-book market but Gemstar was judging that the role for ebooknet.com was a thing of the past.

- Other e-reader Developers

  NuvoMedia, SoftBook Press, EveryBook, Librius.com and Glassbook where all parties of the mid 90's, e-book industry. Their efforts have led to an uprising interest for electronic publishing. All of these companies developed and released prototypes of e-readers but in so far only NuvoMedia and SoftBook Press have managed to put their models on the market. These two successful companies are however paradoxically not at the market anymore. EveryBook has chosen to license the right of manufacturing and marketing of their e-reader to N-vision Technologies, but the result of this co-operation has not shown yet. Librius.com and

Glassbook have withdrawn their prototypes and do not take any active part in the e-reader development. Librius.com, which had the *Millennium Reader* prototype released when company's C.E.O. expressed the same belief as many others in the business and immediately stopped further engagement. "The niche products will not last, we'll se a device managing all our portable electronic needs".[50] Glassbook has in an attempt to attract customers been converting literature to suit their e-reader software, which provides a system allowing you to manage purchasing and reading from a computer. The system has been subject to discussions in the Electronic Book Exchange working Group, which was organised on the initiative of Glassbook, where a specification draft for copyright protection and distribution of e-book material was launched. This company has also worked on the launch of an e-reader platform, but is now a part of Adobe as it became the object of a by up affair.

- Adobe

  Adobe represents the software business idea of electronic reading. Adobe acquired the e-book ideas of Glassbook late in 2000 and implemented these solutions into Adobes system for e-commerce of digital copyrighted text files. By this Adobe gained access to the submitted standard, OEB. Before this acquirement Adobe relayed solely in their proprietary format, PDF. Adobe was also in the early stage of e-book industry, collaborating with EveryBook, as this company preferred the PDF format and invited Adobe to a co-operation. Adobe with experience from the publishing industry will provide publishers with tools covering all areas of e-book business, from creation of e-books and the managing of IP rights on to deliverance's from on-line bookstores.

- Microsoft

  Software developer Microsoft also believes that electronic publishing holds the future reading experience on hand. Microsoft reader was issued in autumn 2000. Windows-based PCs and laptops and Pocket PC 2002 PDA's support Microsoft Reader. The single Microsoft Reader can be activated on up to four devices and this means flexibility. Texts that are published in the Microsoft Reader format, which require less space than

[50] http://www.librius.com/, 21 March 2000

the same titles in other formats gives likewise an advantage. The ClearType display technology that makes text on screen crisper and easier to read is developed by Microsoft to give their software e-reader better readability. Features including highlighting, bookmarks and note taking and drawing, which means pretty much the same abilities that are found on the hardware e-reader alternatives. One can also create e-books from Microsoft Word documents using an improved Read in Microsoft Reader, which is an add-in for Microsoft Word 2002 or Microsoft Word 2000.

- Palm Inc. and Mobipocket

  Both companies convert texts to be read on PDA's and other portable devices. Offering daily subscriptions of newspapers and full text e-books.

  Mobipocket.com SA is a French company incorporated in March 2000. Mobipocket.com provides a universal software e-reader for PDA's. The Mobipocket software package, which consists in publishing and reading tools dedicated to PDA devices with the Windows CE, Palm OS and Psion, Pocket PC OS, is freely downloadable.

  Palm Inc. a pioneer in the field of mobile and wireless Internet solutions and a leading provider of handheld computers has by acquiring Peanut Press in 2001, gained access to e-book publishing. The strategy is to deliver end-to-end handheld computing solutions seems to enable the company to expand the use of e-books by consumers and mobile professionals and in the largely untapped education space.

- EBJ

E book Japan has focused on the "Evolution of Reading". According to EBJ, they have explored the possibilities of e-books in publishing companies and manufacturing companies. EBJ aims to create and distribute the next generation of e-books, which provide more of a multimedia experience. Further on it seems that EBJ takes a broad perspective on the whole commercial idea of e-books. They will propose new methods of distribution and transactions by adopting original compression and encryption technologies.

In collaboration with terminal manufacturers, who would create the next generation PDA, we plan to offer the next generation of reading experience,

such as developing comfortable reading devices. The EBJ is a consortium with great commercial strength so their effort will be interesting to follow up.

4.2. Co-operation

No business alone is capable of succeeding with the manufacturing, marketing and selling the e-reader and also manage to supply readers with e-books. In the start up period it has been the only solution for the e-book business as NuvoMedia and SoftBook Press to do so, but as the market expands it will be impossible to meet demands arising. Authors and publishers have to be involved as well as established on-line bookstores.

The issues will not only involve co-operation. We will surely see companies within the home electronic supplies market to manufacture and market some sort of e-reader in a couple of years. The e-book market will thereby be divided in two. First the electronic e-reader devices market and second the publishing industry itself.

We can here take a quick look at the standpoint of a couple of e-book market actors of today. Gemstar welcomes publishers who want to sell books through our standard-setting secure distribution system. They intend to work with virtually every publisher to provide quality books to the Gemstar e-readers. Partners are invited if they are the owners of the electronic rights to the work, publish book length manuscripts and are able to offer an initial minimum of twenty titles for distribution. They must also be capable to deliver content files formatted for the Gemstar e-Book platforms and actively promote the availability of their titles as Gemstar e-Book editions. Gemstar also invites technology providers, manufacturers and device retailers for co-operation.

In Sweden eLib has a much more open attitude and do not require exclusivity. The simplicity of their model must be judged an exemplary. They ask for an email with the book saved as a data-file. Their price for converting the file to a preferred e-book edition is about 2500 Swedish crowns with listed quantity discounts. eLib also asking for the price they have to pay for each sold copy, to set proper pricing to customers. They then place the e-book on their download server.[51]

[51] www.elib.se

For the e-book commerce eLib has a strategic co-operation with Microsoft, which has the purpose to develop solutions for secured distribution of e-books. Microsoft's consumer portal MSN has a part in this e-book project.

One of the issues that are prioritised is to build a network of retail dealers. The first place where to buy an e-book from eLib was Adlibris.[52]

Other companies which eLib has established co-operation with are publishers like Natur och Kultur, Piratförlaget, Studentlitteratur, ePan, Pagina and others.

4.3. Differences in the Traditional and the Electronic Publishing Business Structures

4.3.1. Real Changes

Changes of the business structure that is possible in the matter of e-book publishing are expected to be rather radical compared to the traditional book business. But even if several parties in the manufacturing chain of traditional books are out of participation when it comes to e-books there are others who might join the staff. So it is not to be assumed that the e-book will concern only authors and publishers. The short-term changes of publishing industry in the electronic environment has technological and practical explanations as the need of printing facilities is out and that there are no physical goods to deliver. The long time effects on publishing industry are not that obvious.

4.3.2. Possible Changes

What changes to expect in a longer perspective then? Strictly one can say that when the standards are set and technology solutions for e-book publishing are spread the parties involved can be as few as three, the author, the publisher and the on-line bookstore.

But in the future authors will be free to choose if they are going to publish the book via a publisher or, this is thrilling for the publishers, to do it by themselves. The need of publishers could therefore be questioned. There are already tools freely available, that converts the most common computer documents to the proposed standard e-book format. A well known author might very well bypass the publisher and post his book to an on-line book

[52] www.adlibris.se

store, which placing the e-book in it's library and take care of the marketing and selling.

Even if publishers have to face radical changes when they are entering the e-book market, it is nothing to the outcome of printing facilities and the infrastructure of deliveries and regular bookstores must face. The e-book is a real long-term threat to their very existence.

5. Strategic Law Management Issues

5.1. Introduction

Upon the launch of an e-book business there are several issues arising from the demand of knowledge, or at least the wish to have an ability to make reasonable correct predictions of the response from different actors on this new market. By this I mean like how competitors, customers, authorities and eventual partners are dealing with the e-book concept.

Hereunder I will give some essential information on strategic law management and to them attached issues and then pass some ideas of practical interest if going for e-book publishing. The matters have been described above from the view of current market players and their positioning, but now it is about time for a closer look at some of the topics, which may imply some problems for these and all new market actors.

5.2. Launching the e-book in Sweden

What about publishing e-books in Sweden? Well, Swedish is a rather small language and so is the Swedish market for literary works. Reading is falling; there are a lot of competitive interests in today's society. Why should the e-book in this perspective become an economic success or even marketable. In the long run, I think, that the traditional book will be on the marginal. And the IT developments see to that we can gather information both for amusement and work even faster via Internet or any similar alternative network.

At the present there are also problems with standards and incompatible technologies, as we have seen. If an author or publisher choose an e-book format to use with an e-reader they will be stuck with that specific format and that e-reader. However in a near future, the author may be able to formatting text into a standard e-book edition, post it to some online e-bookstores, and start collecting royalties. The standard e-book edition should be able to read both from e-readers and PC's as well as PDA's.

Publishers in Sweden might face problems with profit due to the market size, though.[53] This among other reasons holds them from investments on the e-book concept right now. The demand is not obvious.[54] Publishers with text

[53] Jerker Fransson at Swedish Publishers Association, interview in November 1999
[54] Marketing manager at BOL Sweden, interview in March 2000.

material for students and professionals seem to have given the idea of e-book the most serious thoughts. It is not very surprising. As I wrote above, the primary market target groups are likely to be the ones mentioned. Poor profits will give incitement to lower royalty rates on the contrary to the expected, at least initially. But with larger volumes there ought to be great possibilities for authors to get better off, as a number of costs for the publishers are being greatly reduced thanks to the e-book.

This is one of the main differences to the US market. With some 280 millions inhabitants there is a chance to make money even on a relatively small niche product as the e-book at this stage appear to be.

5.3. Technology and the Standards

5.3.1. Technology Solutions

This section makes a short comment on the use of general-purpose devices such as Windows CE-based hand-held devices for storing and reading digital titles facing the dedicated e-reader devices.

The widespread use of general-purpose devices has created a large market with several innovative ways for which they can be used. For example, e-book solutions are available now and may become more popular in the future. For a potential content distributor, the most inviting difference between a system using a general-purpose device is the ability to avoid one of the major obstacles, to get devices into the hands of potential users.

Likewise any potential content delivery system that can leverage an existing delivery platform must be preferred but can incur some disadvantages. Some of the benefits to a general-purpose device solution to content delivery are that these devices, computers if pleading for software readers, are already widely used and therefore easy to use for customers.

Software enhancements can be easily improved and tested using general-purpose development tools. As security measures are important, known encryption algorithms can be employed to ensure secure delivery to the device and any future security infrastructure standards can be adopted as they become available

While some of the more inconvenient things are that a general-purpose device is not optimized to read e-books from and the lack of a closed secure

system can mean loss of IPR's. There is simply no existing security infrastructure to ensure secure managing today

Can these problems concerning open platform solutions be solved? One has to have in mind that they are meant to be open and extensible systems just so that users can modify and extend them to match their needs.

The tradeoff between the fragility and the strength of these platforms is an issue for e-book developers and the publishers. While the risks of releasing content to these general-purpose platforms are higher, the availability of these devices may drive the demand for content availability and thereby an increasing e-book reading. This must clearly be a managerial issue, to estimate opportunity contra risk.

5.3.2. An Outline on Strategic Standardisation Issues[55]

Background

Why are the standardisation issues of importance for the IT business? When a company issues a new proprietary technology struggling to get a foothold, it often tries to make its own solution the industry standard, while others also comes up with competitive solutions on the market. Sooner or later however, all of the competitors in a market niche such as for instance the e-book or the dedicated e-reader for reading of digitally published texts are forced to acknowledge that co-operation are the key in a mass-market creation. Consumers would not buy devices that lack interoperability with other products in the same category. The increasing internationalisation in commerce and the aim at creating those mass-markets also means that standards must be worldwide known to reach the intended effect. Standardisation actually has a strategic dimension for the business, which is based upon the economic relevance of standards in both the geographic and product market.

Though standards are not regulated by law, the connection with the laws on IPR and Competition areas together with commercial aspects, makes the issue important for the business actors of today's IT community. Therefore a discussion on standards are relevant to us.

Standards

[55] The outline on standards is inspired by Sofi Nyström, *Standards, a Survey*.

What is a standard? A standard can be defined as a "document, established by consensus and approved by a recognised body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context." [56]

All around us we recognise things that whether we know it or not are assembled in correlation to a standard. Standards have been created for a great variety of matters like measurements, production methods, electricity, health and medicine or even computer communication, in one way or another.

To pick an example from the field of home electronics: All VHS videotapes, for example, work in all VCRs. One earlier competing technology, Beta, has vanished long time ago. However now the VHS is about to be outmoded and that standard has no or less importance anymore. The DVD is now judged to be the leading digital content media, but for how long? The Internet can without doubt be a hard competitor as it supports deliveries without a physical information bearer. Streaming technology, which means that a file of digital content is being sent in real-time trough the network to the recipient, whom experiencing the file as music or a movie, allows direct delivery but only insofar there is provided fast and secure Internet connections the quality will be satisfying. We understand by this that standards is needed, standards is being outmoded, standards will face faster lead-times but standards can also mean that some technologies even if they are working as well as or better than the standardised technology, has no or less commercial value. Who wants to issue the next "beta player"!

A standard may be a voluntary agreement made in consensus by experts from manufacturers, authorities and other interested parties, authorities as a reference in legislation, but when the requirements in the standard settlement becomes compulsory, it automatically forces parties into the use of certain technology. Three ways of standards development can be discerned.[57]

First the *formal standards*, which traditionally have been developed within recognised standards bodies. Which is established on both national levels, as

[56] ISO/IEC Guide 2:1996

in Sweden where SRS, Swedish Standards Council, is the central body for standardisation. Thereunder are three branch organisations: ITS representing telecom and IT, SEK representing the electrotechnical area and SIS which represents a number of organisations. On an international level the most recognised standards body is The International Organisation for Standardisation, ISO, which comprises 125 national standardisation organisations and the central body of all standardisation areas.[58] It has a broad focus on standardisation issues and areas. Concerning the IT branch the most important organisations are ETSI and JTC1. The standards body of the same standing as ISO on a European level is CEN, the European Committee for Standardisation. SRS is the Swedish representative in both ISO and CEN, so there are in fact a hierarchic organised standards network.

How does a formal international standard normally develop? There are six stages in the standards evolution process within the ISO.[59] First there is a *proposal stage*, where a need of a particular international standard is confirmed. A new work item proposal is submitted for vote by the relevant member organisations, to determine the extent of the work. The proposal is set for a voting and will then be accepted or declined. Second there is a preparatory stage, which usually initiates by the establishment of a working group, for the preparation of a working draft. When the group reaches a draft that is considered a satisfying technical solution to the problem being addressed, the draft is forwarded to the parent committee for the phase of building up a consensus. This follows by a committee stage. As soon as a first committee draft is available, the ISO Central Secretariat registers it. It is distributed for comments and, if required a new voting round. Successive committee drafts may then be considered until consensus is reached on the technical content. A draft International Standard is issued. Therewith an enquiry stage is entered. The draft is circulated to all ISO member bodies for voting and comment within a period of five months. It is then approved for submission as a final draft International Standard. The fifth stage facilitates the final draft International Standards approval. If technical comments are received during this period, they are no longer considered at this stage, but registered for consideration during a future revision of the International

[57] Sofi Nyström, Standards a Survey, page 7ff
[58] www.iso.ch (19 November 2001)
[59] The process description is based on the ISO/IEC Directives, Part 1.

Standard. In the last stage ISO Central Secretariat publishes the final text of an International Standard.

The responsible Technical Committee or Subcommittee reviews all International Standards at least once every five years. Then they issue a conclusion leading to that the standard is confirmed, revised or withdrawn.

Second there are the *De facto standards*, which are developed within industrial fora or consortia. The number of standards descended from fora or consortia has increased substantially over the last years due to their ability to speed up the standardisation process and respond to the market need of direct participation from the industry. As an example the earlier described NIST initiative on OEB forum may serve well.

At last the *proprietary standards* has been recognised arising spontaneously by the degree of penetration of the market of a particular technical solution, which might as well be the solution of a market leader in a relatively new and delimited market. From the business position the question is not whether the standard is a formal or a de facto standard that is essential. It is to get the standard set, so that a frame for product and market areas is provided and uncertainty can be avoided.

Communication- and information technology sectors have seen standardisation issues mounting from their basic functions where they earlier were an instrument of rationalisation within companies to an important brick in the commercialisation act. This specially goes for the IT business sector, which has created a new structure in the standardisation world by collaborating in fora and consortia. The main reason is the need for faster lead-time developing standards and direct participation for the industry to monitor the outcome. At first the old structure with formal standard bodies was unable to meet the new demands.[60] Now the two worlds merge.

Impacts on international Trade

In the international marketplace, standards developed through voluntary processes are desirable since they represent a broad-based consensus of all interested parties. Nations that actively participate in developing international standards may be able to influence the provisions to favour

their own products or those that they prefer for some reason. Traditionally, the level of industrialisation, the political and legal system, and other factors shape national standardisation policies and activities. Since trading countries competing in the global marketplace are exploiting every opportunity to favour these products through the standards development process, it seems urgent for any market actor to lobby before the national standardisation bodies and governments if the intention is to maintain existing trade outlets and find new markets.

As the international trade has become an increasingly important factor in the growth of the world economy, nations are forced to consider its impact.

It is a world in which the design, manufacturing, marketing, and customer service operation of a growing majority of individual enterprises are distributed across many countries; and a world in which electronic communications have dramatically increased technical collaboration between experts in academia, governments, and industries from all countries. No nation can afford to be isolated.

The objective of international standardisation and related activities is to facilitate the exchange of goods and services at the international level and to promote co-operation in the areas affected by international standards.

The negotiation and adoption of technical standards for all classes of products and services takes on many roles in the global arena. These roles can lead to formation of economic and political coalitions among nations and regions, market segmentation among major producers, and even social change among different cultures. National and regional groups have sometimes conflict of interests, and they can intervene or use regulations and standards for political purposes.

This is particularly true with respect to new technologies. Standards can be invoked to act as non-tariff barriers, protecting one country's industry or new technology from other countries. To segment markets, governments can effectively manipulate differences in technical standards.

In this perspective of international trade it is not only the standardisation bodies at different levels influencing the standards development. The World Trade Organisation is also involved by the "Agreement on Technical Barriers

[60] ISO strategy on the IT use in an accelerated standardisation process. www.iso.ch (21 October 2001)

to Trade". The provisions of this agreement and the Code of Good Practice for the Adoption, Application and Preparation of Standards have important implications for ISO and IEC member bodies. The key provisions are about technical regulations, standards, conformity assessment practices, notification requirements, and standards developing bodies.[61] Much of the regulations in fact are intended to hinder such measurements of protective purpose, mentioned in the previous paragraph.

These are facts that the business actor of today has to face and understand. However for the single company it will be extremely hard to change the outcome in any global standardisation issue. These aspects on standards explain why some comments on unfair competition and intellectual property rights laws are made hereunder.

Strategic Considerations on Standards

As the role of standards are very complex, a strategically view will be added in this work. A standard represents a level of know-how and technology, which presence renders the industry to an indispensable preparation. A standard is not neutral. Nowadays it often even contains at least partly of some proprietary technology.

The reference document of the standard is used in the context of international trade and on which the majority of commercial contracts rely. It is used in the commercial society as an indisputable reference, facilitating and making the contractual relations between economic partners clear.

For the business actors, the standard also is considered a factor for rationalisation of production and to aid definition and reduction of uncertainties in the effort to determine the needs of a market. The standard is thereby a component that catalyses innovation and development of products. Because when participating in standardisation work the parties involved be enabled to anticipate the future product market and therefore to make their own products advance simultaneously. Standards play an agreeable role for innovation thanks to transferral of knowledge and new technologies. By this standardisation facilitates and accelerates technologies in fields that are essential for both companies and individuals such as new

[61] www.wto.org, (3 October 2001)

materials, information systems, biotechnology, electronics, computer-integrated manufacturing etc.

A standard involves the possibility for strategic choices for a company. To participate in standardisation work discloses an introduction of solutions adapted to the competence of the own company and equipping oneself to compete within competitive economic environments. It signifies acting on standardisation, not making it constant. If Standardisation is a strategic business issue what has then to be considered?

Even if the purpose of developing a standard is to gain market acceptance and to make the proprietary technology a commercial success, it is not always the right way to go. For instance unprotected IPR's should not be reviled in a standards working-group. Because the company's IPR standing and its great relevance to standardisation, a discussion of the relation between standards and the IPR will follow.

Six strategic decisions[62]

The following arguments on strategic decisions to be made by the business actor in a standards concept formation are important in the long-term perspective.

First the choice of forum for any involvement in the standards development process will have wide broad consequences. The choice between the formal bodies of standardisation and fora or consortia co-operation often nowadays in the IT sector be the fora or consortia alternative. Ingredients that have determinate effect are among others the size of the company and the market share. However the single matter with greatest significance to be considered is the nature of the market in which the business is active. If it is a rapidly growing new market like in the case of the e-book, which is part of the IT sector, the company might consider joining an independent forum instead of a formal standards body. The e-book business has in the early stage of the markets development joined the OEB for instance, even though this forum was initiated by NIST it is a branch forum. If a forum offers a collective task on a technology solution, which is used by a business actor, participation is a way of keeping development issues updated. It also gives an opportunity to monitor the competitors, as well as to influence the technology progress.

[62] S Nyström, page 36ff

In a fora or consortia standards working group the direct participation is a fundamental presumption, while in the formal standard bodies the company is represented by a national representative, sent out to express the consensus view of the organisation. The business actor will then depend on successful lobbying. The prospect of influencing the process must be judged much better in the fora.

"A choice will have to be made regarding what areas are to be given priority for standardisation, e.g. a certain product or a certain technology".[63]

A second opinion concerns the competition situation in the business. This can be estimated by studying the market. Is the market divided between a few large companies or many small companies, who each have a share of the market, or does one large manufacturer dominate the market and some small business actors maybe offering niche products. For the e-book business it is obvious that we will have a great amount of publishers at the market, but there are probably just a few actors that may provide the hardware based solutions. The conditions of the product market are split, which means that publishers and hardware/software suppliers not faces the same problems. The active fora and standardisation bodies have concentrated upon the adoption of e-book in public. Therefore many actors will gain on collaboration at this early stage of the e-book market. It is likely that some business actors gained market shares by participating in standardisation bodies. An example of this open collaboration intended to catalyse an e-book market in Sweden is that of the joint creation of the company eLib, a project described earlier.

Next question is about active or passive participation in the standards work. Is a contribution to the standard making process to the benefit for the single company or is the best choice just to use a settled standard.

The active part in creating standards will need time and commitment from experts and executives within the company. This may show hard if there are limited resources in the company both financially and personally, where people who might be needed to run the research department on a daily basis also are the ones who could participate in a standards workgroup. To buy standards draft specifications and adapt the production to them can be the

[63] S Nystöm, page 37

best alternative for the smaller business actor. This way the company will benefit from a standard developed by others, but on the other hand no possibility to influence the future product development and the direction of the market is given. To represent the company in standards workgroups it takes knowledge and awareness in matters of a wide array. The delegate should:

"Have a well specified mandate for negotiations and a good knowledge of internal time and cost limits for the product development. He or she will have to be well aware of his company's position on IPR issues and must have a good insight into the mechanisms of standardisation. An ability to understand other delegates and their objectives is also required as well as a capability to convince other delegates. In other words, what is needed is good social competence".[64]

The timing of any active participation in a standards workgroup is the fourth issue of importance in this viewpoint. If the research has reached a stage where it is ready for commercialisation it probable be judged too late to join a standards forum, at the risk that the products may be out outdated. Publishers in the e-book business have reached the point where any thoughts of new standards formation seem meaningless. The focus must be set on to work with the tools given by the e-book standards specification issued by the OEB. To get a widespread acknowledge for the standard and to facilitate its growth in order to increase the commercial value of the standard the e-book business could as a suggestion go on and get a formal standard. A formal ISO standard can be issued within two years, via the so-called fast track process, described in the directives of JTC1.

With the importance of standards in mind, companies have to develop a standards strategy, which needs to be drawn up at the same time as the product development is planned. In the e-book business the relatively early adoption of a content format has helped the business to the next level.

The business integration of the standardisation issues should be done in co-ordination with the planning, development and information flow of the company.[65] This is corresponding well to the commercial weight standards issues nowadays have.

---

[64] S Nyström, page 37

Finally some words about the relation between de facto- and proprietary standards. The most favourable strategy has to be the one where a company can make their own technology solution a de facto standard without having to participate in any forum. This is however mostly out of reach. It requires a unique product, so superior that any alternative must be rejected. And it will also require financial strength to make a commercial success with large investments in marketing. These requirements are not present at any level in the e-book business so the market is still like an open unfinished book.

Strategies are always individually formed. Standards strategies make no exception, one strategy formation will not be suitable to all companies and all situations. Standards strategy is a management issue, with all its implications and there are many critical choices to be made. One thing is remarkable definite, without considerations on standards issues a lot can go wrong.

Conflict of interests, 1: IPR Contra Standards

”Standard development is at the centre of the fundamental conflict between the unique and the uniform. Patents are one way to value the unique; standards are the means to define the uniform. IPR’s are tools to create a market while standards are used for creating the marketplace”.[66]

This must actually be considered as one major conflict of interest. In a matter of sense IPR’s is about protecting individual interests but on the other hand a standard is about creating common rules on product commercialisation to the benefit of all society. Standards development parties must therefore ”balance the *cost* - the desire for economic gain to the patent owner offered by the use of *essential* patents in a standard, which means that typically a license is required for use, with the ”benefit” – their goal of quickly completing state-of-the art standards”.[67]

Today many organisations, both creating formal and de facto standards have implemented policies on how to handle IPR’s in the development of standards. Currently, consensus-based standards organisations use a doctrine requiring that patent holders offer to license their inventions on ”reasonable, fair and non-discriminatory” terms. This has the disadvantage

[65] S Nyström, page 38
[66] K Krechmer, page 1
[67] K Krechmer, page 1

of reducing the maximum royalties that an inventor can receive but on the other hand it defines that the invention will be available to multiple developers.[68]

For the owners of such rights, who are commercialising their products, it is vital to gain market acceptance and get a profit from their investment in research and development.

Conflict of interests, 2: Anti-trust Law Contra Standards

Normally a united action between companies is regulated and can be banned as unfair in competition laws within most of the world's nations. Legislative work in the area is done with the goal to ensure the functions of the market economy, where competition is supposed to gain consumers and product development. But the standardisation bodies can offer a sort of legal cartel to their participants though general standard-agreements can interfere with unfair competition law, which means that competition between companies is delimited.

In short this means that an agreement between companies which: Fix purchase or selling prices or other trading conditions, limit or control production, markets, technical development or investment, share markets or sources of supply, apply dissimilar conditions to equivalent transactions with other trading partners, thereby placing them at a competitive disadvantage and tying clauses demanding the other party to accept supplementary obligations are prohibited.[69] Anti-trust legislation in the US also recognises these problems.

However exemptions is made insofar agreements which composition normally should have them prohibited, if they contributes to improving the production or distribution of goods, or to promoting technical or economic progress, while allowing the consumers a fair share of the assumed beneficial result.[70]

[68] K Krechmer, page 5
[69] For example the Swedish konkurrenslag, (KL), 6 §. See also for a comparison art. 81.1 of the EC Treaty.
[70] KL 8 §. See also for a comparison 81.3 EC Treaty

Further exemptions are made to allow agreements on for example licensing of patents and know-how and agreements on R&D. Agreements as such must meet certain conditions to be approved, though.[71]

Another angle to the anti-trust/competition legislation is the one to prevent market monopolies to develop. Companies that dominate their market in an abusive way may hinder competition and thus considered having a monopoly position.[72] The advantage of possessing IPR's may contemplate domination in relation to competitors, but the way laws regulate the rights, the mere possession does not imply a prohibited dominant situation. In the US, standardisation organisations like the NCITS are well aware of the strict regulations on antitrust matters in the US. In order to protect its members from violating antitrust legislation, the NCITS has developed guidelines.[73] By considering what those guidelines states, one assures the own company to not commit unintentional violations on anti-trust laws.

5.4. Information Technology Law

5.4.1. An introduction

As new phenomenons are previously unregulated the inventors, developers and people who may commercialise a new idea has to make some considerations of how their concept is going to be received by different parties. The authorities in this case have responsibility for the legislative work. I will hereunder try to describe some specific legal areas with impact on the E-book. To delimit these areas I have chosen to make a brief presentation of the scoop of IT law. Is there a legal area that actually can be called IT-law?

The use of IT is increasing and we can not yet imagine were the technology development will lead us. In this dynamic environment the legal instruments sometimes apparently are insufficient and new or rewritten laws and regulations are demanded. Within the field of IT this is important to follow the progress with even greater consciousness.

Authorities are trying to keep up with the progress but there are gaps, and always will be, between the written and practised law as the society's allowance of certain new behaviours continuously undergoes changes. This

[71] Please refer to EC commission decrees, EEG num. 2349/84, 417/85, 418/85, 556/89…
[72] See for example KL 19 §. Compare to EC Treaty article 82.
[73] http://www.ncits.org/natrust.htm, (9 November 2001)

acceptance is necessary or else we would live in a static world giving the individuals little space to live their own lives. One can't forbid new behaviour patterns just because they are not earlier practised.

Ian Lloyd doubts that the Middle Ages thought, "Knowledge, of itself, is power".[74], is correct. Is it not more correct to speak about the *access to information* and that *information is power*? Education, for example, is about accessing information to support the learning process. The conclusion of this must be that information by nature is good. The e-book may be seen as an information source suitable for education by its fast access to various information services, like the on-line bookstores, using the latest technology.

The flow of information in today's society accelerates in an ever-ending stream. The main explanations are the development of the personal computer and the growth of the Internet, which has made the IT-society flourishing. IT is however implicating some consequences which not necessarily is that good. These have been and are or going to be objects of legislative work. Legislation on the IT area may be divided in two: First, *legislation of* the IT society and second, *legislation for* the IT society.[75]

According to this scheme legal matters concerning privacy and data protection but also computer crime is to be seen as regulation of the IT society. The purpose is for the authorities to gain control over activities related to, primarily, computer networks based information. Some of these activities may be of criminal character, for example, misuse of the right to personal integrity and infringements on copyright protected works. Internet is the single most significant computer network in the world. The number of connected computers are about 163 millions, worldwide,[76] (number raises quickly) with no physical boundaries separating the users in the cyberspace.

One can easily navigate through the massive resources of the Internet using the WWW. The e-book reader may for example surf to an on-line bookstore and download the latest best seller. But this enormous amount of users from all around the world is not only for the benefit of information services available on the Internet. With the anonymous appearance on the Internet and the current problems of tracing down law-breakers and getting a verdict

[74] Ian Lloyd, Information Technology Law, p. xxxv
[75] Ian Lloyd, Information Technology Law, p. xl
[76] http://www.cyberatlas.com, march 2000

to punish criminal offences, some users do not pay attention to the applicable laws. They do instead look forward to a possibility of making easy money by, inter alia, fraud or copyright thefts.

Hundreds, thousands and up to millions of computers may share the information sent to and through the Internet and similar networks. When sending information over the network one have to rely on the protective measures taken by the ISP one have contracted, not to forget the safety level of the users own system. If the technological solutions of defence fail there must also be a legal protection that manages to keep criminal behaviour on the margin. This gives birth to the need of *data protection*. Information concerning personal data as financial, medical, educational and employment status may be stored on a server in a network, it may also be stored at several different servers and then put together by anyone with access to these if wanting to get the full picture of a persons standing. This information can be misused, and the right to *privacy* is thereby threatened. Furthermore it is clearly that criminal statues must regulate the misuse of information.

To follow the scheme let us now take a look at the regulation for the IT society. If criminal statues protect the right to privacy and gives data protection, then the protection of economic interests must be built on the Civil Code Law. There are a couple of cornerstones in the legislation that are of importance to us. First we have the IPR, which is the main instrument to protect various outputs of intellectual work. The society throughout the world has recognised the need of a legal protection for the result of such work, whether it concerns science, design or literacy. Second, there is a need to regulate the commerce on the Internet.

When it comes to protect technological advances we have the legal patent system, to some extent internationalised by Geneva Convention and the PCT. Also within the EU, individuals and companies can file for a European patent, according to EPC. We also have a worldwide need of protection for ideas, a right given to people over the creations of their minds. This is recognised as the copyright, a right that by the way has been subject to protection since almost three hundred years within parts of Europe.[77] The last IPR of interest to us be the trademark. As the commerce is becoming

more intense and more internationalised it has been even more valuable to be in possession of a strong well-known trademark than the value of the product. Where or by whom the product is manufactured are of lesser importance. What is important is that the product has the qualities that match the trademark or brand name values it is marketed under.

When it comes to electronic commerce there are a lot of issues that has to be considered by the salesman with intention to sell goods over the Internet. Legal matters that are actualised by the use of IT is not brand new but there is maybe a need of redefining some of the rulings so that they can be applied to, in the field of electronic information. These areas of law has as shown an immense bearing towards the information flow within computer and telecom networks and may be named *IT-law*, when as here adapted to the digital world of computers and digital telecom services.

5.4.2. Intellectual property rights in the digital world

Intellectual property rights provide an incentive for the creation of and investment in new works of prints, software, broadcasts, etc. and their exploitation.

Thereby we will see new innovations, improved competitiveness and employment. The IPR is a critical issue in the digital world as the information, and thereby knowledge, spreads wider and a lot faster in the electronic outline.

A product like the e-book, which is dependent on digital technology, is also vulnerable to different sorts of intellectual property infringements and piracy. Therefore the area must be discussed thoroughly.

Ideas and knowledge has more and more become an important part of trade. Most of the value in a modern product lies in the amount of efforts like invention; innovation, research, design and testing involved. Books, computer software and on-line services are bought and sold because of the information and creativity they contain, not usually because of the material used to make them. Products that traditionally has been traded as low-technology goods or commodities can now comprise a higher proportion of invention or design in their value, for example brand named goods. In these cases the trademark has become synonymous with a definite value.

---

[77] U Bernitz (with co-authors), Immaterialrätt, page 5

Creators can be given the right to prevent others from using their inventions, designs, literacy works or other creations. These rights are known as intellectual property rights. Products in the form of books, paintings and films comes under copyright protection, inventions can be patented, brand names and product logos can be registered as trademarks. Companies are also entitled to the exclusive right of their firms' name by registration, in Sweden to pick an example according to Firmalagen (FirmL).

Moreover, the field of IPR is associated with important cultural, social and technological aspects; all of these have to be taken into account in the shaping of a policy in this field.

There has been significant harmonisation in the IPR area to brake down barriers to trade and to adjust the horizon to new forms of exploitation. The task for the IT community must be to enforce this "feeling of conformity"; to complete, renew and adapt it to new developments in technology areas and the markets concerned. The international perspective on intellectual property can be highlighted by art. 27.2 in the UN's Universal Declaration of Human Rights. "Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author".

As the importance of IPR must be obvious, likewise the need of managing these assets in a strategic view must be.

"For the fiscal year of 1990, Texas Instruments Corp. Reported that its revenues from patent royalties exceeded its revenues from manufacturing", even though Texas Instruments consider itself a manufacturing company. [78]

How is that? By sharing patents, copyrights, trademarks and trade secrets etc. with other companies in the branch by an effective well made IP program, it is possible to boost the market and demand for the proprietary products. Managing these rights in a proper manner can be very profitable in both an economic sense and to the benefit of technological development. A business actor of today must recognise that the IP can be a good not only in the physical form, the copy sold to consumers, but also as the immaterial right. According to Glacier, a company's intellectual property management

[78] S. Glazier, page 1

program should include one or more of the goals he specifies, as strategic management is the platform of fulfilling any overarching goals.[79]

1. Gaining protection of the company's products, services and income.
2. Generating cash by assigning or licensing IPR to others.
3. Obtaining a legitimate monopoly for future exploitation.
4. Gaining protection of R&D investments.
5. Creating bargaining chips.

An explanation to point three is that it's not always obvious what use a new invention or discovery can lead to. While exploring any possibility before a commercialisation, one has to hinder others to use the invention or discovery. The fifth goal has as purpose to create patent portfolios that can be used as trading goods, when negotiating cross-licenses in the area of patents and know-how etc.

There is however no point of gaining patents if no commercial benefit can be derived from it, because the patent itself only imply costs. After each section describing respectively copyrights, patents and trademarks some strategic considerations are issued.

5.4.2.1. Copyright

Introduction

Hereunder are copyright matters obviously attendant in the e-book business. I will start up to give as a background a few important comments on why e-book business has to create sustainable strategies for the protection of its intellectual property, specifically the copyright.

Two technological developments mentioned earlier in the work have raised a couple of issues regarding the future of intellectual property protection in the publishing industry. First, the rise of the Internet that has made global data services available at low cost to the general public. Second, technology advances in portable electronics have made the e-readers a reality. Together, these two developments not only reduce the cost of production and distribution for the publishing industry and other intellectual property based businesses (that is what makes e-books interesting besides technology enhancements) but also pose a significant coercion to the publishing

[79] S. Glazier, page 2

industry. These technologies may enable pirating and copyright infringements that threaten the industry in the most serious way. Mass reproducing is easily done once the copyright protection is cracked and it could very well imply severe income losses for the copyright owner.

Publishers all over the world have made only limited releases of copyrighted material of theirs in digital form up to date. This has apparently secured them from a scenario similar to that now facing the music industry with a flood of MP3-compressed music that circulates the Internet-based Web. As the music on a CD already comes in a digital format it easy to convert and spread worldwide as an MP3 file. Music industry started to distribute digitally recorded music on CD's already in the middle of the –80's. The same goes for computer software industry, which since the start by necessity deliver its products in digital form.

It is obvious that the literary creation, when it comes to electronic books, has the need of a copyright protection near the one developed for computer software. Copyright cover has to be given in three ways, as I see it. Creation of both contractual and technological measures added to the legal protection has to be done; or else it will be almost impossible to manage the IPR in the digital media world. Computer software has normally a stronger legal protection than music and books because the combination of these three safety-measures. Although, these measures has shown not to be enough to give a really effective protection.

With modern IT media tools it is possible to make perfect copies over and over again. The circulation through Internets structure is enormous and traffic will go faster as better network components as broadband cables enhances connection speed for the lot of users, for the benefit of the average consumer but for the worse to copyright owners. As faster connection speeds develops, problems with copyrights and its protection will increase. This may imply a harmful impact on the economic factors; turnover falls when illegal copies are sold, profits may go down when trying to meet the illegal market with price reductions and so on. These new conditions in the digital world will also be an important derivation for the ongoing legal work on intellectual property matters.

Hereunder I find it appropriate to first provide a background on the nature of copyright and to have a quick look at if the Swedish Copyright Act,

Upphovsrättslagen, can meet the demands from those fundamental characteristics of this immaterial right. Thereafter I will take a look on the international copyright treaties and highlight a couple of differences from an international point of view. The protection technology solutions and contractual agreements will provide has to be considered likewise. Finally some words about what a copyright policy should comprise.

Copyright and Its National Shaping

Copyright provides the original creators of works and their heirs, certain basic rights, which can be split up in two categories, the economic and the so-called moral rights *(compare URL 1st chapter §§2 and 3).* They hold the exclusive right to use or authorise others to use the work on agreed terms. The originator of a work can prohibit or authorise use as reproduction, public performances or adaptation to altered means of expression. To gain copyright protection no registration procedures etc. is necessary. Copyright is thereby a formlessly originated right. This important principle of copyright has its ground in the Bern Convention.[80] There are however a couple of basic demands on the claim of copyright. Novelty is the first important principle. A work that already is published can not normally be subject to new claims for copyright. A second criterion is that a copyrighted work must originate from the efforts of an intellectual achievement of a physical individual.[81]

What works is then protected? The core copyright area is to grant protection to literary and artistic works but there have been developed lots of more or less closely related phenomenons, making delimitation a bit difficulty. As far as it concerns the e-book industry, literary works as fiction and textbooks probably is given the first consideration when it comes to copyright issues. But there is also a good idea to discuss the eventual protection for computer software solutions and if it may, or not, be combined with a thriving patent application.

The Swedish Copyright Act, URL, is stating that protection are given to among other creations as fiction and textbooks even computer software, *URL 1st chapter § 1*. These areas are of specific interest to the e-book business. The fact that computer software is gaining protection as a literary creation

[80] Koktvedgaard and Levin, page 55
[81] U. Bernitz (with co-authors), page 37

shows the wide array of copyrights nature.[82] The protection of computer program is not obvious, the opinion has suggested the patent system as the more natural way of protecting computer programmes.[83]

A great number of creative works sheltered by copyright requires mass distribution, transfers and financial investments for their publicity. This goes for books, sound recordings and films, to name some. Consequently creators sell the rights to their works to business actors best able to market the works in return for payment, such as in the relation between publishers and authors. These payments are often made conditional on the actual use of the work in commonly applied royalty agreements.[84]

The economic rights grants the originator an exclusive right to disposition of his work in order to enjoy whatever profits the work might give, *URL 1st chapter § 2*. The moral rights, ”droit moral”, on the other hand involve the right to claim authorship of a work and the right to encounter changes to it that could harm the creator's reputation, *URL 1st chapter §3*.

There is however an enumeration of exemptions to these exclusive rights, *URL 2nd chapter*. This means however no limitation to the rights of the creator granted in the 1st chapter URL. The purpose of having any exemptions at all is probably that the public is meant to have the right of limited access to protected works because it would gain a, for the society, common interest.[85] This catalogue of exemptions is one solution on this issue; another is the fair use clause in the US Digital Millennium Copyright Act, which is explained later on.

Due to the WIPO treaties there is a time limit for the granted rights, of 50 years after the creator's death. National law establishes sometimes even longer time limits as in Sweden, where the limit is set to 70 years, *URL 4th chapter § 43*. The limit is assumed to enable both creators and their heirs financially benefits for a reasonable period of time. Before the first of January 1995, Sweden had a time limit corresponding to the Bern Convention but it was adjusted when Sweden became member of the EU.[86] The originator or, if the rights have been transferred, the owner of the

[82] Koktvedgaard and Levin, page 59
[83] Koktvedgaard and Levin, page 59
[84] Look back at chapter 4, Actors
[85] Koktvedgaard and Levin, page 145
[86] Sweden has implemented EC directive 93/98/EEC of 29.10.1993, to national law

copyright in a work can carry out certain rights, both administratively and in the courts. The copyright owner may by inspection of premises get evidence of production or possession of illegally made goods related to protected works, *URL 7th chapter §§ 56 a-h*. The owner may also obtain court orders to stop such activities, *URL § 53 a*, as well as seek damages for loss of financial rewards, *URL § 54*, and recognition.

Among with the possibilities to get a verdict for infringements on copyright and to punish lawbreakers by fines or imprisonment, *URL § 53*, these possible actions secure the economic rights granted by the copyright.

Finally, during the second half of the 20th century a field of rights related to copyright has developed rapidly, they are often called neighbouring rights. The related rights grew up close to copyrighted works, and provide similar but regularly more limited and of shorter duration than the rights granted for copyright. These rights are given to performing artists such as actors and musicians in their performances, producers of sound recordings, on for example CD's in their recordings, and broadcasting companies, URL 5th chapter §§ 45-49a.

The performance is here obviously the primarily safeguarded object and thereby not of weightier interest to e-book business. (If not the branch can argue for that the Internet based web site offer and delivery in fact should be seen as some sort of performance). Except for one type of creation, the catalogue or database protection, which in Sweden is protected by a separate rule, URL § 49.[87] The database protection means nothing for the plain product (e-book) but is important for the businesses marketing e-books, as they have to built up large libraries with designed catalogues to present their e-books in a both practical and selling manner. There are lot money invested in such databases, therefore it would be harmful if competitors were allowed to copy these.

Copyright and Its International Context

If the Swedish Copyright Act meets the demands arising from legal protection within the territory of the Swedish State, how do international copyright protection manage this matter in a worldwide perspective? Copyright has more of international character than most other legal areas

[87] Directive No 96/9/EC, copyright protection for databases is implemented to Swedish Law

thanks to the international trade and international conventions, first and foremost the Bern Convention which was contrived as early as 1886, have shaped national laws to be much alike. The WIPO organisation has also been a successful brick in the internationalisation of intellectual property issues.[88] WIPO's task is to administer the immaterial world conventions and to work for its further developments.

BC's fundamental principles can be numbered to two. First, there is the principle of national treatment. This principle means that any citizen belonging to a member state of the Bern Union, states which has signed the BC, has the right to protection of intellectual property in accordance to at least the level of protection given in the home country, in every other member state.[89] Second the principle of minimum protection, which regulates the grade of IP protection every member state at least must withhold for citizens of other member states.

The rules on minimum protection and national treatment are also settled in the WTO-TRIPs charter, from 1994. TRIPs is a coherent IP protective regulation in a global commercial perspective, which is part of the WTO system of monitoring international trade issues and supporting litigation between member states.[90] But the TRIPs gives even a wider IP protection than the BC in that it prescribes a third principle, the one of the most favoured nation. That is any privilege given to a legal subject of a member state must in addition be given to legal subjects in all other member states.

Except the WIPO and WTO agreements an interest within EU for the gaining of harmonisation on the IPR area has lead to a numerous of directives. Directives are legal acts that obliges the member states to adapt what is regulated in it so national law is in conformity with the intention of that directive. This is explained with that a directive is judged to have direct effect in the member states of EU after that the prescribed period of time within which the member states must correctly implement the directive has expired.

The EU is also regulating some fundamental rights with consequences on IP issues in the Treaty of Rome establishing the union. The non-discrimination

[88] WIPO, established 1948, www.wipo.org (20 September 2001)
[89] Look at the Swedish International Copyright Act § 2-4, (SFS 1994:193)
[90] U. Bernitz (with co-authors), page 10

contingent on nationality, art 12.1, (compare with the principle of national treatment in BC), restraint-of-trade practices, art 81 and 82 and the matter of parallel-import, where a protected good is put on the market by the IP owner and then forwarded by export by a third party. When an immaterial right good is sold on the market in a EU member state the IPR concerning this specific copy is considered exhausted within the territory of EU but not in a global sense, a principle derived from art 28 and 30, ruled by the court of the EC.

Sweden is member of the Bern Union and is bound by the TRIPs agreement both as a member of EU and according to a separate ratification process. The EU commitment is also obliging Sweden to comply with the Rome Treaty and the different legal acts of EU. Most of the industrial worlds countries are in a similar situation, which has the effect that intellectual property is recognised and regulated very much the same in most parts of the world.

What differs in the International context?

Copyright itself does not depend on official procedures. Compare to what is stated above according to the Swedish Copyright Act. A created work is considered protected by copyright as soon as it exists. However, some countries have a national copyright office which allowing registration of works for the purposes of, for example, identifying and distinguishing titles of works, which is the case in the US. Another difference that can be mentioned is the method of how exemptions to the exclusive rights of copyright are regulated. In the relatively recent reconstructed US copyright Act, the Digital Millennium Copyright Act, a possibility is opened to the use of a copyrighted work, via a fair use clause. Whether the use is fair or not has to be judged from case to case.

In Europe another method to prescribe exemptions is used. To pick an example let us return to the Swedish Copyright Act, URL, where the exemption clauses to copyright is found in the 2nd chapter. The act is issuing a catalogue of dispositions, which are considered admissible. The catalogue shall be interpreted as an exhaustive enumeration of exemptions to the creators right in connection to his or hers IP.

Technological Protection

Is the legal protection enough? No, criminal behaviour has been noticed in the past and so it will in the future. The fact that there are risks of being punished before the state-controlled courts in the name of the law does not scare all members of the society to abidance applicable laws. It does not matter there is well working bodies administrating the legal tools, both in the national and in the international perspective.

Technology based protection is probably the most important part of the system to consider, when selling e-books. The law has geographical and practical limitations but offers the strength of the state. Agreements are broken, now and then, but offers possibilities to remedies when an agreement is violated. The most direct and effective control of the rights must therefore be given by technology-based protection.

This however often complicates and delimits the use of copyrighted works and is therefore also a threat to the commercialisation. In this perspective the e-book business must seriously weigh the pros and cons of the use of technological copyright protection solutions.

Technology solutions should provide protection against both authorised and unauthorised users, which has the intention to abuse the system. To meet these problems, the system must be able of proving any entity's participation in an event must be built in and the system must clearly provide adequate usage control at the risk of such improper usage. The instrument to meet such use could also be strong authentication mechanisms in the system and to make sure that the access control mechanisms is sufficiency.

Protective solutions must be implemented so that no unauthorised entity eavesdropping on an interaction on the content server. Like when a hacker watching a network session between a customer and a vendor. The system technology has to have the capability to protect data against modification or interception during transport and protect personal integrity information.

There is of course a threat coming from potential attacks on the e-reader device itself in addition to these mentioned. In this case the e-book entrepreneur has to consider security and weight it to the e-books practicability and user friendly abilities.

Technology development is not only for the benefit of copyright though, it also threatens the mere existents of copyright. Because of the almost

unlimited possibilities to copy digitally published works. Can copyright keep up with these advances in technology?

The field of copyright and related rights has expanded enormously with the technological progress of the last several decades, which has brought new ways of spreading creations by such forms of worldwide communication as satellite broadcast and compact discs. Dissemination of works via the Internet is but the latest development, which raises new questions concerning copyright. WIPO is deeply involved in the ongoing international debate to shape new standards for copyright protection in cyberspace. The organisation administers the WIPO Copyright Treaty (BC) and the WIPO Performances and Phonogram Treaty (VC), which has set international norms aimed at preventing unauthorised access to and use of creative works on the Internet or other digital networks.

Contractual protection

In the computer world it is common to use licenses for the utilisation of software. Between the parties in a transaction where digital information, software, takes place it is common to make arrangements on the use of the traded goods. This is often given the form of a licensing agreement, where the customer not actually buys the merchandise, the digital copy, but is given the right to use it. These agreements are not actually a part of the act between the vendor and the customer but between the manufacturer (the copyright owner) and the customer as a user. Agreements of this type are often called ”EULA”, *End User License Agreement*.

The construction of such agreements is a method to take control over the flourishing piracy copying and other infringement acts of today. The licensing contracts are said to strengthen the copyright protection beyond the law given guardianship and where the technology fails to cover up. Besides, the old Roman saying ”pacta sunt servanda” is deeply rooted in our minds.

What about licenses when it comes to e-books? Is it possible to use the construction of a so-called shrink/wrap license on a single copy of an e-book? As there will be no physical copies delivered the thought of a sealed product is far fetched. The shrink/wrap licence is built upon the concept that when open up the wrapping one has agreed upon the licence agreement

presented on the convolute or by the vendor and should thereby act in accordance to this.

Another licence agreement of the EULA kind is presented just before the installation of a software product as an incorporated part of the installation process. If not accepting the EULA no installation will be possible. This is neither an alternative to the e-book vendor, as it would be very impractical to make an installation of every single e-book bought.

At the Internet a third and nowadays commonly used alternative is to view a user license before the download process starts. One has to accept with a mouse click on an "I Accept-button". The download of data is made conditional upon this acceptance. Can a part be bound by an agreement just by a mouse clicking on an Internet site?

Managing the Copyrights

A publisher can maintain copyrights with great determination. The instrument for this is provided by the society. It is the copyright law that supports the business of publishing by giving publishers a mechanism for limiting pirate markets. By looking after ones interests and meet copyright infringements aggressively, publishers can prevent the pirating market from becoming commonly used, hinder pirates to get any large income from IP content thefts and also prevent technologies and services that enable piracy from being abused. The copyright owners should as well pursue operators of web sites distributing pirated content, plus contact the ISP company hosting these web sites to give them notice about the infringements. Another instrument can be to establish processes for detecting the distribution of pirated books on certain web sites. Then send warnings to the site operators of their infringement, and oppose persistent infringing parties to prevent distribution channels of illegally copied intellectual property from becoming large and organised.

As copyright laws provides for the business to protect intellectual property, an obvious step must be to advocate enforcement of existing copyright laws both nationally and internationally to prevent individuals and companies from profiting from low control measurements.

The business can also seek expansion of the protected sphere provided by copyright law by pursuing legislation authorities to address digital

distribution, and by declare their opinion in any intellectual property forum. And thereby pursue a legislative agenda to strengthen protection of digitised literary works distributed in digital form, why not by proclaiming a possible new performance right in digital distribution.

From above we have also learned that it is most essential not to relay only on the fact that society by law enforcement has considered copyright worth to protect, as an intellectual property asset. This protection must be combined with technological solutions for copyright protection and even in the relationship with customers by contractual tools delimit the right use of any sold or user licensed copyrighted material.

Conclusions and copyright policy

Copyright of literary works is maybe about to take one step forward, strengthened by the construction of computer software shrink/wrap licenses, new technology for encryption, copy protection and rewritten copyright laws, which have the ability to protect the copyright in a digital format. This is critical because if failing to build a strong protection to the literary creation it will be hard to manage these proprietary rights in this digital media world.

Copyright law supports the business of publishing by giving the actors a mechanism for limiting pirate markets. By aggressively upholding their copyrights, publishers in the e-book business can prevent pirate markets from becoming convenient to use, prevent pirates from deriving significant income from pirated content, and prevent technologies and services that support piracy from being abused. Further on the business should develop better technologies to protect the copyrighted work and via well-balanced agreements with the customers exercise an effective control over the immaterial product flow.

The business can also choose to lobby before governmental authorities for the development of the copyright laws preferable united, in some interest groups, which has greater possibilities of succeeding the mission.

Focusing on these facts the authors and publishers can get well off in e-book business.

5.4.2.2. Patents

Introduction

The patent systems impact on e-book concept industry is not going to be fully examined hereunder but there is a couple of questions that has to be paid attention to, so that one are not completely unaware of how it works.

Is it necessary to apply for a patent as an e-reader manufacturer or a software developer? Why is there a need of patented products and what is the patent about? I will hereunder try to shortly explain the nature of patent and the legal patent system providing a protection to the inventor and his investments so that he alone can, without infringements exploit the invention.

Where IPR's generally provide incentives to individuals by offering them recognition for their creativity and material reward for their marketable intellectual property the patent system in particular, accommodates strong motives for innovative efforts. This in turn encourages innovation, which assures certain industrial progress of society.

When granted patent protection the inventor has to publicly disclose information on their invention. This increases the body of public knowledge and promotes further creativity and innovation by others.

We will see what kind of protection the patent offers, as well as the possibilities to commercialise the patent itself. There is an increasing use of patent licences to make faster and bigger turnovers. A successful patent licensing program is dependent on effective patent strategy management and this issue will be focused at the end of this section. For the publisher choosing to buy the right of using patented technologies the basics of patent licensing can be of interest.

Patent protection means that the invention cannot be commercially disposed without the patent owner's consent. These patent rights can be enforced in a court, which, in most legal systems, holds the authority to stop patent infringements. On the contrary, a court can also declare a patent invalid upon a successful challenge by a third party.

How do the patent legislation in Sweden meet the demands from a commercial angel?

The first round in trying to obtain protection to an invention is to decide the patentability of it. As the field of protection has an industrial context, the invention must be possible to utilise industrially, Swedish Patent Act, PL 1st §. In addition to this legally expressed demand a more precise definition to what can be considered an invention is needed. There are three such specified matters; it must be judged a novelty and show an inventive step, fall within the technological subject field (prior art) and to have potential of reproducibility, PL 1st §. These must be considered fundamental requirements on the invention. In securing a patent is the filing of a patent application, PL 8th §. The patent application generally contains the title of the invention, as well as an indication of its technical field. Therewith it must include the background and a description of the invention, in clear language and enough detail that a professional of the field with an average understanding could use or reproduce the invention. Visual materials such as drawings, plans, or diagrams to better describe the invention usually accompany such descriptions. The application must also contain various "claims", that is information that determines the extent of protection granted by the patent, PL 39th §, compare with PL 8th § 2 paragraph. To get a patent application granted one has to be the first to file. The priority, which application will be granted a patent, is set from a day to day basis, PL 2nd §, which not seems to have caused any practical uncertainty.[91] The time limit for protection of an invention via the patent system is 20 years from the day of the application, PL 40th §. A granted patent means exclusive right to disposal of the invention within Sweden if filing according to PL. Or the designated countries, if filing to a regional or international patent regulation.

A patent is granted by a national patent office, in Sweden that is PRV, or by a regional office that does the work for a number of countries, such as the European Patent Office, EPO under the EPC, or the African Regional Industrial Property Organisation. There is also the WIPO-administered Patent Co-operation Treaty (PCT) provides for the filing of a single international patent application which has the same effect as national applications filed in the designated countries. An applicant seeking

[91] Koktvedgaard and Levin, page 211

protection may file one application and request protection in as many signatory states as needed.

Patent Law in the International Context

Besides EPC and PCT a convention which early focused on the protection of industrial property in an international perspective was the Paris Convention of 1883. Besides patents it covers trademarks and design patents (US), (registered designs, UK and geschmacksmuster, GER).[92] Up to date over 130 states have ratified the Paris Convention.

The convention is built on three essential principles. These are *jurisdiction* under *national legislation* only *within state territory*, where a *minimum protection* must be uphold and finally the principle of *national treatment*, that is an individual of a convention state should gain a least the same level of protection in another member state as it's own citizens.[93] The important rule on convention priority ensures the inventor the possibility to be granted patents in other countries though the first application in fact brakes the requirement on novelty, within a period of twelve months. The Paris Convention does not regulate a procedure to file for a "world patent", as a patent only can be granted in each single country.[94] This is where the PCT has more of practical significance.

Patent strategy management

The management of a company must consider the formation of a patent policy beforehand. The following questions should be considered. Is it worth using the patent system? The cost can be high, the application becomes public, reversed engineering makes it possible for anyone to reproduce the invention and maybe develop it further. Which countries should be designated? This is a highly relevant issue

The strategic patent management program should contain:[95]

1. Efforts to obtain disclosure of inventions. Disclose ideas – cash incentives and brainstorming groups, cross professional.
2. Review of the disclosed ideas. Review board patents, keep the trade secret and develop it. This can give the company exclusive rights to the

[92] Koktvedgaard and Levin, page 251
[93] M Koktvedgaard & M Levin, page 37
[94] M Koktvedgaard & M Levin, page 40

invention without a patent. There is, however a high probability that someone will know about the idea, sooner or later. Or on the contrary, disclose to public domain (no other actor will be able to patent it). Issuing the invention to public domain means that nobody else can apply for a patent. The way this is done is by publishing an article about the work. Thereby the requirement of novelty is broken. The two ways to go if not filing for patent: 1) Keep invention a trade secret or 2) Issue invention to public domain.

3. Establish a confidentiality program. Confidentiality and non-competition agreements with all employees should be carried on. A confidentiality policy should be issued and the company should review and all publications and speech to public. Further on the company should mark company papers confidential, to make employees aware of the weight of keeping eventual secrets within the business.
4. Establish a licensing program. With an independent profit centre to manage the immaterial rights. And why not give individuals incentives by performance compensation in a bonus programme.
5. Establish an enforcement function. To ensure that no infringing is done by monitoring, policing, initiate opposition proceedings and negotiations as preferred or maybe litigation initiatives.
6. Avoid infringements of patents of others. Make sure your ideas have novelty, ask for a written opinion from patent counsels of whether infringing or not.
7. Monitor patent activity of others. To obtain information on operations of competitors, and get up to date on technologies.
8. Ensure that title to new developments comes to rest with the company. Contracts signed by employees should clarify all rights to development are property of and shall be assigned by the company. This should also go for third party business associates, including joint-venture partners suppliers etc.
9. Determine in which foreign jurisdictions counterpart patent applications will be filed. Aspects as the international perspective of marketing etc.

[95] S Glacier, page 5-7

and the geographical markets will have to be designated. The company might, even though it is small, be acting on the world-market. The cost for filing patents in many countries may be too high.

Patent licensing[96]

If the company decides that their patents are to be used in a licensing program the company must have a patent worth paying for. If it is the licensing can be very lucrative. Remember though, first user's rights, don't give the right to license an invention.

Here is some issues to consider if going to use the patent as a goods. 1) Write the claims on clear, plain language. Any investments from others depend on that they understand the value of the invention. Claims should also be as wide as possible to make sure that any further development of the usage of the idea can go under the patent. 2) Price terms on licensing agreement should be so clear that when the licensee are paying the fee no hesitation about the amount of it could be possible. 3) Terms on payment have to be decided likewise in a clear manner: When and how? Subject of offsets, discounts, returns and change orders should be regulated. Likewise what constitutes late payment and which remedies will in the case be actualised? 4) Give a clear product definition on what products the licence cover, what constitutes development and how to share jointly modification etc. 5) Ownership, developments, know-how R&D joint efforts etc should also be included. And finally the fundamental issues whether the licenses would be Exclusive- or non-exclusive licenses has to be carefully thought about.

5.4.2.3. Trademarks

The trademark is a characteristic sign or a combination of letters, which identifies certain goods or services. The use of trademark origin long back in time, when craftsmen reproduced their signatures on the artistic or functional goods they were creating.[97] *Over the years these marks evolved into the system of trademark registration and protection we have today.*

The system nowadays helps consumers identify and purchase a product or service because its nature and quality indicated by its unique trademark. Furthermore it strengthens the commercial value of specified products for

[96] In accordance to S Glacier, page 55-61
[97] M Koktvedgaard and M Levin, page 274

the vendor. The trademark is per definition an intellectual and industrial property family asset. Therefore trademark issues must be involved from the start of a new business idea. The general perception of a trademark is considerable when it comes to give the product attention and distinguished qualities. And the more commercial information spread in the world the more importance a strong trademark will have to get to the customers.

The owner of the trademark gets the benefit of protection to the exclusive right of using it to identify goods or services or to entitle another party to use it in return for payment, (licensing agreements).

In a wider sense, trademarks encourage initiative and enterprise worldwide by rewarding the owners of trademarks with recognition and financial profit. Trademark protection also hinders the efforts of unfair competition, such as the use of similar distinctive signs to market inferior or different products or services. The system enables people to produce and market goods and services in fair conditions, thereby facilitating international trade.

Here is a presentation of the legal view on trademarks. In Sweden the trademark act, varumärkeslagen (VML), protecting the property of trademarks, in fact defined as an intellectual property. The property holder can register a trademark for exclusive right of use, by giving in a trademark application to the authority that deals with trademark issues, VML 1 §. A second prospect is to use a trademark, which in time becomes well known and thereby get the benefit of protection. In Sweden PRV administers the application and approval process. Trademarks may be registered as one or a combination of words, letters, and numerals. They may also inhere of drawings, symbols, three-dimensional signs such as the shape and packaging of goods, or colours used as distinguishing features, VML 1§. The application must contain a clear reproduction of the sign filed for registration. The application must also contain a list of goods or services to which the sign would apply to, VML 17§. The sign must fulfil certain conditions in order to be protected as a trademark. It must be distinctive so that consumers can distinguish[98] it as identifying a particular product, as well as from other trademarks identifying other products, VML 13§. It must neither mislead nor deceive customers or violate public order or morality and

[98] Koktvedgaard and Levin, page 295

finally the rights applied for cannot be the same as, or similar to, rights already granted to another trademark owner, VML 14§.

By registration the holder of a right to a trademark will also gain protection against unauthorised use of the trademark. Meaning that the holder of the right can rise claims for economic compensation before the court of justice and that the misusing part shall be forbidden to use the trademark anymore, in other words stop the infringing act, 37a and 38 §§. The unauthorised use is also prosecutable, where the verdict can be to pay fines or if the misuse is grave, to imprisonment, VML 37 §. The period of protection is 10 years, but a trademark can be renewed indefinitely beyond the time limit on payment of additional fees, VML 22§.

In the digital world we have been seeing several conducts of trademark misuse, especially on the Internet. The main reason for this is that it is not possible for anyone to have effective control over the information on the Internet. Another contributing fact is that the WWW and the Internet is relatively new phenomenons where some users are not aware, and have not even thought of protective legislation for economic interests connected to the exclusive right of copyrights, patents, trademarks and firm names. There are as well the enormous amounts of users and the uncountable sites where information is given. Sites that not all have the intention of being honest and fair in their commercial conduct.

We have in the recent past seen individuals and companies registering well-known trademarks as top-domain names, with some sort of business idea in mind. Brand names or trademarks followed by for example a dot- ”com” domain, all in order to make profit of their registration when the owner of such a brand name was becoming interested of setting up an Internet site. The property holder became aware of that someone else already had registered the trademark as a domain name, when handing in an application for the domain name corresponding to the brand name of his. Then he had to contact the sort of “infringing” party and pay to get to use the brand name or trademark as a domain name on the Internet.

The authorities handling the applications of domain names in a country, in Sweden that is NIC-SE, is not likely to have knowledge about all well-known trademarks in other countries. Because of among other reasons the separated marketplaces and language barriers. The applicant can therefore

have an approval of the domain name application.

But there is an ongoing work under the supervising of WIPO to get some control over the international domain name system.[99]

WIPO issued in 1999 a resolution, the Uniform Domain Name Dispute Resolution Policy, that deals with the disputes that concern conflicts between domain names and trademarks, it deals only with deliberate, bad faith violations of trademarks in which the domain name holder has no rights or legitimate interests. Such deliberate, bad faith violation of trademark rights through the registration and use of domain names is popularly known as 'cybersquatting.'[100]

Another way of an indirect misuse of brand names and trademarks is to copy them into a so-called "META tag" within the HTML code, like this:

```
< META name = "KEYWORDS" content = "brand names, trademarks, firm names" >
```

The tag is placed in the "head" section of an HTML document. When a surfer using a search engine like Altavista.com or Yahoo.com to find more information about a product, brand name or a firm. The search engine seeks the HTML documents on the Internet and finds published and registered WWW pages containing the search word, mentioned in the HTML codes. The META tag is not visible on the actual Internet site but will give as result that the site really is connected with the searched words and the site is thereby listed as one of the search results. This lures the surfer to a site where the real content can be of totally different subjects than that of interest for the surfer that did the present search.

Nearly all countries in the world administrate a system for registering and protection of trademarks. Each national authority maintains a register of trademarks, which contains full application information on all registrations and renewals, facilitating examination, search, and potential opposition by third parties. The effects of such a registration are, however, limited to the country concerned. The legal system of trademarks seems to fit in badly with the international scoop of the Internet and the modern IT society. But instead of registering separately with each national authority, one can now, despite the above stated, just file for a trademark to one national office in

[99] Interim Report of the Second WIPO Internet Domain Name Process, http://wipo2.wipo.int (23-05-01)
[100] Interim Report of the Second WIPO Internet Domain Name Process, page 8

accordance to a system, which is administrated by WIPO. Of course the state where an application is filed must be a participant in the system. By this one can gain an international registration of the mark.

Two treaties govern the system, first the Madrid Agreement concerning the international registration of marks and second the Madrid Protocol. One must therefore be aware of that the international scoop of trademark matters is focused in these treaties. At present, about 60 countries are party to one or both of the agreements.

The effect of these treaties is in short, that a person who by nationality, domicile or establishment has connection to a country, which is party to one or both of these treaties may obtain an international registration good through all countries of the Madrid Union. This is a special union under Article 19 of the Paris Convention for the Protection of Industrial Property. Any state, which is a party to the Paris Convention, may participate in the work on the Agreement or the Protocol or both

The objectives of the system have two layers. First, it facilitates the obtaining of protection for trademarks in general. The registration of a mark in the international register produces, in the states designated by the applicant, the effects of protection from infringements and exclusive rights of use. Second, since an international registration is analogues to a group of national registrations,[101] the management of rights issues is made much easier. There is only one registration to renew and changes in ownership or in the name or address of the holder or a limitation of the list of goods and services can be recorded in the international register through one single, simple procedural step.

5.4.3. Contracting, the International Perspective of the Internet

Contract law is about how we make agreements that are binding. It has a plain commercial purpose, as it appears to be an instrument for economic transactions, securing the exchange of merchandises and services for money, which is more of a direct action.[102] But the contract can also be of a permanent character. In the last case, long term contracts can regulate other legal relations between parties in an agreement, such as guidelines of conduct or how to make economic dispositions for the future.

[101] Koktvedgaard and Levin, page 276

The companies that is going to sell e-books are under influence of contract law, not only national contract law but as the commerce of the Internet is highly internationalised, even international contract law. In the perspective of product- and business structure of the e-book concept, long term contracts regulating co-operation and use of proprietary rights like patented technologies and copyrighted material is necessary.

In the market perspective there is as well a question of the direct action, exchanging goods for money and how marketing is done throughout the world. How to find a suitable model for this commerce? Clearly contract law has to be given some consideration when going to start a business.

5.4.3.1. National Contract Law

In Sweden the base legislation on contracting was formed back in 1915, it is named Avtalslagen, AvtL. This legislation is applicable on the commerce of e-books but it is a general law on contracting and there are legal works that more specifically take care of the problems risen from the actual situation, when goods and services are sold. There are two parallel laws on the matter. One of them is dealing with the situation where the parties both are tradesmen or on the other hand they could both be private persons. I refer in this situation to a law of sale called Köplagen, KöpL. The other legislative work is aiming at the situation where one of the parties are considered a consumer, which in most situations are judged to have the need of stronger legal protection, a sort of consumer-interest law of sale, Konsumentköplagen (KKöpL). This view on consumer's rights is shared by a number of states in the world and is thereby not very surprising.

5.4.3.2. International Contract Law

A few words to be mentioned about commerce in an international environment. Via the Internet, commerce takes a giant step towards an economic society without marked boundaries. When a person is online and visits a site selling e-books, it has no or lesser relevance where the server containing the site is geographically located. The electronic content of an e-book is not more difficult to deliver inside the US compared to a deliverance from the US, overseas to for example Sweden.

---

[102] Axel Adlercreutz, Avtalsrätt 1, page 13.

The international context is obvious and the issue of contract law in this perspective is not irrelevant. Why do we need contracting rules of international character? The fact is that when people are doing agreements they do not always share the same opinion afterwards, of which meaning the agreement really was stating. If they can not reach a common sense on the argument there is a requirement of help from the legal system and therewith the courts of justice. The laws of jurisdiction decide the issue of forum, in which country a dispute will be resolved. But most consumer transactions being for smaller sums and it are unlikely that it will be worthwhile to consider the application of complex rules of jurisdiction.

A couple of issues have to be considered and the starting point for us is the United Nations Convention on Contracts for the International Sale of Goods, CISG.[103] It is important to have in mind that the rules of CISG are of optional character, article 6.

To interpret contracts, ingredients like common sense, parties behaviour and general practice are important, article 8-9. These are familiar interpretation elements to us as well as the essential freedom in the right of contracting. Compared to the statements in 3 § of the Swedish KöpL it seems fair enough. Article 14 sets the conditions of a binding offer, which is in accordance to the Swedish law.[104] There are two main principles of how to make a binding contract. First as in Sweden the thought is that once issued an offer one are assumed to have made a *promise* to fulfil in accordance to that specific offer. The effect of this approach is that a withdrawal must be done not later than when the offer reaches the addressee. The other way to look at the situation is the thought that as long as the addressee has not returned an acceptance there is no *contract* reached and therefor the offer can be revoked. The first principle comes to expression in 7 § Swedish AvtL, the second are received in the Anglo-American legal system. The two principals are found in article 15 and 16 of CISG. If this is the form of an offer, what is the view on an acceptance? An expressed explanation or a conduct of acceptance means there is a binding contract when arriving at the offering party, article 18 CISG. There are also rules of how to judge at the event that acceptance are altering the terms of the offer, article 19, which can be compared to 6 § AvtL.

[103] By UNCITRAL
[104] A Adlercreutz, page 312

Can those rules be fitted for electronic commerce?

5.4.4. Electronic Commerce

Besides the clear internationalisation of commerce we have seen for a while, which is affecting contracting, the new electronic communication technology also influences the contract law in a way that perhaps requires a new approach when looking at such agreements. This is not a work about electronic commerce but some issues have to be highlighted as the deliveries and the payments of e-books are expected to take place over the Internet. The e-book is a product of the modern IT. And the commerce is going to be an all-automatic process. This is clearly to define as e-commerce.

Is there at all a need of specialised rules for contracting depending on which way the parties chooses to communicate? Not generally but we will se that there are some slight differences. Further on when selling merchandises on-line one must have two important issues in mind. First that when selling from an Internet site it becomes a distance delivery, which is regulated in legislation. Second, as the on-line shops is built up by databases and information about the customers will be stored in data file registers the on-line shop owners and staff needs to have knowledge about personal integrity in the digital environment.

On-line Contracts

Electronic commerce is dealing with transactions in real time, just like if one where out at the mall shopping. But in this case it is an anonymous on-off traffic between parties that has never met. Is there a need for Internet specific legislation or do the legal system have the flexibility needed to be applicable in this new commercial medium? UNCITRAL has issued the opinion of functional equivalence. This means that when an IT-system, as the Internet with connected web-pages handling commerce, serves the same function as the paper medium the principle rule implicates the same legal action as if there where a written paper.[105] UNCITRAL has with this condition before hand published a model law, which is interesting in our perspective but the work is not described here.[106]

[105] C Hultmark, page 21
[106] UNCITRAL, Model Law on Electronic Commerce, www.un.or.at/uncitral (99-09-20)

Known problems in the electronic commerce and on-line contracts are to secure what has been agreed on and to identify the participants in the transaction. A method to identify an actor is to use a digital signature in accordance to the Public-Key-concept, which consists of two keys, where one is public and the other private, only accessible for the sender. A third party, the certification authority, is involved in the verifying process to secure the identity of the key holder.[107] While the different electronic mediums are not suited as evidence because of their nature, where a copy can not be parted from the original, one must be cautious to judge these to be of vital importance.

5.4.4.1. Legal aspects on Marketing

Business actors in most branches have realised that the Internet has great potential as a media for advertising and marketing. The so-called webvertising is separated in five broad categories. Advertising in on-line publications, banner advertising, website advertising incorporating the advertiser's brand name, linking a website with an email address and spamming (the use of mailing lists to send the same message to a great number of people who did not ask for it).[108] Marketing and Competition Laws suffers from the lack of enforcement power in the international perspective, though the webvertiser reaches the world at large.

Within the EU work is ongoing to solve the problem to shape an approach ensuring compliance of laws in the area of commercial communicating, advertising and marketing.[109]

In general the EU has recognised the need of harmonisation in the field of marketing. The Directive on Comparative Advertising[110] is an example of that. But the field as a whole contains lots of issues, like liability for advertising material, privacy issues for marketing on-line, advertising to children, telemarketing on the Internet, advertising regulated goods (tobacco, alcohol), on-line promotions and linking and framing.[111]

5.4.4.2. Distribution and the Security Measures

[107] C Hultmark, page 30
[108] Michael C and Alistair K, page 179
[109] Green Paper on Commercial Communications in the Internal Market, May 1996
[110] EC directive 97/55
[111] Michael C and Alistair K, page 182 ff

As the need of physical copies are gone because the Internet e-book publishers or bookstore dealers just deliver a digital file via the Internet, containing the e-book to be screened at the customers e-reader or computer. This file can be delivered, or copied, over and over again when it is put on a server from where the digital copies then are sent throughout the world.

We have seen a couple of different solutions concerning deliverance methods. The first is to download to a computer and then connect the e-reader to it for transferring. Another is to download via the e-readers built in modem and directly access the e-book. A third solution is to download the e-book and then get a password to the specific copy before viewing is possible. Another solution may be a kind of streaming technology, where the download is done trough the computer directly to an e-reader device. The software e-readers manage downloading of e-book as well.

In order to secure proprietary rights of the content publisher's uses different technologies. Adobe and Microsoft's methods is much alike while Gemstar's two RCA models uses a registration procedure for the e-reader making it impossible to read the encrypted e-book copy delivered on any other than the specified e-reader.

E-book companies wants of course to offer titles to as many platforms as possible but it shows to be tricky as publishers before they agree to enter the market, demands a tight security system like the one Gemstar offers. These systems are certainly not for the benefit of the buyers. It only sees to bring the most out of the commercial act for the vendor.

5.4.4.3. Consumer protection

The all automated process of e-book commerce and the international character turns the consumer protection issues in front. A couple of matters are considered in this section. First a brief look at the privacy on the Internet, second an explanation on what rules are specific to distance merchandising.

In a survey published in the journal Business Week, privacy was identified as the most important concern for consumers with regard to their use of the Internet. The publishing industry must be aware of this when exploring new distribution channels and technologies for doing business, like the e-book.

Consumer privacy protection is very important, as protecting the intellectual property, therefor are the rules on the area described hereunder.

In Sweden the Personuppgiftslagen, PUL, protects integrity/privacy. The law is built on the EC directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data. The aim is to protect people against any violation to his or hers privacy, under processing of personal data, 1 § PUL. Personal data is all information that direct or indirect can be referring to a private person, who is alive. [112] In the 10 § PUL, the basic principles for processing of data is listed. If the data concerned contains susceptible information the processing must be in accordance to 13-22 §§.

Is there any possibility to carry on an online e-book store and at the same time meet up with the demands from this legislation? An interesting solution can be the Identity Protector, which is not fully worked out.[113]

The other issue is the one of distance selling. In Sweden the Hemförsäljningslagen meet the demand of implementation form European Parliament/Council, Distance Selling Directive 97/7/EC. The law aims at protection of consumer against the risks with buying goods at a distance. There are five basic regulated matters: A demand of information on contract and terms, a right of withdrawal, the suppliers obligations, payment by card and inertia selling. The demand on information is among other some of the more important, as follows: Identity of the supplier, description of the goods and services, the price including taxes and delivery costs, arrangements for payment and information on the right to withdrawal.[114]

The directive is primarily focused on the electronic commerce. The directive is not dealing with issues on jurisdiction.

5.5. Business Performance

5.5.1. Introduction

What type of enterprise is expected to start up as e-book publisher? Which co-operation is needed? What contracting has to be done? Is e-book publishing just for the already established publishers and dealers of

[112] SOU 1998:111, page 120
[113] M Chissick, A Kelman, page 176f.

ordinary hard- and paperback books? Or do they not have any interest in this new market? Though publishers are considering requests from e-reader manufacturers and e-book publishers who wish to distribute the publishing industry's intellectual property works digitally, but if the publishers do not take proper action they could fail to make a good business opportunity come true.

Publishers have two ways to proceed I think. 1) Sell the right to publish electronic editions of literary works they posses the rights to or, 2) involve themselves in electronic publishing. In any case matters of copyright protection has to be reasonably solved.

What if the publisher decides to sell electronic publishing rights? Then contractual issues and delimitation of these rights must be highlighted.

What if the publisher chooses to go for electronic publishing? Then he has to make up his mind about the Text format he prefers, in aesthetically and marketability views. And then initiate a co-operation with an e-reader manufacturer with the demanded profile on their product. It is not realistic that a publisher would start to develop and manufacture a device on his or her own. But some thoughts the business actors must give the e-commerce system, which are the source of income.

Risks of Internet Trade

With the unique marketplace Internet provides one has to consider any risks in the process of marketing and sales. Technology must eliminate any threats or else the business will face serious problems of operating. These security issues are related to the distribution of digital content over open networks, which in fact are shared by most actors providing intellectual property over such a channel. The solutions for the storing and distributing of content are similar whether the product is music, film or books. There is the distribution from central repositories, which can be an Internet connected server. The content must be protected during transmission over the network, which could be done by encrypted and validated content and last the security when the product is in the hands of the consumer, which all supports the work against any formation of pirate markets.

[114] M Chissick, A Kelman, page 26

Another uncertainty is the possibility for a user to circumvent the system. This could be a hacker bypassing the security of the system by breaking into the system. For example circumventing the security by exploiting any vulnerability in the platform on which the system is based, like on the OS of the server on which the e-commerce system is hosted.

To meet the problems descending from users abusing the business system, the ability of proving any entity's participation in an event must be built in. The system must clearly provide adequate usage control at the risk of such improper usage.

The threat from unauthorised users abusing the system is a reality. The instrument to meet such use could be strong authentication mechanisms in the system and if the access control mechanisms is sufficiency. When judging about the strength against unauthorised access control the technology must be in focus. Then there is of course the threat coming from potential attacks on the e-reader device itself.

The last risk exemplified here is when an unauthorised entity eavesdropping on an interaction. Like when a hacker watching a network session between a customer and a vendor. Is the system capable to protect data against modification or interception during transport is the question that has to be met with a positive answer.

5.5.2. Economic aspects on information related goods

The trade in intellectual property has highly interesting economics. High production costs but low reproduction costs. Normally, intellectual property is expensive to produce. The costs originates in the time and effort that the author and the publisher put into researching, writing, improving and developing the work, if taking the e-book as an example. There are also expenses involved in marketing the work to make it known to the market target groups, even though these costs are not specific to intellectual property. The market for illegal copies depends, in fact, on how successful the publisher has been in creating a demand for the work, by marketing efforts.

Publishers must therefore be able to recover their costs and make profit by selling subsequent copies of the work. It takes advanced and serious

calculations of how many copies of the work one can assume to be sold, before one can start up production and marketing of the work.

In a historical perspective the publishing industry developed in an environment where the cost not only of producing but of reproducing also was relatively high. It took investments in printing facilities, well-organised distribution links, material supplies and a working capital not. Publishers could before the digital era take advantage from that it was not only impractical and costly for individuals to publish their own works but also for consumers to make their own reproductions.

The industrial revolution gave birth to a need of protection for ideas. Ideas that where commercialised and mass-produced. These products where easily copied and produced at any competitors facilities. The creator was then experiencing difficulties to sell his product and a hard time to regain his investment costs. Society as a whole, I believe, recognised therefore that, in some cases, economics of producing intellectual property was hindering, as a negative incentive, authors from sharing their IP with others. This resulted in protective solutions familiar to us. We now have mechanisms as copyrights, trademarks and patents to encourage the flow of ideas. By providing inventors and authors a degree of legal protection, the thought is to give the creator greater possibilities to earn money when issuing their IP in public, rather than keeping it secret.

For written works cost of reproduction is still relatively high because they are sold as physical property. Books have a per-unit cost of production. But so far they have been preferred because of that the physical artifact of the book is so well designed and convenient to use. For extended reading, there is still no substitute for a professionally bound, traditional book. So where does the e-book fit in?

When the Internet is really widespread and consumers will judge e-books are equal to or better than traditional books in reading experience, the economics of the publishing business will change fundamentally, as stated earlier in the work. Internet provides a distribution channel and the intellectual property work is uploaded to a server and exposed in an on-line bookstore, at that point, the marginal cost of reproducing books will effectively drop to nearly nothing.

There are a couple of important notes to make from this change. First, anyone can produce and sell books of their own, since there is no longer an economic or practical question as it was concerning the traditional publishing industry, because the digital publishing is done without printing facilities, distributors, material suppliers etc. Second, anyone can take a book they have, reproduce it perfectly, and distribute it as widely as they like. This might also be an explanation to why the copyright issues are so important for the e-book business.

5.5.3. Ideas of e-Book Business Action Strategies

Down to the bottom line, for the business actors it is all about making money. Is it possible to gain profits from digitally published content delivered via the Internet? Publishers seem to be of that opinion but only if they can control every copy that are sold. Therefore they are desirous to the thought of upholding the flat-price, pay-per-copy business model. Every copy sold has to give a preferred income. This can be done in several ways. One solution is to restore the factors that makes the traditional book lesser lucrative for pirates, which are the impracticability and the high cost for individuals of producing or reproducing books.

The branch parties seems to be concerned that e-book systems can provide secure technology that prevents consumers from making copies of electronic books, because secured e-book systems, like the original NuvoMedia concept, artificially increase the cost of reproducing the e-book. Intuitively, this should allow the current business model to proceed unchanged, but without many of the cost bearers, the need of consolidation and reallocation of supply chains.[115]

The costs of developing a closed proprietary system has to be balanced against the risk of losing money on an open solution, where the copy protection is not that good. The business actor must decide if the closed model or any open solution is to prefer. There are solutions representing both sides available.

It is not only the production and reproduction cost that decides the turnover. In addition there are other costs associated with trading books that are not as easily quantified, *the costs of transaction*. Transaction costs are defined as

[115] E-Book Security Assessment: General Report from the Global Integrity Corporation, 1999

costs in time and effort that buyers and sellers come down with in order to conduct a transaction.

The following types can be identified[116]: Search, information, bargaining, decision, policing and enforcement costs. These are found when looking at the purchasing act from where a need is established to a fulfilled transaction. Search cost is in terms of buyer-seller relation, how they find each other on the market. Information cost would be for buyers, learning about products and judging their quality and for sellers, learning about the needs of buyers. Bargain and decision costs can be described as arising when buyers and sellers negotiating the terms of sale respective costs for buyers comparing the terms offered by various sellers, while sellers has to decide whether or not to sell to the actual buyer.

Policing costs is defined as costs for buyers and sellers to take steps to ensure that the terms of sale are fulfilled, while enforcement costs is faced by buyers and sellers ensuring that unsatisfied terms are remedied.

Even if the financial cost of a book is nothing, as in the case of pirating, the consumer still has to face some cost in order to acquire the book. This opens for yet another source of leverage for protecting the publishers business.

Eliminating the Pirate Market

Comprehensive responses to the change in publishing economics will therefore take into consideration both production/reproduction costs and the transaction cost. From these factors, we can conclude the following goals for e-book business to meet with the possibilities of making IP-theft and piracy lesser profitable. These are to minimise cost of producing, copying and distributing legitimate copies of an e-book and lower the effort required to find, purchase, and use legitimate copies of books to a minimum. On the opposite the goal must be to maximise the cost of pirating, copying and distributing e-books, which is pirated and increase the efforts to find and obtain the use of illegitimate copies to an optimum.

There are three key tools for achieving these goals. First, publishers can exploit on their existing market position. Second, they can take steps to

[116] L. Downes and C. Mui, page 108

maximise the benefit of copyright law. Finally, they can anticipate the changed market dynamics and therewith make proper preparations.[117]

Publishers still have strength that derives from their existing market position in the short term. Their position can now be used to protect their long-term business. For example, publishers currently control the majority of the written intellectual property sold in the popular markets. Publishers have therefore an opportunity to set certain conditions to be met before they release their content for digital purposes. Since the current demand for digital copies of books also is relatively weak, there has been little incentive for people to digitally pirate books. As a result, it is still relatively inconvenient to create a digital copy of a book. If the demand increased, there might be incentive to improve book-scanning technology or to provide convenient access to typing services.

The market actors should absolutely take steps to avoid building a demand for these kinds of products and services in order to keep their market position. If this is the goal, which are the means?

First the parties at the market can develop and settle a minimum of security requirements, such as to encryption strength, the use of hardware security tools, network architectures safety level and to prevent the use of pirated e-books. These among other measures have to be met before content will be released to a platform for e-books. Further on one can develop policies for customer care, which includes refund policies, customer support, user experience and integrity measurements to be met before a vendor's e-book system is allowed to comprise the proprietary works.

The business can also support the work on existing technology standardisation and take initiatives to further efforts benefiting both vendors consumers. Standardisation issues have though been presented earlier in this work. If the demands of e-books at the moment are weak, business actors have nevertheless to minimise the risk that they will be unprepared to meet consumer demand when rising. It will do with preparation on products, implementing an infrastructure for distribution and evaluating technology solutions, etc. As for the whole dotcom sector development of secure distribution technologies, such as digital water marking and copyright

[117] E-Book Security Assessment: General Report from the Global Integrity Corporation, 1999

management and to promote their incorporation into the product line and in the distribution systems is essential at the risk of losing control over the intellectual property. These steps must be considered helpful for publishers in their efforts to keep their existing market position.

Preparation for Tomorrows Market

Finally a strategy of preventing a flourishing pirate market must include a schematic preparation for tomorrow's market. In the long run, one simple question arises: Is the legitimate obtained e-book priced so that the loss from illegally sold copies can be reduced to nearly nothing? We have discussed the lowered transaction costs of selling/buying an e-book, how to justify the pricing? As a result, any decrease in the transaction costs of the legitimate market should translate into increased revenue for publishers. Recognising this, publishers can benefit, both individually and as a group, by reducing the consumer's time and effort in buying their books. Is this to be judged fair, or with this fact in mind and in the presence of pirated books, is it not impossible to withhold a price near the traditional edition of the book?

Further preparative action can include the pursuing of the wide spread use of digital object identifiers. DOI is a technology that allows consumers to obtain the authorised source for a book from its identity rather than by tracking down its location. I have earlier discussed the importance of registered trademarks and brand names. It is at any time probably a good idea to build brand awareness. This would help consumers find publishers and their books. Consumers will then come directly to the brand for needs that match that specific trademark's identity. This should be combined with efforts to increase accessibility of e-book devices, through retail outlets.

This section has given some ideas of how to delimit the risks of a commercialisation of digitally published content in the form of e-books. There are for sure a lot more relevant actions that can be done but in a paper like this, once again, you must priority and weight issues versus each other.

6. Summary

One of the great dilemmas of modern IT products is, as we now know, the rapidly changing technology environment. When a product is formed and ready for the market it won't be long before newer and better models are

launched. The technology development is not only for the benefit of IT products, it has also become one of the most unexpected enemies. A product can be outmoded in so short time that a commercialisation of it has become not just a great opportunity but also a risk one should not underestimate.

In this essay the intellectual property and the standardisation work has been set in focus, simply because the protection of investments is a necessary tool in the economic perspective and likewise is a common standard for product concepts like the E-book vital when commercialising the idea. As we have seen there is also a point in recognising the conflict descended from the relation between IPR's and standards.

Electronic publishing has the purpose to visualise texts written by a great variety of authors for an even more heterogeneous group of readers. Authors want to make their works available and readers got to know that they could load the literature they want into the e-reader device they own, or else they would not buy it. We are now aware of the initial failure of the dedicated e-readers, and with them the proprietary rights issues of the closed systems has fainted. On the contrary open solutions with reading from a desktop, a PDA or a portable computer is considered to boost the e-reading market. In this environment standardisation issues is easier managed. This is also what has happened in Sweden. We have described a joint and open project, which has opened the e-book market for all publishers whom want to participate.

Standardisation of what use then, one might ask, when a product will be replaced of another soon enough. Well, even if the products will be replaced a common standard is to prefer, as the new products coming up will then almost for sure be compatible with the earlier set standards.

Even with the diversity of supporting electronic software functions, e-books makes at least me appreciate the traditional form of a printed book. It offers more than just words on a page; the traditional book presents a layout, which gives you a position on the page and in the book structure that helps you understand the context. Furthermore the paper pages provide an efficient form of random access, especially when skimming trough a book for some specific content.

It is my opinion that the e-reader device is a niche market product which success is very much dependent on pricing and availability. In a couple of

years there will be potent portable devices with flexible display solutions, which easily manages to incorporate the e-reader function as well. Why then carry two or more electronic gadgets. The pricing is important in that the e-reader has to compete with all sorts of integrated technology platforms. Right now there are only two distributors of e-readers Gemstar and Franklin. Other developers and manufacturers have withdrawn, as they did not judge the current technology solutions competitive enough.

The focus has moved from the concept early e-book intercessors adapted, to the digital editions of books. We have been seeing open model solutions for e-reading from Microsoft and Adobe. These companies support the idea of reading on-screen but the device itself has lesser importance in their mind naturally, as the two companies are software-oriented and pleads for their e-book reader software. One can read from a PC or a PDA as well as a web pad or an e-reader. The reading experience is however loosing the charm on these solutions, I say. Low prices though will possibly give incitement for more people, who are not interested in, or could not afford to buy the latest highly priced electronic devices, to buy e-readers just to read e-books from.

The other mentioned important quality, availability, contains of two matters. First, the e-reader has to be easy to handle with a user-friendly interface. Second, the e-books must be easy to find and buy. In other words there has to be large libraries of various content likewise libraries with more specific, non-fiction literature accessible from home. These libraries must have fast and effective search engines supporting the customer. And the subsequent purchase process has to be well working to the extent of speed and security measures as well. Nevertheless the e-book concept is not to refuse just because of these reasons. The Idea has an immense bearing and my opinion is that it will be, in some way or another, part of the future IT-society. But the E-book as we know it by this work is just not, I think, competitive neither to threaten the traditional book publishing industry and nor to attract potential readers. The screen technology is and has been the most critical point.

I am willing to accept the idea of an e-reader with the two-page spread layout when open. Thin flexible screens, using for example one of the earlier described technologies, e-paper or e-ink (if development succeeds). The reader must feel comfortable before the reading situation. The screen does

not need to conclude all of the electronics. It could be manoeuvred wireless from a control unit (communication via blue-tooth technology) situated on the desk, beside the bed or in the belt on your trousers, when out. This means lesser weight and I believe, better reading experience.

Along with the e-reader the e-books will evolve as well. When the text becomes electronic, all sorts of things become possible. Illustrations can be animated to explain a complex process or simply to surprise the reader and the author may greet you in a video clip when you open the book or maybe we will be able to watch movies between two covers. But then it will no longer be about reading, more of experiencing the digital world in a modern manner! (Compare to the ideas of eBookman reader from Franklin)[118]. My guess is that it takes something like this to a successful commercialisation. One thing is sure:

”Just as Johannes Gutenberg and other early printers struggled to develop the right technologies during the incunabula of mechanical printing in the 15th century, we can be certain that entrepreneurs and innovators in this incunabula of digital publishing will develop the right technologies for e-books and periodicals”.[119]

It is just a matter of time…

[118] http://www.franklin.com, (11 August 2001)
[119] Roger Fidler of Kent State University at: http://www.jmc.kent.edu/futureprint, 5 January 2000.

List of references

Literature

Hultmark, C, Elektronisk handel och avtalsrätt, Norstedts, Stockholm 1998
Lindberg, A och Westman, D, Praktisk IT-rätt, 2:a uppl., Norstedts, Stockholm 1999
Adlercreutz A, Avtalsrätt 1, 10:e uppl., Juristförlaget, Lund 1995
Koktvedgaard, M och Levin, M, Lärobok i immaterialrätt, Norstedts, Stockholm 1995
Bernitz U, Immaterialrätt, 7:e uppl., HB Immateriellt rättsskydd i Sthm, Stockholm 2001
Arnetz U, Strategisk IT, Studentlitteratur, Lund 1998
Edmar M, Internetpublicering, 2:a rev. upplagan, Stockholm 1999
Rosén, J, Upphovsrättens avtal, Norstedts, Stockholm 1998
Olsson, H, Copyright, 6:e uppl, Norstedts Juridik, Stockholm 1998
Werkman J. Casper, Trademarks, Uitgeverij J. H. De Bussy B. V., Amsterdam 1974
Carlén-Wendels, T, Nätjuridik, Juristförlaget, Lund 1998
Glazier C. S, Patent Strategies for Business, 3rd Edition, LBI Institute, Washington DC 2000
Brown S, Strategic Operations Management, Butterworth & Heinemann, Oxford 2000
Bennett R, Corporate Strategy and Business Planning, Pitman Publishing, London 1996
Wayner, P, Digital Copyright Protection, Academic Press Professional, Boston 1997
Lloyd I, Information Technology Law, 3rd edition, Butterworths, London 1997
Downes L. and Mui C., Unleashing the Killer App, Harvard Business School Press, 1998
Chissick M and Kelman A, Electronic Commerce – Law and Practice, Sweet & Maxwell, London 1999

Articles, Papers

SVB #15 –98
E-Book Security Assessment, General Report from the Global Integrity Corporation, 1999
Wilson J, Read My Screen, Popular Mechanics, Aug 1999, Vol. 176 Issue 8
Forslund J, Rettighetsklarering i en digital tid,
Winberg, G, Elektroniska betalningssystem på Internet, IRI rapport 1997:3
Nyström S, Standards, Graduation Paper, Programme for Master of Law, Göteborgs Universitet 2000
Krechmer K, Communication Standards and Patent Rights: Conflict or Co-ordination?
(http://www.tiaonline.org/standards/star/star97/patent_rights.cfm)

Offentligtryck?

Proposition 1998/99:11 Ny skyddsåtgärd vid immaterialrättsintrång
SOU 1996:40 Elektronisk dokumenthantering
SOU 1997:39 Integritet Offentlighet Informationsteknik
SOU 1997:49 Grundlagsskydd för nya medier
SOU 1998:111 E-plikt – att säkra det elektroniska kulturarvet
Ds 1998:14 Digitala signaturer – en teknisk och juridisk översikt
Ds 1998:24 Ny skyddsåtgärd vid immaterialrättsintrång

WWW page sources

http://www.knowbetter.com
http://www.thomson-multimedia.com
http://www.rca.com
http://www.nvisiontec.com/
http://www.nuvomedia.com
http://www.softbookpress.com
http://www.elib.se
http://www.glassbook.com
http://www.microopticalcorp.com
http://www.everybook.net
http://www.promonet.com
http://www.eink.com
http://www.cirrus.com
http://www.maverickaudio.com
http://www.ebooknet.com
http://www.wto.org/english/
http://europa.eu.int/comm/internal_market/en/
http://www.powells.com
http://www.nist.org
http://www.ebooks.com
http://www.iso.ch
http://www.wipo.org/
http://www.ecommerce.wipo.int
http://www.wipo2.wipo.int
http://www.loc.gov/copyright
http://www.publishers.org/
http://www.librius.com
http://www.gemstar.com
http://www.peanutpress.com
http://www.mobipocket.com
http://www.palm.com
http://www.bn.com
http://www.adlibris.se
http://www.bol.se
http://www.adobe.com/epaper/
http://www.microsoft.com/reader/
http://www.franklin.com
http://www.itic.org
http://www.nicts.org
http://www.sis.se
http://www.its.se
http://www.nic-se.se