DIGITAL DISRUPTION FACED BY
THE BOOK PUBLISHING INDUSTRY

Business Management
Master’s Thesis
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This research examined a potential disruption in the book publishing industry. Its aim was to describe changes in the book publishing industry as it faces three digital forces: digitalization of the media, Internet as a publishing platform and the emergence of mobile digital reading devices.

The theoretical framework used in this study was chosen to provide a foundation for examining a disruption in an industry. To offer a multidimensional view of the complex subject, the framework was composed of three levels of inspection: the technology level examines the digital forces as a disruptive technology, the company level looks at book publishers as incumbent companies facing a potential disruption and the industry level studies the disruptive changes on the dynamic of the industry.

The research was made using the methods of a qualitative case-study. Its purpose is to describe and explain a multifaceted and ongoing phenomenon. Empirical evidence was based on the interviews of industry experts and relevant newspaper, magazine and academic articles. The interview material was examined using the methods of inductive content analysis.

The analysis of the study suggests that the book publishing industry is being disrupted. On the technological level, the digital forces are redefining the book and its role in spreading information. This has provided a foundation for disruptive innovations that undermine the business model of traditional publishers.

On the company level, organizational dynamics and the historical perspective of publishers curb their ability and interest to utilize the digital forces. Publishers are forced to reinvent their business and let go of traditional ways of defining their role.

On the industry level, the digital forces are lowering barriers to entry and disrupting the value system of the book publishing industry. The book publishing industry can be seen converging with other media industries as well as parts of the IT-industry.
## CONTENTS

1 INTRODUCTION ................................................................................................................................. 1
   1.1 OBJECTIVE OF THIS RESEARCH .............................................................................................. 3
   1.2 METHODOLOGY .......................................................................................................................... 4
      1.2.1 Qualitative case-study ........................................................................................................ 4
      1.2.2 Sources, gathering and analysis of empirical evidence ....................................................... 4
   1.3 KEY CONCEPTS .......................................................................................................................... 6
   1.4 STRUCTURE OF THIS RESEARCH REPORT .............................................................................. 8

2 THEORY ON INNOVATION AND INDUSTRY DISRUPTION ............................................................. 9
   2.1 TECHNOLOGY LEVEL – SUSTAINING AND DISRUPTIVE INNOVATIONS ............................... 11
      2.1.1 Sustaining and disruptive innovations .............................................................................. 11
      2.1.2 Diffusion of disruptive innovations .................................................................................... 14
   2.2 COMPANY LEVEL - FACING DISRUPTIVE TECHNOLOGIES AS THE INCUMBENT ............. 23
      2.2.1 Resources, Processes and Values Theory ........................................................................... 23
      2.2.2 Bounding perspective ....................................................................................................... 24
      2.2.3 Value Chain Evolution ..................................................................................................... 28
   2.3 INDUSTRY LEVEL – HOW DISRUPTIVE INNOVATIONS AFFECT INDUSTRY DYNAMICS ...... 29
      2.3.1 Creative destruction ........................................................................................................... 29
      2.3.2 Five forces model ............................................................................................................... 30
      2.3.3 Industry value system ....................................................................................................... 35
   2.4 SUMMARY OF THE THEORY AND ITS CONNECTION TO THIS STUDY ................................. 36

3 BOOK PUBLISHING ............................................................................................................................. 38
   3.1 FROM CLAY TO BITS – THE EVOLUTION OF READING ............................................................ 38
   3.2 BOOK PUBLISHING VALUE SYSTEM ....................................................................................... 45
   3.3 CHARACTERISTICS OF THE BOOK PUBLISHING INDUSTRY
      3.3.1 A mature industry with several purposes ........................................................................... 55
      3.3.2 Books as single creation products ...................................................................................... 57
      3.3.3 Book publishing is affected by unit cost economics ........................................................... 59
      3.3.4 Media industries compared to non-media industries ......................................................... 63

4 DIGITAL FORCES .................................................................................................................................. 66
   4.1 DIGITALIZATION OF MEDIA ..................................................................................................... 66
   4.2 THE INTERNET AS A PUBLISHING PLATFORM ......................................................................... 69
   4.3 MOBILE READING DEVICES ...................................................................................................... 73
      4.3.1 Smartphones ....................................................................................................................... 73
      4.3.2 Electronic readers .............................................................................................................. 74
      4.3.3 Tablets ................................................................................................................................ 77

5 DIGITAL DISRUPTION AND THE PUBLISHING INDUSTRY ........................................................... 81
   5.1 TECHNOLOGY LEVEL .................................................................................................................. 81
      5.1.1 Mobile Readers and E-books as Disruptive Innovations ..................................................... 81
      5.1.2 Drivers of adoption for mobile readers and e-books ............................................................. 85
   5.2 COMPANY LEVEL ....................................................................................................................... 87
      5.2.1 Publishers and the RPV framework ..................................................................................... 87
      5.2.2 Publishers and the bounding perspective .......................................................................... 89
   5.3 INDUSTRY LEVEL ....................................................................................................................... 91
      5.3.1 The Internet as a creative destroyer ................................................................................... 91
5.3.2 Digitalization and the five forces in publishing ........................................................................... 94
5.3.3 Publishing value system in the digital age .................................................................................. 100

6 CONCLUSIONS ................................................................................................................................. 107
6.1 DIGITAL FORCES REDEFINING THE BOOK .............................................................................. 108
   6.1.2 Books as a social platform ........................................................................................................ 109
6.2 PUBLISHERS FORCED TO REINVENT THEIR BUSINESS .......................................................... 109
   6.2.1 Shifting hard problems ............................................................................................................ 109
   6.2.2 Publishers amid the disruption ............................................................................................... 110
6.3 BOOK PUBLISHING EVAPORATING AND METAMORPHOSING ................................................... 111
   6.3.1 Convergence with other media and IT industries ...................................................................... 111
   6.3.2 The bounding definition of book publishing .......................................................................... 112

REFERENCES .......................................................................................................................................... 113

APPENDIX: STRUCTURE FOR THEMATIC INTERVIEWES ....................................................................... 119

FIGURES

Figure 1. The disruptive innovation framework ...................................................................................... 11
Figure 2. Technology Adoption Life Cycle .............................................................................................. 17
Figure 3. Capturing value from innovations ............................................................................................ 21
Figure 4. Five forces model .................................................................................................................... 30
Figure 5. Industry value system analysis .................................................................................................. 35
Figure 6. The historical evolution of the form and production methods of the book ............................ 39
Figure 7. The traditional value system of book publishing ..................................................................... 45
Figure 8. Five different types of distribution channels for books (Joensuu et al., 2001) ......................... 51
Figure 9. Cost structure of a hardcover book .......................................................................................... 60
Figure 10. The Gutenberg Parenthesis ................................................................................................... 68
Figure 11. Media and communications technologies and applications timeline .................................. 71
Figure 12. An e-book on the iBooks application ...................................................................................... 79
Figure 13. Drivers of growth for e-reader devices and content ............................................................... 86
Figure 14. Determinants of creative destruction from the Internet ...................................................... 92
Figure 15. The traditional value system of book publishing and the digital value system ................... 100
Figure 16. Push and pull marketing ....................................................................................................... 105
Figure 17. Conclusions on the digital disruption in the book publishing industry .............................. 107

TABLES

Table 1. Attributes of emerging industries and their managerial implications ................................. 27
Table 2. A summary of the theoretical frameworks used in the study .................................................. 36
Table 3. Book publishing average returns compared to other select industries ............................... 56
Table 4. Single and continuous creation media products and unit and fix cost economics ............. 62
Table 5. Comparison of the five forces in traditional publishing and digital publishing ................ 99
1 INTRODUCTION

“The information superhighway is about the global movement of weightless bits at the speed of light. As one industry after another looks at itself in the mirror and asks about its future in a digital world, that future is driven almost 100 percent by the ability of that company’s product or services to be rendered in digital form.”

Nicholas Negroponte uttered this prophecy back in 1996, a time when people were only beginning to use their loud and clunky modems to connect themselves to the world wide web. Now, as we enter the second decade of the new millennium, bits connected by a world wide web are everywhere around us. Mobile devices such as lightweight laptops and new smartphones are becoming ubiquitous.

A wave of transformation from atoms to bits has swiped across a myriad of industries. Music executives were left scratching their heads and calling their lawyers as kids started downloading their favorite tunes in bits rather than visiting the local music store. Travel agents have seen their services turn obsolete as a growing number of young and independent customers are turning to the web for information on the hottest locations to vacate. As Negroponte acutely predicted, if a business model is at its core about handling information, it is under the threat of being disrupted by digitalization. (eg. Negroponte, 1996; Porter, 2001; Afuah, 2003)

Bits are superior to atoms in convenience, speed and price. They, as Negroponte (1996) pointed out, travel at the speed of light and can be multiplied at practically no cost. They can also be conveniently tagged, searched and connected to other pieces of information.

However, even given the resounding advantages of bits in spreading information, the transformation of a multitude of information centric industries is still only in its infancy. One of these industries is book publishing, which has for centuries been at the heart of how we package, store and spread information. Established companies in the industry have been, for the most part, able to watch on in comfort as other media industries have stumbled with the emergence of digital consumption of their products. (eg. Picard, 2003; Küng, L, Picard, R.G & Towse, R. 2008)
The book as vehicle for spreading extended chunks of ideas and stories in a linear matter has been up until now without serious contenders. Much of the technology now considered as a book was conceived already 500 years ago and it has seen relatively few changes. It has achieved a stronghold on what we as a society consider significant information. A bookshelf stacked with unfinished copies of Dostoyevsky and the like is seen as a symbol of social capital and physical books as the source of all resounding knowledge. (Burke 1985)

One of the main reasons for this might have been, in addition to the book’s social status, is its convenience as a user interface for accessing a large body of knowledge. It is easily browsable with the thumb and can be held in one hand while curled next to an open fireplace. Books are also durable, easy to take along and relatively cheap to manufacture. This is of course unless you compare them to digital books. (e.g. Burke 1985; Epstein 2003; Godin 2009)

Recently some arrivals have emerged to challenge the user interface of the book as a way of interacting with the information in it. In 2007, Amazon, the world’s largest online retailer of books introduced an electronic reader called the Kindle. Even though e-readers had been around for ten years (largely without anyone noticing), the Kindle’s paper-like electronic ink display coupled with Amazon’s vast collection of titles caught the attention of the gadget minded readers of the world. (Penenberg 2009)

Based on my own experience with the device, there are still some areas of the reading experience where the old fashioned printed book still excels. One of them is the aforementioned easy thumb-on-table-of-contents enabled browsing system. But in some regards the Kindle is superior to its atom ancestor. The first book I ordered (A Whole New Mind by Daniel Pink) was available here in Finland only by special order through which it would have taken 2 weeks to reach me at the cost of 25 euros (at Suomalainen kirjakauppa). With the Kindle, I was able to purchase it from Amazon for 10 euros and start reading it within two minutes from the moment I decided I wanted it.

This experience left me pondering. Could we be at the verge of the biggest disruption the book industry has faced since a shift of power from monks to publishers with the inception of the printing press in the 15th century?
This research is a look at one industry – book publishing – as it faces a potentially disruptive technological change. This change is the development of three overlapping technological improvements: the digitalization of media, the Internet as a way of spreading digitized media and new increasingly mobile digital reading devices for consuming that media.

I will use the theoretical lenses of disruptive innovation and industry evolution to examine the aforementioned digital forces in the business of economically transforming the ideas of authors into finished products in the hands of readers. This will not be, at least for the most part, an attempt to clearly see the future or accurately predict the doom of the industry. Rather, my aim is to examine the industry’s underlying atom based structures and, with the help of theoretical analysis tools, describe how digital forces might disrupt those formed structures.

In a larger context this study is a story of an industry facing a potentially disruptive innovation armed with the inherent advantages of bits. Which parts of its traditional value system are in jeopardy? Do incumbent companies have the capabilities and resources to utilize these new digital forces? How will these technological changes potentially alter the way we buy books and who we buy them from? Will it expand the market for books or entice us to buy more books?

**1.1 Objective of this research**

The main objective of this research is to examine **digital forces as a source of potential disruption of the publishing industry**. To reach this objective, I have strived to answer these key research questions:

- How has the publishing industry evolved to its current state?
- What is the current state of the publishing industry?
- What are the digital forces faced by the publishing industry?
- How do these digital forces affect the publishing industry?
1.2 Methodology

1.2.1 Qualitative case-study

This research was conducted as a qualitative case-study. The studied subject is the book publishing industry as it faces potentially disruptive digital forces.

According to Hirsjärvi, Remes & Sajavaara (2007) the aim of qualitative studies is usually not to test a certain theory or hypothesis. Rather, researchers employing a qualitative approach strive to examine the studied subject in a rich and comprehensive way deepening their understanding of it. This method was chosen as the studied subject can be described as a complex and multifaceted phenomenon.

According to Koskinen, Alasuutari & Peltonen (2005) a case-study is one of the most commonly used ways of doing research on business and there is no one correct way of conducting it. Thus, it can be more accurately described as an approach rather than a method. Often the aim with case-studies is to gather deep and rich insights into one or a few cases with the intent of understanding that particular study subject. Provided that this understanding is multifaceted and profound, something general can usually be stated about the studied phenomenon.

According to Kyngäs and Vanhanen (1999) one characteristic of a qualitative study is that no statistical tests can be made to verify the reliability of its findings. Thus, the task of gauging the trustworthiness and generalizability of this study is ultimately left to the reader. To support this, I have provided as much detail about the research process and methodology as possible. I have also used reference citations extensively. According to Eskola and Suoranta (1998), this provides an opportunity for the reader to examine the reliability of a study and possibly disagree with the researcher.

1.2.2 Sources, gathering and analysis of empirical evidence

Sources of empirical evidence

The empirical evidence of the study was gathered from a variety of sources. These included expert interviews (see p.118 for further details), industry analysis and relevant magazine, newspaper and academic articles. My aim was to apply triangulation by using multiple sources
to gain insight into the studied subject. Cohen and Manion (2000) define triangulation as an "attempt to map out, or explain more fully, the richness and complexity of human behavior by studying it from more than one standpoint."

In addition to the formal interviews, valuable feedback and input was provided by Mari Tamminen, director of sales for Edita Publishing. Vital comments and instruction were also given by my supervisor, Dr. Kari Lohivesi, as well as my fellow researchers in our Industry disruptions – research group at the University of Tampere.

**Gathering and analysis of the empirical evidence**

The interviews were carried out as half-structured thematic interviews. I chose this method as it, according to Koskinen et al. (2005), leaves room for the interviewees to describe the multifaceted and complex object of study. Thus, the interviewing sessions were not too confined by my own preconceived notions.

I did, however, study the theories of industry disruption and acquaint myself with the basics of book publishing and digitalization. This familiarization formed the basis for the structure of the interviews (appendix 1). According to Eskola and Suoranta (1998), the purpose of an interview structure is to divide the interview into themes and assure that the same themes are discussed in all the interviews. They also note that the role of the interviewer is dualistic: to both guide the interview through structured themes and also consider the individual variables of the interview at hand.

The interviews were analyzed by using the methods of *inductive content analysis*. Kyngäs and Vanhanen (1999) state that unlike deductive analysis, inductive content analysis is not done by using an analysis structure based on previous studies. Rather, statements from the interviews are used to answer the key research questions. This is an applicable method in this study, as the aim is not to test an existing theory, but rather find insights into a novel phenomenon. The analysis process of the interview material was as follows:

The interviews were recorded and translated word for word from Finnish into English. The objective was to translate the interviews as precisely as possible by capturing both their content and style.
The translated interview material was analyzed as objectively and systematically as possible by utilizing a *factual approach*. According to Koskinen et al. (2005), a factual approach refers to a way of analyzing empirical evidence by focusing on the facts that the interviewees use to describe the studied subject. Thus, the aim of the interviews is to examine how the interviewees see and experience a given phenomenon. Koskinen et al. (2005) assert that although the statements given in the interviews should be examined critically, their factual premises are not to be overly questioned.

The analysis was started by thoroughly reading through the translated transcripts of the interviews. The unit of analysis chosen was one argument, typically consisting of one or a few sentences. As patterns and analysis units started to emerge, the units were divided into categories.

The units of analysis were categorized based on the theoretical foundation and key research questions of the study. After that the content was divided and gathered on to a separate Word document. Kyngäs and Vanhanen (1999) consider categorization to be a key part of inductive content analysis. After the categorization of the content of the interviews, the arguments were used in the context of the framework of the research.

1.3 Key concepts

**Digital forces**

The digital forces referred to in this study are: the Internet, the digitalization of media and mobile reading devices. Mobile reading devices refer to devices that are specially equipped for the mobile reading of digital texts. In this study they include electronic readers (such as the Kindle), smart phones (such as the Nokia N8) and tablet computers (such as the Apple iPad).

**Electronic readers**

Electronic readers (e-readers) are handheld devices that enable the reading of e-books (books in digital format) and other digital media. They aim to mimic the experience of reading a physical
book. This is achieved by utilizing electronic ink technology, which does not use backlighting thus being easier on the eyes than for example computer screens. E-readers are typically the size of traditional paperback books (The Observer 2008).

**Disruptive innovations**

Disruptive innovation is a term to describe innovations that improve a product or service in ways that the market does not expect, typically by lowering price or designing for a different set of consumers. Disruptive innovations often introduce a new value proposition. They either reshape existing markets or create new ones. Disruptive innovations can be further divided into two types: low-end and new-market. (Christensen et al. 2005)

**Electronic book**

Electronic books (e-books) are the main content used on e-readers. They are a form of media that can be seen as the digital equivalent of a conventional printed book. In addition to dedicated e-reader devices, e-books can usually be read on computers and some smart phones. (Doctorow 2004)

**Publishing**

Publishing can be defined as the process of production and distribution of literature or information. This traditionally refers to the distribution of printed works such as books and newspapers, but can in some cases include digital ways of publishing information – such as blogs and websites (Epstein 2003). In this research paper the term publishing refers to the publishing of books and is separated from other printed material as well as electronic publishing, which will be examined independently.

**Diffusion of innovations**

Diffusion of innovations is a theory of how, why and at what rate new technologies and ideas are adopted in a given social system. Rogers (1964) defines the diffusion of innovation as "the process by which an innovation is communicated through certain channels over time among the members of a social system."
1.4 Structure of this research report

This research report is divided into six main chapters.

*The first chapter* introduces the studied subject and the key research questions of the study. In addition, the methodology of the study and its key concepts are introduced.

*The second chapter* provides a theoretical framework for the study. The theories used in this study focus on innovations and industry disruption. They are divided into three levels of inspection: the technology level, the company level and the industry level.

*The third chapter* introduces the book publishing industry in its traditional form. It begins with a historical look at reading and the technological development of books from ancient tablets to the adoption of paperback books. After this, the traditional value system of book publishing (in other words how books are produced) is examined. The chapter ends with a description of the economic characteristics of the industry.

*The fourth chapter* introduces three digital forces potentially disrupting the industry of book publishing. The forces, the digitalization of media, the Internet and emerging mobile reading devices (smartphones, e-readers and tablets), are three interrelated technological changes that have developed during different timelines.

*The fifth chapter* uses the three theoretical levels from chapter two to examine the book publishing industry as it faces the three digital forces.

*The sixth chapter* draws conclusions based on the analysis in the previous chapters.
2 THEORY ON INNOVATION AND INDUSTRY DISRUPTION

The object of this study is to examine digital forces as a potential source of disruption in the book publishing industry. The aim of this chapter is to provide a theoretical foundation for assessing and analyzing the studied subject. This foundation will be later on used as a structure for the arguments made based on the empirical evidence (chapter 5.). The theoretical frameworks presented here are divided into three levels of inspection on innovation and industry disruption:

1. *The Technology level.* Theories of technological innovations and the adoption of innovation provide a base for studying innovation on a technological level. Key questions examined by these frameworks include:
   
   a. What is the difference between disruptive and sustaining innovations?
   b. How are disruptive innovations brought to the market?
   c. How are disruptive innovations adopted by customers?

2. *The Company level.* Theories of Resources, Processes and Values and the bounding perspective allow for analysis of innovations on a company level. The main emphasis of this study is on how incumbent companies deal with disruptive technologies. Some key questions that these tools help to answer are:

   a. Why do many incumbent companies have difficulties with responding to disruptive change?
   b. How do disruptive technologies appear from the point of view of managers?

3. *The Industry level.* Theories of creative destruction, the five forces model and industry value system are frameworks for understanding change on an industry level. They provide structure for assessing questions such as:

   a. What is the current competitive dynamic of the industry and how will it likely evolve?
   b. What are the boundaries of the industry and how fixed are they?
I have chosen three levels of theoretical lenses in order to better capture and understand the multifaceted nature of the studied subject. Küng, Picard and Towse (2008, 17) state that multi-lens approaches have been shown to yield richer and deeper understanding of complex phenomena. Merely focusing on, for instance, technological innovations in electronic publishing would likely leave the researcher – as well as the reader - as a blind man touching the tail of the proverbial elephant. Furthermore, as the developments in book publishing are perpetually ongoing, a narrow technological view would possibly render the results of this study rapidly obsolete.
2.1 Technology level – Sustaining and Disruptive Innovations

2.1.1 Sustaining and disruptive innovations

Christensen, Anthony and Roth (2004) use the framework of disruptive innovations (figure 1.) to demonstrate how innovations enter and affect the marketplace. They divide innovations into two broad categories: sustaining innovations and disruptive innovations.

![Disruptive Innovation Framework](image)

**Figure 1** The disruptive innovation framework (Christensen et al. 2004)

**Sustaining innovations**

Christensen et al. (2004, xvi) define sustaining innovations as incremental improvements on the dimensions traditionally valued by existing customers. Examples of sustaining innovations include televisions with a clearer picture, mobile phones with better reception and alkaline
batteries that last longer. These gradual improvements on products are brought to established markets with clearly defined boundaries.

The term sustaining innovation is closely matched by the concept of incremental innovation. According to Tushman and Anderson (1986), incremental innovation is based on the previously acquired technological competence of an established company. It can be described as the process of developing the quality, convenience, speed or price of an existing product.

Christensen et al. (2004) assert that when it comes to sustaining innovations, incumbent companies usually have an edge over newcomers (the reasons behind this will be unpacked later on in chapter 2.1 by using the resources, processes and values theory). Challengers, however, almost always win over established companies when it comes to disruptive innovations.

Disruptive innovations introduce a new value proposition. They either reshape existing markets or create new ones out of the blue. Disruptive innovations can be further divided into two types: low-end and new-market.

**Low-end disruption**

Christensen et al. (2004, xvii) define low-end disruption as a cheap, convenient and fairly straightforward offering. It is geared towards the low-end of the market that has been overshot by the incumbent companies. Overshot low-end customers are people for whom the existing offerings are “two good”. This means that the products and services currently out on the market are overpriced relative to the value these customers can utilize. The incumbent’s products might include features that are not important to overshot customers or some aspects of the offering are too fancy.

A classic example of low-end disruptive innovators are low-cost airlines. Companies such as Ryanair and South-West Airlines expanded the current market for airlines and created new growth markets by introducing tickets at radically lowered prices. This enabled people to fly more often than before and people who previously could not afford flying started to consider it as an option for other means of transportation (or not traveling altogether). Low-cost carriers were able to offer tickets at lower rates than incumbent companies by scaling down or completely eliminating some aspects of the offering that were previously considered an industry standard.
They, for instance, eliminated free meals completely and rewarded customers who made their
ticket reservations on-line well in advance.

New-market disruption

New-market disruptive innovations create growth by making it easier for people to do something
that used to require great wealth or deep expertise. These types of innovations usually take place
when the existing products have characteristics that limit the number of potential customers or
force consumption to happen in an inconvenient way. (Christensen et al. 2004)

Christensen et al. (2004, xvii) mention Apple personal computers as an example of a new-
market disruption. Before Apple and its first iteration of the Machintosh computer, people who
wanted to do calculations or word processing with a computer had to resort to main-frame
computers. They occupied whole rooms, cost at least hundreds of thousands of dollars and
required an operator with a PhD in computer sciences. All in all they were well beyond the
means of ordinary consumers. With the introduction of the personal computer, a completely new
growth market emerged and ultimately challenged incumbent companies producing main-frame
computers.

Christensen et al. (2004) point out that new-market innovations often do not challenge incumbent
products and companies head on. Rather, they target non-consumers, people who have not, due
to restrictions in wealth, expertise or time, been able to complete a certain task. In addition,
people already consuming a certain product or service can be considered non-consumers, given
that they would be consuming something substantially more were it made easier.

Utterback (1994, 2005) challenges Christensen et al. (2004) by asserting that the “attack from
below” type of explanation for disruptive innovation is incomplete. According to Utterback
(2005), it fails to acknowledge other discontinuous patterns of change, which may be of equal or
greater importance. He uses the case of digital photography as one illustration of this. Digital
cameras are more expensive and complex than film based cameras, thus being excluded from
Christensen et al.’s (2004) definition of disruptive innovation. Digital cameras should still,
according to Utterback (2005), be considered as very innovative and the source of great
disruption in the photographic industry. Utterback (2005) also suggests the true significance of
disruptive technology is not in its propensity to displace established products, but rather enlarging and broadening markets.

2.1.2 Diffusion of disruptive innovations

Early theories and Rogers’ Diffusion of Innovations

The Diffusion of Innovations is a broad set of theoretical frameworks for studying how, why and at what rate technology and ideas spread through cultures. French sociologist and criminologist Tarde (1890) was one of the first noted researchers to use the term in scientific study. Another piece of seminal work on the matter was released by Ryan and Gross (1943). They studied the adoption of a hybrid corn among the farmers in Iowa. However, for the most part this study did not reach public awareness until Rogers (1962) highlighted it in his textbook Diffusion of Innovations.

Five stages of innovation adoption

Rogers (1962) defines diffusion as "the process by which an innovation is communicated through certain channels over time among the members of a social system”. He divides the process of adoption into five steps:

1. **Knowledge**

   The individual is first exposed to an innovation but lacks any information about it. The individual is not yet inspired to acquire more information about the innovation.

2. **Persuasion**

   In this stage the individual is interested in the innovation and actively seeks information about it.
3. **Decision**

The individual takes the concept of the innovation and weighs the advantages and disadvantages of using the innovation and decides whether to adopt or reject the innovation.

4. **Implementation**

The individual employs the innovation to a varying degree depending on the situation. During this stage the individual determines the usefulness of the innovation and may search for further information about it.

5. **Confirmation**

The individual finalizes their decision to continue using the innovation and may use the innovation to its fullest potential.

**Characteristics of innovations**

Rogers (1962) defines several intrinsic characteristics of innovations that influence an individual’s decision to adopt or reject an innovation. The *relative advantage* is how improved an innovation is over the previous generation or other existing solutions. *Compatibility* is the second characteristic, the level of compatibility that an innovation has to be assimilated into an individual’s life. The *complexity* of an innovation is a significant factor in whether it is adopted by an individual. If the innovation is too difficult to use, an individual will not likely adopt it. The fourth characteristic, *trialability*, determines how easily an innovation may be experimented with as it is being adopted. If a user has a hard time using and trying an innovation this individual will be less likely to adopt it. The final characteristic, *observability*, is the extent that an innovation is visible to others. An innovation that is more visible will drive communication among the individual’s peers and personal networks and will in turn create more positive or negative reactions.
Rate of adoption and adopter categories

The rate of adoption is one of the key areas of interest in innovation diffusion research. Rogers (1962) defines rate of adoption as “the relative speed with which members of a social system adopt an innovation”. He describes the differences in adoption rates within populations by dividing adopters into five distinct groups. These groups define the level of innovativeness of different types of individuals. Rogers (1962) presents the groups by plotting them on a bell curve (figure 2, including the additions of Moore, 1991).

The groups are:

1. **Innovators**

   Innovators are the first individuals to adopt an innovation. Innovators are willing to take risks, youngest in age, have the highest social class, have great financial lucidity, very social and have closest contact to scientific sources and interaction with other innovators. Risk tolerance has them adopting technologies which may ultimately fail. Financial resources help absorb these failures.

2. **Early adopters**

   Early adopters are the second fastest to adopt new innovations. They are often considered as opinion leaders within their social systems. Like innovators, they tend to be relatively young, well-off and hold a high social status. However, they are more discriminating than innovators when adopting new technologies or ideas.

3. **Early majority**

   Members of the early majority adopt innovations at a varying pace. Although they typically have above average social status, early majority members are seldom considered as opinion leaders.

4. **Late majority**

   People in the late majority are slower to adopt new technologies and ideas than the other aforementioned groups. Members in this group approach new innovations with a very
high degree of skepticism. They typically have below average social status, very little financial lucidity and practically no opinion leadership.

5. **Laggards**

Laggards are the last ones within a social system to adopt new innovations. They tend to be focused on traditions, have lowest social status and financial fluidity, oldest of all other adopters, in contact with only family and close friends and very little to no opinion leadership.

**Technology Adoption Life Cycle**

Moore (1991) builds on the aforementioned curve model of the diffusion of innovations by Rogers (1962). He describes a discontinuity in the curve – “the chasm” – as one of the key elements of his model (figure 2). This discontinuity lies between early adopters and the early majority. The chasm is created by the differences in how these two groups approach new technologies and how they form their decisions on whether or not they will adopt them.

![Figure 2 Technology Adoption Life Cycle (Moore 1991)](image)
The Chasm

As mentioned, the chasm in adoption between early adopters and the early majority stems from the way in which they view disruptive innovation. Early adopters, or visionaries as Moore (1991) has dubbed them, are able to vividly imagine the positive affects new technologies can have in their lives. Their relationship towards technology can be described as affectionate, enthusiastic and forgiving. The early majority (also known as the pragmatists) are, in contrast to the early adopters, more skeptical about disruptive innovations.

This disparity leads to a disconnect in communication across these groups of people. The pragmatists have difficulty in believing the visionaries and taking their praises for a given technology seriously. As interaction between peers on the perceived benefits of a new technology is, according to Rogers (1964), at the core of how innovations spread, this creates a gap in the adoption process. Numerous companies have enjoyed a warm welcome for their innovative product from the early market (technology enthusiasts and visionaries) only to fall into the chasm as they have failed to win over the hearts and minds of the mainstream market (pragmatists and conservatives). The challenge of crossing the chasm is a critical one, as for most product-oriented high-tech companies that is where the meaningful profit and growth opportunities lie.

Crossing the chasm with the whole product

Moore (1991) describes the means for crossing the chasm with the concept of the whole product. It is defined as “the minimum set of products and services necessary to ensure that the target customer will achieve his or her compelling reason to buy”. His argument, in essence, is that technology enthusiasts and visionaries are willing to tolerate a novel product that is able to solve 80 percent of a key problem. They have the skill and drive to piece together the missing 20 percent in exchange for the early adopter benefits they perceive. For instance, this might mean buying an e-reader that does not support PDF-files natively, but rather requires the user to download a buggy plug-in in order to read PDF-documents.

The pragmatists on the other hand, do not share the visionaries’ willingness to tolerate sub-optimal solutions to their key problems. Rather they seek whole products that have the ability to seamlessly and effortlessly solve their problem. Continuing with the e-reader example, this might
mean postponing the purchase of an e-reader until it supports all the relative file formats and has a significant selection of downloadable books in the user’s native language (for instance Finnish).

According to Moore (1991), the key to a winning strategy is to identify a small niche of pragmatist customers (which he describes as the “beachhead”) for whom to target a 100 percent whole product offering. He equates this with putting all ones eggs in one basket and claims it is the only way to cross the chasm safely.

**Brauer’s epidemic and probit model on technology adoption**

Brauer (2009) proposes two models for examining how technologies are adopted within economies.

The epidemic model, borrowed from the science of medicine, depicts the inventor as a transmitter of knowledge about the new technology (which in this model is equated with the adoption of the technology). The inventor spreads information about his invention to the people who he is in touch with who in turn help spread the invention further. Hence, the invention has the possibility of spreading exponentially in a short period of time. Factors increasing the likelihood of a technology spreading (or its "infection rate") include: simplicity of the technology, density and homogeneity of the population and if is able to spread without having to jump from one community to another. Brauer (2009) mentions "techies" and "nontechies" as examples of communities that technologies have difficulties jumping across.

Brauer (2009) admits to the limitations of the epidemic model. Its major shortcoming is in the fact that it assumes that people are willing to adopt a new technology upon receiving information on it. According to the researcher people often weigh the benefits of adopting new technologies against its inherent costs.

The probit model goes behind the reasons individual people or organizations have for adopting new technologies. The term, borrowed from statistics, refers to the probability that an individual or organization either adopts or does not adopt a give technology. For instance, it has been found that smaller companies are quicker to adopt new technologies due to their often nimble decision-
making processes. The model also maps the search, learning and switching costs often inherent in adopting new technologies and how innovators could mitigate them. (Brauer 2009)

Brauer (2009) concludes that the epidemic model is especially good at depicting the cumulative spread of a certain technology over time (the "when"). Conversely, the "who" and "why" questions are best answered by the probit model. However, neither model is equipped to explain the "where", that is the how technologies spread across geographical spaces.

**Psychology of new product adoption**

Brauer's (2009) models, as well as other theories discussed so far, are built on the assumption that individuals and organizations adopt new technologies on the basis of a rational cost-benefit analysis. They assume that individuals objectively weigh the advantages of innovations against the incumbent solutions and then make decision based on the information available to them.

Gourville (2006) challenges this basic assumption with his model of new product adoption. He argues that people have systemic, and to a large extent unconscious, psychological biases that affect our decisions when adopting new products. People tend to irrationally overvalue things we already posses (*the endowment effect*) and prefer things as they are (*status quo bias*) (c.f March & Shapira 1987). Furthermore, both biases have a tendency to intensify over time. Combined they result in us usually favoring incumbent solutions by a factor of 3. In practice, this means that the perceived value of the new product has to be at least 3 times greater than the product already in use to be adopted. Hence, when bringing new products to the market, it is crucial to take these biases into account.

According to Gourville (2006), it is important to examine how much behavioral change is needed for customers to adopt the new product. The more companies change their products, the more they usually require behavioral change from their customers. Value can be created by improving products, but it is most easily captured by minimizing the need for customers to change. The degree of behavioral change required should be juxtaposed against to the amount of improvement the product brings about. These two dimensions (behavioral change required and product change) can be examined in a 2 by 2 framework (figure 3).
According to Gourville (2006), the bulk of product releases fall into the *easy sells* category (upper left corner in figure 3). They offer limited changes to the existing products and they require little, if any, behavior change from consumers. Hence, they are often readily accepted by customers, but also provide unsubstantial added value to both consumers and companies. Examples of these types of innovations are toothbrushes with angled heads and detergents with improved whiteners. Christensen (1997) refers to them as sustaining innovations (in contrast to disruptive innovations).

*Sure failures* offer insignificant product changes, but require extensive adjustments in people’s behavior. According to Gourville (2006) these types of innovations should always be avoided by companies. He offers an example of the Dvorak keyboard as an innovation that was doomed to fail. It was only marginally more effective than the prevailing model (the QWERTY keyboard), but entailed a steep learning curve for anyone looking to adopt it.

*Long hauls* often make technological leaps and create significantly more value for their users than previous models. However, adopters also have to change their behavior in substantial ways in order to use them. This often creates a high resistance to the product from customers and either slows down the diffusion of the innovation or entirely inhibits it. Gourville (2006)
mentions satellite radio as an example of such an innovation. He also points out that many of the technologies we now take for granted initially fell into this category.

*Smash hits* are the sweet spot in Gourville’s (2006) model. They offer breakthrough improvements in performance and only require minimal changes in behavior. They are seamlessly incorporated into the existing life and habits of the consumers. One example of such an innovation is the Google search engine. When released, it offered substantially improved performance while using the same simple search interface web users had grown accustomed to.

When the amount of behavior change and its implications for customer resistance are fully understood, managers can either accept and effectively manage the resistance or seek to minimize it. For some products, behavior change is inevitable. When this is the case, Gourville (2006) suggests that companies should be patient in its diffusion and brace themselves for a slow adoption rate. This can be seen as congruent with Moore’s (1991) proposed approach when targeting pragmatic buyers (discussed in the previous chapter). Gourville (2006) also stipulates that companies facing inevitable customer resistance to adoption should strive for a 10x improvement on incumbent products. This would overweigh customer’s biased fueled hesitancy in adopting the innovation.

The aforementioned long haul approach is not, however, suitable for all companies and products as innovations that offer 10x performance improvements are hard to come by. The key then, according to Gourville (2006), is to make the new products as behaviorally compatible as possible. In practical terms this means that the new product is similar to use as existing alternatives and fits into the formed habits that make up our lives.

With the Jobs-to-Be-Done theory, Christensen et al. (2004) also take a stab at describing how breakthrough innovations form a fit with the circumstances of our lives. Their assertion is that when consumers buy a product, they are really hiring the product to get a job done for them. Companies, according to Christensen et al. (2004), are successful when they make it easier for their customers to get done something they have historically cared about. Products that successfully match the job or the circumstance we find ourselves end up being the real “killer applications”. This, finding jobs needed to be done and providing a solution for them, is where traditional customer segmentation often falls short. Companies conducting market segmentation
according to variables that are easy to measure, such as age and educational level, often lack real understanding of the needs of their customers.

2.2 Company level - Facing disruptive technologies as the incumbent

How does technological change affect incumbent firms in an industry? Are they at an advantage or disadvantage over small start-ups?

These questions have been at the forefront of academic discussion on technological innovation and its consequences. This thread of debate was put largely in motion by Schumpeter (1934), who suggested that small entrepreneurial firms were likely to be the source of innovation. Thereafter, several researchers (e.g. Tushman & Anderson 1986, Teece 1986, Henderson & Clark 1990, Cooper & Smith 1992, Chandy & Tellis 2000) have studied the effect of technological change on incumbents versus new firms. This chapter looks at these bodies of research. This understanding is particularly relevant in this study as a backdrop for discussing book publishers as incumbent companies facing a technological change.

2.2.1 Resources, Processes and Values Theory

As mentioned, Christensen et al. (2004) argue that the powerhouses of any given industry tend to have difficulties dealing with disruptive innovations. Their resources, processes and values (RPV) theory is a framework for analyzing the organizational mechanism behind this. The theory does this by isolating three key organizational characteristics: resources, processes and values. These are used as conceptual building blocks to form a clearer picture of what an organizations strengths, weaknesses and blind spots are.

Resources

Resources are things and assets the organization has that it uses to create value. This includes for instance its employees, machines, brands and capital. In short, they are things that companies can buy or sell, build or destroy.
Processes

Processes are established ways of doing work in order to produce outputs (products or services of greater worth). Examples of processes include the hiring and training procedures within a company, its typical pipeline of product development and the way it conducts market research.

Values

Values are the criteria by which companies allocate their resources. Roughly speaking it depicts what the company wants to do. Examples of criteria used include cost structures, income statements, customer demands, size of a given opportunity and ethics.

Established companies are great at sustaining innovations because their values prioritize them and their processes and resources are aligned to tackle them. However, when it comes to disruptive innovations, incumbent companies tend to have values that do not prioritize them and lack the processes to effectively address them. (Christensen et al. 2004)

According to Christensen et al. (2004, xviii), the lack of resources is not usually the biggest problem with large established companies dealing with disruptive innovation. Their Achilles’ tendon is in the fact that they have a value system that does not prioritize investments related to disruptive innovations. For instance, providers of mainframe computers looked at emerging personal computers and the much lower gross margins that came with them and said: “why would we want to start producing devices that our best customers do not value and provides a fraction of the margin our current product does?”

2.2.2 Bounding perspective

Christensen et al. (2004) focused on three aspects of organizations (resources, processes and values) in order to analyze their responses to disruptive technologies. Some academics have moved beyond this framework in order to shed light on why incumbent companies might struggle with new technologies.

Utterback (2003) argues that in most cases the established firms have a strong grip on the new technology and are often among the most knowledgeable about it. Yet, they still have enormous
difficulties with sustaining a competitive advantage once a new technology has become pervasive.

Utterback (2003) demonstrates this with the case of Wang, a company founded by Dr. An Wang in 1951. In 1975, Wang was the global leader in word processors. The company’s devices incorporated some cutting edge technology in word processing at the time – keyboards, monochrome displays, 64K of RAM and storage capacity on disk drives. In effect they had build and brought to the market the first version of the personal computer before Apple and other startups of the PC age. According to Utterback (2003), they had one major issue holding them back – a relentless focus on producing word processors (and not personal computers). This narrow frame of reference sowed the seeds of destruction for Wang and has done so for a myriad of other companies.

A similar idea was presented decades earlier by Levitt (1960) in his classic Harvard Business Review article. He challenged managers with the question of “what business are you really in?” He argued that the peril of many incumbent companies was a too narrow and product oriented definition of their business. Similarly to Utterback’s (2003) Wang example, he illustrates his point with the case of railway companies in the US. They stopped growing, Levitt (1960) argues, because they held too strongly to the notion that they operated in the railroad business and not the transportation business. As a result, new innovations such as airplanes and cars moved in and aggressively ate away their business.

Chandy and Tellis (2000) attempt to explain why incumbent companies may be reluctant to introduce radical innovations. Based on several organizational theories, they suggest three main reasons: perceived incentives, organizational filters and organizational routines.

1. Perceived incentives

According to Chandy and Tellis (2000), incumbents often perceive smaller incentives to introduce radical product innovations than nonincumbents. The reason behind this is that they still derive a significant stream of rents from existing products based on the current technology. Introducing a radically new product could potentially jeopardize the rents from existing products, which leads to a hesitancy in allowing products based on the new technology to cannibalize rents obtained from products based on the old technology. This line of thinking does not, however,
take into account the dynamic nature of radical innovations and their propensity to obsolete old technologies and whole markets around them. This perspective is also evident in Christensen et al.’s (2004) theory of disruptive innovation, which describes the established firms as viewing the potential profits from disruptive innovations as less attractive than profits already derived from mature technologies in established markets. This is especially true in the case of short-term profit projections.

2. Organizational filters

In accordance with Utterback’s (2003) notion of a narrow frame of reference typical to incumbents, Chandy and Tellis (2000) describe the tendency of established firms to build organizational filters that create biases and blinders concerning information about the potential of emerging technologies. These filters are bred by an organizations need to focus relentlessly on maximizing the value of current technology for current customers. In other words, an organization’s whole view of the outside world is skewed by the focus on an established technology, which limits the organizations ability to spot, develop and market radical product innovations (Henderson, 1993).

3. Organizational routines

As Christensen et al. (2004) do with their account of organizational processes, Candy and Tellis (2000) correspondingly describe organizational routines as a cause for limitations on the ability of established companies to adopt radical innovations. Over time, organizations develop routines for producing, distributing and marketing products and services as well as training personnel. Routines also emerge for R&D functions of organizations, which are typically geared towards coming up with incremental (or sustaining) innovations on existing products. According to Henderson (1993), these routines are ineffective at developing radical product innovations since they are developed around a substantially different type of technology. Moreover, adoption of radical innovations would obsolete many of these routines and require the development of new routines, which is costly, difficult and risky (Hannah & Freeman, 1977; Nelson & Winter, 1982).
Cooper and Smith (1992) have studied the challenges companies face with reacting to threatening technologies. They emphasize that, in the majority of cases, it is difficult to accurately assess the disruptive potential of emerging technologies. In addition, established firms facing an emerging technology must appraise the resources and skills at a time when the requirements for success are not clear. They also note the tendency by many established companies to view new emerging industries through the lens of their experience in the threatened industry, thus concentrating too eagerly on the similarities rather than the differences between the two. This also alludes to an issue that many publishers have been criticized over with regards to their approach towards electronic publishing, which we will return to later on. Cooper and Smith (1992) have compiled the 5 key attributes of emerging industries and their central managerial implications (table 1.).

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Managerial Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. New product crude and expensive at first. Sometimes an initial lack of complementary products.</td>
<td>Difficult to judge rate at which market will develop. Often must overcome substantial technical difficulties, and remain patient if market develops slowly.</td>
</tr>
<tr>
<td>2. Entrants often start-up firms and established firms from other industries.</td>
<td>Difficult to predict competitors' actions. Must appraise and respond to different strategies.</td>
</tr>
<tr>
<td>3. Alternative and unproven technical approaches and product designs.</td>
<td>Risks associated with &quot;betting on&quot; particular approaches/designs.</td>
</tr>
<tr>
<td>4. Rapid rates of change, especially in product and manufacturing methods.</td>
<td>Strong R&amp;D and financial capabilities needed to remain competitive over time.</td>
</tr>
<tr>
<td>5. New technical resources and skills required. Existing technical/marketing capabilities sometimes of limited or little value.</td>
<td>Established competitive strengths may not provide a long-term advantage.</td>
</tr>
</tbody>
</table>

Table 1 Attributes of emerging industries and their managerial implications (Cooper & Smith, 1992)
2.2.3 Value Chain Evolution

Value creation – alone or with partners?

Every service or product requires a set of activities to be completed. Companies can produce value for their customers either by integrating and executing most of the activities themselves or they can specialize on a certain part of the value chain. In the latter case the company must rely on partners or suppliers for the other elements of value added. Christensen et al.’s (2004) value chain evolution (VCE) theory attempts to depict whether or not the company has made the right organizational design decisions to compete successfully.

Value chain and what customers value

According to the VCE theory, companies should strive to hold on to the part of the value chain that drives performance along the dimensions that customers value the most. This gives the company the means to control the overall value proposition to the customers and innovate on better offerings. On the contrary, when a specialist’s piece of the value chain acts unpredictably with the other pieces, it usually results in poorly performing products. (Christensen et al. 2004)

For instance, Apple has made a strategic choice by keeping both hardware and operating system development tightly within the boundaries of its organization. This has enabled the company to produce products that perform highly in a dimension greatly valued by customers - convenience of use. This strategy is contrary to its many competitors. For instance, mobile device manufacturer Nokia has fallen in performance in the category of user experience by producing only the hardware and not the operating system of its smartphones. (Christensen et al. 2004)

By examining the parts of the overall value that a company holds, one can gain valuable insight in to the scope of the organizations innovation capacity. Directly controlling, or integrating, an activity gives companies the ability to experiment and push the frontier of what is possible. When an organization controls the parts of the value chain that its customers value the most, it has a better grip at the keys to its own future success. (Christensen et al. 2004)
Christensen et al. (2004) point out, however, that the performance edge gained from integrating comes at a cost. Integrated architectures tend to be relatively inflexible and react relatively slowly. Hence, the researchers suggest that companies should outsource activities that do not influence the characteristics of a product or service that customers deem (or will deem) most critical. Specialists are better equipped to optimize those pieces of the value chain.

According to the researches, the key is to integrate to improve on parts that are “not good enough” and outsourcing on what is “more than good enough”- or as Christensen et al. (2004) put it:

“Solving the hard problems allows firms to capture value. Forward thinking companies move to solve tomorrow’s hard problems, because solving tomorrow’s hard problems creates tomorrow’s profits”.

2.3 Industry level – How disruptive innovations affect industry dynamics

Thus far, I have described theories that explain innovations on a technological and company level. It is time to zoom out from this perspective, as I will present theories that illustrate the dynamics of industries and how disruptive discontinuities in technology affect them. Three theories will be discussed: creative destruction, the five forces model and the value chain of an industry.

2.3.1 Creative destruction

Schumpeter (1952) has provided one of the earliest theoretical contributions into to the study of the power of technologies to transform industries. He describes the phenomenon with the concept of creative destruction, which was first introduced into German economic discourse by Sombart (1913). Schumpeter’s (1952) main assertion is that a technological innovation erodes the market position of companies that are committed to an older technology that is about to become obsolete.

Schumpeter’s (1952) creative destruction is a broad economic model that explains economic growth and the dynamic nature of markets. It provides insight into how markets develop and
evolve from competitive to monopolistic markets and back again. He underlines successful innovation as the source of temporary market power that will, ultimately, succumb to the pressures of new inventions commercialized by competing entrants. Schumpeter (1952) also mentions that even though innovations brought to the market are the main engine behind economic growth, they can cause severe hardship for those ill-equipped to meet the challenges brought on by the forces of creative destruction.

### 2.3.2 Five forces model

Porter’s (1985) five forces model (figure 4) is a classic framework for analyzing the competitive field of an industry. It describes five forces that influence the structure of an industry. The analysis of these forces can yield insights into the dynamic of the industry, its profitability and potential evolution. One of the main contributions of the theory was to widen the scope of analysis on the competitive forces of an industry. It provided tools for understanding not only the competitive rivalry between companies within an industry, but also for such factors as the power of buyers and the threat of new entrants.

![Five forces model](image)

**Figure 4** Five forces model (Porter, 1985)
This framework will be returned to in chapter 5.3, where it will be used to examine the effects of digital forces on the competitive dynamics and potential evolution of the publishing industry.

**Competitive rivalry**

The intensity of rivalry among firms varies across industries, and strategic analysts are interested in these differences. In the traditional economic model, competition among rival firms drives profits to zero. But competition is not perfect and firms are not unsophisticated passive price takers. Rather, firms strive for a competitive advantage over their competitors. (Porter 1985)

According to Porter (1985), the intensity of competitive rivalry is influenced by the following industry characteristics:

1. A *larger number of firms* increases rivalry because more firms must compete for the same customers and resources. The rivalry intensifies if the firms have comparable market shares, leading to a struggle for market leadership.

2. *Slow market growth* causes firms to fight for market share. In a growing market, firms are able to improve revenues simply because of the expanding market.

3. *High fixed costs* result in an economy of scale effect that increases rivalry. When total costs are mostly fixed costs, the firm must produce near capacity to attain the lowest unit costs. Since the firm must sell this large quantity of product, high levels of production lead to a fight for market share and results in increased rivalry.

4. *High storage costs or highly perishable products* cause a producer to sell goods as soon as possible. If other producers are attempting to unload at the same time, competition for customers intensifies.

5. *Low switching costs* increases rivalry. When a customer can freely switch from one product to another there is a greater struggle to capture customers.

6. *Low levels of product differentiation* is associated with higher levels of rivalry. Brand identification, on the other hand, tends to constrain rivalry.
7. **Strategic stakes are high** when a firm is losing market position or has potential for great gains. This intensifies rivalry.

8. **High exit barriers** place a high cost on abandoning the product. The firm must compete. High exit barriers cause a firm to remain in an industry, even when the venture is not profitable. A common exit barrier is asset specificity. When the plant and equipment required for manufacturing a product is highly specialized, these assets cannot easily be sold to other buyers in another industry. Litton Industries' acquisition of Ingalls Shipbuilding facilities illustrates this concept. Litton was successful in the 1960's with its contracts to build Navy ships. But when the Vietnam war ended, defense spending declined and Litton saw a sudden decline in its earnings. As the firm restructured, divesting from the shipbuilding plant was not feasible since such a large and highly specialized investment could not be sold easily, and Litton was forced to stay in a declining shipbuilding market.

9. **A diversity of rivals** with different cultures, histories, and philosophies make an industry unstable. There is greater possibility for mavericks and for misjudging rival's moves. Rivalry is volatile and can be intense. The hospital industry, for example, is populated by hospitals that historically are community or charitable institutions, by hospitals that are associated with religious organizations or universities, and by hospitals that are for-profit enterprises. This mix of philosophies about mission has lead occasionally to fierce local struggles by hospitals over who will get expensive diagnostic and therapeutic services. At other times, local hospitals are highly cooperative with one another on issues such as community disaster planning.

10. **Industry Shakeout.** A growing market and the potential for high profits induces new firms to enter a market and incumbent firms to increase production. A point is reached where the industry becomes crowded with competitors, and demand cannot support the new entrants and the resulting increased supply. The industry may become crowded if its growth rate slows and the market becomes saturated, creating a situation of excess capacity with too many goods chasing too few buyers. A shakeout ensues, with intense competition, price wars, and company failures.
Threat of substitution

Substitute products in this context refer to products in other industries that can be bought instead of products produced by the industry. A product’s price elasticity, the responsiveness of quantity demanded to a change in price, is affected by substitute products. In other words, as people have more alternatives to choose from, firms have experience difficulties raising prices. (Porter, 1985)

The threat of substitution is not only limited to a product’s price elasticity. As technology changes, products and services from other industries might render the current offering within an industry obsolete. The disruptive innovation framework by Christensen et al. (2004), discussed in chapter 2.1, can be considered as a description of how innovative products and business models become substitutes for established value propositions.

Buyer power

The force of buyer power in Porter’s (1985) five forces model refers to the amount of leverage buyers have over suppliers. The most extreme case of strong buyer power is what economists call a monopsony – a market where there are several suppliers and only one buyer. In these conditions the buyer gets to set the price. In reality few pure monopsies exist, and most industries can be set somewhere on a continuum between a monopsy and a monopoly (a market where there is only one seller).

According to Porter (1985), buyers are generally more powerful if:

- There are few buyers with significant market share
- Buyers purchase a significant proportion of output
- Buyers posses a credible backward integration threat (can buy producing firm)

In contrast, buyers are generally weak if:

- Producers can take over own distribution/retailing
- There are significant buyer switching costs
- Buyers are fragmented (no buyer has any particular influence on product or price)
Supplier power

The supplier power force in Porter’s (1985) model refers to the amount of influence suppliers can have over companies purchasing their outputs. This includes, for example, the ability of suppliers to control prices and their ability to capture share of the profits.

Suppliers are typically powerful if:
- There is a threat of forward integration by suppliers
- Suppliers are concentrated
- There is a significant cost to switch suppliers

Suppliers are weak if:
- Product is standardized and there are many competitive suppliers
- There is a threat of backward integration by purchasers
- Purchasers are concentrated
- End customers are weak (have limited information and resources)

Threat of new entry (or barriers of entry)

Incumbent companies should not only worry about the competition within an industry, the possibility that new firms may enter the industry also affects competition. However, industries possess characteristics that protect the high profit levels of firm within it and inhibit additional rivals from entering the market. These are barriers to entry. (Porter, 1985)

Barriers to entry are of vital strategic importance to companies and can be considered as the defining characteristics of industries. They can be created or exploited to enhance a firm’s competitive advantage. Barriers to entry can arise from several sources:

1. Governments create barriers. Governments can create barriers to entry for instance by granting a monopoly to only one company. This is the case for instance with many railway companies. Governments can also erect barriers to entry by regulating an industry with strict rules for which companies are allowed to operate.
2. *Patents and propriety knowledge restricts entry*. Ideas and knowledge that can be patented create a powerful barrier to entry for companies that do not possess them. For instance, in 1974 Polaroid camera held a monopoly in the instant photography industry by being the sole possessor of the patent for the core technology of the industry.

3. *Asset specificity inhibits entry*. Asset specificity is the extent to which the firm's assets can be utilized to produce a different product. When an industry requires highly specialized technology or plants and equipment, potential entrants are reluctant to commit to acquiring specialized assets that cannot be sold or converted into other uses if the venture fails.

4. *Economies of scale inhibit smaller rivals from entering*. Economics of scale is a term from microeconomics that refers to the cost advantages a business obtains due to expansion. They include factors that enable a company to lower its average cost per unit as the size of a facility, or scale, increases.

### 2.3.3 Industry value system

Porter (1985) originally created the value chain analysis tool for examining the value creation process within a company. It isolates different value adding activities within a business unit and describes how it creates value from incoming logistics to end customer. This model has also been expanded into a framework for analyzing the value creation of an industry. Porter (1985) terms this larger interconnected system of value chains the "value system."

In the system, the delivery of a mix of products and services to the end customer mobilizes different economic factors, each managing its own value chain. The industry wide synchronized interactions of those local value chains create an extended value chain, increasingly often global in extent. A value system includes the value chains of a firm's supplier, the firm itself, the firm distribution channels, and the firm's buyers (and presumably extended to the buyers of their products). (Porter 1985)

Wang (2008) has adopted this framework for the study of media industries (figure 5). He used it in particular for the analysis of the TV industry. I have extended its use in this study for the
examination of the book publishing industry. Although it fails to capture some intricacies of the industry, it lends itself for a clear-cut examination of the dynamics and evolution of the industry. The traditional value system of the book industry will be discussed in chapter 3.2.

![Figure 5 Industry value system analysis (Porter 1985, adopted for media industry analysis by Wang 2008)](image)

### 2.4 Summary of the theory and its connection to this study

In chapter 2, I have introduced a theoretical framework for studying disruptive innovations. The theories have been divided into three levels of examination: the technology level, the company level and the industry level. Table 2 (below) summarizes the theoretical levels utilized in this study and connects them to the studied empirical evidence of the study.

<table>
<thead>
<tr>
<th>Level of study</th>
<th>Theory (chapter 2)</th>
<th>Empirical evidence (chapters 3 &amp; 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology level</td>
<td>Disruptive innovation</td>
<td>Mobile reading devices</td>
</tr>
<tr>
<td></td>
<td>Adoption of innovation</td>
<td>Digitalization of media</td>
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<td></td>
<td>Resources, processes and values</td>
<td>The Internet as a publishing platform</td>
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<td></td>
<td>Bounding perspective</td>
<td>Publishers as incumbents</td>
</tr>
<tr>
<td>Company level</td>
<td>Industry value chain</td>
<td>Publishing as an industry</td>
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<td></td>
<td>Five forces</td>
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Table 2 A summary of the theoretical frameworks used in the study
The technology level provides a framework for understanding what disruptive innovations are and how are they adopted. Christensen et al. (2004) divide innovations into two groups: sustaining and disruptive. Sustaining innovations are incremental improvements on the dimensions valued by existing customers. Conversely, disruptive innovations introduce a new value proposition. According to Rogers (1962) and Moore (1991), the rate at which disruptive innovations are adopted is different between certain categories of people (adopter groups).

In this study, the technology level of inspection provides a theoretical backdrop for discussing the three digital forces (digitalization of media, the Internet as a publishing platform and mobile reading devices). The analysis on this level lays the foundation for the company level of study.

The company level is comprised of a set of theories that aid in the analysis of how incumbent companies deal with disruptive innovations. According to the Resources, Processes and Values theory by Christensen et al. (2004), the resources a company possesses, the processes it has in place and the way it values future investments determine its approach to disruptive changes. Incumbent companies often have the resources to adapt to disruptive innovations, but lack the right processes and value new investments in a way that is inherently biased towards their current business model. Utterback (2003) and Levitt (1960) note that incumbent companies often have a narrow and product oriented view of their business that holds them back from adapting to disruptive changes.

In this study, these frameworks are used to examine the approach book publishers are having towards the digital forces.

The industry level builds on the aforementioned levels and provides a larger framework for understanding the studied subject. Two theories by Porter (1985) (Industry value chain and the Five competitive forces) provide insight into how value is created within an industry and how different forces affect the competitive dynamics of the industry.

In this research, these theories are used to discuss the industry level changes that the digital forces are having on book publishing.
3 BOOK PUBLISHING

3.1 From clay to bits – The evolution of reading

“Anything that is in the world when you’re born is normal and ordinary and is just a natural part of the way the world works. Anything that’s invented between when you’re fifteen and thirty-five is new and exciting and revolutionary and you can probably get a career in it. Anything invented after you’re thirty-five is against the natural order of things.” – Douglas Adams in *the Salmon of Doubt* (2002)

The aim of this chapter is to provide a historical perspective to the evolution of books as a technology and the development of the book publishing industry. This will hopefully increase the understanding of the technological, cultural and economical aspects related to the digital forces examined in this study.

The question of “what is a book?” is a deceptively simple one. In what ways does, for example, a clay tablet resemble a paperback book? Can an electronic book be categorized as a book? Kilgour (1998) defines books as a “storehouse of human knowledge intended for dissemination in the form of an artifact that is portable and that contains arrangements of signs that convey information”. Books, in the form we know them now, have been around for centuries and hold a firm place in our society. In many ways it might even be hard to think of books as a technology for transmitting information – something that’s form is not set in stone and has once evolved from other technologies. (Kilgour 1998; Howard 2005)

Kilgour (1998) equates the evolution of the book with the evolution of species in nature – long periods of stability that alternate with periods of radical change. He also describes the development pattern of the book as continuously diminishing the time required to produce a literary work. Kilgour (1998) divides the development of the book into four distinct, somewhat overlapping, forms: the clay tablet inscribed with a stylus (2500 B.C – A.D 100), the papyrus roll written with brush or pen (2000 B.C – A.D 700), the codex (the form we consider a book now) originally inscribed with pen (A.D 100) and the electronic book (A.D 2000). Kilgour (1998) also
mentions three major transformations in method and power application in reproducing the codex: machine printing from cast type powered by human muscle (1455 – 1814), nonhuman power driving both presses and typecasting machines (1814 – 1970), computer-driven photocomposition combined with offset printing (1970-) and the electronic book (2000-). Figure 6 displays these major transformations.

![Figure 6](image-url)

**Figure 6** The historical evolution of the form and production methods of the book (Kilgour, 1998, 5)

**From knots to clay tablets – primitive ways of transmitting information**

Us humans have an innate predisposition for developing the skill of language, to communicate our thoughts and feelings by using an abstract and mutually agreed upon system of phonetic sounds. Almost as old as the concept of oral language, is our ability and desire to communicate by using physical symbols that carry a meaning the can be decoupled from the actual production of sounds. (Bloomfield 1914)

Even Neandertals, as well as early *Homo sapiens sapiens*, have been known to inscribe bones with notches to communicate different meaningful concepts. Bones, along with early cave paintings, were used to keep track of days and lunar cycles – among other things. Primitive tribes also used bark and leather to carve lengthy picture messages that could convey stories in great detail. The Incas, for instance, also read colour-coded quipus knots to keep track of complicated
mercantile transactions. Common for all of these systems was that they all had the function of conveying some known significance – whether an action, numerical value or spoken name - by using predetermined codes. (Bloomfield 1914)

Writing, in the sense we understand it now, did not, however, develop until some 6,000 years ago. A paradigm shift occurred around the area of Mesopotamia (modern Iraq), where people began interpreting abstract signs for their sound value alone. This, known as systemic phoneticsm, made it possible to write and read whole sentences and texts instead of isolated words, which were previously interpreted as pictures. A first written language emerged as a set of standardized system of limited signs each coupled with a distinct sound. (Fischer 2003).

This proved to be a powerful idea that began to spread quickly. Writing enabled a quantum leap in the capacity to accumulate and store information. Among other things, it facilitated accounting and material storage. In addition, it provided the means to retain names, places and dates better than human memory ever could. It set in motion the process of freeing language from the constraints of time and space. (Fischer 2003).

Despite the evident benefits of reading, it was not commonly practiced in Mesopotamia. Reading was a skill that was only possessed by a small elite (around 1 percent of the population) and texts were mainly used to gather simple bits of information. Writing was also a cumbersome task. Texts were inscribed on various surfaces such as clay, wax and ivory. All of these methods for encoding information were expensive and difficult. Especially clay tablets were heavy and could only fit a very limited amount of information. A “book” was simply a collection of these tablets. They were hardly user-friendly or suited for leisure reading. Thus, reading and writing was mainly the domain of scribes, a group of professionals whose occupation it was to carve texts on tablets and recite their contents aloud in public. They can be viewed as forming one of earliest industries around the written word. (Fischer 2003).
Egyptians made reading easier with papyrus scrolls

Egyptians were faster to adopt reading and writing than its early inventors in Mesopotamia. This can be attributed to two crucial disruptive innovations that made reading easier: hieratic writing and papyrus scrolls. Hieratic, or cursive writing, was a simplification of hieroglyphic writing that proved to be a practical tool for creating commonplace documents. Papyrus scrolls were a significant improvement on clay tablets as a writing surface. They were lighter, more easily held and stored. They were also flexible, which meant that a large number of papyrus sheets could be rolled into one. Writing in Egypt circa 2000 B.C was still, however, extremely rare and restricted mostly to documentation, not creative expression. (Fischer 2003)

Codex

Papyrus scrolls remained the dominant technology for disseminating information for over 2000 years. It was not until circa 100 AD, that a new superior technology - the codex - came to threaten and eventually after hundreds of years replace it. Codex refers to separate pages bound together on one side and usually protected by two covers. Codex held several practical advantages over papyrus scrolls, including: compactness, sturdiness, ease of reference and especially economy. Technically it is the same form that modern books are produced in. However, the word codex today usually refers to hand written manuscripts. (Roberts & Skeat, 1983)

The Romans were the first to use an early version of the codex by binding together wooden tablets. Later papyrus and eventually paper were used as pages in the codex. Furthermore, major innovations transformed the way codices were produced. Three of them were the most influential: the printing press, steam powered printing and offset printing. (Kilgour 1998)

The printing press

In the middle of the 15th century, a German goldsmith by the name of Johannes Gutenberg brought together a string of technological innovations in his idea of using movable type for printing. This idea gave birth to the first mechanical printing press, with which Gutenberg printed his most famous work, The Gutenberg Bible. Books had been up until this point only copied by hand. Therefore they were extremely time consuming and expensive to produce.
Books copied by hand, also known as manuscripts, were also filled with errors and often written in cryptic and small handwriting. (Burke 1985).

Shortly after the invention of the printing press, the number of books produced increased dramatically. Between 1450 and 1500 the number of operating printing presses in Europe shot up from 1 to 1,700. These presses produced around 27,000 known titles in more than 10 million copies. (Burge 1985)

As books became more accessible and abundant, the number of readers increased dramatically as well. More people had access to a body of knowledge that had previously been beyond their reach. Writers also began to have a greater insensitive to produce texts as their work could reach more people more accurately than ever before. Writing also became a profitable and respected profession. More profoundly, the printing press gave rise to a new tradition of scientific thought and logic. Gutenberg had, most likely unknowingly, started western civilizations gradual shift from an oral society to a written one. (Burge 1985)

The key lever by which the printing press affected society was the sheer quantity of books it could produce. This relatively cheap mass production was achieved with the use of movable type and paper. (Kilgour 1998)

**Newspapers emerged to fill a need for timely information**

As mentioned, books in the form the codex became the most convenient way for distributing and storing information. However, the slowness of the medium left a gap in society that increasingly craved timely information. The newspaper filled this gap. The earliest known newspaper, The Nieuwu Tijdinghen, was published in Antwerpen in 1605. Subsequent improvements were made in the attractiveness and readability of newspapers (for instance, illustrations in the British Mercurius Civicus in 1643 and significant improvements in font and layout in the World, 1787). London became the early hotbed for the newspaper industry and two of its eighteenth-century publications – The Times (1787) and The Observer (1785) – still exist. (Kilgour 1998)

**Steam power increased the productivity of printing**

Gutenberg’s system for producing books had one significant bottleneck of productivity: it relied solely on manual force. It was not until the beginning of the 19th century that Friedrich Koenig
built the first steam-powered press for the *Times*. The invention, which came to be known as the flatbed cylinder press, could produce eleven hundred impressions per hour. The three crucial innovations in the machine were the inking system, the pressing cylinders and the steam engine, which replaced human muscles. Incremental improvements to the cylinder press, such as faster printing (4000 impressions per hour in 1853) and color (four-color in 1880) were made at least until 1964. (Kilgour 1998)

**Industrial revolution and paperback books gave rise to the publishing industry**

The aforementioned technological advances in printing would meet the rising demand for information brought on by great structural changes in the western societies of the 19th century. For instance in Britain, the Industrial Revolution had generated a new class of readers. Civil and mechanical engineers were educated in institutes that harbored libraries and museums. Similar institutes later appeared in the United States giving rise to a growing middle class of readers. (Kilgour 1998)

Growth in population and literacy also heightened the desire for books. The number of people in England and Wales grew doubled between 1801 and 1851. In addition, the literacy rate in Europe grew – if not so dramatically. In England and Wales, between 1750 and 1840 the literacy rate for men grew from 63 to 68 percent and for women from 36 to 52 percent. (Kilgour 1998)

From the time of Gutenberg, book publishing had become an industry that required significant capital. Publishing also started to be removed from the printing and selling of books. It became predomately about selecting books for publishing and bearing their inherent financial risk. Publishing did not, however, become a mass volume industry until between 1840 and 1940. At the beginning of the 20th century some titles started reaching audiences of over a million – something that was unheard-of in the previous centuries.

The major reasons behind this were lowering prices and the mass production of books. Technological advances, such as the mechanization of typesetting, bookbinding and typewriters enabled the production of books at an unforeseen scale and efficiency. In addition to technological advances, one significant cause for the increase in the quantity of books sold was the introduction of paperback books. Penguin books, a publisher established in Britain in 1935, was one of the first companies to issue wildly successful works of fiction in cheap paperback
format. Sir Allen Lane, the founder of Penguin books, stated, much to the dismay of more traditional book publishers, that: “the first thing art has to do is to entertain, if a book is boring no amount of literary excellence can atone for the failure to perform that elementary function”. (Kilgour 1998)

**Computerization and the publishing boom**

Technological advances brought by the industrial revolution in the 19th century meant that the process of printing books was no longer power by human strength but rather steam engines. Beginning in 1970, the utilization of computers ushered in a new leap in the efficiency of printing. Computer driven photocomposition made offset printing, which was developed already in late 19th century but failed to catch on, much more economical and effective. From 1970 to 1980 the proportion of commercial printing done by offset increased from 52 to 63 percent. (Kilgour 1998)

In addition to printing technology, computerization affected the way text was produced. Word processors were first developed as electronic versions of typewriters. By the mid-1970’s, the cost of computerized word processors were in the vicinity of 15,000 US dollars. Twenty years later word processor programs for personal computers were available for 400 USD and by the early 1990’s, more than a million copies of one of the most popular word processor programs for desktop and laptop computers had been sold. (Kilgour 1998)

The latter part of the 20th century saw the most dramatic increase in the number of titles published in the US. Between 1950 and 1995, the number of new titles published in the US grew from approximately 10,000 to over 60,000. According to Kilgour (1998), this can be only partly contributed to the aforementioned technological advances. He argues that the biggest driver of growth for book publishing was the dramatic increase in the GDP of US. Another non-technological driver was the advent of mass-marketing of books. For instance, new distribution outlets such as supermarkets and book clubs emerged. (Kilgour 1998)
### 3.2 Book publishing value system

A storyteller conveying a dramatic arc before an audience huddled around a campfire had a straightforward channel for transmitting his message. He could spill out his tale and the people around him would listen to it there and then. No intermediaries or technology was needed in between the idea in his head and his listeners.

However, as time went on and civilizations outgrew from the prehistorical age, people found ways of telling the story without the presence of the storyteller. With technological advances stories could be converted into mobile texts transcending time and space. Suddenly a need for intermediaries between the submitter of ideas or stories and their receivers arose. Clay tablets needed manufacturers, scrolls needed scribes and books needed printers. These texts needed distributors and outlets for selling them. A value chain of actors emerged for delivering writings from their writers to their readers. (Joensuu, Koskimaa & Saarinen, 2001).

Next we will look at the pervasive model of turning ideas and stories from concepts in the heads of their author to finished works in the hands of their readers. The framework used for this chapter is adopted from the framework of value chain analysis (Porter, 1985) presented in chapter 2.3. The theory as applied to book publishing is summarized in figure 7. I will return to the model in chapter 5.3, when I juxtapose this traditional model with emerging forms of digital publishing.

![Figure 7](image)

**Figure 7** The traditional value system of book publishing (Book industry information by Joensuu et al. 2001. Model by Porter, 1985, adopted for media industry analysis by Wang, 2008.).
Content creation

The content creation for books is, for the most part, co-operation between authors and publishers. Other entities involved in content creation are usually subcontractors of publishers or printers.

Author

Authors can work alone or as a part of a team. They are typically separate individuals or organizations from publisher. An exception to this are self-publishers, authors who have not found or looked for a publisher for their titles (Joensuu et al. 2001). The prominence and trends in self-publishing will be discussed in greater detail later on.

A book starts off typically as a manuscript drafted by the author. Previously unpublished authors usually offer unsolicited manuscripts to numerous publishers. As most publishers are constantly bombarded by manuscripts, these proposals have a very low success rate. Notable exceptions are unpublished authors who have already acquired recognition in some field. These include for instance successful politicians and businessmen as well as celebrities with apparent selling potential. These types of authors typically employ the services of a ghost-writer, whom is responsible for a majority (if not all) of the writing. Established authors are usually represented by a literary agent, who contacts the publisher with a proposal for a book and negotiates a deal. (Epstein 2003)

After the publisher has accepted the authors offer for a manuscript (or the author has accepted the publishers proposal for writing a book), the parties work out the financial details of the deal. These include the selling of intellectual property rights (from the author to the publisher) and an agreement on the royalty rates paid to the author for every book sold. Intellectual property rights for physical books are sold as exclusive rights to the geographical area the books will be distributed in. Royalty rates are based on the gross retail price of individual books. They range typically from 6 to 12 percent. Authors are also usually issued an advance which is based on sales figures estimates. (Epstein 2003)

For instance in Finland, only a small number of authors earn a significant income from royalties and advances. According to Korhonen (2006), the average Finnish author earned 2,000 Euros from royalties and advances annually. During the same year, only 12 Finnish authors earned over
100,000 Euros. Most authors made their ends meet with the help of side-earnings and grants issued by the government and other institutions. (Luukka 2006)

Authors are categorized here as a part of the content creation phase of the books value system. They can, however, participate in later parts of the chain as well. An example of this are authors who go on bookstore tours to sign copies of their new releases or appear on television shows to discuss their work. (Joensuu et al. 2001)

Publisher


1. **Self-publishers**

   Self-publishers are usually authors who publish their own work by employing the services of a printer and often sell their titles independently. Self-publishing has had a reputation of vanity publishing where the main objective is the circulation of one's thoughts rather than financial success. However, advances in digital on-demand printing technology (elaborated on further in the context of printing) have made self-publishing more economical and its quality more professional. E-readers also offer new possibilities for authors who are not able or do not wish to use a publisher to circulate their work. The potential for self-publishing brought on by the Kindle and other e-readers will be discussed in chapter 5.

2. **Small publishers**

   Joensuu et al. (2001) do not make a clear distinction on a cutoff in terms of turnover which publishers are small and which not. Generally small publishers are publishers who publish only a handful of titles every year. These titles are usually part of a particular subgenre and geared towards a rather small niche of readers. They are often more daring then larger publishers when it comes to employing innovative publishing models. As is the case with self-publishers, on-demand printing has made small scale publishing more economically viable and small publishers have been able to expand their catalog of titles.
3. **Scientific publishers**

Scientific publishing refers to the publishing of academic texts by universities and other scientific institutions. Scientific publishing has been at forefront of electronic publishing as many academic journals are being published solely in electronic form.

4. **Textbook publishers**

Textbook publishers are publishers who focus mainly on producing texts to be used as a method for instruction in education. Physical books still account for the vast majority of learning materials used in most schools and universities. However, there have been several pilot programs with web based learning materials and even electronic readers.

5. **General publishers**

General publishing is geared towards a large audience and excludes the publishing of textbooks. A trend of consolidation among general Finnish publishing houses can be seen evidenced by the percentage of titles published by the biggest general publishers. In addition, the importance of the highest selling titles, or “bestsellers”, has been on the rise in the last 20 years.

In short, the publishers function in the value chain of books is to employ economic, human and technical resources to search, produce and multiply manuscripts into a form that can be consumed by readers. In other words publishers have a key role in the value chain that spans several functions and customer channels. (Joensuu et al. 2001)

Publishers continuously search for new talent. As mentioned, unpublished authors are typically discovered through manuscripts they have sent to the publisher. This is true especially for fiction, non-fiction writers are often chosen for their special expertise on the subject they are writing on. Publishers also work with literary agents who promote the work of their author clients. Manuscripts are judged not only by the talent and expertise displayed by the author, but also on how topical the subject of the text is. Aspects factoring into the decision of accepting a given manuscript naturally also revolve around the issue of the estimated economic appeal of the title. Many executives in the business have described the decision process of which titles to publish as a constant battle between so-called cultural merits of a book and how well it can be expected to
sell. Book publishing has often been described as a “hits business”, where the profits from a few hit sellers finance the rest of the catalog. (Joensuu et al., 2001)

Not all book projects begin with a proposal from the author. Some books are born as an initiative of the book publisher as they decide to seize some opportunity in the marketplace. If this is the case, the publisher must work to find and author or authors to bring the idea to life. This is much more prevalent in non-fiction than in fictional titles. (Cairns, 1996).

**Content packaging**

Content packaging is largely about the cooperation between publishers and printing houses.

After a decision has been made to move forward with a book, the editorial, design and early marketing stages commence. These three steps typically occur concurrently. Publishers most often employ an editorial staff, which will work with the author on the content, style and structure of the book in process. Copy editing refers to the work done by an editor to ensure that the work matches the style and grammatical requirements of each market. This editorial stage may also include fact checks made by the publisher and requests to the author to provide more information or re-write some parts of the work. (Butcher, Drake and Leach, 2006)

The amount of design work required for a given title depends on the nature of the book. Standard fiction titles usually only require cover and typography design. Illustrated non-fiction titles are, however, typically very design intensive and require a deep involvement from book design professionals. (Hiidenmaa, Jussila & Nissinen 2006)

*Printer*

After the design work has been completed, a pre-press proof of the title is created. The proof, nowadays often in digital PDF-form, is a depiction of how the book will look in its final printed form. When the proof is approved by the publisher, it is sent to the printer. In the US, most publishers have outsourced the printing process and do not own printers. In Finland, however, with the exception of Tammi, the majority of publishers are part of a group that includes printing operations. (Joensuu et al., 2001)
Offset printing is the most commonly used method of printing. It was first developed during the industrial revolution in the United Kingdom and later adopted for printing on paper in the United States during beginning of the 20th century. The method involves transferring (or “offsetting” as is the origin of the name) an inked image from a plate to a rubber blanket, then to the printing surface. Offset printing can still compete in the quality of printing against more modern technologies. Its drawback, however, are the significant costs inherent in producing the plates and setting the printer up for production. (Kipphan, 2001)

Due to the aforementioned economies of off-set printing, books are printed in large editions and held in storage. The number of books in a given patch depends on an estimate of the future demand of the printed titles. This approximation is based on various variables such as the popularity of the author and the topicality of the subject. These projections are prone to miss the target – sometimes by as much as 50 to 60 percent. (Penenberg, 2009)

Missed projections, which result in capital being tied into unsold inventories, are a significant source of risk in the production of books. The publishing industry has a tradition of rolling this risk on to the shoulders of the publisher. This stems from the publishers desire to release a wide range of titles. In order for publishers to convince bookstores to carry their less profitable backlist1 titles, they more often than not agree to purchase back unsold copies of books. Were it not for this practice, many retailers would be hesitant to stock a wide collection of books as their sales would not cover the costs of keeping them in the inventory. This buying back of merchandise on part of the manufacturer is one quality of the industry that sets it apart from most retailing businesses. (Penenberg, 2009)

The digitalization of the book production value chain has begun from the early parts of the chain. Books are still mostly consumed in analog form, but their production has at least to a degree turned digital. Practically all authors produce their work with word processing tools on personal computers and, as mentioned, pre-press proof are mostly in digital form. The next part of the chain to turn digital has been printing. On-demand printing has emerged as an alternative to offset printing. (Howard, 2005)

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1 A backlist refers to the publishers older and less in-demand catalog of books
Instead of being operated based on estimates of demand, on-demand printing is triggered by orders coming in. A digital form of the book is held by the printer and a book (or patch of books) is printed using digital technology and shipped to the customer or retailer. This eliminates the risk of overproduction inherent in offset printing and is often the more economic alternative when printing small editions or even a single title. On-demand printing also frees up capital that is normally tied to large inventories resulting from printing large editions when using offset printing. It also lengthens the lifespan of a title as backlist titles can be printed according to demand thus never being out of print. (Joensuu et al., 2001)

**Content distribution**

The distribution function in the value system of books consists of parties that at some point own the book with the intention of reselling it. Joensuu et al. (2001) categorize five different types of distribution channels for books (figure 8).

![Diagram of distribution channels for books](image)

**Figure 8** Five different types of distribution channels for books (Joensuu et al., 2001)
1. *Traditional long distribution channel*

The traditional long distribution channel (pictured as the first channel from the left in figure 3.) is the standard operating model when the retailer is a smallish bookstore. Bigger bookstores use different types of distribution channels, but small replenishments are often ordered from wholesalers.

2. *Traditional short distribution channel*

The traditional short distribution channel is often used for the advance orders of unreleased titles, special offers, campaign purchases and other large volume purchases. Some bookstores use this model also for a variety of other reasons.

3. *Order based*

In order based sales the wholesaler or logistics company is responsible for dealing directly with the customer and the books are usually not sold from a bookstore. This is the standard way of operating when the receiving end is an institutional buyer, such as an university or library. Relationships between the wholesaler and the customer are often long-term and purchases are high in volume.

4. *Publishers or authors direct sales*

Publishers and authors also sell books directly to customers. With publishers, this is usually the case only with larger institutional buyers or in some cases web-based sales directly from the publishers warehouse. Authors selling their titles directly to customers have traditionally been self-published authors who have sold their works from the backs of their cars in very small volumes. Electronic publishing is, however, offering some interesting opportunities for established authors to sell their works directly to customers. This will be returned to in chapter 5.

5. *Actors in the distribution channel*

When someone buys a book for herself, she is both the customer and the reader. In all other cases the customer and the reader are separate individuals or institutions. Examples of these include purchases for the library, books bought as gifts and titles acquired buy a company for its employees. As per the definition of distributors stated above, authors, customers and readers are
not actually parts of the distribution channel. They are, however, displayed in figure 8 to illustrate the ending and starting points in the channel. Below is a look at the roles of the actual parts in the channel.

Publisher

After the books have been printed, the publisher decides on where and how they will be shipped. If the titles have not been sold in advance to a wholesaler, bookstore or the end user, they typically end up in the publisher’s own warehouse or one provided by a company specialized in logistics. (Joensuu et al., 2001)

Wholesaler or logistics company

Wholesalers or logistics companies are a part of the distribution channel if they can offer some added value that the publisher and/or retailer cannot or chooses not to take part in. Examples of this can include warehousing, transportation, ordering and billing or centralized information management services. (Joensuu et al., 2001)

Retailer

Retailer is still the most important link to the end user in the distribution channel. Physical bookstores enable people to browse books in a concrete way and purchase them on the spot. Traditional retailers other strengths include familiarity with buyers and established consumption habits involving physical bookstores. (Joensuu et al., 2001)

Flows of information and funds in the distribution channel

Joensuu et al. (2001, 101) highlight three different flows within the distribution function: product information, marketing information and funds.

Product information

Pure product information flows mainly in one direction. The publisher sends information to all participants in the distribution channel (including to some customers such as libraries). In addition, wholesalers submit a certain degree of product information to retailers. (Joensuu et al., 2001)
Marketing information

Information related to marketing is send and received by all participants in the value chain of books. Publishers target customers with advertisements about their latest releases. The same is generally done by retailers, who try to persuade customers to buy books from their particular outlet. Feedback from customers about the technical inferiority of products sold is usually first received by the retailer. The retailer in turn returns the book to the publisher or wholesaler from whom the product was acquired. Positive or negative feedback about the contents of a title is received by publishers, retailers as well as authors. Popular authors often receive a substantial amount of mail from their readers. Retailers can also collect information about customer preferences based on purchasing trends as well as inquires and submit that information on to publishers. Electronic retailing provides significant possibilities for utilizing the Internet in gathering and processing customer information (this too will be dealt with more detail in chapter 5.).

Funds

The monetary flows in the distribution channel of books are ubiquitous. As discussed above (3.1 Production), authors are paid by publishers (with the exception of self-publishing), usually partially in advance and partially as commissions based on sales figures. In addition to advances for authors, publishers must bare several other sunken costs before a title is launched. These include costs inherent in the production, distribution and promotion of books. Income is generated only when books are brought to the market. Wholesalers and retailers, on the other hand, aim to sell the majority of the titles in their inventory already before their payment to the publisher is due.

Retailing and customer service

So far we have looked at the content creation and content packaging functions in the value system of books. The main actors in production are authors, publishers and printers. In distribution they are publishers, wholesalers (or logistics companies) and retailers. Next we will focus on traditional offline retailers and their function in customer service.
The book as a user interface for the end user

Traditionally the physical book has been the defining characteristic of the book publishing industry. If a company assimilated information and published it in magazine format, it was considered a magazine publisher. (Godin 2009 & Schatzkin 2009). What this means for the future of the industry and how electronic books differ from analogical ones will be discussed in chapters 4 and 5.

3.3 Characteristics of the book publishing industry

3.3.1 A mature industry with several purposes

The book industry has been characterized as a mature industry with few opportunities for natural growth (Picard, Grönlund, & Pönki, 2000). Picard (2003) describes the 300-year old print media industries (newspaper, magazine and book publishing) as highly resistant to change. Many publishing companies have operated under comfortable margins and built their culture around consistency and limiting changes. Although book publishing has historically not been as lucrative as newspaper and magazine publishing (as seen in table 3, that lists the average returns of publishing and other industries from 1950 to 2000), it has still enjoyed a long period of regular and relatively high profits. Picard (2003) calls publishing companies “cash cows” that have offered predictable returns for owners and few incentives for companies to innovate.
<table>
<thead>
<tr>
<th>Industry</th>
<th>Average returns (%)</th>
</tr>
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<tbody>
<tr>
<td>Newspaper publishing</td>
<td>12</td>
</tr>
<tr>
<td>Magazines publishing</td>
<td>10</td>
</tr>
<tr>
<td>Pharmaceutical industry</td>
<td>9</td>
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<tr>
<td>Chemical industry</td>
<td>8</td>
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<tr>
<td>Metal industry</td>
<td>7</td>
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<tr>
<td>Aircraft industry</td>
<td>6</td>
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<tr>
<td><strong>Book publishing</strong></td>
<td><strong>5</strong></td>
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<tr>
<td>Printing</td>
<td>5</td>
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<tr>
<td>Department stores</td>
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<tr>
<td>Auto industry</td>
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<td>Grocery stores</td>
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</table>

Table 3 Book publishing average returns from 1950 to 2000 compared to other select industries (Picard, 2003)

As described earlier, books have served an integral part in the intellectual and cultural development of modern societies. Consequently, books are regarded by many as not merely commodities (like for instance chairs and razorblades) but as vital artifacts of information and culture. The book industry is also look at by – both within and outside the industry – through this special lens of cultural importance and not merely as another field of business. (Greco 1996; Tapaninen 2010)

Greco (1996) writes about the complex challenge faced by managers in the book publishing industry and calls a “confusing cultural and economic dichotomy”. He states that book publishers must weigh cultural and economic dimensions simultaneously and have an obligation to three distinct communities: (1) their stockholders, (2) their readers and (3) the society as a whole. Greco (1996), however, also admits that even in book publishing “the bottom line is always the bottom line”.

56
3.3.2 Books as single creation products

Picard (2005) asserts that the media industry as a whole operates under a logic that differs significantly from many other domains of business. Thus, managers experienced in one field of business often have difficulties when moving to a media company. He also emphasizes that there is substantial variation between different types of media businesses. These distinctions stem from differences in the characteristics of media products. Picard (2005) divides media products into two major categories: single creation products and continuous creation products.

Books, movies and albums are single creation products

According to Picard (2005), single creation products are creative and idea driven products that are based on unique individual media content. Examples of these types of media products include books, audio recordings, games and motion pictures. These single creation media products are project oriented by nature. Therefore, managers of enterprises producing these products must deal with challenges related to project management.

Picard (2005) argues that the core competence of firms producing single creation products is content creation. In addition, marketing plays an integral role in the business of single creation products as consumers must be informed about the new product and induced to consume it. Since the market for single creation products is fickle and launch failure rates are high, companies producing them must be equipped to cover the risks inherent in the business. Consequently, industries such as book publishing and video game production have been characterized as a “hit business”, where the lucrative profits from few products cover for the losses incurred from several financial failures. For instance, in the audio recording industry only 1 in 10 recordings makes money for the major record labels, with 6 recordings losing money and only 3 managing to break even (Burnett 1996; Hull 1997).

Newspapers, magazines and television shows are continuous creation media products

In contrast to single creation products, continuous creation products are concept driven products that involve on-going creation of changing content provided within a package that exhibits continuity. Newspapers, magazines and television shows can be considered examples of continuous creation media products. Picard (2005) equates to a certain degree enterprises
involved in these types of products with companies in the packaged goods industries. Both rely upon strongly structured and coordinated processes that are usually time constrained and require managers to cope with process management issues. He also asserts that the core competence of companies producing continuous creation products is not content creation, but rather content selection, processing and packaging. The look and feel of the concept, the experience delivered and other issues of branding are of paramount importance in the marketing of these types of products. They also tend to require lower sales costs because they are able to create habitual use patterns and offer subscriptions. Compared to single creation products, once a customer base is established, failure rates in continuous creation products are relatively low.

**Book publishers as portfolio managers**

Two distinct types of business logics stem from the inherent differences in the media products described above. With the high risks involved with single creation products, Picard (2005) dubs book publishers and other businesses operating with single creation products as portfolio managers. That is to say that they are concerned with building a portfolio of products that, on average, is profitable. This type of thinking includes the notion that some of the products will inevitably be failures and they must be balanced out with successes. Consequently, managers must focus on managing the failures and creating conditions in which the company can survive despite the inevitable failures.

Tapaninen (2010) discusses portfolio management in conjunction with what he regards as the core competence of book publishers:

“The core competence of publishers is finding and nurturing talent. That is being able to spot early on someone who might be able to write a great book. The key then is to compose a portfolio of these talents that connects well with what the audience wants to read now and 5 years in to the future.”

Managers of continuous creation products do not tackle similar portfolio management issues. Rather, according to Picard (2005) they act as brand or product managers, who seek to improve the product in accordance with the evolving tastes of its customers. They also look to find ways of improving relations with those who consume the product and promoting additional consumption.
3.3.3 Book publishing is affected by unit cost economics

Picard (2005) divides the basic economic forces that media companies encounter into two broad categories: *unit cost economics* and *fix cost economics*. The differences between these economic forces stem from the way in which the media product is produced – namely whether or not a physical good is produced.

**Unit cost economics**

Media products that are produced as physical objects are affected by unit cost economics. Because of this physical form, these products must be distributed directly or indirectly to consumers. The process has logistical requirements that add significant additional costs because of necessities such as warehousing, transportation, and retail distribution mechanisms.

Media companies in this environment, such as book and newspaper publishers, tend to engage in product cost and price management activities. Their success is closely affected by economies of scale and transaction costs. (Picard, 2005)

**Book production cost structure**

Given that Picard (2005) categorizes book publishing as a business largely affected by the economics of unit costs, how much does it actually cost to produce a traditional hardcover book? As accounting principles and production procedures vary, coming up with a clear-cut answer to this deceptively simple question involves more art than science. The New York Times took a stab at this when they surveyed several publishers to create a simplified account of the average cost structure of a hardcover book (Rich, 2010).

Figure 9 depicts the economics of producing a hardcover title that retails at a typical price of USD 26.00 (EUR 19.20). This price is usually suggested by the publisher. From this retail price, the publisher receives an average 50 percent (USD 13.00 in this case).
Out of this gross revenue the publisher pays the author’s royalty, which for hardcover titles amounts to, on average, 15% of the retail price (USD 3.90 in this example). It is possible, however, that big name authors receive a greater slice of the gross revenue.

Approximately USD 3.25 goes into printing, storing and shipping the book. This number also includes the unsold copies returned to the publisher by booksellers. For cover design, typesetting and copy-editing the publisher pays around 80 cents. 1 USD is attributed to marketing costs in this calculation, but they may be higher or lower depending on the title (or in some cases harder to allocate to a specific title).

After deducting the aforementioned costs, the publisher is left with USD 4.05 out of the retail price of USD 26.00. Out of this figure the publisher must still pay overhead for cover art designers, office space, editors, electricity etc. before taking a profit.

Tapaninen (2010) describes the cost structure of book publishing and how digitalization might affect it as follows:
“Right now if you write a book and it sells for a 100, you get 10, the publisher gets 40 and the bookstore 50. This is bound to change. In the future, if there is no physical book to be delivered, is it really so that the publishers work is 4 times as important as the authors? It can’t be”.

How is this cost structure different when compared to that of digital books? What implications might these differences entail for the competitive dynamics of the publishing industry? These and other questions are examined in chapter 5, where I juxtapose the cost structure of analog hardcover books to digital titles.

**Fix cost economics**

In fixed cost economies, variable costs for additional production are not significant factors and basic production costs for competitors tend to be similar. Consequently, competition in this environment is characteristically based on experience delivered, product and service quality and brand. Distribution in this environment generally does not require physical distribution to audiences but can involve some limited distribution requirements of finished products to intermediary firms, but there are relatively inconsequential by comparison to those found for products in the unit cost economies. The media types most involved in the fixed cost economies are broadcasting, motion picture, TV programming, and Internet media. (Picard 2005)

Table 4 (below), summarizes Picard’s (2005) categorizations of single and continuous creation media products and unit and fix cost economics as well as their underlying business implications.
<table>
<thead>
<tr>
<th>Description</th>
<th>Examples</th>
<th>Implications for business</th>
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<tr>
<td>Single creation products</td>
<td>Unique media products that are produced and consumed singularly</td>
<td>Books, motion pictures, music recordings</td>
</tr>
<tr>
<td>Continuous creation products</td>
<td>Media products that are produced and consumed continuously</td>
<td>TV shows, magazines, newspapers</td>
</tr>
<tr>
<td>Fix cost economics</td>
<td>A set of conditions faced by media companies that do not produce physical products: fixed costs are high, variable costs minimal or zero</td>
<td>Internet media, motion pictures, TV shows</td>
</tr>
<tr>
<td>Unit cost economics</td>
<td>A set of economics conditions faced by media companies that produce physical products: fixed costs are low to moderate, variable costs are high</td>
<td>Books, newspapers, recorded media</td>
</tr>
</tbody>
</table>

Table 4 Picard's (2005) categorization of single and continuous creation media products and unit and fix cost economics.
3.3.4 Media industries compared to non-media industries

Tapaninen (2010) argues that when examining the book industry – and creative media industries in general – it is important to acknowledge the creative forces present in the industry and note that traditional business metrics fail short at capturing the full picture. He states:

“When it comes to an industry that is involved in the production of culture, it is always more complex than it appears to be. The complexity stems from the fact that the competition within the industry is at the same the time a battle to influence the taste of consumers as well as getting a share of their wallets. There is a kind of dualistic dynamic of cultural preferences that works both bottom-up, from consumers to organizations, as well as from organizations that produce cultural products to consumers.”

Picard (2005) also discusses the differences when comparing media companies with non-media companies. He looks at them from two perspectives: the supply side and the demand side.

Differences in the supply side

Picard (2005) lists 5 major differences on the supply side between media and non-media companies:

1. Less competition. Media companies face traditionally less competition than other types of companies. There are fewer TV channels and newspapers than shoe stores or restaurants (Picard, 2005)

2. Less economic rationality. The extent of the economic irrationality in media industries tends to be higher and more widespread than that found in other industries. Decisions are often based on non-economic criteria such as public service, established relationships, the intuition of creative decision makers and sometimes even whimsy and hubris. (Bogart, 1995; Fuller, 1996; Tapaninen, 2010).

3. Content creators with non-monetary motives. Many people are willing to create content such as texts, music and movies for reasons other than immediate monetary gains – such as artistic motives and a desire for a celebrity status. This is typically not true for many
other industries. Few people are willing to work on an assembly line without any financial compensation. (Picard, 2005)

4. Creative process of production. Media products usually involve a significant amount of creative work needed. As a result, media companies often involve employees with a great amount of professional autonomy because of their knowledge and creative capabilities. Consequently, organizational conflict is ingrained in media businesses and content creators and managers often differ on goals to an extent uncommon in most industries (Küng-Shankelman, 2000; Underwood, 1993).

5. Importance of non-physical properties. Several media products have non-physical properties that result in very different distribution mechanisms and costs than physical products. The virtual nature of these products produces significant advantages as well as drawbacks. For example, the current transformation of motion picture theatres in the U.S. from film projection to digital exhibition technologies is expected to save about $1 billion annually in distribution costs because of the switch from a physical product (images on film stock) to a non-physical digitalized medium. On the drawback side, many media products are suspect to piracy. (Picard, 2005)

Differences in the demand side

Picard (2005) lists 7 key differences between media and non-media products on the demand side. They are:

1. Unpredictability of demand. According to Picard (2005), the biggest difference between media and non-media products is the unpredictability of how successful media products will be. This is the cause of difficulties in forecasting product quality and consumer demand. Often it is impossible to test the potential market demand for media products before full production. Consequently, product failure rates in the media industries are high – especially among single creation products such as books.

2. Multiple reuses for products. Media products have multiple options for reuse. For instance, motion pictures are first presented to the big screen, then released on DVD and finally sold to TV networks. The book industry version of this is releasing a high margin
hardcover version of a new book first followed by a cheaper paperback version some
time later. (Vogel, 2004)

3. *Large oversupply.* Another demand characteristic of media products is that there is a
large oversupply of content from which consumer can choose. Therefore consumers have
significant power in media markets in determining success and failure and the pricing of
media products (Becker & Schönbach, 1999). The power of buyers in conjunction with
the digital forces in publishing will be discussed in chapter 5.3.

4. *Small number of hits.* Much of the economic value of media products result from a small
number of products/services. As mentioned, failure rates are high but conversely
successes are well reward financially (especially in big markets such as the US). For
instance, in Hollywood 10 percent of the top 200 films typically account for 50% of
industry revenue. (Picard, 2005)

5. *Frequent consumption of products.* Media products tend to be consumed more often than
other products and the time devoted to their consumption – especially that for television
and audio recording – is far beyond that for other products. These factors create unique
relationships between consumers and suppliers that are beyond those experienced in other
industries. (Picard, 2005)

6. *Dual product nature of commercial media.* The demand of many media products is
influenced by the 2-sided platform nature of commercial media. Revenue for products in
which advertising is carried is not determined by the time and attention given by
audiences alone but involves separate demand functions that exist for advertisers.
Consequently, unless the revenue streams extracted from the audience is enough to
finance a media product, it must appeal to both advertisers as well as consumers. This is
the case for the most part in TV, newspapers, magazines, radio and many forms of
Internet media. (Picard, 2005)

7. *Sunk costs effecting consumption patterns.* Due to subscriptions and advertising funded
products, demand functions for much content do not follow traditional patters. We tend to
acquire large quantities of content that is not consumed and consume a great deal content
that is only minimally satisfying. (Picard, 2005)
4 DIGITAL FORCES

Chapter 3 served as an introduction to the traditional business of book publishing. In this chapter, I describe the “digital forces” that are examined as the potential source of disruption in the aforementioned industry. The digital forces are a combination of interrelated technological advances that have evolved at different times. They are:

1. The digitalization of media (reducing information into binary form data)
2. The Internet (a network for storing and distributing binary data)
3. Mobile digital readers (electronic readers, smart phones and tablet computers designed for convenient interaction with binary data)

4.1 Digitalization of Media

A distinction between digitalization and the Internet

Digital and the Internet are often treated as interchangeable synonyms (i.e. digital economy / Internet economy). Küng, Picard & Towse (2008) note that although they are overlapping concepts and undoubtedly relevant to each other, it is important to make a distinction between the two.

Digitalization means mathematically reducing all types of information (i.e. video, audio, still pictures, text, games and graphics) into binary form (zeros and ones). Once in binary form, this data can be understood by computers and other digital devices – such as tablets and smartphones. It can also be manipulated and copied indefinitely, spread in networks such as the Internet, combined with other data and stored with very little cost. In short, the digitalization of data makes the creation, editing, storage and copying of information dramatically easier, cheaper and faster compared to analog forms of information (i.e. hand written notes or printed photographs). (Negroponte, 1996; Küng et al. 2008)

Digitalization and convergence of media

In the analog media world, such as vinyl recordings or words printed on paper, there is a clear-cut distinction between different types of media. For instance, a magazine is words and pictures on pieces of bound paper and a radio show is a spoken audio and music. This leads to what
Shatzkin (2009) refers to as media in the 20th century being *format specific*. The analog format of books has needed a capital-intensive production capacity and a finite physical distribution channel. In a way the business operations of most media companies have traditionally been bound by the format of their media. Book publishers only publish books, newspapers only publish newspapers and TV broadcasters only produce video image. (Shatzkin 2009; Küng et al. 2008)

In the digital media world things are dramatically different. As Shatzkin (2009) points out, digital media is no longer format specific. Interaction with users is through bits files that users can access through various interfaces such as computers and smartphones. The digitalization of media has led to the birth of multimedia. Digital text, video, sound and images are not neatly separated from each other as in analog format. Rather, these different types of media can be copied, edited and combined to create new forms of interactive multimedia. (Messaris & Humphreys, 2006)

**The Gutenberg parenthesis – parallels between digital media and oral tradition**

Pettitt (2010) argues that the digitalization of media and text is a return to a pre-Gutenberg era. He makes the case for a period he calls the *Gutenberg parenthesis*. This era - reigned by the printing press - was an era of containment and control. Texts were fitted and edited into the space allowed by the bound format. Works were owned by individual authors or publishers and they were isolated pieces – they had no links to each other. From a human cognition standpoint, books also harbored a view of the world that is conveniently dividable into clear-cut categories and chapters.

He juxtaposes this with the era prior to book publishing – a time when most stories were told in person or performed by groups. Information was not enclosed into bound volumes owned by a rights holder, but rather collaborated on and remixed by groups of people.

Pettitt (2010) notes that the digitalization of media has brought back the unconfined nature of media (transition illustrated in figure 10). Digital media does not need the same type of containment or categorization that, for instance, bound books do. An illustration of this is the labeling system of tagging. It refers to name labels given for a digital file that describe its
contents. Consequently, digital media files can fall under several labels at once and, unlike with books in a library, no static and contained categories are needed.

In some respects, the argument goes, human society has come full circle with the emergence of digital media (hence the term *Gutenberg parenthesis*). Pettitt (2010) also brings forth the notion that this transition has affected people on a cognitive level. People in the pre- and post-Gutenberg era are less prone to deceivingly simplistic categorizations and view the world in less black and white terms.

![Gutenberg Parenthesis](image)

**Figure 10** The Gutenberg Parenthesis. An illustration of how the digitalization of media is bringing the nature of information and media back to the time before Gutenberg and the reign of the printing press (Pettitt, 2010).

**E-books as digital versions of books**

Electronic books (e-books) are the main content used on e-readers. They are a form of media that can be seen as the digital equivalent of a conventional printed book. In addition to dedicated e-reader devices, e-books can usually be read on computers and some smart phones.

The roots of e-books can be found in Michael S. Hart’s *Gutenberg Project*. The project, established in 1971, aims to digitize and archive cultural works in a digital form. The majority of the items in its library are public domain books (content that is not owned or controlled by anyone) and they are free of charge for readers. (Hart, 2004)

Early e-books were written for a very limited audience. The scope of the subject matter of these e-books included technical manuals for hardware, manufacturing techniques, and other subjects.
As the number of e-books grew, numerous e-book formats emerged. PDF, by major software company Adobe, became known as the prevalent format for e-books and it was supported by a free reading software by the same company. (Doctorow, 2004)

Today there are numerous formats for e-books. In addition to PDF, the most widely used formats include ePub, .txt, and .lrx among others (Doctorow, 2004). According to Juhola (2010), the fact that there are so many different types of e-book formats hinders the commercial adoption of e-books and e-readers. Therefore, it is of paramount importance for publishing industry companies to push for a unification of formats. In Finland the ePub format is endorsed by most publishers.

Some formats, such as .azw used by Amazon, support a restriction system called Digital Rights Management (DRM). DRM is designed to restrict the use of copyrighted digital content. In practice, this means that for instance Amazon Kindle owners are able to read .azw format books only on readers from Amazon. Thus, .azw restricted titles cannot be lent to other people or read on other devices. DRM is the source of some controversy in the industry. While it protects the financial interests of publishers, device manufacturers and copyright holders, it also limits the scope of choice for customers when it comes to titles they have purchased. (Doctorow, 2004)

Amazon has released some round figure estimates of the numbers of e-books it has sold. One milestone they announced was in December, when the sales of e-books trumped the sales of traditional books for a single day. However, since then the number of e-books sold has been consistently higher than the number of paper books sold. In the second quarter of 2010, Amazon sold 143 e-books for every 100 paper books. (Tweeney, 2010)

**4.2 The Internet as a publishing platform**

As mentioned, digitalization and the Internet are often regarded as being the same concept. However, they can be separated and are studied individually in this research. So far, I have described the digitalization of media and texts and how it relates to the traditional notion of books. In this part of the discussion on the digital forces I will turn to the Internet, a world-wide platform for distributing digital media.
Defining the Internet

The Internet is a global system of interconnected computer networks. It uses the standardized Internet Protocol Suite (TCP/IP) to spread a vast array of information and services. The most visible parts of the Internet are inter-linked hypertext documents (“websites”) of the World Wide Web and different electronic mailing and instant messaging systems. Thus the World Wide Web is a system of interlinked documents accessed via the Internet and not a synonym for it. (Castells, 2001)

The origins of the Internet date back to the 1960s when the United States funded research projects of its military agencies to build robust, fault-tolerant and distributed computer networks. This research and a period of civilian funding of a new U.S. backbone by the National Science Foundation spawned global participation in the development of new networking technologies and led to the commercialization of an international network in the mid 1990s, and resulted in the following popularization of countless applications in virtually every aspect of modern human life. (Castells, 2001)

Although a rather narrow description of the Internet is provided here, the term is often used to describe a large collection of interrelated technologies. Küng et al. (2008) mention different compression technologies as an integral part of the development of the Internet. Raw media files are often too large to be distributed and downloaded via a commercial Internet network and thus need to be compressed. Even compressed files are sometimes too large to be downloaded which has led to the development of streaming technologies. They enable users to access media files such as audio or video without downloading any files.

Implications of the Internet for media industries

According to Küng et al. (2008), the Internet can be considered as one of the most important technological platforms within a broader digital development. Its efficiency in the reach, cost and quality of distributing information has presented media industries with a myriad of opportunities as well as threats. One of the biggest changes brought on by the Internet is possibility of interactivity, which is a new development for the mass media that hitherto have been one-way media.
Küng et al. (2008) have drawn a timeline of the development of different types of media with a special emphasis on the Internet (figure 11). Traditionally, media technologies have mostly facilitated the distribution of one-way messages. Printed books or recorded albums have been made and distributed to the masses along established channels. However, with the emergence of the Internet, one over-arching theme is the convergence of one-way (distributive) and two-way (communicative) media technologies. According to Küng et al. (2008), emerging Internet facilitated media technologies such as blogs and other hypertext documents enable a new kind of two-way communication between the senders and receivers of information.

![Figure 11 Media and communications technologies and applications timeline (Küng, Picard & Towse 2008, 46)](image)

Shirky (2008) notes that traditional communication technologies that have been good at forming two-way discussions (ie. telephones and telegraphs) have been inefficient at creating distribution channels for large scale one-way messages. Conversely, media technologies that have excelled at distributing one-way messages to large audiences (ie. radio and television) have not been good at creating two-way conversations. This paradigm is, according to Shirky (2008), broken by the Internet as it enables both large scale one-way as well as two-way and many-to-many communications.
The Internet as a publishing platform

As mentioned, the Internet has a propensity to facilitate two-way conversations. It allows users to both publish their own media content (be it text, audio, pictures or video) and consume media published by other users. In short, it is a platform for efficient conversations between different users. In addition, other properties of the Internet as a publishing platform include speed, worldwide access and independence from any specific user interface. This means that information on the Internet can be accessed via a variety of technological devices (as discussed in the next chapter). (Küng et al. 2008)

Texts online come in a variety of forms. They can be in basic text format or parts of larger graphical presentations. E-books, as described earlier, are digital texts that resemble the form of traditional books and are often transformed from physical versions. There are, however, several forms of texts online that are unique to the Internet. (Doctorow 2004)

Blogs and wikis are an example of this. Blogs (a blend of the term “web log”) are types of websites typically administrated by individual (rather than professional organizations). In addition to text, they can include other types of media content such as pictures and video. They combine the ease of publishing (usually almost instant and free) with a platform for discussion. Links to other blogs and websites are an integral part of a typical blog. (Shirky 2008)

In some instances blogs can be seen as a substitute for traditional books. For example Godin (2008), has said that his blog includes practically all the information available from his marketing related books. However, Godin (2008) goes on to say that the book is often a more concise and experiential collection of writings on a given matter. His blog also acts as a marketing vehicle for his books.

Wikis are websites that are easily edited by users through their web browser. They can be used as a group collaboration tool can sometimes be concentrated on select topics. Wikipedia, a user-generated general encyclopedia, is undeniably the most well known wiki. It is also an example of a website that has largely replaced a whole subset of traditional books. For instance in Finland,
the sale of encyclopedias had dropped by half between the years 2000 and 2007. Subsequently nearly all the biggest publishers have seized to publish them. (Muukkonen 2009)

4.3 Mobile reading devices

This chapter will look at three emerging types of mobile reading devices: mobile phones, electronic readers and tablets. In a time of perpetual competition among different types of devices, I have chosen not to limit my focus only on one device. Hence, the main purpose of this chapter is to demonstrate and display the larger trend of reading on digital devices rather than highlighting one particular gadget.

4.3.1 Smartphones

While there is no standard definition for a smartphone, it is generally considered to be a mobile phone which offers more computing capabilities and connectivity to the Internet than a “feature phone”. Downloadable separate applications (known as mobile apps) are also a characteristic of smartphones. Examples of smartphones models include the iPhone from Apple, Blackberry from RIM and the N- and E-series phones from Nokia. (Nusca, 2009)

Perhaps somewhat surprisingly, smartphones are emerging as a popular mobile reading device. For instance on the iPhone, e-book reading applications such as the Kindle are among the most popular applications. In 2009, 20 percent of the applications on the Apple App store were e-reading applications. (Ionescu, 2009)

One example of a literary genre that was born for the mobile are Japanese cell-phone novels – or keitai shosetsu. These novels originated as free short stories written mostly by and for young women. Since then, they have garnered the attention of millions in East Asia. For instance in 2007, five of the top ten selling novels in Japan were originally published as mobile novels. (Goodyear, 2008)

There are some downsides to reading on a mobile phone screen. Some industry commentators (i.e. Lee, 2009) have maintained that while smart phones are sufficient and practical for reading limited chunks of texts, extended periods of reading can strain the eyes. In addition, illustrations
and other graphical elements are not necessarily in their element on the limited screen size of mobile phones.

### 4.3.2 Electronic readers

Electronic readers (e-readers) are handheld devices that enable the reading of e-books (books in digital format) and other digital media. They aim to mimic the experience of reading a physical book. This is achieved by utilizing electronic ink technology, which does not use backlighting thus being easier on the eyes than for example computer screens. Another factor resembling physical books is that users ”turn” pages on e-readers rather than scrolling them as on a personal computer. In addition, e-readers are typically the size of traditional paperback books (The Observer, 2008).

**Advantages and disadvantages of current E-Reader technology**

The current versions of e-readers on the market are created for the main purpose of reading electronic books. Bilton (2010) and Juhola (2010) list several advantages and disadvantages of the current e-reader models:

**Advantages**
- Sharp contrast and non-lit background are well suited for reading
- E-Ink display consumes very little battery
- Devices are typically light weight
- Devices hold several thousand e-book titles

**Disadvantages**
- Currently no display of color or video
- Screen is slow to refresh
- Devices are limited to reading of e-books and some other format texts
- User interfaces of several devices are complicated and non-intuitive
- No universal standard for e-book format
According to Juhola (2010), current e-readers are rather good at mimicking the book reading experience. However, they have significant downsides when it comes to reading more illustrated texts, such as newspaper articles. Among these downsides are the relatively small screen of most devices and, most importantly, the hitherto lack of color screens. Colors screens are, according to Juhola (2010), on the technology road-map in a few years. She points out, however, that even with color screens e-readers would fall short at delivering video on screen.

Another domain where Juhola (2010) finds current e-readers lacking is their usability:

“The devices have to become more intuitive in terms of how they are used. Even Kindle is too hard to use. Regular people have much too many difficulties in figuring out how e-readers work. Techno freaks are able to figure them out, but even for them it takes some time”.

**Amazon Kindle**

Amazon Kindle is the current leader of the e-reader market although no exact sales figures are issued by Amazon, industry reports say that in 2009, some 2 million Kindle’s were sold (Fowler, 2010). In March of 2010, Amazon and its Kindle have been reported to control approximately 62 percent of the e-reader market. (Changewave, 2010)

The Kindle is a software and hardware platform for displaying e-books and other digital media. It is developed by Lab126, a subsidiary of Amazon.com. The platform supports three hardware devices: Kindle, Kindle 2 and Kindle DX. All three devices use an electronic paper display provided by E Ink. In addition, in the US all Kindles are able to download content using both a wireless Internet connection and a USB-connection. Kindle 2 is also able to access wireless Internet outside the US using AT&T’s network. Recently Amazon has released ”Kindle for iPhone” and ”Kindle for PC”. These applications enable buyers of Amazon.com e-books to read them on the mentioned hardware devices in addition to the Kindle. (Amazon, 2010)

Users are able to download e-books from Amazon in the proprietary Kindle format (AZW). In addition, some other providers such as FreeKindleBooks offer content in the same format. It is also possible to load content via a computer in other formats. Kindle 2 and Kindle DX support PDF files and are able to read Microsoft .doc documents as well as multiple graphic documents via an e-mail based converting system. It is against Amazon’s Terms of Use to transfer Amazon
The Amazon Kindle store offers over 448,000 book titles (as of September, 2010) as well as magazines, newspapers and blogs via RSS feeds. *New York Times* bestsellers are sold approximately for USD10, newspapers subscriptions from USD5.99 to USD14.99 per month and magazine subscriptions between USD1.25 and USD3.49 per month. Amazon promises that most of the time users can think of a title and have it on their Kindle in under 60-seconds. The device also comes with a built-in English dictionary and the ability to play MP3 files in the background. (Amazon, 2010)

Amazon released the first Kindle in the United States on the 19th of November in 2007. The first patch of devices was sold out in five and a half hours. It remained out of stock for five months until April 2008. The device, which retailed initially for USD399, featured a 6inch 4-level grayscale display and 250 MB of internal memory. (Sorrel, 2008)

Kindle 2 became available for purchase on February 23, 2009 for USD359 (reduced later to USD299). It replaced the original Kindle, which was pulled from the market. Improvements from the previous model include larger internal memory (2 GB), 16-level grayscale display, 20 percent faster page-refreshing, increased battery life, a text-to-speech option to read the text aloud and a slimmer case (down from 20.30 mm to 9.1 mm). An international version of the Kindle 2 became available on October 7, 2009. The model works in over 100 countries using a roaming connection with 3G, EDGE and GSM-networks internationally and AT&T’s mobile network in the US. Wireless access is not currently supported in Finland (as of September, 2010). (Amazon, 2010)

**Other devices**

As mentioned, Amazon currently dominates the e-reader market. However, several other companies have introduced their own e-readers. Some of the notables include:
**Barnes & Noble Nook**

US book retailer Barnes & Noble released their e-reader Nook in November 2009. One of advantages of the retailer has been their ability to showcase and sell the device in their physical stores, something that rival Amazon is unable to do. The device itself has been met with mixed reviews. For instance, New York Times’ David Pogue (2009) wrote that the Nook suffered from “half-baked software”.

**Sony Reader**

Japanese manufacturer Sony has been on the e-reader market for years. In 2006, Sony introduced PRS-500, the first e-reader in the Sony Reader family of devices. Like the Kindle and other major competitors, Sony’s devices utilize an E-Ink based black and white display. Their newest model, the Reader PRS-900 “Daily Edition”, features a 7 inch touch screen and has the ability to connect wirelessly to the Sony eBookstore, where users can purchase e-books for the device. (CNet, 2009)

**Publishing directly to E-readers**

E-readers coupled with personal computers and the Internet provide a new kind of publishing platform. Some authors have already bypassed the traditional model of publishing and offered their content directly to the Kindle and other e-readers.

One example are the authors of the Book View Café collective, who have decided to publish their works directly to the Kindle and Sony’s e-reader. Their first project is an anthology of science fiction titles which is selling on Amazon.com at USD 4.99. According to the project manager, the e-publishing infrastructure is now sufficient for writers to publish directly on the platform. In addition to Sony and Kindle stores, the titles are also available on the collective’s website. (Bookseller, 2009)

**4.3.3 Tablets**

I will end this chapter on the digital forces by examining an emerging type of mobile device that could have a significant impact on the way people consume media – including books. This
device is the tablet computer. Typically controlled by touch rather than a mouse and a keyboard, this mobile handheld device is intended for Internet browsing, media consumption, gaming and light content creation. Tablets have been described as a “third device”, more mobile than laptops and better at creating and consuming content than mobile phones. However, there has been criticism that users could be hesitant to purchase and lug along yet another device. (Levy, 2010)

As I am writing this thesis in June 2010, heated media frenzy is surrounding the release of Apple’s iPad. The product, released in the US last April and in Europe during the summer and fall of 2010, has been claimed by many to usher in a new technological paradigm. This modern form of the tablet is a touch-controlled and praised for its high-quality display and responsiveness. Drawbacks of the device have been reported to include the lack of flash-support (hindering the display of many web contents) and the inability to run multiple software at once. (Mossberg, 2010)

Although tablet PC’s have been introduced before, examples include the pen-enabled Newton OS by Apple and a tablet from Microsoft in 2001, the iPad has been the first one to meet commercial success and garner significant public attention (Levy, 2010). On May 2010, Apple announced that it had sold 2 million iPad units. Subsequently several manufactures, such as HP and Microsoft, have publicly stated plans to introduce tablet devices (Caldwell, 2010).

**iBooks resemble physical books on the iPad**

iBooks, a book reading application for the iPad, has created a lot of attention within the book reading public and – in particular - the book publishing industry (Mossberg, 2010). The application (illustrated in figure 12) allows users to buy e-books from the online Apple bookstore and read them on the device. The user interface mimics the experience of reading physical books. For instance, the turn of pages is animated to resemble the turning of pages on traditional books. In addition, the books stored on the device are stacked in a virtual bookshelf resembling the analog way of storing literature (Apple Inc., 2010).
The experience of reading a book on the iPad has been received with somewhat of a mixed reaction. Advances of the device (especially compared to e-readers discussed in chapter 4.3.2) include the high quality of its screen and the ability to display color and video. Moreover, the iPad and other tablets are multifunction devices, whereas e-readers are typically only for reading text and displaying black & white pictures. However, e-readers such as the Kindle employ e-ink technology that is often argued to be better suited for extended periods of reading. The iPad is also heavier than the Kindle and thus heavier to hold as if reading a book. (Mossberg, 2010; Pogue, 2010).

Apple’s pricing model gives increasing power to publishers

As mentioned, publishers have been enthusiastic about the release of the iPad. Upon its release in the US, five of the six biggest publishers in the country (Hachette Book Group, HarperCollins Publishers, Macmillan, Penguin and Simon & Schuster) had signed on to provide e-books for the device. (Rich, 2010)
Apple struck a deal with the publishers that will give them 70 percent of each e-book sale (the rest goes to Apple). The maximum price of a title is tethered to the print price of the same book. Typical prices for titles in the iBooks store are between 12.99 and 14.99 USD. This model, known in the industry as an agency model, gives publishers more control over the pricing of books than the method used by Amazon, which sells e-books by the wholesale model. In this model Amazon pays publishers a set amount for each book and withholds rights to the pricing of books. Consequently, Amazon has started a practice of selling New York Times bestsellers at 9.99 USD for the Kindle. It has done this at a loss – a move described by industry analysts as an attempt to boost device sales. (Rich, 2010)
5 DIGITAL DISRUPTION AND THE PUBLISHING INDUSTRY

“This used to be a business of gatekeepers. In the future it will be a business of wilderness guides”.

- Tapaninen (2010)

In the previous two chapters, I have described the industry and tradition of book publishing and introduced the digital forces that are potentially disrupting it. In this chapter, I will fall on the theoretical framework laid out in chapter 2 to examine the extent and quality of this disruptive effect. As in chapter 2, I examine book publishing and the digital forces on three different levels: the technology level, the company level and the industry level. With the aid of the mentioned theoretical levels, the aim of this chapter is to shed light on the potential disruption in the book publishing industry and provide a foundation for the conclusions in chapter 6.

5.1 Technology level

I begin this chapter by examining the mobile readers presented in chapter 4.3 through the framework of disruptive innovations introduced in chapter 2.1. The central questions discussed in this part are:

- Can mobile readers (and e-books as their core content) be regarded as sustaining, low-end disruptive or new-market disruptive innovations?
- What has been the adoption rate of mobile readers and e-books thus far?
- With the help of innovation diffusion theory, what aspects can be seen as the drivers for adoption of mobile readers?

5.1.1 Mobile Readers and E-books as Disruptive Innovations

Book publishing has long relied on sustaining innovations

According to Christensen et al. (2004, xvi), sustaining innovations are incremental improvements on the dimensions traditionally valued by existing customers. Gradual improvements (such as
durability, convenience or speed) are made on products that are brought to established markets with clearly defined boundaries.

Picard (2002) and Penenberg (2009) note that since the invention of the printing press in the 15th century, book publishing has relied mostly on sustaining innovations. In other words, all of the improvements have been incremental and have not re-invented the core product. Enhancements in printing and binding technologies have allowed books to be published more cost-effectively. Books have also been improved in terms of durability (hardcovers and improved binding technologies), convenience (paperback versions of books) and design (color and other graphical elements).

Christensen et al. (2004) argue that incumbent companies typically thrive in a competitive environment characterized by sustaining innovations. From this viewpoint, the stability and established competitive dynamics of the book publishing industry suggested by Picard (2002, 2009) can be seen as stemming from the sustaining nature of its product innovations. Conversely, Christensen et al. (2004) note that in times of disruptive innovation incumbent companies typically succumb to more nimble newcomers. Continuing on the path of reasoning laid out by the disruptive innovation theory, one could then predict doom for traditional publishing houses as the incumbents in book publishing. However, this conclusion is contingent on the fact that mobile readers and e-books are indeed disruptive rather than sustaining innovations.

Based on the characteristics of the book publishing industry described in chapter 3 and the propensities of mobile readers and e-books detailed in chapter 4, a rather solid argument can be made that these technologies are more disruptive than sustaining in nature. Rather than incrementally improving on the physical book, mobile readers and e-books have unbundled the whole concept of the book and transformed it entirely. Digital books can be re-mixed, copied, linked and modified in ways that are not possible with paper books. Furthermore, e-books are sold, stored and used in a way that is mostly unrecognizable in the world of traditional book publishing. For more detailed analysis on mobile readers and e-books as disruptive innovations, I will next examine them by using the concepts of low-end and new market innovations.
Mobile readers and e-books as low-end disruptive innovations

Christensen et al. (2004) define low-end disruption as an offering that is cheap, convenient and fairly straightforward. It directed at a segment of the market that has been overshot by the incumbent companies (the “low-end”).

Examining mobile readers and e-books as a bundle of technologies (and not separate offerings), arguments can be made for and against whether they can be considered as low-end innovations or not.

On some dimensions, reading and purchasing e-books on mobile readers are a low-end disruptive innovation when compared to traditional books. As stated in chapter 4, e-books are on average cheaper than physical hardcover books. They are also, on some regards, stripped down versions of physical books. For instance, DRM-restricted titles cannot be lend or viewed on competing platform and no physical artifact of the book is left to be displayed above the mantle. Furthermore, reading on e-readers still lacks the experience of physically interacting with the text. This includes flipping through pages without the delay of the eInk display and browsing quickly by utilizing the table of contents. For instance, Juhola (2010) brings out the fact that e-readers are severely lacking in several dimensions compared to physical books and newspapers. These include the lack of color and the less than optimal user experience.

There is a case to be made for e-books as being low-end innovations. However, difficulties emerge when one tries to define mobile readers and e-books together as low-end innovations. As Juhola (2010) points out, mobile readers are still rather expensive and, at least in small markets such as Finland, even hard to find.

In other words, while the content might be cheap and conveniently available compared to physical books (the definition of a low-end innovation), the hardware for reading them is often expensive and sometimes elusive. A calculation by the website Writerscoin.com (2009) showed that given the 349 USD price-tag of the Amazon Kindle 2 and an average 5.61 USD saved on e-books compared to physical books, the device would not “pay for itself” until 64 book purchases.

Ultimately, whether or not mobile readers and e-books can be considered as low-end innovations might hinge on how integral book buyers regard the user interface of the physical book to be. Is
the physical form something that can be eliminated, thus reducing costs (both time and monetary), or is it an indispensible part of the offering of a book. This question, to a large extent, remains to be open.

Mobile readers and e-books as new-market innovations

If there is some doubt to whether or not mobile readers and e-books fit into the category of low-end innovations, do these technologies fit more unambiguously within the definition of new-market innovations?

According to Christensen et al. (2004), new-market innovations usually take place when the existing products (in this case physical books) have characteristics that limit the number of potential customers or force consumption to happen in an inconvenient way. Companies that bring new-market innovations to market do not typically challenge incumbents head-on, but rather target non-consumers, people who have not previously used the product.

Mobile readers and e-books might not, at least on first glance, appear to be new-market disruptive innovations. Buying physical books is rather straightforward and does not, in general, require deep wealth or expertise. They do, however, make buying books significantly faster and eliminate the restraints of time and location imposed by physical retailing.

Juhola (2010) attests that one of the most significant advantages of e-readers is that books are available for them instantly:

“It takes time for new releases to make it from the publisher to the stores and all the way to the hands of the customers. E-readers have a possibility for removing many of these restraints. You’re able to get a book you want instantly”.

Juhola (2010) also mentions the fact that people in remote markets, such as Finland, are able to conveniently purchase books on e-readers from, for instance, the United States. This can be seen as a threat for publishers in small language areas that rely on barriers to consumption erected by geographical distances and duty taxes. This and other barriers to consumption and competition with regards to book publishing will be returned to in chapter 5.3.
There have been accounts of people who own an e-reader buying more books than they did before owning the device. For instance, publishing industry consulting company L.E.K. Consulting (2010) conducted a large survey in the end of 2009 on the consumption habits of new e-reader owners. 48 percent of them said that they had bought significantly more books since owning an e-reader than before it.

Amazon C.E.O Jeff Bezos (2009) has said that Kindle owners buy 1.7 times as many books after owning the device than before it. He describes the buying of physical books as being hindered by a friction that comes from dealing with the constraints of the physical world. These include going to a brick-and-mortar store, looking around for a book to buy or waiting for a book you have ordered online. “Whenever you remove the friction from something, people simply do more of it” he explains.

5.1.2 Drivers of adoption for mobile readers and e-books

Chapter 2.1 laid out a theoretical foundation for understanding the adoption of disruptive innovations. Next, I will use this framework to examine the adoption of mobile readers and e-books.

Rogers (1962) defines five characteristics of innovations that influence an individual’s decision to adopt or reject an innovation. The characteristics, introduced in chapter 2.1, are: relative advantage, compatibility, complexity, trialability and observability.

Relative advantage, in the context of mobile reading devices, can be seen as the advantage the innovation has over acquiring and reading physical books. In other words, mobile readers and the content on them must be better than the experience of a traditional book. However, simply being somewhat better might not suffice. Gourville (2006) claims that people have an irrational bias towards to things they own. The endowment effect and the status quo bias increase skew customers’ preferences to the existing solution to the extent that a new offering has to be 3 times better in order to be adopted.

Whether or not e-readers and e-books are 3 times better than physical books is debatable. For instance, Juhola (2010) and Tapaninen (2010) argue that e-readers are lacking in several categories (such as usability and durability) when compared to physical books. In some areas,
such as portability and ease of purchase, e-readers and e-books might be better than physical books. This dynamic is set to change with the improvement of mobile reader technology.

Compatibility is one key issue with regards to mobile readers and e-books. According to Gourville (2006), the extent to which an innovation is able to integrate into the daily routines that make up peoples’ lives determines largely how successful it will be. Reading a book on the beach or curled next to a fireplace is a routine many people hold tightly to. How tightly, and will an e-book fit into that routine, is one of the determining factors of how successful the innovation will be.

Researchers at Forrester (2009) have analyzed the drivers of growth for e-reader devices and content (figure 13). They argue that the years 2007 to 2009 has been a period of early adopters driving the market growth. Beyond that, more mainstream buyers and segments such as students and business consumers will adopt the innovation. Key drivers for the devices growth, according to Forrester (2009), are: the amount of content available, wireless connectivity of devices, color and video support and lowering price-point. Price-points of 199 and 99 USD are seen as key thresholds for early and late majority adoption.

Figure 13 Drivers of growth for e-reader devices and content (Forrester Research, 2009)
5.2 Company level

“Organizations that are founded to solve problems end up committed to the preservation of those problems” - Shirky (2008)

Chapter 5.1 looked at the digital disruption in the book publishing industry from the technological level. In this chapter, I will examine the phenomenon from the point of view of the publishers. I will use two theories (Resources, processes and values and bounding perspective) introduced in chapter 2.2 to address these key issues:

1. How do the digital forces appear to the publishers?
2. Do publishers have the means and/or desire to utilize the digital forces?

5.2.1 Publishers and the RPV framework

As mentioned, Christensen et al. (2004) argue that the incumbents of any given industry tend to have difficulties dealing with disruptive innovations. Their resources, processes and values (RPV) theory is a framework for analyzing the organizational mechanism behind this.

According to Christensen et al. (2004), disruptive innovations do not initially seem as attractive opportunities for established enterprises. Their current business offers more lucrative margins and they have larger growth demands than hungry upstarts who are adopting the disruptive innovation. When the established companies see the disruptive innovation as a game they want to play, it is often too late as they lack the competencies to enter the market.

The current resources, processes and values book publishers have are grounded in the business of publishing traditional books. They have the resources and processes to tackle the problem of how to find and license an authors text, produce it into a psychical book and get it into the hands of a reader – all as effectively as possible. Their core capabilities and processes have been fine tuned to answer key questions of the analog world of distributing information: finding an interesting author among a finite number of writers, getting a physical book on the limited space of the bookstore bookshelf and making sure the consumer finds out about the book and eventually buys it (Godin, 2009; Shatzkin, 2009).
Theories of disruptive innovation and RPV shed light on why book publishers might be reluctant to jump in to the e-book business and why they could be ill equipped for it. E-books are cheaper to produce than physical books and can be sold for a tighter margin. The process of getting an e-book on the mobile reader of a consumer differs from the traditional world of analog. In addition, marketing in the age of social media differs greatly from the world were mass media and retailers were the sole channels for spreading your message. Many of the key capabilities and processes held by established book publishers are tied to the analog world and made obsolete by the characteristics of the digital environment. (Shatzkin, 2009)

Tapaninen (2010) states that most publishers do not have the resources, processes or the appropriate values to participate in the digital domain. He describes the situation in many organizations as a constant state of fear that stems from the realization that their business model is flawed:

“The cost structure of publishers is definitely too heavy to operate in the digital space. They will simply not survive with the lower margins that will most likely be the reality in the industry. This means that the biggest publishers are terrified. Out of this fear stems a reluctance to change that is often being justified on moral grounds. This of course makes the situation worse and results in the organizations being completely stuck. “

Tapaninen (2010) also argues that the type of competency that is most crucial for the future success of publishers is not currently recognized and utilized well:

“The true core competence of publishers is finding and nurturing talent. (…). The problem is that publishers don’t know how to properly commercialize this competence. The people who are good at this are not the stars of organizations. Rather they are made subordinate to the manufacturing line”.

When analyzing this statement through the framework of the RPV theory by Christensen et al. (2004), a case can be made that publishers have the competency resources of finding and nurturing talent (R) needed to enter digital publishing. However, this competence is not utilized by the manufacturing oriented processes (P) or recognized by the value system (V) of the organizations.
This dynamic highlights a point by made by Christensen et al. (2004): an organization cannot utilize a resource, such as a competence, unless the processes and values of the company are aligned to support it. Hence, a great risk can be seen for publishers. Even if they acquire, or already possess, new competencies related to digital publishing, it is very possible that the processes and values of the organization serve to disable them. Resources are relatively quick to attain, but processes and values of organizations are shaped during extended periods of time and can be cumbersome to change.

Juhola (2010) is more optimistic about traditional publishers and their chances of succeeding when faced with digital forces. She points out, however, that publishers have to develop many of their processes in order to be ready to compete in digital publishing. Juhola (2010) argues that publishers in the magazine and newspaper industries have processes that are more aligned with digital publishing, since most of their publications are already in a versatile digital format called XML. Book publishers, however, typically develop books in a more static digital format known as PDF. Many publishers will have to alter their editing and publishing processes to fit digital formats.

However, Juhola (2010) adds that redesigned processes alone are not enough. Standardization of formats and workflows are needed in order to establish digital publishing processes:

“There is a great need for standardization in digital publishing. Only after these standards are in place, processes can be developed and a successful business models built”.

5.2.2 Publishers and the bounding perspective

Tapaninen (2010) argues that since the invention of the printing press, the fundamental business logic of the book publishing industry has been one of a merchandise business. The business was ultimately about shipping physical products to people. This has come to define not only the resources publishers have and the processes they have built, but on a more profound level it has deeply affected the way publishers view the business they are in:

“Now with technological advances the content is being separated from its physical device. We are at the verge of a major disruption in the business. It is no longer about producing
merchandise. In a way it has become full circle to being about the spreading of ideas. Publishers just don’t see this. They still regard their business as a merchandise business.”

This description is concurrent with what Utterback (2003) defines as a bounding perspective. According to him, most incumbents are very up-to-date on emerging technologies, but fail to utilize them largely due to a way of understanding their business in a narrow way. In the case of book publishing, Tapaninen (2010) proposes that many publishers define their business too narrowly as merely shipping physical books to readers.

According to Levitt (1960), the peril of many incumbent companies facing a potential disruption is the overly product oriented definition of their business. He argues that companies should look at the underlining fundamental customer problem they are solving and not the end product they are solving it with. In the case of book publishers, this would mean re-defining their business as something broader and more profound than printing and wholesaling books.

Several industry analysts have offered proposals for what that re-definition could be.

Nash (2010) suggests that in the 21st century publishers must start defining their business more broadly than before. According to him, the focus of publishers should shift from publishing books to serving as middlemen. Publishers should look at themselves as being in the connecting business – connecting writers to readers. Nash (2010) goes on to say that this role should be seen as broadly as possible and not be limited to literal works. This could mean, for instance, facilitating online conversations between authors and readers.

Tapaninen (2010) offers that in the future, the defining characteristic of the publishing business should be that they guide people to find interesting works to read:

“The whole business will be centered not around who owns the publishing technology, but rather who has the skills to guide people. To suggest and bring out content that is the most relevant to them. This used to be a business of gatekeepers. In the future it will be a business of wilderness guides”.
5.3 Industry level

Thus far, I have examined the book publishing industry and the digital forces potentially disrupting it from the technological level (chapter 5.1) and the incumbent company level (5.2). In this chapter, I will widen the perspective further to study the subject from the level of the book publishing industry as a whole. I will utilize the frameworks of destructive force, five forces and industry value system to analyze these key questions:

- How are the digital forces affecting the dynamics of the book publishing industry?
- What parts of the industry are most affected by the forces?

5.3.1 The Internet as a creative destroyer

How much will the Internet, one of the digital forces introduced in chapter 4, disrupt the book publishing industry?

Afuah and Tucci (2003) provide a framework for analyzing the extent to which the Internet will disrupt an industry. In Schumpertian (1952) terms, they have provided a formula for determining the creative destruction potential of a technological innovation, in this case the Internet. Creative destruction is a term that describes the process of a technological innovation disrupting the current market structures that incumbent companies derive competitive advantage from. Figure 14 displays the determinants of the extent of creative destruction brought on by the Internet, according to Afuah and Tucci (2003). The determinants are:

1. **Extent to which new value is created**

One of the determining factors of the creative destruction of the Internet is the extent to which it enables the creation of new types of value for customers. Customer value can come in different forms, such as product features, timing and product mix.

As discussed in chapter 4, the Internet enables publishing and distributing digital texts much faster than traditional analog routes. According to Küng et al. (2008) this effect is also seen in the online retailing of physical books, such as on Amazon.com. Customer value in this case is created with faster timing as well as often a larger selection.
Figure 14 Determinants of creative destruction from the Internet (Afuah & Tucci, 2003)

2. Extent to which functional capabilities are rendered obsolete

The second determining factor is the degree to which functional capabilities, the processes within an organization to deliver customer value, are rendered obsolete by the Internet. With regards to book publishing, this refers to the extent that the functional capabilities required to produce physical books to be sold in brick-and-mortar retailers are rendered obsolete by the Internet and digital publishing. This has already been discussed in the context of the RPV framework and will be returned to when examining the value system of the book publishing industry (5.3.3).

3. Extent to which architectural capabilities are rendered obsolete

Architectural capabilities refer to an organizations ability to coordinate between different functions to deliver a service or product. According to Afuah and Tucci (2003), the Internet has
the potential to improve this coordination in time and space. In book publishing, these architectural capabilities can be considered as the established ways in which different functions within a publisher (i.e. editing, printing and marketing) coordinate their activities.

Shirky (2008) argues that one of the main reasons organizations exist are the high coordination costs between individuals. Organizations are established ways of lowering those costs. Examples of coordination costs include communication and the alignment of the motivations of different individuals with contracts and payments. Shirky (2008) goes on to make the case that the Internet has in many ways substantially lowered coordination costs, thus, in some cases, rendering formal organizations obsolete. He mentions an example close to the book publishing industry: online user generated encyclopedia Wikipedia (already discussed in chapter 4.3) requires no formal and commercial organization to be produced, unlike traditional encyclopedias brought to the market by the organizations of publishers.

4. **Extent to which service/product costs are affected**

The Internet can reduce both production and transaction costs. Transaction costs are the costs of searching for sellers and buyers; collecting information on products; negotiating, writing, monitoring, and enforcing contracts; and of transportation that are associated with buying and selling. The Internet reduces transactions costs by making it easier to find products (such as books on online retailers such Amazon.com) and collect information on products (for example reviews and price listings on books). Afuah and Tucci (2003) also note that with digital products, such as e-books, the Internet has the potential to almost completely eliminate transportation costs since the products can be “shipped” electronically.

5. **Degree to which value is information**

A finished product or a delivered service requires one or several value adding activities before it reaches the end customer. Afuah and Tucci (2003) write that the creative destructive force of the Internet depends on the degree to which the value added in the activities is information. For instance, in book publishing the value an author adds is almost entirely information. The publisher, however, undertakes different activities some of which are information (such as marketing and editing) and some are physical activities (such as transporting printed books to
retailers). Brick-and-mortar booksellers add value that is mostly tied to a physical space, the bookstore, where customers can find and purchase books.

In summary, Afuah and Tucci (2003) argue that the more information is involved in the end product of an industry and its functional and architectural capabilities, the more value the Internet adds and thus acts as a creative destructor. Based on this theory and the characteristics of the book publishing discussed in chapter 3, it can be concluded that the Internet is a significant source of creative destruction in the industry. One key question that is yet to be answered is the precise extent to which the physical books deliver value in the industry. According to the framework by Afuah and Tucci (2003), the answer to this question will largely determine the destructive force of the Internet in book publishing.

5.3.2 Digitalization and the five forces in publishing

Porter’s (1985) framework of the five competitive forces is a theory for analyzing the competitive dynamics of an industry. The framework, first introduced in chapter 2.3 (see figure 4), is used here to examine the digital forces and how they affect the dynamics and potential evolution of the book publishing industry (table 5). The following is a one by one analysis of the five forces in traditional publishing and how the digital forces affect them.

Barriers to entry

Are the digital forces affecting barriers to entry in book publishing? In other words, is it easier for competitors to enter the industry as a result of these forces? Two significant barriers to entry are analyzed:

1. The need for large investments in technology

According to Tapaninen (2010), traditional publishing has typically required large capital investments in printing machinery:

“Printing machines were, and are to this day, very expensive. The business of book publishing arose from the extensive capital needed to invest in this machinery.”
This requirement for capital has been one of the barriers to entry in the industry. It has also increased the economies of scale in the industry, as large sales volumes have been needed to cover the significant fixed costs inherent in the business. According to Tapaninen (2010), this has led to publishers acting as gatekeepers in the industry:

“After the invention of the printing press, the power to decide what was published shifted away from monks who transcribed texts by hand to the people who could afford a printing press. The whole business was based on gate keeping - about who was allowed to publish and who got the exposure”

Tapaninen (2010) also points out that this barrier to entry is eroding with the emergence of digital publishing. With e-books and digital mobile readers, the technical means of publishing are available to anyone with a computer and word processing software:

“In a short while everything will be available. Anything anyone has ever written will be able to be downloaded to the same devices. No gatekeepers will be needed. Unless you consider search engine algorithms as gatekeepers”

2. The need for access to distribution networks

Godin (2009) argues that one of the significant barriers to entry has traditionally been the access to distribution networks. This has stemmed from the fact that brick-and-mortar bookstores have a scarce amount of bookshelf space and slots on the shelves are of paramount importance for book sales. Hence, there has traditionally been a premium for publishers on access to a distribution network. Anderson (2006) notes that this scarcity is not present on the Internet. There an infinite amount of “shelf space” is available for all titles. This results in an increased importance of the long tail, which in this context refers to the selling of a large number of unique titles in relatively small quantities.

To sum, the digital forces described in this research are making it easier for individuals to publish titles and find a distribution outlet for them. This has eroded some of the key barriers to entry in the industry and, according to Porter (1985), has opened it up for new rivalry from outside the industry.
Buyer power

Are the digital forces increasing the power of buyers in the industry? Two elements of buyer power and the affect of the digital forces are examined here:

1. Buyer access to information

According to Porter (1985), the more product and production related information buyers are able to access, the more power they possess. Buyers’ access to information has been traditionally low in book publishing. Penenberg (2009) and Küng et al. (2008) note that in the analog world, customers have been tied to the limited amount of product information available from the bricks-and-mortar bookstore, newspapers or friends. With the Internet, this information asymmetry between buyers and sellers has been alleviated and consumers are in a better position to compare books and their prices.

2. Price sensitivity

As discussed in chapter 4, e-books are typically less expensive than paper books. This has raised some discussion about the changing price image of books. Are consumers altering their view of what a book should cost and could this spill over from e-books to paper books? Especially the below 10 USD e-book prices for bestsellers on Amazon.com have raised concerns among publishers and has even lead to open disagreements between the online retailer and book publishers. (Rich, 2010; Stone, 2010)

While the question of increased price sensitivity is left somewhat open, according to the theory by Porter (1985), this could lead to an increase in buyer power and a less favorable competitive position for publishers.

Degree of rivalry

How is competition within the book publishing industry affected by the digital forces?

Küng et al. (2008) argue that the Internet has opened up the competition between publishers to a more global level. They point out, however, that this is mitigated to a certain degree by language barriers.
Tapaninen (2010) also notes that global competition among publishers is increasing due to the reach of the Internet. It is especially evident in a market such as Finland where the level of English proficiency is high as well as the price of locally translated titles. As a result, an increasing number of customers are looking online and beyond the borders of Finland for their books. He also suggests, however, that due to the digital forces, the fiercest competition in the future is not coming from within the industry but rather outside its traditional boundaries.

**Threat of substitution**

Is there a significant threat that the digital forces are bringing forth potential sources of substitution for the core product of book publishing – the paper book?

A key determinant of substitution, according to Porter (1985), is the performance of the substitute in comparison to the original offering. The performance of e-books compared to physical books has been discussed at length in this research. There are, however, other sources of substitution for books.

For instance, paperbound telephone directories have been largely replaced by digital search services and, as mentioned in chapter 4, encyclopedias have been almost entirely overtaken by the online user-generated encyclopedia Wikipedia. In addition, other reference titles, such as cookbooks, can be increasingly substituted with online cooking videos and recipes. In education, some institutions have started replacing physical textbooks with online materials such as videos and articles and collaborative online learning environments. (Field, 2007; Aronowitz, 2010)

In short, the digital forces have introduced several potential substitutes for books. People are re-evaluating whether or not a book is needed to fulfill a certain task (finding information, entertainment etc.) and it is left to be seen how many roles books will fill in the future.

**Supplier power**

Supplier power in the context of book publishing refers to the amount of power author (the suppliers) have over publishers. According to Porter (1985), high supplier power decreases the competitive position of companies within an industry and the overall profitability of the industry.
The notion of supplier power is related to the barriers of entry discussed above. Godin (2009) and Shirky (2008) argue that since the barriers of entry have gone down in publishing (essentially anyone can publish), the power of authors has increased. Whereas before authors had little choice but to try to get their titles published by big publishers, in the digital age authors can create their content and publish it as an e-book instantly and without any significant costs. Godin (2009) also notes that social technologies, such as blogs, allow authors to gain recognition and build a readership online, thus bypassing the traditional marketing function of publishers.

Tapaninen (2010) asserts that while some authors can and will publish their works independently, this route entails some severe challenges for authors:

“There will be authors who will sell books completely independently. The problem is that there is so much information on the Internet. How will the author stand out? People want to buy from a wide selection. They are less interested in going to a small store (online or offline) that only sells the works of only a handful, or maybe one, author.”

However, Tapaninen (2010) also contends that the profit allocation between publishers and authors is bound to change:

“Right now if you write a book and it sells for a 100, you get 10, the publisher gets 40 and the bookstore 50. This will change. In the future, if there is no physical book to be delivered, is it really so that the publishers work is 4 times as important as the authors? It can’t be”.
<table>
<thead>
<tr>
<th></th>
<th>Analog publishing</th>
<th>Digital publishing</th>
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</thead>
<tbody>
<tr>
<td><strong>Barriers to entry</strong></td>
<td><em>High</em></td>
<td><em>Low</em></td>
</tr>
<tr>
<td></td>
<td>Technological requirements of publishing keep barriers to entry high</td>
<td>Technological means of publishing available to anyone</td>
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<tr>
<td></td>
<td>Significant economies of scale</td>
<td>Capital requirements low</td>
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<td></td>
<td>High capital requirements</td>
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<tr>
<td><strong>Buyer power</strong></td>
<td><em>Low</em></td>
<td><em>Increasing</em></td>
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<td></td>
<td>Buyer limited to information in physical store</td>
<td>Price transparency and selection of the web</td>
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<td></td>
<td>Certain price image for hardcover titles (35-50€ normal in Finland)</td>
<td>Price image of books possibly eroding</td>
</tr>
<tr>
<td><strong>Degree of rivalry</strong></td>
<td><em>Low</em></td>
<td><em>Increasing</em></td>
</tr>
<tr>
<td></td>
<td>Competition restricted to geographical and linguistic boundaries</td>
<td>Competition increasingly global due to the Internet</td>
</tr>
<tr>
<td><strong>Threat of substitution</strong></td>
<td><em>Low</em></td>
<td><em>High</em></td>
</tr>
<tr>
<td></td>
<td>Books were the sole source for many types of information and entertainment</td>
<td>The Internet provides a myriad of sources for information and entertainment</td>
</tr>
<tr>
<td><strong>Supplier power</strong></td>
<td><em>Low</em></td>
<td><em>Increasing</em></td>
</tr>
<tr>
<td></td>
<td>High barriers to entry meant few publishers who acted as gatekeepers</td>
<td>Due to the digital forces and lowered barriers to entry, authors have several options where to publish their works</td>
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</table>

*Table 5* Comparison of the five forces in traditional “analog” publishing and digital publishing (Porter, 1985)
5.3.3 Publishing value system in the digital age

Chapter 3 introduced the traditional value system of book publishing. The essence of the theory, another one by Porter (1985), is the portrayal of the different steps of value and actors needed in an industry to deliver an offering to the end user.

In the context of book publishing, the framework illustrates how a book is delivered from the thoughts of the author to the hands of the reader. This chapter re-evaluates the value system by examining the effects of the digital forces on it (figure 15). Different books take varying routes, so by necessity some generalization is required in this depiction.

<table>
<thead>
<tr>
<th>Traditional value system</th>
<th>Authors</th>
<th>Publishers</th>
<th>Publishers</th>
<th>Book</th>
<th>Leisure reader</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Publishers</td>
<td>Printers</td>
<td>Retailers</td>
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<td>Student</td>
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<td></td>
<td>Professional</td>
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<table>
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<tr>
<th>Digital value system</th>
<th>Authors</th>
<th>Publishers</th>
<th>Online retailers</th>
<th>PC</th>
<th>Mobile phone</th>
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<tr>
<td>Amateurs</td>
<td>Authors</td>
<td>Amateurs</td>
<td>Free online platforms</td>
<td>Tablet</td>
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<tr>
<td>Online collaborators</td>
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<tr>
<td>Publishers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>E-Reader</td>
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</table>

**Figure 15** The traditional value system of book publishing and the emerging digital value system (Traditional value system information by Joensuu et al. 2001. Model by Porter, 1985, adopted for media industry analysis by Wang, 2008.).

**Content creation**

Traditionally, literary content creation has been the domain of professional authors and publishing editors. Books have been written by professional authors or by small groups of experts and edited by people within publishing organizations.
Book publishers have acted as prominent gatekeepers and chosen only a small percentage of unpublished authors to be published from their pile of unsolicited scripts. According to Tapaninen (2010), this power has been grounded in the fact that publishers have had a monopoly on the production technology and, together with retailers, on the distribution network.

As mentioned in chapter 5.2, Tapaninen (2010) believes that the era of publishers as gatekeepers of content publishing is coming to an end. As the digital platform of the Internet, digitalization of texts and mobile reading devices enables anyone to get published, the biggest question turns from who gets published to who gets found in a sea of information. He also notes that content will re-emerge as the core of the industry:

“*The value is going back to the good story masterfully told around a camp fire. The value is in the story – not in the book that is printed and sold for 27 euros.*”

Shirky (2008) describes this change as a paradigm shift going from “filter first publish second” to “publish first filter second”. On the digital platform anyone’s texts can be published instantly, but some forces filter whose texts get noticed from the masses. Shirky (2008) proposes that social networks are an essential filtering force on the digital platform. Social technology services such as Facebook, Twitter and Digg enable to discover writings that their peers find relevant. Shirky (2008) asserts that this filtering and suggesting power is fundamentally stripped away from publishers and taken by groups of peers online.

Godin (2009) also notes that the Internet is enabling content to be not only created and published by anyone but also marketed by authors themselves. He argues that the Internet is providing writers with the possibility of building a readership before being published. In effect, demand is created for the book before publication.

Digital forces are also redefining the boundaries between professional authors and amateurs. Shirky (2008) as well as Bernoff and Li (2008) describe the surge of content created by peer groups of amateurs. Social technologies, such as collaboration and social bookmarking tools, enable loosely tied crowds to create professional quality content. Shirky (2008) has termed this development as *mass amateurization*. Examples of this include the aforementioned encyclopedia Wikipedia as well as titles such as *Groundswell* by Bernoff and Li (2008) that was created by utilizing the collective force of an online community. These types of projects use social
technologies to organize large numbers of individuals to perform functions previously reserved to professional authors and editors.

**Content packaging**

In the world of physical books and bookstores, packaging has played a crucial role. Book covers have been important in attracting the wandering eyes of shoppers on the shelves of bookstores and a great amount of attention has been paid to its details. Packaging has been the field of book cover designers on the payrolls of publishers. The production of books has been primarily been done by publishers or, as is most common today, by separate printing companies. (Epstein, 2003)

Who is packaging books in the digital domain? According to Doctorow (2004), the packaging of e-books remains mostly to be done by publishers. However, Shatzkin (2009) argues that moving to the digital age, the notion of packaging is bound to change. As the user interface of the physical book is receiving substituting alternatives, new forms of packaging will emerge. Packaging holds a great amount of value in the industry (and thus economic power) as it is closely linked to the concept of what a book ultimately is. Hence, the power struggle for who packages digital content is also a competition for who gets to define what a book is.

**Content distribution**

Traditionally publishers have marketed and sold titles to retailers who have in turn sold these books to end consumers. Although this is the typical distribution route, other distribution channels, as discussed in chapter 3, also exist.

Digital forces are disrupting these set distribution patterns of the industry. Shatzkin (2009) notes that as e-books are sold increasingly through e-readers and tablets, the distribution channel is converging with the user interface. Mobile reader hardware manufacturers, such as Apple and Amazon, are thus gaining a stronger foothold of the customer relationship. This has allowed them to control the distribution and user interface parts of the value system, which has meant that they, to a large extent, own the relationship with the customer. According to Shatzkin (2009), this has lead to a struggle for distribution ownership within the industry. Retailers, such as Barnes & Noble, have released their own hardware devices to regain a hold of the customer relationship.
Bricks-and-mortar book retailers, such as Barnes & Noble, are being hit the hardest with the surge in e-book sales. Trachtenberg (2010) argues that the competitive advantage traditional large booksellers spent decades amassing, offering an large selection of more books under one roof, was already under pressure from online booksellers and has now plummeted. He mentions one Barnes & Noble stores in Manhattan, New York as an example of the reconfiguring of their business that booksellers are forced into. The store has devoted generous display space to baby blankets, Art Deco flight clocks, stationery and adult games. Trachtenberg (2010) writes that this merchandise, which has nothing to do with books, might be a glimpse into the future of large book chains.

However, Tapaninen (2010) argues that bookstores still serve an important role in the future of book publishing. He points out that customers are typically looking for a wide selection of titles and not a few titles found on, for instance, the homepage of an author. Tapaninen (2010) also adds that physical bookstores are a great way of quickly finding out what are the relevant new titles in any section.

**User interface**

The premise of this study, to examine the effects of the digital forces in book publishing, is ultimately based on one argument: the traditional user interface of the book is being challenged by new solutions. Three emerging alternative user interfaces (smart phones, tablets and e-readers) were first discussed and then compared to the traditional user interface. The full extent to which they are challenging the book as a user interface remains to be seen. What can, however, be discussed at this point are the potential ramifications for the industry that result from the content leaving the traditional user interface.

According to Shatzkin (2009), the user interface has come to define all media industries. The newspaper industry has been formed by the physical characteristics of the newspaper, music has been packaged and marketed based on the limitations of analog vinyl albums and TV shows have been formed to fit the technological limitations of the broadcasting network. In other words, media has been format specific and producing content for a specific format has required investments in specific technologies (be it a printing machine or a broadcasting tower).
As a result, media organizations have provided content horizontally. This means that the biggest TV networks have shown a broad selection of TV shows ranging from news to soap operas. Newspapers have included both the weather and foreign news. The biggest book publishers have published paperback romance novels as well as serious political punditries. These offerings have emerged primarily from the limitations and investment needs of the technologies involved. (Shatzkin 2009; Shirky 2008)

Shatzkin (2009) argues that the digitalization of media has broken this pattern. As the Internet is a platform for publishing all types of digital content and doing so no longer requires large investments in technology, media industries will go through a major disruption. According to Shatzkin (2009), media production will come to be organized vertically – around specific genres such as comedy, sports or vampires.

**End user**

Traditionally, the end user (or reader) in book publishing has been viewed as a passive consumer of books. Thompson (2009) notes that occasional book tours and questionnaires have been the extent of interaction with customers. Books have been considered as something enjoyed in isolation. Using the terms of Christensen et al. (2004), a large amount of *non-consumption* related to the social aspects of information have been left untapped by traditional books.

Thompson (2009) argues for a more participatory role for readers. He cites the example of *Gamer Theory*, a book published by Harvard University Press on why people enjoy playing video games. The book’s authors opened an online community devoted to the book, where readers could interact. Quickly several discussion based on the book spawned and, according to Thompson (2009), a much richer experience was delivered to the consumer.

Similar sentiments are offered by Tapaninen (2010), who underscores the social nature of books and argues that unleashing it with the aid of digital technology could be one of the keys to the future of book publishing.

Shirky (2008) notes that the role of the end user is widening from a mere user to a co-creator of content. While most users are still passive consumers of content, many are utilizing the possibilities provided by the Internet to participate and create original content.
Conclusions – Moving from push to pull

Teutonic shifts in the value system of book publishing can be described as a transformation from *push marketing* to *pull marketing* (figure 16). Dowling (2004, 267) writes that in push marketing, the majority of marketing efforts are directed at intermediaries (in this case promoting going from authors to publishers to retailers and finally the target consumers). In other words the product is “pushed through” the value chain by creating and estimating demand for it. In pull marketing, the demand is created or measured first by interacting directly with the target consumers (in this case by the author by building a following online) and “pulling” the product (the book) through the value system.

![Figure 16 Push and pull marketing (Dowling, 2004, 267)](image)

Brown and Hagel (2005) juxtapose push and pull systems by highlighting their differing core assumptions. Push systems are based on the hypothesis that companies and other institutions can anticipate demand and that mobilizing scarce resources in previously specified ways is the most efficient and reliable way to meet it. Pull systems, on the other hand, are more responsive and nimble. They are based on the expressed demand by the end users rather than hinging on the often unreliable estimations of future demand.
The description of push systems fits with the traditional value system of book publishing where publishers and retailers continuously strive to anticipate demand for titles. As discussed in chapter 3, when those estimates are off the mark, as they often are, they can result in significant losses for companies in the industry.

Nash (2010) provides an account of the state of the industry that is related to the shift from push to pull:

“Publishing in the 20th century used to be about sorting out supply. There were two central questions: What do we publish? and How do we pay for it? Due to advances in technology, this is no longer the case. In the 21st century, publishing will be about sorting out demand. It will be about who owns the customer relationship”.
6 CONCLUSIONS

In this Master’s thesis, I set out to find an answer to one key question: is book publishing going through a digital disruption?

The basis for answering this was formed in chapter two with a look at theories of innovation and industry disruption. The following three chapters detailed the evolution of reading and the characteristics of book publishing, introduced the digital forces and examined the digital forces in book publishing through the frameworks described earlier.

This final chapter draws conclusions based on the preceding chapters. It is an attempt to connect the dots between the theoretical levels in this study and contemplate how the dynamics between them is reshaping the book industry (figure 17).

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<tr>
<th>Technology level</th>
<th>Company level</th>
<th>Industry level</th>
</tr>
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<tbody>
<tr>
<td>6.1 Digital forces redefining the book</td>
<td>6.2 Publishers forced to reinvent their business</td>
<td>6.3 Book publishing evaporating and metamorphosing</td>
</tr>
<tr>
<td>6.1.1 Shift from single creation to continuous creation</td>
<td>6.2.1 Shifting hard problems</td>
<td>6.3.1 Convergence with other media and IT industries</td>
</tr>
<tr>
<td>6.1.2 Books as a social platform</td>
<td>6.2.2 Publishers amid the disruption</td>
<td>6.3.2 The bounding definition of book publishing</td>
</tr>
</tbody>
</table>

Figure 17 Conclusions on the digital disruption in the book publishing industry
6.1 Digital forces redefining the book

On the technological level, the aim of this research has been to describe the digital forces (digitalization of media, the Internet and mobile reading devices) compared to the defining technology of the industry: the book.

Books are shifting from physical, limited and isolated artifacts to being digital, instantly available, updatable, searchable, collaborative and ultimately something completely different. This is not a homogeneous and clear-cut shift in the industry, but rather a multilayered development that is concerning different types of books to a varying extend. In this concluding chapter, two emerging outcomes are highlighted: a shift from single creation to continuous creation and books as a social platform.

6.1.1 Shift from single creation to continuous creation

While some forms of books, chiefly fictional writing, undoubtedly benefit from the traditional form of a book, we are seeing completely new types of information forms that have been born for the digital platform. Many types of information that has been previously benefiting from the form of a book have been reorganized in to something else. Examples introduced in this thesis include online archives of recipes that are challenging cook books and online learning platforms that are, in some cases, substitutes for textbooks.

Traditional books can be described as single creation products and juxtaposed with continuous creation media products, such as magazines and TV shows (see p.57). Based on the examples above and others, a pattern can be seen to emerge: due to the digital forces, several non-fiction types of books are shifting from single creation products to continuous creation products. In other words, books in digital form are produced as an ongoing information service rather than a single concrete product.

This shift implies the need for different types of competences and processes from the publisher. Single creation products require extensive promotion efforts and a portfolio management approach to balance the risks inherent in individual product releases. Conversely, continuous creation products are more concept driven and rely on ongoing relationships with customers.
6.1.2 Books as a social platform

In addition to the aforementioned shift in how books are produced, another significant trend can be seen based on this thesis: the book as a social platform.

The social dimension of books is something that has traditionally been largely untapped by publishers. Dog-eared classics filled with annotations circling among friends and colleagues attest to the fact that books have always been social artifacts. Social technologies enabled by the Internet provide an opportunity to add scale and convenience to this long standing, mostly elusive, tradition of social reading. This can also be an opportunity for publishers to add value by not only connecting writers to readers but also connecting readers to other readers. Thompson (2009) highlights this in vivid terms:

“Books have been held hostage offline for far too long. Taking them digital will unlock their real hidden value: the readers.”

6.2 Publishers forced to reinvent their business

As described, the digital forces are having a fundamental influence on how people find, consume and share information. This influence is now extending its reach to the book industry and the basic concept and form of the book.

Out of this technological shift arises a situation that forces book publishers to re-examine their very existence and purpose.

6.2.1 Shifting hard problems

“Book publishers have spent a century entrenching themselves as middlemen between creators and consumers and now technology has the parties at both ends discovering that the middlemen have no value to add.”

This comment by Sherman (2009) in the Economist puts in blunt terms the looming aftershocks of the digital forces for publishers. It attests to the fact that the whole publishing business model was based on barriers to entry (the cost of printing presses, warehouses, and shipping
departments, and the "blue sky" value of long-standing business relationships) that no longer exist.

The “hard problems” in an industry value system are difficult to solve and create the most customer value. The key for sustained performance is the ability to anticipate shifts in where the hard problems in the value system lie and realign ones business accordingly.

In book publishing, the hard problems have been finding talent to write a title, the process of estimating a demand for a physical book, printing the book and getting it to the (limited) shelf space of bookstores. Retailers have to pay rent and only want books that move to occupy the limited number of slots on its shelves. Book publishers need to have the connections (relationships with retailers who are willing to stock their books) and logistical capabilities to get the books to the retailers. To get retailers to buy their books, book publishers have traditionally offered to buy back the unsold copies at full price from the retailers.

Due to the technology enabled lowered barriers to entry, the hard problems in book publishing are shifting. The key problems related to value system of getting ideas and stories in text form to the reader evolve together with technological advances. Getting a text in e-book form from the authors mind to the readers on mobile readers requires an entirely different value system than that of physical books. E-books also require no physical distribution network or shelf space.

In addition, Internet and the economics of the digital environment call for different resources and processes. Publishers who still have their both feet firmly in the analog world might find it hard to compete against an independent author who can sell his or her work on Amazon.com for a third of the price of traditional hardcovers.

6.2.2 Publishers amid the disruption

Book publishers are forced to re-examine where the hard problems in book publishing will be in the future. This examination can yield strategic insights into how publishers should position themselves in the disrupted industry.
The digitalization of media and the Internet have caused the production and distribution costs of content to plummet. The hard problems in book publishing are shifting from production and distribution to finding quality content and interacting with it in a social way. As a result, the gatekeeping role and power that publishers enjoyed due to barriers to entry has diminished.

Out of the history and organizational structure of book publishers stems a dynamic that bounds their ability to adapt to this newfound reality. Acquiring adequate resources (such as talent versed with the intricacies of digital publishing) and realigning processes to fit the digital world are not enough. More importantly, publishers are forced to let go of a way of looking at the world adopted in the analog age. Due to differences in the basic economics and cost-structures of the analog and digital world, investments in digital publishing should not be viewed through the lens of traditional publishing.

6.3 Book publishing evaporating and metamorphosing

6.3.1 Convergence with other media and IT industries

Traditionally, there have been unambiguous technological boundaries between different types of media. TV, radio, newspapers, magazines and books have all had unique characteristics and media industries with different economics have been formed around these formats. The digital forces described in this study are fading these boundaries. Digital media shared on the Internet often combines text with video and sound. Add to that social connectivity and interactivity and it becomes increasingly hard to categorize this new type of media by the definitions of the analog world.

As boundaries between different types of media continue to fade, drawing lines between different media industries is increasingly hard. In addition, companies from other industries are starting to shift to domains previously held by media companies. This is evident when examining the moves of IT-companies such as Apple and Google. With products such as the iPad an iPhone (Apple) and Google Books and video service Youtube (Google), both have made waves by entering practically all media industries.
6.3.2 The bounding definition of book publishing

As described earlier, Levitt (1960) challenges the traditional notion of industry boundaries by posing a simple question to managers: what business are you in? For centuries, book publishers could answer this perhaps seemingly obvious question straightforwardly by stating that they are in the business of getting books to the hands of readers.

However, as the digital forces confront the concept of what a book is and fade the earlier boundaries between industries, this question becomes increasingly less clear-cut. Could the mere definition of the book publishing industry limit the innovation and growth possibilities of the companies within it? In other words, is the very idea of a book publishing industry holding book publishers back?

A typical mistake made by companies is to define their business in a narrow and product focused way. Drawing from this observation, book publishers should perhaps look beyond their end product to find a more meaningful and lasting definition for their business. Seeing themselves more broadly as connectors between authors and readers and letting go of the notion that a physical book is the only means to achieve this, book publishers could avoid the fate of descended incumbents in countless industries. One suggestion offered in this study is that publishers should move from defining themselves as sellers of merchandise to seeing their role as guides that help people find quality content.
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**Interviews**

**Juhola, H. 2010. Director of research and development, Finnish Publishers Association. Interviewed March 17, 2010 in Helsinki, Finland.**

Helene Juhola is the head of research and development for the Finnish Publishers Association (Viestinnän keskusliitto). Currently, she is leading a project that unites all the biggest publishers in Finland to facilitate the publishing of digital content for e-readers. Prior to this position, Juhola worked at VTT as a researcher of media technology.

**Tapaninen, J. 2010. CEO, Kotimaa Group. Interviewed March 17, 2010 in Helsinki, Finland.**

Jaakko Tapaninen is the CEO of Kotimaa Publishing. Before Kotimaa, he worked as an independent consultant with clients on projects related to digital publishing. Prior to consulting, Tapaninen worked for 9 years as the director of general publishing for Finnish publishing house Tammi.
APPENDIX: STRUCTURE FOR THEMATIC INTERVIEWES

Background information

- Professional background
- Current position

View of the current state of book publishing

- How would you describe the book publishing industry currently?

Emerging digital forces

- What are the possibilities and threats of e-readers for book publishers?
- How do you see the Internet affecting book publishing?
- How is digitalization affecting literary content?
- How do you view tablet computers and smart phones as reading devices?

Digital forces faced by the book publishing industry

- How are the digital forces viewed by book publishers?
- What are the resources of book publishers to face digitalization?
- Are the processes of book publishers suitable for digital publishing?
- Are the values of book publishers aligned with the digital forces?
- Will the digital forces change the role of publishers (if so, how)?