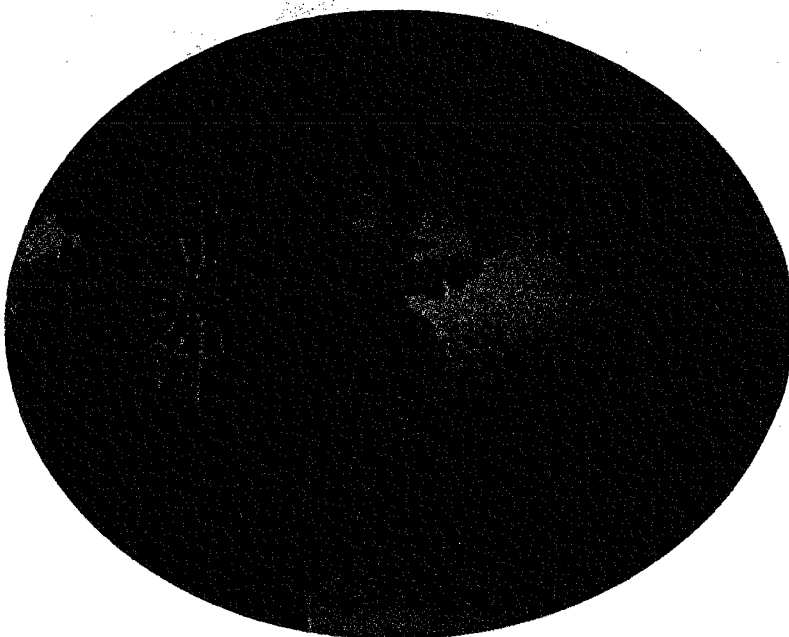




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THE NET: EXTINCTION OR RENAISSANCE FOR INTERMEDIARIES – AN ANALYSIS OF CORE COMPETENCES IN THE BOOK BUSINESS

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ABSTRACT

The Internet and commercial online services change the way goods in the modern economy are ordered and delivered. Especially for informational products such as books, it is possible not only to order but also to fulfil digitally over a network. This raises major implications for intermediaries in the value-chain, endangering their currently performed roles. However, intermediaries have certain well-established core competences that are difficult to replace by an online network like the Internet. If the intermediaries consolidate and cherish these competences, they will survive and prosper in co-existence with the Internet.

1. INTRODUCTION

In addition to access to information sources and communications, the emergence of the Internet (Hansen, 1996b; Ellis, 1994) and online services changes the future of business transactions and the exchange of goods and money (Tietz, 1987). The discussion in this paper focuses on whether the network facilities are able to redefine the traditional value-chain (Porter, 1989). Benjamin & Wigand argue that the Information Superhighway will heavily influence the value-chain (Benjamin & Wigand 1995). These scenarios ignore customer demand and the creation of goods and concentrate on the prospective omission of intermediaries. *Disintermediation* is a keyword that has been brought into discussion by the Internet and Information Superhighway debate (Tapscott, 1996). The underlying main concern is whether the network will ever be capable of imitating the core competences the intermediaries currently provide.

'Bits are bits', regardless of content type. This fosters the convergence of media and blurs the line between different media such as video, audio or text. This is the basic reason for the existence of *multimedia* as we know it (Aston & Schwarz, 1994). Negroponte's vision of a media evolution from physical atoms to indistinguishable bits in collaboration with the advent and rise of the Net¹ makes it possible to fulfill an order without physical distribution and use of logistics (Negroponte, 1995).

For the academic book business, this paper analyses step-by-step the paths that could lead from a traditional value-chain towards a disintermediated one where the Internet replaces intermediaries. All these stages are described by projects in today's Internet. Although the economic results are negligible to date (No author b), the future implications will significantly affect the way informational goods are ordered and shipped (Tapscott, 1996).

This paper concludes with the insight that established core competences are to be replaced by IT-based online solutions. Finally, the last chapter derives survival strategies for intermediaries.

2 RESEARCH APPROACH

The observations are based on desktop research and expert interviews in affected business areas such as wholesalers and retailers. In addition, an evaluation of current literature as well as an analysis of recent developments and case studies in the Internet and other online services shed some light on the leading edge. New market entrants show as pioneers where future chances and risks may lie (Porter, 1980; Porter, 1989). Also, experiences of stalled or failed projects are transferred in valuable insights.

2.1 Two levels of observation

Our approach distinguishes between two different dimensions when discussing the flow of a product from the producer to the retail customer (see **Figure 1**):

The form of *order* which is conceivable either in an online fashion over the Internet or personally or paper-based through a store.

The form of *delivery* which can be thought of either by an online means such as an online service or via a traditional distribution chain as a physical good.

The delivery is possible as a physical good such as a paperback book or as a digital stream of bits over a network. Prior to that, the order may have happened

¹The Net is a generic term for all the online media currently available for public use. This term comprises the Internet, commercial online services and digital telephone and cable networks. In other publications, it is referred to as Information Superhighway, Infobahn or Data Highway (Brenner & Kolbe, 1996; Ellis, 1994; Hansen, 1996b).

via a paper order form at the retailer² or using an online order form assisted by a network such as the Internet.

Digital online ordering can be used even in a traditional retailer model. Often, however, wholesalers (www.amazon.com) or mega bookstore chains like FJ Lehmann's in Berlin (www.lob.de) use this means in order to bypass local retailers. Digital fulfillment requires a direct connection to the publisher or the author, since they are the only one who are owners of the copyrights.

online	Special case (excluded)	Scenario 2 (no retailer, no wholesaler) Scenario 3 (no retailer, no wholesaler, no publisher)
delivery	Traditional value chain	Scenario 1 (no retailer) Scenario 2 (no retailer, no wholesaler)
physical		
	physical	online
	order	

Figure 1. Delivery and order in physical or online fashion³ in the value-chain

Only informational products such as books, audio, video or software are deliverable in digital form. Recent services in the Internet introduce the delivery of pieces of information such as database queries or online access to encyclopedia data – for example, *Britannica Online* (www.eb.com) with the complete text of

² Recently, many retailers have online connections to their wholesalers, so-called order information systems often based on a CD-ROM book directory. This paper, however, focuses on the online involvement of the customer himself or herself.

³ The case of physical order and online delivery is theoretically conceivable, but is not appropriate for this discussion and will be excluded henceforth.

32 volumes. It is important to note that this restriction is irrelevant for the discussion of disintermediation, because the online order procedure is independent of the kind of good in question – online ordering makes also sense for *per se* physical products such as consumer electronics. That is why the model discussed may also have implications for vendors of non-informational products.

2.2 Area for discussion

The digital delivery of books raises the problem of an adequate form of reception. Since to date there is no device⁴ available that has the convenient features of a paper-based book, the online delivered books or magazines will be limited to a small community of researchers and special interest users that print out or post-process certain parts of it (No author b; Schnitzler, 1996). Digitally-delivered belletristic books will be a niche until special reading devices or new types of books with real-time interactivity are widely available (Schnitzler, 1996; David, 1996) and increase the need for network connectivity. Examples such as the large-scale designed *Wired* magazine or Negroponte's pictureless book *Being Digital* (Negroponte, 1995) show that even devoted protagonists of the network community only use digital online content as add-on or to generate added-value. The main product is conveyed by traditional paper media.

We limit our observations to scientific literature. Scientific literature in close markets is driven by rational search, order and reception processes that allows for digital support of order *and* delivery. By contrast, belletristic literature is subject to different purchasing and reception patterns. For example, printing out 400 pages is a time-consuming job, the sheets are unbound and not quite handy for journeys. Long-time reading on the screen is strenuous. We analyse the informational value-chain exclusively for the book business following the direction from the author to the customer, thus excluding reverse functions – for example, complaint management. For clarity reasons we also do not deal with money currents and its transition into the electronic infocosm⁵.

3 THE INFORMATIONAL VALUE CHAIN

For the analysis of the book business value chain, we choose a five-step chain (Jansen, 1996, p. 406) including (see Figure 2): Author, Publisher, Wholesaler, Retailer and Customer (recipient of the book).

⁴ Several research institutes are working on a device that has all the characteristics of a book, since the existing electronic book players from Sony or Panasonic have not been a market success. The problems of weight, resolution and costs have still to be resolved.

⁵ However, the banking business can be conceived as an intermediate one also. The issue to what extent banks are influenced by electronic money flows on the Internet (Vahrenkamp, 1996) is worthwhile discussing in another article.

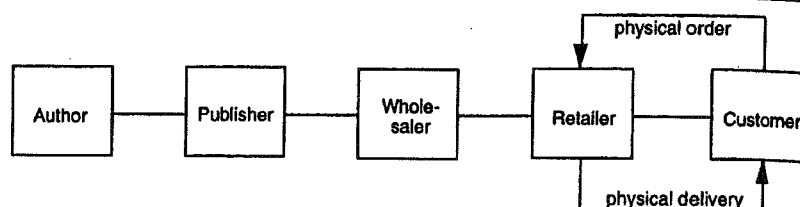


Figure 2. Traditional value-chain in the book business

Figure 2 shows the traditional value-chain in the book business. Though some parts are already supported by IT (see Table 1) the usual process is as follows:

- The author writes the book and signs a contract with the publisher who anticipates a certain market potential for the work.
- The publisher then produces and prints the book.
- The wholesaler stores the book in his huge warehouse.
- When a customer orders the book at the retailer's store, the wholesaler delivers the book to the retailer via his distribution links – usually a commercial forwarder.
- Order and delivery is physically-based – notably paper, order forms or a personal telephone line.

For each stage, Table 1 analyses the core competences (Prahalad & Hamel, 1990) that are performed by each participant in the chain. Core competences are activities that make a significant contribution to the perceived customer benefits and that are difficult to imitate by other participants in the value-chain (Prahalad & Hamel, 1990). For example, the core competence of a retailer is direct contact to the local customer and his matching skills of books with customer's preferences and wants.

The author's core competence is the creation and compilation of content. The publisher combines it with his authors' database and the expertise about market demand and the production facilities. The storing and efficient distribution to the local customer is the asset of the wholesaler. The local retailer knows the customer, gives a pre-selection through his showroom and advice during the selection process. All this competences are established and properly working⁶ in today's business. However, each core competence can be affected by changes in behaviour and technology and requires to be re-evaluated.

⁶ This refers to the effectiveness of the core competencies only. The authors wish to point out that there is still room for more efficiency – for example, cost-cutting – within the traditional chain.

Table 1. Characteristics of the participants in the informational value-chain

	Author	Publisher	Wholesaler	Retailer	Customer
Core competences	Content creation	Market experience, production facilities, author database	Logistics, distribution, warehouses	Customer relations, consultant to customer, pre-selection	Demand
Information technology support	Word processor	Desk top publishing, layout, preparation, author database	Industry information system, order management	Electronic product catalogues, customer addresses	Electronic books, CD-ROM, CD/Mini Disk

Now the possibility of ordering and delivery over the Net questions this old-fashioned process. A prospective digital substitution would have to imitate each single core competence of the respective participant. For example, if the retailer is omitted, the wholesaler has to manage the customer relations. If also the wholesaler is disintermediated, the publisher has to take-over customer relations and the expensive distribution and warehouse facilities. Currently this imposes major hurdles for a disintermediation since each core competence (Prahalad & Hamel, 1990) is associated with certain knowledge, cost-intensive facilities or entry barriers (Porter, 1989) that are difficult to provide similarly by remote locations.

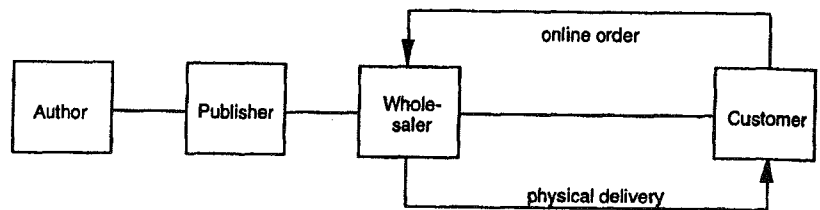
4 THE WAY TOWARDS A CONTINUOUSLY DIGITAL CHAIN

In the following section, we show a three-step scenario towards a direct link 'author-recipient' on a idealistic path. According to recent publications, the first step to be omitted is the retailer (Tapscott, 1996). Recipient and author are fixed points that are vital producing or consuming entities. In reality, other choices have also been made that left the retailer untouched (see Section 4.4).

4.1 First scenario: Omission of the retailer

In this model, the customer orders a book online at a wholesaler. The wholesaler processes the order and delivers the book physically by the means of a forwarder or mail. He also bills the customer⁷. The retailer is bypassed by an electronic online means (see Figure 3).

⁷ The payment of online orders is usually by credit card. The anonymity of the Net forces payment prior to delivery. Security concerns and e-cash payment over the Internet are not discussed here.

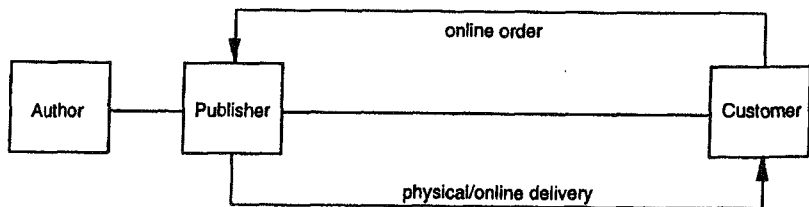


**Figure 3. First approximation of the value-chain:
No retailer**

The Internet-based Amazon bookstore (www.amazon.com) is a wholesaler order and delivery system that bypasses the retailer and offers convenient search and content information services. Ordering is possible 24 hours from all over the world. One million books are available for different priority forms of delivery. An added-value is the search engine for the whole book catalog that searches by author, topic, ISBN number or other criteria. However, this needs some skills and is not adequate for an untrained user. The delivery is burdened with freight costs. This may not play a role within the US, but outside – especially overseas – freight costs exceed eventually the value of the book. Costs of the worldwide locally-oriented distribution system are prohibitive and reduce the advantage of worldwide choice.

4.2 Second scenario: Omission of the wholesaler and the retailer

The customer orders online directly at the publisher. Retailers and wholesalers are bypassed (see Figure 4). The publisher then delivers and bills the customer. The delivery can either be a physical one over traditional logistics or online over the Internet. Today it is mainly physical distribution that is used to fulfil online orders.



**Figure 4. Second approximation of the value-chain:
No retailer, no wholesaler**

Digital online delivery is possible since the publisher usually has the copyright for publication. The publisher offers the book in digital form on the Internet as:

- A complete preview prior to publication
- A marketing appetiser in very selective sections – for example, as an abstract
- A supplement to the physical book
- Or exclusively on the Internet.

If a customer uses the Internet to order a book from an order form on a web page – for example, from Springer (www.springer.de, www.springer-ny.com) – and the publisher directly delivers the book to the customer, we find online ordering and physical delivery. Again, the customer is charged with the freight costs and has no possibility of screening the book prior to purchase.

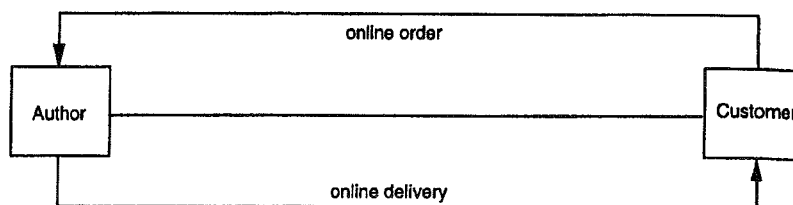
Another step in the evolution is the literature-on-demand publisher Arcimboldo in Switzerland (www.eurogate.com/arcimboldo). It offers authors the chance for publication on a WWW-server free of charge before any page is printed. All kinds of topics are published except for pornographic, politically-extreme or racially-discriminating contents. The online access is measured and e-mail communication between author and reader is enabled. This gives valuable hints for further activities such as printing the book. A reader can download excerpts or the entire text file. The password to open it costs US\$7, of which the author gets 33% (No author b). It is reported that this kind of online publisher is not economically viable.

4.3 Third scenario: Omission of the publisher, the wholesaler and the retailer

The customer orders and gets the products delivered in digital form. The retailer, the wholesaler and the publisher are bypassed by the online connection. Since recipients and authors usually do not know each other and have no logistical contact, the link via the Net is necessary to:

- Draw and keep attention
- Conduct the financial transaction
- Deliver the good itself.

Both the order and shipment processes are possible in a digital online fashion (see Figure 5).



**Figure 5. Third approximation of the value-chain:
No retailer, no wholesaler, no publisher**

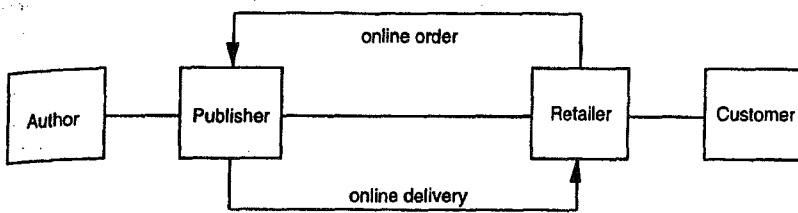
The spread of the Internet and ease of installation of a private server for anyone are paving the way for direct author-customer connections. Today we find scientists who publish working results on their WWW sites before official publication in journals. The book *City of Bits* by Mitchell (Mitchell, 1995) was available on a WWW-site (www-mitpress.mit.edu/City_of_Bits/wjm_welcome.html) at MIT, Cambridge, USA, long before the book was shipped. In addition to the text, it features links to related Internet resources and enables readers' comments on hot topics. This way, however, does only make sense for special interest literature of limited size which can easily printed out or processed in a different manner. Also, in these specific cases, the billing transaction is missing because of the author's interest for publicity. Another example is the mandatory publication of academic works such as dissertations. At the University of Chemnitz, Germany, it is sufficient to place the Ph.D. thesis on the Internet to fulfill the publication obligations (www.tu-chemnitz.de).

4.4 An alternative scenario: The 'Leaf' project

An example from the music business (Nichols, 1995) shows the market resistance for disintermediation that is driven by technology rather than by market forces itself. In a project called 'Leaf' by Blockbuster and IBM, the wholesaler was eliminated⁸ (see Figure 6). The retailer with its remarkable customer relations remained, but stages placed more in the middle of the chain such as wholesalers or publishers were eliminated.

The customer was able to compile and sample his own customized CD in the local music store. The CD data was downloaded from the publisher via a high-speed network and then stored within six minutes on CD with a CD-recorder. A color laser printer meanwhile prints the CD cover booklet. The Leaf project was based on the following observations and objectives:

⁸ Another example from the movie industry that leaves the retailer intact was the attempt to deliver movies directly from the studios to the local cinemas. Distribution and wholesalers were bypassed. Due to technical problems and market resistance, it was cancelled (Aston & Schwarz, 1994).



**Figure 6. Leaf project: CD-pressing at the point of sale:
No wholesaler**

- The project would virtually expand the customer's choice – 40% of all customers leave a music store without a CD because the CD in question is not available.
- The prices for CDs could come down since the shipping and handling costs are left out.
- The retailer has a reduced inventory of CDs⁹ and reduced costs of returns.
- The CD plants could produce blank CDs and the revenue would be increased by higher sales.
- There is no need for high volumes in order to be profitable when delivery is made digitally to the store.
- The project would improve the chances of small record companies without major distribution organizations.

The trial was opposed by the big music labels. They were in fear of losing their influence on the distribution, CD production and market direction.

5 CONCLUSION

5.1 Survival strategies for intermediaries

A digital chain from creation to reception – from author to customer without intermediaries – would require that the author performs all the core competences mentioned in Table 1. The paper has shown that this will not be economically feasible under the current conditions for a broad market. But conditions may change.

The intermediaries have to focus on the identification, analysis and strengthening of their core competences. This can include IT-based or non IT-based activities. An agenda for action for the intermediaries aiming at the enlargement of core competences have to focus on, but are not limited to:

⁹ Reduced inventory means a reduction in overhead costs. Note that the supply itself is 'virtually' enlarged and only limited by the remote server's capacity that provides the music titles.

- **Retailer:** The retailer needs to emphasize his unique position close to the customer. This includes taking advantage of personal contact in the store. Customers' addresses and information about preferences may improve the relationship. Other forms are comprehensive order information by CD-ROM based book directories or advice on which book to choose – for example, as a gift for a friend. Modern bookstores combine electronic media such as POI kiosks for self-driven activity with the friendly atmosphere of a café. Readers are not prohibited, but encouraged to read some pages in a promising book or magazine, thereby increasing the purchasing wish. Live acts such as music or recitations make the local bookstore an attractive place to visit. New media such as CD-ROM, music CDs or Internet access – for example, by an Internet café – should be embraced by the local bookstore and become an integral part of the buying experience¹⁰ (David, 1996).

An interesting strategy for retailers might also be to go online themselves. An online offer over the Internet could combine the personal contact in the store with the convenience of search capabilities out of a huge catalog and thereby expanding the book assortment. A German bookstore for medicine and information technology, FJ Lehmann in Berlin, has such an online offer. FJ Lehmann is making DM 65,000 in revenue a month with its web site (www.lob.de), mainly with special interest titles.

- **Wholesaler:** The wholesaler has an extraordinarily strong position when it comes to the delivery of ordered books to the retailer. The warehouses, the distribution links and the fulfillment logistics are distinctive investments. He has an overview about different publishers and is able to buy in bulk quantities. Especially the warehousing is so costly that no other participant in the chain is eager to take this part. The publisher is focusing on his own book assortment, but lacks a sufficient supply of other publishers. The wholesaler has to network himself with the publisher's as well as with the retailer's side by an industry information system that facilitates ordering, billing and delivering. New services for retailers such as fast ordering, a discount system or hotline for delivery problems could secure his role in the chain. A recent study concludes that 40% of all book retailers are increasing their order volume with wholesalers – to the detriment of the publishers – thanks to their advantageous delivery conditions (Schnitzler, 1996).

Wholesalers and retailers should cooperate to pool their strengths. The Internet-based wholesaler Amazon (www.amazon.com) offers to anyone to become an associate and sell books from one's own server. A local bookstore has the advantage of giving the customer the access to the huge searchable catalog and earning referral fees while the wholesaler has a link to the local business and comes closer to the retail customer.

- **Publisher:** The publisher can take advantage of his author database and knowledge about market trends. He has to develop a more sensitive measurement of future trends to anticipate the market demand. Additional serv-

¹⁰ Note that 20% of consumer software is already sold by bookstores (Schnitzler, 1996).

ices for authors during the creation of the manuscript, the production and the marketing should provide a comprehensive support for authors. The author has to feel like a customer not as a merely tolerated provider of content. Publishers can also cooperate with wholesalers by offering their books with supplementary services such as free returns of unsold books.

In addition, added-value for publishers can be generated by creating their own web sites. These sites should not only contain text or order forms, but also encourage higher involvement of the customer such as e-mail communications. For instance, Aspik (www.alabaster.de/aspik) offers downloadable real audio files in which the respective author recites certain passages. This could lead to a special offer for hearing-impaired people using the Net in order to get access to books in audio form.

As the example of electronic airflight ticket-buying over the Net shows, close customer contact based on trust and experience is more important than expected at first glance. Ordering over the Net implies difficulties when it comes to sophisticated products, need for detailed information and complaints (No author a). These are the weaknesses that intermediaries should take advantage of.

5.2 Outlook

The value chain mentioned above can be transferred from books to other informational products such as audio, video and software. Everywhere we find similar market structures and tendencies to use the Net for order and delivery of products. Examples of music-on-demand over the Internet or video-on-demand from cable and telephone operators have yet to prove whether bypassing retailers such as video rental stores is economically viable. Certain considerations focus on the money side. If the intermediaries are omitted, the customer has to pay less for the contents and the author gets better royalties due to the missing trading margin. So both ends of the chain would be winners? This model requires a lot of assumptions that are far from reality:

- There is insufficient technical equipment on both sides since PC ownership in households is as low as 15-20% and online subscriptions are around 5-10%. The existing technology is only good for niche markets such as academia or businesses, but within private households the critical mass has not yet been reached (Brenner & Kolbe, 1996). In addition, the Internet itself puts some restrictions on bandwidth and data security.
- Usually authors and customer do not know each other. A customer may search for the site of a famous author – say, John Grisham – but what about the other thousands of writers? Intelligent search engines and agent-based methods may change this, but for the time being there is the need for some kind of 'matching service'.
- There is no guarantee that the customer pays after the online delivery. The customer can copy without permission or crack ciphered files. The fraud issue would be an important one since this would be easier than copying a

book with an expensive, work-intensive copier machine. Even if the customer pays, the author has to do the billing management, handle complaints and last but not least the returns.

- One key point is the form of reception. This differs between hearing, watching, and reading. Digital hearing and digital watching are nothing or little different from the analog manner of reception. However, reading a long text without paper means a major change in habits. Important factors are the feel and touch the recipient is acquainted with.

Online ordering is a way to attract new customer groups that are familiar with the Internet and its capabilities – and only those. Despite the hype in the media Internet access is currently only limited to 10% of all US households and the order volume of books through in Internet remains at a low level (No author b). Unless there is a higher penetration of PCs, network computers and Internet accounts, online ordering will be a vehicle for elite users only.

Many open questions have still to be addressed. One of the most challenging are legal issues of intellectual property rights. Prior to the scenarios described above, at least three major technical developments will influence the future of informational order and delivery:

- The revolution the Net brings to the intermediaries is also interesting on the money side of the fulfillment. Market research firms are estimating that the next big 'Net-wave' will be driven by the electronic transfer of money such as electronic cash over the Net (Vahrenkamp, 1996). After the security concerns will have been resolved within the next months, not only will we find digital ordering and delivery, but also digital payment over the Net. Especially small amounts – for example, for a certain piece of information – that would be too costly for traditional paying methods such as credit cards, will be transferred over the Net.
- New forms of devices for the reception of multimedia data, usable as interactive books are under development. They will be flatter than a today's laptop, but excel with extremely high resolution. In general, they will have features of a conventional pocket-book. This technology is a precondition for further acceptance of information technology based-reception of books.
- Value-added books (Brody, 1996) with enhanced interactive graphics, sound and video that go beyond current CD-ROM encyclopedias will include online real-time access over the Net during the reception process. One publisher increased its sales after transferring a book as a multiuser dungeon on the Internet. New elements such as communication, games and readers-as-authors will involve the customer more than today by using the network more effectively (No author b). Robert Martin, an author living in Illinois/USA, invites each and every netuser to help him writing a new book (rhf.bradley.edu/romartin). Initially, he put an abstract into the Net and asked visitors to his site for comments via e-mail. The novel itself is available over the Internet and readers can witness how their suggestions are implemented in the story. Other 'collaborative writing' projects include 3-D

animation, parallel action plots and non-linear book plans. As MIT Medialab's Nicholas Negroponte pointed out the unique outstanding feature of a network is *not* information, but connecting people by communication means (Negroponte, 1995).

Intermediaries will have their chance to survive the networked economy if they concentrate on their core competences (Prahalad & Hamel, 1990) that represented their strength for decades. Human usage patterns and affinity towards personal consultancy will guarantee the existence of intermediaries that offer a clear profile.

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- WWW page of online encyclopedia Britannica online, www.eb.com
- WWW page of online author Robert Martin, rhf.bradley.edu/romartin
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