Disintermediation, Reintermediation, or Cybermediation? The Future of Intermediaries in Electronic Marketplaces

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Abstract

Early researchers seemed to agree on the prediction that decreased transaction costs in electronic marketplaces would lead to the reduction, or even extinction, of traditional intermediaries from electronic value chains. Despite some validity in these claims, a careful examination of the way that electronic commerce restructures traditional market functions reveals three equally plausible scenarios for the future. Traditional intermediaries will either be driven out of the market (*disintermediation*) or be forced to differentiate and re-emerge in the electronic marketplace (*reintermediation*), while wholly new markets for intermediaries will also be created (*cybermediation*). In this paper, we use a model of market functioning to establish areas where each of these three scenarios are expected to dominate.

1. Disintermediation in Electronic Markets: An Historical Perspective

Advances in Information Technology are widely acknowledged as causing fundamental changes in organisational and market structures (Malone et al 1987). The advent of Inter-Organisational Information Systems (Johnson and Vitale 1988) and the Internet have resulted in previously unthinkable ways and methods of conducting business, for example Electronic Commerce and the evolution of electronic marketplaces (Rockart and Scott-Morton 1991). Such advances contribute to a continuous transformation of organisational value chains and value systems (Porter 1985).

As these advances extend beyond the sphere of organisations to include individual consumers, industrial dynamics provide an unprecedented opportunity for producers of products and services to bypass the traditional market intermediaries (for example, wholesalers and retailers) and interact directly with the final consumer. Early research in electronic markets tended to suggest that this move towards direct interaction between producers and consumers will lead to the gradual elimination of intermediaries from the value system (Malone et al 1987) (Figure 1). The term '*disintermediation*' has been offered to describe the alleged move towards shorter value chains in electronic marketplaces.

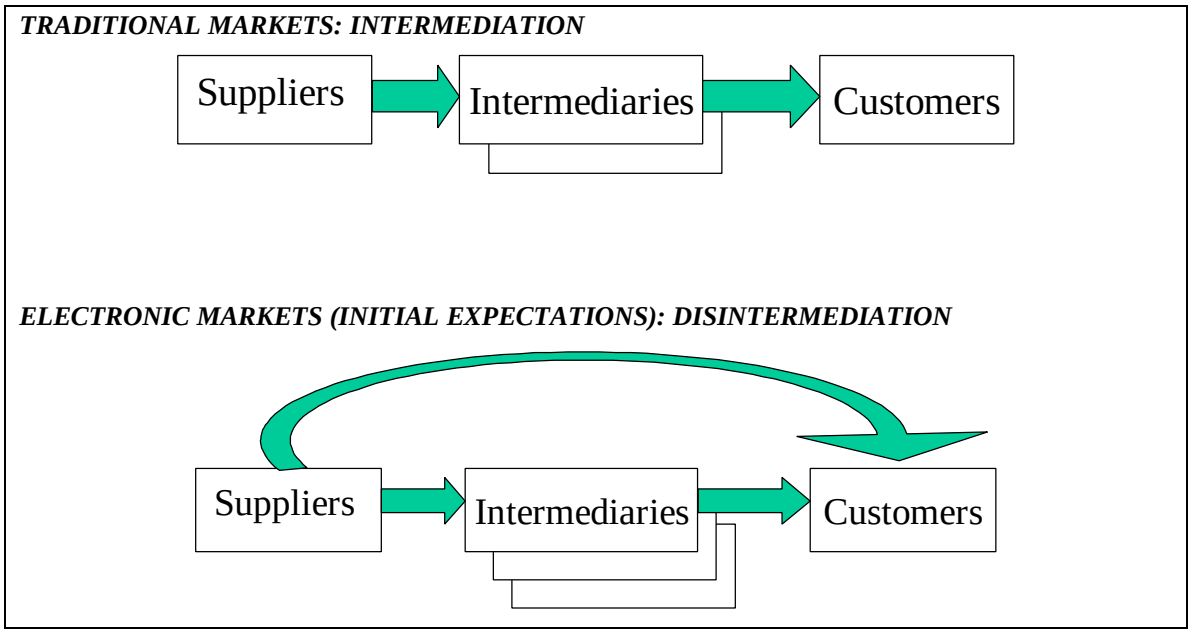

Figure 1. Traditional vs. Electronic Markets: The Disintermediation Hypothesis

There are indeed strong economic incentives for both producers and consumers to drive intermediaries out of the value chain. Intermediaries have been known to add significant costs to the value chain (Benjamin and Wigand 1995), thus suppressing the profit margins of producers while at the same time resulting in higher final prices for consumers. Advanced uses of Information Technology and the evolution of electronic marketplaces have been hypothesised to reduce the transaction costs for producers, thus enabling them to internalise activities that had to be 'purchased' from intermediaries in a traditional market. The resulting redistribution of profits within the value system will arguably drive intermediaries to extinction. Under such a scenario, producers can benefit from increasing their profit margins and passing a part of their savings to the consumers who thus enjoy lower prices and greater choice. Further, where one producer can dominate on price or quality, direct sales reduces the uncertainty of consumers and a "winner take all" market can emerge (Bailey and Bakos 1996).

We will consider the situation in three separate examples throughout this paper: books and publishing, software and auctions. Books represent a physical product that has to be shipped through logistics, although publishing (and potential entire books) could be distributed electronically. Software is a digital product that can be distributed electronically, and the costs associated with non-electronic distribution can be considerable. Auctions represent a type of market mechanism that may be used to move multiple types of products, and is interesting because auctions generally function as intermediaries. (We have considered auctions at length before: see Klein and O'Keefe, forthcoming.)

Here is how the disintermediation hypothesis was expected to materialise in these three different markets:

a) *Publishing market*: Virtually all books are sold through physical retail operations that act as intermediaries in the traditional market. The move to the Internet was initially hypothesised to initially substitute traditional retailers by electronic retailers. Moreover wholesalers, publishers or even authors would be able to get direct electronic access to the customer, thereby changing the structure of the publishing value chain fundamentally (Figure 2).

b) *Software market*: In traditional markets, almost all software is sold through intermediaries (resellers or retail outlets). In electronic markets, it was initially expected that direct sales would dominate as software developers would provide consumers with the ability to directly download software (for example, Oracle, oraclestore.oracle.com), thus reducing the role of resellers and retailers

c) *Auctions market*: Traditional auctions dominated only a limited market type (rare and limited market items, like art and antiques). Electronic market growth was supposed to reduce the need for intermediaries in a scenario where sellers would be able to directly interact with buyers to set prices and settle the transactions in a much wider market area than the one served by traditional auctions.

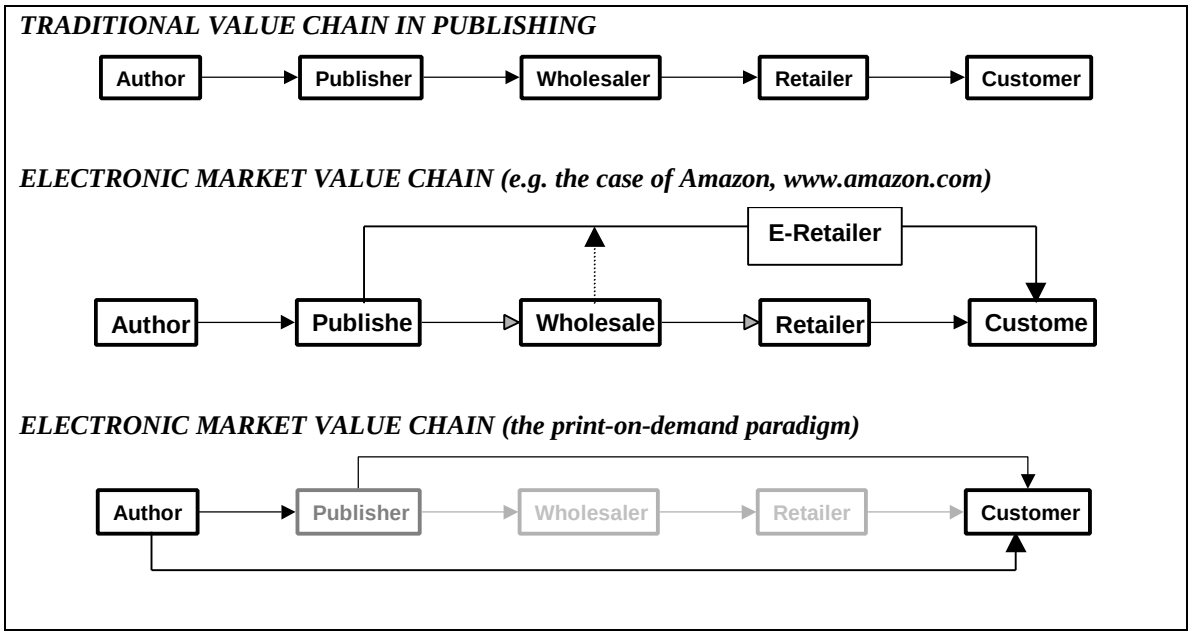

Figure 2. Potential Effects of Disintermediation in the Publishing Market Value Chain

However, the *disintermediation hypothesis* has recently started to receive considerable critique (Burton and Mooney 1998), backed up by empirical observations suggesting that intermediaries, instead of disappearing, re-emerged and gained considerable significance, at least in some electronic markets. At the same time, wholly new markets for electronic intermediaries, or *cybermediaries* (Sarkar et al 1995), have been created. Using the same examples as above, we can note:

a) *Publishing market*: Traditional retailers (bookshops) faced pressure from on-line retailers (for example, Amazon, www.amazon.com, and the Internet Bookstore in the U.K., www.bookshop.co.uk), but they managed to compensate by differentiating themselves and entering the electronic marketplace as well

(for example, in the U.K., Dillons, www.dillons.co.uk). Moreover, wholesalers who in the past have built huge databases are entering the on-line market (for example, in Germany, Koch, Neff & Oetinger together with Koehler & Volckmar, www.buchkatalog.de) and publishers (for example www.springer.de) are offering their products directly. Overall, disintermediation is limited so far but traditional retailers face increasing pressure from new entrants like Amazon who have successfully entered the market and developed innovative models of on-line retailing.

b) *Software market*: Not only did traditional resellers not disappear, but many found the opportunity to enter the newly established on-line software retailing market (for example, Beyond.com, www.beyond.com). Disintermediation did not happen, at least not to the extent initially predicted.

c) *Auctions market*: There has been a rapid growth of on-line auctions in various product markets. These consist of either more 'traditional' auction markets (for example, TeleTrade, www.teletrade.com, that auctions diamonds, coins and memorabilia) or 'innovative' on-line auctioneers (for example, Onsale, www.onsale.com) that auctions almost everything from computers to holiday packages. There are however a few instances of suppliers that have set-up auctions for their own products. A nice example for a supplier auction is Lufthansa (www.lufthansa.de) which has started to auction off selected tickets. Not visible to the customer, however, is the fact that an intermediary, a Web-agency called Infomedia, is actually running the auctions for Lufthansa. Overall, the number and roles of intermediaries have increased, but and new markets for intermediation were created.

Summarising, we can note that, while producers are able to sell directly to consumers in the electronic marketplace, lower barriers to entry and new market opportunities have in some cases actually increased the number of intermediaries. The purpose of this paper is to critically examine and compare the existing explanations of disintermediation, reintermediation, and cybermediation, in order to gain a better understanding of the potential role of intermediaries in future electronic marketplaces. A model of marketplace functions is used as a basis for addressing the differences between traditional and electronic marketplaces in a structured and comprehensive manner. Based on this understanding, we articulate a number of hypotheses for evolving intermediation structures.

2. Traditional Markets: The Role of Intermediaries

According to Bakos (1998), markets (electronic or otherwise) serve three main functions, which can be further divided into a number of sub-functions, illustrated in Table 1. In a traditional (i.e. non-electronic) centralised market (Hanker 1990), the first two functions are typically performed by intermediaries, while the third usually is divided among the intermediary and regulatory bodies or governments. In the remainder of this section, we will discuss the role of intermediaries in each of the traditional market sub-functions, while in the next section we will articulate some ways in which intermediaries are influenced when performing the same functions in electronic marketplaces.

Primary Market Function	*Sub-Functions*
Matching Buyers and Sellers	➢ Determination of Product Offerings ➢ Searching ➢ Price Discovery
Facilitation of Transactions	➢ Logistics ➢ Settlement ➢ Trust
Institutional Infrastructure	➢ Legal ➢ Regulatory

Table 1. Functions of a market (Bakos 1998)

Determination of Product Offerings

Markets provides sellers with information about existing and future buyer demand. This information allows sellers to employ economic inputs (capital, technology, and labour) to develop products and services that match anticipated demand. Thus, sellers determine their product offerings based on signals they receive from the market. Intermediaries can assist sellers in determining an optimal product mix, by remaining closer to buyers, by being able to receive and interpret market signals in a more timely fashion, and by alerting sellers regarding market dynamics and changes.

Searching

Buyers select their purchases from the available product offerings, after considering factors such as price and product characteristics. Buyers, however, face search costs when obtaining and processing this information. Similarly, sellers may face search costs in their efforts to find and approach qualified buyers for their products (for example in marketing and advertising). Intermediaries can help buyers reduce their search costs by providing a single point of contact for information gathering and market transactions. At the same time, intermediaries can indirectly assist sellers in their search for prospective buyers by providing a major marketing and buyer targeting channel.

Price Discovery

Price discovery can be described as '*the process of determining the prices at which demand and supply "clear" and trade occurs*' (Bakos 1998). Price discovery is a key function of all modern markets and is usually based on an underlying mechanism, which depends primarily on the market type and their characteristics. Prevailing mechanisms for price discovery include auctions (for example, in stock markets), ne-

gotiations (for example, in ‘open’ street markets), and firm offers (for example, in department stores). As liquidity, i.e. a sufficient amount of demand and supply, is a critical success factors for markets, intermediaries have a competitive advantage over individual suppliers to generate the requisite liquidity. The role of intermediaries varies depending on the actual mechanism used. Generally, their role is more significant in auctions (where the intermediary provides all the infrastructure and logistical support) and less so in negotiations and firm offers (where price discovery can take place directly between buyer and seller). However, the presence of intermediaries is generally associated with higher final prices for buyers, which are often not justified by a higher customer utility, hence the basic economic incentive for driving intermediaries out of the value system.

Logistics

After a market transaction has been agreed between the seller and the buyer, the purchased products or services must be ‘transferred’, physically or otherwise, to the buyer. Logistics, in this wide definition of the term, may involve activities and mechanisms such as shipping, distribution, and warehousing (for products) or licensing, booking, subscriptions, etc. (for services). The role of intermediaries is usually of paramount importance, especially in the cases where sellers opt for ‘contracting out’ certain value activities such as deliveries.

Settlement

Once the actual logistics operations have been completed (and, in some markets, during or even before that), the buyer has to transfer the payment to the seller in order to ‘settle’ the transaction. Settlement may involve payment processing, crediting, etc. The intermediary is usually a third party facilitating or monitoring the transaction.

Trust

Some market transactions may require the establishment of a certain level of trust between buyer and seller. Trust mechanisms have been established to protect sellers and buyers from the opportunistic behaviour of other market participants. Trust mechanisms may be facilitated by third parties, such as banks, credit reporting bureaux, rating agencies, etc. These parties can be considered as intermediaries in the trust building market function.

Legal and Regulatory Infrastructure

The institutional infrastructure of markets specifies the laws, rules and regulations that govern market transactions, and provides mechanisms for their enforcement. Intermediaries may include governments, regulatory bodies, legal agencies, etc.

Table 2 summarises the role of intermediaries in each of the market functions discussed above. In the next section, we will discuss how the advent of electronic markets can influence the future of intermediation for each market function.

Market Function	*Sub-Functions*	*The Role of Intermediaries*
Matching Buyers and Sellers	➢ Determination of Product Offerings ➢ Searching ➢ Price Discovery	➢ Monitoring, Alerting ➢ Reducing search costs ➢ Facilitating (but increasing price)
Facilitation of Transactions	➢ Logistics ➢ Settlement ➢ Trust	➢ Shipping, Distribution, Warehousing ➢ Facilitating, Monitoring ➢ Rating, Guaranteeing
Institutional Infrastructure	➢ Legal ➢ Regulatory	➢ Monitoring, Protecting ➢ Monitoring, Protecting

Table 2. The Role of Intermediaries in Traditional Market Functions

3. Electronic Markets: New Roles for Intermediaries?

Electronic marketplaces rely on advanced uses of Information Technology to perform essentially the same functions as traditional markets, albeit with increased efficiency and reduced transaction costs. In this section, we will address the potential new roles of intermediaries in such markets.

Determination of Product Offerings

According to Bakos (1998), two major emerging trends distinguish product offerings in electronic marketplaces from their traditional counterparts: (a) increased personalisation and customisation of offerings; and (b) aggregation and disaggregation of information-based product components.

The first trend (personalisation) allows for the establishment of 'one-to-one marketing' strategies, where producers are able to address the needs of individual consumers and offer personalised products and services. Made-to-order production has become a feasible and attractive option for suppliers, e.g. in the clothing (www.levis.com) or computer industry (www.dell.com) mainly because of the ease of communication be-

tween supplier and customers. This trend is especially visible in 'digital' products and services where, for example, personalised copies of a newspaper can be created and delivered to consumers with only a marginal increase to the production cost of a standard newspaper. The 'personalisation' and 'direct marketing' strategies are mostly expected to contribute to direct contact between sellers and buyers, thereby fitting within the disintermediation hypothesis (McEachern and O'Keefe 1997).

The second trend (aggregation and disaggregation) gives producers the ability to utilise the characteristics of information-rich products in order to bundle or unbundle product offerings and maintain a more flexible product mix. By modifying the cost structure of bundled product offerings, electronic marketplaces may reinforce the role of intermediaries and encourage new types of intermediaries to enter the electronic marketplace. These new intermediaries may create value by aggregating (sometimes called "bundling") products and services that traditionally were offered by separate industries (Bakos 1998). Carpoint (www.carpoint.com), in the car dealership industry, is an example for an '*aggregator*', able to offer a variety of services as an 'one-stop-shop' for consumers that are interested in purchasing a car without having to contact a large number of dealers for different brands. Furthermore, Carpoint has aggregated the car finance and car insurance markets in their product mix, thus offering a complete and personalised service unavailable in most traditional retail outlets. On the other hand, lower transaction, distribution, and product mix maintenance costs in electronic markets may encourage producers to disaggregate products and follow direct sales strategies, bypassing intermediaries. For example, traditional news and information providers (such as Reuters, www.reuters.com) can directly provide individual pieces of information on a subscription or fee-based basis, thus competing directly with information aggregator intermediaries, such as Yahoo (www.yahoo.com).

Bailey (1996) has identified interorganizational marketing information as an additional function of intermediaries which has gained importance in the electronic marketspace. Because intermediaries do business with multiple suppliers and customers within an industry or even across industries, they have access to a wealth of information which they can scrutinise in order to identify marketing relevant information.

Searching

Electronic markets can significantly lower the search costs for consumers, thus allowing them to readily obtain information about product offerings and prices. Generic search engines (for example, Lycos, www.lycos.com), hierarchical directories (such as Yahoo), specialised search engines (for example, CNET's Computers.Com, www.computers.com), meta-search engines (such as AskJeeves, askjeeves.com), and intelligent agents (such as Excite's Jango, www.jango.com), all serve to dramatically lower search costs for buyers that look for particular products and services in the global electronic marketplace. At the

same time, producers are able to enjoy similarly decreased search costs by addressing a larger target base to communicate and advertise their offerings.

Based on the lower search costs hypothesis, early researchers predicted that electronic markets would encourage both producers and consumers to engage in direct communication, without the need for intermediaries. This argument, perhaps more than any other, provided the basis for the disintermediation hypothesis. However, although search costs to identify the offers of a single supplier have been lowered significantly, the market structure and search behaviour have changed. Whereas in the early days of electronic markets the availability of product information in electronic form contributed to lower search costs for consumers (thus driving intermediaries out of the market), the ever increasing size of this information has now started to increase the costs of electronic search again. As the number and differentiation of offers on the Web has risen steeply, it has become more important not only to compare offers but to do so in an extended search space. Customers that used to compare prices regionally or nationally now do so on an international basis. The extended search space and the increasing complexity of offers and terms of trade and delivery has in many cases offset most of the initial information cost reductions. Consumers find it increasingly difficult to locate and process this information, and to distinguish between useful and not useful material for a specific market transaction. This has created the opportunity for new intermediaries to enter the marketplace by assisting consumers in their search, effectively supporting the market function of matching sellers and buyers. Such intermediaries include product information providers (for example, trade magazines), rating and recommendation service providers, purchase-oriented intelligent agents, and so on. The emergence of Portals is the latest evidence for a continuing role of intermediaries that have adapted to the structure of the Web (Dewan et al. 1999). The role of these intermediaries is expected to gain significance in the future, fuelled by increasing needs of buyers for advanced searching facilities. This trend will be further supported if sellers move, as we predict, towards more sophisticated and complicated product offerings in an attempt to raise buyers' search costs and make it more difficult for buyers to directly compare their products against the competition.

Price Discovery

Electronic markets can be based on the same price discovery mechanisms as their traditional counterparts (i.e. auctions, negotiation or firm offers). However, electronic markets have also witnessed a re-distribution of price discovery mechanisms amongst different markets, while even wholly new paradigms for price discovery have begun to emerge. As a re-distribution example, electronic auctions have emerged for products that traditionally were sold through negotiation or firm offer policies (e.g. QXL, www.qxl.com and Ebay, www.ebay.com). Priceline (www.priceline.com) has invented and patented a demand collection system in which the customer states (flexible) product/ price preferences (for example, an airline return ticket from New York to Los Angeles at a given day, or any major airline for USD 200), which are forwarded to the

suppliers who might accept or decline those offers. Furthermore, intelligent agents can negotiate purchases on behalf of both producers and consumers, thus offering a completely new price discovery mechanism for electronic markets. Such opportunities for restructuring the price discovery function have led to new *cybermediaries* appearing to fill the gap in a newly formed market.

Logistics

Electronic markets allow for a dramatic reduction of distribution and logistics costs, especially in the case of digital products and services. By allowing for small-size, quick, just-in-time deliveries, electronic markets can squeeze much of the huge traditional cost of logistics and thus encourage direct sales between producers and consumers. While this trend will undoubtedly put traditional intermediaries, like wholesalers and retailers, under pressure, at the same time it provides the opportunity for differentiated intermediaries to re-enter the market. The way in which electronic auctions changed the nature of logistics in the Dutch Flower Auctions is an example (van Heck and Ribbers 1997). Further, third party logistics companies like Federal Express (www.fedex.com), TNT (www.tnt.com/logistics) and UPS (www.ec.ups.com) have emerged as major Internet intermediaries that utilise their logistics expertise and economies of scale in distribution to contract with producers in facilitating the logistics of direct sales, while also providing tracking and delivery information to customers.

Settlement

Advances in electronic payment mechanisms have the potential of altering the cost structure of transaction settlements in electronic markets. Intermediation will continue to play a major role while the need continues to be for trusted third parties that 'clear' the electronic transactions. Credit card payments are today the major means of clearing business-to-consumer transactions in electronic markets, but as technology matures it is expected that new players will enter and dominate this market. Electronic cash (for example, Digicash, www.digicash.com) and secure third party payment service providers (for example, Cybercash, www.cybercash.com and Hewlett Packard's Verifone, www.verifone.com) are just two types of cybermediaries that have emerged and are expected to acquire a prestigious position in a world of full-scale electronic payment transactions. At the same time, traditional payment intermediaries, most notably banks, are entering the electronic marketplace, either by moving their traditional banking services on the Internet, or by entering differentiated modes of service, for example smart card pilot programs (Clemons et al 1996).

Trust

Protection against opportunistic behaviour of players is more important in the embryonic arena of electronic markets than the well-established traditional markets. We argue that the trust building function of

these markets will become more important as Internet-based commerce applications flourish, due to the increased needs for monitoring the behaviour of market participants and alerting buyers in cases of, for example, seller malpractice. Traditional trust intermediaries (for example, credit reporting agencies) will only have a limited role to play in direct producer-to-consumer electronic transactions. Providers of electronic commerce platforms such as electronic malls (for example, Electronic Mall Bodensee, www.emb.net) function as guarantors with their brand name or reputation. New forms of specialised intermediaries are expected to emerge, including public key infrastructure and certificate authorities (for example, Verisign, www.verisign.com), seller rating service providers (for example, Bizrate, www.bizrate.com), etc. At the same time, some of the traditional intermediaries, most notably credit card companies, will have to assume new roles and responsibilities in monitoring and tracking electronic transactions between consumers and producers. New payment mechanisms (secure payment providers, see above) will provide the necessary infrastructure for trust building in electronic markets and, in the process, will create new markets for intermediaries that will add value by building trust in electronic commercial transactions.

Legal and Regulatory Infrastructure

Providers of (electronic) market platforms set rules for the market participants, such as authentication mechanisms, deposits to ensure payments, quality certificates in order to guarantee product characteristics. Because of legal uncertainty and the relatively high costs for bilateral contracting among the trading partners, the regulatory function is mainly covered by intermediaries.

Inasmuch as the government is the 'intermediary' in this market function, it is not expected that electronic markets will significantly alter the structure of intermediation in this case. However, it should be expected that governments will be forced to support the emerging market dynamics by providing the legal and regulatory frameworks that will simplify and even encourage electronic commerce transactions. In this endeavour, governments may find it necessary to co-operate with public or private public key infrastructure providers that will monitor electronic transactions with a view of ensuring their transparency and tractability.

4. The Future of Intermediaries: Some Hypotheses and Conclusions

Early research in electronic markets suggested that decreased transaction costs in electronic markets would lead to the reduction, or even extinction, of traditional intermediaries from electronic value chains. While certain types of intermediaries in certain markets may indeed face difficulties for survival, the discussion in the preceding sections reveals that it is very difficult to generalise on this statement. Increasing search costs that accompany the proliferation of information infrastructures can provide new opportunities to on-line intermediaries. Similarly, some intermediary functions cannot be absorbed by sellers at low cost, thus leaving enough space for intermediation in electronic markets. The future of intermediaries in such markets will depend not only on the type of the market, but also on the function that an intermediary serves. Table 3

summarises the opportunities and threats that intermediaries are expected to face in the era of mature electronic commerce.

Market Function	*Electronic Market Influence*	*Likely Effects on Intermediation*
Determination of Product Offerings	➢ Personalisation of Products ➢ Aggregation ➢ Disaggregation	➢ Disintermediation (especially in digital products) ➢ Cybermediation (aggregators) ➢ Disintermediation (pay-per-use)
Searching	➢ Lower Search Costs ➢ More Complex Search Requirements ➢ Lower Barriers to Entry	➢ Disintermediation ➢ Cybermediation ➢ Cybermediation/Re-intermediation
Price Discovery	➢ Redistribution of Mechanisms ➢ New Markets	➢ Cybermediation/ Re-intermediation ➢ Cybermediation
Logistics	➢ Lower Logistical Costs ➢ Economies of Scale	➢ Disintermediation ➢ Re-intermediation
Settlement	➢ New Cost Structures ➢ New Payment Mechanisms	➢ Re-intermediation ➢ Cybermediation/ Re-intermediation
Trust	➢ Increased Protection Requirements	➢ Cybermediation/ Re-intermediation
Legal and Regulatory	➢ Institutional Support for Electronic Markets	➢ Re-intermediation

Table 3. Opportunities and Threats to Intermediaries in Electronic Markets

Summarising on the above findings, three major scenario for electronic intermediaries can be envisaged:

a) *Disintermediation Scenario*: As electronic markets decrease the transaction costs for both buyers and sellers, markets will tend to 'clear' without the need for intermediation facilities. Traditional intermediaries will continue to face increasing pressure for survival and large numbers of them will be led into elimination.

b) *Reintermediation Scenario*: Traditional intermediaries may find opportunities to leverage their expertise and economies of scale, and continue to play an important role in facilitating commercial transactions, mainly as contractors to sellers. Furthermore, traditional intermediaries may also find opportunities to differentiate themselves (through price, service, augmented products, etc.) and/or concentrate on specific market function 'niches'.

c) *Cybermediation Scenario*: Finally, the advent of electronic markets will create unprecedented opportunities for wholly new types of intermediaries that will provide the necessary public infrastructure support for those market functions that will be restructured in the electronic commerce world (for example, navigation and selection assistance, rating services, etc.). These cybermediaries may be sponsored or even owned by sellers attempting to get 'next to' customers. Some of these cybermediaries may even assume public roles, assisting legal and regulatory bodies in providing institutional support for electronic markets.

Table 4 assesses the opportunities and risks which the three scenarios pose to the respective players.

Scenarios / *Players*	Disintermediation	Re-intermediation (On-line subsidiaries of traditional intermediaries)	Cybermediation (New entrants which function as intermediaries)
Supplier	O: Direct access to consumers, improved control over the distribution channel. R: Adverse reactions from intermediaries, site might not generate sufficient attention, increased complexity of operations.	O: Higher revenues with probably lower margins for intermediary. R: Control over sales and distribution activities?	O: Additional, differentiated channel, gaining experience with innovative business models. R: No or little control over sales and distribution activities.
Traditional intermediary	O: Supplier prepares on-line market. (Retaliation against supplier). R: Loss of revenues.	O: Additional outlet, hybrid offerings that combine physical and virtual outlets. R: Sustainable business model? Critical mass of customers might be difficult to achieve.	O: Learning from success and failures of others. R: New entrants likely to be more innovative, not restricted by traditional infrastructure. Successful players might get high attention.
New entrant – cybermediary	O: Supplier prepares on-line market. R: Financial resources and brand name might heighten the entry barriers.	O: Traditional intermediary prepares on-line market. R: Industry-specific know-how and brand name might heighten the entry barriers.	O: Innovative business models based on understanding of the new medium and not restricted by traditional infrastructure. R: Limited resources and cut throat competition from suppliers and traditional intermediaries.
Customer	O: Direct access to supplier, price benefits. R: In case of comparison shopping: higher search, configuration, negotiation and settlement cost. Higher risk if supplier has no established brand name.	O: Traditional functions extended into cyberspace plus additional services. R: Acceptance will depend on service level and price. Extra charges for traditional services possible.	O: Innovative service offerings focused on electronic channel. R: Service level and fulfilment guarantees of new companies? Specific industry know-how may be limited.

Table 4. Players' Opportunities (O) and Risks (R) in Relation to Different Scenarios

Figure 3 illustrates the three main scenarios for electronic intermediation. Our major conclusion is that it is extremely difficult to generalise on the type of intermediation that will dominate in any given market. In line with Bailey and Bakos (1996) we note that different strategies for disintermediation and reintermediation in different markets will be successful or otherwise dependent on multiple factors, not the least being the present structure of the physical market.

However, based on the above discussion, a number of hypotheses can be stated:

a) When the supplier market is monopolistic or oligopolistic (i.e. a small number of suppliers dominate on product or price) and the intermediaries are fragmented and have limited control over consumer behaviour, direct sales wins and disintermediation is the most likely outcome (Clemons and Row 1998). An example can be seen in the software and hardware markets, where the dominance of big players (for example, Microsoft, Cisco, Dell, etc.) means that intermediaries struggle and have to differentiate themselves through specialisation, offering services such as reviews, consultancy, etc. Software retail

has been radically changed by direct sales and digital distribution. New cybermediaries, such as Beyond.com, have struggled to attract customers.

b) When market or product knowledge or augmentation is vital, intermediaries can dominate, especially through differentiation and better positioning in the market (reintermediation). Book retailing is dependent upon browsing and search, and thus augmented search facilities as provided by the new on-line book retailers have helped generate a sizeable customer base. Further, publishers tend to fragmented and reliant on distribution channels, with no or little experience of direct sales.

c) When traditional intermediaries use value-based pricing and position the electronic channel to augment their traditional service offerings, they have a good chance to defend their position.

d) When intermediaries have been protected against intense competition from outside the industry (for example, travel agencies have relied on airline commissions, or booksellers in central Europe have been protected by a fixed price regime), and the supplier market is fragmented or consumers have a preference for unbiased choice, cybermediaries might seize the opportunities that the Web provides and offer innovative services. For example, Amazon has reinvented bookselling and Preview travel (www.previewtravel.com) or Priceline (www.priceline.com) have redefined the role of travel agents.

e) When purchase decisions are complex and varied, and the market is highly fragmented, cybermediaries can add value by simplifying information search. Examples can be found in the auctions market, where, despite intense competition, cybermediaries like BidFind (www.bidfind.com) have quickly established themselves by providing value-adding services such as assisting buyers in locating items in on-line auctions.

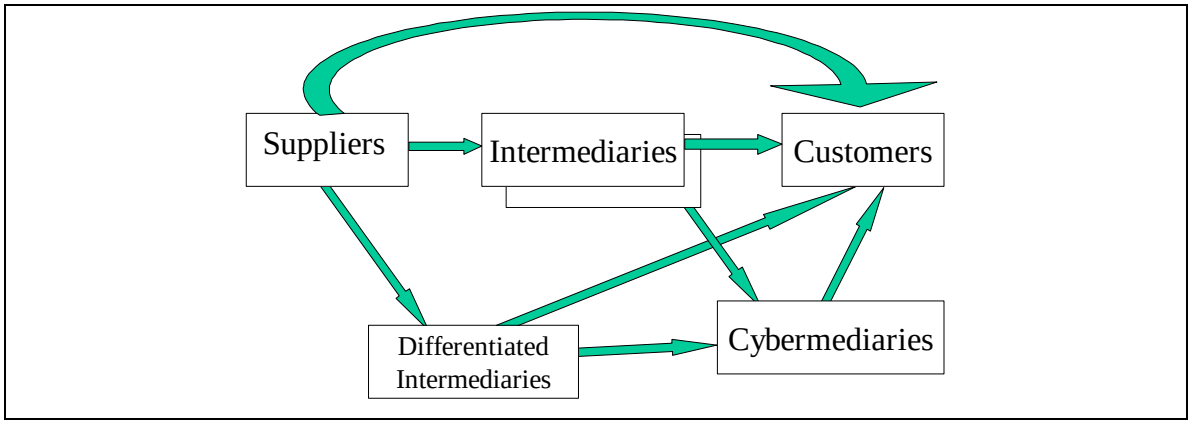

Figure 3. Types of Electronic Intermediaries

Electronic markets are still far from reaching a state of maturity. It is therefore difficult to safely predict the market structure of the future. However, it is becoming clearly evident that, at least as far as intermediation is concerned, initial predictions do not seem to materialise in the majority of cases. The dynamics of market restructuring may lead some intermediaries to extinction, but the overall market picture will compensate the

losses by providing opportunities for both existing and new intermediaries to enter the market through providing value adding services to electronic transactions.

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