

Digital view: Life on the Danish Internet, October 12-18,  
2009

Eroding powers of digitalization revealed

Secondhand-shopping,  
telecommunications and  
e-banking rules e-commerce  
in Denmark.

Retail comes in # 5.



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“Digital view: Life on the Danish Internet, October 12-18, 2009” is written by Jon Lund.

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## INTRODUCTION

Digital view: Life on the Danish Internet provides a weekly overview of the evolution of traffic on and from the Danish internet, as measured for the Interactive Bureau of Denmark (Foreningen af Danske Interaktive Medier, FDIM).

Data stems from an ongoing research carried out by Gemius for FDIM.

Data is collected through a peer-reviewed, automatic, structured and rule-based methodology and is generally of very high quality.

## SECONDHAND SHOPPING, TELECOMMUNICATIONS AND E-BANKING RULES DANISH E-COMMERCE. RETAIL COMES IN # 5.

### Digitalization paves the e-business way through Denmark

For the past 10-15 years the concept of e-commerce has tightened it's grip around the developed world. As the waves of globalization and internet has washed and washed onto the shores of modern-day society, e-commerce has become evermore present in yet more areas of business.

Not all kinds of business is affected in the same ways, however. Some are left relatively untouched, some are altered completely. The ones most prone to e-commercialization are those which most heavily rely on symbolic representation in production, sales or distribution, because symbolic representation so easily translates into bits and bytes.

Industries with at least one of the two characteristics are - by the "symbolic representation-token" - especially vulnerable to the eroding forces of digitalization: (i) industries for which the products constituting the industry are non-physical, symbolic, objects like eg. money, music or media. Products (or services) like this are easily put on an "internet formula" and injected into the digital economy.

Also (ii) industries build around physical products are in danger of being swept over and eroded by the digital tide. This is the case where the sales-process is complex and inherently separated from the consumption process, like in real-estate or travel. The products themselves are very physical, like a house or a trip to the Caribbean, but the buying process is - by its very nature - symbolic. The buying process itself - not the products for sale - is the one which digitalization grabs hold off, dragging it into the maelstrom of e-commerce, streamlining market structures.

The question set forth in this report is the following: which areas of business have in fact been e-commercialized? What can we learn when we look at the evidence given to us (and constituted by) the internet?

### Getting the data right

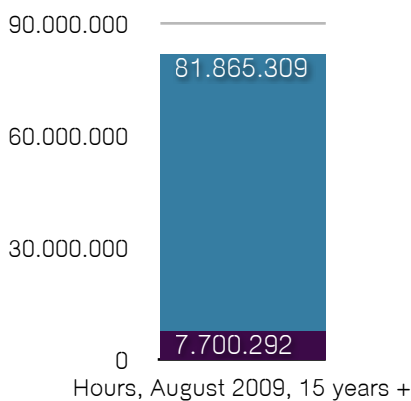
Setting out to measure the degree of e-commercialization of any given business area is of course an inherently multifaceted task. Do you want to tell the story about organizational processes and rationalization? Do you want to tell the story based on available evidence of revenue streams (which is a hard thing to get around)? Do you want to tell the story of the business areas which

were defeated in the great battle of the internet, and no no longer exists (like the photo-shop in the street, taken out by digital cameras and image handling websites), or the story of the ones who victoriously grew when touched by the new data paradigm?

This study takes a simple, yet illuminative approach: look at where on the internet the activity is the largest. Categorize and measure how much time is spend on different kinds of sites. Draw up the results.

An approach like this is made possible by a unique data-set from the largest 3-500 websites in Denmark, effectively measuring all sites with more than 90.000 monthly users and some with fewer. The Data stems from a representative ongoing survey from the Danish research institute Gemius, revealing the online activities of more than 7000 Danes during the month of August 2009, each of whom has installed a piece of software, tracking their every move. A data-set, which is weighted not alone on socio-demographic variables like gender and age, but also on behavioral variables (the pattern of sites they visit).

In this way you don't get exact numbers on what kind of businesses makes the most money online. You don't get data on what benefits of rationalization different industries might have harvested in their back-office departments. Also, the approach favorites industries with mass markets: businesses with few customers gets in second to business with lots of customers no matter the value of the economic activities taking place.



E-commerce accounts for merely 9,4 percent of total internet usage among adult Danes.  
Source: FDIM/gemiusAudience, August 2009.

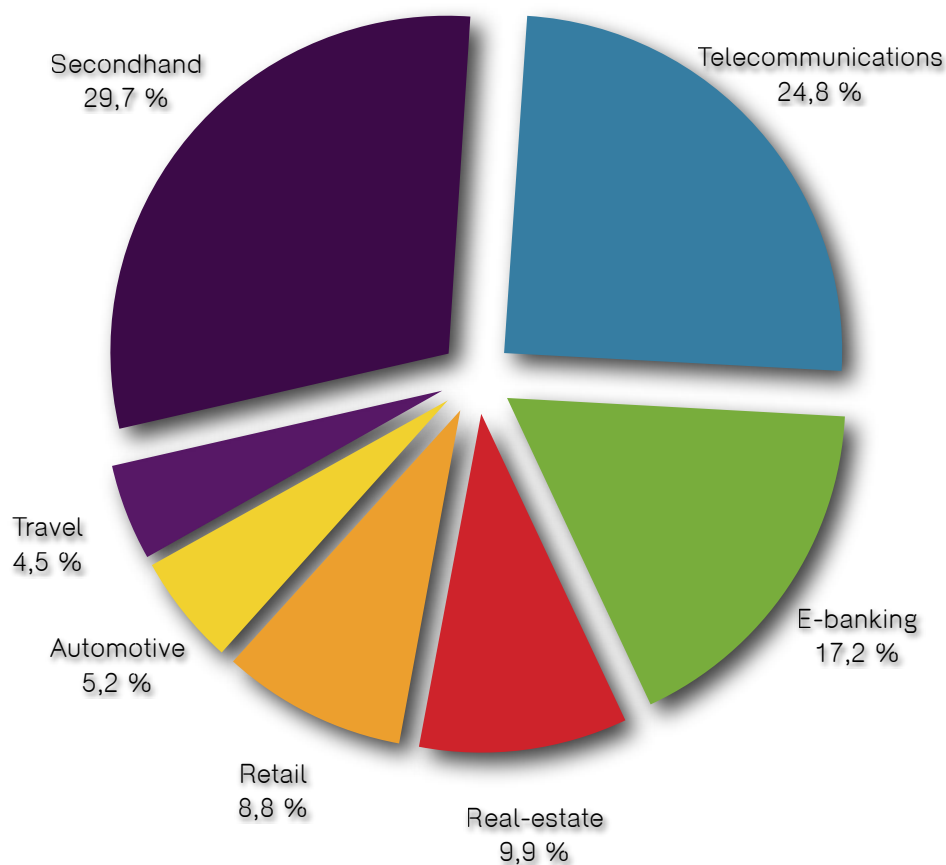
But you do get data, very good data, on which industries have managed to conquer the web in the eyes of the consumers, building audiences and engagements. You do get evidence as to which industries have managed to translate physical relations into digital ones, and thereby on how well-transformed their various business processes are.

## E-commerce in Denmark, August 2009

In August 2009 3,75 million Danes over the age of 15 years - more than 80 percent of the entire population - used the internet at least once. They spend a total of 81,9 million hours surfing larger websites (more than 90.000 monthly users) - more than 40 minutes a day per person on average.

Of these 81,9 million hours 9,4 percent - 7,7 millions hours - were spend on various e-commerce activities. Social networking (i.e. Facebooking) and searching (i.e. Googling) were the main activities of Danes, accounting for more than 50 percent of the total available surf-time.

Going through the data-set, the 124 largest e-commerce sites in Denmark can be categorized in a total of seven different categories: Automotive, E-banking, Real-estate, Retail, Secondhand, Telecommunications and Travel.



Secondhand-shopping is by far the largest e-commerce category in Denmark. Total time spend in percent of total time spend on e-commerce sites, August 2009. 15 years+. Source: FDIM/gemiusAudience August 2009.

Category	Total time spend (hours)	Percentage time spend
Secondhand	2.604.823	29,7 %
Telecommunications	2.177.180	24,8 %
E-banking	1.505.981	17,2 %
Real-estate	868.595	9,9 %
Retail	768.654	8,8 %
Automotive	455.894	5,2 %
Travel	396.383	4,5 %
Total	8.777.511	100,0 %

Secondhand-shopping is by far the largest e-commerce category in Denmark. Total time spend (hours) and percentage hereof on e-commerce sites, August 2009. 15 years+. Source: FDI/gemiusAudience August 2009.

## Secondhand shopping

Secondhand shopping is by far the largest of the eight e-commerce categories, accounting for 2,6 million hours, nearly thirty percent of all e-commerce activity.

A few cautionary notes should be made, however. Since the sites labeled “secondhand” are not exclusively second-hand. At most sites you can also “buy new”. This would tend to overestimate the “secondhand” category. On the other hand, selling of used cars have been excluded from the “secondhand” category and placed in a category of it’s own - “automotive”, even though this could equally well have been labelled “secondhand”. This tends to underestimate the “secondhand” category.

These remarks aside, compared to the traditional economy, the online secondhand category is huge. Actually secondhand-shopping might be one of the areas, which have been most purely e-commercialized. Existing printed classifieds-listing, as well as message-boards-slips in the local grocery store, have been greatly diminished. Also, the ability to actually post a for-sale message online might actually have enlarged the secondhand-market: as buying and selling secondhand gets easier, more people will engage in secondhand shopping beforehand.

“Secondhand” websites. Top 5, August 2009.

Site	Total time spend (hours)	Total number of users
dba.dk	1.202.047	1.004.372
trendsales.dk	483.227	211.660
gulonggratis.dk	400.776	381.225
qxl.dk	348.171	338.122
lauritz.com	90.899	125.127

Number of hours spend by +15 year old Danes on - and the number of users having visited - secondhand web-sites during the month of August 2009. Top 5. Source: FDI/gemiusAudience.

The e-commercialization of second-hand shopping is highly logical: Second-hand buying and selling is characterized by a total lack of a physical production process, since the products already exists.

The activity in economic sector therefore works through nearly pure symbolic representation: it's all about communicating the products for sale and negotiating the price in a highly complex market, with lots of potential sellers and buyers physically separated from one another. The market needs a marketplace for them to meet in order to function. Exactly the kind of situation the digitalization process spots and digs into, eroding existing structures, building up new ones. (One thing keeps secondhand shopping from being a perfect digitalized market, however: the products being sold are still (for the most part) physical, and hence they'll have to be distributed through traditional non-digital channels).

## Telecommunication

The telecommunication ("telco") industry comes in as the second-largest e-commerce category with 2,2 million hours spend, equaling a 24,8 percent share of all e-commerce activity.

The telco industry is an example of how the internet both enabled a digitalization of existing business processes and at the same time paved way for entire new ways of offering new services to the customers.

The traditional telco-business is to sell access to telecommunications. That is: Telcos sell telephone- and TV-plans, enable you to speak and watch, they sell internet access and they sell a variety of devices used in the telecommunications-process, like mobile phones, TV-sets or routers. Apart from the devices used, all the products are virtual (that is: digital or analogue signals send through cables or the air). In itself, telcos are therefore sending an open invitation to the eroding powers of digitalization: since no physical contact is required when the initial telco-products have been set up, the sales processes - and a large part of the ongoing service processes - are free to be taken off to the internet.

Telcos have, however, taken a step further. They're providing not alone the access to telecommunication services, they're offering the first parts of the telecommunication services themselves: Program guides, web-mail and photo-sharing features, download of music, search and portals to the broader internet to mention some. The wave of digitalization have not only moved the buying process online, it has created lines of new products which are "produced" and delivered online.



Telecommunications websites. Top 5, August 2009.

Site	Total time spend (hours)	Total number of users
tdc.dk/tdconline.dk	1.216.318	650.000+
stofa.dk/stofanet.dk	585.835	160.202
telmore.dk	83.154	321.131
telenor.dk	80.955	271.521
telia.dk	53.336	334.930

Number of hours spend by +15 year old Danes on - and the number of users having visited - telecommunications web-sites during the month of August 2009. Top 5. The number of users stated for tdc/tdconline is a minimum number of users, as data does not support a net-reach calculation for the two domains. Source: FDIM/gemiusAudience.

## E-banking

E-banking accounted for 17 percent of all e-commerce activity in August 2009 in Denmark and ends up as the third-largest e-commerce category. This is hardly surprising: As noted above, e-banking is one of the examples of an industry in which the “products” being sold - money - is by its very nature nothing but symbols. Once upon a time you could surely swap your money to gold, but ever since the ability to convert money to gold were finally abandoned in the 20th century, money has been all about trust in a mutual (and governmentally backed) agreement to use the money for their face value.

For this reason banks were first-movers in race of digitalization - money had all it took to be perfectly digitalized products and for that very reason couldn't resist being digitalized. Here as elsewhere the sheer opportunity led the market-forces to explore all structures vulnerable to the eroding power off digitalization. Internally banks started the digitalization up well ahead of the advance of the internet, and had by this token a head-start into the internet-business.

With the products themselves being digital, digitalization of sales and services was logical (and unavoidable) next steps. (In online banking sales and services are highly intertwined, and worth separate studies. Fees and yield spreads (i.e. differences in interest rates) constitutes sources of revenue streams attached to the self-service of the customer).

#### E-banking websites. Top 5, August 2009.

Site	Total time spend (hours)	Total number of users
danskebank.dk	513.564	818.278
nordea.dk	312.509	517.066
portalbank.dk	236.402	215.854
e-boks.dk	145.695	796.293
sydbank.dk	111.151	130.712

Number of hours spend by +15 year old Danes on - and the number of users having visited - e-banking web-sites during the month of August 2009. Top 5. Source: FDIM/gemiusAudience.

## Real-estate

Real-estate is number four on the list of the largest e-commerce categories. Nearly 870.000 hours - 9,9 percent of total e-commerce activities - were spend by Danes in August 2009.

The drivers of secondhand-shopping applies perfectly to real-estate as well (as most house and apartments being sold are not new, real estate is actually secondhand-shopping): The industry is characterized by a lack of a physical production process (though the physical presence of the real estate broker is still required in evaluating the property for sale), by symbolic interchange in the sales process and by a complex market structure. Due to the level of economics involved in buying and selling houses and apartments, the market place for real estate was however more developed in the traditional economy, constituted by the classifieds listings in the newspapers.

The printed listings however were an easy take for the wave of digitalization, as it to a very large extend forced the words and images online to be searched for and found by potential buyers.

As this happened, the industry was partly de-commercialized. Instead of paying newspapers for advertising, the advertisement was in-sourced and the costs associated with the advertisement turned into administration costs.

#### Real-estate websites. Top 5, August 2009.

Site	Total time spend (hours)	Total number of users
boligsiden.dk	242.983	243.286
edc.dk	178.899	310.671
home.dk	169.265	311.186
boligportal.dk	109.616	158.622
nybolig.dk	59.476	224.453

Number of hours spend by +15 year old Danes on - and the number of users having visited - real-estate web-sites during the month of August 2009. Top 5. Source: FDIM/gemiusAudience.

## Retail

Retail on the internet is for many what constitutes e-commerce. It's the kind of shopping, where you put stuff into your virtual basket, head for the check-out process, pay and finalize the transaction. Typically the products purchased are hereafter sent to you by mail. However, as the number tells, retail only accounts for a minor part - some 770.000 hours spend in August converting to 8,8 percent - of total e-commerce activities, as laid forth in this analysis.

When interpreting the numbers, bare in mind that retail-sites included in this analysis does not only serve the purpose of completing transactions online. The three largest in the below list, e.g., all are existing physical businesses - visiting ikea.dk, elgiganten.dk or hm.dk might equally well result in a subsequent visit and transaction-completion in your nearby department-store.

As e-commerce category retail is highly diversified, dominated by electronics (elgiganten.dk, hp.com, apple.com), CD/videos (cdon.dk, gucca.dk), ticket sales (kino.dk, billetlugen.dk), clothes (hm.com, ellos.dk), various accessories for home and autos etc (ikea.com, thansen.dk, amazon.com), books (saxo.dk, bogpriser.dk) and groceries (nettorvet.dk, kvickly.dk).

The common denominator for all sites is ease of physical distribution. Being able to send the items being bought by preferably mail seems to be a requirement for retail e-commerce to get a real hold. If the goods won't easily be shipped, digitalization can't really get a grip at the business processes, and leaves the area of business largely untouched.

Retail websites. Top 5, August 2009.

Site	Total time spend (hours)	Total number of users
ikea.com	73.654	262.911
elgiganten.dk	49.887	254.853
hm.com	47.154	136.972
amazon.co.uk/amazon.com	46.090	269.788
kino.dk	43.168	253.103

Number of hours spend by +15 year old Danes on - and the number of users having visited - retail web-sites during the month of August 2009. Top 5. Source: FDIM/gemiusAudience.

## Automotive

As is the case for real-estate, automotive has distinct traits of higher-class second-hand shopping. Like houses and second-hand shopping in general, cars are, as preexisting physical goods in complex market conditions with a fragmented buyer and sellerbase, dragged into the

marketplaces of the internet by the sheer powers of the digitalizing process. No matter if they're new or used. This is the basic reason for why Danes spend 460.000 hours - 5,2 percent of total e-commerce activity - on automotive sites during August 2009.

One thing in particular distinguishes the automotive buying cycle: knowledge and research. Cars are technically very sophisticated products, and due to the amount of money at stake, buyers want to know as much as possible about the car they're about to buy. This has traditionally put a great strain on the buying process. Not only does buyer and seller have to find each other: they also needed to spend a great amount of time discussing and going through the technical makeup of the given car.

Knowledge is, however, yet another example of pure symbolic representation, so well-suited for digitalization. As the users surfs and search through the various e-commerce marketplaces, they're at the same time involved in a self-teaching process, which, as the hunt for a new car is narrowed down to a model or two, makes many car-buyers experts. The internet drastically saves time and supports the buying process.

Automotive websites. Top 5, August 2009.

Site	Total time spend (hours)	Total number of users
bilbasen.dk	431.778	404.490
biltorvet.dk	22.179	69.810
vmax.dk	1.455	13.373
bilklassiker.dk	253	3.067
autogejl.dk	229	4.596

Number of hours spend by +15 year old Danes on - and the number of users having visited - automotive web-sites during the month of August 2009. Top 5. Source: FDIM/gemiusAudience.

## Travel

The travel industry is another - yet smaller - example of an industry transformed by digitalization. The category accounted for 400.000 hours used in August 2009, 4,5 percent of total e-commerce activity.

Planning and coordination of flight departures, hotel bookings etc were once the domain of travel agencies, tying customer demands to market supply the best they knew. The internet turned all of this upside down.

While traveling to e.g. Kuala Lumpur is still a substantially physical endeavor, left peculiarly untouched by the blessings of the internet, finding out how to get there and buying your way there

is not. As the river of data and transparency flooded through society, getting hold on the booking-databases (or had them developed), the traditional travel-agencies turned obsolete, handing over the power to steer through large parts of the travel-planning proces from the agency to the traveller. In this do-it-yourself paradigm, travel agencies turned into repositories of travel-offers, time-schedules and price-comparisons.

Travel websites. Top 5, August 2009.

Site	Total time spend (hours)	Total number of users
spies.dk	45.108	135.800
booking.com	38.257	139.703
startour.dk	36.571	108.910
sas.dk	35.544	231.062
apollorejser.dk	29.861	98.082

Number of hours spend by +15 year old Danes on - and the number of users having visited - travel web-sites during the month of August 2009. Top 5. Source: FDIM/gemiusAudience.

## Forces of digitalization at work

The above study have shown how seven separate e-commerce industries occurs, when available data on usage of e-commerce websites in Denmark is analyzed, with the secondhand industry in top, followed by telco, e-banking, real-estate, retail, automotive and travel. For each for the industries it has been argued that the role of symbolic representation in the business processes in each their own way has shaped the specific e-commercialization of the industry in question.

The study has thereby made the point, that evolution of e-commerce is not a single unifying process, mechanically running over the todays business environment, leaving behind it a standardized and well ordered "new economy". Instead e-commercialization is a varied phenomenon, which takes all kind of local and industry-specific factors into consideration, systematically searching for soft spots to drill into, in order to start its eroding process, transforming traditional business processes of symbolic representation with digital ones.

## DATA AND METHODOLOGY

“Digital view: Life on the Danish Internet” provides a weekly overview of the evolution of Danish activity on the internet, as measured for the Interactive Bureau of Denmark (Foreningen af Danske Interaktive Medier, FDIM).

The Data stems from an ongoing research carried out by Gemius for FDIM. The research falls in two parts: one part measures all pageviews of the sites taking part of the survey. Key results are published on <http://fdim.dk/?pageid=123>.

The other part of the research investigates Danes’ use of websites not actively participating in the study, such as Google, Facebook, Youtube and Twitter. This research is based on a panel with 7000+ actively participating panelists, which is adjusted to align with actual demographic composition and behavioural characteristics of the overall Danish internetpopulation.

The querying and processing of data, identification of key parameters for selected sites showing significant trends is done by Jon Lund based on a profound experience in traffic-analysis and an in-depth knowledge of the Danish internet-landscape.

Data is collected through a peer-reviewed, automatic, structured and rule-based methodology and is generally of very high quality.

The official statistics are available on [www.fdim.dk](http://www.fdim.dk) and through a special analytics application.



## ABOUT JON LUND

Jon Lund is advising, speaking and analyzing the impact of new media and new technology on business and society. Jon Lund views openness and transparency as factors contributing to the growth of business, the welfare of societies and the well-being of individuals. Open up, give away data, figures, facts and opinions, invite customers, business-partners and society in general to engage with you, in the long term will leave you better off.

From 2004 to 2009 Jon Lund was general manager of IAB Denmark (Foreningen af Danske Interaktive Medier, FDIM) and headed as such the official measurement of activity and ad spend on the internet.

Jon Lund is member of the board of IAB Europe and has held honorary positions as member of the Danish Ministry of Cultures advertising forum, member of the board of directors of the forum of the Danish Media, member of ICC Denmark's marketing committee. He holds a masters degree in Political Science and has worked with internet since starting his own agency in 1995.