

2011

International **Post**
Corporation

Prepared by:

Copenhagen Institute for **Futures** Studies
Institutet for Fremtidsforskning



ROLE OF MAIL 2020

Report prepared for the International Post Corporation by the Copenhagen Institute for Futures Studies

About the Copenhagen Institute for Futures Studies

The Copenhagen Institute for Futures Studies (CIFS) supports better decision-making by contributing knowledge and inspiration. CIFS's objective is to advise public and private organizations by raising awareness of possible futures and emphasizing their importance to the present. CIFS identifies, analyzes and explains the trends that influence the future through research, seminars, presentations, reports, and newsletters.

Our work methods range from statistically based analyses and the identification of global trends to classifying the more inferential, subjective and emotional factors of the future. The Institute's work is interdisciplinary and the staff represents various fields of academic and professional backgrounds, including economics, political science, ethnography, psychology, public relations and sociology.

Visit CIFS at www.cifs.dk/en

Table of contents

Executive Summary	1
Introduction: The role of mail 2020	3
Role of Mail II: Methodology and structure	3
Main findings	3
Transactional mail	8
Role of Transactional Mail in 2020	8
Current situation	8
Major forces <i>for</i> change	10
Major forces <i>against</i> change	11
Force field analysis	13
Figures and market development	14
Communications experts' view on future of transactional mail	15
Social and institutional factors	16
Government to citizen communication.....	18
Letters mail's role in government to citizen communication in 2020.....	18
Current Situation	19
Major forces <i>for</i> change	21
Major forces <i>against</i> change	23
Force field analysis	25
Figures and market development	26
Communications experts' view on future of G2C communication	27
Social and institutional factors	27
Marketing communication	28
Letters mail's role in marketing communication towards 2020	28
Current situation	29
Major forces <i>for</i> change	29
Major forces <i>against</i> change	34
Force field analysis	36
Figures and market developments.....	37
Communications experts' view on future of marketing communication	38
Social and institutional factors	39
Media content	40
Letters mail role in printed media content in 2020	40
Current situation	40
Major forces <i>for</i> change	41
Major forces <i>against</i> change	46
Force field analysis	48
Figures and market developments.....	49
Communications experts' view on future of media comment.....	50
Social and institutional factors	50
Social Communication	52
Letters mail's role in social communication towards 2020.....	52
Current situation	52
Major forces <i>for</i> change	55
Major forces <i>against</i> change	59

Force field analysis	59
Market developments towards 2020	60
Social and institutional factors towards 2020	61
Recommendations towards 2020.....	62
Recommendations.....	63
Works cited.....	65

List of Figures

Figure 1 EU 15 Volume development – IPC Postal Expert views & continuation of market decline	5
Figure 2 Typical customer structure of a postal operator (letters business) (Source: ITA Consulting / WIK-Consult 2009, p95).....	9
Figure 3 Dec. 2008-2009 broadband penetration growth (increase in subscribers per 100 inhabitants) (Source: OECD, 2010)	11
Figure 4 Consumers' future preferences for invoice reception channels in 11 European countries (Source: Source: Elkelä, Kari & Koppe, Peter 2010).....	12
Figure 5 House hold growth in the US and EU27	13
Figure 6 Force field analysis transactional mail.....	14
Figure 7 Decline rates in transactional letters mail products towards 2020 according to expert panel (Source: CIFS, 2010).....	15
Figure 8 USO for broadband targets in select countries (Source: IPC & ITU, 2010).....	20
Figure 9 Force field analysis G2C communication.....	26
Figure 10 Surveyed respondents point towards a moderate decline in G2C mail volumes	26
Figure 11 Proportion of Internet traffic devoted to various online activities (Source: Wired, 2010).....	32
Figure 12 Effectiveness of Direct Marketing Media: Customer Retention (Source: IPC 2008)	34
Figure 13 Cross-Media Campaigns: Users v. non-users (Source IPC 2008)	36
Figure 14 Force field analysis marketing communication	37
Figure 15 Average declines of direct mail volumes towards 2020 (Source: CIFS, 2010).....	38
Figure 16 What would you like to read on an e-reader and how much would you be willing to pay (Source: MPA, 2010)	43
Figure 17 Print and digital complementarity (Source MPA, 2010).....	43
Figure 18 Countries are becoming more technologically sophisticated according to the ITU's ICT Development Index (Source: ITU, 2009)	45
Figure 19 Force field analysis media content.....	49
Figure 20 Market developments media content.....	50
Figure 21 C2C Substitution of first class letters sent by consumer	54
Figure 22 What do expect the most used forms of communication will be via mobile platforms (Source: Survey of mobile telecommunications providers Airwide solution)	54
Figure 23 People on Facebook joking about the “dated” communications tools (Source: failbook.com)	56
Figure 24 Percentage of children under age of 2 with online presence	57
Figure 25 Social networking is truly mass-market (Source: TNS Digital Life, 2010)	57
Figure 26 Mobile phone users going non-voice	58
Figure 27 Force field analysis social communication	60
Figure 28 Market developments towards 2020	61

List of Abbreviations

B2B	Business to business
B2C	Business to costumer
B2X	Business to either other business or consumer
C2C	Consumer to Consumer
CAGR	Compound Annual Growth Rate
CIFS	Copenhagen Institute for Futures Studies
eGov	eGovernment
EU	European Union
FCC	Federal Communications Commission
GDP	Gross Domestic Product
GNI	Gross National Income
ICT	Information and communication technologies
IMF	International Monetary Fund
IPC	International Post Corporation
ITU	International Telecommunication Union
MIT	Massachusetts Institute of Technology
MPA	Magazine Publishers Association
OECD	Organization for Economic Co-operation and Development
OPA	Online Publishers Association
P2P	Peer to peer
QR code	Quick Response code
ROI	Return on Investment
RFID	Radio Frequency Identification
UN	United Nations
USO	Universal Service Obligation
USPS	United States Postal Service
VoIP	Voice over Internet Protocol
VVoIP	Video and Voice over Internet Protocol

Executive Summary

- The Copenhagen Institute for Futures Studies (CIFS) “Role of mail II” study analyzes five communications markets and the role of mail in them: transactional mail, government to citizen communication, marketing communication, media publications, and social communication.
- Surveyed experts expect a moderate decline in mail volumes – a 22-26 percent deterioration by 2020, averaging 2-3 percent annually.
- The focus group of external communication experts offers a far more pessimistic outlook than the survey of postal and communications experts did. The focus group expects declines to follow the current trend line, where declines are likely to halve the market over the next decade.
- Digitalization, individualization, and cost cutting are three strongest trends that affect the communication strategies of large-volume mailers.
- Potential cost savings for organizations from digitalizing letters mail are large. If cost savings by large mailers or pay-to-play (where customers have to pay to receive physical mailings) become dominant communications models among senders, mail volumes could decline much faster than anticipated.
- Eighty-two percent of surveyed experts believe that the population’s increasing technological sophistication with information communication technology (ICT) will have the greatest impact on letters mail volumes.
- Eighty-five percent of surveyed experts believe that demographic changes will make the population more open to, and accepting of, ICT.
- Postal companies would benefit from changing their view of letters mail away from volume and towards quality of the communication experience. Customers want communication services that anticipate and respond to their needs and lifestyles, while increasingly rejecting “spray and pray” techniques of large-scale mailers and advertisers.
- Postal companies have to rethink letters mail role as a communication medium, especially for critical large-scale mailers. How postal companies do so will be dependent upon what they consider their core competencies to be: communication or logistics.
- Key market developments towards 2020:
 - **Transactional communication** – Businesses are cutting their transactional letters in favor of alternatives. The situation will vary from country to country, but the overall trend is clear; survey participants expect an average annual decline of 3 – 4 percent annually.

- **Government to citizen communication** – Digital communication has eroded letters mail's role in government to citizen communication. Government to citizen (G2C) communication will be increasingly automated and function through single-point entry systems, leading to declines between 2.5 – 3.0 percent annually towards 2020.
- **Marketing communication** – Direct mail still exists, even though their popularity has declined with both marketers and the general public. Advertisers have shifted towards digital alternatives and in-house specialization that digital solutions offer. Marketing is continuing its transformation into an informal, dialogue-based individualized interaction. The direct mail markets are split between the inexpensive mass communication, the tactile, experiential mailings (e.g. IKEA catalogues) and the individualized, highly targeted direct mails. Direct mail volume declines 1.1 – 1.7 percent annually.
- **Media content** – Both the printed newspaper and magazine industries are under increasing pressure due to changing customer preferences and a sharp decline in revenue from advertising sales, as advertisers have shifted towards digital alternatives and in-house specialization that digital solutions empower. Survey participants expect declines ranging 1.8 – 2.7 percent annually.
- **Social communication** – In 2020, social communication is mostly digitalized, as it was in 2010. Consumers still send “emotional mail” – greeting cards, letters of condolence, postcards, etc. – though they are rare. The times have simply changed; cultural norms have changed. Survey participants expect average annual declines of 2.28 percent towards 2020.

Introduction: The role of mail 2020

Role of Mail II: Methodology and structure

The study combines desktop research with a survey of postal and communications experts and a focus group of communications experts

The Role of Mail II study combines desk research with a survey of postal and communication experts and a focus group of communications experts. The survey of is used to gauge their perspectives on future role of mail and mail volumes in five communication markets segments. The five market segments are transactional communication, government to citizen communication, marketing communication, media communication (magazines and newspapers) and social communication.

CIFS researchers then coordinated a group of communications experts to provide their professional opinions of communications trends and their impact on letters mail's role as a communications medium in the future. CIFS also asked communications experts to opine and expand on the results of the survey questionnaire.

The study is into five sections, each representing a market segment

The findings from desk research, the survey questionnaire and the communications experts' focus group will be presented throughout the report. The report is divided into five segments, representing the five market segments listed above. Each market segment presents the current market situation, analyzes the potential for market change via a "force field" analysis. A force field analysis compares the forces for change with the forces that would maintain the status quo in a given market. The section "figures and market developments" follows the force field analysis. It presents experts' opinions as to expected declines. As each IPC market is different, market declines will vary from country to country. Each section presents the social and institutional factors that could lead to different market developments.

Main findings

Survey respondents expect a moderate decline in mail volumes, while focus group participants believe a much faster decline is likely to occur. The external communications experts challenge and diverge from the findings of the survey in a number of areas including the role of postal carriers as communications companies and the strategic characteristics of letters mail.

Surveyed experts believe in a moderate decline in mail volumes

In the "Communication Trends and Role of Mail Study" conducted in 2009, CIFS researchers concluded that a moderate decline in mail volumes of approximately 2.5 percent annually towards 2020 was likely. Survey respondents confirm CIFS assessment from the 2009 study. They expect a moderate decline in mail volumes – a 22-26 percent deterioration by 2020,

External

**communications
experts have more
pessimistic outlook**

averaging 2-3 percent annually. The insight provided by external communication experts presents a far more pessimistic outlook than that provided by postal experts.

External communications experts are more morose regarding the future letters mail. They challenge the majority of postal experts' notions. They do not support the notion that postal companies are primarily communications companies supported by logistics. They unequivocally state that postal companies are logistics companies and they made that strategic decision fifteen years ago, when they passed on the opportunity to provide email services at the dawn of the Internet in the mid-1990s. They expect a strong decline in letters mail volumes towards 2020. They opine that digitalization is leading to an increasingly sophisticated population and the increasingly individualized digital communications offerings are driving the decline in letters mail volumes.

**Survey participants on
average expect a 22 –
26 percent decline.
Trend line indicates a
faster decline**

Survey respondents believe that the market would, on average, decline by 26 percent by 2020. When CIFS asked about developments in individual letters mail markets, experts on average opine that markets would decline by a combined 2.39 percent annually, or 22 percent over 10 years. If declines follow the trends established during the financial crisis, letters mails volumes would decline by 40 percent or more (see figure 1).

**Communication
experts opine that
letters mail volumes
would follow trend line
or decline faster**

The focus group of communication experts opine that letters mail volumes would likely decline more rapidly than postal experts predict in many IPC member countries. At the close of the meeting, one of the experts wanted to wish anyone working with letters mail "good luck," which elicited chuckles from the rest of the group.

**Digitalization,
individualization, and
cost cutting could lead
to more dramatic
declines in mail
volumes**

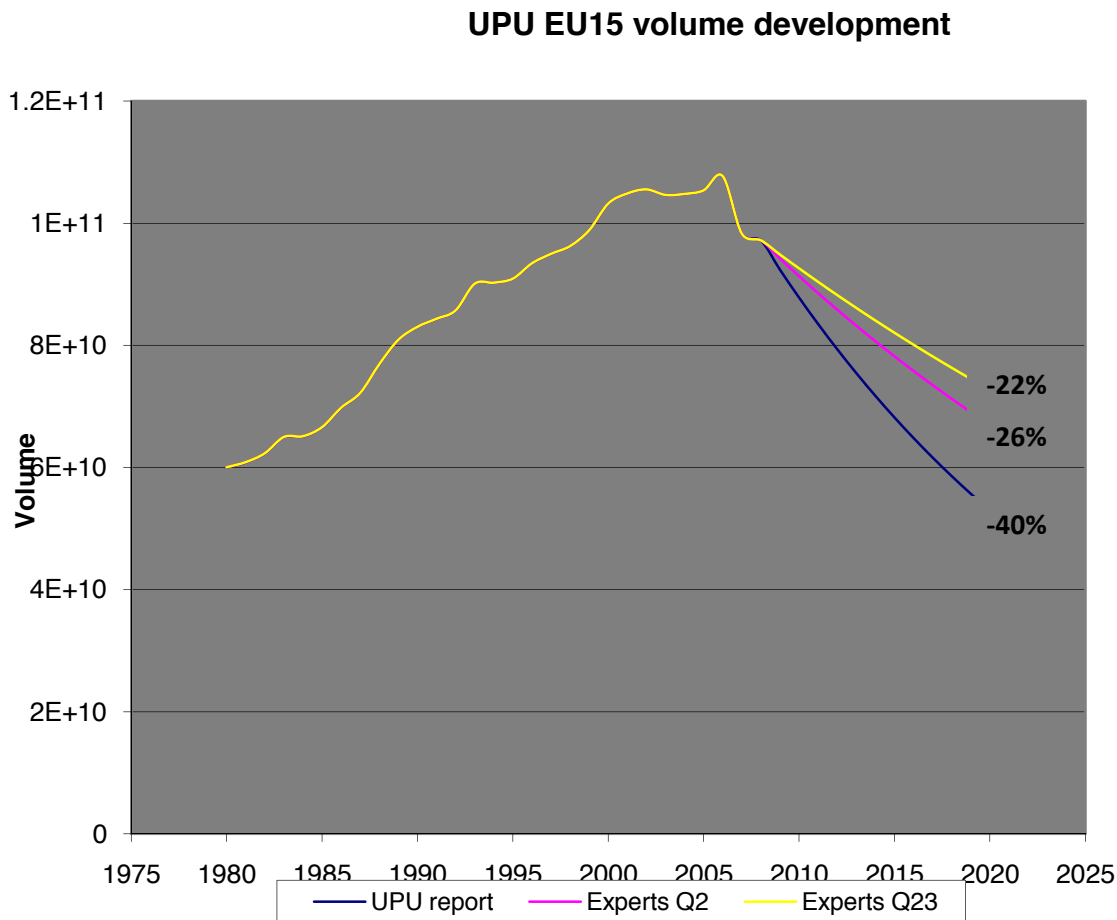
According to the external experts, digitalization is already defining many of the large scale mailers (financial institutions, governments, etc.) communications choices. For these mailers, the digital communications infrastructure already exists; digital communications cuts costs, and secure options already exist. Potential cost savings from digitalizing letters mail are large. If cost savings by large mailers or pay-to-play (where customers have to pay to receive physical mailings) quickly become dominant communications models among senders, mail volumes could decline much faster than anticipated. According to the communications experts, only social and institutional factors are maintaining mail volumes at their current levels.

**Social and institutional
factors maintain
volumes**

**Social relevance of mail
is already in decline**

The social relevance of letters mail as a communications tool has been in decline since the 1990s, when it was the primary medium for sending messages. By 2010, letters mail's market share of direct messaging (e.g. emails, SMS, telefax, etc.) in many markets has fallen below 10 percent. Towards 2020, letters mail social relevance will further decline as letters mails volumes erode due to e-substitution in all five mail segments.

Figure 1 EU 15 Volume development – IPC Postal Expert views & continuation of market decline



55 percent of respondents believe that digital communication tools could replace paper-based communication

Forty-five percent of respondents to the CIFS survey felt that it was unlikely or not possible for digital communications to replace paper-based communication carried by postal carriers by 2020. Thirty-six percent believe that this could most likely or definitely happen. An additional 18 percent are fence-sitters, and thought it possible that paper-based communication could replace by digital communications by 2020.

Eighty-two percent of surveyed experts believe that increasing technological sophistication will have high or severe impact on postal volumes

A society's trust and comfort with digital communication in the five markets under analysis will impact the speed of transition. Studies show that broadband penetration rates, along with the length of time that it has been available to population, impact e-substitution in transactional mail. A study of transactional mail habits in 11 European countries conducted by Itella identified that the length of exposure to broadband access has the greatest effect on the digitalization of transactional mail. Eighty-two percent of surveyed experts believe that the population's increasing technological sophistication with ICT will have the greatest impact on letters mail volumes. (Not to mention that people 55 and older have the fastest growing rates of online participation.)¹

¹ Schwartz: 2003

Eighty-five percent believe demographic change will make the population more open to ICT

At the same time, natural demographic transitions will change the structures of IPC member countries. In ten years' time, people in their 20's, 30's and 40's will be the largest age cohorts in IPC countries. These people will have grown up with access to ICT and will be comfortable and trusting of technology, perceiving ICT as an integral part of or extension of their lives. Eight-five percent of surveyed experts believe that demographic changes will make the population more open to, and accepting of, ICT.

Future customers will take for granted that the communications market provides a service that is affordable, reliable, universal, secure, confidential, flexible, individualized and quick. Customers will want communication services that anticipate and respond to their needs and lifestyles, rejecting "spray and pray" techniques that have been popular among large-scale mailers and advertisers.

Are postal companies ready for the transition?

According to CIFS' expert group, postal corporations are facing the same challenges affecting many major corporations: They have a tendency to want to control their markets and the terms and conditions of service that their customers can expect. The Internet is changing the game by enabling niche competitors in each of the five communications markets.

Digital services change customer expectations

The Internet alters customer expectations in communications by introducing new services. The medium allows major senders to internalize, design and handle more of their communications. Large-scale advertisers are increasingly bringing marketing in-house via online channels in order to enter into direct dialogue with their customers. This provides them with more timely and accurate feedback. The Internet allows utility companies and financial institutions to bypass middlemen in payments and other transactional activities. The Internet allows other companies (Facebook and Google) to know more about your customers' customers than postal services do.

Letters mail embodies important characteristics that should be leveraged in competition towards 2020. According to the CIFS survey, letters mail's three most important characteristics are:

- Ability to target the right message to the right customer
- Reliability of service
- Security

External experts challenge postal services ability to target right message to right customer

The communications experts challenge letters mail strategic characteristics on two of three aspects. First, they argue that alternative technologies like the emergence of smart phones and location-based services are able to target a timely message to the right customers better than letters mail. Location-based services can target these marketing messages at the moment preceding the purchasing decision. Second, letters mail's security is also challenged because letters mails are easily misplaced, neglected or improperly disposed of by customers.

Postal carriers need to

Postal companies have to rethink letters mail role as a communication medium,

**rethink letters mail
role as a
communication device**

especially for critical large-scale mailers. How postal companies do so will be dependent upon what they consider their core competencies to be: communication or logistics. Understanding this interplay with the expected growth in parcels delivery is a major challenge (More on this in the recommendations section).

Transactional mail

Role of Transactional Mail in 2020

Volumes expected to decline 4 percent annually

In 2020, businesses will have been long cutting their transactional letters in favor of alternatives. The situation will vary from country to country, but the overall trend is well-established.

Survey participants expect an average annual decline of about 4 percent. This figure is largely in line with declines already witnessed by IPC members. External communications experts support this view, noting that the cost savings for large mailers, the pre-existing infrastructure for digital alternatives, and social and cultural changes are powerful factors for change.

Major forces for decline in transactional mail volumes include efforts to cut costs among large mailers; growing digital acceptance in society at large; and increasing broadband penetration. Forces against change are cultural preferences; economic growth; and house hold growth. However, the forces against change are significantly weaker than the forces for change.

Cultural, legal and institutional preferences for letters mail could be used to slow the transition to digital alternatives in some countries. Postal companies could take a more proactive approach by seizing advantage of their established reputations to enter digital solutions for transactional services. Postal companies could also accommodate change by offering different levels of hybrid mail solutions.

Current situation

Postal operators are reliant on transactional mail

Transactional mail constitutes a considerable share of letters mail. For example, thirteen postal providers depend on transactional mail for 50 percent of their mail volumes.² However, transactional mail has declined in many postal markets over the last decade³, falling by as much as 11 percent 2007 – 2009, as electronic alternatives have emerged.⁴ Not surprisingly, countries with the greatest broadband penetration rates have witnessed the largest declines. Companies, such as banks, utilities, insurance, telecom, etc., are changing their strategies from passively asking customers to switch to digital communications to offering financial incentives to customers to receive statements and pay on-line. Some companies are using an “environmental sustainability” plea to persuade customers to “go paperless”.

Many companies have switched strategies, asking consumers to e-substitute

Transactional mail constitutes a considerable share of letters mail. For example, thirteen postal providers depend on transactional mail for 50 percent of their mail volumes.² However, transactional mail has declined in many postal markets over the last decade³, falling by as much as 11 percent 2007 – 2009, as electronic alternatives have emerged.⁴ Not surprisingly, countries with the greatest broadband penetration rates have witnessed the largest declines. Companies, such as banks, utilities, insurance, telecom, etc., are changing their strategies from passively asking customers to switch to digital communications to offering financial incentives to customers to receive statements and pay on-line. Some companies are using an “environmental sustainability” plea to persuade customers to “go paperless”.

² IPC, Global Postal Industry Report, 2010. Australia Post, Annual Report 2005/6, (2006) <<http://www.ipc.be/~media/documents/public/annual%20reports/member%20reports/2006/australia%20post%202005-06.ashx>> (October 18, 2010)

³ Xavier Ambrosini et al. 2009. *Mail order business demand. A conceptual approach*, in Michael A. Crew, Paul R. Kleindorfer (ed), in Progress in the Competitive Agenda in the Postal and Delivery Sector, p220

⁴ IPC, Global Postal Industry Report, 2010. ITA Consulting and WIK-Consult, The Evolution of the European Postal Market since 1997, Study for the European Commission, DG Internal Market and Services, (August 2009), pXVII.

One major objective is cost reduction – something that has received increased attention due to the financial crisis. Due to slow growth and ongoing financial turbulence, this trend should continue for the next few years. This trend could accelerate, as more people become accustomed to handling their transactional communication on-line.

E-substitution can impact senders' brands

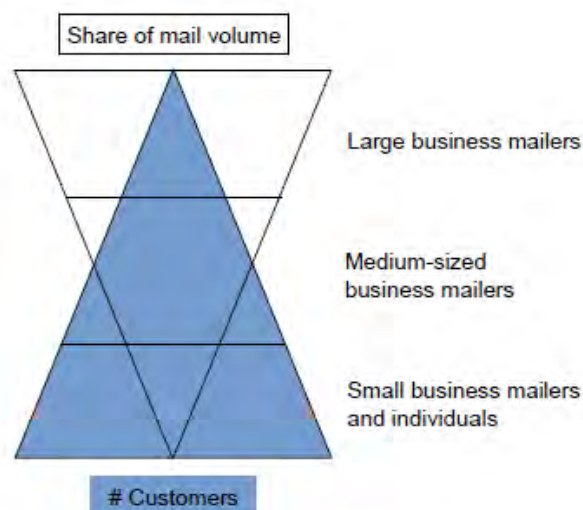
In a recent study conducted by Royal Mail, removing some transactional communications can, however, negatively impact customer loyalty and harm relationships. The study concluded that paper statements can be as important as local bank branches and UK-located call centers, in the sense that customers would be equally annoyed if they were taken away.

This seems to also apply in Scandinavian markets, where e-substitution of transactional letters mail is already advanced. A study by Post Danmark showed that a majority of the respondents still prefer to get their pay slips and invoicing by letters mail.⁵

Box 1. Transactional mail defined

Transactional communication covers essential messages needed in a relationship between two parties – normally between businesses and customers. Transactional mails often, but not always require the receiver to respond. Examples of transactional mail are invoicing, pay slips, printed statements, and some direct mail. Such mail is often industrially produced, e.g. requiring large printing capacities and machines for handling and preparation.

Figure 2 Typical customer structure of a postal operator (letters business) (Source: ITA Consulting / WIK-Consult 2009, p95)



A wide array of trends affects the future of transactional mail. Among the most important are the accelerating pace of change; the digitalization of communications; demographic change; and economic growth. Some of them embody forces for change while others counteract change.

⁵ Post Danmark. Brevvaner 10, Danskerne holdninger til brevet, Study by Capacent for Post Danmark, (2009), p4

Major forces *for* change

To help analyze the situation of transactional letters mail towards 2020 a number of forces for and against change are to be identified and analyzed. The most important forces *for* change include:

- Potential cost reduction by e-substitution for mailers
- Broad band penetration per household
- Digital acceptance in the population

Incentives to cut costs are many; they work to reduce transactional mail volumes

Incentives to cut costs among senders are many and include not having to handle and integrate paper-based communications into data management systems. Cost cutting is a force working against transactional letters mail volume and has been mentioned in several independent studies⁶⁷, and the findings from CIFS's survey and focus group confirms this picture. Two-thirds of the respondents in the CIFS survey thought that the economic downturn might have created lasting incentives for larger business mailers to substitute mail with electronic communication to control costs.

Competitors now offering digital alternatives

Digital mail providers are already finding ways to profit on large mailers cost cutting desires. According to a study by Itella Corporation, invoices (one of the largest transactional mail categories) are one of the most attractive mail categories for traditional mail operators. However, it is also the most promising business opportunity for digital competitors to introduce and expand electronic invoicing alternatives.⁸

Broadband penetration will lead ubiquitous access

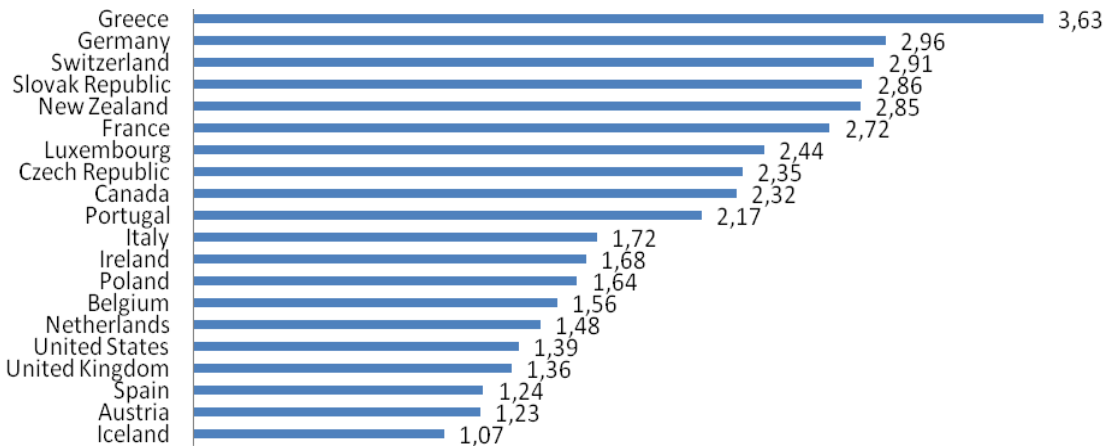
This coincides with the accelerating pace of change as more and more elements of society and business become exposed and subsequently advance to participate in technological innovation. In many countries, the ICT infrastructure needed for e-substitution is already in place, and the direction is clear; by 2020 broadband penetration in most IPC members' home markets will have reached or surpassed the levels seen in the most technology savvy countries of today. ICT subscription prices can be expected to fall as markets mature and the number of users increases.

⁶ Rambøll, Business case digitalisering af offentlige breve og dokumenter, for the Danish ministry of finance. (February 2010).

⁷ Elkelä, Kari & Koppe, Peter. Influences on Customer Preferences for Invoice Transmission, Itella Corporation (September 2010), p3

⁸ Ibid

Figure 3 Dec. 2008-2009 broadband penetration growth (increase in subscribers per 100 inhabitants) (Source: OECD, 2010)



The real competitor is Moore's law and the Internet...

Unsurprisingly, more than three quarters of survey respondents think that the adaptation of faster and more reliable broadband technologies will lead to a substantial decline in total mail volumes before 2020.⁹ Or as a member of the expert panel put it, "the real competitors are Moore's law and the Internet".

Through mobile devices

Digitalization and technological development would not be a significant force for change without social and cultural acceptance. Already today a majority of the population in most developed countries use the Internet and the mobile phone as their primary means for communicating with the world around them. The numbers are growing steadily due to natural demographic transitions and populations are incrementally becoming more technologically sophisticated.¹⁰

Some people will still need transactional mail – will volumes be enough to justify costs?

Digital acceptance will surely unfold differently among countries. According to more than one-third of the surveyed communications experts, letters mail will most likely or definitely still be of vital importance to some demographic groups by 2020. But, the question remains: How important will these groups be for mail volumes?

Major forces *against* change

Three major forces *against* change have been identified for transactional mail:

- Social and cultural preferences
- Economic growth
- Population and household growth

Not everyone will be able or willing to embrace digital alternatives for transactional letters mail by 2020. Technological changes often come fast, but for the most of human history, behavior sometimes took generations to change. A member of the expert panel put it like this: "You end up punishing older

⁹ CIFS a. Expert questionnaire, (October 2010)

¹⁰ CIFS b. Communication trends and the role of mail. Report for the International Post Corporation, (2009), 21

people [...] if they don't have computers and Internet" (From expert panel discussion, 2010)

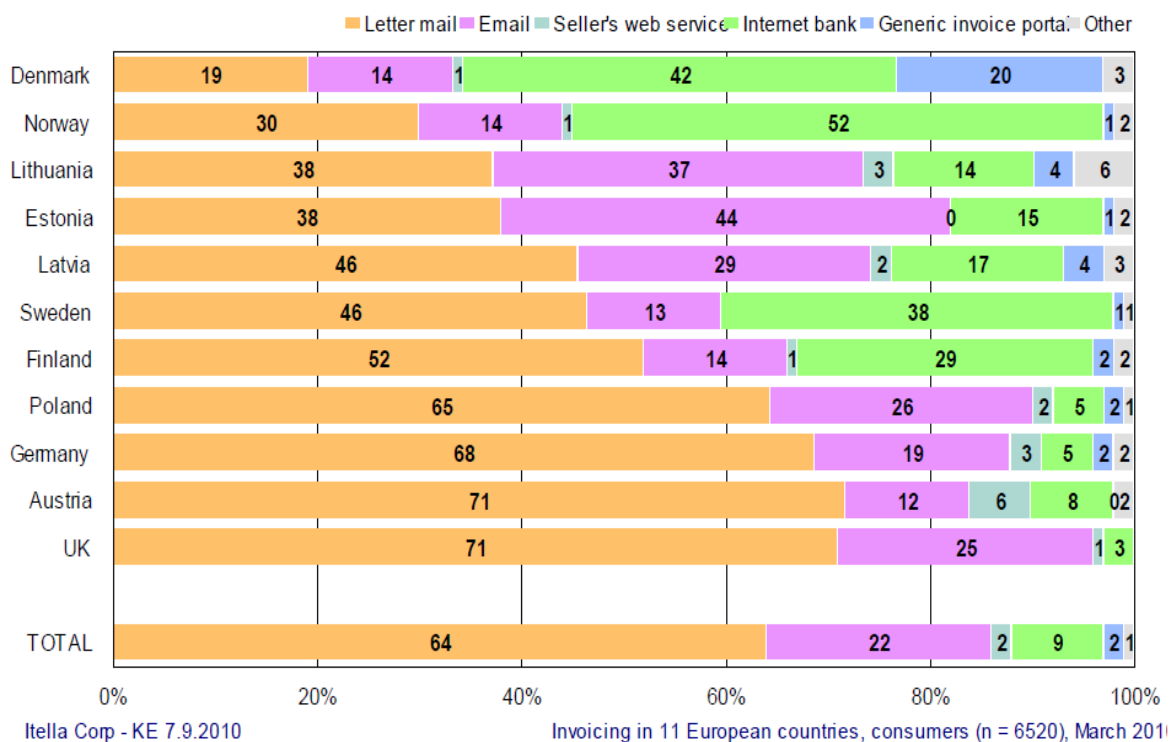
Cultural change occurs more slowly than technological change

Slowly changing cultures and individual preferences could slow the decline in transactional letter's volume. Sociologists point to the fact that individual's basic values are imprinted during childhood and change little after one's teenage years.¹¹ This makes culture a force against change that should not be ignored, at least not in the short-term. Also, the strong individualization trend in contemporary Western societies makes consumers emphasize the right to choose, including the choice of sticking to letters mail in some cases.

Consumers in many countries still prefer letters mail

Nearly 80 percent of the surveyed experts responded that that cultural preferences (and legal traditions) could slow down the decline in letters mail until 2020. In a study by Kari Elkelä and Peter Koppe, a majority of respondents in several European countries answered that they will still prefer letter mail over digital alternatives in the future, as you can see in the following figure.

Figure 4 Consumers' future preferences for invoice reception channels in 11 European countries (Source: Source: Elkelä, Kari & Koppe, Peter 2010)



Economic growth could lead to more growth towards 2020

Another force against change is economic growth. There has traditionally been a correlation between economic activity and letters mail volumes, and it will still exist in many countries towards 2020. But, digitalization has weakened the correlation throughout the 2000's, and it may become significantly weaker than

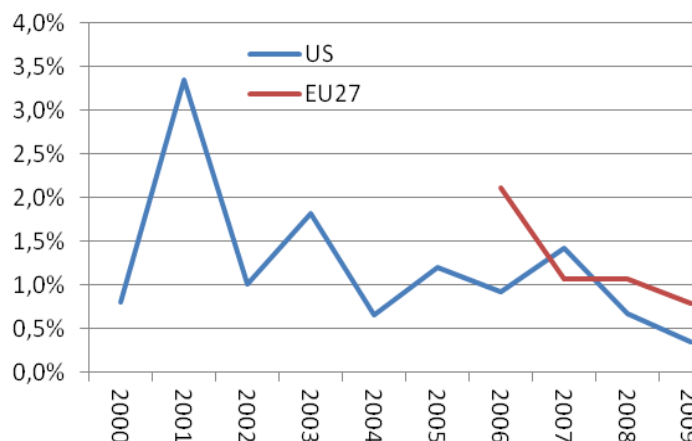
¹¹ S. Craig Watkins, The Young and the Digital, Boston: Beacon Press, (2009), 207

it is today. More than two-thirds of the respondents to the expert questionnaire thought that the economic downturn most likely or definitely has created lasting incentives to substitute letters mail with electronic communication among businesses and governments. However, some point to a partial recovery as the economy improves: "Part of lost volumes are being recovered" (From expert panel discussion, 2010)

As could population and household growth

A related force against a decline in mail volumes is population and household growth. An increase in the number of people and households has a positive impact on letters' volume growth. The number of households grows in correlation with population growth. However, most advanced economies will likely experience slow growth, as populations age and household sizes remain small. For example, in the US the number of households grew by 1.2 percent annually on average between 1981 and 2010. Recent data covering 27 EU members gives a somewhat similar picture (see figure below). In theory, a one percent annual increase in the number of households could increase mail volumes by more than 10 percent through 2020, if per capita mail volumes remain the same.

Figure 5 House hold growth in the US and EU27



Force field analysis

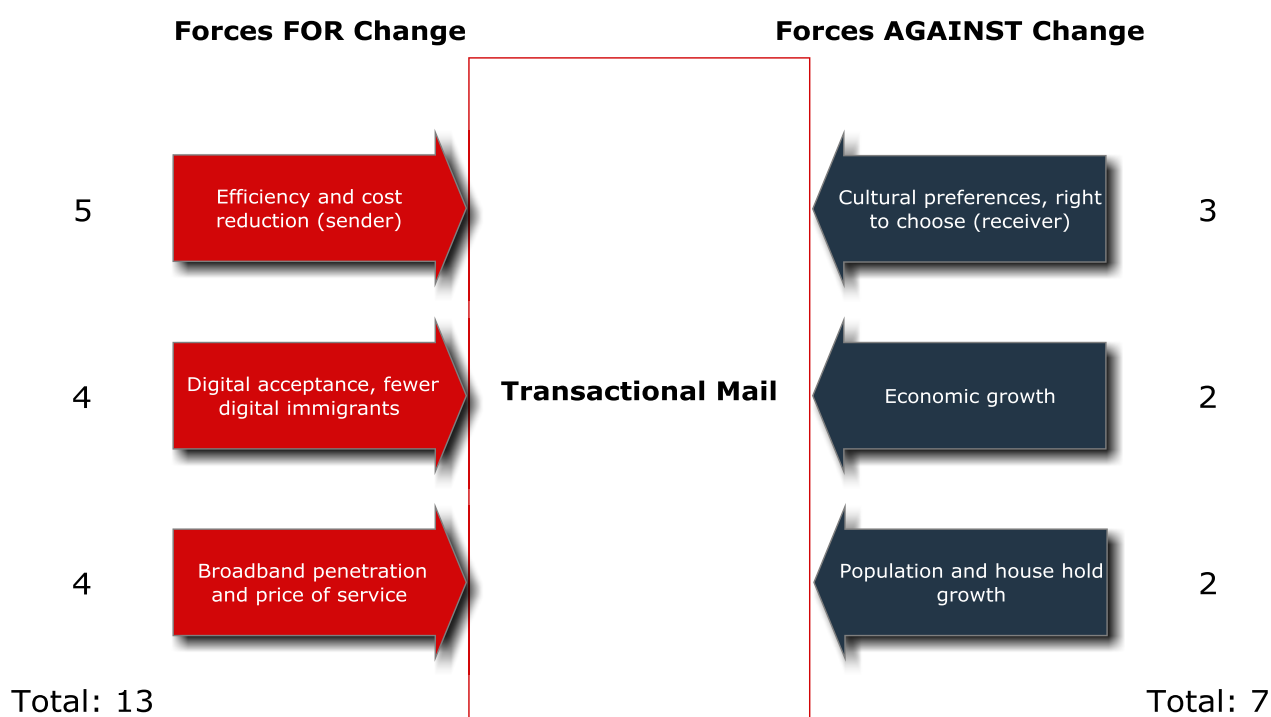
The forces for change outweigh those against

The six described forces for and against change are weighted on the same scale from one to five. The most significant factor for change regarding transactional letters mail has to do with cost reduction and e-substitution. This motivates a weight of five. Digital acceptance and broadband penetration are also important. However, they function more as enabling factors than direct incentives for action. They are only given a weight of four each. Added together this gives a total score of 13 to the critical forces for change in this area.

The most significant factor against change until 2020 seems to be cultural

preference. It has effect on individual behavior as well as organizational and legal practices. As an important, but diminishing factor we have scored it with a weight of three. Economic growth is a significant factor against change in many markets today as economies are rebounding from record declines or periods of low growth. But economic growth has weaker prospects to significantly boost transactional letters mail volumes in the long term in IPC countries. As a result, it has only been given a score of two. Finally population and household growth have been given a weight of two, since changes in this area are expected to be small in most developed countries until 2020. This gives forces against change a total score of seven.

Figure 6 Force field analysis transactional mail



The force field analysis paints a picture of strong forces for change and weak forces against change. This indicates that changes will likely be both significant and rather swift in many markets through 2020.

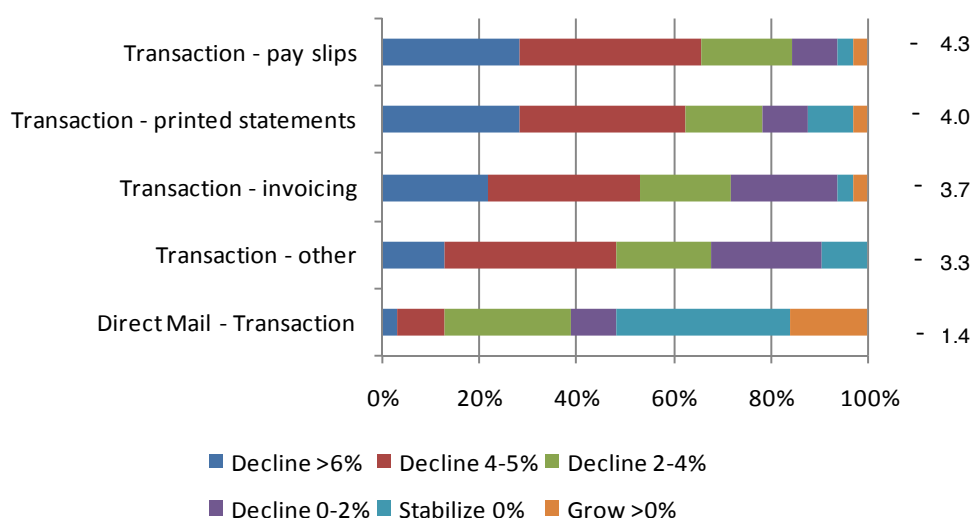
Figures and market development

All segments in the transactional mail are predicted to fall in volume over the next 10 years

Survey findings support the conclusions reached in the force field analysis. The transactional letter mail products most exposed to digitalization are pay slips. On average, respondents thought pay slips will lose 4.3 percent of its volume per year until 2020. This amounts to a drop of over 35 percent in an

accumulated ten-year timeframe. Printed statements showed almost as significant decline as pay slips, while invoicing is posed to lose 3.7 percent per year in volume. The area least affected will be transactional direct mail with a decrease of 1.4 percent per year.

Figure 7 Decline rates in transactional letters mail products towards 2020 according to expert panel (Source: CIF5, 2010)



Communications experts' view on future of transactional mail

Transactional mailers want to shift people to online platforms

Communications experts note that financial institutions and government agencies are strongly motivated to change legislation and drive customers and citizens' preferences towards online communications platforms. Saving money is the prime motivating factor. In some cases, it costs 26 times as much to send a physical communication as a digital message. Financial institutions and government agencies want to cut the cost of preparation and reintegration of physical documents from and into online platforms. Large mailers are using "pay to play" options, where users have to pay for the right to communicate via letters mail, or are closing communication channels. For example, the Finnish government charge citizens 10€ for communications sent via letters mail. It is a goal of the Danish Bankers Association to have a digital notification option, so banks do not have to send account updates via letters mail. The Danish Copenhagen county government wants to have 50 percent of its residents registered and using online, self-service communications platforms by the end of 2013.

The challenge for businesses and governments will be to make platforms that

help users communicate with institutions and each other via intuitive, secure and easy to use digital means. .

Social and institutional factors

The forces for change should be analyzed within the broader environment in which postal corporations find themselves operating. Postal volume developments will be influenced by market liberalization as well as the consequences of security and privacy concerns, adding to the increasing uncertainty of how the future will unfold towards 2020.

New entrants due to market liberalization will target high profit margin segments

An important institutional factor relates market liberalization plans for postal services. Liberalization holds potential gains to postal recipients from increased competition. However universal postal service providers might be negatively affected by “cream skimming” as new entrants exploit profitable market niches.

In the EU, United Kingdom, Sweden, Estonia, Germany, the Netherlands and Finland already allow full competition. Many other countries are still deliberating regarding how they should proceed with liberalization, although according to EU Directive 2008/06/EC, full market liberalization should occur by the end of 2010, 11 EU Member States can delay full market opening by the end of 2012. Increased regulatory flexibility has also been discussed in the US, and there is ongoing debate in Canada about privatization. It is important to note the correlation that the countries being affected by e-substitution also belong to the most liberalized markets.

Trust and security remain important factors supporting transactional mail

Trust, security and privacy will remain important factors towards 2020. According to a report from the European Commission, many EU citizens worry about the security of Internet-based transactions. The top five reasons people are using for not buying things online include privacy, trust and payment security concerns. Such concerns will likely continue to exist in the future although security and trustworthy perceptions will evolve as people grow accustomed to digital alternatives.

The safety and security of on-line users is highly prioritized by the European Union. According to the Commission, the digital economy and society will have a critical role to play in getting Europe on track for sustainable and inclusive growth.¹² But the realization of a digital market requires a high level of trust among users and a digital infrastructure that is highly reliable and secure. To address this and other issues, the European Commission has presented several

¹² EUR-Lex, [A Digital Agenda for Europe](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52010DC0245(01):EN:NOT), (2010) [http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52010DC0245\(01\):EN:NOT](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52010DC0245(01):EN:NOT)

key actions to deal with threats to on-line security in its Digital Agenda for Europe.¹³ This will likely have large consequences for transactional letters mail towards 2020.

As standards for digital signatures are harmonized, their usage will become commonplace

The growing use of electronic signatures will have an impact on transactional communication. It makes the use of on-line services easier and more secure, thereby decreasing the need for letters mail in many situations. A common legal framework on electronic signatures has existed for over ten years in the EU. The member states have since developed its own electronic signature standards, effectively working against the idea of a digital single market. However, steps have already been taken to counter this. An example is the introduction of the single euro payments area (SEPA), which came into effect in 2008. SEPA is used to standardize and harmonize the processing of payments across borders in Europe.

Such initiatives, together with a growing maturity of electronic signatures in general may very well accelerate the decline of transactional letters mail volumes in the coming years.

¹³ Ibid

Government to citizen communication

Letters mail's role in government to citizen communication in 2020

Government services increasingly digitalized

In 2020, governments – thanks to digitalization – are more responsive to citizens' needs. Digital communication and digital service provision have eroded letters mail's role in government to citizen communication. More communication and the provision and execution of government services occur via a variety of digital platforms. Government generated mail volumes have suffered as result. There is an expectation that only highly sophisticated documents designed to be offline, portable and durable (drivers' licenses, passports, and medical cards) will be sent by mail in 2030. By 2020, all IPC members' governments have adopted universal broadband plans and targets. Government to citizen (G2C) communication will be increasingly automated and function through single-point entry systems. Governments will rely on auto-generated messages based on key life events and calendar alerts. Service will be designed so as to cause the least amount of inconvenience and expense to the citizen.

Surveyed experts expect G2C volumes to decline by 20 – 30 percent towards 2020, though letters mail will remain an important part of governments' communication platforms

The pace of erosion of letters mail's market share in G2C communication towards 2020 depends on governments' investments in eGovernment (eGov) services, as well as the improvements in their efficiency, usability and accessibility¹⁴. Only 26 percent of 800 global ICT experts in a 2010 Pew survey believe that governments will continue to interact with their citizens as they once did in the 20th century.¹⁵ On the other hand, CIFS survey respondents expect that letters mail will remain an important part of governments' multi-channel communication platform in 2020. Surveyed experts expect that the total decline in G2C letters mail volumes will be 20 – 30 percent towards 2020. They further expect that G2C letters mail decline will be moderate compared to other market segments (especially transactional mail).¹⁶

The communications panel expect governments to digitalize physical communications

The communications experts' judgments are in line with those surveyed by Pew in 2010. They note that like other large mailers governments have strong interests to cut the amount of physical communication they send to their citizens and to drive citizens to use online, self-service options. According to the communications panel, the rate of decline will vary from country to country, but the potential cost savings to governments is powerful motivating factor. They opine that letters mail will have a declining importance as a channel in G2C

¹⁴ CIFS Expert Panel (2010).

¹⁵ Pew, *Imaging the Internet*. 2010.

¹⁶ CIFS Survey (2010).

communications.

Major forces for change include efforts to reduce costs, digitalization and growing acceptance of digital services in society. Cost cutting will drive government decisions. Many resources have been invested into the digitalization of public institutions and services over the last decade¹⁷ and with post-crisis pressure on governments to cut spending and budgets, there continues to be an incentive for government institutions to optimize their return on investments.

Bureaucratic intransigence, security concerns and cultural preferences will likely slow letters mail's decline in G2C communication towards 2020.

Government agencies are cumbersome and rigid organizations that do not adopt new tools quickly – change often occurs incrementally.¹⁸ The public sector often lacks the urgency for adapting or overturning traditional business models and practices that is typical in the private sector.¹⁹

Box 2 eGovernment defined

eGov is governments' use of ICT to offer citizens (and businesses) the opportunity to interact and conduct business with governments by using different electronic media.¹ The implementation of eGov covers activities such as:

- the provision and dissemination of general information on public policies, services, or new regulatory frameworks,
- citizens conducting online transactions¹,
- two-way communication between the government and its citizens
- execution of governance activities, such as online voting or polling.

Current Situation

Citizens want two-way communication, transactions, and the ability to supplement or replace government services with self-service

According to studies by Pew, citizens are more likely to use *transactional tools* on government websites today than in 2003, while the number of people *looking for information* has been stable from 2003 to 2010.²⁰ This shift indicates that today's online users of government websites are not only interested in receiving information from the government, but are interested in two-way communication, transactions, and supplementing or replacing government services with online self-service. Governments must recognize and respond to these new tendencies in user behavior by creating more interactive portals with personalized services, such as My-portals, and life-event services that are timely and centered on citizens' needs. Already nearly one-third of online users find alternative platforms (via social networks and blogs, for example) to access and interpret government information and 23 percent also interact in debates about policy issues or government services in blogs, chat rooms, etc.²¹ There are,

¹⁷ The Economist. *The Good, the bad and the inevitable*:

http://www.economist.com/node/10638105?STORY_ID=10638105. Accessed November 2, 2010.

¹⁸ *Ibid.*

¹⁹ Pew Internet, Janna Quitney Anderson et al. *The Impact of the Internet on Institutions in the Future*. (March 31 2010).

²⁰ *Ibid.*

²¹ *Ibid.*

however, still citizens who prefer the traditional services and letters mail in G2C communication.

USOs for broadband will alter communications market for postal carriers

The emergence of Universal Service Obligation (USO) for broadband communications will likely create an evolution in the USO for postal companies. The postal infrastructure and the USO have been governments' traditional way of guaranteeing communication services, as postal service industries in IPC countries are mandated by law to deliver mail to all households.²² As Internet penetration rates are reaching saturation levels in IPC countries, the United States and countries in Europe and the Asia-Pacific region are establishing USOs for broadband service. Switzerland was first past the post with USO for broadband at a regulated price, followed by Italy and Spain in 2010-2011.²³

The emergence of a "broadband USO" will stimulate an evolution in the postal USO, as many communication needs can be met by other actors. Still, in order not to isolate and create barriers for vulnerable groups of citizens, most governments will not wish to substitute the postal infrastructure and traditional services with eGov alternatives over the coming decade.

Figure 8 USO for broadband targets in select countries (Source: IPC & ITU, 2010)

Country	Target	Date	Second target	Coverage	Date
United States	4 Mbps	2020	100 Mbps	75%	2020
South Korea	1 Mbps	Actual	50 Mbps	95%	2013
Finland	1 Mbps	Actual	100 Mbps	99%	2015
Australia	0.5 Mbps	Actual	100 Mbps	90%	2017
Denmark	2 Mbps	2010	ND	ND	ND
Sweden	1 Mbps	Unspecified	100	90	2017
France	0.5 Mbps	2012	ND	ND	ND
Germany	1 Mbps	Actual	50	75%	2014
United Kingdom	2 Mbps	2012	ND	ND	ND
Switzerland	0.5 Mbps	2008	ND	ND	ND
European Commission	1 Mbps	2013	30 Mbps 100 Mbps	100% 50%	2020

Source: IPC & ITU, 2010

²² IPC, Strategic Perspectives On Regulation – Meeting Consumer Needs in an Electronic World (April 2009)

²³ Paul Budde. Finland's Broadband USO an Inspiration for Europe.
http://www.circleid.com/posts/20100707_finlands_broadband_uso_an_inspiration_for_europe/. Accessed November 18. 2010.

Major forces *for* change

To help analyze the situation of Government to citizen (G2C) communication towards 2020 a number of forces for and against change have been identified and analyzed. The most important forces *for* change include:

- Cost cutting
- Digitalization
- Greater citizen demand for transparency and responsiveness

The financial crisis will quicken the pace of change in government administration.

Ballooning deficits, economic stagnation and an ageing population will provide governments with an incentive to cut costs, trim bureaucracies and focus investments to enhance efficiencies. Letters mail is costly in terms of production, labor, and shipping costs, motivating governments to save. According to a 2010 Pew study, 71 percent of global ICT experts believe that innovative online cooperation will result in significant efficiency gains and increasingly responsive governments.²⁴

And the savings could be enormous.

The potential savings are large. According to a recent government sponsored analysis, Denmark (ranked 2nd in the UN eGov Readiness Index 2010²⁵) could save as much as €147 million annually by switching 50 percent letters mail correspondence generated by national, regional and local governments to eGov solutions, corresponding to over 26€ per inhabitant.²⁶ If one considers that that a single letter mail item generate 25-50g of CO₂, Danish governments could reduce their collective carbon footprint by as much as one million kilograms of CO₂.

Although there is potential for significant cost reductions via letters mail, overall effectiveness is dependent on governments' ability to leverage investments that have already been made in eGovernance. However, the level of expenditure does not necessarily correspond to the system's efficiency or a population's technological sophistication. For example, in 2010, EU governments expended an average 2.7 percent of GDP on ICT.²⁷ Portugal, which is ranked 2nd 28 in terms of eGov sophistication, spends only 1.8 percent of GDP on ICT.²⁹

Experiments and competition are underway

A number of digital and postal operators are seeking ways to profit on governments' cost cutting efforts through hybrid mail solutions. Zumbox is one such experiment where postal mail is delivered digitally and automatically from

²⁴ OECD. Government at a Glance. 2009.

²⁵ Governance Assessment Portal. Report: UN report ranks e-gov readiness. <http://www.gaportal.org/report-un-report-ranks-e-gov-readiness-unpan-14-june-2010>. Accessed November 18, 2010.

²⁶ CIFS Expert Panel. (2010) and "De offentlige kan spare 1,1millarder kroner" modernisering.dk http://modernisering.dk/da/projektside/bedre_digital_service/dokumentboksneSMS/nyheder/nyhedsarkiv/business_case_det_offentlige_kan_spare_11_mia_kroner/.

²⁷ Capgemini, Rand Europe, IDC, Sogeti, and DTI: Smarter, Faster, Better eGovernment, 8th Benchmark Measurement (November 2009), p.78ff.

²⁸ Malta is ranked 1st but ICT expenditures are not available.

²⁹ Capgemini, Rand Europe, IDC, Sogeti, and DTI: Smarter, Faster, Better eGovernment, 8th Benchmark Measurement (November 2009), p.122.

large transactional, financial and government mailers and is stored permanently online for consumer households.³⁰ Another example comes from Finland, where a national pilot program has been launched to open and scan all mail in an effort to reduce costs and increase efficiency.³¹

Broader digitalization and the accelerating pace of change are driving the transition from letters mail towards digital substitution. This will change governments' relationships with their citizens. In G2C communication, digitalization has positive features that allows for faster and better public services.³² The use of ICT in creating digital alternatives to letters mail in G2C communication can transform structures, operations, and the culture of government.³³ For example, eGov allows for greater accessibility to government services when citizens have the time and not when the office is open, for example.³⁴

E-Government's decade

Citizens are seizing advantage of the opportunities offered by eGovernance. Eighty-two percent of Internet users in the United States (corresponding to 61 percent of American adults) have sought out information, looked up services or new regulations, downloaded government forms or completed transactions on a government website, such as paying fines or renewing a driver's license.³⁵ In Europe, there is a steady increase in citizens using eGov services, mostly in obtaining information, downloading forms, returning completed forms and managing administrative procedures.³⁶ This development shows that digital handling of cases for an array of government services would be the next step and will, with high probability, be implemented by 2020.

A positive cycle: change bequeaths higher expectations that bequeaths change

Citizens' expectations towards government services are changing as a result. Citizens will increasingly expect individualized services as well as greater transparency and a more responsive government. According to the OECD, governments are changing to respond to these demands.³⁷ In Europe, governments are transforming their eGov services from one-way communication, search, and transaction platforms to personalized, dialogue-

³⁰ Press Release. Zumbox to showcase platform for digital postal mail at post-expo 2010:
https://static.zumbox.com/mk_about_press_release_100610.html. Accessed November 4. 2010.

³¹ Popsci. Finland Launching National Pilot to Open and Scan all Snail Mail:
<http://www.popsci.com/technology/article/2010-04/finland-open-scan-and-electronically-send-snail-mail> (4. January 2010), Accessed on November 4. 2010.

³² Capgemini, Rand Europe, IDC, Sogeti, and DTI: Smarter, Faster, Better eGovernment, 8th Benchmark Measurement (November 2009).

³³ Nag Yeon Lee. eGovernment Applications. United Nations Asian and Pacific Training Centre for Information and Communication Technology for Development (APCICT), Briefing Note 3, January 2010.

³⁴ CIFS Expert Panel. (2010).

³⁵ Pew Internet, Aaron Smith. Government Online: The Internet gives citizens new paths to government services and information (April 2010).

³⁶ European Commission. Eurostat. eGovernment statistics. (May 2010)
http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/E-government_statistics. Accessed November 16. 2010.

³⁷ OECD. Government at a Glance. 2009.

based platforms (a process called targetization).³⁸ The development in the United States is similar. The greatest growth there is in online transactional tools. Targetization requires further technological sophistication and front- and back-office integration in most European countries and the United States (see forces against change, for more information³⁹⁴⁰)

Social networks: A challenge to government's service monopoly

For the time being, eGov services are not very user oriented and Government websites still leave a lot to be desired compared to some of the most popular online platforms, like Facebook or MySpace, which have succeeded in motivating a large number of users in a short time. As one expert in the CIFS expert panel put it, "G2C online services are unsexy – they are simply not clever enough, not behavioral enough, not social or interactive enough. They are far too static!"⁴¹ This means that some users are sidestepping government platforms and connecting on familiar platforms to discuss and seek information on government services through their social networks.

Major forces *against* change

Three major forces against change have been identified for letters mail in G2C communication:

- Bureaucracies slow to change
- Security of communications
- Social and cultural preferences

E-Gov dichotomy: To change or not to change?

While cost cutting offers many incentives to government agencies, government bureaucracies tend to be slow to change. They will be slower to reduce reliance on letters mail in their communications portfolios than the private sector for three reasons. First, government bureaucracies are subordinated to a number of regulations, procedures, and administrative workflows, making them less flexible and adjustable to change. For example, regulations often require that certain G2C notifications occur via letters mail and not via a digital alternative. Second, government institutions are organized as bureaucratic entities that are conservative and protective of their prerogatives, and are therefore typically not the first to embrace and implement changes.⁴²

Third, not all administrative institutions in IPC-member countries are prepared to make the changes needed to provide eGov, yet. They have not made the necessary investments. Implementing eGov services have large upfront costs

³⁸ Capgemini, Rand Europe, IDC, Sogeti, and DTI: Smarter, Faster, Better eGovernment, 8th Benchmark Measurement (November 2009), p.20.

³⁹ *Ibid.* p. 45.

⁴⁰ *Ibid.* p. 83.

⁴¹ CIFS Expert Panel. (2010).

⁴² Pew Internet, Janna Quitney Anderson et al. The Impact of the Internet on Institutions in the Future. (March 31. 2010).

that governments typically underestimate.⁴³ Therefore the process of substituting letters mail with online eGov alternatives takes time and coordination and bears upfront costs to organizations.

The transition towards eGov services, which would lead to a rapid digitalization of G2C communication via letters mail, faces many obstacles. The strength of these obstacles vary from country to country, administrative unit to administrative unit, and from bureaucracy to bureaucracy. A central challenge is the degree of front- and back-office integration, which impacts governments' ability to offer a broad range eGov services to citizens.

Integration imbalance Governments tend to prioritize front-office services, while neglecting integration with the back-office. Front-office services are online services to citizens. Government investments focus on front-office services because citizens increasingly demand these services. Back-office integration is the standardization of processes and internal coordination of different government systems that is necessary for internal government communication.

Government agencies embody unique organizational characteristics, traditions and motivations, which can hinder efficient G2G communication Government agencies embody unique organizational characteristics, traditions and motivations, which can hinder efficient G2G communication. In order for back-office integration to be complete and front-office services to function, central and local agencies must be connected and capable of "speaking the same language".⁴⁴ But, as digitalization has occurred gradually in many IPC countries, not all government agencies have developed the same software and systems are frequently incompatible.

Perception is everything The perception of effective security, identification and authentication protocols remain challenges for e-substitution in G2C communication towards 2020, which could the slow decline of mail volumes, as letters mail could remain the more "secure" option. The security of letters mail versus online communication is a matter of debate, as crime is underreported and current understanding of the challenge is weak.⁴⁵ The Finnish postal carrier study noted that consumers see letters mail as a less secure form of communication than either SMS or email.⁴⁶ However, digital SPAM, database breaches, hackers, and computer viruses remain real threats to digital communication services.⁴⁷ According to an IPC study, many citizens in IPC member countries feel they have less control over the security of e-solutions than over the letters mail they pick up in their physical mailbox, which makes many citizens reluctant to see the familiar and trustworthy post offices shutting down.⁴⁸

⁴³ Mark LaVigne. Underestimating e-government costs proves costly - Traditional approaches aren't enough. Center for Technology in Government/University at Albany, SUNY.

⁴⁴ Nag Yeon Lee. eGovernment Applications. United Nations Asian and Pacific Training Centre for Information and Communication Technology for Development (APCICT), Briefing Note 3, (January 2010).

⁴⁵ <http://www.wired.com/threatlevel/2009/02/stolen-wallets/>

⁴⁶ Heikki Nikali Ph.D., "Role of Letter Mail in the Communication Market", Itella (2010).

⁴⁷ IPC, Strategic Perspectives On Regulation – Meeting Consumer Needs in an Electronic World (April 2009)

p.11.

⁴⁸ *Ibid.*

Governments are working to improve security

Improvements in G2C communication are underway. Governments are scrambling to improve proof of identity via digital signatures, digital watermarks, etc. Already by 2005, 28 of 30 OECD countries have passed legislation on the acceptance of digital signatures,⁴⁹ but there is still not a standardized and globally accepted framework for proof-of-identity and integrity of an electronic document.⁵⁰

Many citizens will prefer to receive G2C communications physically

The CIFS survey reports that 80 percent of respondents expected that social and cultural preferences would slow letters mail decline. In Western societies, we believe in individualization and the right to choose. As noted by the Elkelä and Koppe study, significant portions of letters mails customers would still choose to receive transactional communications via letters mail in the future. In Denmark, one of the most digitally oriented societies in the world, 17 percent of the population prefers to receive communications physically, contrasted against 71 percent in the United Kingdom. This finding is confirmed by the CIFS survey. Sixty-one percent of survey participants believe that letters mail will remain an important part of governments' multi-channel communications platform.

Force field analysis

The six described forces for and against change are weighted according to the same scale. Each of the forces has been ranked 1 to 5 according to their impact on G2C communication (1= weak, 5= strong).

The forces for change outweigh the forces against

Budget-related, cost cutting will likely have the greatest impact on G2C communication towards 2020. The potential savings are great, and governments are likely to use digital communication to provide more efficient services. It is therefore been given a score of 5. The desire for more responsive and transparent government will also have a strong impact on how future G2C communication will occur. As the ability to provide these services is impacted by level front and back office service integration, this force for change has been given a score of 4. Digitalization is an enabling factor that is already at a maturation point in many IPC countries. Its future impact is therefore lower and is rated given score of 4. All together this gives a total score of 13 for the critical factors for change for letters mail's role in G2C communication.

The most significant factor against change will likely be bureaucratic inertia, as it has an impact on the ability for governments implement eGov solutions. However, given the governments strong cost cutting preference, it has been given this factor a score of 3. Security concerns remain a critical challenge that could slow digitalization of G2C communication, but their impact is uneven, giving it 3. Social and cultural preferences impact individual behavior, as well as organizational and legal practices. We have likewise given it a rank of 3. The

⁴⁹ OECD Background Paper. Implementing eGovernment in OECD countries: Experiences and Challenges.
<http://www.oecd.org/dataoecd/35/6/36853121.pdf>.

⁵⁰ Costas Vassilakis et al. Barriers To Electronic Service Development. <http://www.sdb.s.uop.gr/files/Barriers-to-electronic-services-development.pdf>. Accessed 18. November 2010.

overall score for the forces against change are 9.

Figure 9 Force field analysis G2C communication

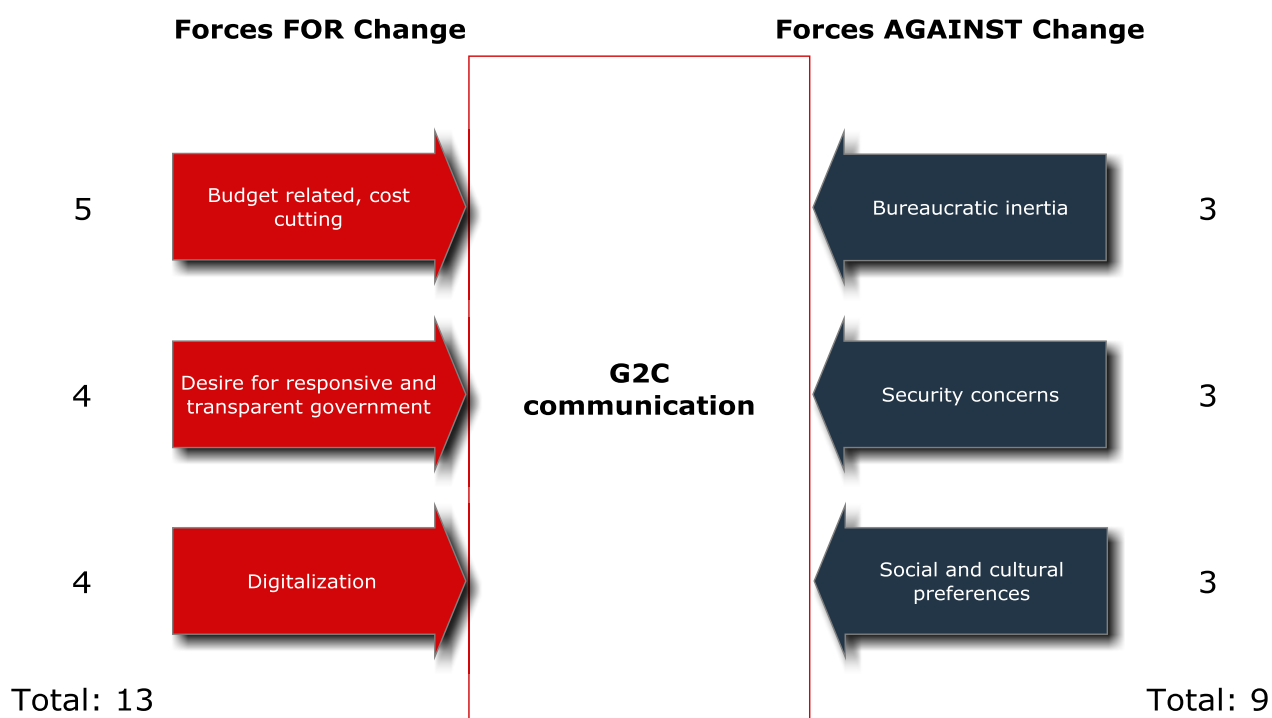
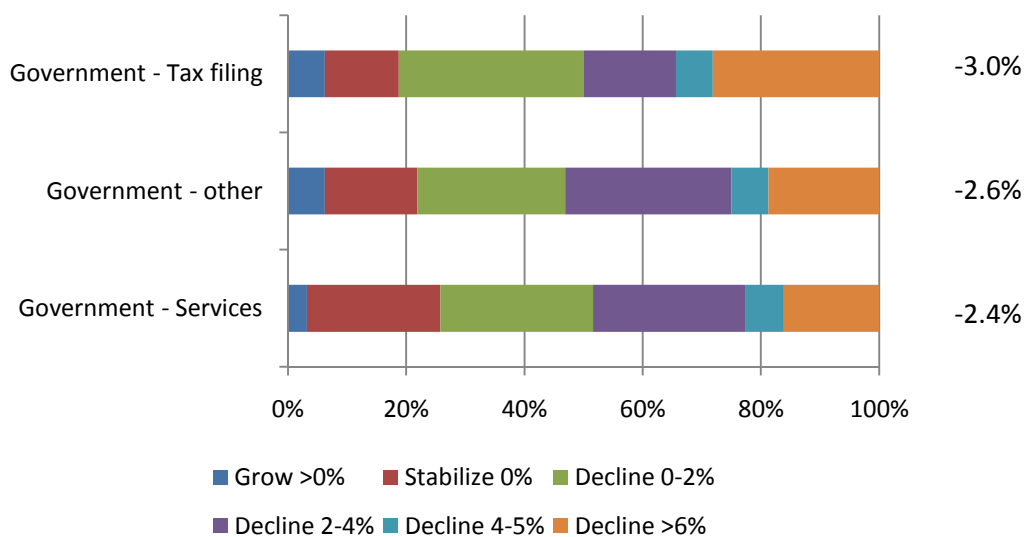


Figure 10 Surveyed respondents point towards a moderate decline in G2C mail volumes



Figures and market development

Mail volumes generated by governments expected to decline by at least 20 percent

The expert survey likewise supports the analysis conducted in the force field analysis. Experts believe that:

- Government tax filings will show the greatest declines – an average of 3.0 percent annually (a 26 percent total decline over 2010 volumes).
- Miscellaneous government communications will decline on average 2.6 percent annually over the coming decade (a 23 percent decline).
- Government services will decline on average by 2.4 percent annually towards 2020 (a 21.5 percent decline).

Communications experts' view on future of G2C communication

Communications experts believe in a fast decline in mail volumes

The external communication experts believe that letters mail's role in G2C will experience further strong declines. Governments – as they noted – are leading the digitalization charge in many countries. The strength of the decline would be dependent upon the degree of eGov investments, their ease of use, and the degree of trust in government institutions. The challenge for governments will be to offer a platform that is both easy to use and offers collaborative solutions for citizens. Many experts doubt that governments could, and a few expected that other social platforms would circumvent sanctioned eGov platforms.

Social and institutional factors

The rate of broadband penetration and the digital divide are factors that could impede the digitalization of physical communications

Two important social and institutional factors in G2C communication are the rate of Internet penetration in IPC countries and the digital divide. The barriers related to broadband penetration rates are expected to be mostly overcome by 2020, as all IPC countries will have adopted universal broadband plans. The digital divide will remain a challenge towards 2020. Its impact on G2C letters mail will depend on how national and local governments choose to address the problem. In many IPC members' countries, approximately one-sixth of the population is functionally illiterate, which corresponds to the amount of people who opt-out of digital solutions. Functional illiteracy has not impacted the ability of letters mail to become the medium of choice for official G2C communications. Is the digital divide a similar ephemeral barrier?

Marketing communication

Letters mail's role in marketing communication towards 2020

Direct mail markets are split between inexpensive mass communication and individualized, targeted direct mails

In 2020, advertisers have seen many new innovations and gained access to many new tools to interact with customers. Marketing communications continues the transition from traditional to digital media platforms and from a one-to-many broadcast to a one-to-one dialogue between advertisers and consumers. Traditional media marketing is increasingly seen as interruptive, one-way, uncontrolled, and in a hierarchal format distributed from a single source to many via television and radio commercials, print ads in newspapers and magazines. Direct mail still exists though its popularity has declined with both marketers and the general public. The direct mail market is split between the inexpensive mass communication, the tactile, experiential mailings (e.g. IKEA catalogues) and the individualized, highly targeted direct mails.

In 2020, direct mail remains an important channel for marketers' multi-channel campaigns. Direct mail offers advertisers an opportunity to communicate directly and suggestively with the consumer with information that is relevant to consumers' needs. Direct mails have become "hybrid" products that use a variety of technologies to drive consumers to local stores, company websites, etc.

In 2020, due to digitalization and individualization, marketing communications will be much more personalized, relevant, and location-specific. Better data manipulation via predictive analytics, social media and mobile communications platforms open new marketing possibilities such as behavioral, geo-location and augmented- and increasingly virtual-reality marketing.

Marketing communications and campaigns will become more relevant, targeted, segmented, driven more by consumer information and patterns rather than pushed by marketers and therefore less "interruptive." Marketing in 2020 is driven more by data and relevance of message than it is by volume. By 2020, the financial institutions and banks – who have intimate access to our spending patterns – become critical information brokers to the third parties who will offer consumption activities.

None of the survey respondents expect direct mail volumes to increase

None of the surveyed experts foresee direct mail volumes increasing over the coming decade, and experts were almost evenly split between those who believed that volumes would remain stable (48 percent) and those who thought they would decline (52 percent).

External communications experts expect digital solutions will supplant direct mail

The external communications experts believe that digital solutions would supplant physical marketing communications in many areas. Communications experts opine that letters mail's strategic characteristics are better fulfilled by digital alternatives. They also opine that direct mail is physical spam and could come under threat of opt-in legislation that spam e-mails currently operate

under. The two advantages that postal carriers have are that they can communicate directly with people and have a government sanction that digital alternatives do not have.

Current situation

Direct mail volumes show recent decline in most mail markets

Direct mail volumes are declining in most mail markets. Between 2007 and 2008, advertising mail showed positive growth trends in only four postal markets: An Post, Deutsche Post DHL, Hellenic Post, ELTA and Korea Post. In 2009, marketing mail declined most significantly in Iceland, where volumes declined by 12 percent, followed by declines of 8 percent in Norway and 6 percent in the United States. Only four of the reporting postal corporations reported positive growth in 2009: CTT, Swiss Post, Itella, and La Poste. CTT showed the most dramatic growth rates, posting a 13 percent increase in volumes.⁵¹

Globally, advertisers are finding solutions online. In Asia, North America and Europe, advertisers expect to increase spending on online campaigns 2.5 times between 2005 and 2012. Money spent on direct mailings increased in 2008, though it has declined below its 2005 baseline and is expected to continue its decline through 2012.⁵²

Marketing activities are moving closer to the moment and location of purchasing decisions

Social media and mobile marketing is creating a highly atomized advertising environment.⁵³ Google has changed advertisers' expectations by driving marketing activities closer to the moment when consumers make their purchasing decisions. In addition, online search, with its use of paid search functions and ad networks, makes it easier for advertisers to drive consumers to marketers' websites.⁵⁴

Major forces for change

To help analyze the situation of direct mail towards 2020 a number of forces for and against change has been identified and analyzed. The most important forces *for* change include:

- Individualization
- Digitalization
- Cost cutting by advertisers

Consumers pay attention to advertisements that target their needs and

Consumers pay attention to advertisements that target their individual needs and lifestyles. Advertisers bombard consumers in IPC member countries with many advertisements for things that rarely match consumers' lifestyles or interests. Consumers are increasingly rejecting this form of advertising. New

⁵¹ IPC, Global Postal Industry Report 2009, and IPC Global Postal Industry Report 2010.

⁵² IPC, Global Postal Industry Report 2010

⁵³ IPC, Global Postal Industry Report 2010

⁵⁴ Matthew Ego, et al. "Reinventing Print Media" Strategy + business (2009)

lifestyles	marketing technologies permit marketers—operating in both the digital and physical domains—to better target consumers with messages that reflect their lifestyles and needs. On average, a consumer is exposed to advertising 3000 times a day, by the advertisers who are locked in an intense competition for customers. ⁵⁵
Advertisers and customers reject “spray and pay” advertising	<p>Consumers increasingly reject mass mailing communication and are becoming <i>marketing-refuseniks</i>, meaning that more people are becoming more skeptical and critical towards traditional one-way “spray-and-pray” advertising.⁵⁶</p> <p>In order for direct mail to become more valuable to marketers and the consumers they are trying to reach, direct mail should become more focused. As one of the communication experts in CIFS’ expert panel noted, postal services need to be better at utilizing and improving the quality of their data and focus less on volume.</p>
The postal service knows relatively little about their customers	Postal services typically view their customers as being the large-scale mailers – not the households who are on the receiving end. While postal services have access to databases containing information on where people live, they typically do not collect relevant information on the individuals (to the degree that Google, Facebook or Wal-Mart do). As of 2010, Wal-Mart, for example, has collected 2.5 petabytes of data concerning customer purchases from its 2,900 stores. To put that in perspective, the entire Internet in 2008 consisted of 15 petabytes of data. ⁵⁷ As a result, Google, Facebook, and Wal-Mart can offer their suppliers and marketers a wealth of information to create targeted, multi-channel offerings that post offices cannot match.
The right, relevant information when and where they need in the easiest and most rapid way possible	Over the next ten years, consumers will increasingly want and be able to receive the <i>right and relevant</i> information on products <i>when</i> they need it and <i>where</i> they need it in the <i>easiest, fastest</i> obtainable non-interruptive way for <i>free</i> ⁵⁸ . The success of geo-location-based applications such as Foursquare on smart phones is an example of this.
From CRM systems to VRM systems	Doc Searls, the co-author of the now classic book <i>The Cluetrain Manifesto</i> and a fellow at Harvard University, studies and documents the shift towards a new paradigm in marketing communications that he calls Vendor Relationship Management (VRM). VRM emerges from the individualization trend. Instead of companies seeking to build relationships with customers via Customer Relationship Management (CRM) systems, the balance of power has begun to shift to the customers, or <i>the empowered individuals</i> , who now choose which companies to communicate with. According to Searls, the time when companies could control their marketing messages is over. ⁵⁹

⁵⁵ Lindstrom, 2005

⁵⁶ Tench and Yeomans, 2006

⁵⁷ Jeffrey Saunders, “In the future, it won’t be a matter of who you are, but who you are likely to become” Scenario Magazine (June 2010).

⁵⁸ (source: according to our expert group and survey and anarconomy report).

⁵⁹ CIFS, Doc Searls, Scenario 2, 2010

This could force postal services to rethink their business models (add about law change)

The shift of power in marketing communications from companies to consumers will influence direct mail greatly. An extreme scenario could result if consumers could launch opt-in only movements, demanding that they only receive direct mails when they have given their consent, or if governments enact opt-in regulations for mailed advertisements in regional or national markets. It would certainly require postal operators to rethink and redesign their direct mail business models, leading to the development of new pricing models, the need for advanced customer management software, and the creation of new communication services that help advertisers make best use of the paper medium.

Digitalization is leading to new mobile marketing platforms that can assist consumers as well as sell to them

Digitalization is reinforcing and supplementing the individualization trend. Digitalization of marketing communications will likely be dominated by mobile marketing platforms and powered by the dissemination of applications and cloud-based social media marketing (SMM). The digitalization megatrend will continue to pull advertising budgets from the traditional media into the new digital media. As with individualization, digitalization is a threat to direct mail.

The digitalization of marketing communications has made it possible to meet the new individual needs described in the previous section. For example, through an application for your smart phone, it is now possible for a consumer to upload her grocery list to her smart phone and receive the cheapest offers from local supermarkets.

This type of marketing could supplement or even replace supermarkets direct or unaddressed advertisements, depending on how direct mail marketers and postal operators seize opportunities and the regulations that pass. Direct mailings and unaddressed advertisements, if timed correctly, targeted specifically towards individual consumer lifestyles, using paper-medium to its maximum effect, could be effective in awakening customers' interests and compete for the items that make onto the shopping list stored on the mobile phone in the example above.

Only 4 percent of American mobile phone users are proficient in smart phone applications, so future penetration remains speculative

The smart phone as a technology is still in its infancy. Approximately one-third of mobile phone subscribers have smart phones and broadband access. Popular geo-identifying applications such as Facebook Places and Google Latitude are only just emerging. These applications make it easy to display where you are at a certain moment to your friends on Facebook or Twitter, creating marketing opportunities for local restaurants, supermarkets, bars, museums, universities, cafes, cinemas, events or whatever. Only 4 percent of American mobile phone users, however, are proficient in these applications, so their future penetration and popularity with consumers is speculative towards 2020.⁶⁰

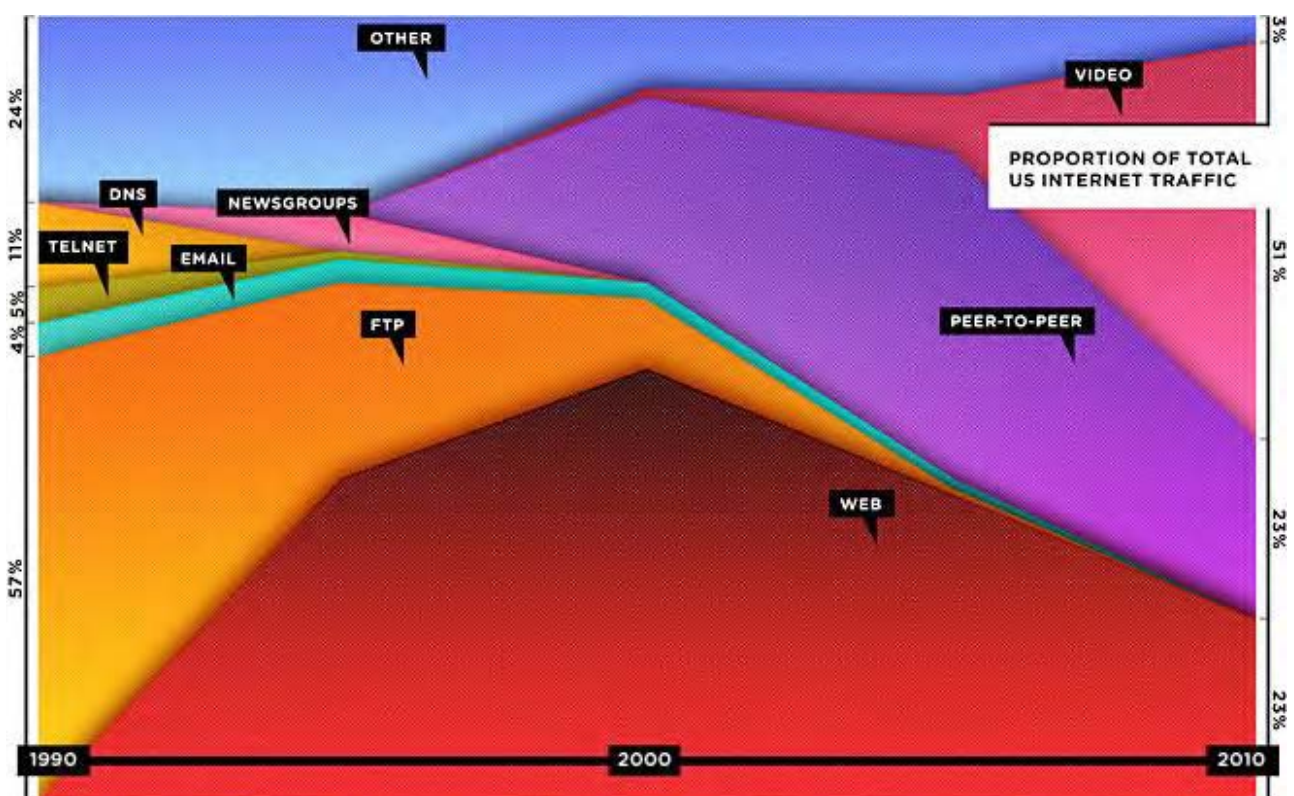
The emergence of location-based services is leading to what Doc Searls refers to as *The Intention Economy*. This is literally direct marketing and is a threat to volumes, but also leads to supplementary opportunities. Direct mail cannot

⁶⁰ Kathryn Zickuhr, Aaron Smith, "4% of online Americans use location-based services" Pew Internet & the American life project (November 4, 2010) <<http://www.pewinternet.org/Reports/2010/Location-based-services.aspx>>

communicate in real-time as consumer preferences emerge and cannot communicate as close to the decision-point as these services can. In addition, most postal companies do not collect psycho-graphical information on its recipients in the granularity required to provide this service.

Applications will grow more popular as a marketing platform. A survey by the leading technology magazine WIRED has shown that time spent browsing the world wide web in the USA (not to confuse with the Internet) has fallen from 50 percent to 25 percent and has evolved towards applications such as the free Internet telecom program Skype, the video-on-demand site Netflix, and Facebook . Such sites now take up 51 percent of Internet activity.⁶¹

Figure 11 Proportion of Internet traffic devoted to various online activities (Source: Wired, 2010)



Augmented reality is likewise expected to become a very popular advertising tool over the next ten years. Augmented reality works when the user physically holds up and scans an ad or a store with a mobile phone's camera, which then uses the Internet to provide information and display offers. This technology is correlated with smart phones' market penetration and possibilities for live interaction with brands.

Augmented reality merging physical and

Augmented reality can perhaps be used as a complementary technology in direct mailings, allowing users to scan direct mails and be taken directly to the

⁶¹ "The Web is dead, long live the Internet" Wired.com < http://www.wired.com/magazine/2010/08/ff_webrip/ >

**digital marketing via
mobile platforms**

company's website.⁶² Further instructions could bring the consumer direct to the product if the information is uploaded from the home. This could replace the traditional "circle" around the target product in the mail catalog.

The adoption of high-speed Internet connections, according to our survey, will inversely impact the total volume of letters mail, causing a substantial decline by 2020. Most responders answered that they believe the digital divide will be overcome by 2020. People will gradually become accustomed to the acceleration of communication and information flows and have the capacity to manipulate its form and relevance to individual needs. Direct mail has a disadvantage in regards to this megatrend because the speed-to-market is significantly slower than the Internet, which can provide real-time information about specific products, exact places and beneficial services.

The CIFS survey shows that timing of the communication (rather than speed) is important in direct mail. Communication experts, however, that participated in the CIFS focus group argued the opposite. They argued that speed is all-important in communication.

**The challenge for
postal operators will
be to help marketers
create next-generation,
highly-focused direct
mailings and
unaddressed
advertisements.**

Direct mail and unaddressed advertisements cannot compete on speed. They cannot compete on impacting consumers' decisions closet to the decision-making point. They will remain important parts of companies' multimedia communication campaigns. The challenge for postal operators will be to ensure their relevance by helping marketers create highly focused direct mailings and unaddressed advertisements. If direct mail and unaddressed advertisements do not make this transition, they could be perceived as little better than physical spam.

**Advertisers switching
to digital platforms**

As in G2C communication and transactional mailings, costs and return-on-investment (ROI) are strong driving forces in marketers' decision-making process. As noted elsewhere, 44 percent of the surveyed respondents believe that it is most likely a result of the economic downturn that created a lasting incentive to substitute letters mail with e-communications among businesses and governments. Due to a weak economic recovery in the United States and the risk of a debt crisis in Europe, marketing companies are hesitant to invest and spend.⁶³

**Volumes expected to
fall below their 2005
benchmarks by 2012**

During the financial crisis global marketers cut spending, especially spending in print formats, where the IPC expects volumes to decline below their 2005 levels through 2012. Due to digitalization and individualization, marketers are adjusting their budgets towards other areas, such as proprietary websites, in-store marketing, loyalty programs, etc. In-house marketing already accounts for three-quarters of most marketing budgets.⁶⁴

However, a GAMIS study has shown that B2B direct marketing has actually increased. From 1998 to 2009 the percentage of B2B direct mail in the total

⁶² CIFS, *Communication Trends and the Role of Mail 2020* (2009)

⁶³ Matt Anderson et al. "The M-commerce Challenge" *Strategy+business* (2010)

⁶⁴ Matthew Ego, et al. "Reinventing Print media" *Strategy+business* (2009)

expenditure on direct mail went from 39 percent to 45 percent. The total share of spending on B2C direct mail fell from 61 percent to 55 percent in 2008⁶⁵. So, the B2B direct mail market could remain a lucrative market for postal companies.

Major forces *against* change

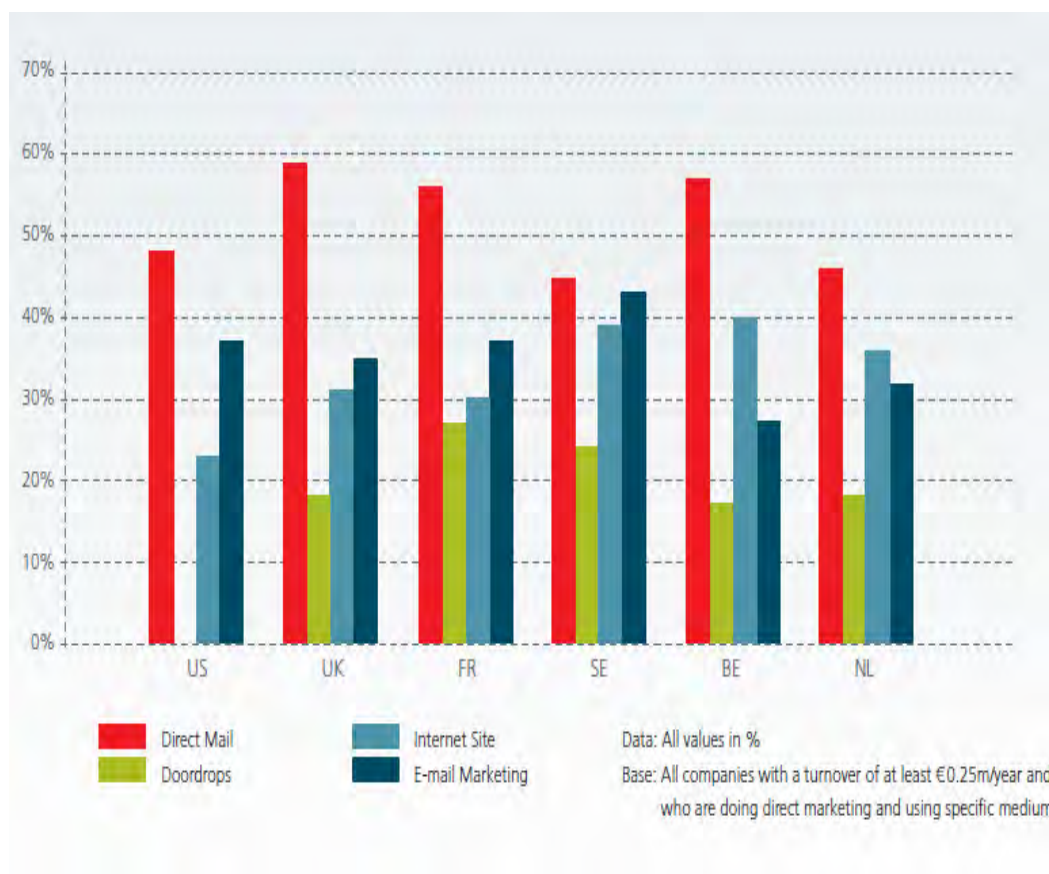
Three major forces against change have been identified for marketing mail:

- Sensory and direct communication
- Possible emergence of effective multi-channel campaigns
- Population and household growth

Direct mail still builds relationships

IPC's own research has shown that direct mail still is an effective medium to build lasting relationships with customers.⁶⁶ Cross-marketing campaigns are also an underutilized medium.

Figure 12 Effectiveness of Direct Marketing Media: Customer Retention (Source: IPC 2008)



⁶⁵ <http://business.highbeam.com/industry-reports/business/direct-mail-advertising-services>

⁶⁶ International Post Corporation, Direct Marketing Intelligence Report (2008)

Royal mail creates effective direct mail campaign using sensory communication

Royal Mail created together with a sensory branding agency the campaign “Touching brands” with the goal to prove direct mail’s natural role in the media landscape and justify it as an obvious partner for new media in marketing communication. The idea was to “improve the emotional appeal and effectiveness of direct mail with the benefits of greater impact for enhanced interruption and acquisition, extended consideration time, enhanced recall over ordinary mail and increased value of purchase”. As part of the “Touching brands” campaign, Royal Mail sent out personal chocolate letters to all recipients to engage more than just their sense sight by appealing also to their sense of smell and taste. Seventy-five percent took action after they received the mail and 80 percent were able to recall the advertisement, underlining the big effect direct mail *can* have if done creatively and properly⁶⁷.

Cross platform integration effective and could be essential for direct mail’s future success

Marketing directly to the senses functions as complimentary and mutually supporting marketing channels as in the case of Big City Burrito. In 2009, the company carried out a discounted coupon campaign via mobile platforms and direct mail. 10,000 direct mails functioned as a set-up from where customers should type in a code from the coupon to their mobile phones to activate the discount. The campaign generated 300 opt-in customers who used the offer. In this way, direct mail and mobile marketing helped differentiate the campaign and the traditional way of conducting direct mail campaigns⁶⁸. According to a 12-country survey conducted in 2006, 2007 and 2009, Deutsche Post DHL concluded that “direct mail as an integrated part of other media and is essential”⁶⁹ for direct mail’s future success.

Unexploited opportunity – only one in five make use of cross-marketing campaigns

According to the IPC only one in five marketers make use of cross-marketing campaigns.⁷⁰ This area therefore offers a strong area for potential growth. The challenge for postal operators will be to assist advertisers in developing campaigns that maximize the complementary potential of direct mail and unaddressed advertisements with digital marketing. This includes designing mailings, establishing and coordinating effective delivery timing.

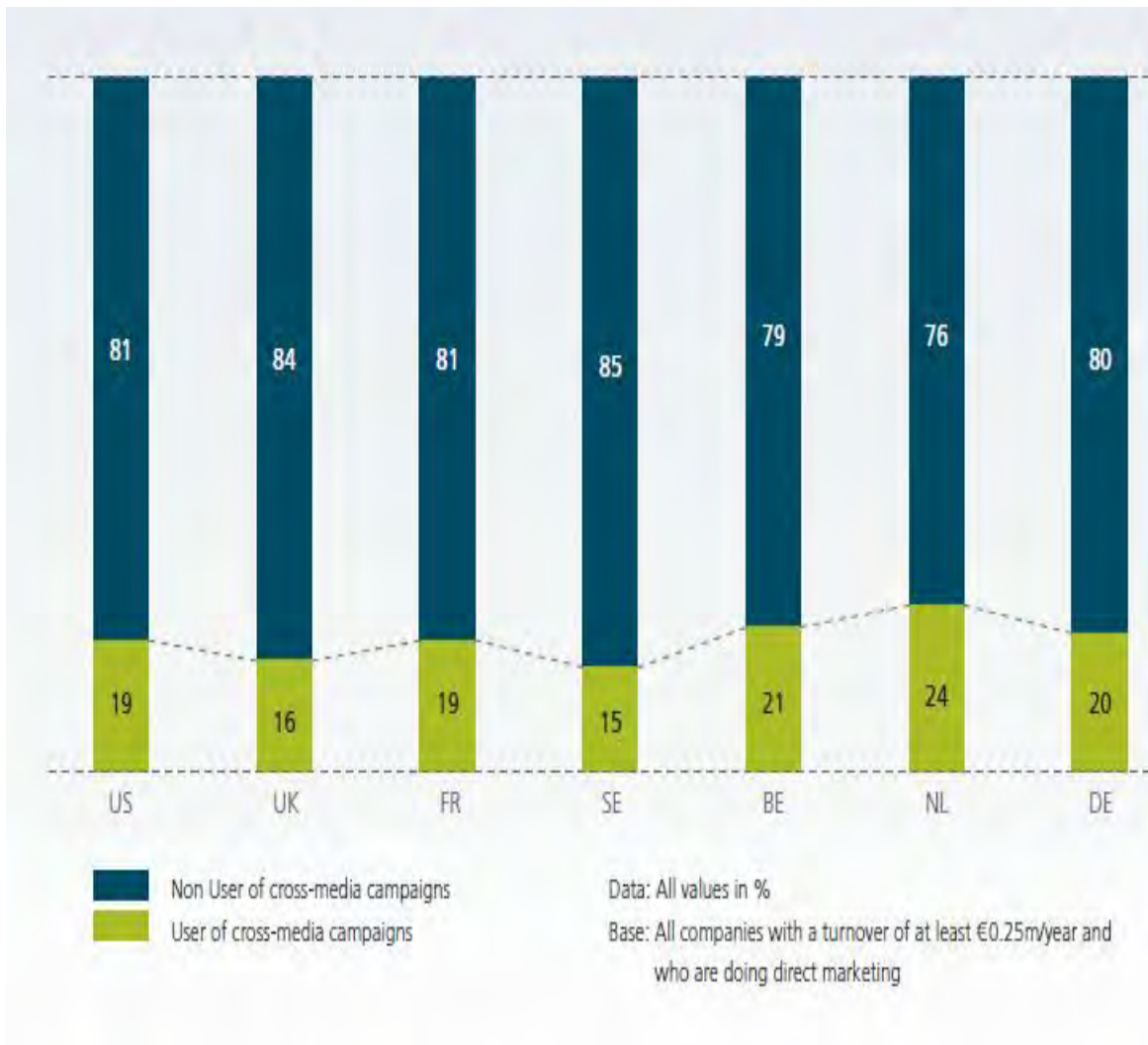
⁶⁷ <http://www.brandsenseagency.com/index.php?case-study-sensational-mail>

⁶⁸ IPC, *Strategic Insights – Harnessing the Value of Digital Media* (2010)

⁶⁹ IPC, *Strategic Insights – Growing Business in Asia* (2009)

⁷⁰ International Post Corporation, *Direct Marketing Intelligence Report* (2008)

Figure 13 Cross-Media Campaigns: Users v. non-users (Source IPC 2008)



Population and household growth will continue throughout the coming decade and will lead to a 10 percent increase the number of households. All things being equal, this should lead to a 10 percent increase in mail volumes.

Force field analysis

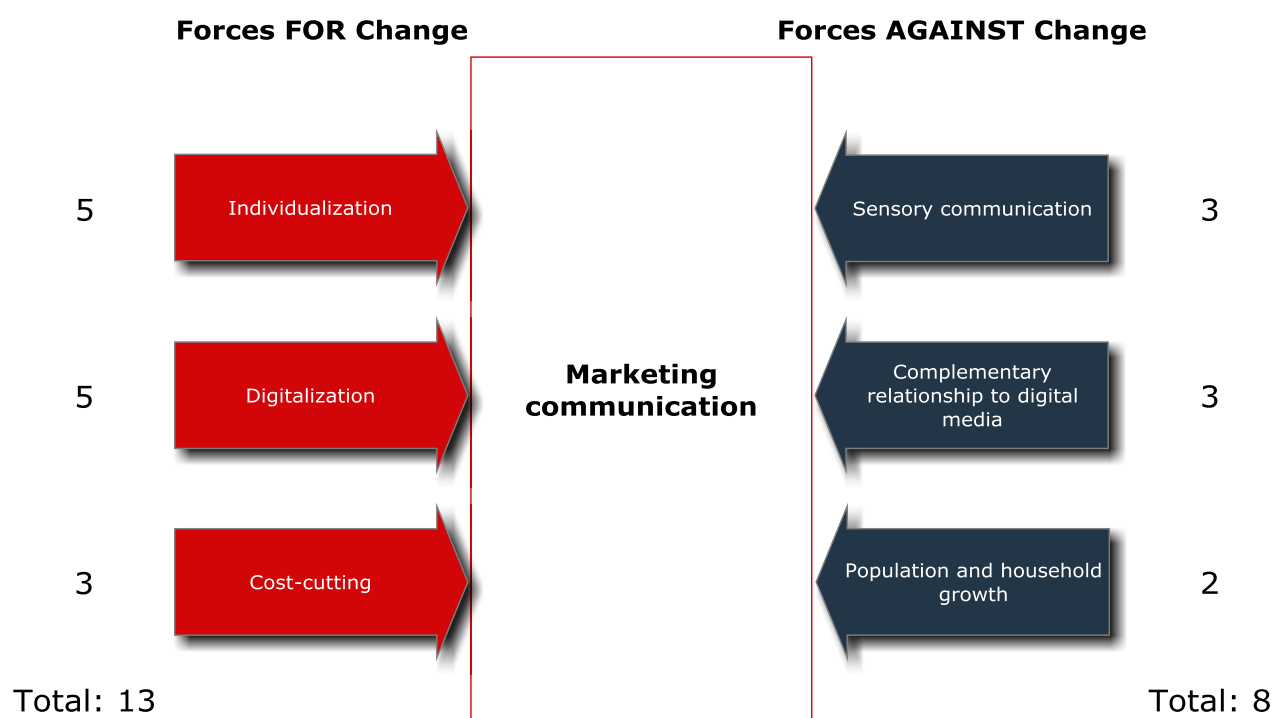
The six described forces for and against change are weighted according to the same scale. Each of the forces has been ranked 1 to 5 according to their impact on marketing communication (1= weak, 5= strong).

Individualization and digitalization are factors that are strongly affecting marketing communication towards 2020. They are therefore both given a score of five each. Cost-cutting will remain important factor—especially considering

weak growth prospects and some potential down side risks in IPC member countries' economies. Cost-cutting in marketing communication is weaker than other categories and is therefore given a score of three for a total of 13.

Sensory communication and exploiting marketing mail's complimentary relationship to digital media are the strongest factors for boosting letters mail volumes in this sector. These factors rely on individual postal operators to seize potential opportunities and are not factors that will maintain mail volumes. They are therefore given a score of 3 each. Household and population growth will lead to increases in mail volumes over the coming decade, though in most countries this will only increase mail volumes by a total of 10 percent (everything else being equal). Therefore, it is only given a score of two for a total score of 8.

Figure 14 Force field analysis marketing communication



Figures and market developments

Not one of the surveyed experts believed that volumes would increase for direct mail towards 2020. Fifty-two percent believed volumes would decrease, while 48 percent believed that they would remain stable. In their assessments of the individual mail markets, surveyed experts all pointed to average annual declines ranging from -1.1 -- -1.7 percent:

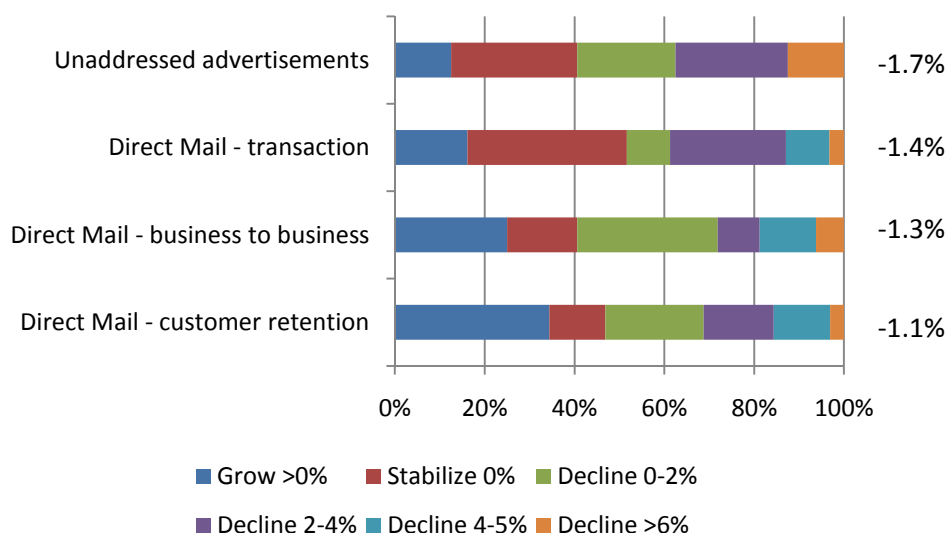
Direct mail volumes are expected to decline by 10 to 15 percent by

- Direct mail customer retention – a -1.1 percent annual decline, -10,5 percent by 2020
- Direct mail business-to-business – a -1.3 percent annual decline, -12,2

2020

- percent by 2020
- Direct mail transactions – a -1,4 percent annual decline, -13, 4 percent by 2020
 - Unaddressed advertisements – a 1,7 percent annual decline, -15,8 percent by 2020.

Figure 15 Average declines of direct mail volumes towards 2020 (Source: CIFS, 2010)



Communications experts' view on future of marketing communication

Communications experts challenged the future role of direct mail in marketing communications. They see it becoming supplanted by digital solutions and threatened by its nature as physical spam.

Communications experts believe that digital alternatives could be better than direct mail

The external communications experts believe that digital solutions will supplant physical marketing communications in many areas. They opine that digital alternatives would best letters mail's most important strategic characteristics. Surveyed experts believe that letters most important characteristic in 2020 would be its ability to target the right message to the right customer. External communications argue that location-based services could target marketing communications better than letters mail as location-based services can target the right message to the right customer at the moment in time closest to the purchasing decision.

Direct mail is spam, according to communications experts

External communications experts view direct mail as physical spam, which could eventually pose a direct threat to postal services brand image and future. The external communications experts view postal operators as the arm of the advertisers, sending "tacky" physical spam to the population. The reliance on direct mail and unaddressed advertisements could kill postal services reputations in many markets. One expert said, "When I think about the postal service today, they are the advertising industry's lackey. They bring me s#&t I don't want to read. I would rather they didn't come. This is an image problem that could kill a business". If this attitude becomes popular, it could lead to the

imposition of opt-in regulations (see social and institutional factors for more information).

Direct mail does have two strategic advantages, according to external experts

The two advantages that postal carriers have are that they can communicate directly with people without first having to negotiate digital filters and have government sanction that digital alternatives do not have. To seize the full benefit of this advantage, they will have to think about their mail services in new ways. They will have to find new ways to seize advantages from local and social services; they will have to seek alliances with online entities like Google and Facebook.

Social and institutional factors

Environmental factors could turn consumers and advertisers away from direct mail

Environmental challenges and consumer's perceptions of direct mail as junk mail may pose a challenge for many postal operators towards 2020. 29.4 percent of CIFS survey respondents believe that environmental concerns will cause concerns to shun letters mails. Thirty-five percent of respondents, however, think this unlikely. In other words, people are divided on how much influence environmental issues will have on letter and direct mail. It is also interesting to note that these conflicting views contradict findings from the BCG study of global postal CEOs, who placed sustainability as their third most important management issue behind the economic downturn and digitalization.⁷¹

Could lead to a rejection of the "spray and pray" approach in favor of "opt-in" organizations

Addressed and unaddressed direct mail is already commonly referred to as junk mail by consumers. Letters mail costs 25g-50g of CO₂ to produce, transport, and dispose (sometimes recycled).⁷² Towards 2020, the pressure to reduce GHG emissions and environmental impacts could lead both marketers and consumers to reject direct mail as a communications medium, especially if direct mail continues its wasteful 'spray and pray' approach. As a result, a rising number of "opt-in" organizations are forming in Western countries, motivated by limiting direct and unaddressed advertisements' negative impacts on the environment. An example of a highly popular grassroots "opt-in" campaign is the Danish "reklamer – ja tak/advertisements – yes please" campaign, referencing to the current situation where households currently have to opt-out to stop receiving direct mail.

The effects that these possible challenges could have on advertising mail are be dependent on effectiveness of local and national environmental and consumer advocacy groups on legislative bodies and corporate marketing departments.

⁷¹ IPC, Global Postal Industry Report (2010)

⁷² CIFS, "Communications Trends and the role of mail" (2009).

Media content

Letters mail role in printed media content in 2020

In 2020, the circulation of printed newspapers continues its decline since its peak in the late 1980s. Most readers have switched to receiving their news from a variety of online sources such as peers on social networks, news aggregators, wire services, and digital news websites as well as via radio and television. The Internet has become the most popular news source. Televisions have become fully integrated Internet platforms blurring the distinctions between the technologies almost entirely.

Newspapers will never be the same

Newspapers still exist in 2020, despite dire predictions by the *Future Exploration Network* in 2010 that forecasted that printed newspapers could become extinct as early as 2017 in the United States and the mid-2020s in many European countries. While physical newspapers as defined in 2005 are dead, surviving newspapers have evolved into a product that is supplementary to online news services: They are thinner; they are exclusive; they deliver hard-hitting analysis (not just rewrites of wire services that are easily found online); they use flexible printing services to make individualized copies for readers. For example, if the individual consumer likes the arts and detest sports, the newspaper will use its alliances with other media organizations to expand the arts sections to include topics that of interest to the reader, while cutting the sports section entirely.

Magazines are high quality experiential media that complement online publications

The magazine industry is likewise evolving. Magazines will still exist in printed formats in 2020, but they have become an experiential media that use tactile appeal (high quality and 3D images, smells, etc.) to educate and influence customers. Volumes are down compared to 2010 levels, but the number of published magazines has increased as individualization and focused, interest based publications proliferate in the market place. Few physically published-only magazines exist, as magazines are hybrid media with a multi-channel media presence in both virtual and physical realms. Surveyed experts estimate that magazine's decline will be moderate towards 2020, falling by approximately 15 percent from 2010 levels.

Communication experts believe that newspapers decline will likely be more profound than the survey indicates. The newspapers and magazine markets will diverge. Those that survive in physical formats will be either cheap, freely distributed publications or will become exclusive publications printed on high quality paper with an emphasis on graphical presentation and quality photos.

Current situation

Advertisers are moving online

Both the printed newspaper and magazine industries are under increasing pressure due to changing customer preferences and a sharp decline in revenue from advertising sales, as advertisers have shifted towards digital alternatives

Consumers still read magazines, though switching online for the news

and in-house specialization that digital solutions offer.⁷³ The newspaper industry has shown the most significant decline with paid circulations declining back to levels not seen since 1970.⁷⁴ Magazine industry figures are likewise in decline having fell 3 percent annually 2007-2009.⁷⁵

Digitalization has not destroyed physical media, though newspaper volumes have declined since the 1990s

In a 1995 article for *The Economist*, Frances Cairncross announced the '*death of distance*'⁷⁶ by the ICT revolution, and since then technophiles have anticipated print media's eminent demise. Print media, however, has not been obliterated by the Internet's emergence. Newspapers have merely been in a slow to moderate decline (falling by an annual average of 1.22 percent since 1990). Forces for its continued existence include productivity gains due to innovation, tradition, personal co-branding and co-content creation. Magazines grew in volume mostly throughout 2007, until the economic downturn led to a six percent decrease in circulation.

In a 2010 *New York Times* article entitled "*Information Age? Wrong*" Steve Laniel argues that information is most often non-information. Non-information, he explains, is chatter. Chatter is the constant update of semi-news, an accumulation of unconfirmed rumors, twitters, Facebook updates and streamed news from a variety of websites. For vetted, analyzed information, the traditional routes of newspapers and books are still widely traveled, be they online or in print.⁷⁷

Over the coming decade print media will need to seek complementary relationships online

For the next decade, rather than presenting an existential threat, the Internet, print media and postal corporations should seize the potential complimentary relationships offered by digital media. Substitution of print by digital means and changing socio-economic factors such as individualization and demographic change has not brought an end to printed media yet. Rather, it is reshaping the industry and unleashing a period of "creative destruction" that will cull the weakest actors.

Major forces for change

To help analyze media content towards 2020 and letters mail's role in distributing this material, a number of forces for and against change are to be identified and analyzed. The most important forces for change include:

- Increasing digital technological convergence
- Demographic change toward native ICT users
- Individualization and the rise of the prosumer

Consumers and advertisers are going digital. The growing demand of digital news and magazines in the long-term embodies a substitution-threat for print

⁷³ Matthew Ego, et al. "Reinventing Print Media" Strategy + business (2009)

⁷⁴ Editor and Publisher International Yearbook

⁷⁵ MPA, 2010.

⁷⁶ Frances Cairncross, *The Death of Distance* (The Economist, 1995) 336.

⁷⁷ Steve Laniel, *Information Age? Wrong* (The International Herald Tribune, 2010) 13.

media, especially given the emergence of better digital display devices. In the short-term, subscribers tend to want to switch between digital and printed versions of media content, particularly magazine content.

Demand for digital media is growing among all age cohorts

Demand for digital media is growing, creating an opportunity for newspaper publishers to supplement declining readership with new sources of revenue. According to McKinsey & Co, newspapers' importance as a news source is declining compared to online sources. In all age groups below age 55, the Internet replaced newspapers as the second most preferred news source behind the television. Among 55+ cohorts internet ranks fourth.⁷⁸

Consumers are interested in e-readers

The proliferation of mobile digital reading tools will further strengthen the digitalization of news media. McKinsey research surveys found that 47 percent of those surveyed expect to purchase an e-reader in the next years⁷⁹. This figure was higher in the United States. The interest in acquiring such a device is interlinked with the desire to access digital, not necessarily, printed media.

Paid subscriptions are available for premium news with a business interest

A great uncertainty for newspaper and magazine publishers is whether online readers will pay for content. In general, only business-oriented content providers like the *Wall Street Journal*, the *Financial Times* and the *Economist* are able to sell consumers access to their online content, while general interest news services like the *New York Times* are not.⁸⁰ Initial feedback from the UK-based *Times* and *Sunday Times* indicate that this might be changing as there is a significant portion of consumers who are 'willing to pay for quality journalism in digital formats'⁸¹. In November 2010, UK-based newspapers *Times* and *Sunday Times* released new online services, offering paid subscriptions that allow full access to the newspaper websites. *Times*' executives expected an initial loss 90 percent of their online readers. Early figures however show that nearly 200 000 people paid for double subscriptions, meaning that they receive both the printed newspaper at their homes and full online access.⁸²

Magazine readers want digital and physical formats

Surveys by the Magazine Publishers of America indicate similar preferences among magazine subscribers. In a survey containing both subscribers and non-subscribers, 84 percent want to read digital magazines, and 82 percent digital newspapers, many further indicated that they were willing to pay for content available online. The association did, however, note that of those consumers who were willing to pay, consumers were only willing to pay approximately half of the regular subscription price. Consumers were willing to pay more for single-issue items, approximately 60 percent of the newsstand price (see figure below).⁸³

⁷⁸ Philipp M. Nattermann, "A glimmer of hope for newspapers," *McKinsey Quarterly* (April 2010)

⁷⁹ Natterman, Phillip, A Glimmer of Hope for Newspapers. McKinsey Quarterly; Media and Entertainment Practise, April 2010.

⁸⁰ Matthew Ego, et al. "Reinventing Print Media" Strategy + business (2009)

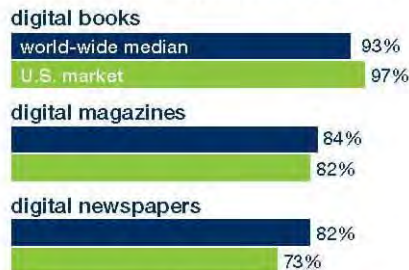
⁸¹ BBC News, Times and Sunday Times reveal online reader figures. BBC News Online, 2nd November 2010.

⁸² BBC News, Times and Sunday Times reveal online reader figures. BBC News Online, 2nd November 2010.

⁸³ Magazine Publishers of America, The Magazine Handbook 2010/2011, 2010, p. 22.

Figure 16 What would you like to read on an e-reader and how much would you be willing to pay (Source: MPA, 2010)

Would you expect to read...



Source: BCG e-reader survey, Adults 18+ who are interested in purchasing an e-reader/tablet within 3 years. (N=12,717, March 2010)

What would you consider a fair price to pay...

...for a yearly magazine subscription on an e-reader device if the print subscription price is \$24.95?



...for a single issue of a magazine on a e-reader device if the newsstand price is \$6.95?



Source: North American Technographics® Digital Home Online Survey, Q4, 2009

Younger generations prefer digital only formats

While digitalization will, in the short-term, complement print media, by allowing consumers to choose a combination of offerings (digital+print) or purely digital or print, a demographic shift is occurring that over the long-term (20+ years) could lead to a more rapid erosion of print media. New subscribers (particularly younger cohorts) tend to request digital-only versions, pointing towards a future decrease in print media circulation due to demographic ageing and the emergence of the digital native as the most powerful driver of change.

Figure 17 Print and digital complementarity (Source MPA, 2010)

Among current subscribers, more than half chose to renew with a digital product.

Source: Next Issue Media, 2010



53% chose digital + print
47% chose print only

Among non-subscribers, nearly 40% chose an offer including print.

Source: Next Issue Media, 2010



61% chose digital only
39% chose digital + print

87% of those interested in reading magazines on a digital device still want a printed copy.

Source: CMO Council, 2010



87% want digital + print
13% don't care about delivery

Advertisers are leaving print media

Advertisers are likewise going digital. Advertisers have adjusted their advertising budgets in favor of digital and in-house marketing options that digital solutions enable (i.e. creating proprietary content channels online). During the crisis, advertising revenues in print media fell at rates two to three times faster than

the overall decline in advertising revenues. The revenue that print media does capture through its online presence is often lost to tough competition from other online content providers (television news sites, online wire services, news aggregating sites, etc).⁸⁴

Technological sophistication and connectivity are dominant trends

The change in customer behavior is also being driven by demographic changes, which will only strengthen as digital “natives” (those born after 1977) become the preponderant age cohorts in society through 2020. At the same time, all age cohorts in IPC member countries are becoming increasingly technologically sophisticated and connected to the Internet via fixed and mobile broadband access. All generations in developed countries have increased their Internet usage drastically since 2005⁸⁵. As a result, less time is spent with printed media.

Generational differences provide major insights into the future of print media

Six out of ten young people get the majority of their news online⁸⁶. The Internet and the use of mobile devices is an extension of younger generations’ identity and development, forming the backbone of future generations’ communication behavior. Older generations that have developed greater trust in traditional media (books, printed newspapers and television) will increasingly become smaller through 2020 and beyond⁸⁷, portending a long-term decline in print media’s social relevance.

Online media is increasingly interactive

In addition, populations are becoming more technologically sophisticated in all regions globally (see figure 18).⁸⁸ As their technical skills increase, so does their usage, filtering and consumption capacities, and confidence in the ability to vet sources of online information, which could pose a significant threat to print media and letters mail.

Printed media risks losing cultural and habitual relevance as the ease and comfort associated with digital media use increases

Printed media risks losing cultural and habitual relevance as the ease and comfort with digital media increases. In the CIFS survey, seventy-seven percent of respondents expect that the increase in technological sophistication will have a high or severe impact on letters mail by 2020. Furthermore, 47 percent perceived the demographic shift to bring about increased openness and that the decisions and patterns of native ICT users to have a severe impact on mail volumes by 2020. An additional 35 percent think that it would have a high-degree of impact.

⁸⁴ Matthew Ego, et al. “Reinventing Print Media” Strategy + business (2009)

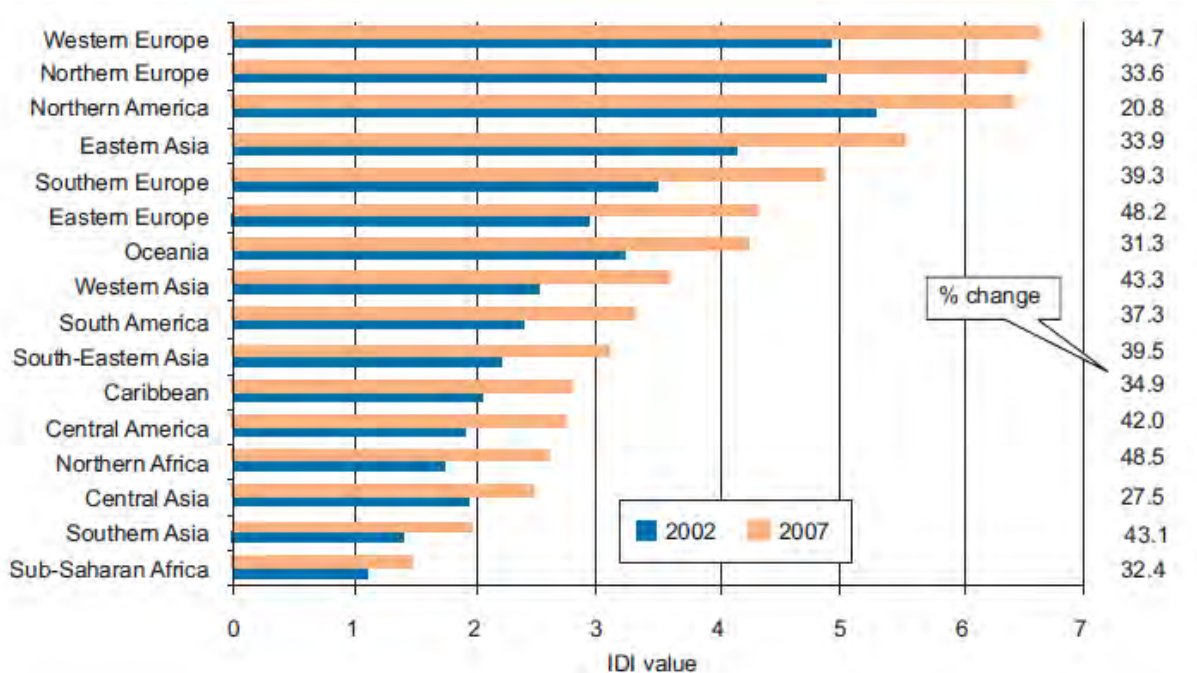
⁸⁵ ITU, Measuring the Information Society: The ICT Development Index.

⁸⁶ Watkins, (2009), 14-15.

⁸⁷ Watkins, (2009), 207.

⁸⁸ ITU, Measuring the Information Society, (2009)

Figure 18 Countries are becoming more technologically sophisticated according to the ITU's ICT Development Index (Source: ITU, 2009)



Content is becoming more effective in reaching its target audience

Advancements in the digitalization of media content create an increasing expectation among consumers for content that is targeted directly towards their individual wants. Newspapers and some magazines may be considered as “collections of interests”. The challenge for newspapers and magazines is in the targeting of content towards their users’ interests. Editorial decisions are shifting towards user-driven content production based on analytics shaped by online patterns and by the settings users select when they register or subscribe to newspapers and magazines. As a result, print media companies are becoming part multi-channel communications platforms (online via a number interfaces and offline in print formats).⁸⁹

Print media focus on specific topics

Due to the individualization trend, print media is evolving towards niche publications focused on specific topics. Marketers in major companies are launching private-label media, diverting their marketing dollars away from general interest content. Private-label media is created by companies themselves to target the interest of their consumers (who they arguable understand better than third parties). Procter& Gamble publishes content in health & beauty for their customers. Nike creates content for athletes and runners who use Nike’s products and services.⁹⁰

Readers help generate content

The individualization trend presents an opportunity to make the consumer a content co-producer – a prosumer. The ‘prosumer’ not only consumes, but actively seeks to participate in ongoing developmental processes, particularly in the digital realm. Publishers are seizing this opportunity by producing user polls

⁸⁹ Matthew Egol, et al. “Reinventing Print Media” Strategy + business (2009)

⁹⁰ Matthew Egol, et al. “Reinventing Print Media” Strategy + business (2009)

that are then used as user-driven lead generators.⁹¹

Individuals are turning to peer groups for “reliable” information

Users are now key content distributors who actively share what they find interesting or newsworthy with friends and online communities. In a study of its international readership, CNN found 43 percent of online news sharing happens via social networking sites, while email accounts for 30 percent. Facebook, Reddit, Digg, and Twitter are examples of this prosumer trend and have become some of the most popular websites online.

Key challenges for postal services are how they can help newspapers and magazines provide more individualized services for their customers through production and all distribution stages.

Major forces *against* change

Three forces against change have been identified for print media. These are:

- Print media’s tactile (offline) nature
- Niche publishing
- High quality of analysis

Print media is a tactile experience

There are certain advantages that print media possesses that digital versions cannot yet surpass. Digital media does not appeal to senses beyond sight and sound, and will not be able to do so for a broad audience, despite the convergence of high-definition touch screens and materials technologies. Many e-reader users today complain that reading digital documents can be difficult in sunlight, battery life is insufficient, and that they are unstable.

Print media does not suffer from these problems. Magazines and newspapers can be touched and held, are not fragile, and have physical qualities that impacts readers’ reading speed and comprehension. A reading usability study by Jakob Nielsen found that printed books are read faster and slightly more accurately than books read via iPad or Kindle⁹².

Magazines are well-suited to take advantage of its tactile nature

The Magazine Publishers of America assert that magazines’ popularity is due to its diversity and tactile nature. Large high quality images, nice paper and quality print are appealing to readers. Their portability make them easily distributed at public places such as airports, dentists and doctors’ offices, etc., where they are preferred to newspapers. Advertisers can use a variety of means, particularly by inserting ads that focus on the senses such as smell and touch to sell products, which they cannot do on the web or in newspapers⁹³.

While magazine sales have declined by 1 percent annually, audience sizes among 35 year-olds grew by 5.7 percent in the US compared from 2005 –2009.

⁹¹ Bob Carrigan, “A Newmodel for generating leads” Strategy+business (2009)

⁹² Nielsen, Jakob, Reading Usability Study; Reading Speed on iPad, Kindle and Printed Books Compared, found at Usabilitynews.com website, URL: <http://www.usabilitynews.com/news/article6684.asp>

⁹³ Wyman, Oliver, A New Digital Future for Publishers? Next Issue Media, 2010, p. 2.

In the United States, magazine circulation grew by 16.2 percent from 2005⁹⁴. Seventy percent of magazines are acquired via subscription, while consumers purchase the remaining 30 percent in supermarkets, airports, kiosks, etc.⁹⁵.

Niche publishing offers new opportunities for publishers

In 2009, publishers launched 193 new magazines in the US alone. Twenty-one of these were in lifestyle/special interest categories aimed at particular interest groups⁹⁶. Magazine publishers often attract readers online. Interested readers then subscribe to the print edition. Due to their small circulations, many niche publishers survive on advertising. Advertisers increasingly prefer niche publications to general interest magazines as they can provide a forum for customized loyalty-programs and specially directed ads⁹⁷.

Although postal operators do not think that this is likely

Although the majority of participants in the CIFS survey panel believe that niche markets in print media will survive digitalization, it appears as if many participants in the CIFS expert panel have underappreciated the opportunities that niche magazine publishing offer postal operators. Forty percent found it unlikely that niche publishing could boost letters mail volumes in niche publishing, while 36 percent thought that it is possible and 16 percent thought it is most likely.

Magazines and newspapers are trusted sources of information

Newspapers and printed media are culturally and traditionally an objective and trusted method of obtaining quality information. A survey by the Magazine Publishers of America finds most people to consider printed media as 'trustworthy and inspirational'⁹⁸.

Another force against change is trust. Print media has defined academia and the sciences for centuries, and the tradition for high quality analysis remains strong. In a recent New York Times article, *In a Digital Age, Students Cling to Paper Textbooks*, Lisa Foderaro found that students, although active in the digital media for conducting research via the Internet, still use library books as sources⁹⁹.

The web has enhanced the prosumer influence and allows for the democratization of information. On the web, blogging, twitter and much of Wikipedia remains un-edited. Commenting by non-professionals is the new peer-to-peer review. While open information flows enable the spread of information, users are reticent to trust it. A McKinsey survey in the UK finds that 66 percent of newspapers are 'informative and confidence inspiring', compared to 44 percent in television, and only 12 percent on the Internet¹⁰⁰.

⁹⁴ Magazine Publishers of America, *The Magazine Handbook 2010/2011*, 2010.

⁹⁵ Magazine Publishers of America, *The Magazine Handbook 2010/2011*, 2010.

⁹⁶ Magazine Publishers of America, *The Magazine Handbook 2010/2011*, 2010, p. 81-82.

⁹⁷ USPS. *The Challenge to Deliver: Creating the 21st Century Postal Service*. United States Postal Service (2009). Annual Report, p. 21.

⁹⁸ USPS. *The Challenge to Deliver: Creating the 21st Century Postal Service*. United States Postal Service (2009). Annual Report, p. 21.

⁹⁹ Foderaro, Lisa, *In a Digital Age, Students Cling to Paper Textbooks*, New York Times, October 19th, 2010.

¹⁰⁰ Natterman, Phillip, *A Glimmer of Hope for Newspapers*. McKinsey Quarterly; Media and Entertainment Practise, April 2010.

Two decades of digitalization have yet to erode readers' trust in the printed word. The digital world is not yet thought of as very secure and trustworthy environment, while printed and delivered mail is considered trustworthy and in terms of privacy issues very secure¹⁰¹. Not only do print media enjoy a trust and cultural tradition of quality, but print media are also analogue technologies free from viruses, tracking cookies, scams and pop-up windows. There remains quality and style, trust and quality of analysis in printed media that will endure for the coming decade.¹⁰²

Force field analysis

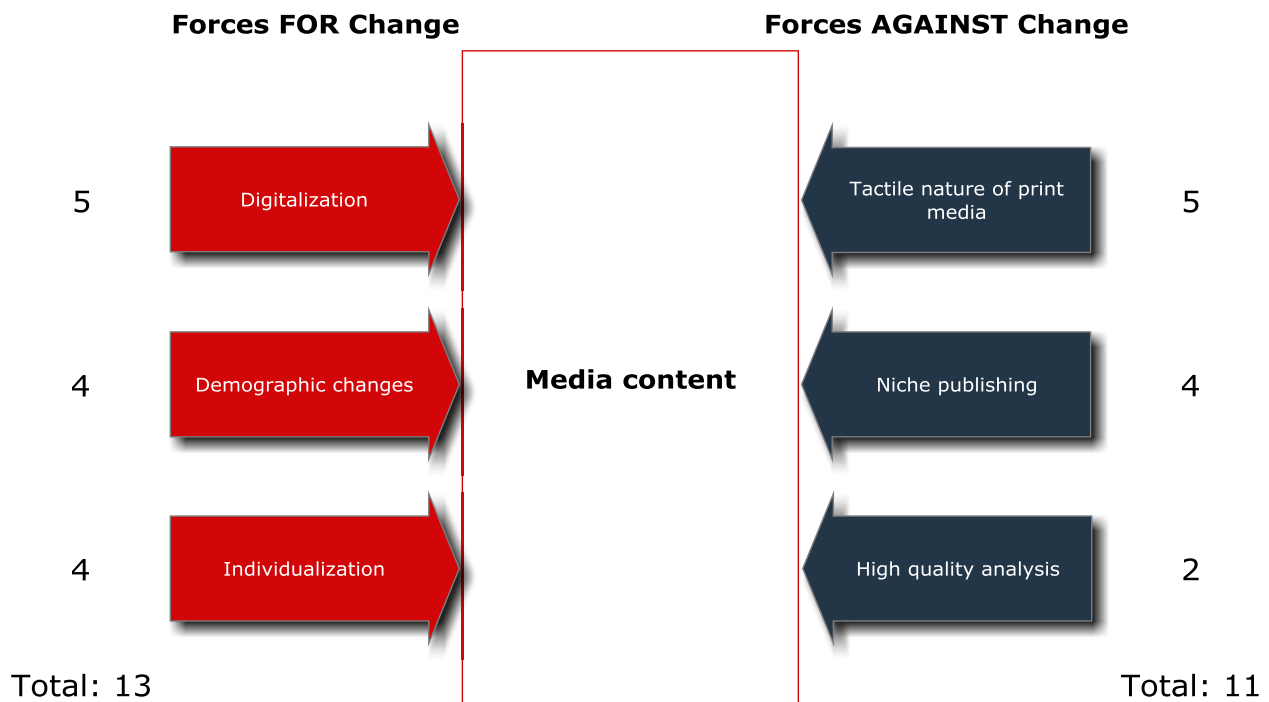
The six described forces for and against change are weighted on the same scale from one to five. The most significant factor for change regarding print media has to do with digitalization. Both consumers and advertisers are increasingly transitioning to the consumption of online media via computers, e-readers and mobile phones. This motivates a weight of five. Demographic changes and individualization are also important as they underscore the long-term trends that will reshape the industry over the decades to come. As younger generations still sometimes prefer to read magazines, this factor for change is given a four. Individualization is driving the development of niche markets, as it both erodes general interest magazines market share and leads to the creation of new special interest magazines. It is also given a score of four. Added together, this gives a total score of 13 to the critical forces for change in this area.

For the three factors against change, tactile nature of print media is a key strength that is preventing e-substitution. Rather, it creates a complimentary relationship between the multiple media distribution channels. The development of HD tablets and mobile broadband usage will be important factors to monitor as this may erode print media's position. Until then, the tactile nature of print media is given a five. Niche publishing is a strong factor for magazine publishing and newspapers, and as a result it is given a score of four. High quality analysis is a weaker element that does not solely exist in print media – online platforms can compete on this element as well. As high quality print media establishes an online presence, this strength position could erode. It is therefore given a score of 2. The total score for forces against change is 11.

¹⁰¹ USPS. The Challenge to Deliver: Creating the 21st Century Postal Service. United States Postal Service (2009). Annual Report, p. 10.

¹⁰² Magazine Publishers of America, The Magazine Handbook 2010/2011, 2010.

Figure 19 Force field analysis media content

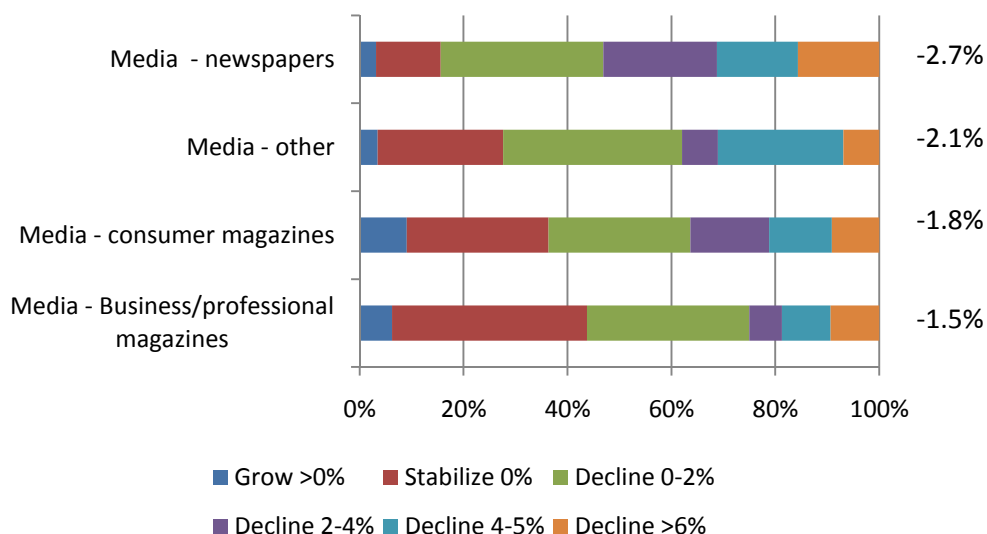


Figures and market developments

Newspapers are likely to decline most by 2020, according to surveyed experts followed by Media – other and consumer magazines. Experts expect professional magazines to decline by the smallest amount towards 2020.

- Media other – a 2.1 percent annual decline, 19 percent decline by 2020
- Media professional magazines – a 1.5 percent annual decline, 14 decline percent decline by 2020
- Media consumer magazines – a 1.8 percent annual decline, 17 percent decline by 2020
- Media newspapers – a 2,7 percent annual decline, 24 percent decline by 2020

Figure 20 Market developments media content



Communications experts' view on future of media comment

The expert panel argues that exclusivity is likely the most important strategy for publishers to adopt as they expect a general decline in the market for both newspapers and magazines over the coming decade. They expect a decline that would be greater than the twenty percent proposed by survey results.

Social and institutional factors

Environmental factors pose a threat to print media

Environmental factors pose a particular threat to print media. Print media's production, distribution and disposal have high environmental costs associated with them. Although it is very difficult to compare the CO₂ output differences between paper and digital media as noted in the CIFS 2009 study, the Internet is multi-purposeful, creating a global communication infrastructure as well as providing the infrastructure necessary for a low carbon future via the establishment of the smart grid, ICT's are steadily improving energy efficiency.¹⁰³ Print media's impact is highly variable and dependent on whether users dispose their newspapers in a landfill or they recycle them. Regardless of the method employed, newspapers are environmentally costly.

For example, according to the UK newspaper the *Guardian* here the environmental footprints of typical UK newspapers:

Newspapers and magazines can become a "costly" pleasure

- 0.3 kg CO₂e the *Guardian* Weekly, recycled
- 0.4 kg CO₂e the *Sun*, recycled
- 0.5 kg CO₂e the *Daily Mail*, recycled

¹⁰³ IDA, *The IDA Climate Plan 2050*, (2009), p. 125. and, DEFRA, *Global Carbon Impacts of Energy Using Products*, DEFRA (April 2009)

- 0.8 kg CO₂e the Guardian, recycled
- 1.8 kg CO₂e a 'quality' weekend paper, recycled
- 4.1 kg CO₂e a 'quality' weekend paper, sent to landfill¹⁰⁴

To put this into perspective, in order to meet the 2050 450 ppm goal set by the IPCC, the average global citizen could only emit 2 tons of CO₂ annually, or 5.45 kg a day.

¹⁰⁴ What's the carbon footprint of ... a newspaper? The Guardian (4 November 2010)
<http://www.guardian.co.uk/environment/green-living-blog/2010/nov/04/carbon-footprint-newspaper>

Social Communication

Letters mail's role in social communication towards 2020

Social communication is about sharing common interests, objects, information, key moments in our lives and location with people within our networks – whether interpersonal connections are strong or weak. Social communication occurs across a number of channels, utilizing both analog and digital media. Social communication uses direct (one-to-one via text message, email or letters) and broadcast (one-to-many via social networking site such as Twitter, MySpace, Flickr or Facebook) formats.

In 2020, social communication is mostly digitalized, as it was in 2010. Consumers still send “emotional mail” – greeting cards, letters of condolence, postcards, etc. – though they are rare. The times have simply changed; cultural norms have changed. It is now socially acceptable in most countries to send wedding invitations, condolences, and congratulatory notes for major life events via digital communication devices and platforms.

Letters mail role in social communication continues to decline in relative importance through 2020. According to the CIFS survey, experts expected that letters mail volumes in social communication would decline on average 2.28 percent through 2020 – a decline in volume of approximately 20 percent. Experts could underestimate this decline, as seventy-four percent of surveyed respondents expect that it will be socially acceptable to use information and communication technologies to convey meaningful messages concerning weddings, births, funerals, and graduation from school by 2020.

The communications experts shared this opinion. They noted that Facebook's market penetration is exceeding fifty percent of the population in some IPC member countries. Social communication platforms help people organize major life events such as weddings and first days at school, for example.

Major forces for change towards 2020 include demographic change and ensuing cultural changes in communication norms, increasing technological improvements, and technological sophistication of the population.

Cultural norms and traditions and letters mail's tactile nature are most likely the factors that would continue to maintain letters mail's utility as a communications tool through 2020. These countertrends, however, are not likely to be sufficient to maintain social communication mail volumes through 2020 and are discussed herein.

Current situation

Reliable data is hard to Reliable data as to the size of the social communication market is hard to

come, though respondents note that social communication has already been digitized

discern given that it has not been disaggregated from the overall C2X market – i.e. consumer-to-business, consumer-to-consumer, and very small businesses using postage stamps. However, already in 2005, postal researchers noted that social communication via electronic alternatives had largely replaced letters mail for regular correspondence, though ‘emotional’ mail such as greeting cards and postcards have been slower to change. They opined that this market would remain stable into the future.¹⁰⁵

Social communication via digital alternatives is going mobile

Social communication via digital alternatives is going increasingly going mobile. According to ITU figures, the number of fixed telephone lines per 100 inhabitants in developed countries has declined by 20 percent from 2000 – 2010.¹⁰⁶ At the same time, mobile phone penetration rates per 100 inhabitants has grown by 190 percent from 40 to 116 subscriptions per 100 people.¹⁰⁷ Smart phones are expanding the penetration of mobile computing power and now constitute the fastest growing mobile phone market. Seven out of the 10 most popular mobile devices purchased on a monthly basis and 20 out of the 30 most popular mobile phones purchased on a monthly basis are now smart phones.¹⁰⁸

Online tools improve social relationships

Online tools – be they email, social networks, VoIP, etc. – provide greater opportunities for individuals to develop, improve and rediscover social ties. They support sharing and collaboration by lowering the constraints of time, geography, and cost.¹⁰⁹ They are also redefining social relationships, as online social activities take time away from in-person social activities.

Letter mail’s importance has already declined

Letters mail’s importance as a communication tool has already declined in importance in direct person-to-person communication compared to other media (see figure below). In Finland, C2C letter mails volume has dropped by 60 percent from 1997 to today.¹¹⁰ Social communication constitutes a small portion of letters mails volumes, fewer than 10 percent in most IPC member countries.¹¹¹

¹⁰⁵ Dr. Nick van der Lijn, et al. Main developments in the postal sector (2006-2008). European Commission (2008), 106, citing Jimenez study, (2005).

¹⁰⁶ ITU, Global ICT Trends, 2010 < http://www.itu.int/ITU-D/ict/statistics/material/graphs/2010/Fixed_00-10.jpg>

¹⁰⁷ ITU, Global ICT Trends, 2010 < http://www.itu.int/ITU-D/ict/statistics/material/graphs/2010/Mobile_cellular_00-10.jpg>

¹⁰⁸ Smart Phones popularity increasing <<http://www.marketingcharts.com/direct/smartphone-popularity-increases-15134/>>

¹⁰⁹ Janna Quitney Anderson, et al., “The future of social relations” Elon University and Pew Internet and the American life project (July 9, 2010)

¹¹⁰ Heikki Nikali Ph.D., "Role of Letter Mail in the Communication Market" Content survey for letter communication', Itella corp. ,Research Series 9/2010

¹¹¹ ITA Consulting GmbH and WIK-Consult GmbH, *The Evolution of the European Postal Market since 1997* (2009)

Figure 21 C2C Substitution of first class letters sent by consumer ¹¹²

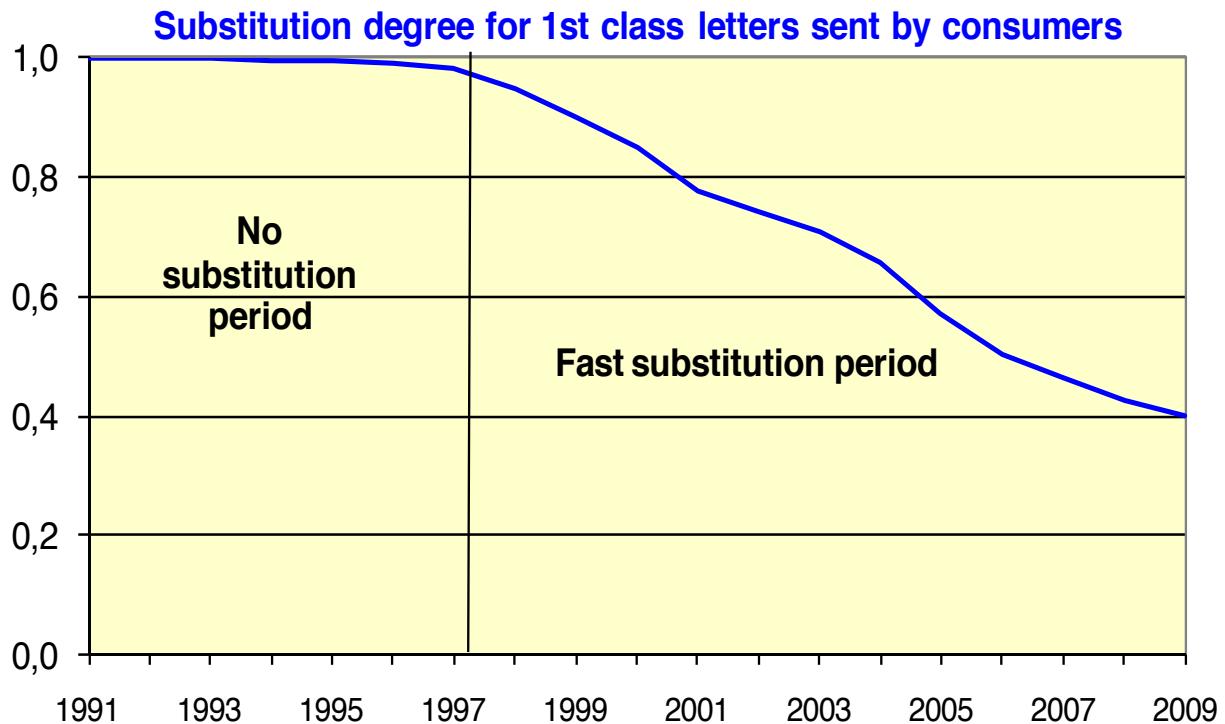
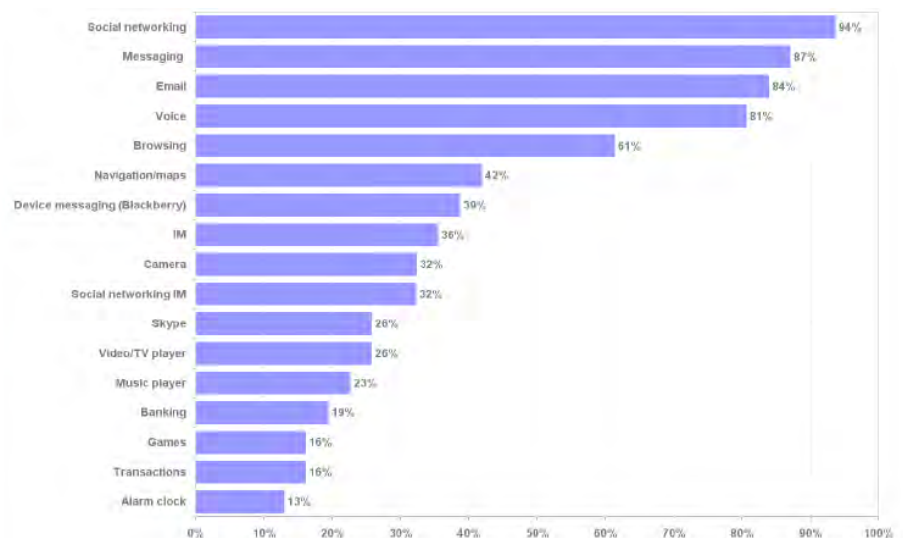


Figure 22 What do expect the most used forms of communication will be via mobile platforms (Source: Survey of mobile telecommunications providers Airwide solution)

Figure 1
What do you expect to be the most used forms of communication and most used apps in 2015?

Source
Airwide Solutions / mobileSQUARED



Broadcast social communication is growing in importance

Broadcast communication (one-to-many messages sent via Facebook or Twitter, for example) popularity has exploded over the last five years, leading to double-digit declines in usage of email and instant messaging activities. In 2009, 67

¹¹² Heikki Nikali Ph.D., "Role of Letter Mail in the Communication Market" Content survey for letter communication', Itella corp., Research Series 9/2010

Social networking activities among the fastest growing online

percent of global online population visited social network sites.¹¹³ Online users in the United States spend a quarter of their time online on social networking sites, displacing email and instant messaging, which fell to third and fourth places behind online gaming. Time spent using social networking services grew by 45 percent, while email and instant messaging fell by 28 and 15 percent respectively.¹¹⁴

Social networking is changing how people use mobile phones

The proliferation of smart phones alongside mobile broadband is reshaping the telecommunications industry. According to a survey of mobile phone operators, “the meteoric growth in social networking has changed how many people communicate via mobile – moving away from a predominantly voice-based ecosystem to one built around messaging.” One-third of Facebook’s 600 million users actively check their Facebook pages via mobile devices.¹¹⁵

Major forces *for* change

To understand what the future of social communication via letters mail could look like the following trends have been identified and will be analyzed. The most important forces *for* change include:

- Demographic changes
- Technological developments
- Increasing technological sophistication of the population

The communication habits developed by today’s young people will likely become their communication habits in adulthood

Demographic changes are leading to a change in cultural norms concerning social communication via letters mail. According to the sociologist Robert Putnam, demographic changes will alter the social communication cultures even if no individual changes their communications behavior over the next decade. Today’s 20 year old will be 30, today’s 30 year old will be 40, etc. The communication behaviors that today’s teenagers and young adults have already adopted (SMS, emails and social networking to name a few) will likely continue to be important communication devices for them in 2020.

Two-thirds of technology experts surveyed by Elon University, Pew Internet and the American Life project expect that today’s Millennial generation (currently aged under 30) will continue to broadcast their major life events to their networks as they approach significant milestones in adulthood – for example the birth of their children and their career developments.¹¹⁶

Mobile devices have become integral to young people. Currently, 57 percent of US teens view mobile devices as key to their social lives. Mobile phones provide

¹¹³ AC Nielsen, “Global faces and networked places” (March 2009).

¹¹⁴ AC Nielsen, “Nielsen: Americans Spend Nearly a Quarter of Their Online Time on Social Networking Sites; Online Gaming Overtakes Email” <<http://www.fiercemobilecontent.com/press-releases/nielsen-americans-spend-nearly-quarter-their-online-time-social-networking-sites-onli>> (August 2010).

¹¹⁵ mobileSQUARED, Mobile social networking and the rise of the smart machines – 2015AD (2010).

¹¹⁶ Janna Quitney Anderson, et al., “Millennials” Elon University and Pew Internet and the American life project (July 9, 2010)

teens with social status: Mobile phones rank second in importance to clothing as items that communicate an individual's popularity.¹¹⁷

Young people prefer frictionless communication, and they prefer to text rather than to talk on their phones. Forty-seven percent felt that their solution life would be worsened if they were unable to text; an equivalent number noted that they could text message by "touch keying."¹¹⁸

**81 % percent of
children have an online
presence by the age of
2**

Digital natives (those 33 years and younger) have an online presence from an early age. Today's 30-year-olds have an online footprint that stretches back 10-15 years, but the 20-to-30-somethings in 2020 will have a digital footprint that covers their entire lifespan. A quarter of children born today began their online presence before they are born. The average child among IPC members has a "digital birth" by six months. Eighty-one percent of children have an online presence by the age of 2 (see figure 24). In the United States and New Zealand, 92 percent of mothers have uploaded images of their child onto the Internet.¹¹⁹

Figure 23 People on Facebook joking about the "dated" communications tools (Source: failbook.com)



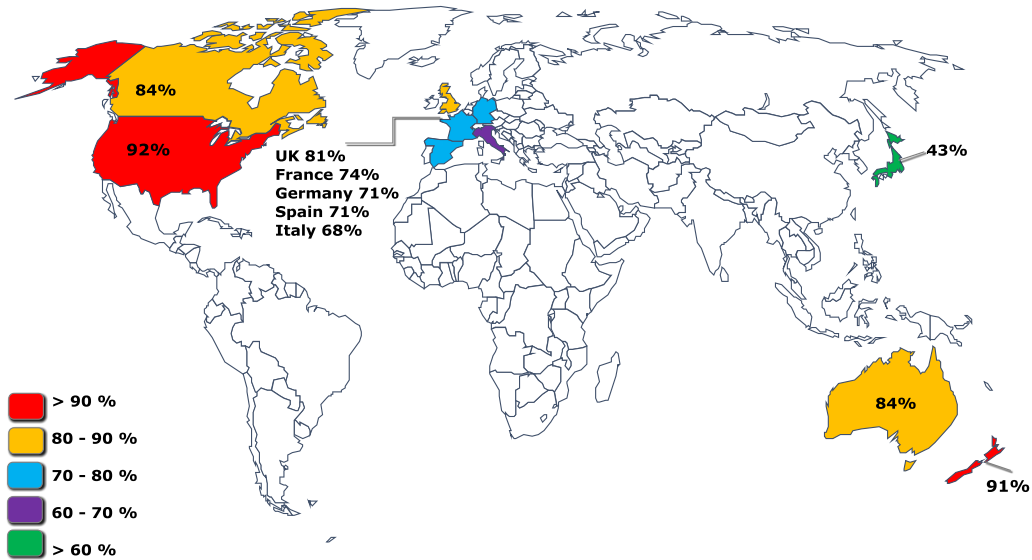
¹¹⁷ Cell Phones Key to Teens' Social Lives, 47% Can Text with Eyes Closed, <
<http://www.marketingcharts.com/interactive/cell-phones-key-to-teens-social-lives-47-can-text-with-eyes-closed-6126/harris-ctia-teen-cell-phone-use-die-without-cell-phone-august-2008jpg/> >

¹¹⁸ Cell Phones Key to Teens' Social Lives, 47% Can Text with Eyes Closed, <
<http://www.marketingcharts.com/interactive/cell-phones-key-to-teens-social-lives-47-can-text-with-eyes-closed-6126/harris-ctia-teen-cell-phone-use-die-without-cell-phone-august-2008jpg/> >

¹¹⁹ Business Wire, "Digital Birth: Welcome to the Online World" (6 October 2010).
<<http://www.businesswire.com/news/home/20101006006722/en/Digital-Birth-Online-World>>

Figure 24 Percentage of children under age of 2 with online presence

**Mothers with children aged under 2 that
have uploaded images of their child**



Source: AVG Technologies, 2010

Figure 25 Social networking is truly mass-market (Source: TNS Digital Life, 2010)

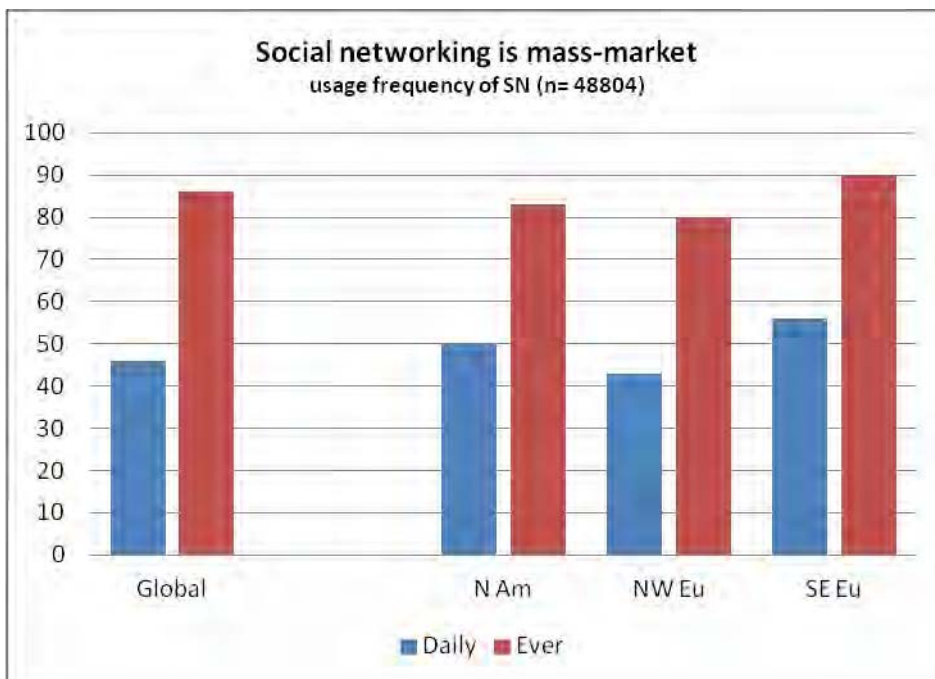
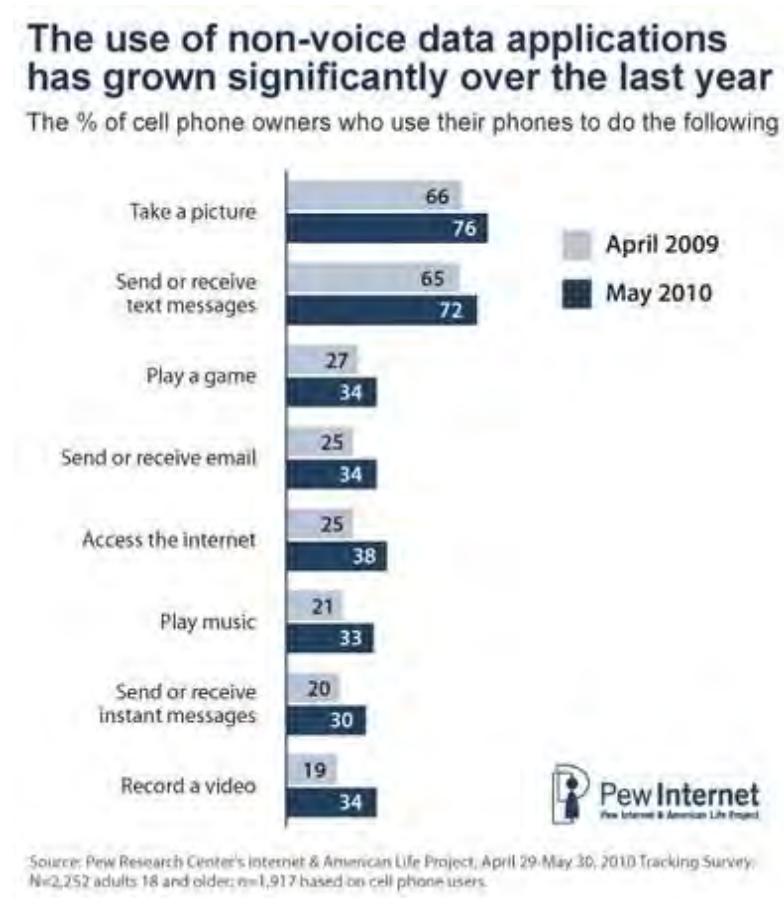


Figure 26 Mobile phone users going non-voice



ICT is becoming a ubiquitous technology on equal footing with water, power, and sanitation

Technological changes will impact social communication. ICT technology is becoming ubiquitous and will likely emerge as a utility on equal footing as water and electricity, according to the study for the European Commission's DG Information Society and Media.¹²⁰ For example, social networking and global positioning enabled (GPS) enabled cameras and cell phones already allow individuals to take pictures of where they currently are and instantly update friends and family or social networking sites with personal messages of where they are and their experiences. These are a direct challenge to the habit of mailing post cards to loved ones while on vacation.¹²¹

As noted previously, populations are also becoming more technologically sophisticated and the technologies are becoming easier to use as they make increasing use of behavioral analysis, usability studies, cognitive computing, etc. to make them more intuitive for users to use.¹²²

¹²⁰ J. Cave et al, Trends in connectivity technologies and their socio-economic impacts, DG Information society and Media (2009).

¹²¹ Gizmodo, "Sony's GPS- and Compass-Enabled Camera Knows Where You Photograph"

<<http://gizmodo.com/5442073/sonys-gps+-and-compass-enabled-camera-knows-where-you-photograph>>

¹²² Gizmodo, "Sony's GPS- and Compass-Enabled Camera Knows Where You Photograph"

<<http://gizmodo.com/5442073/sonys-gps+-and-compass-enabled-camera-knows-where-you-photograph>>

Most expect it will be acceptable to send “emotional” communications digitally

The explosion of social networking and the development of new technologies are changing the norms regarding social communication. Seventy-four percent of those surveyed expect that it will be socially acceptable to use information and communication technologies to convey meaningful messages regarding weddings, births, funerals, or graduation from school by 2020.

Major forces against change

Two forces against change have been identified for social communication. These are:

- Cultural norms and traditions
- Tactile nature

Cultural norms still dictate what is an acceptable form of communication

Letters mail as a social communication device has largely been supplemented by other ICTs. In social communication, letters mail serves a function for distributing “emotional” mail – such as greeting cards, letters, invitations announcements, etc. Many of these forms of communication are showing strong decline.

Cultural norms and traditions still favor letters mail in the communication of particularly important events such as important announcements like the conveyance of sympathy and condolences when someone has met with misfortune or in celebration of weddings, holidays, birthdays, etc. And wartime communications.

Letters mail still appeals to tactile senses

Letters mail also allows users to appeal to the senses of the recipients. Lovers can send letters with perfumes to show longing and devotion. Birthday and holiday cards with personal, handwritten notes convey to the recipient that the sender finds them important and takes extra time to communicate with them.

These two factors will likely support letters mail volumes in social communication towards 2020. They are, however, weak. In the United States, personal letters fell by over 14 percent between 2007 and 2009, and overall social communications fell by 6.9 percent.¹²³

Force field analysis

The five described forces for and against change are weighted according to the same scale. Each of the forces has been ranked 1 to 5 according to their impact on marketing communication (1= weak, 5= strong).

Social communication via letters mail has been in decline for several years, and

¹²³ USPS, 2009 Household diary survey.

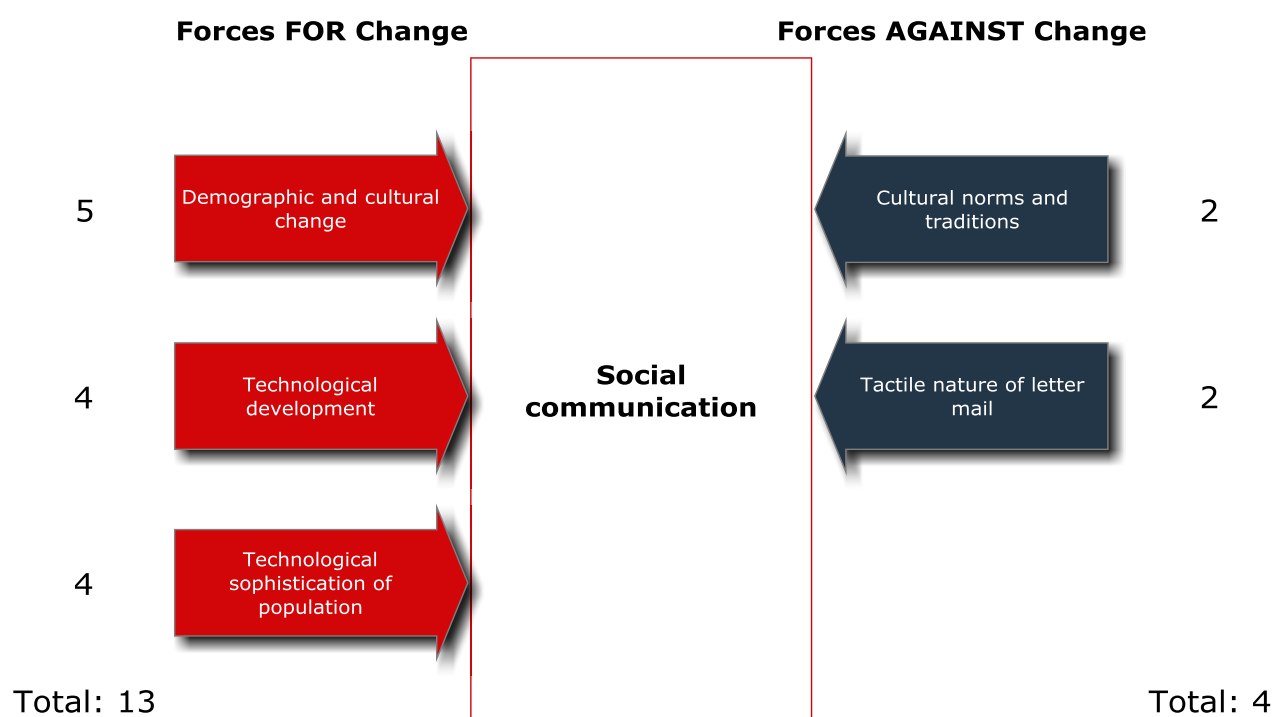
http://www.usps.com/householddiary/2009files/2009Report_HTML/USPS_HDS_FY09.htm#_Toc259518528

this decline will likely continue over the coming decade. Demographic change and changes in communication norms is the trend driving change enable by technological developments and increasing technological sophistication of the population. Demographic change and subsequent cultural change trend is therefore given a five. Technological development and increased sophistication are enabling trends that have already eroded letters mail role in social communication. They are both given a score of 4 a piece, giving a total score of 13.

Cultural norms and tradition and letters mail tactile nature will continue to ensure that letters mail will be sent for social communication through 2020. Their ability to maintain volumes will be weak, constituting a score of 2 apiece. The total score for this segment is 4.

Both surveyed findings and the opinions of external communications experts confirm these findings. Communication experts saw a diminished role for letters mail for social communication, and survey findings opine that cultural norms regarding digital communications would change over the coming decade, eroding letters mail in social communication.

Figure 27 Force field analysis social communication

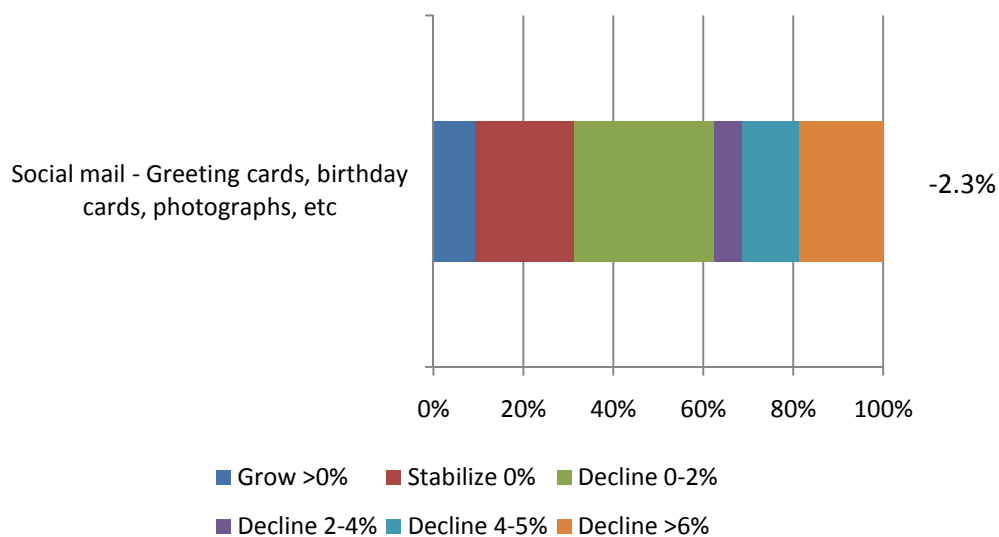


Market developments towards 2020

“Emotional mail” likely to decline by 20 percent towards 2020

According to CIFS’ survey, respondents expect that letters mail volumes in social communication would decline on average by 2.28 percent per year through 2020 – an aggregate decline in volume of approximately 20 percent.

Figure 28 Market developments towards 2020



Social and institutional factors towards 2020

“Emotional mail” likely to decline by 20 percent towards 2020

There are many social factors that could affect letters mail as a social communication tool. Cultural norms and traditions could evolve differently depending on the country and the region. Some countries may accept digital alternatives more rapidly for the communication of “emotional” issues more readily than in other circumstances.

Recommendations towards 2020

Postal companies will be challenged by digitalization and liberalization

The postal companies are facing a number of complex issues. Postal operators will need to rethink letters mail as a communications device to maintain letters mail's relevance in companies' communication strategies. Letters mail is one channel among many, and it will not disappear altogether in 10 years' time. It has discrete functions and characteristics that cannot be digitized. Postal companies will need to begin to think like communication intermediaries to ensure that letters mail is used to maximize impact and effect. But, does success depend upon whether postal customers perceive postal companies as natural ally and communication partner? Postal companies believe so; the external communications experts do not. Towards 2020, these challenges will primarily manifest from digitalization and liberalization.

Digitalization and liberalization will challenge postal companies:

- The Internet permits major letters senders to internalize more of their communications through online channels.
- Postal companies are facing many of the same challenges that other major companies are also confronting.
- The Internet permits small communications companies to provide effective communications services sometimes better than large-scale companies can.
- Location technologies, a virtual online presence, e-commerce and the multitude of options are all dynamics leading to new niches and opportunities.
- Telecommunication companies, Internet service providers, social network services, and online search companies can aggregate more detailed information, both qualitatively and quantitatively, about their customers that postal operators often can.
- Market liberalization will threaten postal carriers, introducing and sharpening competition among carriers for the most lucrative market segments.

Postal companies will need to think increasingly like communications companies. Can they?

To face these challenges and remain competitive within the communications markets, postal companies have to think more like communications companies and less like logistics companies. Currently, postal companies deliver what senders want to send not necessarily what receivers want to receive. Fifty-four percent of surveyed experts believe that its business customers will perceive the **successful** postal company in 2020 as a communications company supported by logistics, while fifty-three percent opine that consumers will perceive the **successful** postal company in 2020 as a communications company supported by logistics. The external experts did not see postal companies as

communications companies today.

Does direct and unaddressed advertisements pose an existential threat to postal companies?

For example, as social, transactional, and government communications decline, direct and unaddressed advertisements are likely to increase as a proportion of mail volumes. CIFS' external communications panel believed that this could pose a potential existential threat to postal companies: "Growing up, I used to respect the postal company. When I think about the postal service today, they are the advertising industry's lackey. They bring me things I don't want to read. I would rather they didn't come. This is an image problem that could kill a business."

And threaten postal companies offering hybrid solutions

This challenge extends over to the offering of hybrid solutions that combine physical and e-offerings. Postal services deliver junk mail in an opt-out format, while online services are primarily opt-in (although by default boxes are often checked on your behalf). Postal companies are physical spammers and begs the question: Does this affect their reputations for being perceived as natural partners in the e-post market?

Recommendations

Dare to offer hybrid solutions

Invest in secure hybrid solutions and dare to cannibalize letters mail volumes. Governments and large volume senders are moving to online transactional services. Surveyed experts expect that approximately 35 percent of mail volumes could be digitized towards 2020. Postal operators are facing the choice of losing mail volumes to digital solution providers or providing the services themselves. Provide the services and capture the revenue that otherwise would go lost –models for this are available in DHL-DeutschePost and Swiss Post, among others.

Offer communication services to maximize benefits of paper mailings

Maximize the benefits of letters mail in transactional, marketing and informational campaigns. As companies increasingly use digital alternatives, skill-sets in using physical mediums for communications will decline. How should layouts and typesets be set up for maximum effect? Postal companies should be able to provide the know-how through service, and supplement declining volumes with more powerful, sense-awakening communications.

Exploit interplay between online and offline platforms

Cross-channel transactional and marketing segments are currently under exploited opportunities. Postal companies need to consider how they can interact with large-scale mailers and marketers to seize the full range of advantages of the complementary relationships that exists between physical and digital formats. Identify and consult on the best times for partners to send

physical notifications or digital notifications. How else can postal provider serve as a strategic partner in this role?

Provide new services using existing infrastructure

A postal company is the only company that comes to every address in a country on a near daily basis. Postal companies could provide scanning services that update street-view services on Google, Yahoo, or other local map services. Postal companies could also improve the information of location based services, by updating when local stores and companies go bankrupt and have liquidation sales, for example.

Link up with online search and social network companies to improve predictive analytics

Create strategic alliances with online social network and search providers. The cross comparing of databases could provide a wealth of information for predictive analytics of potential customers' needs and lifestyles.

Offer flexible printing solutions for the creation individualized, localized print media content.

Works cited

- Anderson, Matt et al. "The M-commerce Challenge" Strategy+business (2010)
- Ambrosini, Xavier et al. 2009. *Mail order business demand. A conceptual approach*, in Michael A. Crew, Paul R.
- Australia Post, Annual Report 2005/6. (2006)
- AC Nielsen, "Global faces and networked places" (March 2009).
- AC Nielsen, "Nielsen: Americans Spend Nearly a Quarter of Their Online Time on Social Networking Sites; Online Gaming Overtakes Email" <<http://www.fiercemobilecontent.com/press-releases/nielsen-americans-spend-nearly-quarter-their-online-time-social-networking-sites-onli>> (August 2010).
- BBC News, Times and Sunday Times reveal online reader figures. BBC News Online, 2nd November 2010
- Budde, Paul. Finland's Broadband USO an Inspiration for Europe.
http://www.circleid.com/posts/20100707_finlands_broadband_uso_an_inspiration_for_europe/.
- Business Wire, "Digital Birth: Welcome to the Online World" (6 October 2010).
<<http://www.businesswire.com/news/home/20101006006722/en/Digital-Birth-Online-World>>
- Cairncross, Frances. The Death of Distance (The Economist, 1995) 336.
- Capgemini, Rand Europe, IDC, Sogeti, and DTI: Smarter, Faster, Better eGovernment, 8th Benchmark Measurement (November 2009)
- Carrigan, Bob. "A Newmodel for generating leads" Strategy+business (2009)
- Cave J. et al, Trends in connectivity technologies and their socio-economic impacts, DG Information society and Media (2009).
- Cell Phones Key to Teens' Social Lives, 47% Can Text with Eyes Closed, <
<http://www.marketingcharts.com/interactive/cell-phones-key-to-teens-social-lives-47-can-text-with-eyes-closed-6126/harris-ctia-teen-cell-phone-use-die-without-cell-phone-august-2008jpg/>>
- CIFS. Communication trends and the role of mail. Report for the International Post Corporation, (2009)
- CIFS, Anarconomy (2009).
- CIFS, Doc Searls, Scenario 2, 2010
- DEFRA, Global Carbon Impacts of Energy Using Products, DEFRA (April 2009)
Direct Mail Advertising Services <<http://business.highbeam.com/industry-reports/business/direct-mail-advertising-services>>
- The Economist. The Good, the bad and the inevitable:
http://www.economist.com/node/10638105?STORY_ID=10638105.
- Egol, Matthew et al. "Reinventing Print Media" Strategy + business (2009)
- Elkelä, Kari & Koppe, Peter. Influences on Customer Preferences for Invoice Transmission, Itella Corporation (September 2010)

EUR-Lex, A Digital Agenda for Europe, (2010) [http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52010DC0245\(01\):EN:NOT](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52010DC0245(01):EN:NOT)

European Commission. Eurostat. eGovernment statistics. (May 2010)

Foderaro, Lisa, In a Digital Age, Students Cling to Paper Textbooks, New York Times, October 19th, 2010

Governance Assessment Portal. Report: UN report ranks e-gov readiness. <http://www.gaportal.org/report-un-report-ranks-e-gov-readiness-unpan-14-june-2010>.

Guardian. "What's the carbon footprint of ... a newspaper?" The Guardian (4 November 2010)
<http://www.guardian.co.uk/environment/green-living-blog/2010/nov/04/carbon-footprint-newspaper>
International Post Cooperation. IPC Strategic Perspectives On Regulation – Meeting Consumer Needs in an Electronic World. (April 2010)

IDA, The IDA Climate Plan 2050, (2009). IPC, Global Postal Industry Report (2009)

International Post Corporation, Direct Marketing Intelligence Report (2008)

IPC, Global Postal Industry Report (2010)

IPC, Strategic Insights – Growing Business in Asia (2009)

IPC, Strategic Insights – Harnessing the Value of Digital Media (2010)

IPC, Strategic Perspectives On Regulation – Meeting Consumer Needs in an Electronic World (April 2009)

ITA Consulting and WIK-Consult, The Evolution of the European Postal Market since 1997, Study for the European Commission, DG Internal Market and Services, (August 2009)
Magazine Publishers of America, The Magazine Handbook 2010/2011, 2010, p. 22.

ITU, Global ICT Trends, 2010 < http://www.itu.int/ITU-D/ict/statistics/material/graphs/2010/Fixed_00-10.jpg>

ITU, Measuring the Information Society: The ICT Development Index (2010)

ITU, Measuring the Information Society, (2009)

Kleindorfer (ed), in Progress in the Competitive Agenda in the Postal and Delivery Sector.

Laniel, Steve. Information Age? Wrong (The International Herald Tribune, 2010)

Lee, Nag Yeon. eGovernment Applications. United Nations Asian and Pacific Training Centre for Information and Communication Technology for Development (APCICT), Briefing Note 3, January 2010.

LaVigne, Mark. Underestimating e-government costs proves costly - Traditional approaches aren't enough. Center for Technology in Government/University at Albany, SUNY.

Magazine Publishers of America, The Magazine Handbook 2010/2011, (2010)

Modernisering.dk, "De offentlige kan spare 1,1millarder kroner" [modernisering.dk](http://modernisering.dk/da/projektside/bedre_digital_service/dokumentboksnews/nyheder/nyhedsarkiv/business_case_det_offentlige_kan_spare_11_mia_kroner/)
http://modernisering.dk/da/projektside/bedre_digital_service/dokumentboksnews/nyheder/nyhedsarkiv/business_case_det_offentlige_kan_spare_11_mia_kroner/
mobileSQUARED, Mobile social networking and the rise of the smart machines – 2015AD (2010).

MPA, Editor and Publisher International Yearbook (2010)

Natterman, Phillip, A Glimmer of Hope for Newspapers. McKinsey Quarterly; Media and Entertainment Practise, April 2010.

Nielsen, Jakob, Reading Usability Study; Reading Speed on iPad, Kindle and Printed Books Compared, found at Usabilitynews.com website, URL: <http://www.usabilitynews.com/news/article6684.asp>

Nikali, Heikki, "Role of Letter Mail in the Communication Market", Itella (2010).

OECD. Government at a Glance. 2009.

OECD Background Paper. Implementing eGovernment in OECD countries: Experiences and Challenges. <http://www.oecd.org/dataoecd/35/6/36853121.pdf>

Pew, Imagining the Internet. 2010

Pew Internet, Government Online: The Internet gives citizens new paths to government services and information (April 2010).

Pew Internet, "Millennials" Elon University and Pew Internet and the American life project (July 9, 2010)

Pew Internet, The Impact of the Internet on Institutions in the Future. (March 31 2010).

Post Danmark. Brevvaner 10, Danskernes holdninger til brevet, Study by Capacent for Post Danmark, (2009), p4

Popsci. Finland Launching National Pilot to Open and Scan all Snail Mail: <http://www.popsci.com/technology/article/2010-04/finland-open-scan-and-electronically-send-snail-mail> (4. January 2010), Accessed on November 4. 2010.

Press Release. Zumbox to showcase platform for digital postal mail at post-expo 2010: https://static.zumbox.com/mk_about_press_release_100610.html. Accessed November 4. 2010.

Rambøll, Business case digitalisering af offentlige breve og dokumenter, for the Danish ministry of finance. (February 2010).

Saunders, Jeffrey . "In the future, it won't be a matter of who you are, but who you are likely to become" Scenario Magazine (June 2010).

Schwartz, Peter. Inevitable Surprises. (2003)
Smart Phones popularity increasing <<http://www.marketingcharts.com/direct/smartphone-popularity-increases-15134/>>

USPS. The Challenge to Deliver: Creating the 21st Century Postal Service. United States Postal Service (2009).

USPS, 2009 Household diary survey. (2009)
http://www.usps.com/householddiary/2009files/2009Report_HTML/USPS_HDS_FY09.htm#_Toc259518528
van der Lijn, Dr. Nick. et al. Main developments in the postal sector (2006-2008). European Commission (2008), 106, citing Jimenez study, (2005).

Vassilakis, Costas. et al. Barriers To Electronic Service Development. <http://www.sdbb.uop.gr/files/Barriers-to-electronic-services-development.pdf>.

Watkins, S. Craig . The Young and the Digital, Boston: Beacon Press, (2009)
"The Web is dead, long live the Internet" Wired.com < http://www.wired.com/magazine/2010/08/ff_webrip/>

Wyman, Oliver, A New Digital Future for Publishers? Next Issue Media, (2010).

Zickuhr, Kathryn et al., "4% of online Americans use location-based services" Pew Internet & the American life project (November 4, 2010) <<http://www.pewinternet.org/Reports/2010/Location-based-services.aspx>>