

## **Audience view on new technology for media consumption**

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In this paper, we experiment with different audience groups to study how they differ with respect to the adoption of new media products/services. We expand the existing framework of early adopters, which is heavily directed towards the technological aspects of a product, by including users that are more interested in the social and content-related aspects of products/services. We are interested in seeing whether these audience groups differ in terms of preferences for new media products in order to shed light on possible strategies for the introduction of the e-newspaper. The study was done in a larger research project, DigiNews, on the introduction of e-newspapers. The paper is built on the results from an online survey on attitudes and preferences towards new technology, media in general and a planned e-newspaper. Data was collected from in total 2976 respondents at the web sites of three Swedish newspapers Aftonbladet, Göteborgs-Posten, and Sundsvalls Tidning.

# 1. Introduction

Organisations face a dilemma with regards to the potential business opportunities when they develop a new technology or adapt to a new technological standard. Either, they can disregard market signals and make a “proposal” to the market in terms of a new product (Verganti, 2005), or they can orient themselves to what customers say they want. In the first case, the risk of failure is very high. In the second case, there is a risk that the customer orientation creates inertia for change – listening to current customers may conserve organizational practices (Dahlsten, 2004; Danneels, 2003). To overcome the dilemma, techniques have been developed to analyze early market signals. The perhaps most influential of these techniques is Rogers’ (1995) notion of “early adopters”. These customers are some of the first to use a technology or a kind of product and become important as a test bed for new products or technologies. It has therefore been in the interest of companies and market research organisations to identify these early adopters to test new ideas on them.

This is precisely the case in the planned introduction of the e-newspaper, which was studied in a two-year collaborative research project called DigiNews, including several major technology firms, media houses and universities across Europe. The e-newspaper is a newspaper published on electronic paper (e-paper), a technology which is reflecting, giving the same reader experience as paper (such as high contrast and the possibility to read in sunlight) and is thin, flexible and non-sensitive. It combines the readability and overview from the printed newspaper with the possibilities of online media such as constant updates, interactivity and video. The e-newspaper is expected to become a convergence of the printed newspaper and the online newspaper (Ihlström et al., 2004), and is predicted to replace the printed edition in the long run. The potential replacement of the printed newspaper with the e-newspaper would dramatically reduce production and distribution costs for the newspaper companies. The intention of the involved newspaper companies is to use the early adopter approach to discover preferences of future customers to use as input for further development of the e-newspaper.

It is clear to see, however, that there is more to a product or service than the technology used, which is tested in the “early adopters”-framework. In the case of a media product, the content as well as the social factors of the innovation is central for their proliferation. Given this situation we argue that it is not enough to focus solely on theories of technology adoption when planning the e-newspaper introduction. Instead we propose a view that considers both technology adoption and media consumption. We argue that one group of consumers may be more focused on the technological aspects of a product and another group on the social and content-related aspects. As described above, the first group is often called “early adopters”. We suggest calling the second group “active media consumers”. Active media consumers are the equivalence to early adopters, but instead of high interest and consumption of new technology they have a high interest and consumption of new media that is accessible “any where and any time”. Depending on the kind of innovation which is tested and introduced, one group or the other may be more important.

In the case of the e-newspaper, the introduction has a technological aspect as well as a content-related aspect, since new media services are being developed for the device. Early adopters may be important for the introduction of the *device* itself, i.e. the technology, whereas other active media consumers are interesting for the introduction of new media services. The cross-section between the groups is likely to be the most important for the e-newspaper. This third group we call “engaged media users”. Engaged media users is a

blend of early adopters and active media consumers, i.e. they have a high interest in both new technology and active media consumption. We are interested in finding out whether there are differences or common views of the preferences and expectations of an e-newspaper between these three groups? The objective of this paper is to describe differences or common views between the three groups using adoption and media consumption theories in order to shed light on possible strategies for the introduction of the e-newspaper.

The paper is structure as follows; section 2 describes the DigiNews case followed by a theory discussion in section 3. The research method is then described in section 4, the analysis is presented in section 5 and section 6 discusses the findings and concludes the paper.

## **2. The DigiNews case**

DigiNews (ITEA 03015) is a recent European project that was finalized during the summer of 2006 and demonstrated during the fall of 2006. The project started in 2004 after an initiative taken by Philips Applied technologies and the Swedish newspaper publishers association. Partners were European newspaper organizations (e.g. Aftonbladet, De Telegraaf, Le Monde, Concentra Media), technology developers (e.g. Ibermatica, Robotiker), and Universities (e.g. Halmstad University, KTH, KUL Leuven).

The DigiNews project aimed at defining, architecting and demonstrating a solution of a digital newspaper. The solution included all parts needed to produce, distribute and consume digital news, i.e. all steps from publisher to reader. The project also explored ways to maximize the chances of a successful introduction to the market; this included the creation of different business plans and strategies. To reach the project goal and to ensure acceptance of the proposed digital newspaper system by the various stakeholders three points-of-views were taken: user, business, and technology.

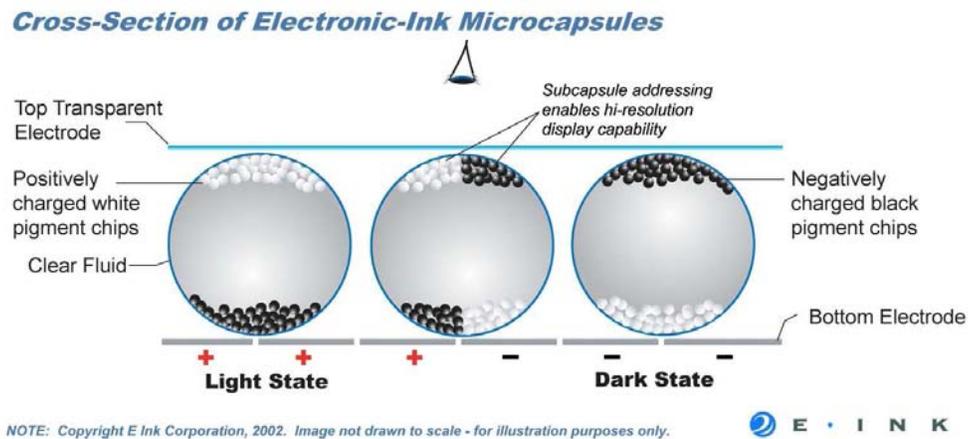
The project had the ambition to create a digital newspaper acceptable to a wide audience, still exploiting the potential of the digital media. Since the e-paper terminal used in the project had a much smaller display than the traditional printed newspaper, one challenge was to make this smaller format acceptable to the reader and to provide a user experience that was similar to reading a printed newspaper. Another challenge was to create a user interface that was easy to use, not only by computer-experienced people, but for everybody.

### **2.1 E-paper**

E-paper is a wide-range term for a number of different technologies that can be used to produce displays. Currently there are two technologies for producing e-paper on the market; electrophoreses and dipolar rotation. A third technology is also under development called electrowetting (Liquavista, 2006). One commercial product that use electrophoreses technology is E Ink, from E ink corporation.

E-ink is basically millions of microcapsules, as small as the diameter of a human hair, put on a sheet. These microcapsules are negatively or positively charged which enable a print on the display. When a negative electric field is applied, the white particles move to the top of the microcapsule where they become visible. This makes the surface appear white at that spot. At

the same time, an opposite electric field pulls the black particles to the bottom of the microcapsules where they are hidden. This process is illustrated in figure 1.



**Figure 1.** E-ink technology (Source: E-ink 2006)

One of the biggest advantages with the e-ink technology is the readability of the display. E-ink can be compared with print on paper, the technology works essentially the same. Instead of printing black dots on paper, the print is made electronically. Another advantage of the technology is the low power consumption, power is only needed when the display is updated.

E-paper technology is developing fast; many companies invest in “plastic electronics” and produce new prototypes or launch their products on the consumer market. Sony was the first company that launched an e-paper product on the (Japanese) market, the Sony LIBRIé. In the autumn of 2006 they will launch a new product focused on the U.S. market (Sony, 2006). The new Sony Reader will be able to perform approximately 7500 page turns per battery change and has a 6 inch-screen and weigh 250 grams.

In July 2005, Fujitsu announced a bendable color e-paper (Fujitsu, 2005). The e-paper features vivid color images that are unaffected even when the display is bend (Figure 2). It has an image memory function that enables continuous display of the same image without the need for electricity. It uses about one-hundredth to one-thousand the energy of conventional displays, while being far lighter and thinner, as slim as 0.8 mm. Fujitsu thinks this product will be on the market between April 2006 and March 2007.



**Figure 2.** Bendable color display (Source: Fujitsu, 2006)

iRex Technology BV is a spin-off company from Royal Philips Electronics. In April 2006 they launched their e-reader device called the “iLiad” (iRex, 2006). The iLiad has an 8.1 inch screen and supports 16 levels of gray. It weighs 390 grams and has a memory of 224MB for storing content (sufficient for 1 month of subscription of newspapers, 30 books and many other documents). This device contains Wi-Fi technology as well as regular Ethernet connection.

Another company that has developed e-paper is Plastic Logic. Investors are e.g. Siemens, Dow venture capital, BASF venture capital and Intel capital. The technology that Plastic Logic developed allows printing electronics on thin flexible plastic. The process used by Plastic Logic is scalable for a large area, high volume and aimed at low cost. Their device has a 10 inch display (approximately A5) with 100ppi resolution and 4 levels of grey scale (Plastic Logic, 2006). Polymer Vision has also developed a rollable display which they call “READIUS” (Polymer Vision, 2006). Currently the rollable display (Figure 3) has a bending radius of 0.75 cm and a display of 4.8 inch with 240x 320 pixels.



**Figure 3.** Rollable display (Source: Polymer Vision)

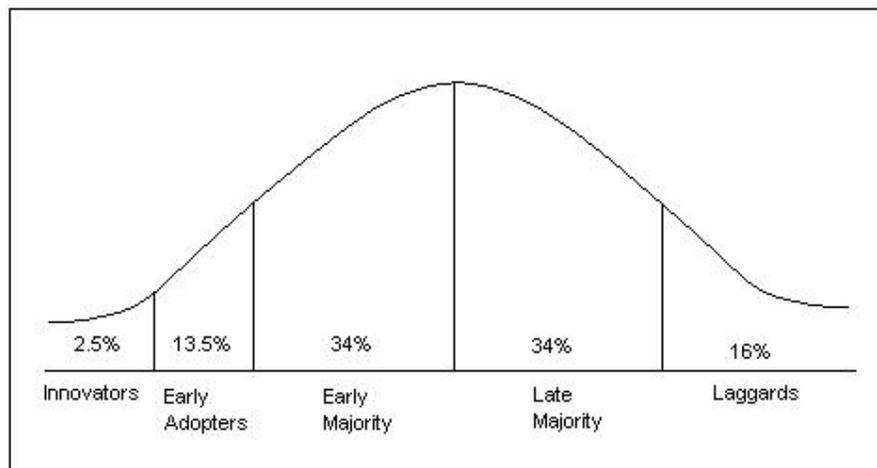
There are some other devices on the market that basically functions as the mentioned devices. For example, the Hanlin e-BOOK from Tianjin Jinke Electronics Co., LTD (Tianjin Jinke, 2006). The Hanlin e-BOOK has almost the same specification as the Sony Reader. Hewlett Packard (HP) is working on a color e-reader that should be light, thin and flexible. The HP device is designed to display e-books, magazines, etc and focus on a low production cost. E-paper has also been used in other products such as clocks, both Citizen and Seiko have launched products based on the technology.

### **3. Theory**

Rogers’ framework on the diffusion of innovations (Rogers 1995) primarily addresses the rate of adoption of new technology. Diffusion here means the process in which an innovation, through different channels of dispersion over time is adopted by the members of a social group or system (e.g. and organization). The speed, or rate of adoption is determined by the attitudes of the members of the social systems towards the characteristics of the innovation. These characteristics have five sources:

- Relative advantage – how much better potential adopters perceive the innovation as being in comparison to the current products or ideas. The advantage may for example be economical, in terms of social prestige, convenience or satisfaction.
- Compatibility – how consistent the innovation is with values, experiences, and needs of the potential adopters.
- Complexity – how difficult it is to understand and use the innovation.
- Trialability – how easy potential adopters may experiment with the product to learn to understand it.
- Observability – how evident the contribution of the innovation is to others.

To explain the diffusion of innovations, Rogers differentiates the rate of adoption among five groups of customers (or members of the social group/system) as depicted in figure 4.



**Figure 4.** Technology adoption curve (from Rogers, 1995)

Rogers central argument is that early adopters have an important role in “marketing” the innovation to a greater mass of people. People that think about adopting the new technology turn to the early adopters for advice. Since early adopters are not too far ahead in the adoption curve, their preferences can serve as a proxy for those of the majority of customers.

Companies and researchers alike have therefore been focusing on this group to understand their preferences, as they would increase our understanding of the preference of the greater mass of consumers (the 84 percent of customers belonging to customer categories 3-5). The rationale is that if the group can be defined, then its constituents’ preferences can be researched, and guidance for further development be generated.

Our argument is that this framework needs to be expanded. We take the first steps in developing and testing a framework that not only takes into consideration the relative advantage, compatibility, complexity, trialability and observability. Simply put, these aspects primarily relate to the technological aspects of a product. For many products, technological aspects are the easiest to measure. As a consequence, their characteristics can be used as arguments for managers or customers wanting to make rational decisions. However, people normally also take other, primarily social aspects such as for example status (Vigneron & Johnson 1999), information value (Balasubramanian & Mahajan 2001) or experience (Arnould & Price 1993; Pine II & Gilmore 1999; Calder & Malthouse 2004) of a product or

service into consideration when making a purchase decision. A framework using only technological aspects only delivers partial answers as to why people buy something. From a company perspective, this means that a reliance on the technology early adopters will give one kind of development direction as to whether people will or will not adapt certain products or product characteristics. For the social aspects, another measure needs to be developed.

The media industry differs from many other industries by producing a mixture between products and services. The medium (paper, radio, television, internet, PDA etc.) itself carries the actual product/service (further: media product) which becomes the focus of attention for potential buyers. This makes the media industry suitable for the development of another measure of innovation adoption. It has been acknowledged, however, that more and more products are becoming mediated; their content outside of the technical aspects of the product are becoming increasingly important (Normann & Ramírez 1994; Normann 2001). In a mobile phone, the communication facilities are central. In a car, the driving experience, the status and the purchase and service experience are all central aspects.

Media products increasingly include both information and communication aspects. Research into media management has pointed out that this means that audiences take on new and different roles in the relation to the media (Webster 1998; Deery 2003; Fredberg & Ollila 2005). The members of the community formed around the media product (Johansson 2002) becomes co-creators of the product (Prahalad & Ramaswamy 2003), and the community itself an important part of the product (Hagel III & Armstrong 1997). Among these media consumers, some are more active than others in taking part of and contributing to the media content. In this paper, we have chosen to call them active media consumers. The active media consumers have a focus on the content-related and the participatory aspects of the product. They are not necessarily early adopters of a product in Rogers' meaning, but a kind of "expert consumers" (for a discussion, see e.g. Bettman & Sujan 1987). They are more advanced in their media consumption, but are unlikely to have the same preferences as to different media and content genres.

## 4. Method

The survey on which this paper is based was done through a web-based questionnaire. We presented the questionnaires at the news sites of the three Swedish newspapers that we have collaborated with in developing e-newspaper prototypes within the DigiNews project, i.e. Aftonbladet, Göteborgs-Posten and Sundsvalls Tidning (Table 1). Aftonbladet is a tabloid with the most visited news site in Sweden, Göteborgs-Posten is a local morning paper covering Göteborg (the second largest city in Sweden) and its surroundings, and Sundsvalls Tidning is a local morning paper in the north of Sweden.

Newspaper	URL	Unique visitors/day	Total no. of respondents	No. of respondents for this paper
Aftonbladet	aftonbladet.se	1.200.000	3757	2626
Göteborgs-Posten	gp.se	41.500	135	90
Sundsvalls Tidning	st.nu	14.500	447	260

**Table 1.** Newspapers hosts for questionnaires

As can be seen in Table 1, 2976 respondents answered to the questions that are analyzed in this paper. In total, 4339 readers answered wholly or partly to the questionnaire.

## 4.1 Questionnaire

We choose to use online questionnaires because that allowed us to show the concept videos and prototypes (see below) for the respondents to obtain an understanding of the e-newspaper concept. Moreover, Buchanan and Smith (1999) have argued that web samples can be as representative or more representative than traditionally collected samples because of the heterogeneity of the online population. Although, admittedly there are inherent problems in controlling whom responds to online questionnaires. Control for cases with multiple submissions from the same IP number was handled in the data collection.

### Three approaches for presentation

Three approaches for presenting the questionnaire were used in our study, a) a newspaper article explaining the e-newspaper concept at Aftonbladet's [www.aftonbladet.se](http://www.aftonbladet.se), b) a banner ad at Göteborgs-Posten's [www.gp.se](http://www.gp.se), and c) a pop-up window at Sundsvalls Tidning's [www.st.nu](http://www.st.nu).

*a)* Presenting an article explaining the e-newspaper concept at [www.aftonbladet.se](http://www.aftonbladet.se) (which is the most visited online newspaper in Sweden) was by far the most effective way of receiving answers to the questionnaire. In conjunction to the article links to the three concept videos and to the Aftonbladet e-newspaper prototype was presented. There was also a written invitation to participate in the questionnaire presented together with a link to the starting page of the questionnaire. The article was placed on the front page of [www.aftonbladet.se](http://www.aftonbladet.se) on April 7<sup>th</sup> (11.23 AM) and was moved to the IT section on April 10<sup>th</sup> and was removed on April 11<sup>th</sup> (5.00 PM). At [www.aftonbladet.se](http://www.aftonbladet.se), 3757 respondents answered the questionnaire.

*b)* Using a banner at [www.gp.se](http://www.gp.se), although prominently placed at the top of the of the banner section, only resulted in 135 respondents during the time it was available. The banner (Figure 5) read *"Do you want to influence the future e-newspaper? Click here!"* Clicking the banner directed the visitor to the starting page of the questionnaire. The banner was placed on [www.gp.se](http://www.gp.se) between April 7<sup>th</sup> (10.23 AM) to April 12<sup>th</sup> (07.54 AM).



Figure 5. Banner at GP

*c)* At [www.st.nu](http://www.st.nu), a full size pop-up window was presented each time a visitor entered the front page between April 7<sup>th</sup> (12.10 AM) to April 12<sup>th</sup> (09.15 AM) resulting in 447 respondents. The pop-up window contained the starting page of the questionnaire.

### Introduction to the questionnaire

The starting page of the questionnaire consisted of three paragraphs; 1) presentation of our research group and its collaboration with the newspaper, 2) an invitation with links to read more about e-paper technology, links to the three concept videos and the possibility of exploring the e-newspaper prototype of the newspaper in question, and finally, 3) a appeal to answer the questionnaire.

Since the e-newspaper concept was not known to all potential respondents we provided them with the possibility to read more about e-paper technology on a separate page which consisted of a simplistic picture of the concept as well as links for further reading.

The DigiNews project use iRex iLiad as a platform to present a solution for a future e-newspaper. During the project different prototypes were developed for PC:s and tablet PC:s to be able to test conceptual ideas. Three interactive prototypes (Figure 6) were created to be able to test concepts regarding for example navigation, the design of the information structure and other interaction aspects on end users. These prototypes were developed together with newspaper designers and used contents from the newspaper partners. The prototypes also served as a way to explain how a future e-newspaper may look like and where presented with the introduction to the online questioner. The respondents could download and test the prototypes on their own computer before they answered the questions.



Figure 6. Interactive e-newspaper prototypes

The introduction to the questionnaire also contained hyperlinks to three short concept movies of future e-newspaper scenarios. These movies were created in a project together with SVID (Stiftelsen Svensk Industridesign), the design company Propeller AB, the Swedish Newspaper Publishers' Association and Halmstad University. The movies envisioned the benefit of the e-newspaper for three different personas: the business women, the student and the senior citizen. Close ups on the designed user interface together with examples of functions showed the future e-newspaper in detail. The scenarios were based on the assumed preferences of the three personas and showed how a future e-newspaper could support their media consumption in different contexts. Watching these videos provided the respondents with an idea of what functionality the future e-newspaper could provide.

### The questions

The questionnaire consisted of 4 different parts, 127 questions in total. The first part contained 20 questions of demographic nature (5), media consumption (3), technology use (5) and the use of mobile services (7). Question 14 was the initial question about the use of mobile services and also controlled whether section 4 (mobile services) should be presented to the respondent or not.

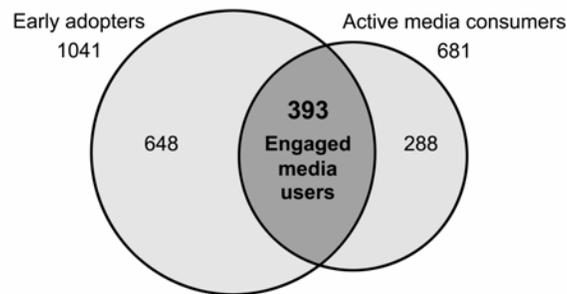
The second part consisted of 40 questions regarding business models for the e-newspaper and the third part 26 questions about e-newspaper preferences as well as several key questions for identifying users groups. Finally, the last part consisted of 41 questions concerning

preferences for mobile services on PDAs and mobile phones. Many of the questions were of multiple choice and several open questions were included as well.

In this paper we only report from part one and three. Only respondents who pushed the submit button at each section of the questionnaire were included in these surveys.

## 4.2 Data analysis

We identified “early adopters of technology” from 5 key questions and “active media consumers” from 6 key questions in section one and three of the questionnaire. 2600 respondents of the 2926 that had completed part three answered all key questions. Within this group 1329 were identified as early adopters and/or active media consumers and were thereby included in the analysis. Figure 7 shows the distribution of early adopters and active media consumers within the population.



**Figure 7.** Distribution of early adopters and active media consumers

As shown in the figure there is a group that has been identified as early adopters as well as active media consumers. Hereafter this group is referred to as *engaged media users*. In the following analysis we account for the preferences of issues related to the e-newspaper introduction for each group respectively.

## 5. Analysis

In this section we present the analysis from part three of the questionnaire. We present results from the 5 questions with the total amount of 34 items (likert scale), and 4 questions with several options. All questions concerned preferences related to the e-newspaper introduction, divided according to the three identified user groups, i.e. early adopters, active media consumers and engaged media users.

We have chosen to divide the results into three themes, i.e. readiness to change, willingness to pay and content preferences.

## Readiness to change

The initial question concerned within which time frame the respondent was prepared to read the newspaper on e-paper (Table 2).

Time frame	Early adopters	Active media consumers	Engaged media users
Today	71,4%	54,1%	78,6%
Within 5 years	21%	27,2%	16,4%
Within 10 years	4,4%	9%	4%
Within 20 years	1,2%	2,5%	0,5%
Never	2,0%	7,2%	0,5%
Total	100%	100%	100%

**Table 2.** Time frame

The group that is the most prepared to read the e-newspaper today is engaged media users and early adopters. Noticeable is that active media consumers have the highest percentage of people that are not prepared to read the newspaper on e-paper.

The respondents were asked if they would consider exchanging their printed newspaper to an e-newspaper sometime in the future (Table 3).

	Early adopters	Active media consumers	Engaged media users
Yes	88,3%	72,3%	93,2%
No	11,7%	27,7%	6,8%
Total	100%	100%	100%

**Table 3.** Willingness to exchange

This result clearly shows that the engaged media users have the most positive attitude towards exchanging the printed newspaper into the e-newspaper.

The respondents were then asked to rate factors that influence the willingness to exchange the printed newspaper to an e-newspaper. They answered on a 7-grade Likert scale where 1 was *do not agree* and 7 *agree*. In table 4 the means per item for each user group and in table 5 the ranking within each group are presented.

Factors	Early adopters	Active media consumers	Engaged media users
Environmental reasons	4,48	4,35	4,69
Economical savings	5,23	4,86	5,48
Time savings	5,36	4,75	5,87
Anytime anywhere access	6,35	5,88	6,64
Added service value	5,81	4,78	6,36

**Table 4.** Means of ratings concerning influencing factors for exchange

As can be seen in table 4, all items are more important to early adopters than to active media consumers. It is also noticeable that engaged media users in general rate these factors the highest. Table 5 shows the relative importance of different aspects of the e-newspaper for the adoption of the technology for the three different groups. Economical savings and time savings are more important to early adopters than to active media consumers. One interesting

notation is that added service value seems to be more important for early adopters than to active media consumers.

Ranking	Early adopters	Active media consumers	Engaged media users
1	Anytime anywhere access	Anytime anywhere access	Anytime anywhere access
2	Added service value	Economical savings	Added service value
3	TimeSavings	Added service value	TimeSavings
4	Economical savings	TimeSavings	Economical savings
5	Environmental reasons	Environmental reasons	Environmental reasons

**Table 5.** Ranking of influencing factors for exchange within each group

The last question on this theme concerned the importance of different factors for choosing to read the e-newspaper (Table 6). The respondents rated the factors on a 7-point Likert scale where 1 was *not important* and 7 *very important*. In table 6 the means per item is presented for each user group.

Item	Early adopters	Active media consumers	Engaged media users
Layout	5,57	5,20	5,61
Continous updates	6,37	6,45	6,55
Interactive functions	4,44	4,01	5,05
Ease of use	5,81	6,13	5,62
Dependable technique	6,41	6,52	6,40
Environmental issues	4,93	4,97	5,17
Easy navigation	6,44	6,50	6,57

**Table 6.** Means of rating of importance of factors for choosing to read the e-newspaper

The factors are overall similarly rated between the three groups.

### ***Willingness to pay***

The theme willingness to pay concerned attitudes towards acceptable cost level and the financing of the e-reader device. The respondents were asked about the acceptable cost level for exchanging the printed newspaper with the e-newspaper.

Cost level	Early adopters	Active media consumers	Engaged media users
Cheaper than the printed newspaper	70%	71,1%	63,6%
Same price as the printed newspaper	14,4%	14,3%	13,8%
Can be more expensive if providing added value	11,4%	8,5%	17,3%
Price is unessential	4,2%	6,1%	5,3%
Total	100%	100%	100%

**Table 7.** Acceptable cost level for exchange

The accepted cost level is very similar between the three categories (Table 7). The engaged media users are slightly more inclined to accept a higher price if there is added value. However, all three groups clearly indicate that they expect a lower price to consider exchanging the printed newspaper with the e-newspaper.

The next question on this theme regarded opinions about how the e-reader device should be financed (Table 8).

Finance model	Early adopters	Active media consumers	Engaged media users
Purchase by instalments	12,5%	11,4%	11,3%
Purchased by the user	27,5%	23,8%	32,4%
Free with a newspaper subscription	60%	64,8%	56,3%
	100%	100%	100%

**Table 8.** E-reader device finance models

The group most willing to purchase the e-reader device is the engaged media users and the active media users are the least willing to pay for the e-reader.

### ***Content preferences***

The content preferences theme concerns the added value services that users consider to be preferable together with the e-newspaper and the reasons for their preferences. The respondents rated the factors on a 7-point Likert scale where 1 was *not interesting* and 7 *very interesting*. In table 9 the means per item is presented for each user group.

Added service value	Early adopters	Active media consumers	Engaged media users
Personalized news	5,58	5,27	5,84
Community information (time tables, maps)	5,63	5,35	5,74
Personal information (calendar, phone book)	3,92	3,59	4,56
General information (manuals, Encyclopedia)	4,64	4,65	5,18
Books and magazines	4,15	4,30	4,79
News archive	6,30	6,41	6,38
Transactions (e-commerce, bookings)	4,65	4,35	5,11
Entertainment	5,07	4,79	5,30

**Table 9.** Means of ratings of preferred added service value

The opinions are similar between the user groups. It is interesting to notice that news archive is considered most interesting and that personal information the least interesting by all three groups. Overall the engaged media users has the highest rating of preferred added value of the different services. This may be connected to influencing factors for exchange of the printed paper to the e-newspaper (table 4), where this group rated added service value highest of the three groups.

The respondents were then asked to choose the one service that was found the most interesting (Table 10).

Added service value	Early adopters	Active media consumers	Engaged media users
Personalized news	52,3%	46%	53,2%
Community information	14%	12%	12,3%
Personal information	14%	2,2%	12,3%
General information	3,1%	2,6%	4,3%
Books and magazines	5%	4,7%	5,1%
News archive	15,2%	22,3%	14,3%
Transactions	2,8%	3,3%	2,8%
Entertainment	5%	6,9%	6,1%
Total	100%	100%	100%

**Table 10.** Ranking of preferred added service value

It is interesting to notice the shift in ranking when the respondents had to choose between the added service values. The most important added service value for all three categories were personalized news followed by archives, and additional content such as community information and personal information. It is noticeable that the personal information is found much less interesting and news archive more interesting by active media consumers compared to the other two groups.

The reasons for choosing added service value was then given. The respondents rated the factors on a 7-grade Likert scale where 1 was *do not agree* and 7 *agree*. In table 11 the means per item is presented for each user group and in table 12 the ranking within groups is presented.

Reasons	Early adopters	Active media consumers	Engaged media users
Benefit greater than cost	4,89	5,16	5,24
Time saving	5,47	5,71	5,86
Provides valuable information	5,95	6,09	6,19
Provides added value	5,89	6,01	6,19
Interest in latest services	4,37	3,29	4,76
Simplifies work tasks	3,55	3,76	4,34

**Table 11.** Reasons for choosing added service value

Ranking	Early adopters	Active media consumers	Engaged media users
1	Provides valuable information	Provides valuable information	Provides added value / Provides valuable information
2	Provides added value	Provides added value	Provides added value / Provides valuable information
3	Time saving	Time saving	Time saving
4	Benefit greater than cost	Benefit greater than cost	Benefit greater than cost
5	Interest in latest services	Simplifies work tasks	Interest in latest services
6	Simplifies work tasks	Interest in latest services	Simplifies work tasks

**Table 12.** Ranking of reasons for choosing added service value

The rating and ranking were quite similar between the groups. Providing valuable information and added value are the most important reasons for all three groups. Simplifying work tasks and interest in latest services are the least interesting reason for all groups.

## 6. Discussion and Conclusion

In this paper we have identified three different audience groups for the future e-newspaper. Firstly, *early adopters* with high interest of new technology, secondly, *active media consumers* with a high interest and consumption of new media, and finally, *engaged media users* that are a mix of the previous groups, i.e. they are both early adopters and active media consumers. Even though there are similarities between the groups, involving all in the analysis of future adoption provide a complementary and more solid picture.

In this study we identified 1329 of 2600 individuals that mapped into our three groups where 1041 initially were identified as early adopters. This is a considerably higher percentage of early adopters compared to the normal distribution. The reason could be that an online questionnaire was used with the request for respondents interested in influencing newspapers of the future to participate. This could explain the higher rate of early adopters and active media consumers in our selection. But even if the rate of early adopters and active media consumers is high, the fact still remains that 288 more individuals (27,7%) could be included into the analysis compared to only involving the traditional early adopters. The data collected regarding important preferences influencing adoption contains more important aspects compared to only involving the traditional early adopter.

Rogers (1995) has had vast impact on the use of early adopters to analyze future preferences of the larger mass of consumers. If early adopters like something, the mass market will like it in a couple of years from now. Some researchers have criticized his framework for not being completely solid. The major criticism has been that the early adopter group is made up of esoteric consumers with special preferences that do not match those of the average consumer. Likewise, the early adopters of a technology may have greater technological skills that make them more prone to understanding and accepting bugs in early versions of products (which the average consumer would not). Still, Rogers' framework has become important for practice through market research. The prime gain from using early adopters is the time span between the early adopters' use of something and that of the mass market. Organizations can hence adapt to this prognosis of future market preferences and adjust its products and product portfolio. The early adopters remain strong for the introduction of new technological functions in products. But as shown in this paper there are other groups to consider when it comes to the introduction of a new media product.

If we use active media consumers as a concept adding to that of Rogers (1995), this implies using a different group of consumers, as has been shown in this paper. The concept builds on the existence of expert consumers that are high up in what one may call a "consumption hierarchy". These consumers constitute a hard core of consumers with a high degree of consumption or use of their products. Instead of gaining time to adjust product attributes and the product portfolio, the active media consumers give way to an understanding of the potential consumption hierarchy for a new product. If companies organize their product portfolio, this means that they differentiate products and services on price, prestige, esoterism, communication intensity, or other dimensions of the social value of innovations. For novice consumers, there is a basic set of consumption possibilities. For more advanced consumers, there are add-ons to be consumed, generating a pyramid of consumption possibilities, as only a few are likely to become expert consumers. In this paper, we have made an analysis of how the preferences of active media consumers differ from those of early adopters in the case of a future media product. We argue that the focus on early adopters, and thereby the technical aspects of a new innovation, is too limited when it comes to highly "mediated" products – products for which an important part of the product offering is the

social values that consumers enjoy. As organizations tend to focus on the preferences of early adopters they are limited in their analysis. The preferences of active media consumers give way to a different kind of analysis which is complementary to that of Rogers' (1995). Our analysis in this paper shows that active media consumers have as strong preferences as do early adopters. Their preferences are slightly different. This makes them an important group to listen to separately from early adopters. We argue that the impact and use of this group may be the largest when introducing innovations in content (as opposed to strictly technology). The introduction of the third group of consumers, the engaged media users, allows us to analyze respondents that fit into both categories.

The objective of the paper was to discuss differences and similarities between the three groups in order to shed light on possible strategies for the e-newspaper introduction. Regarding content preferences the three groups are very similar, however the engaged media users has the strongest likelihood to exchange the printed newspaper for an e-newspaper. They are also the group with the strongest willingness to pay for the new offer. The group of engaged media users may be important as a segment for analysis when introducing new media offers that contain both technological as well as socially related aspects.

One possible strategy for new media products and services that may benefit organizations is to seek out the engaged media users to find a foothold in the market. Such would be the case also for the e-newspaper. Further research should dig deeper into this and see what characterizes this group. This would involve also the adoption patterns for both them and for the active media consumers to be compared with those of early adopters.

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