



IBBT

INTERDISCIPLINAIR INSTITUUT VOOR BREEDBANDTECHNOLOGIE

The mobile digital newspaper

Lessons learned an reflections on the 'book business'

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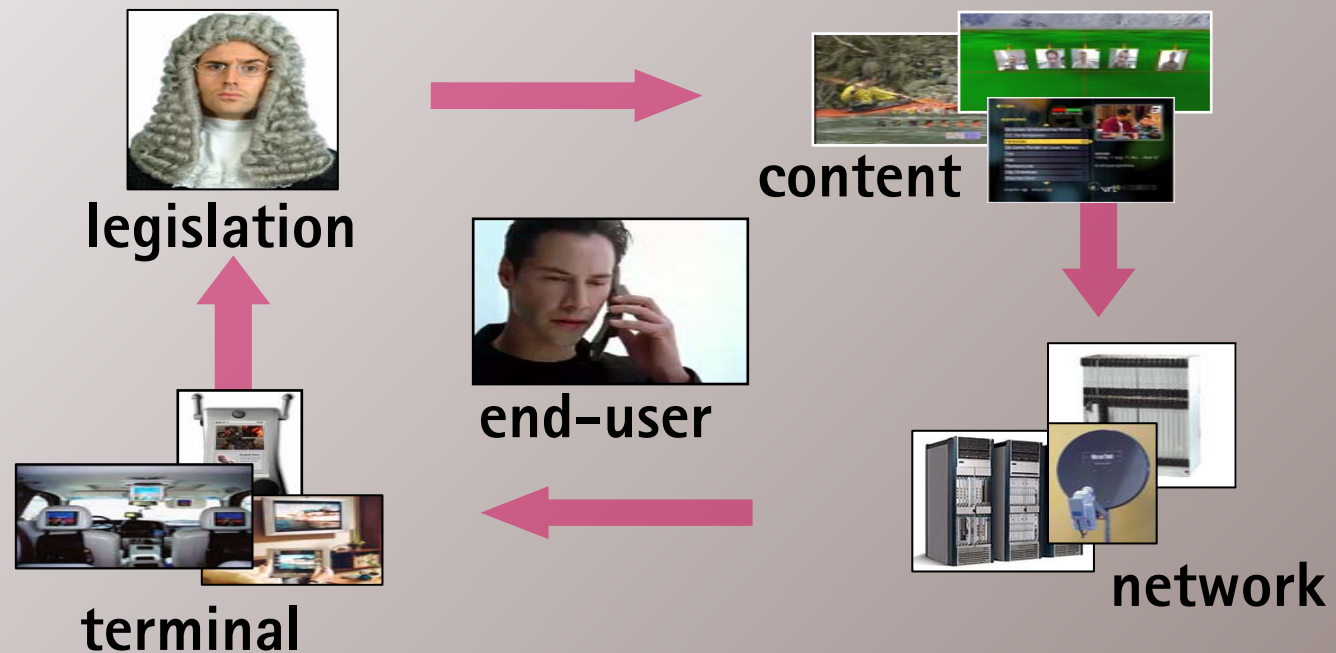
presentation @ Frankfurt - EBF Meeting - October 5, 2006

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- 1. The IBBT**
- 2. Project Goals**
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- 7. The Long Tail**
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- 9. Conclusions**

1. Project Setup – the IBBT

- A flemish interdisciplinary research institute with ICT focus, founded in 2004 by the Flemish government



1. Project Setup – the IBBT

- Funding: 17 MIO EUR/year
- Virtual structure, cooperates with 14 existing research groups in Flemish universities and knowledge centers
- Cooperative model, creating co-funded projects with consortia of complementary companies and organisations
- Research Projects combine technical and non-technical partners (hospitals, newspapers, broadcasters, IT companies, telecom operators, ...)

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2. Project Goals

The mobile digital newspaper

1. Generate generic knowledge about the potentials of news content on a dedicated electronic reading device, by way of
 1. testing a concrete device, the iliad,
 2. a concrete content offer, de Tijd,
 3. in a concrete living lab context: 200 test users selected
 4. in a flemish newspaper setting

PHILIPS

De TIJD

belgacom

iMerge

agency.com

iRex
TECHNOLOGIES

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2. Project Goals

The mobile digital newspaper

2. Test some common hypotheses concerning micromedia usage and success factors in practice

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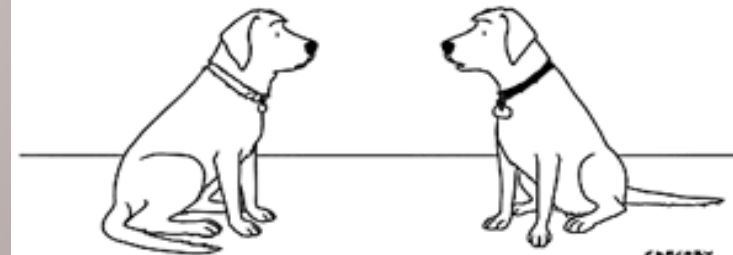
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3. Hip & Hype, Bit & Byte

The mobile digital newspaper

- Journalist: role challenged by community and user contributions
- Evolving from 'lecture' mode to conversation mode
- New media ecology: no one has control
- Journalist as authenticator
 - Thoroughness
 - Accuracy
 - Transparency
 - Model of Trust

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"I had my own blog for a while, but I decided to go back to just pointless, incessant barking."

3. Hip & Hype, Bit & Byte

- **Editors**
 - Webolution: web 2.0 (inversion of control)
 - Information becomes increasingly worthless because of its abundance
 - Attention becomes a scarce commodity (supply and demand rules remain valid!)
 - Value shift: Media 2.0 dominant strategies are based on economies of scale and scope in production, distribution and search
- **The user (the reader)**
 - Is prosumer
 - Rising consumption of micro-chunks of information (see RSS)
- **In the new media world, the love triangle between editor, journalist and reader is based on equal power and mutual and complementary needs**

3. Other epaper trials?

Project	Where, when?	Who?	Results?
Les Echos	France, Started recently	Newspaper Les Echos Consulting company Tebaldo	After presenting the prototype, Le Monde, La Parisienne & l'Equipe expressed their interest in trials too en got involved in the research aspects of the project
The New York Times	USA, To start in a couple of months	NYT & Microsoft	Not yet
International Herald Tribune	International, 2006	IHT (NYT Co)	Not yet
eNews	International, 06-08	Ifra, 20 major publishing houses, 4 technology developers	Not yet
Asahi Shimbun	Japan, Since 2000	Newspaper Asahi Shimbun, Sportcontent provider Nikkan, 4 telecom operators	1 million users 20.000 subscriptions for print via mobile new competitors have arisen
MINDS platform	Germany Since 2005	Partnership between 40 German newspapers and dpa (German press agency)	Introduction cost are low -> easier for papers to start offering online services From 300 to 10.000 users per activity -> little but direct revenues -> mobile brand awareness

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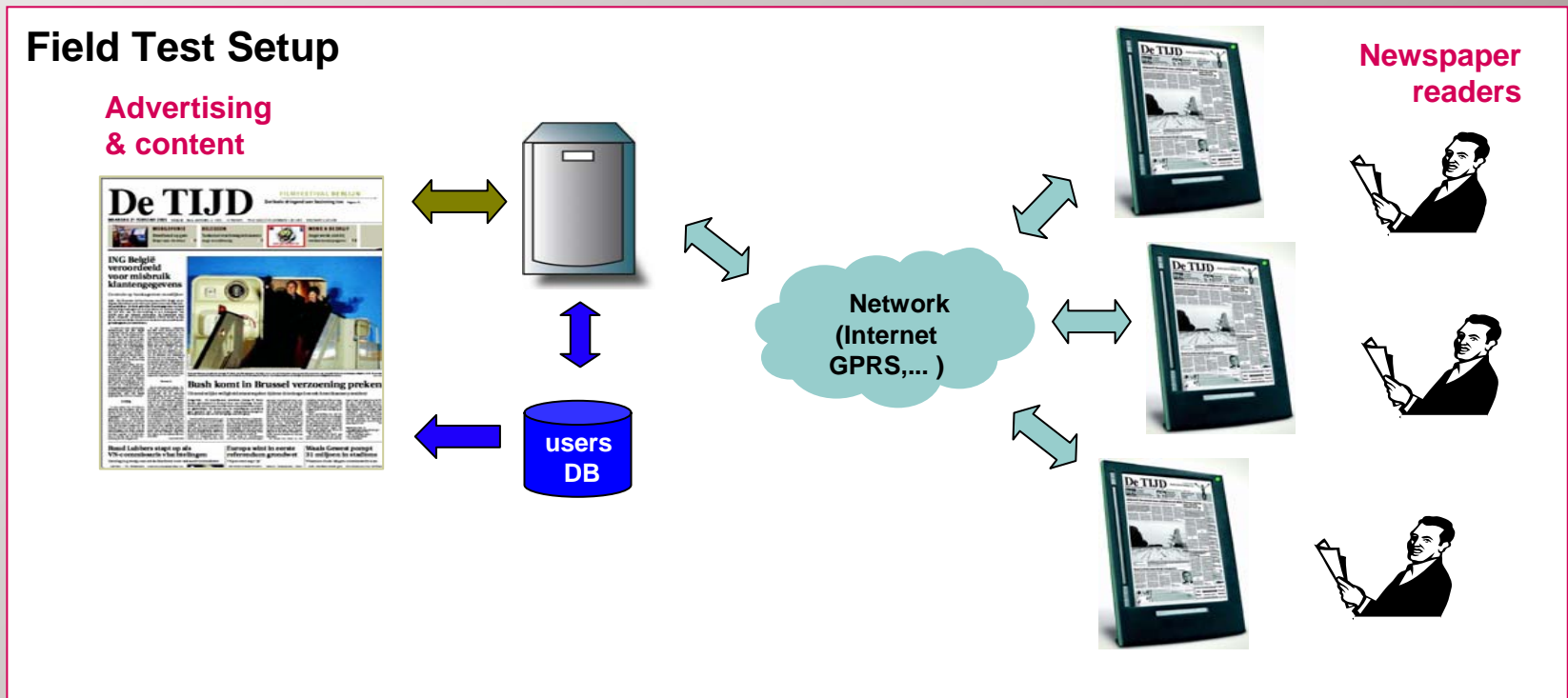
4. Living Lab Test – the Iliad device

The mobile digital newspaper



4. Living Lab Test - setup

- 200 'Tijd-readers' selected out of 500 candidates for a 'living lab' field test



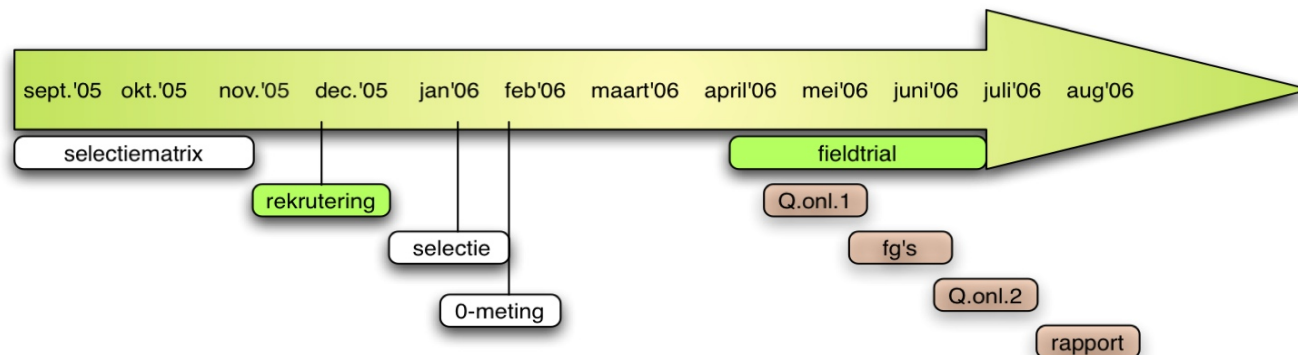
4. First tests: usability lab

- Paper model – real model



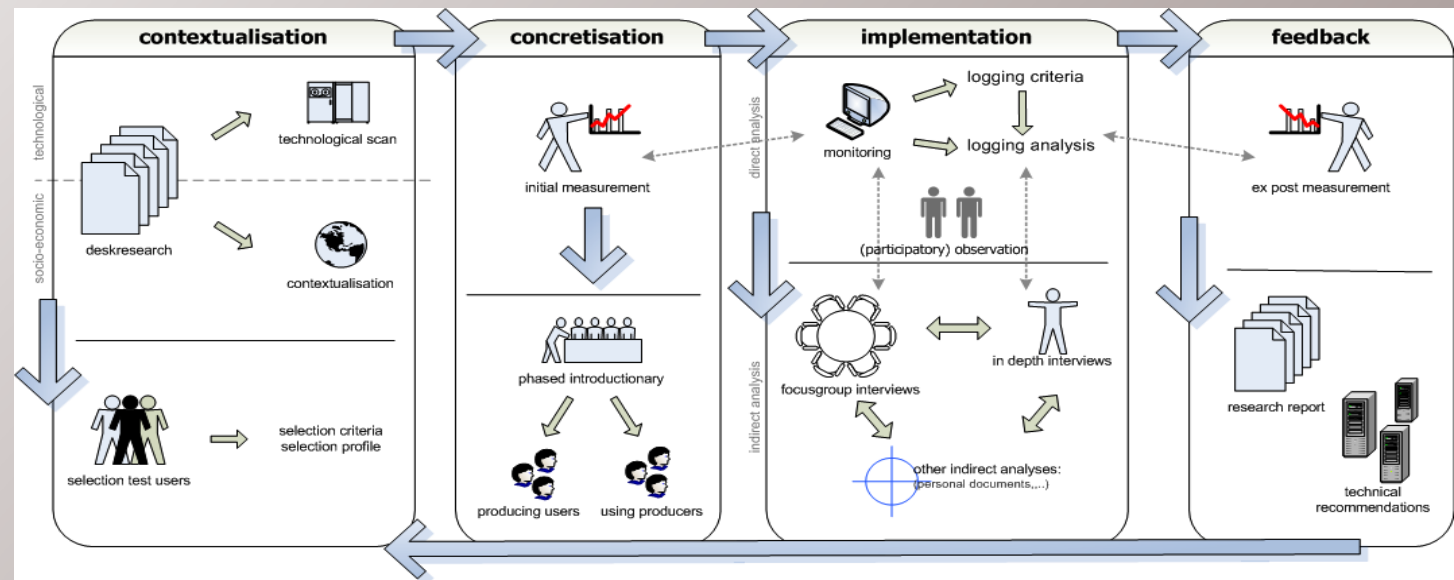
4. Living Lab - setup

- Selection based on reader profile of "de Tijd"
 - Socio-demographical factors: Sex, age, social class, comparable professions
 - Mix residential – professional subscription
- Other criteria:
 - Off- and online use of newspapers
 - Mobility
 - Use of interactive services (vb: download 'de Tijd')
 - Ownership of devices (PDA, laptop, smartphone,...)



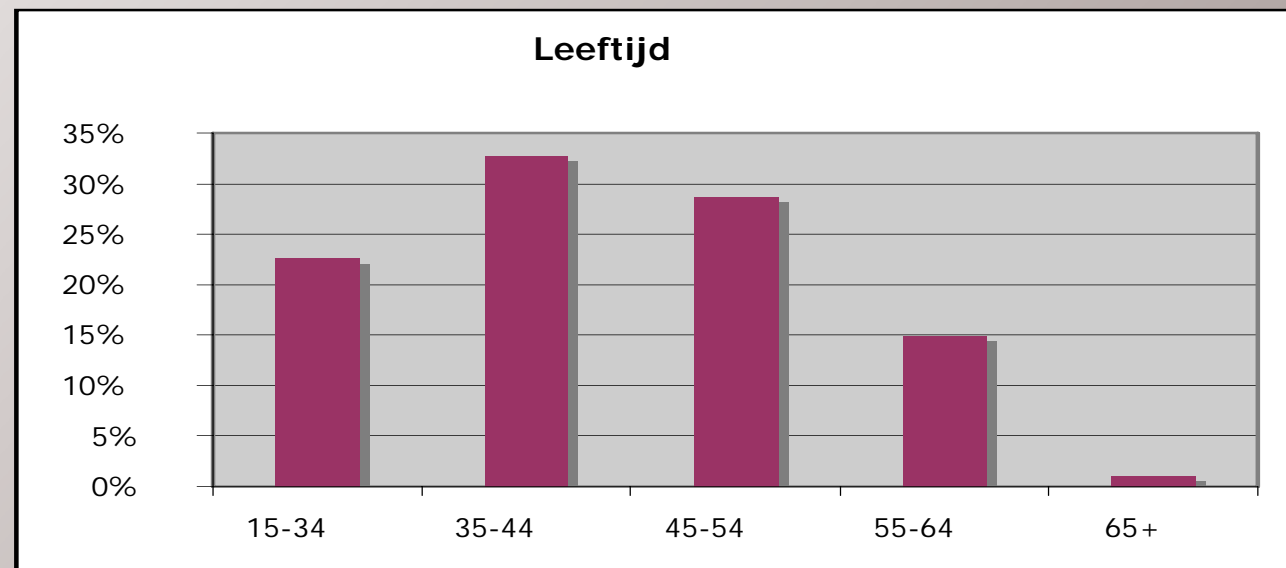
4. Living lab test of e-ink device

- Living lab
 - Using real users in their natural context
 - Observe in their natural, daily behaviour
 - Users is a co-producer in the innovation process



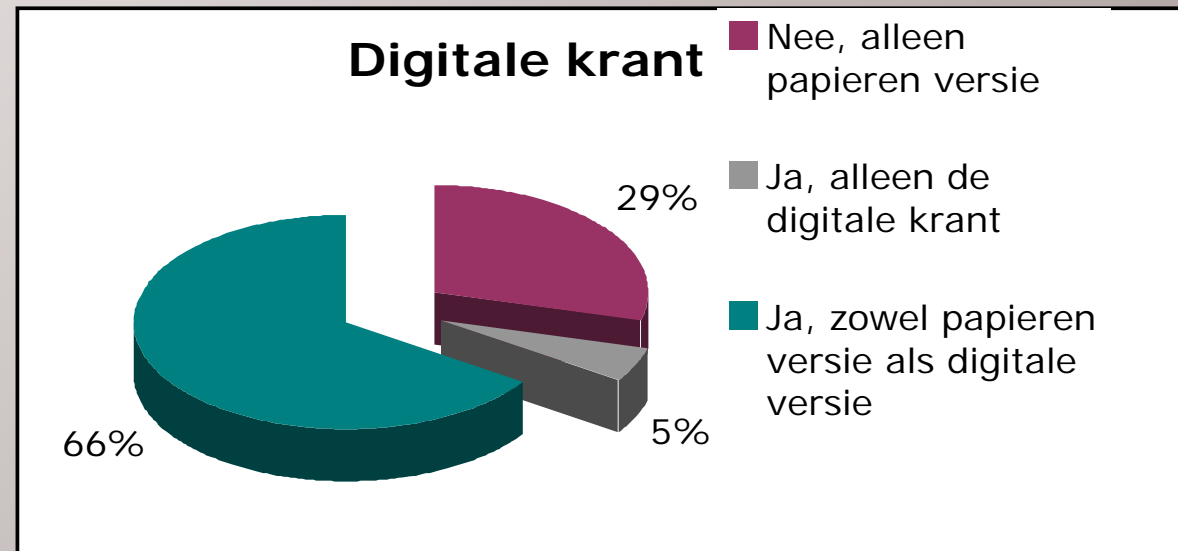
4. E-paper case

- **Testpanel**
 - 200 readers of 'De Tijd'
 - 94,4% male, 5,6% female



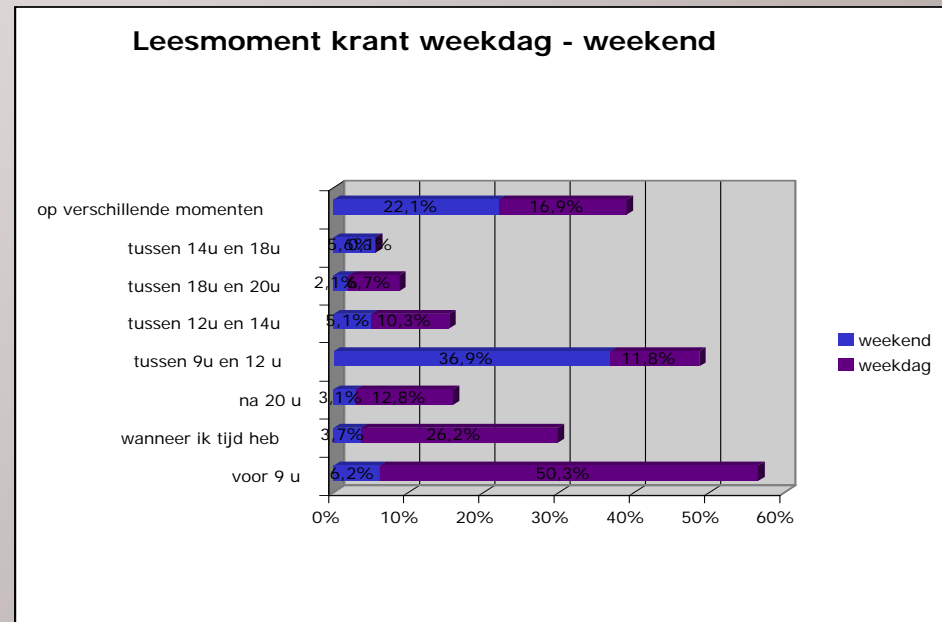
4. E-paper case

- Testpanel
 - Highly educated
 - Computer & internet experienced
 - Print as well as online version readers



4. E-paper case

- Reading behaviour:
 - Functional: less then 1 hour, only those articles of interest
 - 66,2% reads more then 1 newspaper
 - Mostly @ home, in the morning

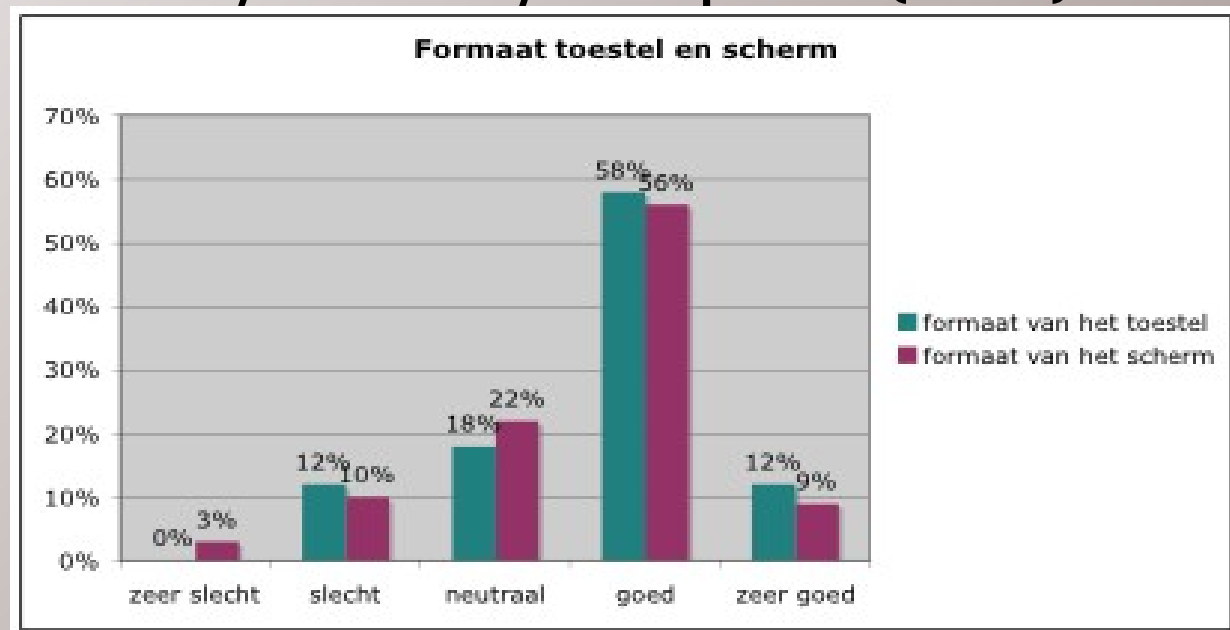


4. First results

- Usage
 - Due to technical problems:
 - Not all test user were able to use their device/download newspapers
 - not a "normal" usage pattern (slowness, unstable devices) could be monitored
 - Conclusion: 'classic' paper is simpler 😊

4. First results

- Device
 - Positive reactions on format, weight and design
 - Screen quality !!!
 - Battery autonomy not optimal (av.4h)

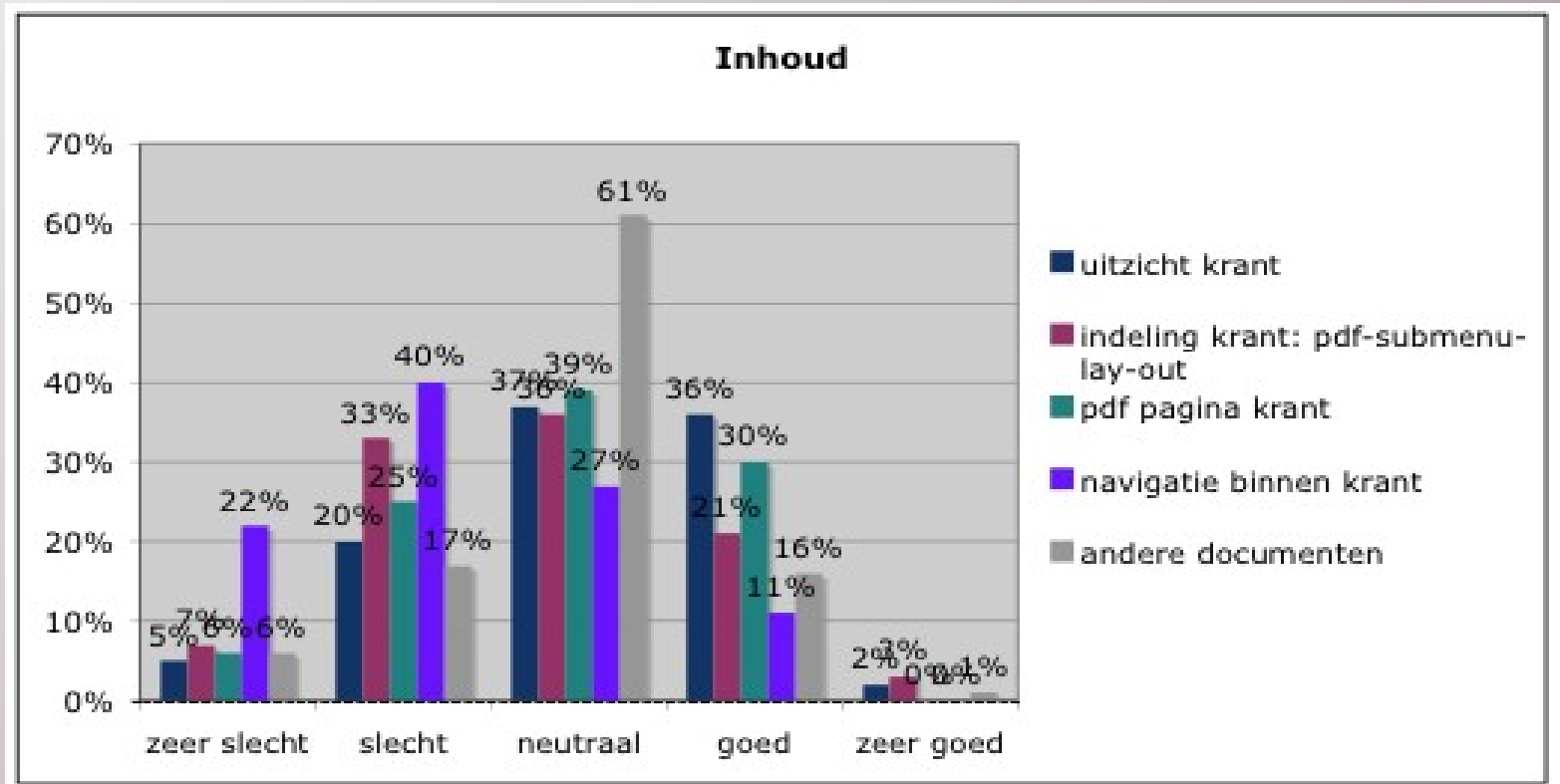


4. First results

- **Operation**
 - Buttons: multiple functions in 1 button = unclear
 - Flipbar positive (link to books)
 - Need for communication from the device: status indication + failure messages
 - Need for a more intuitive usage
 - Slowness = bottleneck!
 - Boot start up
 - Navigation

4. First results

■ Content



4. First results

- **Content**
 - General layout : neutral
 - Zoom function on first page needed + direct link to article
 - Navigation and structure need improvement
 - Reading pattern newspapers

4. First results

- **Issues for improvement**
 - Way of downloading content: speed + need for wireless connection + automatic downloads
 - Speed
 - Usability of buttons
 - Lay-out & navigation structure
 - Zoom function needed

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5. User Testing Conclusions

- Positive on screen quality and size
- Reading device vs. 'All in one'
 - Reading function most important feature
 - Integration in one device for PDA users
 - No news alerts
- For books, not newspapers in this setting
 - Navigation : logic of a newspaper reading
 - Characteristic of news
 - Expectations of multimedia ICT
- Multiple newspapers on one device
- Store and read other documents in PDF
- Opportunities but:
 - Specific navigation, look 'n feel important (PDF - version <-> online newspaper)
 - 48,9% of test panel would consider buying an eReader (if fully operational)

5. User Testing Conclusion

- Other uses:
 - On holiday: taking books on holiday (less weight) + download newspapers abroad
 - Practical mobility due to size: in the car (traffic jams), by foot, in trains and busses and in business meetings
- Looking for added value of the digital device: more detail, maps, images, ...
- Old habits die hard:
 - some people still prefer their paper newspaper, because they are used to it. The same for books, people still prefer the smell, the look and feel and not to forget the importance of a well filled book shelf in the house

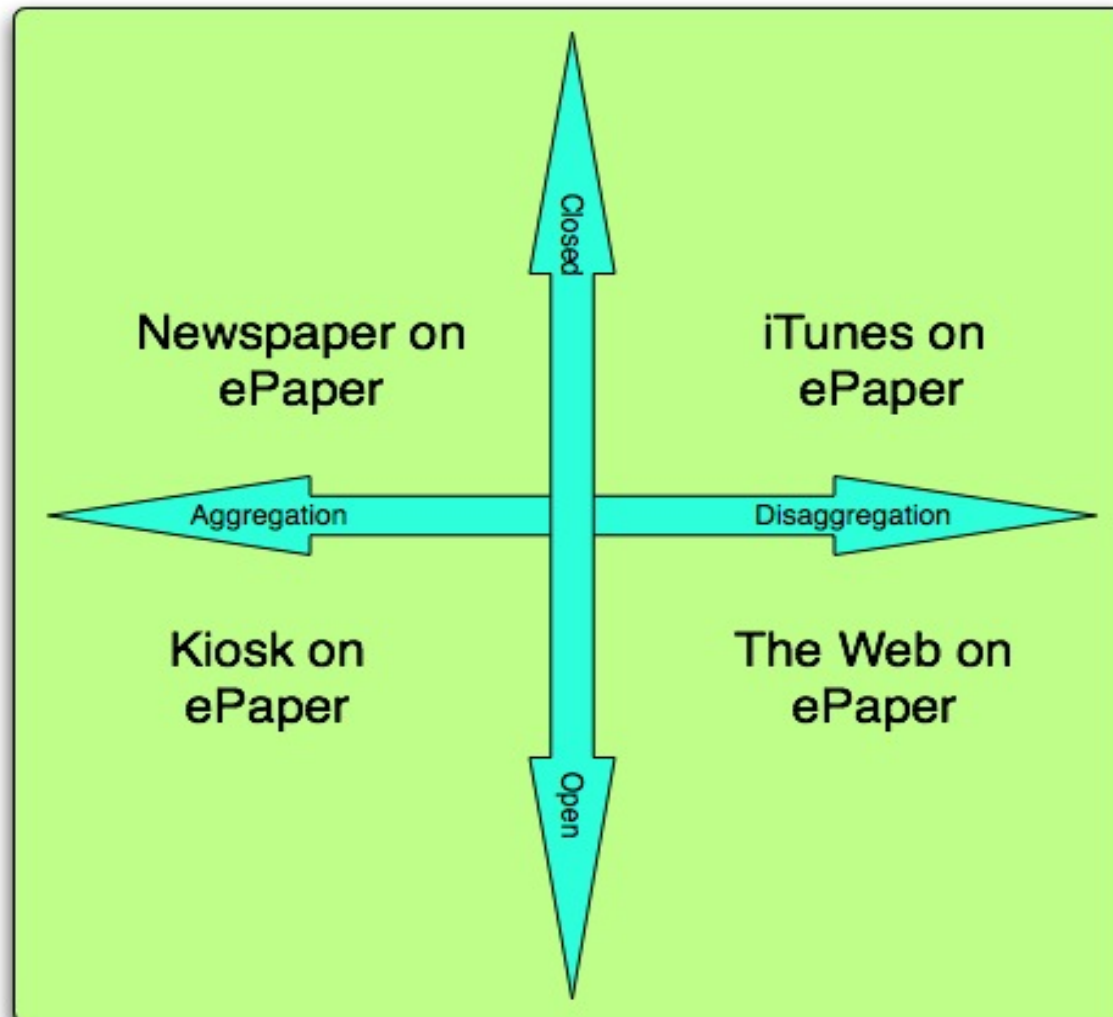
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6. Business Modelling

- Scenario method
 - Based on 2 basic uncertainties
 - Identified on the basis of:
 - Desk research
 - Interviews with actors involved
 - Interviews with actors in the Flemish Contexts
- Basic Uncertainties
 - Aggregation versus disaggregation
 - Extent to which newspaper content is offered as an editorial product
 - Open versus Closed
 - Extent to which the device is open to content from multiple players

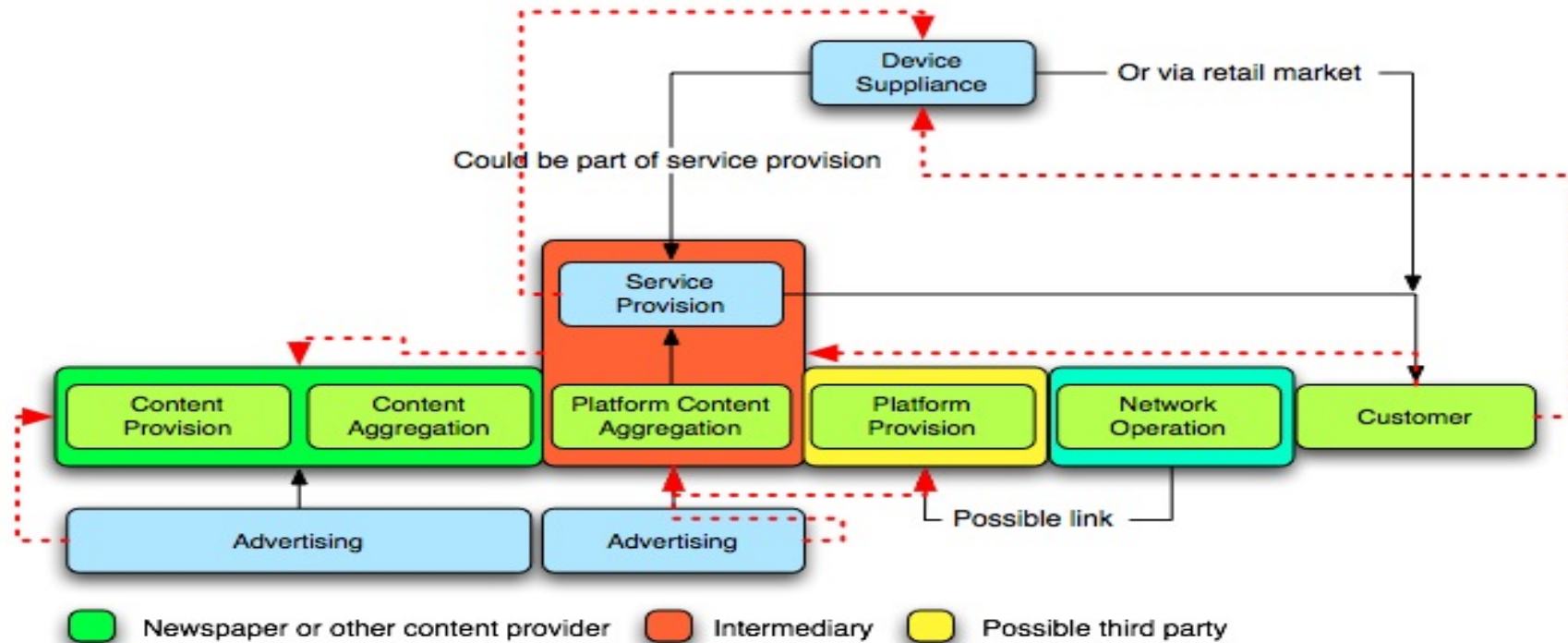
6. Scenario development



6.1 Kiosk-Model: Scenario Outline

- **Intermediary offers integrated service**
 - **Access to aggregated content**
 - National and international newspapers
 - Magazines, Comics
 - Books, etc.
 - From different content providers/aggregators
 - Analogy with newspaper stand

6.1 Kiosk-Model: Value Network



- Intermediary plays important role
 - Integrates two markets 1) readers; 2) information providers
 - Causes network externalities, especially online
- Advertising possible at two levels
 - Can cause friction

6.1 Kiosk-Model: Value Network

- **Service Provision: two options**
 - **Through intermediary**
 - Newspaper loses customer relationship
 - In analogy with purchasing paper in newsstand
 - **Through newspaper**
 - Subscription goes through newspaper
 - Intermediary platform for distribution
 - Newspaper and additional content
 - In analogy with distribution newspaper postal service
- **Intermediary (different from device supplier)**
 - Will favor open standards
 - Will try to publish on different devices
 - Will be forced by content producers to protect content with DRM

6.1 Kiosk-Model: Financial model

- **Payment models – different options**
 - One issue of magazine or newspaper
 - Subscription for download multiple issues
 - Subscription of one newspaper title
- **Acquiring device**
 - Bundling of device with subscriptions possible
- **Pricing and revenue sharing**
 - Difficult issue between intermediary and content providers/aggregators

6.1 Kiosk-Model: SWOT

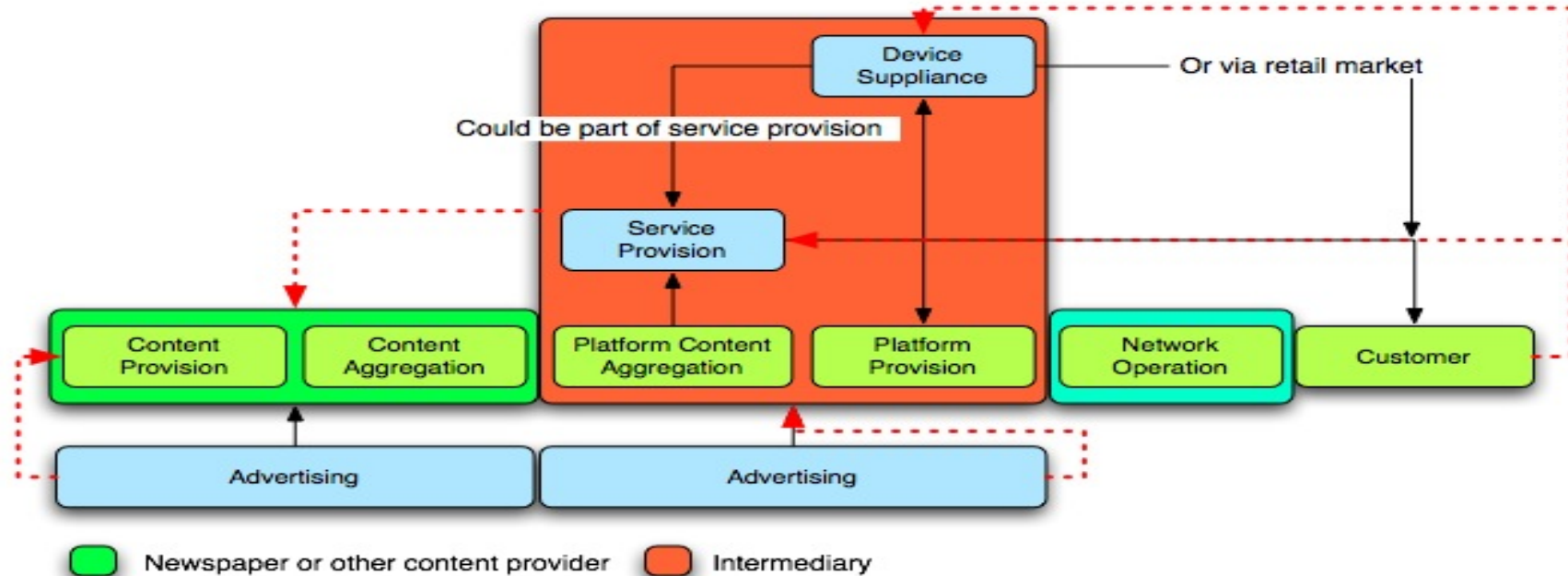
Strengths	Weaknesses
<ul style="list-style-type: none">▪ Larger selection of content▪ One platform for all content▪ Newspaper retain editorial function	<ul style="list-style-type: none">▪ New initiative so:▪ Higher start-up costs▪ Need for individual marketing and branding ▪ Newspaper loses customer relation
Opportunities	Threats
<ul style="list-style-type: none">▪ New platform for digital news▪ One open standard	<ul style="list-style-type: none">▪ Conflict over revenue sharing▪ Conflict over advertising▪ Intermediary risks to become dominant▪ Intermediary shifts towards role of content provision

6.2 iTunes-Model: Scenario Outline

- **Intermediary offers integrated service**
 - **Access to disaggregated content**
 - Single articles from national and international newspapers, Magazines, etc.
 - Comics, Books, etc.
 - From different content providers/aggregators
- **Service only available on specific device**

6.2 iTunes-Model: Value Network

The mobile digital newspaper



- Intermediary plays central role
 - Integrates two markets 1) readers, 2) content providers
 - BUT ALSO device suppliance and service provision
 - Content on single platform and on only one type of device
- Disaggregation of content

6.2 iTunes-Model: Value Network

- **Service Provision (disaggregated content)**
 - Through intermediary
 - Newspaper loses customer relationship
 - Newspaper loses part of editorial function
- **Intermediary and device supplier same actor**
 - Might favor proprietary standards
 - Will favor compatibility with own devices
 - Will be forced by content producers to protect content with DRM
- **Intermediary might shift to content provisioning**

6.2 iTunes–Model: Financial model

- Largely the same as former model
- Payment models
 - Different options possible
 - BUT also single articles
 - Micro–payments might be conducive for model
- Acquiring device
 - Bundling possible but less likely
- Pricing and revenue sharing
 - Difficult issue between intermediary and content providers/aggregators
 - Intermediary more possibilities to generate income
 - On basis of sold content
 - On basis of devices
 - On basis of advertising at platform level

Itunes Model – books

The mobile digital newspaper

Sony - Reader - Mozilla Firefox

File Edit View Go Bookmarks Tools Help del.icio.us

http://www.learningcenter.sony.us/assets/itpd/reader/

Sony® Reader

- Product Overview
- Features & Specifications
- CONNECT eBooks

Product Chapters

- 01 Easy Reading »**
Impressive, paper-like display
- 02 Perfectly Portable »**
Lightweight, with amazing battery life.²
- 03 Holds Volumes »**
Memory for hundreds⁹ of books.
- 04 Thousands of Titles »**
Browse, purchase and easily download.
- 05 More Than Books »**
Documents, pictures, newsfeeds and audio files
- 06 Accessories »**
Add to the Reader
- 07 Promotions »**
Explore the current offers
- 08 Tips and Tricks »**
Become an expert on how to use the Reader
- 09 Partners and Links »**

SONY

The Da Vinci Code

CHAPTER 2

One mile away, the hulking albino named Silas leaped through the front gate of the luxurious brownstone residence on Rue La Bepère. The spiked silver belt that he wore around his thigh cut of service to the Lord.

That is good.

His red eyes scanned the lobby as he entered the residence. Empty. He climbed the stairs quietly, not wanting to awaken any of his fellow numeraries. His bedroom door was open; locks were forbidden here. He entered, closing the door behind him. The room was spartan—hardwood floors, a pine dresser, a canvas mat in the corner that served as his bed. He was a visitor here this week, and yet sanctuary in New York City.

The Lord has provided me shelter and purpose in my life.

30 of 47

1 2 3 4 5 6 7 8 9 0

Done

Itunes Model – books

The mobile digital newspaper

Access to thousands of titles

The Sony® Reader will allow you to search, browse and discover thousands of popular electronic book titles from the CONNECT™ eBooks. You can then purchase and download these titles to your PC and easily transfer to your Sony® Reader³.

positive or negative charge determined by the content. The result is a reading experience that's similar to paper - high contrast, high resolution, viewable in direct sunlight and at a nearly 180-degree angle, and requiring no power to maintain the image. In other words, it's a screen that, like you, is well read.

And with the CONNECT™ software installed on your PC, browsing and buying books online is a simple, integrated experience – browse and buy easily, then simply download books to your PC. Then, you can download your selected content into your Sony® Reader and go. It's that easy.

More than books

Books are just the beginning for the Sony® Reader. It also displays Adobe® PDFs, personal documents, blogs, newsfeeds, and JPEGs with the same amazing readability, It even plays unsecured MP3 and AAC audio files³

Done

6.2 iTunes-Model: SWOT

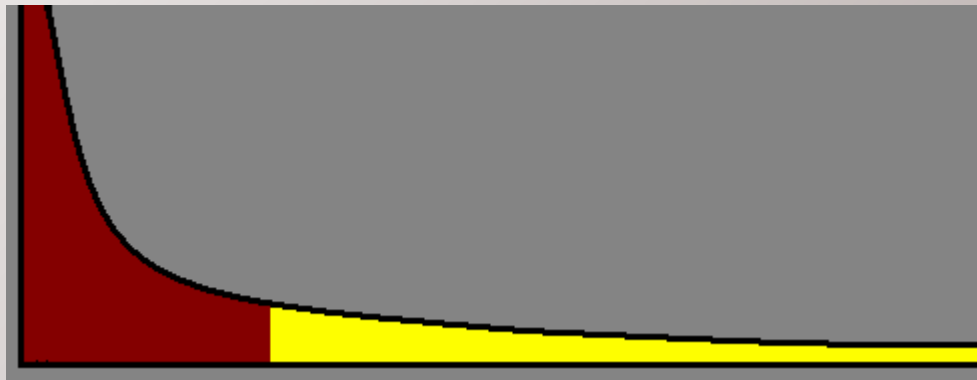
Strengths	Weaknesses
<ul style="list-style-type: none"> ▪ Higher selection of content ▪ Single platform for all content ▪ Strong personalisation possible ▪ Strong compatibility between service and device possible ▪ Might be in line with changing user experience 	<ul style="list-style-type: none"> ▪ New initiative, so: ▪ Higher start-up costs ▪ Need for individual marketing and branding ▪ Newspaper loses customer relation ▪ Newspaper loses part editorial function
Opportunities	Threats
<ul style="list-style-type: none"> ▪ New platform for digital news ▪ Possible high market penetration of single device 	<ul style="list-style-type: none"> ▪ Conflict over standards possible ▪ Conflict over revenue sharing possible ▪ Conflict over advertising ▪ Intermediary might become dominant ▪ Intermediary might shift towards content provisioning

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7. The Long Tail

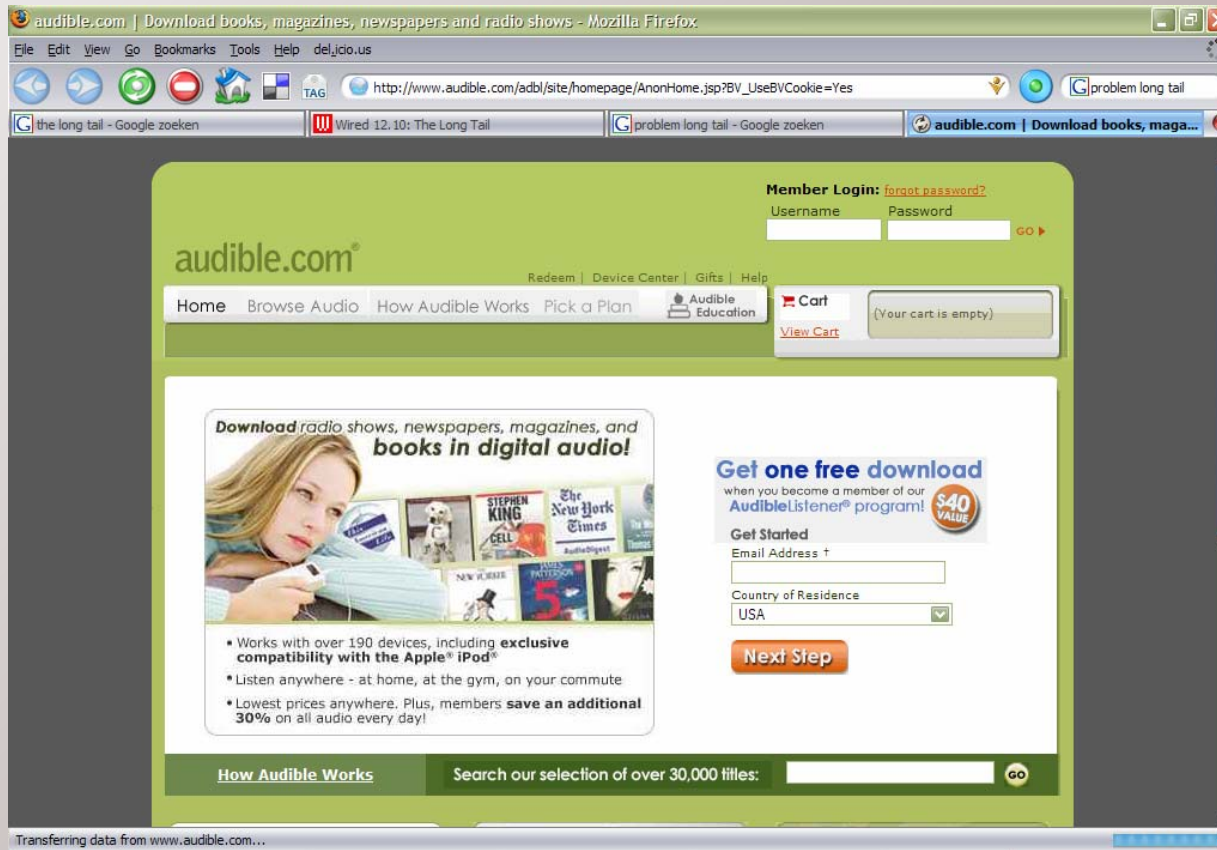
- Amazon Model (iTunes, Audible, Netflix, ...)



- Amazon: "We sold more books today that didn't sell at all yesterday than we sold today of all the books that did sell yesterday."
- Key= storage & distribution costs

7. The Long Tail

- Key= storage & distribution costs



7. But...

- eMusic is a **subscription** service, which invests heavily in **editorial expertise**, by employing 120 writers. Profits from the Long Tail don't just fall out of trees ...
- Apple's iTunes Music increases the importance of the hit: 90 per cent of revenues come from 10 per cent of the catalog
- Anderson's initial *Long Tail* essay claimed that 57 per cent of Amazon.com's sales lie beyond the 100,000 books that make up a typical book store's physical inventory. This startling claim was **revised downward**, because the data was "funky". The published book now states "about a quarter of Amazon's book sales come from outside its top 100,000 titles.
- Users need to be able to find the 'rare gems' that fit their taste !

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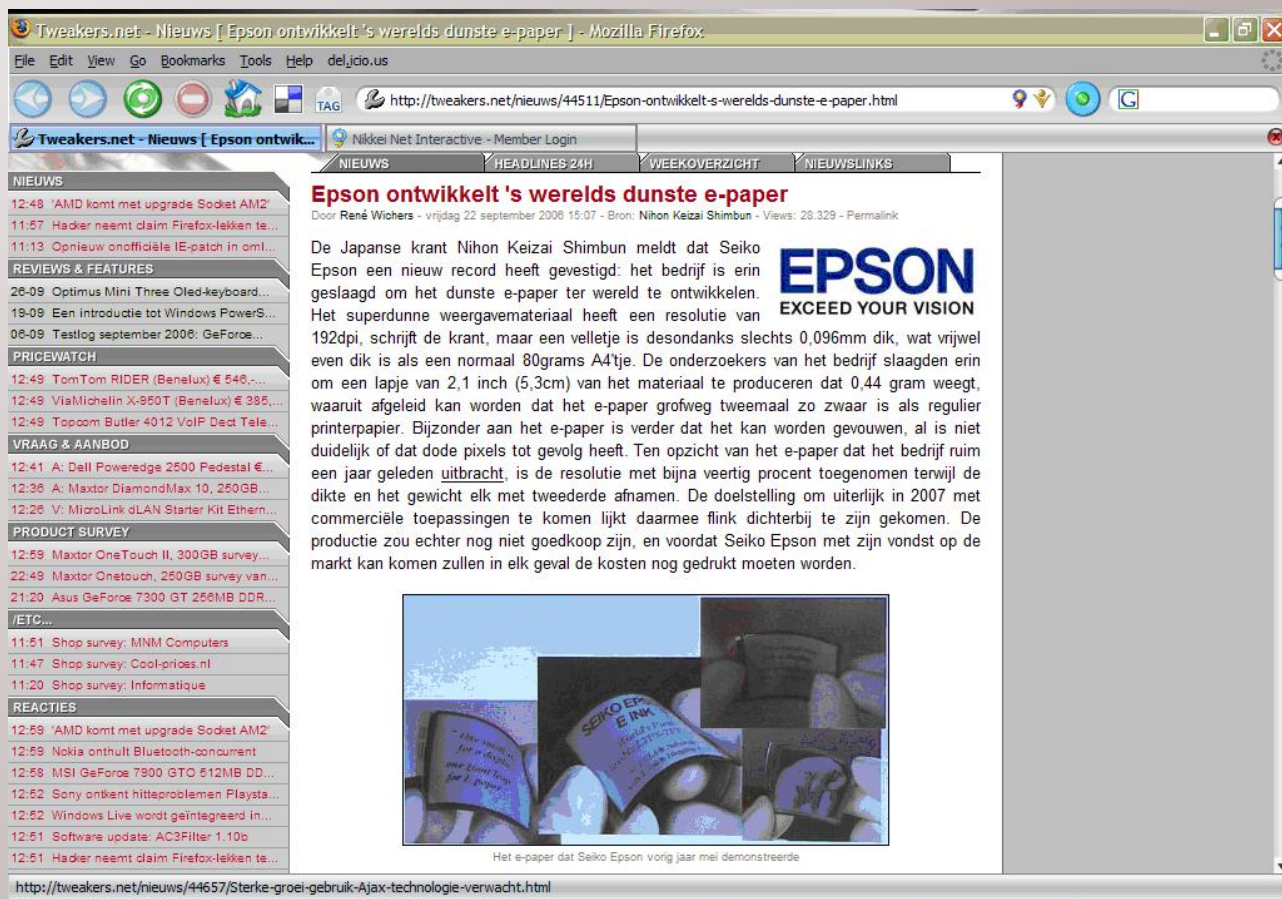
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8. Addition Remarks

- Click advertising (keywords) – see google
 - sponsored book downloads ?
- Use of brand names in media – trust issues
- Community – peer recommandations
- Personalisation

8. Addition Remarks

■ Device evolution...



The screenshot shows a Mozilla Firefox browser window with the address bar displaying <http://tweakers.net/nieuws/44511/Epson-ontwikkelt-s-werelds-dunste-e-paper.html>. The page title is "Epson ontwikkelt 's werelds dunste e-paper". The article text reads: "De Japanse krant Nihon Keizai Shimbun meldt dat Seiko Epson een nieuw record heeft gevestigd: het bedrijf is erin geslaagd om het dunste e-paper ter wereld te ontwikkelen. Het superdunne weergavemateriaal heeft een resolutie van 192dpi, schrijft de krant, maar een velletje is desondanks slechts 0,096mm dik, wat vrijwel even dik is als een normaal 80grams A4'tje. De onderzoekers van het bedrijf slaagden erin om een lapje van 2,1 inch (5,3cm) van het materiaal te produceren dat 0,44 gram weegt, waaruit afgeleid kan worden dat het e-paper grofweg tweemaal zo zwaar is als regulier printerpapier. Bijzonder aan het e-paper is verder dat het kan worden gevouwen, al is niet duidelijk of dat dode pixels tot gevolg heeft. Ten opzicht van het e-paper dat het bedrijf ruim een jaar geleden uitbracht, is de resolutie met bijna veertig procent toegenomen terwijl de dikte en het gewicht elk met tweederde afnamen. De doelstelling om uiterlijk in 2007 met commerciële toepassingen te komen lijkt daarmee flink dichterbij te zijn gekomen. De productie zou echter nog niet goedkoop zijn, en voordat Seiko Epson met zijn vondst op de markt kan komen zullen in elk geval de kosten nog gedrukt moeten worden."

The article includes an image of the e-paper and a caption: "Het e-paper dat Seiko Epson vorig jaar mei demonstreerde". The browser's left sidebar shows various news categories like "NIEUWS", "REVIEWS & FEATURES", "PRICEWATCH", "VRAAG & AANBOD", "PRODUCT SURVEY", "I/ETC...", and "REACTIES".

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9. Conclusions

- People like their newspaper – people (Europeans) like their books
- Smart aggregation – editorial work – the power of the brand are still in play
 - Bookshops have strong brands!
- Basic economics still apply: competitive advantages – specialization vs volume trade
 - But watch out for new market players (see iTunes)
- Next 5–10 years will see crucial evolutions (access anywhere, foldable paper, ubiquitous computing, content availability)

