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Ads go mobile: Assessing the opportunities and challenges of personalised ads in a mobile search service

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Group Business Development and Research

... and more credits

- **Core project team:**

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- **Other participants:**
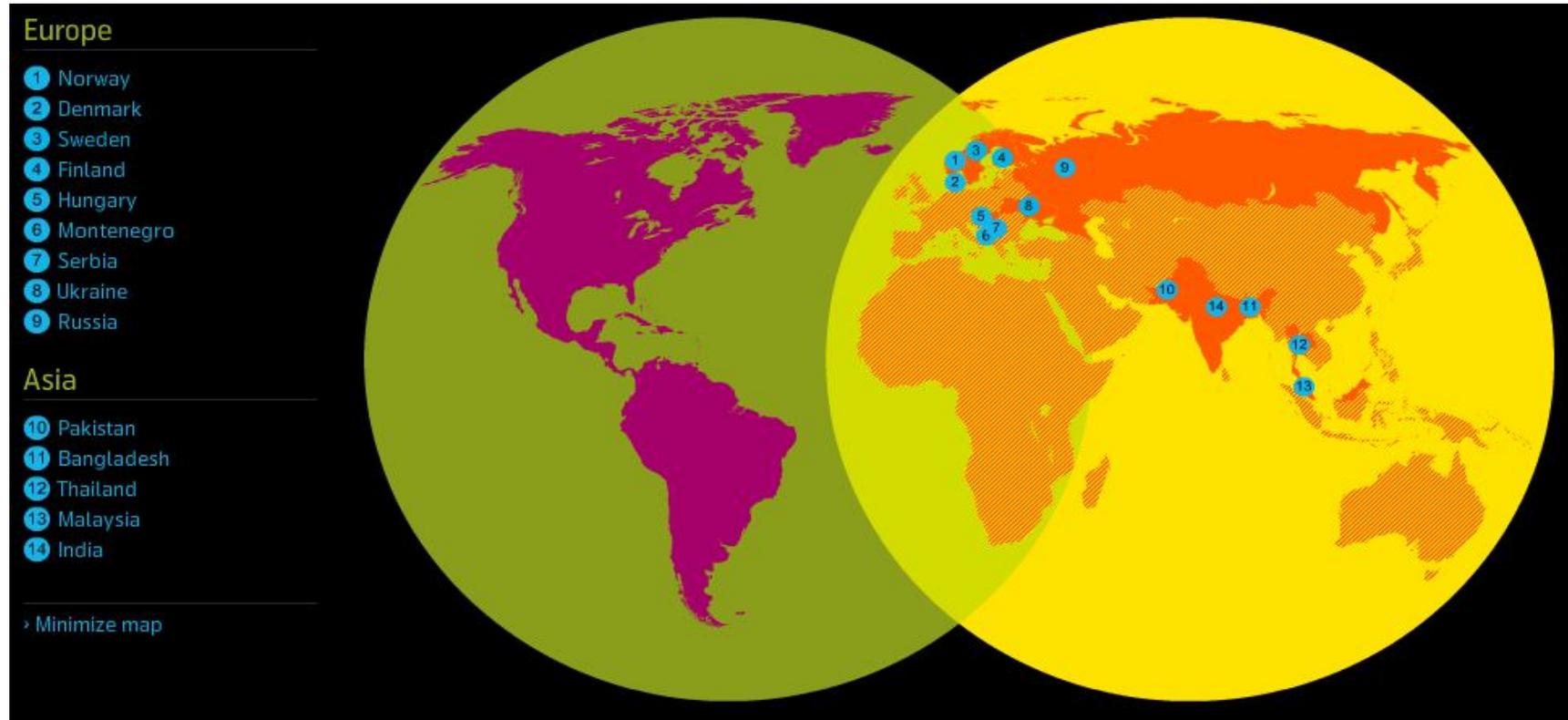
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Sissel Eng

- **Chief Privacy Officer:**

Kjetil Rognsvåg

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The Telenor Group

Europe

1. Norway
2. Denmark
3. Sweden
4. Finland
5. Hungary
6. Montenegro
7. Serbia
8. Ukraine
9. Russia

Asia

10. Pakistan
11. Bangladesh
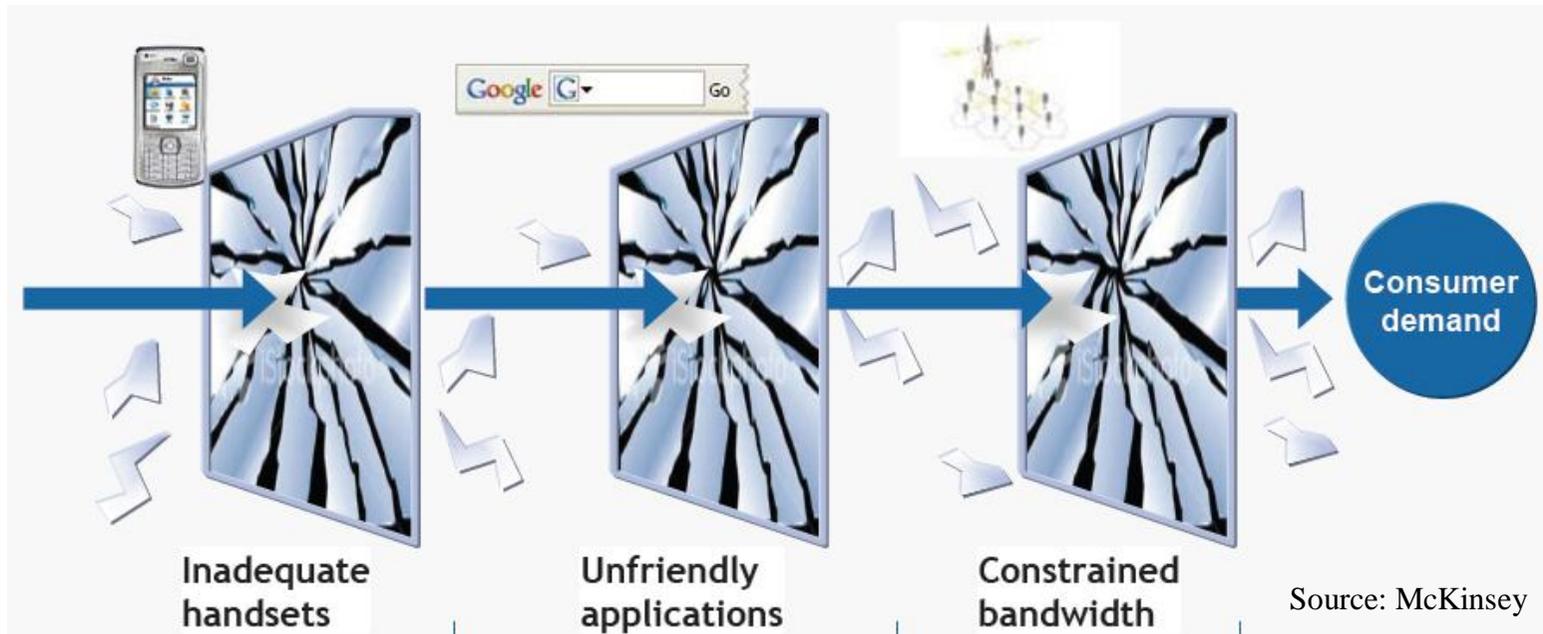12. Thailand
13. Malaysia
14. India

› Minimize map

- 150 years in the business of Telecommunications
- Mobile operator, broadband, broadcast and satellite services
- ~ 170 million mobile subscribers worldwide (Q2 - 2009)
- ~ 40,000 employees

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Outline – Ads go mobile

- Introduction – The rationale
  - Motivation of mobile search and ads
  - Actors and value chain
  - Mobile advertising: targeting and personalisation challenges

- The personalised advertising pilot
  - High-level view architecture
  - How personalisation was instrumented
  - Presentation of the search page results

- Results and findings
  - Cold numbers, user experience, and technological challenges
 - The way forward

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Potential of mobile search and advertising

Inadequate handsets   Unfriendly applications   Constrained bandwidth   Consumer demand

Source: McKinsey

Higher penetration than PC ⟶ Wider audience for advertisers

Always on ⟶ "Here and now" effect

Highly personal ⟶ More relevant results and ads

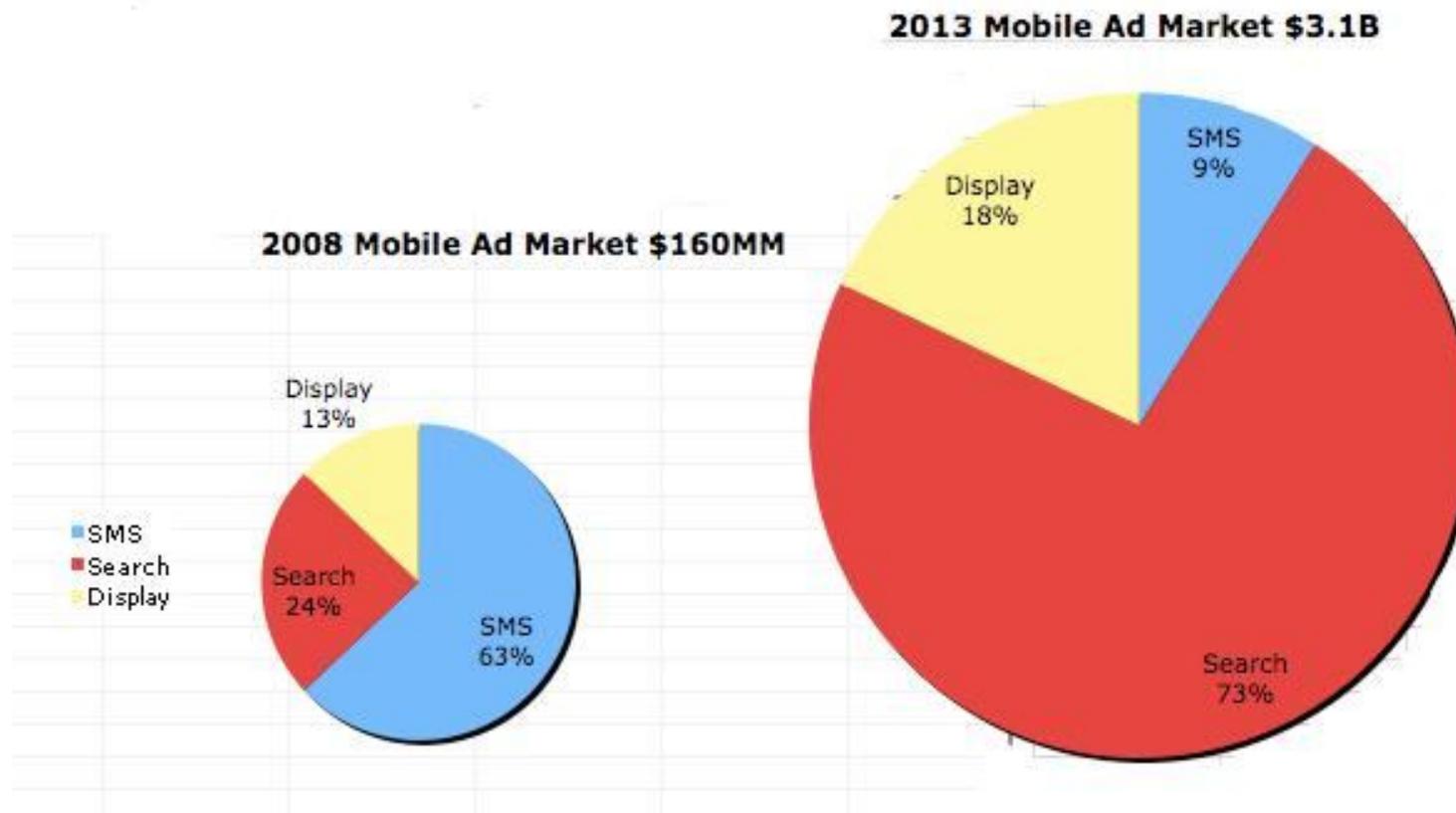telenor group

The mobile advertising ecosystem

Source: dotMobi
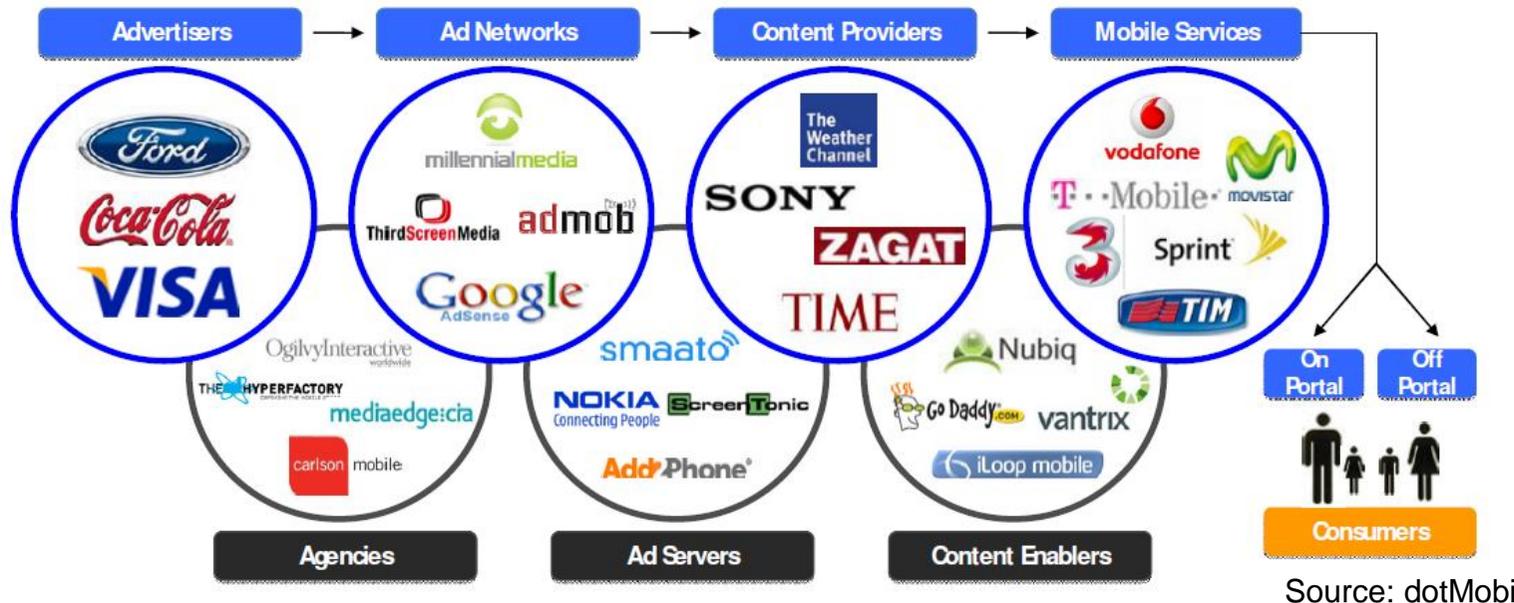
From an operator perspective:

- Monetisation potential by controlling advertising spaces tied to mobile Internet content
- Allowing each part to focus on their strength should give the highest value at the end of the day
- For a MNO today: How to exploit customer proximity to enable personalised services?
- If done correctly, personalisation may give extra value to consumers and possibly strengthen positive attitudes towards mobile ads

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Potential of mobile search and advertising

2013 Mobile Ad Market $3.1B

SMS 9%
Display 18%
Search 73%

2008 Mobile Ad Market $160MM

Display 13%
Search 24%
SMS 63%

SMS
Search
Display

Source: Kelsey group

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When personalisation works …

- Services and product offerings tailored
  to customer needs and interests

- Minimised user authentication/re-typing information

- A consistent user experience from any location or device

- Enhanced customer trust built through information sharing

- Customers are not 'locked-in' but instead have 'lock-on'
  (want to stay loyal to a company)

- Increase revenues

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When it does not work ...
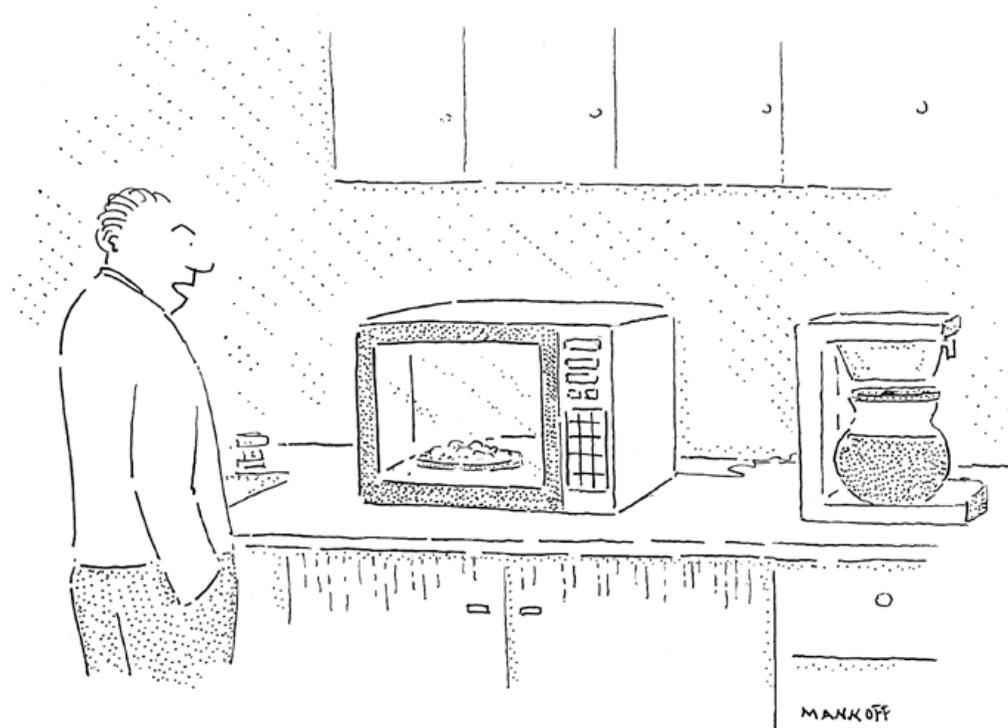
"No, I don't want to play chess. I just want you to reheat the lasagna."

- Customer needs inferred on incomplete information

- Customers lumped together awkwardly and experience being put in silly categories

- Customers blocked from new areas

- Effort to make profile is too high

- Customers do not think the information they provide will be used in their interest (privacy, permission marketing)

The main goals of this study

1. Explore how mobile operator assets can be utilised to personalise services in the mobile advertising ecosystem in a search service

   - A pilot with a real-life ecosystem was set in place

   - Definition of best practices for a commercial deployment

2. Investigate user attitudes towards personalised mobile ads in a search service

   - Gathering customer insight pre- and post-pilot execution

   - Validate hypothesis through direct customer feedback via focus groups

- Not focus on the fine-grained details of query formulation: better done by a search engine, time and resources limitations

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- **The personalised advertising pilot**
  - High-level view architecture
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The search service – customer view
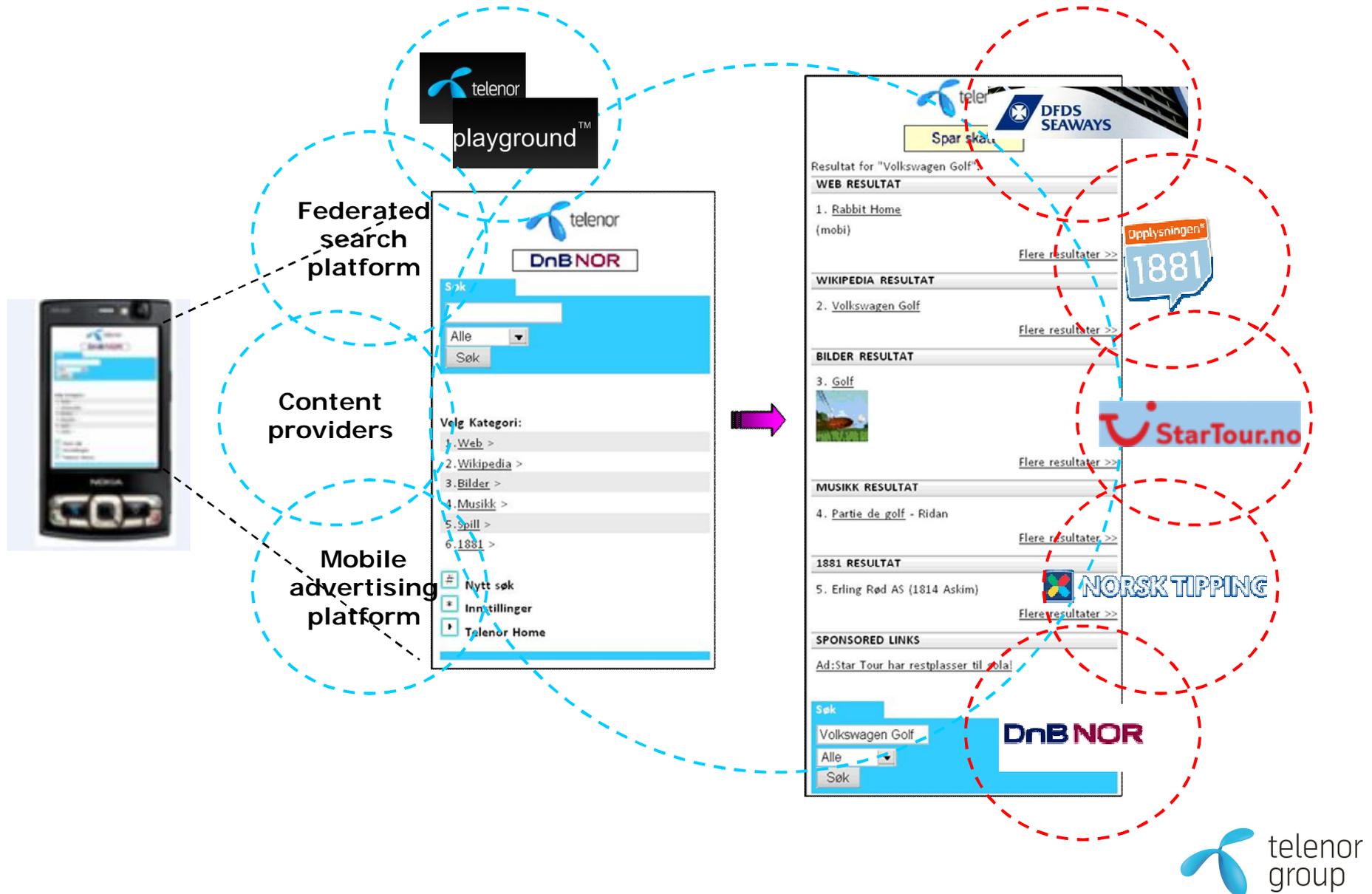
General architecture and data flow
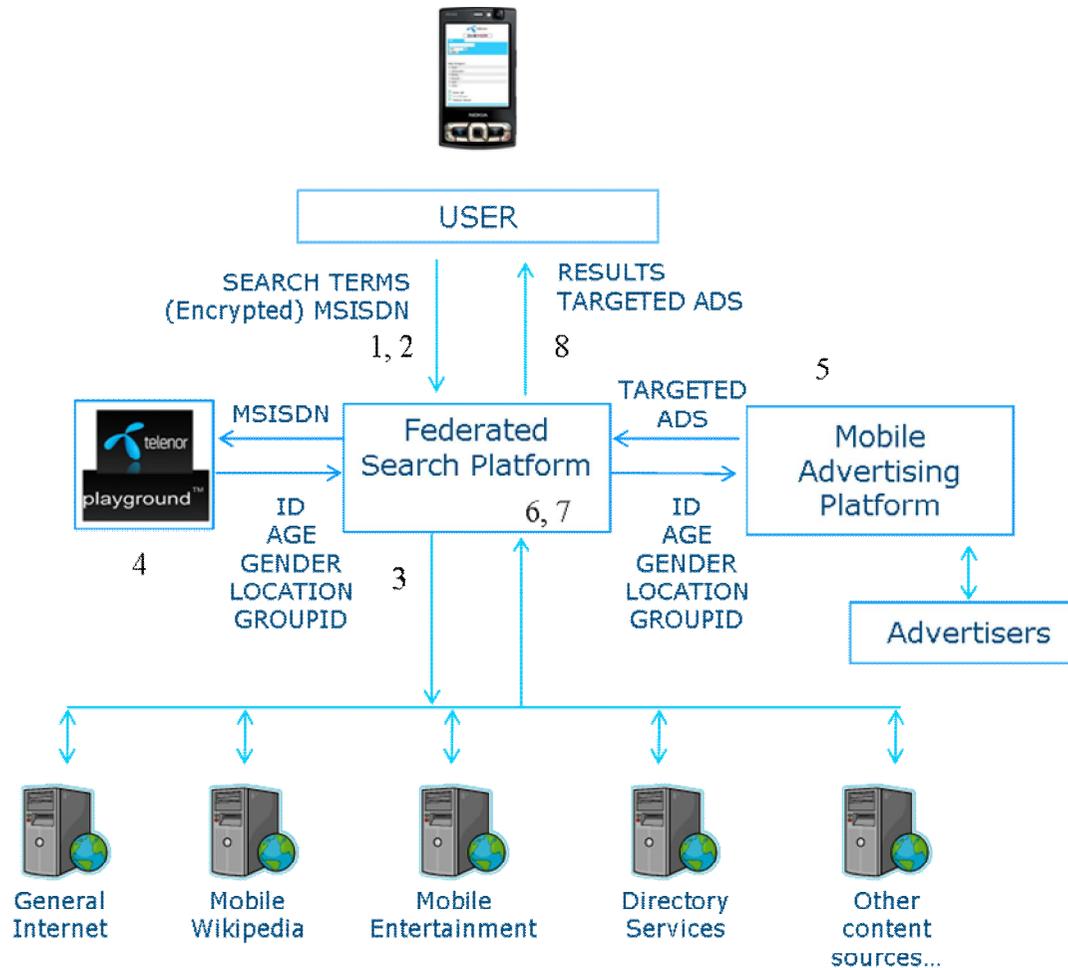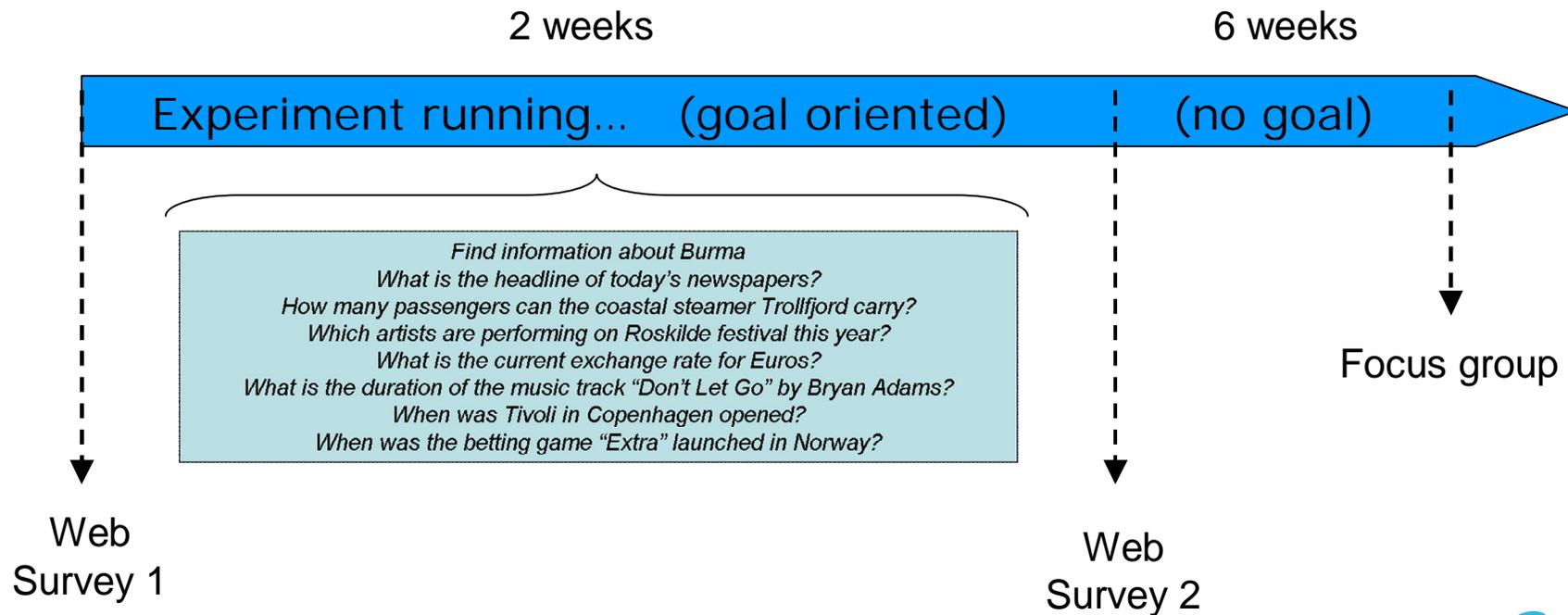
Banner ads and personalisation

Campaign title:	DNB BSU
Age:	15-29
Gender (m/f):	all
Place of residence (postal code):	all
Search terms:	DnB, DnBNOR, MOBILBANK, BSU, LÅN

The personalised advertising pilot

- The participants:

  – 175 participants: 52% men, 48% women

  – Active mobile users

  – Telenor segmentation model: 36% (15-29), 38% (30-54), 26% (55+)

- Pilot study:

2 weeks   6 weeks

Experiment running…   (goal oriented) | (no goal)

Find information about Burma
What is the headline of today's newspapers?
How many passengers can the coastal steamer Trollfjord carry?
Which artists are performing on Roskilde festival this year?
What is the current exchange rate for Euros?
What is the duration of the music track "Don't Let Go" by Bryan Adams?
When was Tivoli in Copenhagen opened?
When was the betting game "Extra" launched in Norway?

Focus group

Web
Survey 1

Web
Survey 2

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Attitude towards advertising
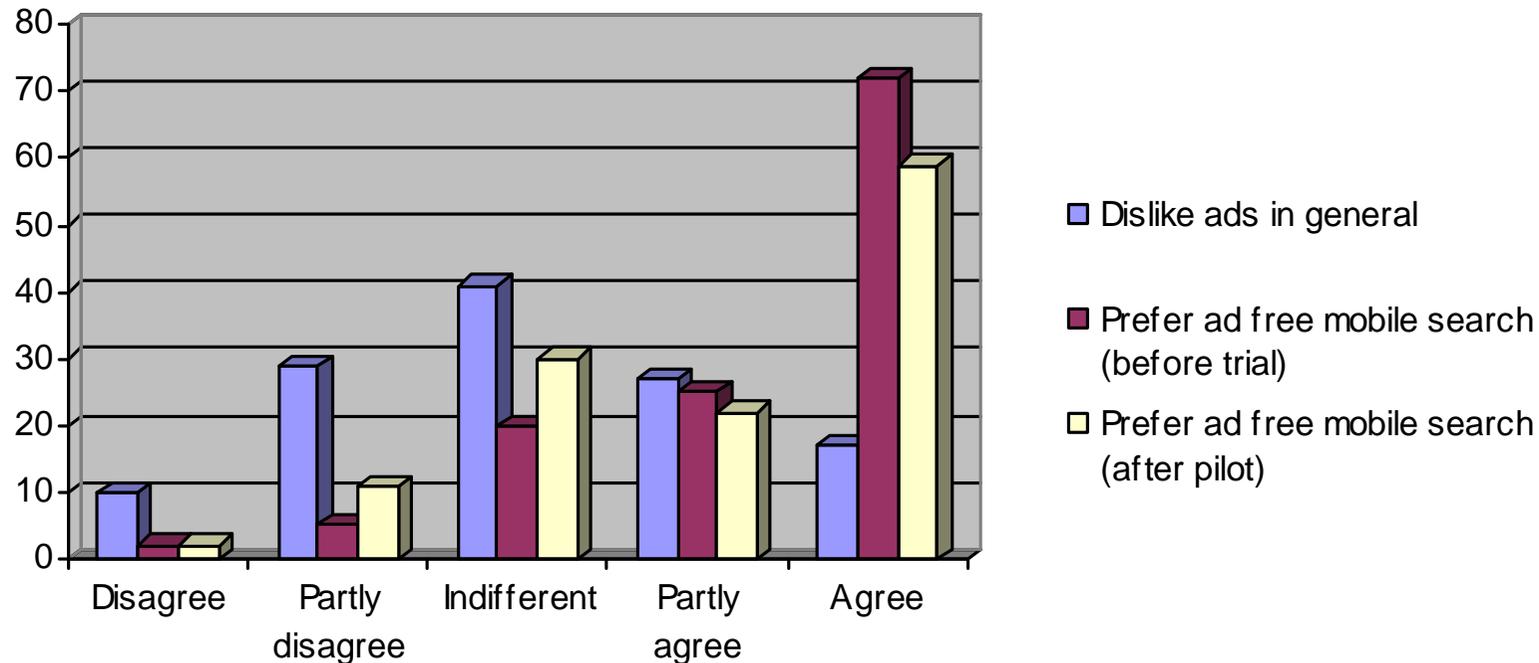
Key observations:

- Attitude towards ads in general
- Attitude towards mobile ads before the pilot was negative
- Change to a more positive attitude after the pilot
    - Ads were useful, good Ux with the ads, useful search service

Advertising views and Click Through Rate (CTR)

	June 1 – June 15			June 16 – July 31		
	Views	*Clicks*	*CTR*	*Views*	*Clicks*	*CTR*
Personalised Ads	644	16	2.48%	158	11	**6,96%**
Random Ads	1145	32	2.79%	223	7	3.14%
Random Text Ads	112	0	0	7	0	0%
SUM	**1901**	**48**	**2.52%**	**388**	**18**	**4.64%**

- MMA published avg. CTR is 4% - although our partners observations say 1%

- Goal oriented phase:
  - No real search intent and speculation on goal oriented behaviour (Hupfer&Grey05)

- Second phase without search goal:
  - Notice the difference between personalised and random ads

- Text ads
  - Editorial decision of placing this ads at the bottom plus unrelated to search intent

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User experience

Mobile search:

"reading the newspaper by looking through a key hole"

- Category approach counteract problems with small displays
  - Federated search reduced query formulation effort
  - Improved the overview of presented hits
  - Judgement of relevance vs. small screen: especially important in elders

- Non-utilitarian factors are important!
  - Pleasure of use: half of the informants expressed an inclination to click on humoristic ads
  - Rewards and discounts has a positive impact on CTR
  - Local products and services are preferred

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User experience

- Personalisation triggers privacy concerns and becomes a welcomed filter
  - General attitudes towards ads are amplified on the mobile phone... "you cannot choose not to pay attention"
  - "I would not like anyone to track my interests and behaviour"

  however...
  - Users are willing to disclose personal data if they understand the reasons, if there are clear benefits and privacy protection is in place
    - Opt-in, when, where, and how personalisation information is used
    - A filter to potential spam and unwanted information, a way to reduce negative effects of future increase of ad campaigns
  - Kobsa07 reports a 1:1:2 ratio between fundamentalists, unconcerned, and pragmatics... to a great extent our study matches the pragmatic cluster

Implementation challenges and solutions

- Automatic subscriber identification
  - Information stored in the SIM: MSISDN associated to subscriber data
  - Strategically anchors the operator in the value chain but at this stage MSISDNs need to be requested with each operator
  - **Solution**: The industry should embrace generic identity management solutions such as the GSMA OneAPI

- Content availability
  - Content is king... but building a search ecosystem relies on access to content via commercial agreements
  - Users expect content beyond the premium on-deck content:
    - a rich general Internet index vs. limited WAP index due to limited content
  - **Pragmatic solution**: use transcoded versions of a Web index and Wikipedia

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Implementation challenges and solutions

- Subscriber data
  - The data set used was simple and so was the data extraction
  - ... when information in the database does not correspond to real usage
  - ... cross-boundary relationships and shared responsibilities
  - **Solution**: commonly supported API that enables portability across operators... then again we have solutions like GSMA OneAPI

- Location information
  - Current position (GPS or operators positioning services), most used base station, or place of residence... or a combination
  - A combination can be useful for advertisers but mobile ad platforms are not fully ready for this degree of intelligence
  - GPS not used due to limited footprint in devices
  - **Pragmatic solution**: We ended up using place of residence...

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Implementation challenges and solutions

- Ranking inside each of the categories not implemented... solution based on best-of-breed content provider

- State of tools for targeted search and ads: Mobile marketing platforms are built around campaigns and ad zones

  – Our approach was developed around the personalisation perspective

  – Platforms had limitations and were not flexible enough to easily embrace targeted advertising

  – With the current state of tools the development of new campaigns is costly

  – The mobile advertising industry is evolving and the infrastructure for targeted ads based on search terms and contextual information is still immature

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Conclusions: the way forward

- If mobile advertising is a must, please personalise!

- The ecosystem face a challenge in developing the personalised mobile ads case
  - Strong interest among advertisers, ad platform, and search providers
  - Immaturity in both internal and external systems
  - Realistic measurements of advertising effects
  - Cristal clear mechanisms for management of user privacy

- Mobile operators can take a strong position to secure a strategic place but they need to act soon and do it together

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Thank you for your attention...

Questions?

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