

LouhiOnline project

**Examples of Multichannel
Applications within Customer
Relationship Management**

Version 1.0

16.01.2004

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Last change 16.1.2004

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Keywords multichannel mobile wireless PDA sms mms wap web TV ITV DTV community communities communality campaign marketing entertainment CRM "data mining" legislation

Preface

This report is a shorter version of the research carried out within the LouhiOnline project pre-study on the topic Analytic Customer Relationship Management in a Multichannel Environment. The purpose of the original document was to give background information on to what extent multichannel functionality is or could be used within our partners, within commercial CRM systems (analytical or operational), and within CRM globally, and to what extent European (and especially Finnish) law allows this.

We especially looked for whether multichannel functionality in combination with CRM had been fully implemented somewhere else, and if there was a market need for this kind of fusion between two different technologies, and what the possible benefits could be.

Though paper (magazine ads), email and traditional TV ads are channels as well, we here wanted to focus on the more modern channels, such as web, mobile devices and digital TV.

We have not intended to give a full listing of as many applications as possible, but rather to find one or a few representative example within each area, in order to give ideas and inspiration on how multichannel CRM could be used.

Our original, full report also contained a survey of direct marketing legislation, evaluations of existing CRM applications and how they implement multichannel campaign management, as well as interviews with the companies participating in the study. These three chapters have been omitted in this shortened version, which only contains the multichannel example part. We have also left out all the pictures, in order to diminish the size of the document.

Due to our limited resources, there are many multichannel examples that would have deserved to be in this report, but are not. We also regret that we do not have the resources to update this report continuously in future. Also, we have not had the resources to be completely neutral. Sometimes the text quoted is the service provider's own (or our abbreviated version of it), sometimes we have found the service descriptions in magazine articles. The references are either hyperlinks or in brackets after each chapter respectively. When using web sources we have referred to the site without mentioning the date visited separately in each case. The websites have been visited mostly during November 2003.

Executive summary

The Louhi project - Implementing One-to-one Marketing with the Use of Data Mining - has been our main project during 2001-2003. The results clearly indicate that there is a market need for techniques like targeting of marketing campaigns and customer profiling. We wanted to continue our research under a new name - LouhiOnline - Analytic Customer Relationship Management in a Multichannel Environment.

We wanted to know whether the Louhi results could be incorporated into marketing channels newer than direct mail, magazine ads or email: Our focus was mainly on web, mobile and interactive TV. Mobile phones, though quite common, have a potential that not yet has been utilized fully. Global trends indicate that within a few years, most people in the western world will have access to interactive TV.

Our objectives were

- to find out to what extent European, and especially Finnish, law limits the use of multichannel marketing
- to find out whether there are commercial software with multichannel marketing features, especially regarding the newer channels (mobile and digital TV)
- to find examples of how targeted marketing campaigns, services and entertainment apply multichannel features today, and how community features back up these
- to get ideas for the LouhiOnline project

Our findings were interesting: There are often considerable benefits to be made by incorporating multichannel features to business benefits. The trick is to know when to use which channel (or which combination of channels), with which customer, in what way, how to take advantage of the specific attributes of each channel, and how to incorporate communities into the business model. It was not uncommon for companies who have settled these issues to e.g. boast a three digit campaign pull, provide better or profitable services for their customers, collect large amounts of customer data that are used for future campaigns, or generate profit by providing a marketing channel for other advertisers.

True targeted multichannel campaigns were rare, and there is still a lot of research to be done in this area.

The Legislation and Regulations Related to Customer Privacy and Marketing

The subject of the pre-study and the project are regulated by multiple acts due to its interdisciplinary nature. The most relevant ones are the Personal Data Act, the Consumer Protection Act, the Communication Market Act, the Freedom of Speech Act and the Act on Privacy in Electronic Communications. The Personal Data Act gives the frame for consumer data processing and the use of data for marketing purposes. The Consumer Protection Act regulates the marketing in general as well as distance selling. The Communication Market Act gives the principle for equal treatment of every channel, including digital TV, mobile phone and the web.

The new technology brings in new legislative issues to consider and the new Freedom of Speech Act comes into operation in the beginning of year 2004. The Act on Privacy in Electronic Communications is still in the process, but its supposed to come into operation during year 2004. The Freedom of Speech Act applies to publications of collections of coherently made messages, including net newsletters. The Act on Privacy in Electronic Communications is related to the use of location data, cookies, and electronic direct marketing.

In addition to the acts there are some government regulative authorities related to the subject. Consumer Agency gives guidelines and The Market Court brings in rulings for marketing related issues. Data protection authorities, on their behalf, bring in rulings and guidelines on data processing related issues.

CRM systems survey

CRM stands for Customer Relationship Management. The CRM system is the backbone for the customer touchpoints of the business processes, e.g. the CRM system database should contain all the information there is to know about all customers - who they are, what they have bought and when, what inquiries they have made to Customer Service, and how they were recruited. The more information we collect about our customers, the more possibilities we have to analyze the data and use it when learning more about our customers - what products they are likely to buy, how they would like to receive their product offers, in what way they can contribute to our company profits.

CRM systems can be divided into two groups: operational (that are used by all the staff within sales, marketing and customer service, typically Siebel, SAP, Oracle CRM, etc.) or analytical (which are used

by a chosen few statisticians, such as SAS, SPSS, or Oracle data mining). Often the border between operational and analytical CRM systems is fuzzy, and the trend is towards more complete functionality, e.g. the two groups are moving towards each other.

The purpose of the CRM system survey was to find out whether there are commercial CRM applications that successfully apply targeted multichannel campaigns, with focus on the newer channels such as mobile, web or interactive TV. Sometimes this could be done by a quick glance in the product leaflet of the system supplier in question, but other applications were more subtle. Sometimes we could use impartial information such as Gartner Group reports, or articles in magazines, but in other cases we have only had access to the system supplier's own marketing material. Within the resources of the project, we had not had time to test the systems, or ask for references.

In the survey, we briefly examined the most widely used CRM applications and their marketing and multichannel features. Most of them boast some kind of mobile CRM. However, when examining the issue further, these features mostly imply either the support of a mobile workforce (to allow the company's own salespeople access to the system by PDA or phone), or support of multichannel contact center features (e.g. when a customer calls, the contact person gets a popup with the customer details).

There are a few applications supporting multichannel campaigns, to some extent, e.g. Ascent, that creates email campaigns where customers are supposed to respond by web. Mobile and interactive TV have to date not been included, as far as we know.

Of the systems examined, E.piphany and Unica seem to be the most advanced on multichannel campaign management.

Examples of Multichannel applications within CRM

The one-to-one marketing applications of today focus mainly on one pre-defined channel only (e.g. Amazon on the Web). Every marketing channel seems to have its own separate ecosystem with customer data and opt-in / opt-out lists. There are a few exceptions (Veet, Walkers) where multichannel campaigns have been initiated, mostly generating an impressive pull percentage.

However, the multichannel solutions we found mostly limited themselves to chats on SMS/TV/Web, with young people as special target groups, and the services provided were often limited to ringtones and logos.

There were a few exceptions, like Huoneistokeskus real estate agent, Osuuspankki Bank Services and Veikkaus Lotto Couponing. These had succeeded to include multichannel functions into their existing business models.

Especially interesting were the cases where information services to certain target groups also created a marketing platform (e.g. MoBull).

Maintaining on-line communities to back up one-to-one marketing is strategically important. Except providing a platform for developing and launching new products, the dialogue with the customers gives valuable feedback. However, the most important reason for maintaining communities is to create a dialogue among the customers themselves.

In mobile campaigns, the effect of communality can be verified by the not quite uncommon three-digit pull percentages, due to the fact that customers forward messages to others. Word-of-mouth often has been powerful enough to launch new services without any promotion in marketing campaigns (e.g. Lonely Planet).

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1 Examples of Campaigns

Marketing campaigns are traditionally conducted on channels like direct mail, email, phone, television, radio or outdoor advertising. Modern channels bring new features into campaign planning and execution. E.g. the more personal nature of channels like mobile, or login-websites, give new possibilities to personalization and campaign targeting.

One technique to target customer offerings is collaborative filtering. It has been implemented at a number of web marketplaces such as Amazon. The idea is that a customer who has put a certain product in his/her virtual shopping basket will be offered other products that often have been sold together with this product.

Collaborative filtering has been described in an earlier VTT report. [Collaborative Filtering and Recommendation Systems, on <http://www.vtt.fi/datamining>.] In this chapter, we therefore focus more on multichannel features than on customer targeting.

However, we found out that true targeted multichannel campaigns on the more modern channels (mobile, and especially interactive TV) were rare.

1.1 Targeted Web Campaigns

1.1.1 Amazon.com

(<http://www.amazon.com>, <http://www.amazon.co.uk>)

Amazon has developed from the original bookshop to a department store. Among the first ones to successfully implement targeted offerings by collaborative filtering, Amazon offers instant recommendations to customers.

The product concept is completed by coupons that can be redeemed by web, and distributed by several coupon agents, such as:

<http://www.couponhut.com>

<http://www.findsavings.com/amazon-coupons.asp>

<http://www.couponcraze.com/coupons/amazon>

Many other e-shops operate by a similar concepts as Amazon, such as e.g. Barnes & Noble (<http://www.barnesandnoble.com>).

1.1.2 Movies

Fox is evaluating an aCRM package from E.piphany Inc. and another package from MicroStrategy Inc. and Xchange Inc. to help it analyze Web-site data, then use it for personalized marketing campaigns and to determine the demand for certain films. Fox is already analyzing distribution data in a MicroStrategy data warehouse, called Eight Ball, that lets the studio determine how certain films do by region, or even by theater. For instance, if a particular theater does well only with art films, Fox isn't going to waste resources screening the next Jurassic Park. It's difficult to tell how much the data warehouse helps any given movie since there can be no comparison between films, but Fox execs say each cut of data can improve a movie's performance by a few percentage points. In Fox's business, that's millions of dollars.

[Hollywood's New Star Is IT. Sweat, Jeff, InformationWeek, (23 Oct 2000) pp. 42. ISSN: 8750-6874.]

1.2 Targeted Mobile Campaigns

1.2.1 Mobile barcode coupons

Mobile barcode coupon / iCoupon is a mass-market solution from 12Snap. The coupons are delivered via SMS. To redeem an offer, the customer simply shows the coupon embedded on the phone. The cashier scans the barcode with a barcode reader. Once a coupon is redeemed, it is automatically cancelled.

Approximately 5 billion coupons are distributed in the UK each year, and 520 million coupons are redeemed. The average value of a coupon was 72 p.

Among the benefits, the iCoupon is said to be an intelligent tool for introducing a new product to an existing range or attract new buyers to an existing product.

The campaigns are typically executed by outbound SMS-push to targeted, opt-in base in a certain area, completed by inbound SMS from posters or flyers in a certain region. The consumer's location is polled and matched against geo-mapping of store locations.

<http://www.12snap.com/uk/help/couponshort.pdf>

12snap is Europe's leading mobile marketing and media sales company, providing campaigns to top brands and media companies. 12snap delivers powerful and cost effective marketing and CRM programmes by combining SMS, voice/sound, web, WAP, EMS and MMS with its own technology. 12snap currently has over 18 million aggregated permission based opt-in users in the UK, Germany and Italy, making it the largest mobile marketing channel in Europe.

Top global brands to have partnered with 12snap include McDonald's, Golden Wonder, L'Oréal and MTV. To offer mobile marketing campaigns throughout Europe, 12snap has pan-European SMS capabilities and works closely with key carriers and strategic partners such as Vodafone in the UK, Germany and Italy, Wind in Italy and T-Mobile in the UK and Germany.

http://www.add2phone.com/pressevent_02_28_2003.html

1.2.2 AvantGo

<https://my.avantgo.com/home>

AvantGo is a free service that delivers mobile websites to consumers on their handheld PDAs and smartphones. Thousands of companies and dozens of major brands, including American Airlines, CNET, GM, Rolling Stone and The New York Times, provide mobile website content on the AvantGo service. With more than 10 million registered subscribers all over the globe, AvantGo is the world's leading mobile internet service.

For marketers, advertisers and media, AvantGo offers an unparalleled opportunity to influence and interact with high-income trendsetters, "right in the palms of their hands." With an average of 5 times the click-through rate of typical web banners and superior retention and conversion rates, AvantGo accesses a hard-to-reach audience of young, educated, tech-savvy business professionals with impressive buying power.

Delivering more than one million syncs per day, the AvantGo service leverages a patented Dynamic Mobility Model architecture that ensures the service performs across multiple platforms (Windows CE, Palm OS, Symbian), sync modes (cradle, Wi-Fi, Bluetooth), wireless networks (CDMA, GSM, CDPD, GPRS, 3G) and devices (Sony, Dell, Toshiba, palmOne, Nokia, HP/Compaq) — seamlessly for millions of users.

AvantGo's advanced architecture enables seamless transitions between connection modes, so that users can get their mobile websites through syncing, wireless surfing, or a combination of both, depending on their needs.

The AvantGo service is owned and operated by iAnywhere, Inc., a subsidiary of Sybase, Inc.

iAnywhere provides software and services that enable the delivery of enterprise information anywhere, at anytime. More than 12,000 customers and 1,000 partners worldwide rely on the company's industry leading SQL Anywhere® database and mobile enterprise solutions. In addition, the company's AvantGo® mobile internet service has more than ten million registered subscribers.

<http://www.ianywhere.com/avantgo/aboutus/index.html>

With AvantGo marketing channels, today's leading brands are able to acquire and interact with customers and build brand through targeted mobile campaigns. AvantGo's Dynamic Mobility Model and standards-based architecture enable marketers to build powerful, customized mobile websites ("channels") quickly, using existing Web development tools, and deploy those websites to multiple devices, over multiple networks, seamlessly.

Because AvantGo channels deliver rich, meaningful content through desktop or wireless sync modes, AvantGo users can view mobile websites while waiting in a doctor's office, on a subway, on a break at work. This captive yet active audience tends to interact with synchronized content and ads at a much higher rate than comparable media because they view it in their "downtime." AvantGo can be leveraged for direct marketing, customer loyalty, customer care, and e-commerce campaigns.

AvantGo refers to mobile marketing campaigns for

- GM Showroom: the objective of the campaign was to conduct valuable and cost-effective market research, and to provide car buyers customized information to take with them wherever they go
- RollingStone.com: the target group was "young, hip entertainment consumers", and the objective was to extend the brand to the mobile arena and create new revenue opportunities
- American Airlines: the target group was AA frequent flyers and mobile professionals, and the objective to enhance customer service by providing customers with "on-the-go" information making their travel on AA faster, easier and more frequent

<http://www.ianywhere.com/avantgo/marketing/channels.html>

1.2.3 Network operator messages to roaming customers

Mobile network operators have the right to send messages to their customers' phones without explicit permission. They can also send messages to visitors in their network. Below are some examples of this kind of sms messages that the authors of this report have received when travelling in Europe during 2003. The receiving phones have been registered in Finland, which is why some of the messages are in Finnish.

- Visiting Spain? Dial 121 to get all the information you want: weather, hotels, flights, exchange rate, phone numbers... Vodafone will be glad to help you! [Sender: 121]
- Welcome to Proximus in Belgium. Dial +35880017000 for your home customer care. Have a pleasant stay. [Sender: 32477200124]

- Welcome to BASE, you can dial 2424 for all kinds of information about where to find a doctor, museums, restaurants, the weather forecast and much more! [Sender: 2424]
- Welcome to France on the SFR network. [Sender: 7529]
- Welcome to KPN. Dial 223 for all information during your stay. Where to find a doctor, museum or restaurant? How about tomorrow's weather, events or trains? [Sender: KPN Mobile]
- Welcome to LUXGSM! You are looking for a phone number in Luxembourg? Dial 0118, we will put you through. [Sender: 63024]
- Hello! Welcome to o2 Germany. For national directory inquiry service dial 11833, for international directory inquiry dial 11834. Have a nice stay in Germany! [Sender: 78274]
- Tervetuloa Ruotsiin! Vodafone toivottaa teille mieluista käyntiä! [Sender:]
- Tervetuloa Irlantiin! Puhelinnumero hukassa ? Numerotiedustelu 11850 auttaa. Yleinen hatanumero Irlannissa on 112. Mukavaa vierailua ! Terveisin O2. [Sender: 02]
- Amena welcome you to Spain. Please dial 2211 for any information or tourist guide. We wish you a pleasant stay. [Sender: 2111]

1.3 Web, Mobile and TV Campaigns

1.3.1 Veet re-brand

The Immac brand in UK is known as Veet in the continental Europe. To align the UK strategy with the rest of the Europe, Immac was re-branded with a target group of 16-24 year old women. The promotional marketing agency Brewer Blackler and Kodokan, a digital agency, conducted cross-platform re-branding of product VEET in UK. The channels used were tv, radio, web, sms and email. From the Brewer Blackler website [referenced on 28th October 2003]:

- "We took the ATL creative, using famous name change personalities & created a roadshow using look-a-like models."
- The roadshow was taken to high footfall shopping centres.
- The name change was communicated via a leaflet containing details of a daily SMS competition and money off voucher to incentivise purchase.
- To maximise reach, an E-mail campaign was created and mailed to 1,000,000 18-30 females
 - informing them of the name change
 - encouraging them to click through to a microsite to enter "The Veet Name Change Challenge"
 - to further publicise the microsite and name change 750,000 banner impressions were booked

Results:

14.25% click through response rate from E-mail (7.55% category average)

44.8% of people forwarded the viral email (20% average)
3.3% coupon redemption rate (2% industry average)"

<http://www.brewerblackler.co.uk/?t=Case%20Studies&c=casestudies>

<http://www.kodokan.co.uk/client/veet.php>

1.3.2 Walkers Txt2win promotion

In June 2003, Walkers announced the launch of an exciting new mobile phone promotion for the summer. Walkers 'TXT2WIN' featured on 270 million packs of Walkers Snacks, was the first on pack promotion of its type to include text credits direct to mobile phones. Text credits were compatible across all GSM networks for both contract and prepay mobile phone users. Sony LCD TV's, picture messaging phones, DVD players, PS2's and mobile phone flashing stickers also formed part of the £42 million prize package.

Walkers TXT2WIN campaign was supported with a £750,000, three week, TV advertising campaign created by AMV BBDO, with first airing on 25th June. It was also supported with major in-store Point of Sale.

After purchasing a pack of Walkers Snacks, the consumer texts in their 9 letter TXT2WIN code found in pack, to the 5 digit short dial number printed on the pack: 81000. Consumers then immediately received a text back informing them if they were winners or not. The code could also be entered through the website at <http://www.walkerstxt2win.co.uk>.

Customers could win prizes like TV's, DVD players, PlayStations, and mobile camera phones. Consumers who participated in the campaign via their mobile phone could win ringtones or branded text credits, which were offered directly to consumers' mobile accounts, whereas web customers could win Desk Top Pals. The campaign creative concept was developed by The Marketing Store and the concept realisation and delivery by 12snap.

<http://www.12snap.com>

1.4 Interactive TV Campaigns

1.4.1 Ford

Early Ford interactive efforts with OpenTV included the brands Explorer, Expedition, Excursion, Escape and Focus. The ITV initiative would serve as a lead generator for the car brochure. The campaign gave viewers a chance to "pick up" a customized brochure in a new way. In addition, Ford received data showing the demographic profile of those who saw the ad and those viewers most

interested in requesting further information. The campaign turned out to be the most cost-effective method for Ford to reach those prospects most interested in their offer; the campaign also generated more leads than any of their other advertising programs. Additional media vehicles included multi-dimensional tactics such as Yahoo front-page rich media campaigns, direct mail, and other elements.

<http://www.opentv.com/utilities/success-stories/FordSuccessStory022502-FINAL.pdf>

1.4.2 Viasat / Metro

Viasat's digital TV service was launched in September 2000 and covers the Nordic region and the Baltic States. There are over 500 000 subscribers who receive approximately 30 TV channels and 20 radio channels, as well as a variety of interactive services, including an electronic program guide, a music guide, news, weather, pay-per-view offerings, interactive advertising and an interactive newspaper.

The OpenTV Publisher engine allows broadcasters, network operators and content developers to transform rich internet content into a form that can be delivered on interactive TV services. OpenTV Publisher uses XML to convert any XML-based data source, data stream or content into interactive television content.

The concept offers interactive advertising: A link will appear at the bottom of the TV screen. A click on the remote takes the viewers to a virtual channel where they can access additional information, such as pricing, availability and further product details. A link can also be inserted into a program itself, for example, allowing viewers to find out more about a character's clothing.

The virtual channel is not tied to one specific advertiser; rather the content changes depending on the current advertisement or program that is showing.

The TV version of Metro has proved to be a killer application for Viasat. The Metro magazine is usually given away to commuters at railway stations and bus stations, but has also gone online so that readers can access it from a PC. Additionally, Viasat's OpenTV service has extended Metro's reach into many thousands of homes. Metro was launched in 1995 in Stockholm and has since expanded to 21 editions that are published in 15 countries. Metro is free and supported by advertising - that is, the more eyeballs that see Metro, the better.

<http://www.mtg.se>
<http://www.opentv.com/utilities/success-stories/Viasat2002.pdf>

1.5 Automated Voice Campaigns

Automated voice campaigns are quite common in the United States. Typical features of automated phone call software are:

- An "unlimited" number of voice messages can be stored on a pc hard disk.
- The software can extract call lists directly from the customer database, and can maintain an unlimited number of call lists
- The systems automatically delivers voice messages according to the call list at prearranged times
- Possible customer responses, within voice or touchtone input, are automatically recorded.

http://www.klws.com/avt/products/phone2/body_phone2.html

Voice campaigns have been used e.g. in political elections. The marketing messages are quick to produce and costing pennies each to transmit. A congressional candidate visiting Washington to raise money can record a message over the phone. A phone bank consultant in the Midwest edits the message and links it to a voter database on a computer with a high-volume phone line. Within hours, phones begin to ring across the candidate's California district. Messages often feature celebrity voices such as actors Martin Sheen and Arnold Schwarzenegger, former President Clinton and Laura Bush.

However, voice campaigns are easy to misuse, and there are reports of calls scheduled after midnight, pretending to originate from the competitor. A few states have tried to ban automated political calls, with mixed success.

<http://www.sacbee.com/content/politics/story/5246934p-6253398c.html>

In October 1999, Baltimore County officials have launched a program to alert senior citizens by phone to crimes against the elderly, as police cope with the latest rash of burglaries against older residents.

When senior citizens complain about crimes, such as people trying to enter their homes under false identity, the phone system will call and play a recorded message informing other residents about the pattern of the crime. Senior citizens who join the program will have their phone numbers added to the Police Department's automated dialing system.

http://www.voiceworld.com/Peoplechek/officials_to_launch_new_alert_pr.htm

2 Examples of Services

In this chapter are some cases where not only the campaign but the product itself has been made mobile. This accounts for decreased product costs, decreased distribution costs, better and more personal product quality, high product availability (the mobile is always with you), and increased sales amounts because of easier purchase process.

2.1 Web and Mobile Services

2.1.1 Lonely Planet

Lonely Planet Mobile is available at <http://mobile.lonelyplanet.com>. According to Nokia [Mobile Marketing Association Europe seminar in Helsinki, 15.9.2003], there are 279 hits per day for Nokia 3650 users. Later on, the service opened for S40 phone users, whereby the hit rate doubled without any extra marketing efforts.

2.1.2 MoBull Messenger

In July 2001, the University of South Florida (USF) and Air2Web successfully launched MoBull, a wireless advertising and notification service, in order to both communicate more effectively with students and staff and to generate revenue. As an example of the revenue generating potential of the service, USF stated that if and when 5,000 students sign up for and receive four messages a week, it expects to make annual gross revenues of \$124,800 and net revenues in excess of \$50,000.

MoBull Messenger, built on the Air2Web platform, allows students to sign up for discount coupons from area restaurants, sporting events, nightclubs, and retail stores such as bicycle shops, hair salons and clothing stores. They are receiving the coupons on their cell phones, PDAs, and pagers. As part of MoBull Messenger, students can also sign up for real-time campus information updates such as class meeting changes, school closings, emergency alerts, and payment deadline reminders. Notification Service is an extremely valuable tool that is allows the university to communicate effectively students and staff while generating revenue.

The vendors registered to advertise through MoBull Messenger include restaurants, clothing stores, bike shops, nightclubs and hair salons. The retailers can promote their products almost in real-time. Some vendors claim that they are seeing up to a 10% return on their wireless coupons and are paying as little as 10 to 15 cents per message. Retailers don't have to make any investment in IT infrastructure to participate, but pay a set charge for every coupon they send out.

If, for example, a participating restaurant is having a slow night, the restaurant manager simply goes to the computer, logs onto <http://www.mobull.usf.edu/messenger>, enters the discount they want to offer (such as \$2.00 off any large submarine sandwich), selects the age of the students they want to target (18-21, 22-25, All, etc.), their geographical location (All of Greater Tampa Area, Northwest Tampa, etc.), and then confirms the price per message, the number of messages being sent, etc. The vendor's credit card is then charged the amount calculated and the wireless discount coupon is sent out to the students' cell phone, PDA or pager as instructed.

MoBull Messenger was developed by the USF IT Division and uses the Air2Web Wireless Platform to send SMS Text messages instantly to any wireless device.

[Students Think MoBull Messenger Works on Florida Campus. July 11, 2002, by Matthew Peretz at

<http://www.instantmessagingplanet.com/wireless/article.php/1383781>]

[Further readings at <http://www.mobilevillage.com/yp/air2web.htm>]

2.2 Mobile Services

2.2.1 METRO Future store

In 2002, METRO AG, Intel and SAP announced so-called Future Store Initiative, a cooperation to develop new, advanced technologies and applications for retailing. As part of the initiative, METRO Group opened Extra test supermarket in Rheinberg, Germany, in April 2003.

An integral part of the store are Personal Shopping Assistants, PSAs, which enable tracking of shopper's movements and location-specific promotions. PSA can guide the customers in the store based on their shopping lists and favorites, and allow delicatessen and other prepared items to be pre-ordered directly from the device. It also offers reminders for infrequently purchased items and suggests complementary items to accompany customer purchases on basis of recipes. PSA is a wireless touchscreen device that the customer takes from the charging rack and clips on their trolley as they enter the store. The PSAs are designed by Multichannel Retail Ltd. (MCRL) and Wincor Nixdorf. The localization of a customer in PSA is implemented by Ekahau, Inc.

According to MCRL, "Trials involving a range of consumers have shown a clear indication of a positive impact on revenue, making a strong ROI over a 1-2 year period:

- Basket size increases of over 5%,
- Store-footfall increases of over 2%,
- Increased sales of non-core, high-margin products of over 15%,

- Increased advertising revenue from manufacturers."

In addition to PSAs MCRL offers other services related to retail business, like customer tracking & analysis and shopping list generation.

<http://www.future-store.org/>

http://www.multichannelretail.com/news/news_20030428.html

2.2.2 Mobile postal services

In November 2002, Eesti Post and Plusdial–MTSP–Estonia signed a mutual agreement to develop processes for e.g. ordering products by mobile phone and delivering them by mail.

The first product to be piloted was Estonian singer Ines' single "Highway to Nowhere". According to a survey, 74 % of Estonians bought mobile products for the first time when ordering this single.

http://www.plusdial.net/fin/e_uudised.html?reziim=uudis_naita&uudis_id=86

2.2.3 Leiki News

Leiki News is the "next generation" news application for Symbian and Java phones. The software continuously learns the users' individual taste in news based on their reading behaviour. This saves time and effort by delivering increasingly closely targeted content. There is also an option for explicit feedback whereby the users can provide their preferences for news delivery.

Continuously improving personalisation boosts customer loyalty by reducing the need to switch to another provider. Providers are able to analyse their customers' interest profiles and generate valuable information on user segmentation and detailed interest development. News articles can be accompanied by high quality photographs and graphics, making the service more attractive. Branded as "Reuters Live! powered by Leiki", Leiki News can take in content from any source required.

Three categories of news are available to the user:

- Latest News - 24-hour news service keeps the user up-to-date with the news they want to read about. The best matches to the user profile are shown boldfaced.
- Top News - ranked by the news agency. The best matches to the user profile are shown boldfaced.
- My News - according to learnt interests. The software profiles the user's search phrase and finds the articles with the best matching profiles.

The software also has an SMS interface that can be stand-alone used or as a seamless addition to the mobile and web interfaces.

The end-users receive news services that personalise content based on learning their interests, adding value with no additional effort. The more the services are used, the better they serve the customer and are therefore used more frequently.

The operators gain increased revenues from traffic and usage due to automatic personalisation that results in more interesting content and ease of use.

As the service learns more about the users, so does the service provider. User profiles can be statistically analysed for valuable marketing information.

The operator benefits from Leiki News by selling advertising space when the users are willing to receive advertisements. Advertisements can be sent to certain segments with free-text targeting descriptions and they can appear in the ticker and headlines lists.

The solution is based on Java, and is integrable to portals via Java-API or HTTPinterface, and to Oracle and MySQL databases via JDBC. It supports various content types (.xml, .txt, .doc, .ppt, .pdf).

Supported terminals are Nokia S40 and S60 (others on request) and the connection types are GPRS, HSCSD, GSM data.

http://www.leiki.fi/leiki_news.html

2.2.4 Clarinex Pollen Forecast

Schering Laboratories, the US pharmaceutical marketing arm of Schering-Plough Corporation, is using AvantGo's mobile software to enable allergy sufferers to access regional pollen forecasts and information on allergies and CLARINEX (desloratadine) from their personal digital assistants (PDAs). (1/14/2003)

The customer campaign, initiated and co-developed by the interactive agency i-FRONTIER, is designed to promote awareness of and better prepare individuals for high-allergy seasons.

Using their mobile devices, individuals can enter their zip code directly into the Pollen Forecast to receive a four-day allergy update. For allergy sufferers, the Pollen Forecast provides additional information, including an allergen guide and discussions about seasonal patterns and how to travel with allergies. The mobile site on My AvantGo also serves as a first-stop educational resource about coping with allergies and suggests steps that individuals can take for effective relief of symptoms, including questions for physicians.

"Our goal in providing pollen information directly on PDAs using AvantGo software is to provide easy access to important information for people on-the-go," said Nori Brownstein, Account Manager at i-FRONTIER. "Allergies don't happen according to a schedule, they happen when people are out-and-about, living their

lives. AvantGo provides information to people when they can't get to their computers."

In addition, Jeremy Lockhorn, Director of Media Technologies at i-FRONTIER, said that the agency is very excited to be launching the channel with AvantGo. "We knew that we wanted to have some sort of mobile solution to help people on the go manage their allergies, and after a good bit of research, we decided that AvantGo is the best solution for our client."

"Forward-thinking pharmaceutical companies are quickly adopting mobile solutions because they understand how effective they can be in providing additional value-added services, 24 hours a day, to patients," added Ojas Rege, Vice President of Applications for AvantGo. "Our award-winning AvantGo software provides an ideal platform for delivering robust services where users have easy access to the information they need, and they can request more information as they need it."

<http://www.eyeforpharma.com/index.asp?news=34340>

2.2.5 HKL tram and metro tickets

The Helsinki Traffic Authority (HKL) has been awarded for the best mobile service in Finland. Passengers can order a mobile ticket by sending an ordinary SMS message to number 16353. The ticket arrives in real-time when it's ordered and is automatically recorded onto the customer's phone bill. All major mobile network operators in Finland, including Sonera, Radiolinja and Telia, have opened their network access for the SMS-ticket service.

The ticket is valid on trams and metro in Helsinki, and on the ferry to the Suomenlinna island. So far there are only single mobile tickets.

The mobile ticket has been in use since December 2000. By May 2002, one and a half million tickets had been sold. The service has been provided by Plusdial Oy, an European mobile ticket provider, and Add2Phone Ltd.

http://www.plusdial.net/fin/e_uudised.html?reziim=uudis_naita&uudis_id=91
http://www.add2phone.com/pressevent_09_21_2001.html

According to a Tieke survey in October 2003, 55% of single tram tickets are now bought by mobile phone, and total 9.4% of single tickets. The mobile ticketing system decreases the amount of free passengers. Almost a third of those who bought a mobile ticket would not have bought a ticket at all if the SMS service had not been available.

<http://www.tieke.fi/online/uutiset.nsf/duid/2f5af27bb3492ad9c2256dc10037dd7f>

2.2.6 Travelocity flight booking

Travel website Travelocity.com announced the launch of the first worldwide, mobile flight-booking tool (which includes rebooking - the hypothetical example always seems to be about booking). Using the Travelocity service, which operates both on cell phones and wireless Palm devices, travelers who've unexpectedly had their wings clipped by changes in their travel plans can book flights on more than 95% of all airline seats sold. Travelocity already offered several information options for jet-setters, including the ability to review existing flight itineraries, check flight status, review flight schedules for all major airlines, and view the weather in all major U.S. cities.

On the one hand, Travelocity isn't pitching this as a CRM service per se. On the other hand, rebooking is a customer service process, plain and simple. And offering a user who's already bought a ticket the chance to change flights with the touch of a few buttons when they're running ahead or behind schedule is a definitely a way to add value to interactions with that customer.

Travelocity has a track record in the wireless space -- it was a pioneer in flight paging services, launching that service in 1997. Beginning in 1999, the company formed partnerships with wireless companies British Telecom, Vodafone, AT&T Wireless, and OmniSky.

[CRM in the Streets. Richardson, Robert, Computer Telephony, (Jan 2001) Vol. 9, No. 1, pp. 57. ISSN: 1072-1711.]

2.2.7 British Airways ticket purchase

In October 2000, Equant announced it is providing a wireless Internet service that enables British Airways' corporate passengers to purchase tickets using Nokia mobile phones. It uses Nokia 7110 WAP-enabled mobile telephones and enables passengers to select flights negotiated by their corporate travel department with British Airways. It also ensures flights booked adhere to the corporate passengers' travel policies. The mobile Internet interface is fully integrated with British Airways' reservation system which uses Equant's i-traveldirect booking engine for all online bookings and as a seamless extension to their distribution systems. ZISHI Ltd. is providing the WAP application development and mobile operator connectivity.

Equant operates the world's largest network, providing voice, data, Internet integration, and application services to companies around the globe. The network reaches key business centers in more than 220 countries and territories.

ZISHI Limited is a mobile CRM application service provider that specialises in the provision of integrated mobile CRM services to companies who wish to leverage the new mobile Internet channel to identify, acquire and retain their most profitable individual customers through unprecedented personalized service.

<http://ent.client.shareholder.com/news/20001004-24551.cfm>

2.2.8 Lufthansa check-in

On most airports, flight inchecking can be done by special machines at the airport, or even by phone. Lufthansa has taken the self-service check in even further by sending SMS messages to passengers and asking them to check in simply by replying to the message.

<http://www.lufthansa.com>

2.2.9 Flight delays alert

Appriss (<http://www.appriss.com>) actually represents technology for criminal justice, but has also created time-critical alerting applications such as flight departures for American Airlines. Appriss gets real-time XML documents whenever frequent flyers register on American's site to be notified. American also sends Appriss any changes to the regular flight schedules; this is constantly monitored against a registrant's notification preferences.

For text, Appriss creates an SMS message and sends that to the carriers' wireless gateways in North America. They are partnering with another provider for the wireless gateway for Europe. It's a one-way SMS ; Appriss does not now implement WAP or two-way SMS.

Par3 is an ASP with a comprehensive alerting offering, with CPE components and host servers. The company installs an "XTAP gateway" on the client prem that hooks into data and waits for its cues, to alert the client's customers to such things as merchandise shipped and payments received. It, too, wants feedback: It can function as a "pushed IVR," completing transactions or transferring the call to live agents on request. Of course, notification is not limited to voice; SMS , WAP , and email are also options.

Triggering data can come from other sources besides the enterprise; one good example is the Worldspan flight time database, from which Northwest Airlines can alert customers about delayed flights. If this customer is of a certain standing, he or she can be offered a later flight; the Par3 system can make changes to the ticketing database based on the notified customer's response to the alert.

[Notification engines and apps. Muraskin, Ellen, Communications Convergence,

(Oct 2001) Vol. 9, No. 10, pp. 32(12). ISSN: ISSN: 1534-2840.]

2.2.10 WorldMate Traveler's utility

Rounding out its offering for the Symbian OS platform, MobiMate has now made available a version of its WorldMate travelers' utility for Nokia's Series 60 platform.

Following the launch of versions for the Palm OS, Pocket PC and UIQ platforms, MobiMate has now released a version of its popular WorldMate traveler's utility for the Series 60 platform. As on other platforms, WorldMate on the Series 60 lets travelers check up on world time, weather forecasts and the latest currency rates - and in the case of the latter two, synchronise information wirelessly.

The World Clocks feature of WorldMate lets users compare 4 world clocks from any of over 250 cities to the user's home time, with automatic daylight savings time calculation. Similarly, weather forecasts provided by The Weather Channel are available for over 250 cities, while a currency converter lets users convert sums in 3 currencies at once. Both currencies and weather forecast information can be updated wirelessly.

<http://www.infosyncworld.com/news/n/3736.html>

2.2.11 The Weather Channel

The Weather Channel service is based on Air2Web's 2Notify solution. 2Notify supports messaging to a variety of landline and mobile devices including SMS, WAP and landline phones, PDAs, interactive pagers and desktop email systems.

http://www.air2web.com/solutions_home.jsp

<http://www.mobilevillage.com/yp/air2web.htm>

2.3 Web, Mobile and TV Services

2.3.1 Huoneistokeskus real estate agent

Market trends indicate that real estate services are moving entirely towards the web. At Huoneistokeskus, the use of internet services has doubled during the last year. There are over 140 000 visitors monthly.

On the web, customers can get more individual services than in newspapers. Customers' contact attempts through the web are more targeted than by phone, thus the real estate agent gets more time to find more sales objects, to serve customers on a more individual level, and to participate in the sales process.

The Kotivahti (home guard) service is now being strongly developed. The search results are displayed signed by the salesperson's name, which is a good reason to call the customer and keep the contact alive.

The Huoneistokeskus web pages have been developed by Sentera (merge of former Solagem and Iocore). The benefits of the project were increased customer satisfaction, more efficient recruitment of new customers, and more efficient business processes.

On the web page, log data is analyzed. The salesperson will know how many clicks there have been to a certain sales object, related to average amounts of clicks. Twice a year customers are analyzed more elaborately, by. e.g. regression analysis.

There is also a picture message service, which is not used very much so far. By SMS messages the customers can order MMS packages containing pictures etc. Every sales object has its own reference number, which should be quoted when ordering additional information. The newest objects can be viewed in Text TV on Channel 4.

[Krista Ruohonen, Huoneistokeskus in Profit Web seminar 25.9.2003]

http://www.sentera.fi/fi/asiakkaat_ja_kumppanit/Caset/Huoneistokeskus_case.html

2.3.2 Jippii

The Jippii J-MAP product is comprised of several functional elements that can be integrated into customer environments individually or as a complete wireless solution. A database of wireless content created by in-house professional musicians and graphic designers suitable for use in the majority of wireless handset devices. The content is fully categorized, updated on a weekly basis, and managed through a range of on-line tools. Jippii's content production team creates branded content on behalf of rights holders, or creates unique content to suit particular applications. Example of existing content includes color graphics and animation, wireless gaming (single or multiplayer Java games that can be downloaded into supporting J2ME devices), ringtone Composer - a comprehensive on-line tool for composing, editing and saving Nokia format monophonic ringtones, and a graphics editor - a comprehensive on-line tool for creating, editing and saving Nokia format monochromic graphics such as logos and picture messages.

A series of customizable SMS applications that can be utilized to compliment a range of marketing or promotions activities, or as innovative stand-alone products for revenue generation, such as SMS Voting (through TV, on-line, radio or print media), SMS Feedback - end users can send text messages to a premium rate number with comments or requests, SMS Competitions (end users can send text messages to a premium rate number with feedback information to competitions promoted through TV, on-line, radio or print media). The data is collected, sorted, analyzed and acted upon according to the desired use.

Additional features are SMS Dating (end users interact anonymously via text messages in on-line/TV or non-moderated environments) and TV Chat / Dating (end users interact anonymously via text messages in a moderated TV environment).

An easy-to-integrate, private-label portal can be fully customized into any partner portal as a micro-site or as a stand-alone product.

Jippii has a range of ordering and billing mechanisms available to suit particular application and market requirements.

The Premium SMS utilizes Jippii's extensive network of direct reverse-billing agreements with over 35 wireless carriers, end users can conveniently order wireless content by sending an SMS request to a premium rate number and be billed in their regular phone bill. The SMS request will commonly consist of a keyword and content identifier

The Interactive Voice Response (IVR) enables end-users call a premium rate 900-number and follow voice prompts to select the desired product.

The Credit Card via Web is a method for end-users to purchase content on-line, using a standard credit card on internet portals.

Jippii also claims to develop or integrate customized services into a partners existing billing system, such as premium WAP or token based purchasing models. Utilizing Jippii's extensive direct connectivity agreements with carriers and third parties worldwide, Jippii provides the ability to distribute wireless content to over 400 million customers in Europe and North America.

The distribution channel Jippii Club is an entertaining on-line community youth portal offering a vast array of products, experiences and interaction. Available in over 20 countries in more than a dozen languages, some of the most popular products include:

- Gaming, on-line java gaming community where consumers can play single-player games or challenge opponents in multiplayer games in various "game houses."
- Community - A range of interactive on-line services such as free e-mail, chat rooms, bulletin boards, etc.
- MobileFun - the distribution channel for J-MAP content and SMS services
- Promotions - Banner advertising and splash page promotion programs and tools for third parties to access Jippii Club's worldwide community.

<http://www.jippii.co.uk/jsp/mobile/index.jsp>
<http://www.biz.jippii.com/products/index.shtml>

2.4 Web and TV Services

2.4.1 Veikkaus lotto coupons

In May 2001, Veikkaus Oy introduced a new way to play lotto through Digital TV. The player must have access to a digital box or a digital TV, and a return channel. Playing is as easy as playing lotto through the web. By pressing the numbers on the remote control, the players can compose their coupons. By registering at the Veikkaus web site, the players get personal accounts.

The Digital TV Lotto service has been developed by Veikkaus, MTV3 and Sofia Digital.

<http://www.veikkaus.fi/yrittys/mediapalvelu/tiedotteet/ut140502.html>

2.4.2 Osuuspankki banking services

Osuuspankki bank is the first banking group in Finland that provides digital TV services. Sampo bank and Nordea say that they are ready to provide digital TV services, too. Osuuspankki bank's services are available on MTV3's digital channels. Modirum Oy is responsible for the mhp-system.

[Kauppalehti 21-05-02]

In November 2001, Osuuspankki piloted payments of invoices through the digital television remote control. Previously Sampo Bank has presented a similar pilot.

http://www.digitoday.fi/showPage.php?page_id=11&news_id=19691

2.5 Interactive TV Services

2.5.1 Shanghai Cable Network

The Chinese Cable TV industry is the largest in the world with nearly 100 million subscribers. Shanghai Cable Network's launch of OpenTV is the first large-scale deployment of Interactive TV in China.

The deployment applies a set of interactive applications, such as EPG, stock, and simple games. OpenTV also has the ability to offer advanced services, introduce formalized billing services, segment their audience, and offer programming and

applications key to special demographic. Shanghai Cable will be aggressively moving into transactional applications, t-commerce and forms of communication such as chat and SMS.

<http://www.opentv.com/utilities/success-stories/SCN.pdf>

2.5.2 InteracT!V

InteracT!V introduced a range of German interactive TV services in a showcase at IBC in September 2003 in Amsterdam.

By using the remote control the viewer can order a range of products and the catalogue, book holidays, book a test drive directly from an iTV advertisement, answer quiz questions, and play lotto. The viewer's feedback is sent to InteracT!V via a mobile return channel. The return channel service is free of charge and works "plug&play" without any additional wires to be installed in the living room.

The iTV services of Interact!v are implemented in cooperation with German content partners like Quelle AG, TUI.de, Volkswagen AG, Süddeutsche Klassenlotterie and Westdeutsche Lotterie.

The iTV services of Interact!v have been built with Sofia Digital, the MHP Partner of InteracT!V. The solutions are based on Sofia Digital's standard products Sofia Agora (commerce and advertising), Sofia Arcade (gaming), and Sofia Annex (enhanced TV programming).

InteracT!V is the return channel service provider and clearance center for TV-Stations and content partners and will introduce its service in 2004 in Germany. The cost efficient return-channel-service can be used in all digital broadcasting networks, besides satellite and DVB-T even in non-upgraded cable networks.

Sofia Digital provides solutions for interactive TV services across the world. The products consist of tools for content providers, server applications for operators, MHP applications for receivers, and applications for return channel servers. Sofia Digital has built the world's first interactive digital TV services using the DVB-MHP.

<http://www.sofiadigital.com/11092003.html>

Sofia Amigo® integrates chat, SMS, MMS, Instant Messaging, and email to the TV. With Sofia Amigo® you can launch dating and other interactive services built around viewer communities on TV. The product supports connectivity with mobile operators' existing SMS and MMS platforms, connectivity with existing

mobile operators' service and billing platforms, scalability with large number of messages, multiple output platforms like digital TV with MHP, analogue TV, mobile and web; and return channels. It is based on common standards like XML, SOAP and IMAP. The tool gathers information on service usage for mobile marketing

<http://www.sofiadigital.fi/amigo.html>

3 Examples of Communities

Maintaining on-line communities to back up one-to-one marketing is strategically very important. The feedback from customers is one channel to get customer opinions and ideas. Having said that, the most important reason to maintain communities is to create a dialogue among customers, not with the company itself.

[Source: Customer Relationship Marketing with Online Communities, Maria Mäntymäki & Tuula Mittilä, School of Business Administration, University of Tampere].

3.1 Web Communities

3.1.1 Habbo Hotel Kultakala

Habbo Hotel Kultakala is a virtual internet community made by Sulake Labs Oy. Taivas and Elisa are main owners. The annual turnover is now 6 million €, and the staff amounts to 50 persons.

The community is a virtual hotel with surroundings. The main user group is 13-16 years old youngsters, and the number of simultaneous users in the hotel can be about 2500. According to the concept, a user can create an own virtual character deciding clothes and hairstyle, log in to the virtual hotel, have a room and spend time exploring the hotel and chatting with other hotel guests, among other things. Creation of the character, opening of a room, visiting the hotel and chatting is free of charge. The user can also buy furniture into his/her room and play some games. These things cost "habbo-coins" which can be bought by internet or mobile phone. There are several different styles of furniture, e.g. "Armas" chairs and tables of countryside style or "PolyFon" design furniture of steel and blue textiles. Additionally, the user can have posters, carpets, etc. to decorate the rooms more.

The community facilities include chatting in the hotel and messaging. The chat is based in the rooms, and the users can chat with the other users in the room. There

are both public rooms like lobby, part or cafe, and private rooms of the users. The chatting can be private, from one user to another, or public, open to all the other users near the speaker or open to all the users in the same room. With messaging the user can send messages to his/her friends, e.g. to find out in which room are they in.

What makes the concept less attractive is that the income comes from children and teenagers. The players use an average of 10 € per month, but most of the hotel visitors don't pay anything on most of their visits. "Its better for kids to spend their spare time in a safe supervised environment, playing and chatting, than to buy a violent playstation game for 60 €", claims Timo Soininen of Sulake Labs.

The chats are supervised, and the hotel has a virtual anti-drug bus.

The network operators charge "a lot" for paying transactions, but the credit card companies and banks are entering the market with much lower fees for service providers.

In addition to Finland, the Habbo Hotel is working in United Kingdom and Switzerland. In Korea, there is a similar service attracting 3 million users monthly.

<http://www.kultakala.com>

[Timo Soininen, Sulake Labs Oy in Profit Web seminar, 25.9.2003]

3.1.2 eBay

Around the eBay marketplace has developed a community that provides information for newcomers, an answer center for fast answers to your questions, a calendar with eBay-related events on the web and elsewhere, interviews with eBay members, Collectors Clubs (for antiques, coins, glass, jewelry, pottery, stamps, toys etc), Sellers Groups (at the moment there are 189 Sellers groups, for e.g. musical instrument sellers, clothing and accessories, home electronics) Special Interest groups (e.g. for artists, or motor enthusiasts, or children's books), and of course chats.

<http://www.ebay.com/community>

eBay's Todd Maderios, director of business development, explains that "Community is vital to eBay's success, and as a company we must do everything we can to ensure that our users are happy with the eBay experience, whether that's online or in a wireless environment. 2Roam not only created a quality extension of our online experience, they've been extremely responsive to our requests and to the requests of our user community."

In 2001, together with Wireless ASP 2Roam, eBay launched eBay Anywhere, touting it as the first wireless auction service in the industry.

2Roam's wireless solution for eBay includes the optimization of the wireless user experience, ensuring that the eBay community receives the same user-friendly experience on its preferred mobile device as from its PC. Further, 2Roam's XML-based architecture converts eBay's content into the vast array of wireless formats and carrier protocols that exist today, and is flexible to handle emerging offerings in the future. 2Roam's support for all network protocols also ensures that eBay can meet the growing content needs of its global customers. The result is anytime, anywhere access to eBay from any Internet-enabled mobile device. A happy customer, eBay is freed up to focus on what it does best.

[Valerie Lewis: Now Playing: A new acronym with a bright future America's Network Competitive Carrier Supplement, p 8 March 2001]

3.1.3 Arabia.com

Arabia.com is a community for people with an Arabic background, living abroad. The community provides instant messaging, email and web services, in either English or Arabic. The content has an emphasis on cultural issues, such as a quiz about Ramadan. There are also generic elements, like information about popular and classical Western music, and there is a sponsored link to Amazon.com. When someone enters the Amazon site through this link, Amazon can use this fact when profiling the customer.

<http://www.arabia.com>

3.2 Web and Mobile Communities

3.2.1 Club Nokia

Mobile phone users can register as members of Club Nokia on the club website. The members get announcements about club events, news and services few times a year. E.g. "Welcome to test N-Gage. The best testers can win the phone. More information at www.klubipostia.net." Or "Are you classic & elegant or futuristic & daring? New phones are searching for test users. Seriously, at www.klubipostia.fi - Club Nokia".

The member can choose which channels s/he prefers, SMS, email or letter.

<http://www.nokia.fi/puhelimet/clubnokia/>

3.2.2 O2 MyWAP

The purpose of the myWAP community is to promote (mostly free) services of the German telecom operator O2, such as on-line activating of new SIM cards, extension of prepaid agreements, address changes, on line invoices, or usage of the same phone number for several wireless applications. There are also chats, ringtones and newsgroups offered (movies, sports, weather, stock exchange), on line mailing of mms pictures to friends, and on-line software to create your own homepage. Users can collect O2 bonus points and trade them for "valuable services".

<http://www.en.mywap.o2online.de/intro/php3>

3.2.3 MatrixM

The MatrixM community offers web and mobile users chats, tech support, news, ringtones, screensavers, contests, pictures and videos.

<http://www.matrixm.com/forum/>

3.2.4 Hibernian FC

The Scottish football club Hibernian FC has established mobile phone based connection with their fans. The connection is two-way and it includes

- Live Man of the Match voting by text message
 - Opt-in list for the fans for regular, direct and targeted news and marketing messages by SMS (team news, injuries and fitness reports, manager comments, special ticket offers, match reports, new season ticket pricing, entertainment facilities within the stadium, etc.)
 - The latest match action photos and highlights send to fans by MMS on season 2003/2004. Either subscription to the delivery list or downloading the images.
- The club has also
- a weekly email newsletter
 - a website offering news, tickets, fan stuff including wallpapers, logos, EMS and ringtones for mobile phones

The mobile services are implemented by Carbon Partners, a mobile media company based in UK.

<http://www.hibernianfc.co.uk/>

http://www.carbonpartners.co.uk/releases/release_2002_13.html

3.2.5 The bird report SMS

The birdwatcher association in Finland (Bongariliitto) has a service for reporting rare bird sights to the members of the association. The member can subscribe to the service on a website and after subscription s/he will get reports by email or SMS about the rare birds reported. The member has a profile with species, areas and months s/he is interested in. In addition to getting reports about the birds the member can also report her/his own sights by SMS and these reports will be forwarded to the subscribers with the suitable profile. The subscriber pays for the SMS bird reports in advance.

The service is implemented by Santa Margarita SA, a Finnish-French IT company.

<http://www.santamargarita.fi/lintutiedotus/>
http://www.bongariliitto.fi/yhdistys/lintutied_ohjeet.html

3.2.6 HP Mobile e-Services Bazaar

The HP Mobile e-Services Bazaar is available at <http://www.hpbazaar.com> and is a business model designed to be an “ecosystem” of people and businesses creating new e-services for mobile and wireless markets. The Bazaar is both a physical and cyber-based centre for innovation as exciting new mobile technologies emerge. It provides an environment for its 400 plus members to incubate new ideas, strategies and technologies.

As a community of wireless vendors, mobile device manufacturers and service providers sponsored by HP, the Bazaar’s purpose is to develop and implement mobile e-services that will change the way we live, work and play. Participants can view and test new mobile e-services, collect relevant information and gain access to a constant supply of innovative new solutions.

<http://www.hp.ca/portal/wireless/emobile/?device=printable>

Hewlett-Packard has put together the HP MMS Bazaar Bundle - a complete set of applications and content from HP’s Mobile Bazaar program designed to enable mobile operators to launch proven and innovative MMS end-user services easily and cost-effectively.

“The Bundle provides a pre-packaged set of applications from the industry’s best-known mobile messaging providers,” explained Olivier Poulain, mobile solutions business manager, mobile segment, HP. “These HP partner companies complement each other, and the applications are completely integrated for the kind of de facto package an operator would need to launch MMS services.”

Add2Phone's Mobile Advertising Server product provides a strategic horizontal part in the HP MMS Bazaar Bundle, a CRM component called Messaging Booster. Messaging Booster provides easy and powerful tools to launch and promote new services to operators' customers and increase the usage of existing HP MMS Bundle Services.

Add2Phone is Europe's market-leading technology provider for the mobile marketing and CRM applications market. Add2Phone's SMS and MMS-enabled products include Mobile Advertising Server, Mobile Content Server and Mobile Competition Server.

http://www.add2phone.com/pressevent_08_01_2003.html

3.2.7 Blah!

Blah is a community service for native speakers of Spanish, mainly immigrants to the U.S.A. The user can choose from different countries of origin: Argentina, Bolivia, Brazil, Chile, Paraguay, Peru, Venezuela and U.S.

The chat service so far works on web and SMS.

<http://www.blah.com>

3.2.8 Small Planet Multichannel Chat

SmartTrust MChat is a configurable and versatile cross-media communications tool that enables people to communicate independent of time, place and access device. Small Planet has integrated the latest version of their commercially proven multichannel chat application MChat with the SmartTrust WIB (Wireless Internet Browser).

MChat is the anonymous real-time chat accessible via WIB, web, SMS, WAP, MMS and TV interfaces and can be used commercially for the viewing and participating in chat sessions on both TV text and broadcast channels. A registered user can create a personal chat identity and define preferences for their ideal chat partner. This enables users to be matched according to their preferences. The user is identified by a nickname and the user profile is referred to as the personal chat identity. MChat also supports user created clubs, which are basically virtual groups of people. The club members can have private conversations in their own chat rooms.

The WIB provides a very convenient interface for registering, viewing profiles, managing buddy lists, sending messages to TV channels, selecting WAP channels and launching a WAP browser if available. A nice feature to generate a lot of SMS traffic is being able to send random chat messages to menu-selected multiple users (e.g. a random group of 1, 5 or 10) as a way of setting up one-to-one chat sessions.

<http://www.smarttrust.com/infotainment/chat.asp>

3.3 Web and TV Communities

3.3.1 Sooda

Sooda is a cross-media brand with a dynamic and innovative community. The target audience are young people, 12-19 years of age. The website was first launched on January 1st 2000. Most of the visitors at the moment are girls but the number of male Sooda friends is increasing.

In September 2002, Ortikon Interactive Ltd and Nicefactory Ltd launched Sooda, the cross media community of Nicefactory Ltd, to the digital TV platform. People that were used to having Sooda content on the internet, as a school calendar and in their mobile phones, could also reach it on their television screens.

Sooda offers latest news about music, movies, television and games. You can ask a doctor for advice, chat, participate in the various discussion groups or learn to create a club card of your own with HTML. Sooda intends to function as a smooth stepping stone for the young on their way to the world of the Internet and computers. More importantly, it serves as an inspiring forum for girls as well, since it gives the opportunity to create one's own content on the web.

Schools and teachers are welcome to use Sooda as a forum in their students' media education. Its youthful and dynamic appearance is sure to arouse the students' interest in the Internet while its interactive sections provide an outlet for their own creativity.

Sooda is ready to take its concept to the Asian market in the near future.

The solution consists of three main components: There are links between the Sooda content data bases and the Ortikon ACE Core Server, which manages the publishing of the content to the digital television. On the client side there are two applications that show the content to the customer. The portal www.sooda.com is utilized to view the web content on the television screen. The service is simple to use with a TV remote control.

The solution combines broadcast media and internet content.

<http://www.sooda.com>

http://www.ortikon.com/pdf_news/Ortikon_press_release_13092002.pdf

3.4 Mobile and TV Communities

In Europe currently, 50 per cent of SMS-TV proceeds after tax go to the MNO, or 0.40 € of an average 1.00 € message, with a solution provider taking an average cut of 0.15 €. Content providers net the rest.

Channel 4 in UK had a popular TV show called Big Brother 3, sponsored by the mobile operator O2. A total of 6.6 million text messages were sent in to the show. Half of these were eviction votes, which cost around 0.25 £ each. The remainder were requests for Big Brother ringtones, logos and news updates. Total revenues from premium SMS votes sent by viewers of UK TV show 'Big Brother' have topped US\$1.3 million.

In the Netherlands, Dutch TV company TMF reported that it had to shut down its SMS service because it was too popular. During the first three months of the channel's SMS-TV services 50,000 youths registered by creating a digital passport which includes a photograph. The picture is shown on the television screen when an SMS-message of the user is displayed. TMF had SMS-enabled 25 to 30 per cent of its programming, and interlinks its branded SMS applications such as iMode, Chatbox and the ID system, with each other, and within the station.

TV2 in Norway has introduced the concept of 'Off Time' television whereby the television screen is used as an SMS message board during the off time hours of the station.

[Graham Brown on <http://www.w2forum.com/>]

3.4.1 Mobile Kemopetrol

In February 2003, Fun2Phone announced that it has completed its first collaboration project as a member of the HP mobile e-services bazaar by creating an interactive TV program (SMS-TV) to expand an e-services set for the music industry, "Mobile Kemopetrol", first built around Finnish rock band Kemopetrol. The services set is destined to change the face of the music industry, increasing value for fans and revenue for mobile operators, record and media companies. Mobile Kemopetrol bundles cutting-edge mobile e-services into a music-centered solution designed to strengthen the community of music fans, improve communication between artists and their fans, provide incentive and added value for legally-purchased music, and establish new revenue streams for the music industry.

Fun2Phone's TV solution collects all the band related value-added mobile services to one source, a television program called Music Chat, and adds some interactivity to it via mobile phones – making it a very powerful marketing tool for music. At the same time, similar interactive services on television are becoming one of the most profitable mobile services in the world, generating revenue both for the media companies, operators and brand-owners. Indirect benefits include increased audience levels, customer loyalty and brand-awareness.

Music Chat is an Interactive TV program that comprises an interactive Phone-to-

TV Chat, live video broadcast, voting for best video, and a set of value added services, such as ring tones of selected artists, mobile greeting cards, Java games and artists' news and gossip subscription services that are promoted in the program and can be downloaded to the mobile phone by the viewers.

<http://www.fun2phone.com/pressrelease2.html>

3.4.2 T-Mobile SMS/ RTL Teletext

Customers of German mobile operator T-Mobile can now chat with people on TV via RTL Teletext, and vice versa. SMS TV chat for 0.29 € /message, the Teletext messages are 0.49 €.

The chat is available in German or Turkish languages. RTL also has a community that includes email.

<http://www.t-mobile.de/dsds/community>
http://www.rtl.de/computer/pc_780988.html

3.4.3 MTV

The music television channel MTV offers chats via SMS and TV in several European countries.

http://www.mtv.it/mobile/sms_chat.asp

3.4.4 MSN

The Microsoft Network communities are country-specific (the example below is from Australia). MSN provides news, chats, ringtones, sms message sending capabilities, hotmail mobile, mobile games, shopping, and jobs.

<http://www.ninemsn.com.au>

MSN TV is a product group within Microsoft Corp's MSN division. By connecting to a television and existing phone line, MSN TV service subscribers can surf the Web, send and receive e-mail, chat, and create instant messages .

Formerly WebTV, MSN TV was acquired by Microsoft in 1997 and renamed in July 2001 to better reflect the natural synergies between the WebTV service and the vast array of Microsoft® and MSN resources. In June 2002, MSN TV

unveiled its new Internet receiver and pricing plans to give subscribers even easier access to popular MSN content, including the Hotmail® Web-based e-mail service, news and more.

All customers need to get started is the MSN TV Internet receiver from RCA. Users simply hook it up to their television and phone line and subscribe to the MSN TV service. The receiver includes a built-in 56 Kbps modem. Once the receiver is set up, customers can choose from two registration alternatives: Unlimited Internet Access \$21.95 per month (including both MSN internet access on a PC and MSN TV service), or maximum of five hours of Internet Access \$9.95 per month (additional hours are \$2.95 per hour).

With the MSN TV service, subscribers can

- explore the Internet from their television
- have up to six private e-mail addresses
- build their own Web site
- chat right from their sofa
- exchange instant messages with other MSN TV service subscribers, or others who use MSN Messenger Service on their personal computers
- access up-to-the minute information on news, money, sports, entertainment, shopping and more
- use SurfWatch, which helps keep kids from accessing mature Web site content.

<http://www.microsoft.com/presspass/newsroom/msn/factsheet/msntvfs.asp>

3.5 Web, Mobile and TV Communities

3.5.1 AnnyWay

Anny Way is the international brand for Mobile Communications by Materna Information & Communications. The Anny Way Mobile Community consists of a number of databases and comprehensive features which can be used in (almost) all core services. The availability depends on the resources of the mobile network operator. Thus, the Anny Way application processes for instance location data. Important for all services is the context which is built by the user's friends (saved in a buddy- list). Thus, the community reflects the real life of teenagers and grants the mobile handset a central role in the "administration" and maintenance of social contacts, regardless whether they are related to well-known or unknown friends. The functionalities of the Community are:

- Access to the Mobile Community either via Web, SMS-MO, WAP Push or Videotext
- Creation of buddy-lists using SMS-MO or WAP including location-functionality

- Support of different types of chat like Web, WAP, SMS, and TV-videotext-chat/interactive TV
- Integration of an SMS-flirt-application with the possibility to create different categories and agents
- Support of ordering ringtones and logos via Web, SMS-MO, IVR and WAP

<http://www.annyway.com>

4 Examples of Entertainment

It's difficult to define entertainment as a category. If a game is played by several players, the entertainment is overlapping with communities. Entertainment can also be part of a market campaign, in order to collect more data about the customers, or a way to launch or support a brand. Similarly, a skilfully implemented service can be experienced as entertainment.

4.1 Mobile Entertainment

4.1.1 Nokia Game

Nokia Game is an annual, international and several days long mobile game with multimedia features. The game itself relates mobile (SMS, automated calls) and web-channels, but so far also television, radio and newspapers have been included sometime. The game evolves every year, but in principle it consists of different tasks and subgames for the players. The players may get hints and assignments for the game by SMS, automated calls, television or radio commercials, or newspaper advertisements, among other things. The players are also encouraged to form teams for the play and communities of players may share experiences or hints in the game chat rooms.

On year 2003 the game started on 19th November and was planned to last for 10 days.

4.1.2 Nightfly

Nightfly began in 1999 as a new business venture by Diageo (owner of Guinness, Cuervo, and Seagram's). Diageo closed its mobile marketing subsidiary Nightfly after failing to find a partner to take the business to the next stage.

Nightfly's original proposition was to build an opt-in SMS database through face-to-face sign-up in venues, pubs and clubs, creating a highly profiled database. Diageo is now looking to integrate this with its other consumer databases for future campaigns.

As a market leader among 18-24 years olds, Diageo saw the potential to tap into that age group through their communication channel of choice, the mobile phone. Nightfly was developed to be their "mobile lifestyle guide" with a focus on drinks promotions, nightlife information and music.

Nightfly was differentiated from its competition because it was built its own information-rich proprietary database. The company sent field-marketing teams to UK pubs, clubs and bars to get partygoers to fill in registration forms about themselves. The questions included their interests, music and drink preferences, where they shop, what newspaper they read and how many messages a week they wanted to receive. Registration was confirmed with an initial text message. With that information Nightfly could guarantee users only get the information they were interested in and only as often as they specify. Plus, every six weeks a text message was sent out asking users if they wanted to unsubscribe; they could do so anytime on the website.

On average, Nightfly sent 60,000-70,000 messages per week and had an average response rate of 10-20%. The best campaign to date was for a Guinness offer during the World Cup. The offer was a discounted price on 13 cans of Guinness at a top UK grocer, ASDA, and a free "mullet" wig resembling the hairdo belonging to the recipient's favourite footballer. Average response rates over the 4-week campaign were 45%.

In a promotion Nightfly did with Archers Aqua (an alco-pop sold in the UK) on the night of Valentine's Day in 23 bars. Consumers in the bar who wished to participate entered the number on the bar poster into their phones, said "join," and were then given another number which they ultimately wore on their shirts. Throughout the evening, people sent and received text messages to and from other "players" in the bar with corresponding numbers, all the while drinking their Archers Aqua, of course. A survey was done 1 ½ weeks after the event which found that brand recall of Archers by participants was 59%, 43% have drunk Archers Aqua since that night, and 62% would participate in another flirt night.

The initial assignment was to project manage the implementation of Nightfly web site, CRM database and SMS text messaging systems to a very tight schedule. Many other short and longer assignments followed on from the successful completion of this. Services delivered included:

- Planning and managing development and implementation of web site, CRM database and associated SMS messaging systems for a prototype and a final system.
- Managing deliverables from external suppliers: Talkcast Corporation PLC, iDesk, March Intranet.

- Defining, implementing and supporting SMS based games for Nightfly clients including Flirt Nights, a Carling Football game and a Smirnoff Ice scratch card game.

<http://www.thebarn.demon.co.uk/Nightfly.htm>

<http://www.celticmalts.com/Newsletter/2003-WSWA.pdf>

<http://emerging.com/eistroll/londonstroll080802.shtml>

4.2 Mobile and TV Entertainment

4.2.1 WaterWar

The SMS-TV-controlled multiplayer action game, won Best Mobile Multimedia Product Award in Europe in April 2003. WaterWar is a multi-player action game played on television via mobile phones, where two teams compete via SMS to dominate the game area. It enables users to experience a widely featured, challenging and addictive game using simple everyday technology. This game for up to 50 players at a time is an excellent example of interactive television supported by SMS-technology. The game involves a clear business model, where as the TV-chat integrated into the concept strengthens the community aspect of the game.

WaterWar was originally produced by Frantic Media in 2002. In January 2003, Fun to Phone Solutions acquired Frantic Media's Wireless Interactive TV (SMS-TV) business, including WaterWar. Recently, WaterWar has been licensed to 5 TV channels in four different countries.

<http://www.fun2phone.com/pressrelease6.html>

4.2.2 Tilt

In June 2002, Intervisio Oy and Add2Phone launched Tilt Mobile Club for console and PC gaming enthusiasts in the Finnish market. Based on the success of Tilt.tv gaming show, Tilt Mobile Club enables the viewers to join a mobile service consisting of game news alerts and special offers and interactive SMS content.

"Mobile customer loyalty adds value to both our concept and the consumers, who stay up-to-date wherever they are", says Antti Seppänen, Intervisio's Director of Content. "We believe the combination of television and SMS can be an extremely powerful marketing tool. The highly advanced Finnish mobile market is the perfect place to test this."

"Innovative companies, like Intervisio, are pushing the mobile marketing market forward and Tilt.tv as the youthful media brand fits very well into mobile

permission marketing", comments Aki Snellman, CDO of Add2Phone. "Tilt Mobile Club will be an interesting marketing platform for Intervisio and its marketing partners."

Intervisio Oy is a joint venture of Broadcasters Oy, Finland's most successful independent tv production company, and Alma Media Oyj, one of the country's largest media groups. The company aims to build strong brands in "old media - primarily tv and radio, but also print media - and compliment them with extensive new media services.

Tilt.tv, Intervisio's premier product, is a gaming concept featuring a weekly tv show, a popular website, print articles, and mobile games.

<http://www.tilt.tv>

http://www.add2phone.com/pressevent_06_28_2002.html

4.2.3 Activate

The ActivateMessagingTV platform helped StarHub Singapore launch its interactive TV channel. Coined HubTV, it unveiled Asia's first MMS-enabled TV messaging board, completed with SMS TV chat room and real-time SMS TV polling and contest engine. A daily-run TV channel, HubTV has recently introduced an on-air, live Song Dedication engine.

In May 2003, Activate introduced mobile phone-controlled TV games. This original application enables any J2ME-enabled mobile phones, by making use of the mobile phone as a controller, to play games with the television as the game screen.

Currently, the available technology only enables a player to make use of SMS to play any games on TV. The time lag between sending the SMS and the movement reflected on the TV screen is often frustrating and limits the development of more interactive and fast-paced games for TV.

All that a player needs is to do a one-time download of a Java Mobile Controller, which is compatible with his/her brand of mobile phone.

http://www.activate.com.sg/news/news2003/activate_140503.htm

4.2.4 Cingular Wireless

Cingular Wireless has licensed Air2Web's 2Notify solution to manage its text messaging applications available to its 22 Million subscribers for TV polling, surveys, contests, entertainment, and opt-in promotional offers.

- Men's Basketball: Includes a Men's College Basketball Alerts service and a Basketball TV Polling Survey, in conjunction with CBS Sports and CBS Sportsline, including a contest to win a trip to the Final Four.
- A Stock Car Racing Polling Service titled "Virtual Crew Chief", sponsored in conjunction with FOX Sports on the 2Notify platform.
- Reality TV—2Notify is being used for text polling and voting on a new reality TV show, All American Girl.
- Permissions-Based Text Voting and On-Air Polling---All of the text voting and on-air polling services, based on Air2Web's 2Notify solution, are permissions-based and give Cingular customers additional value and functionality in using their digital cell phone for Short Message Service (SMS) messages.
- Opt In or Out: Cingular customers can opt in or out of any service at any time.
- 2Notify Management Capabilities---2Notify manages the voting results, the voting restrictions, the interface to third-party media companies, usage reporting, response rules, subscriber permissions, and message throttling across the network.

With the NCAA basketball and NASCAR stock car racing events, Cingular customers can respond, via SMS, to sports questions which are being simultaneously flashed across the television and sent to their phone during select games and races. "Virtual Crew Chief" allows NASCAR viewers to opt-in to receive a variety of trivia questions, race action updates and race predictions. Responses are tallied in real time and are sent to subscribers' devices and broadcast during the race. The NCAA application enables Cingular subscribers to respond, via SMS, to sports questions flashed across the TV during NCAA basketball games. A sweepstakes contest prompts Cingular subscribers to send an SMS message to a specific short code to enter to win tickets to the NCAA championship game.

With the All American Girl Polling, viewers will be able to vote for their favorite contestant via SMS message. With each of the polling services, the results are tallied, in real-time, by the 2Notify platform and sent to the participants' device. In addition to these interactive services, Cingular leveraged 2Notify for operating a Men's Basketball Alerts Program allowing subscribers to receive up- to- the-minute scores and news for their favorite college teams.

Air2Web's 2Notify solution is a new medium for engaging wireless subscribers to promote brand awareness, customer loyalty, and product sales. Using Air2Web's 2Notify solution, companies have the ability to seamlessly launch multiple, interactive sports and entertainment programs in which fans can engage in real-time with events.

Air2Web's Mobile Internet Platform supports over 100 different wireless applications used by 250,000 subscribers driving over 8 million transactions per

month. Air2Web's platform takes wireless applications out to any digital device, over any network and with any carrier.

Air2Web supports of new technologies and standards such as MMS, J2ME and BREW.

http://www.air2web.com/pr_display.jsp?id=107

<http://www.m-travel.com/30422.shtml>

http://www.keonsworld.com/scgi-bin/virtual_crew_chief.pl

4.3 Mobile and Radio Entertainment

4.3.1 Text Msg Mafia

M-Qube, the premier North American provider of mobile messaging solutions, and Clear Channel Communications, Inc. America's leading broadcast company, today announced a wireless text messaging program underway at Clear Channel's Boston radio station, JAM'N 94.5. The program combines the reach of broadcast radio with the accountability of immediate direct response, allowing the station and its advertiser sponsors to communicate one-to-one with listeners who ask to receive targeted text messages.

JAM'N 94.5 listeners "opt-in" to the service - called the 9-4-5 Txt Msg Mafia - by setting up a personal profile including wireless cell phone number and music preferences on the station's web site. Through the 9-4-5 Txt Msg Mafia, listeners can learn about concert tickets in advance of public sale, respond to contests and be alerted of important news, station events and promotions. The 9-4-5 Txt Msg Mafia is free of charge and works on any wireless phone or device capable of receiving SMS.

The 9-4-5 Txt Msg Mafia is promoted via the station website, email campaigns and on-air mentions by radio personalities. The station leverages the 9-4-5 Txt Msg Mafia for promotions ("call in and win now") and events (such as promoting the Summer Jam concert). A program providing listeners with early access to tickets to a comedy show showed particularly promising results: sales in Boston were nearly triple those in neighboring markets New York City and Washington, DC.

The 9-4-5 Txt Msg Mafia is delivered on m-Qube's technology platform that delivers time-sensitive, targeted mobile messaging campaigns to wireless devices. The two-way messaging platform includes a front-end program management interface, a middle-ware dialog server, managing user state and preferences and a back-end message delivery engine handling throttling, billing and operation, administration and maintenance functionality across all North American carrier networks and all major mobile mediums including SMS, WAP, instant messaging and mobile email.

[m-Qube and Clear Channel Announce Wireless Text Messaging Initiative for Boston Area Radio Station JAM'N 94.5. Business Wire, (5 Jun 2003) pp. 5277.]

4.4 Interactive TV Entertainment

4.4.1 SkyDigital

OpenTV Technologies enable viewers to interact with enhanced programming. They can choose camera angles during sports events, participate in television polls without using a telephone, and call up extra program information at the touch of a button. There is no pick up a phone or turn on a pc or switch out of an ordinary television program in order to access a service or feature.

Viewers watching the recent BBC Wimbledon Interactive coverage through SkyDigital's satellite platform were presented with live simultaneous video feeds from five tennis matches on five different courts, any of which could be selected by just the touch of a button on a remote control. By the end of the two-week Championship, 4.2 million Sky Digital viewers had accessed the service and the BBC declared it to be highly successful.

SkyDigital has also launched a dating channel where participants can chat via SMS.

<http://www.opentv.com/utilities/success-stories/SkyDigital2002.pdf>

Conclusions and recommendations

There are some, but not too many very good examples where analytical CRM has been implemented fully within a multichannel environment. It seems that advanced aCRM applications are running mostly on one channel only (e.g. Amazon on the web), whereas services that truly implement multichannel features not yet have included aCRM into the concept.

Very few concepts can be implemented optimally on all channels. Some services are perfect for cellphones (such as the HKL tram ticket) and would not work at all on e.g. digital TV or web. Though, the main disadvantage of cellphones is their small screen size, which is not optimal for presenting e.g. a holiday resort. A cellphone is also a one-user device, whereas the whole family can gather around the TV to pick a holiday package.

Communities are so far often rather basic in the context that they provide general chats, ringtones, logos for phones, screensavers, games etc. When communities are used to back up business, these services are often provided by network operators or manufacturers of personal computers or portable phones. These communities are likely to be less stable than communities based on members' ethnical background or hobbies, such as eBay or Birdwatchers.

The real challenge is to implement aCRM into a true multichannel environment and back it up by supporting communities. The business benefits are obvious: each channel has its unique attributes that, used correctly, contribute to more visual and accurate product information, better availability of product information, higher campaign pull, better and more profitable services, and more fun for customers willing to pay for it.

Glossary

Value chain

| | |
|------|--|
| CP | Content Provider |
| ASP | Application Service Provider, offers access over the Internet to "rented" applications |
| ISP | Internet Service Provider |
| SP | Service Provider |
| VASP | Value Added Service Provider |
| ISV | Independent Software Vendor |
| VAR | Value Added Reseller |
| SI | System Integrator |

CRM

| | |
|-----------------|---|
| CRM | customer relationship management |
| CRO | customer relationship optimization |
| ERM | enterprise relationship management |
| ERP | enterprise relationship planning |
| PDM | product data management |
| SFA | sales force automation |
| B2B | business to business |
| B2C | business to consumer |
| F2F | friend-to-friend |
| viral marketing | friend-to-friend marketing |
| opt in/opt out | to give /recall permission to send marketing material. |
| pull | response rate of marketing campaign |
| TRP | Target Rate Point (% of success of marketing campaign) |
| IMO | Instant Mobile Offers |
| LEM | Live Event Management: Adding value to large groups in a specific time and place while extending relationships with them after the event. |
| MAM | Mobile Alert Management: Getting information out quickly to those concerned. |
| MMM | Mobile Marketing Management: Adding an out-of-home direct response component to cross-media programs. |

Data analysis

| | |
|------|-------------------------------|
| OLAP | On-line analytical processing |
| DW | data warehousing |

Multichannel technologies

| | |
|-----|--|
| CTI | computer-telephony integration, e g a call center, which directs |
|-----|--|

| | |
|-------|---|
| | your phone call to wherever you are at the moment. |
| IVR | Interactive voice response, the combination of voice input and touch-tone keypad selection |
| ACD | automated call distributor (in call centers) |
| RFID | Radio frequency identification. An RFID tag works similarly to a barcode, but does not require direct contact with the scanner. |
| DS | digital signature (of e.g. payment over web or phone) |
| ES | electronic signature |
| LAN | local area network |
| WAN | A wide area network, an expanded version of a LAN. |
| WLAN | wireless LAN. Usually does not work more than, say, 100 metres from base station. |
| VPN | Virtual Private Network. Usage of e.g. Internet to provide employees of an organization secure access to the organization's network. A VPN is much cheaper than other alternatives, such as fixed data connections. |
| XHTML | a successor of HTML. Works e.g. in digital TV. |

Television

| | |
|-----|--|
| DTV | digital TV |
| DVB | digital video broadcasting |
| ITV | Interactive TV |
| MHP | Multimedia Home Platform. A DVB standard that combines DTV with www. |

Mobile

| | |
|-----------|---|
| 3G | third generation mobile phones (such as UMTS) |
| bluetooth | standard for wireless radio connections between devices. A bluetooth microchip is included in each device. |
| CB | Cell Broadcast. The CB messages can be seen on the phone screen of phone owners in a certain area, in the same way that you see the name of the operator in the network where you are, but the messages are not saved in the phone. |
| CDR | call detail record (of network exchange), provides billing data: when the call started and ended, from what number to which number |
| SMS | Short Message Service, for sending messages of up to 160 characters to GSM phones. |
| EMS | Enhanced Messaging Service, an expanded version of SMS, including e.g. pixel pictures. |
| GSM | The most commonly used standard for mobile phones in Europe. |
| GPRS | General Packet Radio Service, faster and cheaper to use than GSM. GSM networks can be updated to GPRS. |
| HSCSD | High-Speed Circuit-Switched Data |

| | |
|--------------|--|
| EDGE | Enhanced Data GSM Environment |
| UMTS | Universal Mobile Telecommunications Service. Global third-generation broadband, packet-based transmission up to 2 Mbps. Based on GSM. |
| IM | Instant Messaging. You can see who is connected to the Internet and exchange text messages with them. (e.g. IRC, ICQ) |
| J2ME | Java 2 Platform, Micro Edition. Used to develop Java programs for cellular phones and PDAs. |
| MMS | Multimedia Message Service |
| MNO | mobile network operator |
| MSISDN | Mobile Station ISDN number format of a cellphone, e.g. +358 40 123245 |
| OTA | over the air. Network operators can manage applications on a subscriber handset remotely by OTA. |
| PDA | Personal Digital Assistant. Mobile hand-held device such as PalmPilot or PalmTop. |
| premium rate | the price of a service is billed via the network operator |
| QoS | quality of service, especially in high-bandwidth networks. Transmission rates, error rates, and other characteristics can be measured guaranteed in advance. |
| SIM | Subscriber Identity/Identification Module of Mobile Phone. Smart card holding the user's identity and telephone directory. SMS applications may reside on the SIM. |
| SAT or STK | SIM (application) toolkit, allows network operators to send applications over the air as SMS or Cell Broadcast message in order to update SIM cards with changed or new services. |
| Symbian | Industry consortium to extend the operating system for Palms to suit mobile phones |
| WAP | Wireless Application Protocol, Specification for wireless devices access to Internet or parts of it. WAP 2.0 applies HTML as well as WML, making it possible to browse html code without frames. Nokia has announced that HTML will be added to all future phone models. |
| WML | wireless markup language (the HTML version for WAP phones) |