

MobiLeap

A Mobile Literacy Programme for the Youth



Education and Culture

Youth

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MobiLeap

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Preface

This project has brought to the fore a better understanding of the emerging usage patterns of multimedia phones with camera features by young people living in two countries – Finland and Estonia. It has also shown how these devices with multimedia functionalities can be platforms to access meaningful content and spur the young people to produce content that can have various useful purposes apart from it being just for pure fun and enjoyment. The participants were randomly selected.

Comparative data analysis has shown a uniform usage pattern between the young people living in Finland and Estonia. One can make better and informed judgements based on the data gleaned from the study on how a majority of the young people in the age group 10 to 20 years living in these two countries (the research target of the MobiLeap project) are using these mobile devices. The data has fully exposed practical problems these young people are facing when using these type of phones. The multimedia experiences vary from individual to individual – primarily that being made more or less enjoyable because of the quality of the camera features on the different mobile phone models. Those young people with the latest and most expensive camera phones are having more fun time than those whose phones have lower megapixels. They enjoy taking and sharing better quality pictures, video footages and record audio clips. In two to three years' time it is possible that the prices of camera phones that have better multimedia features will come down and more of these young people will be able to enjoy using the features for beneficial purposes in their daily lives.

The data gathered from the fieldwork in Finland and Estonia has not only provided a starting point to monitor emerging usage patterns of these multimedia phones by young people. It has provided information that can be used to think about the future uses of these phones for better purposes in the everyday life of these young people, the design of phones that have better features, the production of content that will be of practical use in their lives and most of all how youth workers can use mobile phones in youth work. The need to develop practical, easy to use authoring tools and sharing platforms of mobile generated content has been a major issue raised by the respondents in this study and other users from different age groups. Overallly, practical and conceptually sound content production issues have been raised by this study – these themes have formed the initial building blocks of scenarios on how to produce and disseminate meaningful content using these ubiquitous devices and the Internet.

This project was also made more practical and relevant in the real world as the participation of youth departments saw it as an opportunity to think about ways to harness mobile devices in youth work. Special thanks to the youth workers working for their individual municipal youth centres in Lahti, Porvoo, Pori, Turku, Tampere and Helsinki. These are some of the youth workers in Finland who facilitated the questionnaire distribution exercises with the young people they work with – Tomi Vähäkangas (Lahti Youth Centre), Satu Hautala (City of Porvoo's Youth Department), Katariina Molkkari (Pori Youth Centre), Mari Mielonen (City of Turku's Youth Centre) and Tiina-Liisa Vehkalahti (Tampere Youth Centre). Lengthy

interviews on how to develop a mobile phone youth strategy and services were done with Suvi Kuikka (City of Helsinki's Youth Department).

Three schools that provided a readily available research community deserve a lot of thanks. The head - Aira Leiviskä and vice head - Erkki Toivanen of Linnakosken High School made it possible to speak to at least three classes for lengthy periods. The teachers indeed created a friendly atmosphere that resulted in the pupils taking the exercises very seriously. In Tampere the head of Tammela School Petri Peltonen, lended his support in letting the English class of Aino Houttu participate in the questionnaire, interview and mobile story creation exercises. In Helsinki, the head of the English School - Erkki Lehto was enthusiastic about the project and made special arrangements to speak to pupils from different age groups.

The real work could not have been any easier without the help offered by Ulla Alakarppä – she assisted in organizing the research community in Lahti and the distribution of questionnaires on the streets in Turku and at Linnakosken High School in Porvoo. In Estonia the work of the research team comprising of Kairit Tammets and Marju Jaanimae was well done. The data from Estonia brought an international dimension to the project.

The questionnaire used in the study in Finland was translated from English to Finnish, and the questionnaire responses that were in Finnish were translated into English for further analysis. This phenomenal translation work was done by Hanna Liikala. The web site was well designed by Brenda Castro – the site will be central in the future development of the MobiLeap project. Special thanks for the photos taken by Grace Hoffren showing some of the youngsters playing about with their mobile phones.

Last but not least we thank Mauri Uusilehto from CIMO for making the work possible by facilitating the award of the grant from the EU to implement the project. On the guidance of the project - special thanks to Professor Lily Diaz for posing challenges on the project's deliverables and the administration work of the head of the Media Lab Department – Professor Philip Dean and the project and administration secretaries – respectively Matti Nieminen and Mari Tammissari.

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MobiLeap

A Mobile Literacy Programme for the Youth

I. Introduction

The Mobile Literacy Programme for the Youth – also titled MobiLeap, was positioned to impact on current and future uses of mobile phones by young people to produce, access and share more than just entertaining content, but that content that carries information that can be used for various purposes in their everyday life. The finance to carry out the project was provided by the EU through the youth programme managed by CIMO. The work was done from October 2006 to the end of September 2007. The potential importance of this project is to increase the uses of a mobile phone as a powerful tool to generate and share meaningful content by the users apart from that content that is created out of communication between the users.

The project manager was the Media Lab - a new media department at the University of Art and Design Helsinki. Other partners based in Estonia included the Centre for Educational Technology at the University of Tallin and a youth organisation called TORE. Informal partners that provided a research community in Finland included city youth departments in Helsinki, Porvoo, Lahti, Turku, Tampere and Pori.

The following were the main aims of the project:

- Investigate how young people in the age group 10 to 20 are using multimedia enabled mobile phones
- Design demo mobile phone based multimedia content that have educational value for use by young people
- Create an environment in which young people can create original multimedia content that has educational value with their mobile phones and other ICTs and share it via the Internet and their mobile phone devices
- Demonstrate how youth workers and youth organisations can use mobile phone devices together with other ICTs to deliver information to their youth clients.

The output of MobiLeap (<http://mlab.uiah.fi/mobileap>) has been the following:

- A project report detailing the results of the research
- Demo multimedia content created by young people and the researchers of the MobiLeap project
- Videos capturing the interviews undertaken in Finland and Estonia.

The hypothesis that guided the implementation of the research was that 3G mobile phones could have powerful features to create, access and disseminate meaningful content to share by people known to each other and others who are not in the same

circle of friends, but the current features are still not flexible enough to create more meaningful content that the user can share with a larger audience. While this was the case 14 months ago when the project was conceived – technological innovations in the mobile sector have resulted in the design of multimedia phones that can capture quality content. Indeed the innovations are such that the project's aims were partly realised through some of these breakthroughs that now make it possible to download quality content to a handset. The other hypothesis that also inspired the project was that the approach used to build content services to be used by young people is still one directional - from the industry to the users. This however is still the case. The users should be producing their own content as a form of self-expression and disseminate it to a larger audience in their own independent right as content producers.

The results from this study clearly show that young people are creating content in their own right using their devices and sharing it with their friends and family. The results also show that formal educational and youth organisations are still to harness mobile phones in their work with young people. The authoring platforms (software solutions for mobiles) are still not amenable to creating multimedia narratives with ease by non-professional content producers. When guided by youth workers and formal educational providers, mobile phones could be used to encourage young people to express themselves and the devices could be indeed an entertaining access point of content that will have a meaningful impact in their everyday lives.

A mobile phone information sharing environment targeting young people is however not being fanned by the content industry and those organisations that work with young people. An awareness that mobile devices could be used to access all sorts of educationally useful information in informal settings will open innovative ways to use the phones. This will also be a catalyst for the young people to create more educationally beneficial content that they can exchange and in that process increase collaborative information sharing outside the classroom.

Future scenarios based on the emerging usage patterns identified in the study can be envisaged along these themes and issues:

- Young people being encouraged to access educationally useful content using primarily a mobile phone and the Internet
- Providers of youth services, information and education being challenged to harness mobile platforms in their multifarious activities with the young people
- Mobile content providers producing practically useful and information rich content and catalysing access to that content through giving incentives to use the services like affordable pricing strategies
- Authoring tools for mobile created content should be more easier to use and should be used as a platform to share that content
- The combined innovative uses of the Internet and the mobile device in the distribution of own content should open the opportunity to reach out to more people apart from just friends and family.

II. Background

The design of mobile phone content that is personally useful and reflects the circumstances of the target audience will no doubt increase the utility of 3G phones. Designers of both the handsets and the content should be keenly aware of the likely context of use of these products and services.

Kaasinen and other researchers from the University of Tampere who have been investigating the uses of mobile phones by teenagers from as early as 1998 made this observation:

“Current mobile services can be enhanced with location-aware features, thus providing the user with a smooth transition towards context-aware services.”
(Kaasinen, 2003).

This research has been influenced by an earlier Nokia funded project in which the principal researcher of this study was the project manager and also main investigator (Nicholas, 2002). The project was implemented in the UK as part of an international study that involved research in two other countries namely, Finland and Japan. The Finnish study was implemented by researchers from the Information Science Research Centre that is attached to the University of Tampere. The Japanese study was carried out by researchers at the Life Design Institute.

The UK study was carried out from June 2001 to May 2002. A summary of the research undertaken in the UK shows that young people prefer texting to voice calling, but they still make more phone calls than adults. The UK study echoes the findings from a similar study undertaken in Finland. While these findings hold true on usage patterns four years ago, what was not clear when the MobiLeap study was conceived was how the young people are using the new 3G phones - the camera phones with multimedia content creation and sharing functionalities. What was also not clear is the extent of their usage of multimedia content services and what is driving this usage pattern. Another issue that was not clear is how the new smart phones are making inroads among these young people and whether or not they are using them to access any content that has any practical value in their lives.

Current projects – both doctoral research and externally funded projects being undertaken by researchers in the Media Lab and the University of Tallin’s Centre for Educational Technology are steeped in increasing the usability of new media technologies to enhance learning outside the formal educational settings among young people.

There are a number of underlying concepts that have shaped this project. These concepts are derived from educational technology and information science. While not delving on using the mobile devices to deliver formal learning materials, this project has been seeking to show how mobile phones can be used to collect information that is of a personal nature and yet could have educational value when disseminated to a wider audience. Issues connected to mobile behaviour among people are social mobility and context of use of new media in the every day lives of the users.

Young people have become more connected to their mobile phones and the activities that they undertake with their devices have and are still limited to personal entertainment and communication purposes – the mobile phone is now an integral part of their everyday life.

It is hoped that the findings from this project will inspire young people to harness the devices to better self-express themselves. Sharing their experiences through the multimedia content that they have generated using the mobile phones and other ICTs should not be just limited to friends and family, but they can potentially distribute that content via the Internet to a larger audience.

Mobile phone users all over the world have enthusiastically adopted the new devices with new novel features. These new phones have also spurred the development and production of new content services and applications. The rapid changes in the mobile phone industry and market are being influenced by many factors. Some of these factors are technology driven and some of them are user driven. The balance in the push and pull factors in the mobile phone industry are rapid and continue to be in a state of flux. The changes in the design of mobile phones and content services have also influenced the way people use their phones - that has also created unique and general communication behaviour patterns among different categories of users in different geographical settings.

Studies have been undertaken to evaluate the growth in the mobile phone sector and the nature of the communication and information seeking behaviour of different user groups in different countries. These studies whether in the academic or popular media no doubt point to the technology driven model of mobile phone and content design. Few studies have been undertaken to investigate how the features on a mobile phone can be used as a dynamic tool to create content that the user can share not just with personal friends, but with other interested people via their mobile phone and the Internet.

The mobile phone is now a part of these young people's lives and the uses of the devices should be more than just a tool for communication and social networking. The capabilities of the mobile phone device are becoming more advanced every time new models appear on the market. The convergence of ICTs over the devices is now a reality. The combined uses of the Internet and mobile phone device to access content should even give the users the same opportunities to host their own content with minimum ease.

Young people in many developed settings as many research projects have confirmed and current usage patterns show have been the biggest producers of content that is delivered on mobile networks. Their main tool for producing the content is the texting functionality on the devices. The new camera phones now facilitate the production of multimedia content. Their mobile literacy is however still limited in producing multimedia content that is of a leisure nature. They could be equally using the devices to source and merge content that can have educational benefits or access information that they can make practical use of in their daily lives.

Gaming on mobile phones is on the increase - but some of these games have little educational impact. Content designers are still to develop games destined for mobile

phone platforms that have learning components or are information rich – this reference being to what is happening in that sector in Finland and Estonia.

The mobile applications like games are made by third party companies. The technological literacy of the young people should embrace new skills and deliberate purpose to create their own multimedia applications for delivery and access via their mobile phones.

Software makers should on the same breadth as the development of authoring tools for web sites, produce software solutions that will make it possible for any enthusiastic user to have the capability to design an application of their own and embed it on their mobile phone. Tools to easily upload the content to the Internet for others to download to their devices are also needed. The next generation of smart phones should be seen to be pliable and flexible for users to develop their own features and applications that will make mobile phones truly personal.

What users can do on their phones

The mobile phone's main purpose is to make and receive calls. All the different age groups still find that this is one of the most convenient uses of the phone. Texting is the biggest thing that has made mobile phone usage even more interesting among the young age group and it is also true in the case of mobile phone users in other age groups. Depending on the age group, playing games on their devices is the other mobile phone based activity that young users seem to be always doing if they are not texting or calling.

What else are the young users doing with their phones?

- Taking photos and sending them as multimedia text messages
- Downloading ring tones and audio music tracks.

This seems to be where the trend is – but there should be more that can be done with these mobile phone devices. The research sought to provide an indepth analysis of the nature of innovative utilization of these phones, more so focusing on their uses by young people to create meaningful content and share it with others in a new informal digital information space.

Young people as producers of content

Young mobile users like other age groups are producing content of their own – this content being used for mainly personal reasons. There should be a balance in the type of content available for this age group – the research has clearly shown that these young people find that the content available for download is not interesting and useful enough for them in their daily life.

The process of building the content by young people should also be encouraged by youth organizations. They should be seen to be using those media platforms that young people use in their daily lives to deliver essential information. Currently the practice is to use web sites, but little attempt is being made to use mobile phones as a delivery platform for content meant for them.

Mobile phone as a social media tool

The mobile phone just like older diffusive ICTs like radio, TV and the Internet is now a part of people's lives. Its role has moved from it being just a tool for calling and texting. The device is so connected to an individual's personal and community lives. Indeed the device can be seen a social media tool. The latest phones with multimedia features have now raised the innovative utilization of these multimedia functionalities. A brief definition of what social media is will provide a starting point in further providing a framework to support mobile related content production and sharing activities that are increasingly becoming part of heightened mobile experiences.

Halonen, M (2007) and others define social media thus:

“Social media means tools, spaces and modus operandi for people interacting with each other, creating, sharing, exchanging and commenting contents in virtual communities and networks.”

This definition indeed typifies Internet related activities and technologies. It could be extended to refer to mobile related activities. What is unique about mobile related activities is the personal touch that comes with being in contact with someone – that contact is over digital telecommunication spaces. The inroads that mobiles have made in our everyday lives – especially in developed countries where the networks support transmission of multimedia data is phenomenal. Equipped with content creation features – one can use those functionalities to record interesting moments in that personal physical world and asynchronously share that content with friends and relatives. One takes pictures, record sound and shoot footages - the content being of a personal and leisure nature.

As of now, the distribution of the content is still limited to a circle of friends and family. Those multimedia functions on a phone are still to take mobile phones into the true definition of social mediating tools – more so when people can share their content with a larger audience over Internet technologies.

III. Implementing the project – the research and production methods

A repertoire of research methods were used in this project. A questionnaire was designed in English (Appendix 1) and translated into Finnish for the study in Finland and Estonian – for the study in Estonia. Street interviews were undertaken in Finland and formal interviews (Appendix 2) were also done in schools in Finland and Estonia. Participatory observation techniques were used in Finland – mainly for the study in Helsinki. A mobile task based exercise was undertaken with some pupils from a primary school in Tampere. Demonstrations of what could be done with a better mobile phone camera involved the principal researcher actually capturing content using one of the latest Nokia phones with better camera features – 3.2 megapixel, namely the popular Nokia N93.

The data from the questionnaire exercises in Finland was analysed using a statistical package called Askia (www.askia.com).

The fieldwork started by first visiting small towns and cities in Finland – Porvoo, Lahti, Turku, Tampere and Pori. This exercise was done in October 2006. Questionnaires were given to the individual city or town’s youth department. They distributed these questionnaires to the youth via youth centres. We asked them to distribute as many questionnaires as they could, but with a minimum target of 50 responses. We also asked the youth workers not to place any particular emphasis on one age group as long as the youths were aged between 10 to 20 years.

The random sampling techniques proved to work as the responses revealed sufficient data to form a concrete opinion of the way the young people are using the multimedia features on their phones and the key problems they are facing. A similar pattern of sampling was used in a Nokia funded project from 2001 to 2002 (Nicholas, 2002). The study saw researchers going up and down the UK asking young people wherever they found them to fill a questionnaire. That Nokia funded study no doubt provided invaluable insights into Nokia’s mobile phone strategy targeting young people.

The data from this study has also proved to be useful in drawing conclusions about future uses of the phone in youth work and informal delivery of information via the devices. Indeed the data inspired the author of the report to start to formulate a conceptual model that can be used when producing content using mobiles and for mobile phone platforms.

The questionnaires distributed in cities outside Helsinki were returned in November 2006. The initial analysis of the questionnaire exercise showed that there was a similarity in usage patterns among the teens living outside Helsinki. In December, the researchers started the questionnaire exercise in Helsinki by visiting the English School in Meilahti. After the questionnaire exercise, indepth interviews were undertaken in the school.

The results from the questionnaire exercises outside Helsinki and the school in Helsinki (also including Vantaa and Espoo) yielded sufficient data that the number of questionnaires for Helsinki were less than from other cities. Instead, more interviews (30 to 50) were done in the capital city. Participatory observations techniques were also used for the fieldwork in Helsinki. The observations were written in the Notepad application that is on the Nokia N93. Photos were taken of these observations using the same camera phone. The Helsinki exercises involved interacting with youths in different communities. This work was undertaken in Helsinki from December 2006 until spring and summer of 2007. Street interview techniques involved asking young people what they are doing with their multimedia phones – some would stop to show what content they had on their phones and they were keen to talk about their mobile experiences.

A focus on the study in Finland just like in Estonia shows that formal educational institutions were very cooperative with the project team. The keenness of teachers in the project was as welcoming as the enthusiasm showed by the youth workers. Three schools in Finland were involved in providing a basis to conduct formal interviews with pupils in the age group 11 to 18. These schools were the English School in Helsinki (Meilahti), Linnankosken Lukio in Porvoo and Tammela Primary School in Tampere.

In all these schools, pupils were given a questionnaire that they filled during a lesson period that lasted 30 to 40 minutes. After the questionnaire exercise the pupils were interviewed individually in the presence of their teacher and other class members. All the interviews were captured on video camera.

The English speaking class at Tammela Primary School proved to have far more reaching activities. In addition to filling the questionnaires and conducting interviews, the pupils were asked to undertake mobile related tasks. The young people were given the task of using primarily their mobile phones to capture multimedia content about a chosen theme or issue. They had to then use PowerPoint to merge that content into a multimedia narrative. Written parental permission was sought before their participation in the exercise. Those that got the permission – almost three quarters of the class, were given the option to work in groups with people of their choices. Three groups were quickly formed when the actual exercise started in March 2007. Over a period of two months they completed the tasks. The PowerPoint presentations were done entirely on the school's computers with minimum assistance from their teacher. The final work was burnt on a CD. The presentations as they made them are available on the MobiLeap web site.

The twelve year olds, having been living abroad excitedly showed the potential of using mobile devices to collect content that in their opinion would be interesting for anyone who has never visited Tampere. The content also showed what some of the youngsters do in their free time at school. This exercise shows that young people, when guided by an adult for example a youth worker or teacher can potentially use their mobile phones to capture content that can be merged into an entertaining and informative multimedia narrative.

Similar visits were undertaken in Estonia during the same period when the research in Finland was taking place. The questionnaire designed in Finland was given to the Estonian partners. They distributed it in December 2006. They got the responses in the early part of 2007 and translated the responses into English after which they entered the data into an Excel worksheet for analysis.

Most of the young people who answered the questionnaires in Estonia were from the capital city – Tallin. One school was from a little island called Hiiumaa. A few students were from the university. A partner of the project – TORE found schools that are part of this umbrella youth organisation.

In March 2007 – interview questions were sent to the Estonian partners. They undertook these indepth formal interviews throughout the summer. Just like the interviews in Finland, a video camera was used to record the interviews.

The author also created content using a Nokia N93. This content, just like the content created by the teenagers at Tammela Primary School is available on the MobiLeap web site.

IV. Fieldwork in Finland

IV.I Results from the questionnaire study in Finland

A total of 365 questionnaires were returned in the study (Table 1). From this 365, 204 were female and 160 were male (Table 2 and 3). The age range of a majority of these young people was between 10 to 20 years, however the largest numbers were aged from 14 to 17 (Table 4). Most of them were still in school with those in Year 9 and the second year in high school having the highest numbers (Table 5). Most of these youngsters in year 9 and the high school were from the English School in Helsinki and Linnankosken High School in Porvoo.

Table 1

Base : 365	Counts
Porvoo	67
Lahti	23
Turku	101
Tampere	85
Pori	54
Helsinki	35
Total	365

From the total, 95% were Finnish and the other 5% were non-Finnish nationals. These non-Finnish nationals were from Eastern Europe, Africa, Australia and Western Europe. A very small percentage – almost 0.9% were of mixed background – Finnish and another country for example Finnish-African, Finnish-English, Finnish-Australian.

Table 2

Base : 365	Counts	Percentage
Male	160	43,8%
Female	204	55,9%
Don't know	1	0,3%
Total	365	100,0%

Table 3

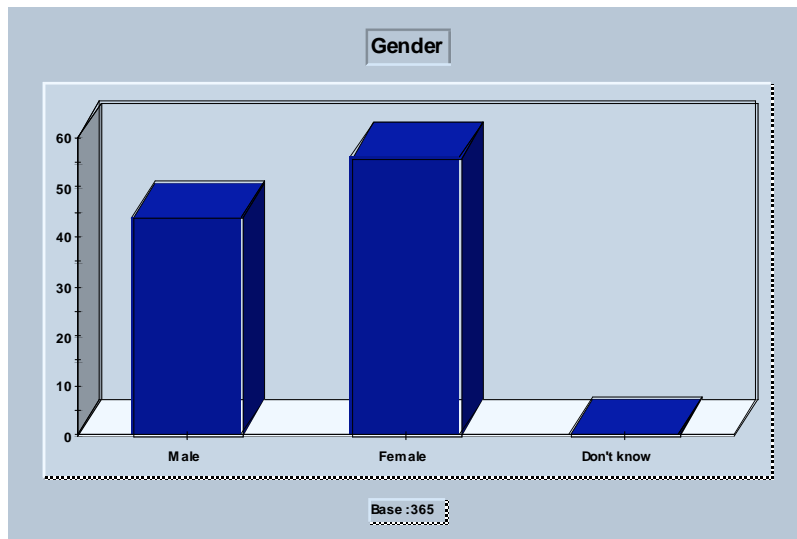


Table 4

Base : 365	Counts	Percentage
Less than 10	0	0,0%
10	2	0,5%
11	29	7,9%
12	17	4,7%
13	32	8,8%
14	42	11,5%
15	51	14,0%
16	54	14,8%
17	55	15,1%
18	30	8,2%
19	12	3,3%
20	2	0,5%
21	5	1,4%
22	5	1,4%
23	28	7,7%
Don't know	1	0,3%
Total	365	100,0%

Table 5

Base : 365	Counts	Percentage
Grade 7	29	7,9%
Grade 8	39	10,7%
Grade 9	67	18,4%
Year 1	28	7,7%
Year 2	77	21,1%

Year 3	31	8,5%
Vocational Year 1	16	4,4%
Vocational Year 2	7	1,9%
Vocational Year 3	24	6,6%
Other	45	12,3%
Don't know	2	0,5%
Total	365	100,0%

Table 6

Base : 365	Male		Female		Don't know		Total	
	Counts	Percenta across	Counts	Percenta across	Counts	Percent across	Cou nts	Perc
Grade 7	9	31,0%	20	69,0%	0	0,0%	29	100
Grade 8	15	38,5%	24	61,5%	0	0,0%	39	100
Grade 9	37	55,2%	30	44,8%	0	0,0%	67	100
Year 1	17	60,7%	11	39,3%	0	0,0%	28	100
Year 2	27	35,1%	50	64,9%	0	0,0%	77	100
Year 3	17	54,8%	14	45,2%	0	0,0%	31	100
Vocational Year 1	6	37,5%	10	62,5%	0	0,0%	16	100
Vocational Year 2	4	57,1%	3	42,9%	0	0,0%	7	100
Vocational Year 3	7	29,2%	17	70,8%	0	0,0%	24	100
Other	21	46,7%	24	53,3%	0	0,0%	45	100
Don't know	0	0,0%	1	50,0%	1	50,0%	2	100
Total	160	43,8%	204	55,9%	1	0,3%	365	100

Current mobile phone

Almost 95 % owned a Nokia phone. The other 5% owned models such as Samsung, Sony-Ericsson and Siemens. From the total, 75% owned a mobile phone with camera features. Only less than 5% owned a mobile phone with better image quality – 3.2 megapixels. The popularity of the Nokia brand is seen through previous ownership – almost 97% had owned a Nokia phone before the current one.

The main reasons why they owned their current phones ranged from the phone being of good appearance, the right size, having a colour screen and those that had upgraded their phones – they simply wanted a mobile with a camera.

The following are some of the reasons (in their own words) why they own the current phone:

- It was nice and new, it had polyphonic ringing tones
- It looked good and it had a colour display
- It was the cheapest basic model
- Cheap, fancy, enough features

- It had an MP3 player, a durable and nice phone, a camera
- I wanted to have a phone with a camera on it
- I got it as a birthday present
- My father and mother chose it
- It was nice, small and cheap
- I don't care about the model really. The main thing is that I can call and send messages
- I just saw it and it was good enough and beautiful enough
- A good camera, MP3 player
- Size, model, whether or not it has camera, price
- The camera, the colours, MP3 player, memory card and Bluetooth
- Because it looked good and had decent features (MP3 player, radio and good camera)
- Because of the opportunities it has for personalisation. You can cut the cover from a magazine with a cutter. With the camera, you take the picture for the wallpaper yourself and the recording function allows you to record your own ringing tones and all this is for free
- I wanted a new kind of phone, a clamshell one
- Fits in the hand, simple, nice to use for SMS
- I liked the design
- The people I worked with said it was good. It allows you to read email and has a camera
- I liked the appearance
- Easy to use, simple layout
- Internet and computer connectable, clear calendar and a good screen
- Because of the colour and I wanted something else than Nokia
- I bought my current phone because it has a 3.2 megapixel camera with Xenon light and it's also better and cheaper than its rival Nokia N73
- Based on appearance, price and features
- It's nice looking, has a user friendly interface, versatility, easy connectivity, good size
- You could have games that earlier phones didn't support, games that are of better quality.

A focus on those that own a camera phone will provide a snapshot of the type of multimedia content that they have on their phones. Indeed they take pictures with their phones, record sounds and shoot video, but a majority of them don't send them as MMS.

On sending MMS, almost 75% of the respondents with camera phones said that they rarely send MMS, preferring to send SMS. About 50% of them have sent an MMS at some point.

In their words on sending MMS:

- I don't send MMS
- I never send MMS
- I rarely send MMS, but I have sent some pictures sometimes
- I send images and music

Based on the data, sending MMS seems not to be a popular way to share the content.

Sharing content

Sharing of the content is restricted to friends, family and acquaintances - almost 99% of the respondents with camera phones said so. The most popular way to share the content is to show it straight from their mobile screens or listen to the sounds that are in the archives. Almost 99% of the respondents with camera phones said so.

A majority of them use Bluetooth and infrared to send the content to their friends' phones and their computer. Only 5 respondents from the 365 said they send the content through email.

The response to the question (Question 13) that asked them whether or not they were happy with the way they share content revealed some ambiguities. Only 78 respondents said they were happy with way they share content, 15 of them were not happy and the rest did not provide an answer (Table 7).

Table 7

Base : 365	Counts	Percentage
Yes	78	21,4%
No	15	4,1%
Don't know	272	74,5%
Total	365	100,0%

Question 14 sought to get an explanation of why they liked or did not like the way they share their MMS. It seems that those that did not answer question 13 provided an explanation.

The explanations clearly show that a majority of them actually like the way they use Bluetooth and Infrared to send MM content. The negative responses on the ways to share the content is when they have to send the content as an MMS – there is a cost element to that whereas it is free to send using Bluetooth and infrared.

The simplicity and ease of the free ways to share content are clearly good reasons to use these free sending functionalities.

Some of them had this to say about the way they share the content:

- Easy to use, (rates for messages) price downside
- I don't like them so much because they eat my balance
- It's really practical, just a little expensive
- Pleasant because it is easy and fast and inconvenient because of the price
- A fast and convenient way to convey the atmosphere for instance when taking a holiday
- Infrared is free e.g. for sending images
- Easy peas, unless the phone starts writing something like "failed to send" – this sends my blood pressure to the roof
- I like them because it is easier to send a picture than explain in SMS

- Because Bluetooth is free and you can play games with two people
- I don't know, but I just don't like them
- They are cheap and varied
- Infrared is free of charge, of course it is a little difficult, as all mobiles do not have this function
- They are good and quick ways to brighten someone's day
- They are easy to share with the mobile phone, sending them via Internet has the problem that you have to transfer them to computer
- I don't like because my phone takes lousy pictures, but I like sending tones
- It's useful in some cases, pictures tell more than a 1000 words
- It's fun and pictures tell
- I like it – people can see where I am
- Well, it's simple and then there is something to talk about
- I like it because you can send some funny pictures of places – it's cool
- It's a quick way to explain a funny situation or show someone the options on what to buy in a grocery store.

Only a small number are not in the habit of sharing their content with other people:

- I don't usually share, but for instance you can see a friend that maybe you don't see so often, so you keep contact to remember what they look like
- I don't see the need to send MMS and I am totally happy with not sending them.

A couple of respondents were not too happy with way to share content:

- They are too slow sometimes, sometimes the sending fails and the compatibility of the phone is always not guaranteed
- For some phones, getting MMS is too much work.

On asking them if they had their own ideas of sharing content, a majority of them did not have any suggestions except to say that the current ways were ok for them. One respondent however suggested that they would be interested in versatile services. He put it thus:

“I would like to get from some source like maybe some educational stuff e.g. if I send a text message to a certain number saying: ‘Geography – India’, they would then send you back with MM info about India and links.”

One respondent spoke for all on ways to improve the way they share content:

“MMS should not be so expensive and every phone should be able to receive them”.

Another one went on to say:

“Free messages for instance on Sundays and in the evenings after a certain time.”

One respondent with international links echoed the need for affordable prices to send MMS:

“I would like to be able to send them abroad more cheaply.”

Questions 19, 20 and 21 sought to find out what they are doing with the still pictures they take, the audio clips they record and the video footages they shoot.

The use of still images as wallpaper was cited as one way to use that type of content they have captured using their devices by over 95% of the respondents with camera phones. Others reiterated a response to the question on sharing content saying that they watch the pictures with friends and family.

Others offered an illumination into the significance of the pictures taken:

- As wallpaper, a memory to carry with me
- I set them as wallpaper or show to friends because sending them is too expensive
- I download them on computer, remember the past as I carry pictures of my family and friends at all times
- I snap them quite rarely. With all this life to live, I like to do everything at once
- I watch and wonder at them
- I keep them there and when I am bored I will look at them
- I store them on the phone and laugh at them later
- I think about the memories related to the picture
- Memories from different occasions
- I use it for surprising situations when I may not be carrying a separate camera
- You get nice memories that have been documented for the future
- Transfer to computer and attach to caller ID
- Funny pictures I send to friends and post online
- Looking at them, take them to computer and maybe to the Internet
- I put them on computer and look at them there.

Audio clips are mainly used as ringing tones. Some use them as alarms. Usually they just listen to the sound. Very rarely do they do anything more sophisticated than that.

The following were some of their favourite ways of using the audio content on their mobiles:

- As ringing tones, SMS alarms or memories of friends
- Tape my friends and myself in funny situations. I listen to them when I am bored or want to reminisce about what has happened
- I record songs and then listen to them when I don't have an MP3 player with me
- I have taped songs which I have used as ringing tones or SMS alarms
- Listening and jamming along
- I listen for comedy
- If someone has a nice ring tone we share with friends.

Only a few respondents (less than 0.5%) used the audio feature beyond the normal or standard usage:

- To practice for tests
- Listen to them while jogging, on the bus etc
- When I make songs, I can store them as melody and if there is one that comes to my mind – a bit like a notepad/memo
- I record words I learn from school and listen to them. Also I listen to songs I have ordered on the MP3
- Practising speeches, lines in a play and listening to MP3 files
- I tape dictation and make notes
- Whenever there is a situation that needs to be captured, I use voice recordings as my phone does not enable video images.

Showing videos to friends and family, apart from watching them alone is the norm when it comes to how the young people are using that content.

- After shooting the video, I show to friends to have a laugh if they are funny
- When my friends do something, I have to get them on video
- I shoot scenes, events and often myself
- I watch them myself and usually send them to friends that are featured in them
- If somebody does something funny you can show it to others later
- If I capture funny clips I can either keep them as memories or show them to others
- Look at them when bored i.e. amuse myself and perhaps other people too – finding some humour in some situations.

Questions 22, 23 and 24 asked the respondents if they enjoy taking still pictures with their phones, using the audio functions and watching video clips on the devices. There were so many problems that most of the respondents raised.

They would enjoy more taking pictures with their phones if the quality of the cameras were good:

- No, poor quality images
- Not that much, the pictures are bad
- I can't and good camera mobiles are expensive
- I prefer looking at actual photos
- Does not work well in dark, small memory and eats up battery
- I prefer to use a real camera
- I can't because the camera is usually not so good and I don't know how to send them or just can't be bothered if the instructions are too complicated
- I do in most cases, too bad the camera quality isn't that good
- Yes, I like taking pictures of other people, mostly to record an event
- Little memory space, so it's really irritating
- I don't take pictures a lot because the quality of the pictures is not so good.

The key problems raised about the audio features were more to do with the quality of sound. A majority of them said that they used that function only to test and record ring tones, but prefer to listen to music on a separate MP3 or CD player.

- No, because I have MP3 player

- No, because the quality isn't that good and you have to pay 5 euros for a cable that allow you to add clips on your phone from the computer and it costs 3 euros to order ringtones
- No, because I tape something it sounds on the phone a little unclear
- Rarely, there is nothing interesting to listen to
- No, because my phone doesn't have enough space for them and I don't need them – the quality is also really bad
- I listen to them for a couple of times and remove them
- Not often, as the sound quality is pretty bad, the sound keeps breaking
- Not really, I find that a pretty useless function
- Sometimes I do if I am not carrying my MP3 player or my CD player
- No, because the audio recordings I tape are “comedy of funny situations”
- No, because I listen to other recordings on the computer.

The video feature could be potentially useful, but currently most of them own phones with lower megapixel camera features. Other key problems raised were to do with the little space on the phones and that one can only take short clips. Watching videos on small mobile screen is physically tiring for the eyes.

Further insights are provided by many of the respondents with phones that have a video feature:

- No, it's so annoying watching some video on a small screen and the picture is not so sharp
- Small memory
- Can't be bothered – the picture keeps breaking up
- They are DVDs for that
- No, there is nothing there that makes sense
- I am not accustomed to doing that
- Yes, for instance on a bus to school
- Yes, but I prefer them on computer
- Yes, if one of my friends is doing something exciting
- When they are good I do
- I watch films and other videos
- Funny things happen when there is no digital camera available. It's fun to watch these things from your friends' mobile phone.

Questions 25, 26 and 27 invited the young people to suggest different ways that could make using MM features more enjoyable.

On pictures taken with a mobile phone many offered their personal ambitions with this feature:

- Develop them
- Store them on my PC
- I would like to edit them even more, although already it is possible to do something
- I would like to post them on the Internet
- Transfer them to computer – the transfer procedure is currently too complicated

- Print them
- Put them on display
- Distribute them for free
- Use them elsewhere
- Better software for mobiles for picture editing
- Edit picture and draw my own
- Print them directly from my mobile
- If I would have still pictures, I would send them to competitions and win cash money
- Send them to a shop and they would send me the photos home
- Make them better quality so they could be put in a photo album.

On improving the audio feature, the following was suggested:

- Listen to MP3 through speakers
- I would like to have a proper MP3 player on my phone
- It might be nice to record interviews
- Edit my audio recordings
- I would like my phone to have more memory
- To record a conversation or call
- The sound volume could be higher
- A mixing table for a mobile phone
- Connect to a CD player
- Better speakers
- Use the mobile as an instrument to play something
- I would like them to be longer and clearer
- As notepad
- The quality should be higher and the capacity on the mobile higher
- Listen through Bluetooth headphones
- Better connections for headphones
- Combination of mobile and iPod

There is a lot that needs improving on video features according to these youngsters who are showing phenomenal insights on future mobile handsets:

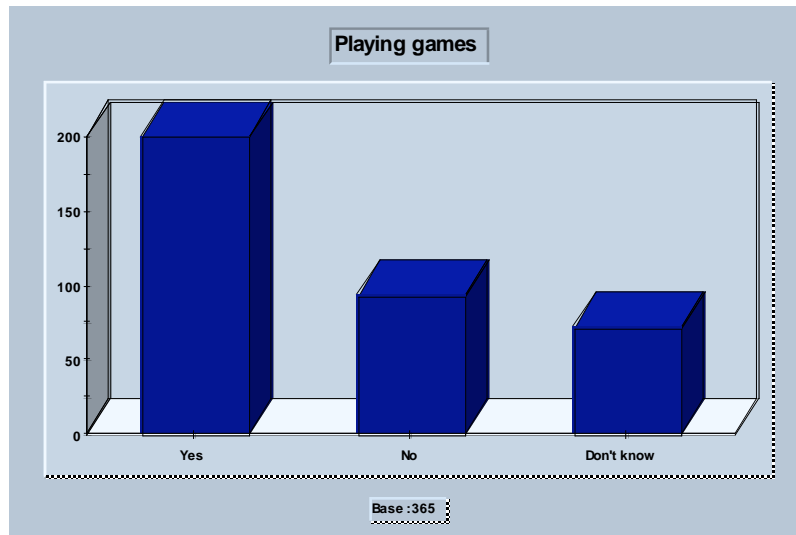
- Increase memory so I would be able to store more files – for instance longer videos and audio clips
- The sharing could be faster
- Maybe edit somehow or forward and rewind
- Getting a bigger memory card to get room for videos.

Playing games that are already installed on the phone is a practice that has become a habit of young people (Table 8 and 9). This seems to be so for those that are aged between 10 to 16.

Table 8

Base : 365	Counts	Percentage
Yes	200	54,8%
No	93	25,5%
Don't know	72	19,7%
Total	365	100,0%

Table 9



The frequency of playing games varies – with a small percentage playing games a couple of times a day (Table 10).

Table 10

Base : 365	Counts	Percentage
A couple of times every day	7	1,9%
Many times every day	10	2,7%
A couple of days in the week	71	19,5%
A couple of times in the month	114	31,2%
Don't play any games	35	9,6%
Other	7	1,9%
Don't know	121	33,2%
Total	365	100,0%

Without being specific, almost 80% could not shed more light on what type of games they played (Table 10). However the interviews undertaken in Helsinki, Turku, Lahti and Porvoo provided further information on that and also on why they are not interested in using the mobile phone for learning purposes.

Table 11

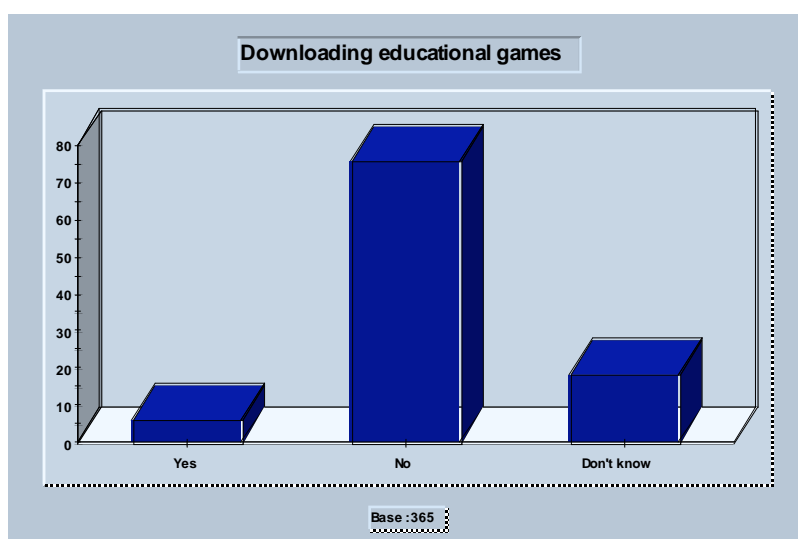
Base : 365	Counts	Percentage
Adventure games	37	10,1%
Combat games	5	1,4%
Sports games	20	5,5%
Strategy games	15	4,1%
Memory games	7	1,9%
Role-playing games	1	0,3%
War games	0	0,0%
Rally or car games	7	1,9%
Other games	8	2,2%
Don't know	293	80,3%

A majority of these young people do not download any educationally useful games (Table 11). Almost 75% were not interested in downloading this type of material to their phones. There is a small percentage of youngsters that download content that has a learning component (Table 12 and 13).

Table 12

Base : 365	Counts	Percentage
Yes	22	6,0%
No	276	75,6%
Don't know	67	18,4%
Total	365	100,0%

Table 13



Why they downloaded fun games:

- Depends if am bored or not. If I am bored I will play continuously, if I have something better to do, I will not play at all
- I use them to pass time whenever I am bored or I can't sleep. I have downloaded Snake, Pinball. I have downloaded one important essay thing – “Summarised” of course. I download this kind of material very rarely – only when I need information
- Play games that require skill and thinking, such as chess.

What kind of information do young people want? Mostly likely answer to that is they want to learn about stuff in the world. The use of a mobile phone to download information per se is not a practiced habit in this age group.

Those that did not download educational material cited the following as their reasons for not doing so?

- Is there anything educational? (a respondent posed this genuine question!)
- I don't download anything school related to my phone
- Where can I download this stuff from?
- Don't know about the possibilities and I don't use the Internet feature
- There is no need
- Not interested – it doesn't interest me to have study things on my computer
- It's no use, a computer has better opportunities for that
- I don't know where to go for that and there is not much memory on the phone! Plus I don't know anything about things like that and I don't have interest
- I don't want to download information to my mobile, I don't use my phone for this kind of purpose
- Never. It just has never occurred to me to download anything related to school and now that I think about it, I wonder if such things exist
- Because they are pretty useless
- I use my computer to do that – the phone is too slow
- I don't want to use money to get educational material on my phone
- Sometimes educational stuffs are boring, but if they were in a cool way, everybody would be interested
- So far I have not been in a situation where I could have used my mobile phone to benefit my studies
- I don't think there is any
- Such material is not easily available
- The Internet is better and faster, and the screen is bigger, I wouldn't want to read anything longer than an SMS on my mobile
- I don't think it is necessary and I am unaware of this opportunity and it costs money
- Never, because I don't need it.

Those that downloaded content had this to say about what they downloaded:

- Revisions for tests
- Dates for tests, words and terms that are difficult to remember
- Material for revising exams

- A currency/weight/temperature converter
- We took pictures of our class notes so that we didn't have to write everything
- Have searched for information via Google.

Some of them provided information that they felt would also be useful to the study i.e. the type of content they would like to download or receive to their mobile devices

- I haven't thought of it e.g. an English dictionary would be a very good to have
- A better recorder so that I can record lectures
- Encyclopedia on mobile phones
- Weather reports and maps
- Some information about upcoming events
- Free bus schedules, free number service/address
- News and quiz games
- Mobile TV with educational programs
- Information about new job opportunities
- Book and movie reviews
- Homework and test reminders.

One respondent suggested a phone with really good music features:

“It would be nice if Apple would make an iPod phone with a good music player.”

IV.II Results from the interviews and observations in Finland

In *Lahti*, the interviews took place at Lahti Youth Centre. About 14 young people who frequently visited the centre were interviewed individually. There were a lot of young people who were coming to the centre for a night of live music performances by Lahti based rap artists. It was early evening when the interviews took place on a Friday. A youth/project worker was also asked about his views on the uses of mobile phones in youth work.

Ville is 18 years old. This is what he had to say about his mobile experience.

“I have a Nokia 6630. It has a camera. Sometimes I take pictures. But I don not download anything to my phone because it is too expensive. I don't play games on my mobile. I use the computer. I don't transfer the pictures to anyone. The most important thing is calling and texting.”

Nino is 16 years old. He is an upcoming rap artist. He was one of the artists who was scheduled to perform that night at this event. This is what he had to say about his mobile phone:

“I have an N-Gage. It has an MP3 player. I transfer songs to it from my computer. I really need the MP3 player as I use it in my music.”

Tommi is a youth/project worker. His work is at Lahti Youth Centre. He is 30 years old. His work involves organizing various youth activities like concerts and outdoor events. When we caught up with him, he was busy arranging that night's live rap and hip-hop show featuring some regular artists that live in Lahti. He talked about how

young people are using their phones – mainly texting and calling. He also talked about the potential to use mobile phones in youth work.

As a youth worker he finds that it would be useful to reach out to young people using their mobiles, but wondered at how effective it would be. He clearly said that as of now, they do not have a mobile youth service – it is a new area and many handsets make it difficult to develop standard mobile services that are easily available for easy access to all phone models. Even though a mobile information youth service would have positive effects on his work with young people, he was worried that these services might be too expensive for the youngsters. One way to make it more interesting for young people would be to make it free.

Ville is 20 years old. He is studying classical and jazz music and also teaches other young people how to play a trumpet. He owns a Nokia 6630 that he uses to take pictures and listen to some music. He was however not happy with the sound quality on his phone. He mainly downloads sounds to his phone and the pictures he takes are shown to his friends from the mobile screen. He has also downloaded the game “Who wants to be a Millionaire”.

Kapa is 27 years old. He is a rap artist and does a lot of other youth related work at Lahti Youth Centre like checking sound for their live shows. He also works in a clothes shop catering for young people’s style. He owns a Nokia 6630, but he really does not need some of these multimedia features. He prefers to use his phone for calling and texting. Only occasionally does he use his phone to take pictures.

“You might be in a situation where you really need to get pictures and then it is really necessary.”

He also makes audio on computer, converts it to MP3 format and then downloads to his phone – he uses those audio clips as ringtones.

Elina is 20 years old. She owns a Siemens phone – one of the earlier models without any of the more latest multimedia features. In her opinion: “a phone is a phone and a camera is a camera.” She really does not need a camera phone even though most of her friends have been gone in droves to purchase the phones when they started appearing on the market.

In *Porvoo*, the interviews took place at Linnakosken High School after the pupils had finished filling the questionnaires. Almost 20 pupils were interviewed on camera. Here is a summary of some of these interviews.

Kimi is 16 years old. She owns a Siemens phone with a camera. She got the phone as a Christmas present. She finds that the camera is very useful. Depending on her mood, she sometimes plays games. She takes pictures of almost everything that interests her - “dogs and things”. She sends the material to her computer using Bluetooth. She stores the pictures on her computer and sometimes sends them to friends via email. She also listens to music on her mobile phone if she does not have her CD or MP3 player with her, but the problem is that she can’t store many songs on the phone as the memory is too small.

Harri is 16 years old. He owns a Nokia 6600. He has owned this current phone for almost one year. He takes pictures and downloads what he calls “good games” to his mobile. He would be interested in downloading educational games. He also would like to have more space for the music and videos.

Johannes is 17 years old. He owns a Nokia N70. It has a good camera. He takes pictures and uses Bluetooth to transfer them to his computer. He plays mobile games when he is really bored.

Tony is 17 years old. He owns a Nokia phone. He sometimes plays games on his mobile. Once he downloaded a game and it costs 5 euros – too expensive for him to make that a habit. It was a gambling game and nothing to be learned from it – just a fun game.

Tien is 13 years old. She is originally from Vietnam and owns a Nokia 7621. It is easy to use. She says the following about her use of the camera on her phone:

“I use it a lot – having fun with my friends and when I have to tell my friends something and take pictures instead of writing.”

Street interviews took place in *Turku* in one of its busy shopping malls on a Saturday afternoon. At least 11 young people were invited to talk about their mobile experiences.

Mikhail is 16 years old. He owns a Nokia 3221. He has had it for 1 year. He plays games on his phone and sometimes downloads them – but they are “pretty expensive.” If they were free, he would be happy to download them. He takes “pictures of friends – embarrassing moments and shows them later. He listens to the music on his phone and would be interested to download educational information on his mobile.

Petra and Emilia are 13 years old. They each own a Siemens and Samsung - clamshell phones with camera features. They play the games that are on their phone like Snake. They both do not download any games on their phones because they are too expensive.

Susanna and Jenni are both 17 years old. One of them owns a Samsung phone and the other owns a Nokia phone – both are clamshells with camera features. They take pictures of their friends and sometimes sends them using Bluetooth. They don't play games anymore, but are interested in getting educational information.

Antti, an 18 year old owns an old Nokia phone. He sometimes plays the Snake game when he is really bored. He doesn't download any games to his mobile. He puts it bluntly thus:

“Not if it costs money, it is just stupid. Not worth it.”

He would be interested in getting educational information – if it was free obviously.

In *Helsinki*, 50 interviews and observations took place wherever – on the streets, shopping malls, youth centres, live concert events and other places where a range of multicultural events were taking place. The interviews were done on the spot i.e. no prior arrangements were made – some were captured on camera and notes were also taken of key points raised and observations made. Formal interviews were done at the English School in Meilahti.

The following are key summaries from the interviews:

Vali is 20 years old and owns a Nokia 6630. He is of African origin and has been living in Helsinki for 4 years. Excited about his camera phone, he takes a lot of pictures of friends and events that happen around him – like when he goes out with friends. He downloads these pictures to his computer using Bluetooth. He shows these pictures from the gallery folder on his computer. The best ones he sends to his friends and relatives back home using email. The small memory on his phone is a bother. He downloads music to his phone and whenever he has a new track, he plays it to his friends and transfers to their phones – most of his friends own Nokia phones with Bluetooth.

Four 14 year old girls were interviewed. They attend the English School in Meilahti in Helsinki. They all have clamshell phones with camera features. There was group consensus that the quality of the pictures they take with their phones are not all that good. If they are to download any content to their phones, it is usually ringtones and they do that rarely. Another 14 year old girl from the same school has a Nokia N70 – with better camera features. She takes pictures that she puts on her computer for sending to friends via email. She sometimes downloads MP3 audio clips to her phone.

At the English School in Meilahti where the 35 youngsters were asked to fill a questionnaire, group questions were posed to them about downloading content to their phones. Those that downloaded anything to their phones were only interested in fun games and audio files – which they downloaded occasionally because it costs money to get that service. A majority of them were not interested in accessing educational materials. The reasons they gave was that it is not necessary – they can use the Internet for that and it is also expensive.

Indeed there is excitement with the camera features on the phones. The conversations with many youngsters in Helsinki reiterated the same problems that other youngsters have expressed elsewhere. The phone memory is too small to make long clips – whether audio or video footages. They would want to edit the content further and share it freely with their friends over the Net. Sharing the content is primarily done by them showing the friends the content direct from their mobile screens.

V. Field visits in Estonia

V.I Results from the questionnaire study in Estonia

The response rate to the questionnaire exercise was indeed very revealing. Most of the teenagers who participated in the exercise, just like in the Finnish study painstakingly answered most of the questions. There were 249 questionnaires that were returned.

From this 140 were female and the other 109 were male (Table 14). The largest proportion of the respondents were aged from 16 to 18 and already attending high school (Table 15 and 16).

Table 14

Base : 249	Counts	Percentage
Male	109	43
Female	140	57
Total	249	100,0%

Table 15

Base : 249	Counts	Percentage
12	1	0.4%
13	1	0.4%
14	16	6.0%
15	49	19.6%
16	39	16.0%
17	63	25.0%
18	60	24.0%
19	5	2.0%
Total	249	100,0%

Table 16

Base : 365	Counts	Percentage
6 th class	1	0.4%
7 th class	2	0.8%
8 th class	41	16.0%
9 th class	24	9.6%
10 th class	43	17.0%
11 th class	68	27.0%
12 th class	56	22.2%
Other	14	6.0%
Total	249	100,0%

The majority of the respondents were all Estonians, only a small number were from outside Estonia – 5 Russians, 7 were of both Estonian and Russian parentage.

Current phone

Half of them owned a Nokia phone and the rest had other brands - Siemens, Samsung and Sony Ericsson. Three quarters of these phones had camera features. A small proportion owned other models like Benq and Motorola.

The reasons that they cited are not different from the reasons mentioned by the participants in the Finnish study. Just to reiterate a few of them in their words:

- It is stylish, modern, quality and none of my friends have got a phone like this
- Good features, good price and good campaign
- Small, easy to use (buttons), good looking, necessary functions (Bluetooth, Java)
- Nice and advanced phone, also trendy
- It looked cool, had easy menu and very many functions
- It has quite high-quality camera, MP3 player, a lot of memory and looks nice
- Phone is good, high quality, with good range, good contrast display, also small and with clamshell
- Comfortable, powerful mobile, beautiful, high quality
- Cheap, with camera and alarm clock – what else should I need?
- I wanted one that would be resistant for dropping to floor
- Thin, good looking, good display, enough functionalities and good price
- Mostly because it is one of the most beautiful clamshell phone.

Question 10 asked the respondents what type of MMS they send. The responses echo the same findings from the Finnish study. Those that send MMS, usually send photos they have taken with their camera phones, music and ring tones. Like in the Finnish study, the young Estonians rarely send MMS preferring to share the content using other free and cheap ways like Bluetooth and infrared. When it comes to whom they share the content with – it is usually with friends, family and acquaintances.

Others prefer not share their content with anyone:

“I don’t share them, they are my personal things.”

Only a few go to the extent of putting the content on their computer and distribute via a web site.

One respondent said this about what they do with MM content:

“Show them, let them listen and watch, upload to web.”

Another respondent widened the distribution network using the Internet:

“I connect my phone with computer, save files there and so I can share my things through MSN.”

Others exchange the content with their friends:

“Yes, I like to share the content with my friends, sometimes we exchange content.”

The response to question 13 that asked them whether they liked the way they shared the content reveals that a majority of them like them, but only a few don’t like them.

The reasons for their explanations are varied:

- I like because it is easy to send photos of friends
- I like the options, *because you can share the emotions that you have experienced* by sending them audio clips
- I like the options, because they let me forward the photos easily
- I don't use them, but I am glad that those possibilities exist
- I like the possibilities to send MMS, e.g. when my friend has a birthday, *MMS surprises her more* than ordinary SMS
- I like that I can *share with others my expressions and opinions* for example sending them a picture of where I have been
- I like that we can send pictures and ringtones to each other, so we don't have to order ourselves
- I like, because it entertains and makes easier to explain things to others
- It is difficult to find a program that allows you to put pictures together easily
- I like because I don't need many technical skills
- I don't like, because not everyone has to know what is going on in my phone
- I like to share some special moments
- I like that I can send content to someone who needs that, and the person doesn't have to spend some money
- I like that I can receive photos that others have done, I use them on my phone's display
- Like Bluetooth and infrared, but they don't seem to work in every phone
- Bluetooth – free, comfortable, but too slow.

They went on to offer suggestions (Question 15) about how they would like to improve the way they share the content. The use of the web in sharing mobile content was suggested by a majority of those that responded to the question:

- Uploading to web
- Sending them by email to computer, sending them through MSN to others
- Phones could read all file formats
- Synchronisation over the Internet with good standards
- The Internet connection between phone and computer might be faster, so I could check my email faster
- Sending to e-post could be faster
- Upload to web, send to email, send to MSN
- Bank account information could be in phone also.

Question 19 reveals that those with camera phones use the photos they take as wallpaper and sometimes show them. Others offered more insights into what pictures they have:

- Record events, make photos of necessary things
- Most of the times I just entertain myself. Sometimes I take photo of something that need to be shown to someone else
- Usually I make photos of myself, nature or sweet persons, so I could later show where I have been to and what I have been doing to others
- Personal things
- To remember old times
- Just look at them when I start missing someone/something
- Photos are more like memories of some kind of event

- To make my display more cool
- I make photo, then process it (put rabbit's ear on), show it to people and then delete it.

The response to question 20 again like in the Finnish study shows that the audio features are used to make audio that is eventually used as ringtones. Some however record live concerts and later listen with friends.

- I listen to them when I feel like it
- When I am bored, I listen to them and let my friends listen to them
- Entertainment and irritating teacher in class
- Change ringtones every three months
- To remind myself of good times.

Only one person went out of the normal in their uses of the audio feature:

“For recording some talk, so I can later on write down, earlier I used for ringtones also.”

“I tease teachers with them (let them listen to the files about the silly things they are talking.”

Using the ringtones as an alarm is also popular:

“If I want to leave the lesson earlier, I will set the lesson-ending alarm that I have recorded with my phone.”

Insufficient memory capacity to store videos is one reason many youngsters don't shoot videos with their mobile phones. Taking videos however is exciting.

- I show them to others and then erase them, because they take too much memory
- Download them to computer and then laugh
- Delete or keep them so I can later on look what funny things I have done or said
- Process them and send them.

Questions 22, 23 and 24 sought to find out whether or not they enjoy taking still pictures with the camera, using the audio and video features on the devices.

Those with better cameras – a small percentage actually like using the devices for taking pictures and videos. Those with bad cameras were not happy with the quality. Those with the most expensive phones were highly positive about the audio features and the quality of sound they record and playback.

- I use that function, because the phone gives sort of good quality to the photos
- I like yes, because if you don't have camera with you, phone is good option
- Yes, I like that I can make photos everytime and everyplace
- It is a good function for entertainment, but photos with good quality can be done with digicamera

- I like that I can make photos, because if you see something good, you make photo and can show it to friends
- I like the possibilities to store and save and send the photos of random events
- I use my camera, so I can make photos of my cat or some other beautiful and nice objects
- I like the possibility to save some good moments
- I like actually, considering that the quality is getting better all the time
- Not very much, because the quality is not very good and there is not enough memory and battery goes empty
- Yes, I use it, but generally the quality of the photos is much more bad than photos taken with digi camera
- I don't like because of bad quality, on the other hand some good moments should be saved.

Listening to music on their phones is not a favourite pastime for those that have audio features on the devices:

- No, I don't use, because of bad quality
- I don't use, because I actually have MP3 player
- No, not good enough hardware
- Not really, it wastes the memory of the phone and MP3 player is anyway more comfortable
- My phone lets me listen to small MP3 clips
- Sometimes I listen to that function and I am not very pleased with the possibilities
- I don't use that function, I am not that kind of person who needs to listen to music every time everywhere
- No, I have iPod for that, phone's memory is not big enough
- No, why waste time on that, clips are short and of bad quality.

A few of them actually like the experience of listening to music via their phones:

- I like the possibilities, I listen to them everyday and I am very pleased with the quality
- I enjoy that function for listening to music
- I like the options, listening to your favourite song through the phone is cool.

Some enjoy watching videos and others are not interested in using that feature:

- I like the videos that I have done myself
- Yes, I like to see what I have recorded
- I use that, but software could use some normal player, which could offer "pause" function
- Yes, sometimes I like and sometimes I dislike
- I don't watch them, there is TV for that
- No, because size of the picture is too small and also quality of sound or picture might be bad
- It is too annoying to use the phone for that, because of small memory and the clips are short

- With N-Gage, it was good to look at videos, now I don't look at them anymore.

Questions 25, 26 and 27 asked the respondents to suggest what they would like to do with the still pictures, audio and video clips they have captured or recorded using their mobile devices.

Sharing them via the web and printing them in the case of photos are suggestions that many of them offered.

- Upload to web or print them
- To send photos directly to photo service where they print them out
- I would like the zoom function, so I could make photo of something that is in the distance.

With audio features many offered suggestions that have been echoed in the Finnish study:

- It could be possible to record longer
- I wish it could be possible to connect large loudspeakers
- Clips are boring, full-size music would be better
- It could be possible to listen to music more louder
- Headphones for two people could be invented, so I could listen to music with my friend.

In order to enjoy the video experience on mobiles, the Estonian respondents had this to say:

- I will buy a bigger memory card so that I can make more videos and download music
- Possibility to fast forward
- Sharing might be easier
- Better software
- I wish I could make longer videos
- Mobiles could have the same possibilities as the newest version of Windows Media Player.

Gaming on mobile phones is also popular among Estonian teenagers (Table 17 and 18). Almost half of them play the games on their phones. They play different types of games – for example sports and adventure games (Table 19). A majority of them don't download any educational games on their mobiles – about 83% said that they had not downloaded such content from the Internet (Table 20). Similar sentiments were also expressed by the respondents in the Finnish study – these young people are not keen on using their mobiles for anything that is not interesting or has a fun element.

Table 17

Base : 249	Counts	Percentage
Yes	136	55%
No	111	44%
Don't know	2	1%
Total	249	100,0%

Table 18

Base : 249	Counts	Percentage
A couple of times every day	7	%
Many times every day	25	%
A couple of days in the week	21	%
A couple of times in the month	82	%
Don't play any games	100	%
Other	13	%
Total	249	100,0%

Table 19

	Counts
Adventure games	53
Combat games	25
Sports games	57
Strategy games	56
Memory games	44
Role-playing games	
War games	16
Rally or car games	33
Other games	14

Table 20

Base : 249	Counts	Percentage
Yes	32	13%
No	208	84%
Don't know	9	3%
Total	249	100,0%

There are some that have downloaded educational material (Question 32). They have downloaded:

- Different types of formulas (Maths, Chemistry)

- Converter
- Cribs – widgets
- Who wants to be a Millionaire
- Word documents
- News
- Answers for tests
- Names of Estonian writers
- Scientific calculators.

One suggested that if there had a phone with more memory, they would be interested in downloading e-books to their phones:

“Instead of going to library, I will download book and enjoy reading with mobile.”

Question 33 wanted the respondents to explain why they did not download any educational material on their phones. The Estonian respondents had a lot to say about that:

- Teachers don't allow use of mobile in lessons
- No need to do that
- I haven't had time to look for the materials and don't know where to get them
- I have diary and workbook for it
- Because the memory is too small
- Because information is available from other sources
- I don't use phone for that, too uncomfortable in my opinion
- I prefer pocket PC
- The quality of the materials is bad
- I don't feel like it, because it takes time
- They are not accessible
- Current mobile operator doesn't support that
- I don't have enough information about it
- I haven't heard that things like that can be downloaded. I am not aware of such materials
- I don't download useful things to my phone
- Not practical
- There are places where I can get information more quickly
- There is no such educational materials
- It doesn't seem interesting
- I haven't downloaded – I haven't found them (Further analysis – some have been looking for interesting materials)

Young people in this study are really not interested in downloading educationally useful games to their mobiles. In answer to question 33, a majority of them are not interested in playing educational games (Table 21).

Table 21

Base : 249	Counts	Percentage
Yes	81	%
No	158	%
Don't know	10	%
Total	249	100,0%

Many offered the kind of content they would like to download which as they say is not available (question 35):

- Homework information
- Formulas
- Summary – keywords, explanations
- Learning resources
- Information about nature
- Prospectus
- Important grades and test reminders
- Schedule or class timetables
- Menus of dining houses
- School's social events
- Wikipedia
- News from the school i.e. newsletter for mobiles
- Language courses
- Answers for tests
- Concepts
- Estonian-Russian-Estonian dictionary
- Maps
- Grades from e-school.

“It could be possible to insert your schedule of the classes.”

Someone reminded us that “these things don't exist.” Another one was sure that school authorities are not keen on this: “Unfortunately this isn't allowed at school.” One respondent coined this type of schooling thus:

“It could be possible to access the e-school with mobile and could then call it m-school.”

For this to be popular among these young people, one suggested an attractive incentive:

“Free access to e-school.”

There are other types of information the Estonian respondents suggested they would be interested in receiving on their mobiles:

- Leisure time information
- Timetables of buses and trains

- Weather forecasts
- Horoscopes
- Movies in cinemas
- TV programmes
- Cultural announcements
- Menus of cafeterias, prices and opening times
- Concert dates
- Daily news
- Places with big traffic jams
- Sports results
- Entertainment places (clubs, pubs)
- Download films
- Exchange rates
- Stock market results
- Music releases
- Upcoming events.

One suggested that better incentives should be offered for them to be interested:

“Even if I need to download something, I wouldn’t do that because it is too expensive.”

Question 37 – the last question invited the respondents to make any other comments. A few of them provided more feedback:

- Price list of the data transfer could be cheaper, so it is possible to use more web-based solutions
- Why are technology solutions so expensive?
- Although I don’t like mobiles, I find them useful.

VI.II Results from interviews in Estonia

The Estonian partners undertook formal interviews in Tallin - the capital city. They interviewed 14 youngsters on camera. The purpose of the interviews was to get more illumination on their uses of the multimedia features on their phones and also to find out if they are interested in downloading any educationally useful information to their handsets. The interviews took place in a closed environment. The youngsters were interviewed usually in pairs, only in one interview did they interview a group of three. They posed questions to the individuals and sometimes did not address the question to anyone in particular. Those with an answer were free to respond.

One boy and girl – approximately 14 years old informed the research team that they play games on their mobiles, only when they are bored. The boy was not keen on downloading any type of educational information, but the girl was interested in having a proper dictionary on her phone. About the camera on their phones, both of them expressed dissatisfaction with the quality of the pictures. They would be interested in making videos of special events like concerts.

Two boys aged approximately 14 and 15 play mobile games quite often. They don’t download any other material from the Internet – “they are quite expensive.” They use

Bluetooth to share the multimedia content on their phones. One of the boys suggested that he would like to put the content on the net. He would like to have TV on his phone – in his words: “it would be nice sometimes to watch it.”

A girl aged approximately 14 years of age made similar observations about playing games on her phone. She plays the games when she is really bored. She doesn't download any games to her phone – “don't think they are so important, it costs money”. She would however be interested in looking up words via her mobile.

Another boy made the same comment about downloading games to his phone – “it is expensive and pointless for me.”

Another pair of teenagers reminded us that “mobile games are boring” and too expensive. They would be interested in downloading educational information – “maybe, if it is free.” They would like their mobiles to search the Internet and use a dictionary if these services were free and easy to access. They would also be keen to upload the pictures they take with their mobiles onto the web.

Two boys emphasized the problems raised by many youngsters about mobile games. They are a “waste of time” and too expensive to download. They would like a better MP3 player on their mobiles – two devices in one.

Two girls would be interested in reading the news and getting weather information via their mobiles. They however don't have time to play games, preferring to listen to music and surf the Net. They would be happy to have Maths formulas – “can't remember all these formulas” and some lecture materials on their phones and also getting more information about books i.e. book titles.

VII. Mobile Stories – content production exercises in Finland

The project was about showing also what young people are doing and can do with the MM features on their phones – a new digital literacy opportunity i.e. creating digital content. The content when merged into some narrative can indeed be a storytelling exercise in itself.

What young people said about that way of communicating what and why:

- Pictures tell a thousand words
- Capturing interesting moments in their lives – adding fun to living, funny moments, experiences (have gone abroad).

In Tampere youngsters made a collage of content using mobile phones. This is an example that shows how youngsters can be encouraged to capture content that another person would find interesting. The mobile phone task based exercise in itself was teaching these youngsters observational and storytelling techniques using a mobile phone and a computer as tools to create engaging content.

This is a youth activity in itself that youth organizations can be seen to be promoting i.e. young people talking about their day-to-day normal activities by using the devices.

VIII. Scenarios of heightened mobile experiences – further analysis

The usage pattern of multimedia phones between the youngsters in Finland and Estonia clearly show that there is uniform trend being set. The young people like these MM features for various reasons - *they can share the emotions that they have experienced* by sending to their friends audio clips, watching videos and still pictures. Memories and being reminded of places and different aspects of their lives are personally enriching in themselves. This personal information and emotional experiences that they go through when interacting with the content are not necessarily educational, but makes one feel good.

Indeed the MM features are giving the youngsters the means to express themselves in a different way. They can share their *expressions and opinions* for example by sending or keeping a picture of where they have been and what they have been doing. There are other impacts that one can see from the mediating influence of mobiles in one's life.

They are entertaining themselves through the content they make – it also makes it easier to explain things to others without using too many words. Verbal and one to one communication is cemented by sharing this content. When one sends a picture to a friend or takes pictures of special moments and when they look back, nostalgic feelings no doubt can revive or strengthen friendships with friends and family.

A new digital literacy activity is gradually shaping itself through practical uses of the devices in capturing key moments and normal activities in one's life. The mobile is like a pen and notepad together. It is being used to make digital notes of one's life and that is making the mobile experiences truly personal and beneficial in everyday life. The mobile in this case can be rightly called a digital pen – it is more than just a communication tool through the traditional ways of use, namely calling and texting. One captures digital content and eventually tells a story with that. As of now, the content is seen discretely i.e. listen to the audio by itself, show the still pictures by themselves or watch a video clip by itself. Given better authoring tools, they could merge all these discrete media elements into a multimedia rich digital tale for example of their summer holiday camp or their interests and hobbies.

These are some of the key issues and themes that this study has revealed:

- Using the MM functions – producing content, what is that content and what tools are available to make the tasks easier and more effective, uploading functions and use of the web
- Editing the content
- Sharing the content – the ways
- Downloading interestingly useful content – what type of content are young people interested in, mobile information services, should be free and really interesting
- Designing and producing content for young people – is it there?
- Design issues – making MMS functions work better
- Using mobile phones as tools in youth work.

Patterns of usage

There are different kinds of mobile users that one can visualize based on the data gathered in this exercise:

- They are those that are keen on MM features – the main reason why they upgraded the phones
- Those not keen on MMS features – just want to make and receive calls, a majority of them do not send MMS because it is simply too expensive and not worth it
- Those that share MM content prefer to use the free sharing functionalities on their phones – mainly infrared and Bluetooth
- Young people, mainly in the age group 10 to 16 are still keen on playing the fun games that are already installed on their mobile phones – they seem to be addicted to these games as they play them frequently when they are bored, waiting for something, when on a bus etc.
- A very small proportion download content to their phones. The type of content they download are audio clips that they use as ringtones
- Indeed those that take pictures use them as wallpaper on their phones, the audio that they make is used as ringtones and they just listen to them. Same with the video footages – they watch them by themselves or show to friends and relatives
- Sharing of content is limited to their inner circle, very few go to the extent of sending some of the content by email or distribute them in chat rooms like MSN
- Those that have downloaded other useful information have done that rarely – the exorbitant costs of these services is a major disincentive for them to use those services on a regular basis.

Problems that make the multimedia experiences not exciting were raised by those whose camera phones have lower megapixels:

- The quality of pictures needs to improve
- More storage on their phones is needed – they can only take short clips
- The poor sound quality is also a big problem such that some of them find this function not useful at all
- There have mentioned that it would be also interesting to upload the content they take on their phones straight to the web – currently there are no features to support this synchronous posting of content straight to the Internet from a mobile device.

Scenarios can be built based on the data. These scenarios will look at future likely usage and sharing of MM content, using mobile phones to access useful information, using mobile devices in youth work and design issues for mobile phones and services targeting young people.

Scenario 1 Producing and sharing MM content

Given the fact that they own mobile phones with better camera features – it is likely that more enjoyment and new usage of the content they capture will change. There is already a craze in the uses of these features – but interest to show the content to a large audience is low because the content is of poor quality.

On the same issue of sharing, the uses of Bluetooth and infrared will be the main free ways to send the content to other people's phones and the computer. Merging that content into an interesting narrative should open up opportunities for them to really make engaging content. It will spur them to put the content on the web for access by a potentially global audience.

Scenario 2 Using mobile phone to download and access useful information

Before going up and about, the young people or any mobile phone user could first download some content on their phone that has educational or practical use in their daily lives. Obviously this exercise will be made more functionally possible if there is more storage capacity on their phones. The content will be available from a web site and it should be made first by those organisations that have a public duty to work with young people. If the content comes from them, it should be free. Commercial content providers on the other hand should reduce the costs to access these mobile services. A pricing package that will make it an incentive to use these services should take the form of a one off monthly charge to access this kind of content from a mobile device.

If educationally useful content was readily accessible, many young people would know about it. The study has shown that many of them do not even know if such content exists. One youngster asked this question: "Is there anything educational". *Indeed is there anything really interesting for mobile phones – the answer is that there is very little educational content for access via the mobile devices.* There are more fun games being produced by the commercial content industry than really entertaining educational material. The fact is that young people already find the device an amenable tool to occupy their attention. The young people aged from 10 to 16 spend so much of their free time when they are bored playing these mobile games that some of them have said are useless and not interesting at all.

Some of those were just not interested in downloading educational material – because they can get that information from the library and the Internet. Some of them were discouraged from these mobile services because they find the material boring and too expensive for nothing.

There is a however a strong case to use mobiles to deliver key information summaries on various subjects, topics and issues. That is what some of them have requested – for example accessing summaries of difficult concepts and formulas. They could be revising for a test by having a quick revision pack on their mobile. They would go to the Internet, download a couple of exercises. When they are up and about, they could be listening to the revision or watching and even reading from their screen. The mobile phone will have become indeed a practical digital notepad with a variety of multimedia information accessible anywhere. When they are bored they could be revising or playing an educationally interesting game.

A personalised *M-School* is the future to make better uses of these sophisticated MM functionalities. The service has to be free – they are already paying a lot for calls and text messages. They could also subscribe to the service by paying an affordable one off monthly fee.

Scenario 3 Using mobiles in youth work

The study has shown that youth workers can encourage the young people to self-express themselves and they too can tailor make content that the young people can access using the connectivity of the Internet and mobile platforms. The findings have also shown that youth workers and even educational institutions are still to make use of mobile phones in their work with young people.

There is still a long way to go before mobiles can be innovatively used in youth work. The need is there – as shown by the interviews with youth department workers in all the cities that participated in the study in Finland. The challenge is how they can use these devices to maximum effect.

The following are some suggestions that can be followed in using mobile phones in youth work:

- Young people should be encouraged to make interesting content with their mobiles
- One has to identify those key youth activities that can be supported by mobile phone interventions
- The mobiles can be used to support young people's interests and hobbies
- Some information services can be repackaged for mobile platforms.
- Use mobiles to make educational content about serious issues and subjects that the school curriculum does not fully cover
- Support young people 's interests and hobbies – they can use the features to practice their hobbies e.g. music making and video production.

Scenario 4 Design issues for future mobile handsets

Another scenario can also be envisaged on future design issues that will make the MM phones a practical and beneficial tool in the everyday lives of not just young people, but other mobile phone users in other age groups.

The young people have pointed out the following needs that will make them enjoy the mobile experiences:

- Better picture quality
- Better sound quality
- Memory – storage capacity key issue.

In two to three years time as said before, it is probable that the prices of handsets with better quality cameras will come down and most young people will upgrade current phones. While this is happening, the mobile industry should be developing authoring

tools and platforms to create and distribute the content to a larger audience. This is likely to increase the diffusion of mobile content and will in itself foster a new ways to share meaningful information with other people elsewhere. The result of that being youth empowerment, improved attitudes and perspectives.

Mobile phone models should be standardized to have compatible features. MM applications should be equally accessible for all mobile phone platforms with minimum ease and the same standard of quality being maintained. Mobile manufacturers have been throwing functions that are of poor quality – these technological gimmicks have stirred people’s mobile craziness to purchase the newest and latest phone model just because it has novel features. Whether or not they work effectively has not been a major determining issue in a purchasing decision. It is only now – the last 12 months, that the industry is making phones with MM features that can capture quality content. The only problem is that these phones are very expensive for a majority of mobile phone users and what is already happening is that heightened and enjoyable MM experiences will not happen for a lot of people in the foreseeable future. A lot of people will not be bothered by having a phone with these MM features, especially if they have to pay a lot of money for it. They will keep their current phone and keep on using it for standard functions like calling and texting for as long as it is necessary.

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Appendix 1

MobiLeap Project

University of Art and Design – Media Lab

This questionnaire is designed to investigate how you are using your multimedia phone and what you would want to do with it and via it that are you are not doing now. It is part of a CIMO/EU funded project that focuses on demonstrating how to use new media platforms to deliver and access youth information.

Thank you in advance for taking the time to share your mobile phone experience!

Date: _____ Location: _____

1. Male/Female
2. Age

Age	
Less than 10	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
21	
22	
23	
23	
24	
25	

3. Current Educational Level

Education	Year
Primary school - Grade 1 Age 7	
Grade 2 - 8 yrs	
Grade 3 - 9 yrs	
Grade 4 - 10 yrs	
Grade 5 - 11 yrs	
Grade 6 - 12 yrs	
Grade 7 - 13 yrs	
Grade 8 - 14 yrs	
Grade 9 - 15 yrs	
<i>High school</i> - Year 1 16 yrs	
Year 2 17 yrs	
Year 3 18 yrs	
<i>Vocational</i> - Year 1	
Year 2	
Year 3	
Other (Please state)	

4. Please state your nationality:

5. What brand and model is your current phone? _____

6. List the last two phones that you have owned?

7. Why did you buy the current type of phone you own now?

If you own or sometimes use a phone with multimedia facilities, please answer the following questions:

8. How many text messages do you send per day?

Tick box	Number of Text messages
	Less than 5
	6 - 10
	11 - 15
	Over 15
	Other, please state how many

9. How many multimedia messages do you send per week?

Tick box	Number of Text messages
	Less than 5
	6 - 10
	11 - 15
	Over 15

10. What type of multimedia messages do you send (for example, pictures taken with phone)

11. Who do you share your multimedia content with?

12. How else do you share the multimedia content from your phone apart from sending as a multimedia message?

13. Do you like the ways you use to share the multimedia messages or content from your phone?

Tick box	
	Yes
	No

14. Please explain why you like or do not like the ways you share your multimedia messages with others?

15. How would you like to share your multimedia messages apart from the ways you are using now?

Please look through the multimedia content you have on your phone now and answer the following questions.

16. How many still photos do you have? _____

17. How many audio clips do you have? _____

18. How many videos do you have? _____

19. What are your favourite uses of the photos that you take with your mobile phone?

20. What are your usual uses of the audio clips on your phone?

21. What do you usually do with video footages on your phone?

22. Do you enjoy the experience of taking still pictures with your phone and using them? If not, please explain why?

23. Are you like using your phone to play audio clips? If not, please explain why?

24. Do you like watching video clips on your mobile phone? If not, please explain why?

25. What would you like to do with the still photos that you are not doing now?

26. How else would you want to enjoy the audio experience via your mobile phone?

27. How else would you want to improve the enjoyment of the video playback/recording/sharing features on your phone?

28. Do you play any games that are already on your phone?

Tick box	
	Yes
	No

29. How often do you play these games?

Tick box	Number of times you play games
	A couple of times every day
	Many times every day
	A couple of days in the week
	A couple of times in the month
	Don't play any games
	<i>Other</i>

Please state *other*: _____

30. Tick the type of games that you play on your mobile phone:

Tick box	Type of game
	Adventure games
	Combat games
	Sports games
	Strategy games
	Memory games
	Role-playing games
	War games
	Rally or car games
	<i>Other games</i>

Please state what *other* games you play

31. Do you download any content on your phone that has educational value i.e. you learn something from them that you can apply in at school /college or in life?

Tick box	
	Yes
	No

32. Please state what kind of educational material have you downloaded to your phone:

33. If you never or rarely download any educationally useful material on your phone, please explain why?

34. Would you be interested in playing educationally useful multimedia games on your mobile phone?

Tick box	
	Yes
	No

35. Please state any other type of information that you would like to receive on your mobile phone that could be useful in *your everyday life after school or college*.

36. Please state any other type of information that you would be interested get via your mobile phone that could be useful for your *learning outside the school or college hours*

37. Any other comments.

Researcher: _____ **THANKS!**

Appendix 2

MobiLeap Interview questions

1. Apart from calling and texting, what are some of the features on your phone that you use all the time?
2. Do you play any games that are on your mobile phone? How often do you play those games? Why do you play those games?
3. Do you download any games to your mobile phone? If not, please explain why not? What kind of games are they if you sometimes download them to your phone?
4. Would you be interested in downloading some educationally useful content to your phone? Please explain your response.
5. If you have a phone with multimedia features like camera and audio, please tell us how you use those features? How do you share the content that you take using your phone? Are there any problems that you face in sharing your content with others?
6. What would you like to do with the content that you take using your phone that you are currently not doing?
7. If you were to make content using your phone, what content would it be and who would be the likely audience?