

Surfing, creating and networking: Tampere City Library drives into the Information Society

In Tampere (Finland), “Information Society for all” has been a strategic goal since the beginning of 2000. New ways to approach the matter have been applied, and the Tampere City Library has been an active member in these tasks with the implementation of the Internet bus Netti-Nysse, which is described in detail in this paper as well as the challenges ahead to prevent the digital divide and the role that libraries can have in preventing them. In a modern information society like Finland we know that the access to Internet is not enough; the “everyday Information Society” is about learning, culture, community and meaning. It is about support and interpreters. It is about equal opportunity and constant public commitment.

The key issues for the success of the Internet bus have been a good atmosphere and image, pedagogical solutions, focus on everyday life, networking and commitment of the city. At the Tampere City Library we are hoping to be interpreters of the information society and to encourage adults to find new ways to express, share and understand through hands-on media education.

This paper is based on six years of experience working with the Tampere City Library Internet bus, a half year scholarship and work with Community Informatics at the Graduate School of Library and Information Science at University of Illinois at Urbana-Champaign and the ideas that professor Jan van Dijk presented in his book “The Deepening Divide”.



Elina Harju

Tampere City
Library -
Pirkanmaa
Regional Library

Keywords

Information society for all, Internet bus, basic skills, digital divide, public library, everyday life, pedagogical solutions

“ Finding partners from the private sector is an important part of the work. A dialogue between the Netti-Nysse and businesses in the fields of education and ICT is essential. ”

1 Background – learning locals

1.1 City Of Tampere

The third biggest city in Finland, Tampere has a strong industrial background, which has more and more turned towards high technology and innovative research activities. We have 200,000 inhabitants, 30,000 students and many ICT companies, with Nokia as the biggest employer.

The City of Tampere has committed itself to the development of the information society at the highest level. The city strategy is based on the idea of a citizens' information society. Empowering citizen participation is another important strategic aim. A large eTampere programme took place between 2000-2005 (www.etampere.fi) to speed up the development. That programme was also the start of new library services like the Internet bus and NetSquares.

1.2 Library and Information Society

Tampere City Library consists of the main library house and a newspaper reading room, 14 branches, two mobile libraries and the web bus Netti-Nysse. In 2006 the number of loans per inhabitant in Tampere was 25 and the PIKI network library was visited 4 million times. PIKI is the regional, computerized library system. The system serves 21 municipalities, covering 90% of the population of the Tampere region.

In addition to their traditional work, libraries have an important role as the centre of a citizens' information society. One of the major tasks of libraries is to ensure the availability of information network services to all population groups. All libraries in Tampere and the new mobile library offer access to information networks. There are two Net Squares and an Internet bus with permanent staff. The Net Squares have about 20 computers each. Net Squares are places in two branch libraries where people can use computers free of charge. The service is supported by special staff. A total of 123 free Internet access points are available for library users in both fixed and mobile library facilities.

Finns have a positive attitude towards technology, and the first Internet access stations came to Tampere libraries in 1995. According to a survey done in 2006 in Tampere, 86% of the inhabitants use the Internet, and in all Finland the rate is 77%. (Kuutoskaupunkien 2006)

Considering this background, it is relatively easy to jump at the new learning challenges that informacy -the literacy skills of the new digital era - presents. At the same time basic skills/knowledge levels are better/higher than before. New challenges are set to literacy. Interactivity, integration, selectivity and complexity are new demands that are not familiar from older media. People between 35 and 40 years old have not used computers in school. Computers and the Internet are still new tools. For tomorrow, basic Internet skills will no longer be enough.

Jan van Dijk (2007: 6) says that "(digital) divides are by-products of old inequalities, digital technology is intensifying inequalities, and new inequalities are appearing." The axiom "Those who already have, will get more" is very much true in the information society.



Figure 1 & 2. Sampola Net Square

2 Main ideas of Internet bus Netti-Nysse

The new media and their new challenges need new approaches. The Internet bus Netti-Nysse is an example of a new, approachable, non-formal way to help people to learn and see the possibilities and then make their own choices concerning their role in the information society.

The word Netti-Nysse is a very local Tampere-way to say Internet bus. The bright yellow bus is familiar to all and frightening to none. That is a good place to start. The purpose of the Internet bus is to lower the threshold of the information society by providing instructed access to information technology for all.

2.1 The Building of the Netti-Nysse I and II

At first there was an idea which the City of Tampere believed in. The City consequently provided the project with an old, articulated, public transport bus in autumn 2000. Through cooperation with local vocational schools, the City's IT department, the library and some private businesses, the bus was transformed into the Netti-Nysse, Tampere city Library's Internet bus. The bus is owned and funded by the City of Tampere; private funding accounts for less than 10% of the total operating funds required.

Technically, the first bus was an innovative combination of an old articulated bus, electricity and hi-tech ICT. The technical solutions and the concept proved to work in the hard weather conditions of Finland. The best Internet connection is through WLAN antennas. Ten of these antennas can be found around Tampere. If a point cannot be accessed, a connection can be made using mobile phones, the new @450 network or a mobile WLAN antenna. The bus is equipped with an auditorium and access points for 10 people. There are 12 computers on the bus all together.

By the end of the eTampere programme the first Netti-Nysse was getting old and it was not sure for how long it would be able to run. Therefore, the City of Tampere decided to build a brand new bus. The new Netti-Nysse started its service 2005. The old bus went to the media museum. The basic technical and operational ideas stayed the same, but applied into a brand new bus.



Figure 3&4. *Netti-Nysse I (The Mother) and Netti-Nysse II*

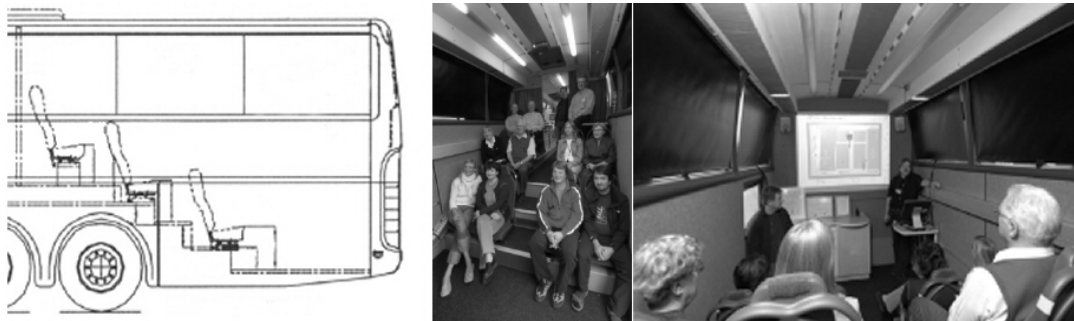


Figure 5. *The Auditorium of Netti-Nysse*

2.2 Netti-Nysse — The Heaviest and Yellowiest Mobile Service in the World?

The purpose of the Internet bus is to encourage the residents of Tampere to start using computers and the Internet and to give them the initial instruction necessary to do so. Groups of neighbours, clubs, societies or any group of people who want to learn to use the computer and the Internet can book the Netti-Nysse and have it come to their own neighborhood. Basic instruction is 8 hours and the group meets four times. Instruction is free of charge.

Netti-Nysse is on the road two shifts a day from morning until evening. A normal day consists of meetings with four groups, and the Netti-Nysse will meet them wherever a 15 metre bus is able to park.

Flexibility is important and that is why four out of five trainers also drive the bus, so that meeting times are not necessarily dependent on the availability of the driver. If the nearest antenna is in a nearby neighbourhood, the bus picks up the group and drives closer to it. This is a mobile service, is it not? To get the connection we can use public networks, but also some private and mobile networks available.

There are always two instructors with a group of 10 clients, as personal instruction is essential. Our tutors are a new kind of professional. A clear, understandable language and a spirit of encouragement and empowerment play an important role in the project. A good sense of humour and patience are the instructor's most important tools, because learning is different for everyone. For

example, the mouse is a new tool and a key to the world of the Internet; learning how to use it can be challenging in various ways and the instructor has to recognize those difficulties and adapt accordingly.

When the mouse has been mastered or at least somewhat tamed, clients move on to the Internet. The Internet is like a treasure chest to those just discovering the computer. Everyone finds something interesting: the library's web services, information on those who lost their lives in the war, horoscopes, roadside cameras, lace-making instructions, timetables and Internet banking all awaken an itch for the Internet. Email is the icing on the cake; each participant learns how to open his own email account.

Frightening participants about the dangers of the Internet is not done, however a critical and cautious approach to the Internet is emphasized. The most important thing is not to get clients "hooked" on the Internet but to show them its possibilities. The Netti-Nysse does not take clients away from other adult education providers. On the contrary, participants are usually keener to continue on with another computer course after this encouraging introduction.

The staff of Netti-Nysse has actively developed basic learning materials as well. "Catch the Mouse" is an online edutainment type of program to practice the use of the computer mouse. At the moment it is available in Finnish, Swedish, Spanish, French and Polish. In development are "From the Cottage to the World", an Internet navigation learning tool, and "Hands on", a keyboard learning tool. All the tools are situated in a Finnish cottage environment and a humorous tone has not been overlooked. Also the "Computers for Help and Joy" ABC leaflet was made by the staff of Netti-Nysse in cooperation with a plain-language specialist. All materials are free for anyone to use. "Computers for Help and Joy II" encourages people to take the next step and to start using the computer as a tool to create digital stories, photos, online writing and so on.

Netti-Nyse participates in different types of events, and functions as an Internet access point. During events, the Netti-Nysse and its staff try to lower the threshold to the information society by teaching visitors how to access EU materials, by enjoying media art, by setting up accounts with the electricity company or by helping potential students apply to educational institutions electronically. Many different types of citizens visit the bus.

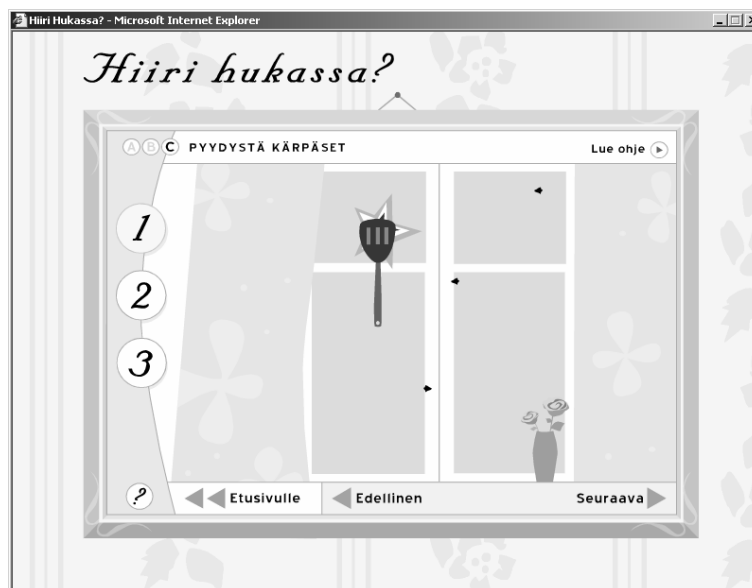


Figure 6. *Catch The Mouse*

About 5,000 Finnish and foreign visitors visit the bus annually to find out more about it. Some of its latest foreign visitors were a Japanese TV group and Romanian librarians.

Finding partners from the private sector is an important part of the work. A dialogue between the Netti-Nysse and businesses in the fields of education and ICT is essential. The Netti-Nysse has good local, domestic and foreign networks and has been involved with, among other projects, the @LIS Cibernarium project, which supported the objective of an information society for all in nine countries in Europe and Latin America.

The Internet bus service concept has raised a lot of interest and has also received public recognition. In 2001 the European Commission recognized the City of Tampere for its eGovernment application Netti-Nysse. The Internet bus service also won a national prize of innovative adult education practices in the same year. The Millennium Technology Prize Foundation gave us a Special Recognition Award for a people-centred application that exploits the World Wide Web and Internet Technology in 2004.

2.3 Building a Bridge Over Digital Divides

Netti-Nysse has served the community for six years. The bus is still mainly fully booked two or three months in advance thanks to content customers who do the most of marketing for us. A good atmosphere and individual support gets lots of positive feedback from customers. Learning together in a familiar group lowers the learning threshold and working together on new issues breeds social capital.

Netti-Nysse has over 1,000 basic instruction visits per year—that is over 90 different groups and 5,000-12,000 other visitors per year.

The learning groups vary from senior NGOs, truck drivers, homecare workers, people with hearing problems, Lions clubs, immigrants and outdoor winter swimmers to unemployed youth. In other

words, the Netti-Nysse serves a variety of groups and people. People without basic computer skills can be still found in every age and social class.

During the last two years, the customers of Netti-Nysse are getting older. For a long time, the amount of working age people was over 50%. During the last two years, majority of the customers have been over 56 years old. About two thirds of the customers are women.

More than 80% of our customers say that they will use a computer after the course, less than 20% might use it if support and free access are available and only about 2% has doubts. Normally these 2% have some physical problems/illnesses that make the use of the computer difficult. There is no follow up research to know what really happens with the users after the course in Netti-Nysse. What we do know is that the majority of the people have had a positive learning experience and a positive first contact with Internet.

In Tampere we have a good safety net for beginners: many different kinds of places to carry on learning, places for technical support for a reasonable price and many free public Internet points. We recommend the Library Net Squares. Those are safe places for the unsure user.

3 Reflections about the digital divide

Jan van Dijk describes very well the digital divide in his book (2005). His perceptions can be seen in our everyday "Information Society for all" work. As he says, the users of digital technology are not either in or out, included or excluded, but a wide range of different kind of using/not using. The reasons behind this spectrum of divides, according to him, are related to different resources and types of access.

Van Dijk finds five different kinds of resources related to the use of information technology:

- Temporal resources (time spent on different activities in life)
- Material resources (income and all kinds of property, computer equipment and services excluded)
- Mental resources (knowledge, general social and technical skills)
- Social resources (social network positions and relationships)
- Cultural resources (cultural assets, such as status and various credentials)

From the Netti-Nysse's point of view these statements are easy to agree with. For example working age women with children normally lack of time. Let us look at a hypothetical if not typical case. If a woman is working in the kitchen, in assisting jobs in hospital or in other fields where computers have not traditionally had a big role, she probably has not had time to learn computer skills or for surfing on the Internet. She might have a computer at home, but her children and perhaps husband are using it. She has not such good memories from formal schooling and she thinks that she is not a good learner. Among her friends or relatives there are only a few people using computers. Now the computer has arrived at her work place; she has to do part of her work through it and from now on the employer will send all messages and notes through email. The employer gives a one-day course on the applications installed, but no introduction on how to move the mouse or other basics. The computer and the Internet are the gateway to a strange new world for this woman. Some of her friends want to send her emails, but she does not know how to get an email address; she can read and hear from everywhere around her how there is more information about all kinds of issues on Internet. Her friends buy cheap travel tickets on the Internet. She thinks she is the only person "in the world" that is outside the Internet. She feels that there is a strong social pressure and at the same time she is a bit afraid, while everything related to computers and the Internet sounds so difficult and strange. One day at coffee break she says her fears out loud and notices how many others are in the same situation. Someone has heard about Netti-Nysse and how her neighbour got started with

computers there and how it was not scary at all...So this is where Netti-Nysse drives into the picture. There is a wide range of stories, and this one is just an example.

Access is a very important issue in all possible scenarios. Van Dijk has divided the term access into four specific stages (2005: 21):

- Motivational access (motivation to use digital technology)
- Material or physical access (Possession of computers and Internet connections or permission to use them and their contents)
- Skills access (possession of digital skills, operational, informational and strategic)
- Usage access (number of diversity of applications, usage time)

Motivational access is of course taken care of by the customer him/herself. Some people come to Netti-Nysse to “give some new intellectual exercise to the brain”, some because they need the skills for work or for a hobby, some want to learn to use web banking, some out of curiosity and some come just to be with other people. Often people already have a computer or they have the possibility to get one or use one, but they are lacking technical and tutorial support. The Netti-Nysse provides this and, as such, provides skills access.

If there is no computer at home, we also provide material/physical access, albeit temporary. However, we always recommend the person first to take the course and use the Internet at public access points and see if it really gives added value to his/her life. If it does, then he/she should go ahead and find someone to help her/him with buying a computer.

At Netti-Nysse, people are looking for basic skills and we try to tie the skills very tightly to everyone’s needs and interests (usage access). Once we know the people and their interests, we can give ideas on how to continue learning and practicing. Our next step is to encourage people to start using computer and Internet for networking and for more creative uses.

Some of the customers have used computers earlier, but their usage stopped because of retirement, children or because the computer broke down. They have been off line for some time and have been thinking about starting again. They are novice users and feel that since everything is developing so fast they want to start from scratch again. Van Dijk would call such people Intermittent Users.

Drop-outs have lost more or less permanently their connection to the Internet. The Drop-outs usually value the possibility to use public internet access points and the possibility of support at the Net Squares. They have learned their skills through friends, and these skills are normally very limited.

Net-evaders are those who are proud of their non-use. “Net evasion may also be a matter of cognitive dissonance and an easy escape from embarrassment” says Van Dijk. This kind of person is challenging as a customer and with him (normally it is a he) tutors need to use all their diplomatic and pedagogical skills to make them relax and notice that it is safe and everybody there is in the same situation.

Truly unconnected have never had any connection to computers and they are quite surprised that they ever came into a bus to take a course. Sometimes loneliness is the strongest motivational factor. Often they have no friends that have email addresses and with them one needs to work harder to find something interesting on the Internet. Luckily there is always a group around to help and to be the first people to whom to send email and receive some too (Van Dijk 2005).

4 The plans for the future: from surfing to creating and networking

Netti-Nysse is a living proof of the power of non-formal learning. It has been a “non-scary” place to learn for thousands. In Tampere the saturation point of Internet users is near, but lot of practice and support will be still needed.

Our next challenge is to broaden the skills of beginners. Broadband connections change the use of the Internet in a notable way. It makes the Internet really a part of everyday life. The Internet has an interactive image, but most Internet users, apart from emailing, use it in a rather passive and consuming way.

New applications and new ways to work, learn, network and create are there, but not reachable for those who are novice Internet users. There is a clear educational need and challenge that is a shift from operational skills to informational (search, process and select information) and strategic skills (to use sources as a means for specific goals and for the general goal of improving one’s position in society).

“Those who have a higher level of traditional literacy skills also possess a higher level of digital skills. The second most important type of resources for digital skills is social and cultural resources.” (van Dijk 2005, 92).

To do-it-yourself is the most important way to learn new skills related to computers. To ask from friends is the second way. Older people and novice computer users seldom have this courage. They need help and “translation” with these new tools and possibilities.

Internet phone calls, chat and other networking tools are still mainly used by the younger generation. Email is the trigger application for beginners, if there are enough friends connected.

That is a prime effect of all networks; it needs a critical mass and it becomes more attractive and rewarding. According to van Dijk, “The use of Internet does not lead to social isolation and loneliness because face-to face communication is reduced but to a reinforcement of existing social contacts and relationships and to more arrangements for meetings.” (157, 2005) With these tools, much could be done to connect and support lonely people and to help people with special interests to find each other. Dating services are one application of this, but not enough. There are also many e-learning possibilities, but often novice Internet users feel very insecure with those applications.

People have digital cameras and videos, but there is no help after taking the photo or recording the family party. Shooting has been made relatively easy, but after that, difficulties begin: formats and sizes, down- and uploading cause difficulties. In addition, creative tools like blogs, wikis, podcasting, videocasting, one-off e-book printings are strange words for novice users.

At Netti-Nysse we have had Digital Story workshops, where we combine still photos with the voice of the storyteller. All we need technically are a scanner, a basic voice recorder and Power Point. The most important is the story. Everyone has stories. In order to encourage people to tell their stories we have had a special writing tutor’s help. The process and results of these workshops have been impressive and touching. We will carry on developing the concept and trying to make it even technically simpler.

We will use the experience of Digital Stories to develop new kinds of workshops around the other possibilities mentioned earlier. We will help people to get started, give good basic instructions and a positive experience. The bigger challenge here is to encourage Finnish people to express themselves and to feel safe practicing that.

One more aspect of the Information Society needs still our attention. Van Dijk writes “The old media and the old means of information and communication will not be sufficient for full participation in

developed modern society. More and more, the new media will be used to develop a head start in all kinds of benefits and competitions.” (167, 2005), He goes on to say that, “People with high level of access to participation in the new media will obtain better positions and more resources of all kinds.” (167, 2005),

The number of public e-services is growing in Tampere too. The Library is one of the leading developers of e-services and we need to be very much aware of the matters of equality. The banks, travel services and other tertiary sector enterprises have already developed services and benefits that only Internet users can benefit from and they do not care about an unequal situation. Teaching people on how to use web banking should be the task of banks, but they are not willing to do it with the time and scale it would need. At the same time they are closing the on-line simulations that have been provided for practice, and practicing with real accounts is risky and difficult.

The public Internet access points have been in libraries for a long time already and now libraries are at a new crossroad of the information society. They need to decide what is going to be their role in the future. The librarians know the needs of everyday life and their customers and they also know the developments and new possibilities of the Information Society. Tampere libraries, Netti-Nysse and Net Squares are taking the role of being information society “interpreters”, developers and active partners in discussions.

5 Last words

Van Dijk sees in the development of the information society a new threat to equality. He says, “Digital divide is deepening where it has stopped widening” (2005:2) and that deepening divide is threat for democracy. “Never before we have created media that were so all-embracing and that had such weight in all parts of society.” (2005: 183).

In developed countries the question is not so much about physical access, but very much about the skills and about the usage access (actual use, usage time, broadband use, creative use). The divide between the parts of the world is increasing. Van Dijk writes: “The difference between broadband elite and complete digital illiterates is about as big as the gap between the high educated in the First World and the traditionally illiterate in Third World.”

Could libraries play a more active role here? What is needed to make that possible, especially in places with a less positive attitude towards technology or less Internet participation? Do we need to reconceive libraries as sites for community inquiry, rather than repositories with reactive services? Might other institutions—community centres, social work, public/private partnerships—also serve this role? These questions should be asked.

Active information society work could bring new resources and give new importance to libraries around the world. Many “information society for all” practices can be shared and localized. For example the idea and practices of Netti-Nysse can be easily copied, localized and put into use almost everywhere. Internet buses can have different kinds of supportive and educational tasks. It can be a combination of mobile library and Internet, outdoor cinema, help in literacy and vaccination campaigns and so on.

Building and developing the Information Society requires a new kind of co-operation. Non-government organizations, public actors, educational organizations, universities and business are needed there. Libraries could be one important tie in this network because libraries are naturally the centres of a citizens’ information society.

References

2005. Dijk, J.A.G.M.v., *The deepening divide : inequality in the information society*. Thousand Oaks, Calif.: Sage Pub. 240 p.

2006. Kuutoskaupunkien asukkaiden tieto- ja viestintätekniiikan käyttö ja asiointimahdollisuudet keväällä. Tilastokeskus, haastattelu- ja tutkimuspalvelut.

http://www.tampere.fi/tiedostot/5jJ3N7sdb/tietoyhteiskunta_kuutoskaupungit_2006.pdf

2007. Literacy in the Info Age—course taught in Graduate School of Information and Library Science, University of Illinois at Urbana-Champaign by Professor Betram C. Bruce. Spring 2007

The Library of Tampere: <http://www.etampere.fi/english>

Nettinsysse: <http://www.tampere.fi/kirjasto/nettinsysse/english.htm>

Author

[Elina Harju](#)

Project manager

Tampere City Library - Pirkanmaa

Regional Library

<http://www.epractice.eu/people/12403/>



The European Journal of ePractice is a digital publication on eTransformation by ePractice.eu, a portal created by the European Commission to promote the sharing of good practices in eGovernment, eHealth and eInclusion.

Edited by P.A.U. Education, S.L.

Web: www.epracticejournal.eu

Email: editorial@epractice.eu



The texts published in this journal, unless otherwise indicated, are subject to a Creative Commons Attribution-Noncommercial-NoDerivativeWorks 2.5 licence. They may be copied, distributed and broadcast provided that the author and the e-journal that publishes them, European Journal of ePractice, are cited. Commercial use and derivative works are not permitted. The full licence can be consulted on <http://creativecommons.org/licenses/by-nc-nd/2.5/>