

Accessibility projects

Metropolia APD course

Sept 2, 2010

Esa Eerola

esa.m.eerola@nokia.com

esa.m.eerola@gmail.com

Accessibility projects

- **Introduction and market opportunity**
- What's currently available
- Food for thought
- About the projects in practice

We have different profiles in:

- hearing and speech
- vision
- mobility
- cognition

NOKIA



Accessibility

adjusting the device and the service experience

- to the hearing /speech/ vision/ mobility/ cognitive profile you have, or
- to the environment surrounding you

Accessibility

the degree to which
a product, device, service, or environment
is accessible by as many people as possible.

often used to focus on people with disabilities
and their rights

Two kinds of people live in a world

People who
have
disabilities

People who
not yet have
disabilities

Market Opportunity

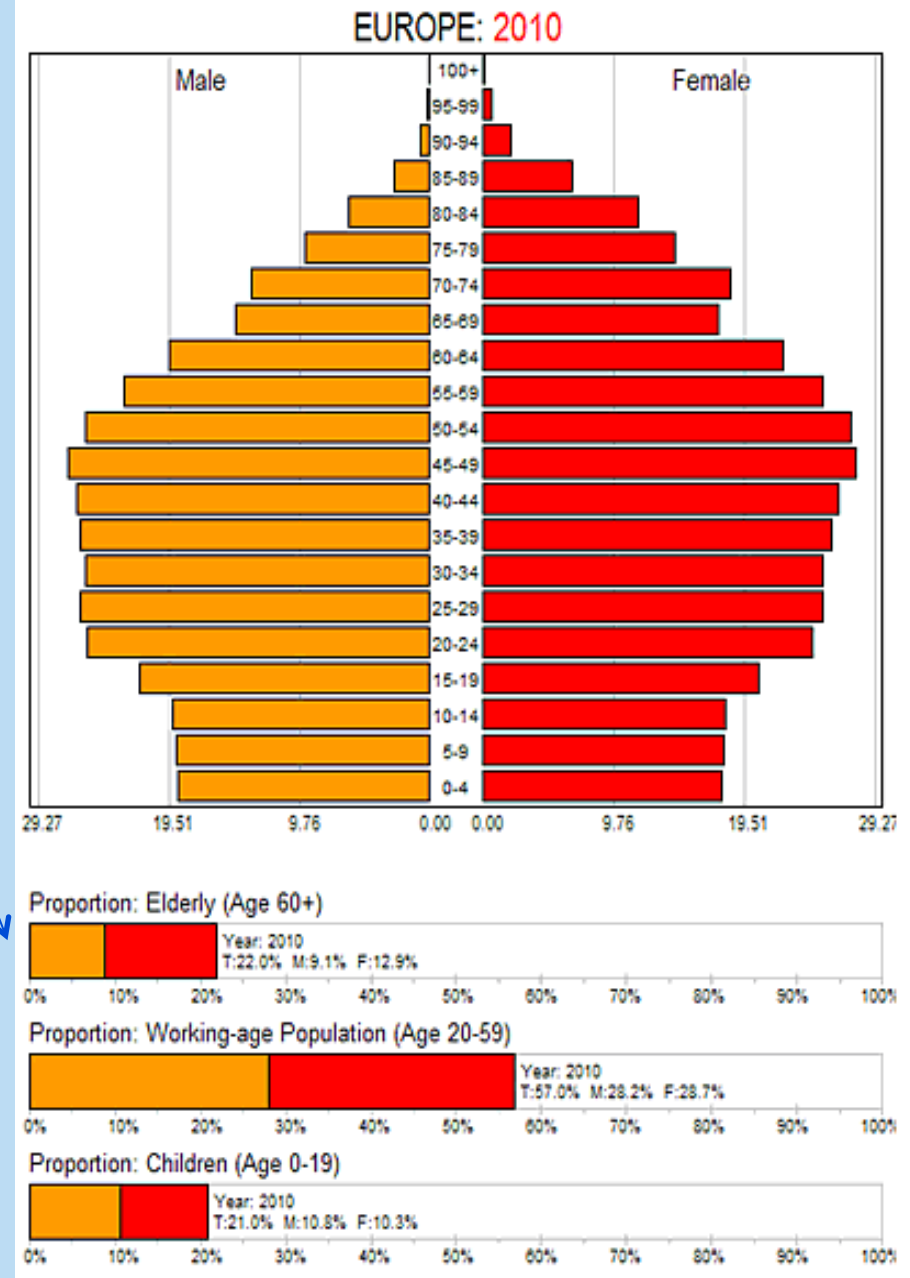
- **Elderly and aging:** **800M persons 60+ years old**
 - **growing to 1.2B in 2025** (source UNESCO)
- **Hearing impairment:** **278M persons** (source WHO)
- **Vision impairment :** **269M persons** +45M blind (source WHO)
- **Illiterate:** **770M persons** (source UNESCO)

Europe is experiencing a dramatic process of population aging

Already now, there are **more elderly (60+) than young (0-19) people**

In 2010, approximately **27%** of the **world population** will be **over 45**,

At the age of 45, the incidence of disability begins to increase significantly...



People with disabilities?



People with disabilities?



Accessibility projects

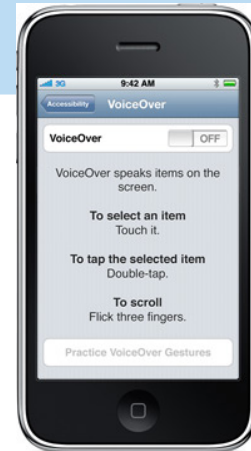
- Introduction and market opportunity
- **What's currently available**
- Food for thought
- About the projects in practice

Example: Applications for your **vision**



Screen Readers

- **Mobile Speak** and **TALKS** screen readers giving audio access to all device functions on Symbian devices
- **VoiceOver** on Apple iPhone, Orator on BlackBerry etc



Screen Magnifiers

- **Mobile Magnifier** and **ZOOMS** applications on Symbian devices
- **Zoom** feature on iPhone



DAISY players

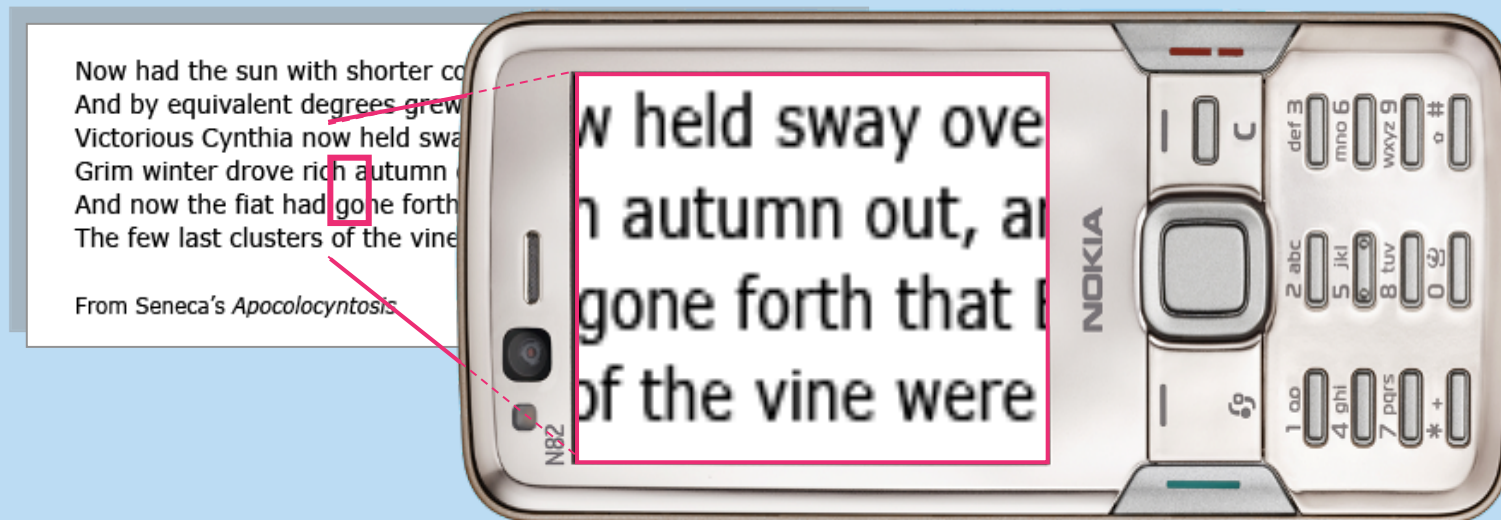
- **Mobile DAISY Player** and **DAISY2GO** full-featured DAISY readers for mobile devices

NOKIA

Example: Applications for your vision

Nokia Magnifier

- A “magnification glass” helping you to cope in your daily life; shopping, banking...
- Uses device camera to **improve the readability** of the “fine print”



NOKIA

Example: Applications for your **vision**

kReader Mobile

- **Reads** signs, meeting handouts, menus, bills, memo letters, etc. using camera technology

kReader Mobile by Knfb reading technology



MagniLink Go!

- Combined **magnifying glass and reading device**
- Capture a picture and send the text to your friends using SMS, MMS or E-mail.

MagniLink GO! by Low Vision International



NOKIA

Nokia Braille Reader

- Used for **reading SMS messages** with vibrating Braille
- **Runs on the background** where it waits until a message is received
- **Converts** the received message **to 6-dot Braille** characters



Example: Applications for your **personal safety**



A personal safety tool to inform selected contacts about your place and status with a single click

- Status can be delivered over SMS/MMS/E-mail
- Smart SOS will silently capture images from your mobile camera to help identify your location.

Smart SOS by Enpronomics Solutions

More examples of existing solutions

- Light detector
- Color identifier
- Bank note identifier

Live demos

- Color blindness test
- Coming soon: your application !

Accessibility projects

- Introduction and market opportunity
- What's currently available
- **Food for thought**
- About the projects in practice

Ideas for project work...

1. Customers keep asking about...

- Smart ways of using vibration / haptics
 - Customizable alerts etc
- Games for
 - blind
 - people with cognitive disabilities

Ideas for project work...

2. Improve the existing application - they aren't perfect

- Use cases, user experience, marketing approach

3. Build on some existing enabler, like

- Optical readers
- Screen readers
- Voice recognition
- Local connectivity
- Maps and Location
- :

For you? Your dad? Grandma?
When driving/biking?

Accessibility projects

- Introduction and market opportunity
- What's currently available
- Food for thought
- **About the projects in practice**

- The app can be on any platforms and technology
- We will use Google collaboration tools for info sharing within the team

(=> my teacher studies)

Draft team site – coming soon

Introduction

Links to more info

Calendar

Blog?

Team docs