ICT and collaboration
Keynote @ infoware 2012

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Some initial thoughts

- Most of my professional work during the last ten years is related to collaboration.
- I will present some experiences and projects:
  - First some experiences from team work and own teaching
  - ICT for participation, with particular emphasis on planning processes
  - Self-support networks
  - User-centric development

ICT for team support

- ICT is important for teams, especially when multiple locations
- So how does this work?

eGovMon

- Research and development project aiming to find ways to measure accessibility, transparency, efficiency and impact of public sector websites
- Core team members located in Norway (two locations), Germany, Austria, India

Collaboration and ICT

- Core team Skype conference every Tuesday and Thursday
- Wiki for action points and minutes
- Web site for all documents
- Calendar

Discussion

- We could not have done the project without using the technology
- Technology is improving all the time
- The project is finished September 2012
- Looking back at three and a half year: Technology has changed
  - iPad with 3G and Skype

Student collaboration

Open Source Ideas

- I started teaching a module on "open source ideas" four years ago.
- The module is about open source development practice, and how the ideas can be used in other contexts.
- The ideas:
  - Sharing
  - Learning
  - Co-production, enhancement, modification

Open Source Ideas

- Web 2.0 is technology that supports co-production of content
  - Blogs, where other can comment and thereby enhance the content
  - Wikis, where people work together on collecting and structuring knowledge
  - YouTube to share video material

Module: Open Source Ideas

- Students were assigned research papers to read, they had to write a summary on the wiki, and also upload a link to their presentation made in the class.

- Common creatives licensing.

E-Participation

Citizen participation through ICT

- Established research area. How to get citizens involved in democratic decision making?
- Lack of enthusiasm
- Mind-set problem
- **From information to participation**
- Public sector is generally good on information, but less good on participation

Why participation?

- (Legal requirement) (bad starting point)
- Opportunity to involve more people in (planning) processes
  - Young people
  - Minorities
  - Experts

- Better decisions
- Increased legitimacy

- Opportunity to mobilize volunteers in data collection and processing
- Environment, cultural heritage

Forms of participation

- Petitions / citizen initiative
  - Make a petition, collect signatures
- Consultations (the government decides questions to ask)
  - Dialog with stakeholders, but the dialog is managed by government
- Discussions (open)
  - For brainstorming/generating ideas

Barriers for participation

- Boring..
- Bureaucrat speak..
- Why participate, when no one cares about my opinions anyway..

Prerequisites

- Commitment by decision makers to listen
- It is about attitudes

- Availability, reach the target group
- Low threshold for use
- Understandable (presentation)
- Feedback should be given (yes, we hear you)

Social media for collaboration?

- Because the citizens are there
- How many visits?
- Divide between:
  - Regular visits
  - Sporadic visits
- Social media and newspapers (and search engines) have regular visitors (often multiple times a day)
- Municipalities and public agencies have sporadic visitors.

If you want to sell something..

You don´t put the ad where no one can see it!

Social media in (planning) processes

- Distribute information about what is happening
- Redirect to where it is happening (web site)
- Make information available and accessible

Participation on planning

- So far: Focus on spatial planning
- But social media can be used for..
  - Cultural heritage protection
  - Municipal zone planning
  - **Climate and environmental planning**
  - Public transportation planning
  - Combating use of drugs
  - **Traffic safety planning**

Technological opportunities

- Visualization through
  - 3D models
  - Videos

  - Social media that can be used:
    - Blogs, wikis
    - Facebook, LinkedIn, Twitter
    - YouTube, Flickr

Example: Nordland county
Challenges related to climate

Example: City of Larvik
City planning

Example: City of Larvik

Mash-ups

- When existing technologies are combined to create new solutions:

- Example: Registration of cultural heritage

- Wiki (text and pictures) and Google maps (maps)

City of Tønsberg 2004

Icons on the municipal GIS portal

City of Tønsberg 2004

- Possible to click on icons
- User gets a dialog box with explanation and links to more text, pictures and videos
- This particular icon shows stones left by the withdrawal of glacier
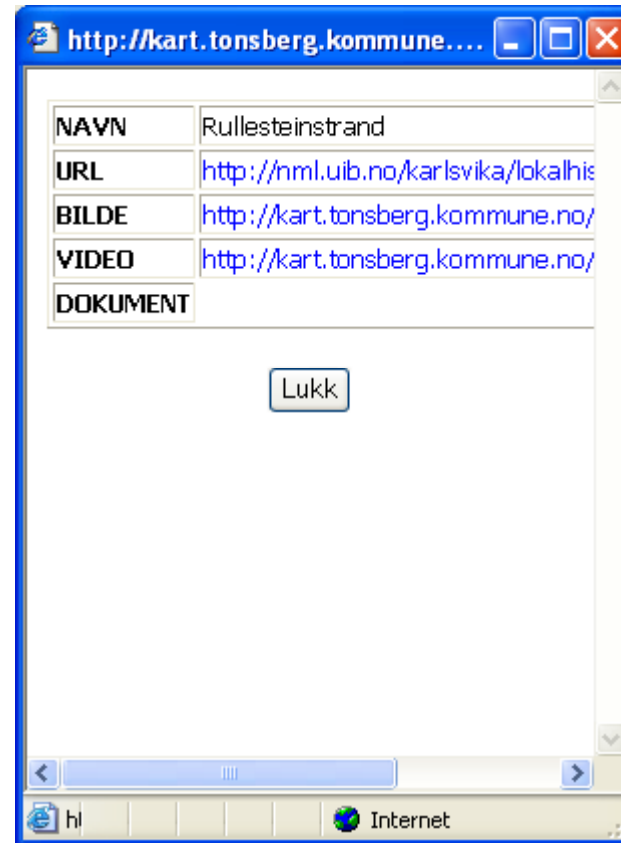
City of Tønsberg 2004

Citizens doing data collection

- Mobile devices with GPS and camera provides new opportunities for data collection

- In 2006 we made a prototype to show uploading of data from mobile device to a web server

- The results were presented as clickable icons on a maps.

- Clicking the icon redirects to picture and textual information.

Advice

- Use social media to attract interest
- Let the discussion (or work) be done in controlled environment (own web site)
- Blog is useful for consultations
- Facebook, Twitter etc. is good for information dissemination
- Mash-up's provides new possibilities
- Important that things are happening, use .. Use seeds

Digital Planning Dialog

12K

- Consortium of 12 Vestfold municipalities working on:
  - Public sector innovation
  - Networking of professionals
  - Developing guidelines
- Activities
  - Projects
  - Networks
- Office in university buildings – good for collaboration

The Project

- Grant from Høykom (Norwegian Research Council)
- Partners:
  - 12K
  - Vestfold County Municipality
  - The County Governors' office,
  - Vestfold University College
  - Norwegian Mapping and Cadastre Authority
- Organized as a project

Project aims

- The scope of the "Digital Planning Dialog" is to improve development of zoning plans by use of information and communication technology.
- The development of zoning plans is a complex process which includes <u>high amounts of document interchange</u> between stakeholders and the municipality.

Project aims

- Reduce exchange of paper between stakeholders
- More efficient process (time)
- Improve transparency (everyone has access to everything)
- Let citizens be heard

Integration of systems

Data

Data

**Case handling
and filing system**

Geographic Information System

Customer
specified
module

Integrated web-
based GUI

Information used to populate list of
documents, and to show current status

Comments submittedby
stakeholders throug a dialog box

Web-based access

User interface

Timeline

User interface

Conclusion

- ICT-based application for municipal zone planning.
- The aim of the project is to make the planning process more transparent to all stakeholders, facilitate participation and improve administrative efficiency.
- Digital Planning Dialog is a practical example on integration of e-government application, and uses an innovative user interface including a timeline to show progress of zone plan development.
- The project also includes a democratic dimension

Discussion

- Digital Planning Dialog is now implemented in Vestfold municipalities

- Other counties are adapting both concept and software

- Technical: Web service specification makes digital planning dialog platform independent

TrygghetsNett
(Safety net)
self support for spouses and relatives

Historical background

- In 2002, the municipalities of Nøtterøy and Tønsberg initiated a pilot project aiming to support spouses of citizens having suffered strokes or dementia.

- In 2006 the 12K consortium took over the project and renamed it to "Trygghetsnett" (Safety-net).

- The project has since then been extended to new user groups and more municipalities.

Care

Municipalities are responsible for care.

Care is provided at <u>appropriate</u> level;

- Patient lives at home, visits doctor when needed
  - Personal home care
    - Residential care centres
      - Nursing homes (24x7)

New challenges for the municipalities

- Citizens live longer
  - More complex medical conditions
- Shortage of manpower
  - Problems of recruitment
- High expectations of the welfare society to provide <u>professional</u> care
- Increased costs

New challenges for the municipalities

- More young people put demands on the welfare society
- More citizens with excessive requirements for care
- Citizens prefer to stay at home _if_ they feel safe
- Better access to information/empowerment (through Internet)

Future health and care services

- New ways of interaction and collaboration
- The role of spouses and volunteers
- Welfare technology as support and catalyser

The needs of the relative

- Access to relevant knowledge
- Problem solving capacity
- Social support
- Good care for the patient (treatment)

Different roles of the spouse

- Be the strong one
- Mourning
- Loneliness and isolation
- To provide good support
- Anger
- To be the one not affected
- Fear and worries
- To adapt to changes
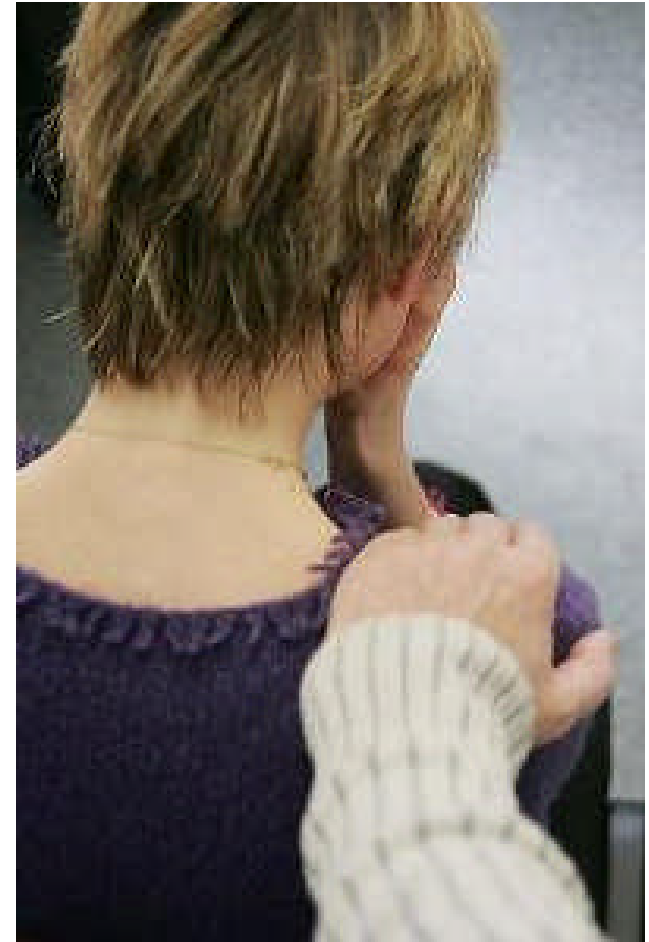
Trygghets**Nett**

Aim

To meet future challenges of care by developing and improving the municipal services for spouses and relatives

Primary goal

To support spouses and relatives to patients that have large needs of care.

Supplementary goals

– Prevent or delay hospitalization

– Prevent isolation

– Improve knowledge and competence

– Better interaction between spouses/relatives and the health care system
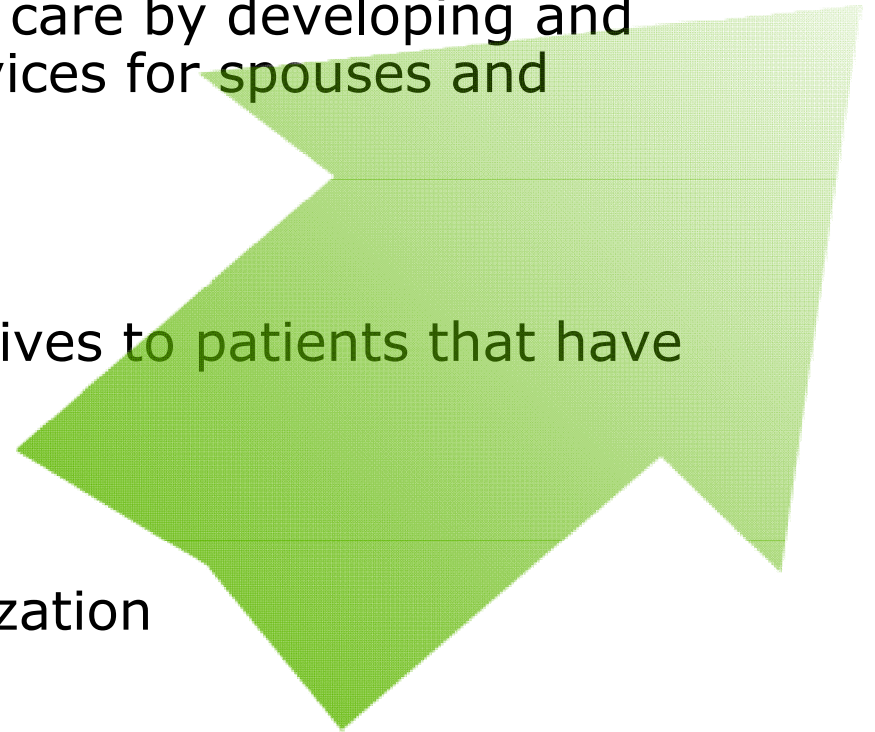
Target groups

Spouses of

- Citizens suffering strokes or dementia (40)

Parents of

- Children and youth with behavioral disorders (35)
- Children and youth with drug abuse problems (10)

What are the components?

1. **Website with medical and practical advice**
   Content provided by health care professionals

2. **Discussion forum**

   webcam / phone

3. **Social and thematic gatherings**

4. **Single point of contact/ service desk**

Medical and practical advice

Discussion forum

Social gatherings

Organisation

- Two parts
  1. Production: (strokes, dementia, behavioural disorders)
  2. On-going development: (drug abuse)

  Three year development project, financed by the national government

Service desk

Opening hours: 6h per week, 3 h day and 3 h evening (from user input).

Personnel: 1 person (health care professional)

Tasks: advice related to legislation and procedures editor of discussion forum and web site, listening post, regular meetings with municipal contacts. **Contacts**: Each municipality has its own designated contact within care, responsibilities:

–Recruit and train new participants

–Arrange social gatherings

Costs for municipalities

- ## Low cost service
  - Participation has average costs of EUR 120 – EUR 180 per year
  - Increased number of participants give lower costs per user

- ## Contact
  - Arrange social gatherings and thematic meetings
  - Recruitment
  - Training (up to two hours)

Costs for participants

- **Participants cover the following costs**
  - Technical equipment and support
  - Use of web camera (EUR 6 per month
  - Trips and other arrangements
- **For free**
  - Social gatherings
  - Thematic gatherings
  - Training - 2 hours

What demands are taken care of?

- Knowledge
  - diagnoses
  - rights/duties
  - procedures
- Share and exchange experiences
- Contact with others within a social setting, reduce loneliness, isolation, improve handling of day-to-day problems, be a part of a community with others experiencing the same situation

Lessons learned

- From technology to organization
- Pilot: Small number of participants, focus on technology
- New target groups
- More municipalities
- Organizational barriers – different traditions

Barriers

- Exposing the patients (feelings)
  - Embarrassment, guilt, etc.,
- Difficult to divide between private and
- PCs and social media – unknown and unexplored territory
- Take the time to do it
- Demanding to enter new social network

The role of the spouse/relative

- Facilitator
- Motivator
- Feedback on use and effect
- Continuous improvement
- Spokesperson and manager on behalf of the patient

Conclusion / lessons learned

- Technology is NOT the problem
- Humans are!
- Patients, spouses, medical profession, government procedures

- If you support the spouse/relative, it is possible to prevent or delay the movement to the next step of the care ladder.

Collaboration between government and their citizens

Purpose

- The purpose of this part is to show that citizens should not only be regarded as consumers of government services or political actors, but also as valuable resources capable of creating additional value based on existing government infrastructure.

Model
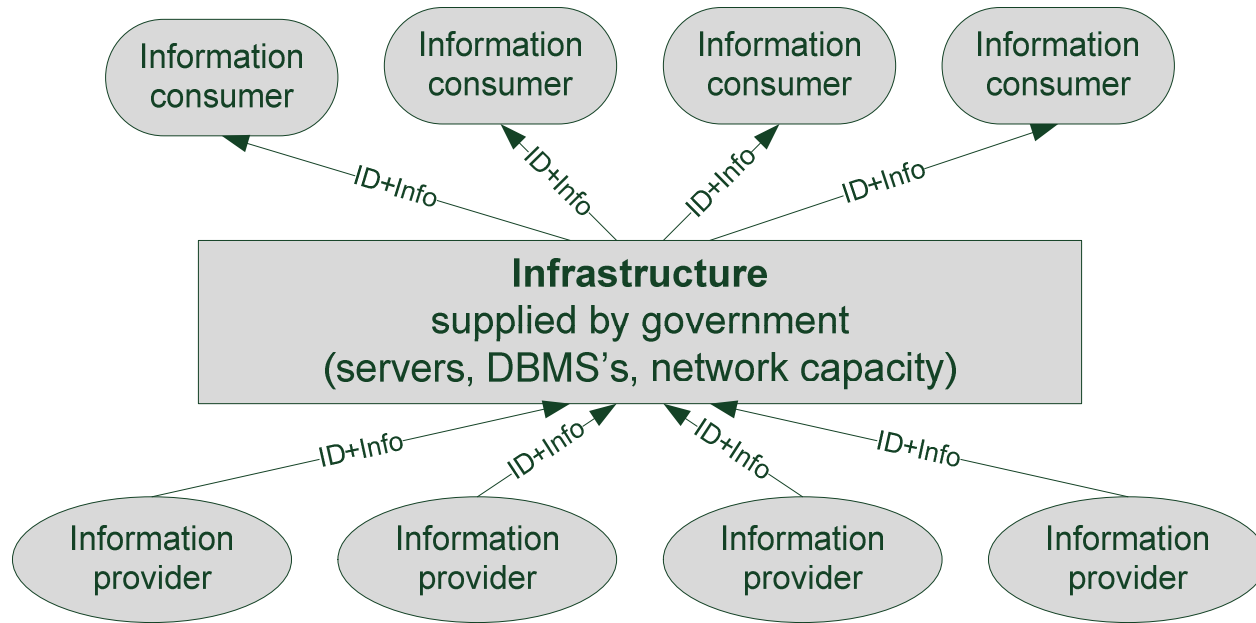
Case : The Digital Inn

- Established by the Norwegian National Archive Services as an extension of a information retrieval service called the "Digital Archive". The "Digital Archive" stores archive material as images, transcribed texts and databases, and makes such material available through the Internet.

"The Digital Archive"

- Content is of particular interest to historians and genealogists, and include:
  - Censuses
  - Parish records
  - Military service records
  - List of emigrants

"The Digital Archive"

- Some material is transcribed, but today even more material is stored as images.
- Transcribed material may be searched, but not images
- Transcription is a very time-consuming process

"The Digital Archive"

- The Digital Archive made a strategic decision to open their infrastructure to individuals and voluntary organizations registering parish records and other historical content as digital information.
- This is what is called "The Digital Inn".
- You get a room and fill it with your own belongings..

"The Digital Archive"

- This is one good example on how to consider citizens as a resource.
- The individual contributions are shared with others through a public infrastructure.

User-centric e-Government

The following is based on a presentation made to the
European Commission in December 2011
(ePractice event).

Main argument

- **User-centric eGovernment focuses on the needs, wants and limitations of the users.**
- Two perspectives of eGovernment:
  - Administration perspective: Improve internal efficiency and/or quality of the work performed by the government organization
  - Citizen perspective: Making life easier for the user/citizen
- It is not necessarily a conflict between the two perspectives
- **But experience shows that solutions often are not optimal from the user point of view**

User-centred design

- User-centred design is a methodology/philosophy that involves users at all stages of the design process.
- Not only based on assumptions of designers/developers, but validated by real users in real situations.
- The goal is to make solutions better – for the users.

- User centred design takes into account:
  - Audience (who, demographics of users)
  - Purpose (what)
  - Context (under what circumstances)

NET-EUCEN

- The NET-EUCEN thematic network is developing a framework to define and measure user-centric eGovernment services.

- Definition of user-centric: Fulfilment of three stages of user involvement:

- (1) User Involvement in Co-design stage: Involving users in development of ideas and concepts. Starting from users´ needs and requirements without technological constraints.

NET-EUCEN

- (2) User involvement in development and implementation stages: Sample/group of users engaged in first implementation of the service in order to evaluate its features and continuously discuss with developers to optimize the outcomes and suggest improvements and/or changes.
- (3) User involvement in deployment and running stages: Users validate service through user testing of flexibility and interoperability. Test results are used to customize service according to changes in political, economic or social environment.

NET-EUCEN

- A preliminary study on the ePractice portal and other international relevant cases has been carried out revealing that very few cases are fully aligned with this definition, but a deeper analysis is mandatory to actually define the "level" of user centricity adopted by a service.

Practical example
Electronic forms

- Electronic service provision is typically done through electronic forms.
- **The forms may be effective for the administration, but not necessarily for the user.**
- Example: Application form for grants to voluntary groups and organizations.
  - Old: Paper based form, fill it out, enclose copy of budget and report on use of pervious grants, put the sheets in an envelope, send it.
  - New: Electronic form. User needs to type the information from the budget and the report into the electronic form.
  - ..and problems with timeout, user needs to start from the beginning

NET-EUCEN

- User-centricity is about a mind-set.
- **The needs, wants and limitations of users must be recognized**
- NET-EUCEN – A network for User-Centric eGovernment http://www.net-eucen.org
- Case studies, mailing list etc.

SimSam

SimSam

- **SimSam-lab is an arena for new ideas, productive discussions and well-founded decision-making.**
- **Unique in Europe**

SimSam

- **Different terminologies, priorities and interpretations are often difficult to put into words.**
- It can be challenging to collaborate in development and implementation projects. With SimSam, thoughts and ideas are made visible almost immediately.
- SimSam is a high-tech learning arena where intuitive and sense-based experiences replace the danger of "talking at cross purposes".
- The visualisation and methodology for interaction makes SimSam a powerful tool for cross-professional innovation, where many heads are involved in ensuring the best possible quality and result of a process.

SimSam

SimSam

- **Facts about SimSam.**
- **Built on a 360 degree simulator with integrated ICT technology:**
- A 130 m2 soft screen (3,75 m high, 11 m diameter)
- 13 440 x 1 200 resolution
- Seven video projectors for co-ordinated simulations or separate visualisations
- Can be connected to external interactive nodes via Internet

SimSam

Conclusion

- ICT helps collaboration
- Technology is only enabling collaboration
- Organizational barriers are important

- I hope my presentation has provided some new ideas for you
- Hope to see you at COLLA 2013