eCollaboration

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• How could Content Management Systems be applied in eGov?
• What are the benefits when using wikis?
• Does corporate blogs or political blogs make sense?
• What are the building blocks for a collaborative working environment?
• Can virtual organizations make sense for eGov?
A Content Management System or CMS is a web-based document management system for sharing information in a collaborative environment, i.e.

- sharing hypermedia documents
- contributing content based on user roles
- retrieving information
- organizing intranet information flow
- improving communication between web users
- easy access for all stakeholders
Why do we need a CMS?

Most of the websites are:

- complex
- include a lot of multimedia content and
- even small sites have to be managed

A CMS separates:

- Layout issues
- Content
- Access logic and other
- Features.
CMS Architecture

Front End (user side)

Back End (server side)

Content stored in a database

Design Template

CMS

Home
Contact
About
Hello world!
CMS ARCHITECTURE

Front End (user side)

User

Back End (server side)

Content stored in a database

CMS

Design Template

Hello world!

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Admin
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- About

Welcome to our site!
Admin

Back End (server side)

- CMS

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<table>
<thead>
<tr>
<th>CMS Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creator/Author</td>
<td>Creating, editing, translating (if needed), and defining expiry date</td>
</tr>
<tr>
<td>Editor/Reviewer</td>
<td>Accepts or rejects content created by authors. Tuning of content and styling.</td>
</tr>
<tr>
<td>Approver</td>
<td>Additional auditing functions (e.g. policy). Accepts or rejects content (Author/Reviewer)</td>
</tr>
<tr>
<td>Publisher</td>
<td>Gives final approval and releases the content</td>
</tr>
<tr>
<td>Administrator</td>
<td>Manages access permissions for content, folder, files. (access rights)</td>
</tr>
<tr>
<td>Citizen</td>
<td>Person who reads and studies the content</td>
</tr>
</tbody>
</table>
CONTENT MANAGEMENT ARCHITECTURE

Architecture of a CMS by Christ and Bach
Open Source CMS for eGovernment

Open Source CMS

Online Magazine

Typo3

eZ publish

Mambo

MediaWiki

Wordpress

Apache Lenya

Joomla!

Magnolia

Alfresco WCM

Jahia

Plone

Drupal

Communities/Collaboration

Java

PHP

andere

Simple Websites

Complex Websites

Key:

www.optaros.com (Netzwoche 2007)
also visit: www.eosdirectory.com
Market Share of CMS Products

CMS Market Share

http://www.cmswire.com/downloads/cms-market-share
Welcome to our Website!

The group Information Systems focuses its research and development activities on the following domains:

- electronic business and mobile commerce
- electronic government and public communities
- mobile frameworks for health applications
- information management and customer performance measurement
- databases management systems and data warehousing
- fuzzy classification and Fuzzy Marketing Methods (FMsquare)
- special information systems and web platforms for non profit organizations
- mediamatics including Web 2.0 and semantic Web

Professor Andreas Meier is the head of the IS research group. Besides research and teaching, his interest is to position the University of Fribourg in the IT sector and to increase its attractiveness for new enterprises, co-workers, students and researchers.

On this site you find information about current courses and seminars, as well as open projects for Seminar, Bachelor and Master Thesis.

Stay informed with newsfeeds of the university, faculty and department of informatics.

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Location
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A wiki is ‘the simplest online database that could possibly work’ (Ward Cunningham):

- Easy editing of content
- Sharing information
- Search and retrieval functions
- Linking information
- Versioning

The word wiki wiki means “quick, quick” in Hawaiian and aims to point out that wikis facilitate different users to edit entries quickly and easily.
Applying Wikis for eGovernment

- Wikis could be used internally for cooperative work
- Wikis could be used externally to motivate citizens for co-working
- Wikis could be used for meetings (writing minutes real-time)
- Wikis could be used for sharing knowledge and skills
- etc.
# Application of Wiki Tools

Options for wiki applications in an eGov environment

<table>
<thead>
<tr>
<th>Topics</th>
<th>Potential Benefits</th>
<th>Opportunities and Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Management</strong></td>
<td>• Project Manual&lt;br&gt;• Reviews&lt;br&gt;• Reporting&lt;br&gt;• Information Exchange</td>
<td>• Transparency&lt;br&gt;• Relevance&lt;br&gt;• Controlling&lt;br&gt;• Copyright</td>
</tr>
<tr>
<td><strong>Employee Suggestion</strong></td>
<td>• Collection of Ideas&lt;br&gt;• Discussion Forums&lt;br&gt;• Reviews online</td>
<td>• Creativity and Exchange&lt;br&gt;• Motivation&lt;br&gt;• Access barriers&lt;br&gt;• Rewards</td>
</tr>
<tr>
<td><strong>Sysmte</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Document Management</strong></td>
<td>• Protocols&lt;br&gt;• Manuals&lt;br&gt;• Reports</td>
<td>• Relevance&lt;br&gt;• Simplicity&lt;br&gt;• Quality</td>
</tr>
<tr>
<td><strong>Product Development</strong></td>
<td>• Participation&lt;br&gt;• Consultation&lt;br&gt;• Pretests</td>
<td>• Goal Conflicts&lt;br&gt;• Confidentiality&lt;br&gt;• Patent Protection</td>
</tr>
<tr>
<td><strong>Community Building</strong></td>
<td>• Relationship Management&lt;br&gt;• Involvement&lt;br&gt;• Participation&lt;br&gt;• Creativity</td>
<td>• Leeway&lt;br&gt;• Emotions&lt;br&gt;• Interactivity</td>
</tr>
</tbody>
</table>

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Options for wiki applications in an eGov environment
Pros and Cons of Wikis

Advantages

Disadvantages
Pros and Cons of Wikis

Advantages

- **Sharing**: knowledge and best practices can be shared.
- **Project Management**: everybody can access project reports and documents.

Disadvantages

- **Copyright**: difficult to guarantee authorship of individual text or ideas.
- **Quality**: content quality is difficult to control.
“Initially a weblog (or blog for short) was a chronological listing of links that the blogger thought were interesting, funny, informative, etc., with commentary. Can now mean anything from online journals and diaries, to just link then commentary.”

Definition of Rebecca Blood, 2002
Weblog in the crosshairs of media by Picot and Fischer
• Step 1: a blogger opens his Web browser, goes to his weblog system and creates a new entry
• Step 2a: entries are integrated chronologically in the weblog system
• Step 2b: the weblog system updates the RSS feed
• Step 2c: ping servers are used in order to inform other webpages about the updated content
• Step 3: an occasional web user or surfer can use a search engine to find the above blogger entry
• Step 4: interested users are informed by a RSS feed
• Step 5: interested users can also crawl the weblog system directly
Function of weblogs by Przepiorka
Classification of Blogs

• **Personal Blog/Political Blog**: Individuals or politicians share their thoughts and/or comment specific issues.

• **Corporate Blog**: A governmental institution is launching a blog for internal or external purposes. Eventually, citizens are motivated to comment political issues.

• **Crisis Blog**: In an emergency case, the government can launch a blog in order to inform politicians and citizens.

• **Project Blog**: For a specific program or project (e.g. construction of a bridge, watering system etc.) the authorities inform their citizens.
Example of Political Blog

ANGELA MERKEL

Europäischer Rat / 15.03.13
Pressekonferenz nach dem Europäischen Rat

Merkel: "Wichtig, dass Europa an einem Strang zieht"

Merkel: Energiewende gemeinsam meistern / 07.03.13
"Energiewende langer Prozess mit vielen Einzelschritten"

Merkel: Energiewende gemeinsam meistern
Die Energiewende werde gelingen, wenn sie alle Beteiligten als gemeinsame Aufgabe betrachten.
CHARACTERIZATION OF BLOGS

by Zerfass 2007
Inauguration of the new pope

Pope Francis officially became the Catholic Church's pontiff Tuesday, in a ceremony that the Vatican said ahead of time would be short in keeping with the spirit of simplicity exuded by the new Holy Father. We live-blogged the event below. You can read the full story here.

[Updated at 10:21 a.m. ET] That's all for the live blog of Pope Francis' inauguration as the Catholic Church's 266th pontiff. Tens of thousands of people listened from St. Peter's Square in Vatican City as Francis called for the protection of the weakest in society during his homily.

For more on today's event, check out our full story. Also, see a number of select photos of the event.

[Updated at 7:18 a.m. ET] U.S. Vice President Joe Biden greets Pope Francis.

[Updated at 7:15 a.m. ET] Spanish Prime Minister Mariano Rajoy greets the pope, as does German Chancellor Angela Merkel.

[Updated at 7:12 a.m. ET] Controversial Zimbabwean President Robert Mugabe greets the pope at the Vatican's main altar.

[Updated at 7:04 a.m. ET] A tweet from the pope's account:

Pope Francis @Pontifex Let us keep a place for Christ in our lives, let us care...
Main problems of Blogs
Main problems of Blogs

- **Copyright**: difficult to guaranty authorship of individual text or multimedia content.
- **Subjectivity**: blogger usually presents estimations and opinions. Actual facts are difficult to find.
- **Privacy**: creation of personal and behavior profiles can be created based on RSS (misuse in job applications, political discussions, etc.)
A Collaborative Working Environment supports people or professionals in their individual and cooperative work by

- Communication via eMail or instant messaging
- Information and knowledge sharing
- Video conferencing
- Collaborative workspace
- Shared document management system
- Work flow management system
Groupware supports various forms of cooperation
• **Single Author Writing**: one team member writes as a representative for the whole team.
• **Sequential Single Writing**: each team member is assigned for a part of the planned document one after the other.
• **Parallel Writing**: all team members work on their assigned part at the same time, eventually in different roles (author, editor, illustrator etc.)
• **Reactive Writing**: team members write synchronously and adjust each others contributions as they are made.
• **Mixed Mode Writing**: combination of above solutions.

P. B. Lowry et al.: Building a Taxonomy and Nomenclature for Collaborative Writing, 2004
Classification of Groupware

- **System Class I - Information Exchange**: textual communication, audio and video communication
- **System Class II - Process Controlling**: usage of workflow management systems to model, simulate, optimize and control processes (quantity, throughput time, standby time)
- **System Class III - Collaboration**: supporting functions for teams, planning instruments, software support for meetings, support for decision making etc.
- **System Class IV - Information Management**: database systems, content management systems, hypertext administration systems of bulletin board management systems.
Collaborative Working Environment

Support functions to the group work by Teufel et al.
Virtual Organization

- Free cooperation form of independent networkers
- Very often with no hierarchical control
- Common objective
- Bundling of expertise
- High usage of Internet technologies
Virtual Organization and Forms of Strategies of Organization Development

- **Cooperation**
  - Strategic Allianz
  - Cooperation Network

- **Hierarchical Organization**
  - Standardized Service
  - Mass Production

- **Virtual Organization**
  - Task-oriented ad-hoc teams
  - Task-oriented ad-hoc collaboration

- **Modular Organization**
  - Process Orientation
  - Coordinated Tasks

Market and Social Changes

Complexity of Products and Services

Strategies of Organization Development
The objective is to launch a governmental program for transparent information, participation and collaboration.