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Collaborative Software Tools for Safeguards Applications



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The CSSP and the IAEA

- As part of its mandate, the Canadian Safeguards Support Program (CSSP) provides support to the International Atomic Energy Agency (IAEA) for many activities, including:
 - Training materials development
 - Course delivery
 - Subject matter experts
 - Knowledge sharing
 - Tools development



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Collaborative Software Tools

- What this paper covers:
 - The motivation
 - Defining the tools
 - Examples in use
 - Open source versus commercial tools
 - Our direct experience
 - Concluding remarks

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Our Motivation

- We needed to produce instrument documentation, procedures, and training materials in conjunction with many authors
- We needed an efficient way to share information and knowledge among many geographically dispersed users
- A collaborative workspace would let us move digital data rather than people, saving time and money

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Collaborative Software Defined

- A shared electronic workspace where co-workers or group members can develop, store, and share information and knowledge
 - Also known as "groupware" or a "workgroup support system"
 - Lets users share files, notes, messages, etc.
 - Allows users to create, edit, and comment upon content (assets)

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"Traditional" Software for Collaboration

- Email
 - Local history, lots of "chaff", no structure
- Corporate Intranet
 - Broadcast mentality, user contribution is difficult
- Network file stores
 - Difficult to add contextual data, overwhelming volume

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Desirable Characteristics of Collaborative Software

- Universal access
- Immediate feedback
- Easy user interaction (comment button)
- Search
- Sub-workspaces
- Long-term central storage
- Revision history
- A record of the discussion surrounding the asset development


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Collaborative Software Examples

- Commercial
 - Lotus Notes
 - Groove
 - SharePoint (toolbox)
- Open Source
 - WordPress (blog)
 - SMF (message board)
 - PmWiki (wiki)



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


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Commercial and Open Source Collaborative Software Advantages

- Commercial Collaborative Software
 - Deal with an established commercial entity
 - Support, training, and upgrades
 - Future roadmap
- Open Source Collaborative Software
 - Low cost or free
 - Few licensing restrictions
 - Can examine and modify source code

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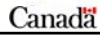


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Commercial versus Open Source ... the Reality

- Commercial Collaborative Software
 - Cannot modify for own purposes
 - Cannot redistribute without license
 - Proprietary formats may lock you in
- Open Source Collaborative Software
 - Commercial vendors such as WordPress
 - Many consultants and developers
 - Modify for your own needs

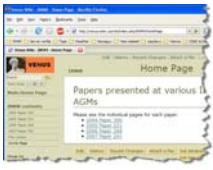
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
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Our Experience: An Open Source Wiki

- Open source wiki (PmWiki) in continuous use since early 2004 for joint IAEA/CSSP projects
- Externally hosted and supported
- Separate work area for each project
- Uses standard web access mechanisms
- Plug-in customization
- Very successful



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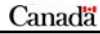


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Our Experience: SharePoint Pilot Project

- Started in 2006
- Several IAEA pilot projects proposed based on a collaborative software review
- Examined the blog capabilities of SharePoint 2007 relative to one pilot project
- Early trials show great promise and have helped to clarify the relative merits of SharePoint to the IAEA
- Confirmed the overall value of collaborative software

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Thoughts for the IAEA ...

- Wikis and blogs provide clear benefits such as lower costs and faster turnaround
- Fully integrated collaborative software should offer these and other benefits more widely
- A toolbox such as SharePoint would integrate well with existing standalone software while providing an enterprise-wide collaboration framework
- SharePoint provides fine-grained access control that works with the existing IAEA model

Thoughts for other organizations ...

- Commercial software may be overkill
- Open source software allows you to customize
- Support for much open source software is readily available
- It is relatively easy to experiment with open source solutions – try a pilot!

Concluding remarks

- The CSSP continues to support the IAEA on collaborative software projects
- Commercial and open source collaborative software solutions can both have a role
- Identify and try a pilot project
- Don't let analysis lead to paralysis
- Collaborate and innovate!



Any Questions???



More details at <http://saturn.eton.ca/>