


Canadian Nuclear Safety Commission / Commission canadienne de sûreté nucléaire IAEA

Using Wikis as a Low-Cost Knowledge Sharing Tool



Presented by: **Neil Herber**
Eton Systems, Ottawa, Canada

Co-authors:
Q.S. Bob Truong
Canadian Safeguards Support Program
Canadian Nuclear Safety Commission
Ottawa, Canada

Cesare Liguori,
Haroldo Barroso Junior
International Atomic Energy Agency,
Vienna, Austria

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 - *Getting the Balance Right: Integrating IT and Person-to-Person Knowledge Transfer Techniques*

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The CSSP and the IAEA

- **The Canadian Safeguards Support Program (CSSP) provides training support to the International Atomic Energy Agency (IAEA)**
 - Training materials development
 - Course delivery
 - Subject matter experts



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Using Wikis as a Low-Cost Knowledge Sharing Tool

- **What this paper covers:**
 - What is the need?
 - Knowledge-sharing methods and technologies
 - The WikiWikiWay
 - Secrets of success with wikis
 - Technical details
 - Security and openness
 - Case studies
 - Summary

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What is the need?

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Challenges Faced by Many Organizations ...

- **Skilled employees have learned on the job**
 - No documentation or formal training material
- **Producing full-blown educational materials**
 - Expensive
 - Time-consuming
 - Requires professionals
- **The knowledge is escaping!**
 - Retirements, transfers, resignations




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Knowledge Management Systems

- **Three type of knowledge:**
 - Philosophy-based knowledge
 - Job-based knowledge
 - Task-based knowledge
- **We are concerned with task-based knowledge that can be used for training development**



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Knowledge-sharing methods and technologies

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Knowledge Sharing Methods

- **E-mail**
 - Advantages: universal
 - Disadvantages: only local history, lots of chaff, little structure
- **Face-to-face meetings**
 - Advantages: immediate feedback, information rich
 - Disadvantage: no history (unless formal)
- **Phone meetings**
 - Advantages: information rich, spontaneous
 - Disadvantage: no history

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Knowledge Sharing Methods

- **Integrated knowledge management systems**
 - Advantages: central, comprehensive, long-term
 - Disadvantages: cost, learning curve, workflow, implementation time
- **Web sites (corporate intranets)**
 - Advantages: universal access, central
 - Disadvantages: central control, broadcast, no user contribution

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Knowledge Sharing Methods

- **Electronic bulletin board systems**
 - Advantages: universal access, central, lots of user interaction
 - Disadvantages: rambling discussions
- **Blogs (web logs)**
 - Advantages: universal access, central, limited user interaction
 - Disadvantages: chronological organization, broadcast

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The WikiWikiWay

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The WikiWikiWay

- Question:**
 - What solution provides universal access, immediate feedback, spontaneity, long-term central storage, history, user interaction?
- Answer: A WikiWikiWeb**
 - Wikiwiki = Hawaiian for "quick"
 - A website that can be modified using nothing more than a browser
 - Usually just called a wiki

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The WikiWikiWay

- Web-based, shared authoring environment**
 - Group "owns" the content
 - No webmaster
 - Don't like it? – change it!
- Shallow learning curve**
 - If you can use a browser, you can read it
 - If you can do simple word processing, you can change it or add to it

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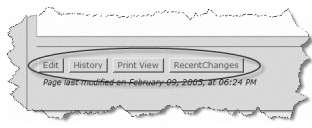
The WikiWikiWay



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The WikiWikiWay



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Secrets of success with wikis

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Wiki secret #1

- Favor authors**
 - Make it easy to edit
 - Encourages contributions
 - Depends on wiki software




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Wiki secret #2

- **Provide a good introduction**
 - Hands-on if possible
 - Emphasize benefits




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Wiki secret #3

- **Learn and share the wiki culture**
 - Collaborative
 - Make the wiki yours
 - Don't complain about it, change it!

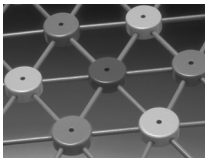


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Wiki secret #4

- **Make the wiki central**
 - Post items on the wiki
 - Refer requests to the wiki
 - Don't enclose attachments with emails, give the URL for the wiki




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Wiki secret #5

- **Appoint a lead author**
 - Edit, consolidate and link
 - The single most important secret!



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Knowledge sharing secret

- **Link the wiki to business drivers**
 - Demonstrate usefulness
 - Collaborative document development
 - Suitable for works in progress

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Technical details

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Technical details

- **What you need**
 - Wiki software (most is open-source and free)
 - A web server with scripting support
 - A bit of help from IT to set it up
- **For more details go to:**
 - <http://saturn.eton.ca/>
 - Use YourName with the password "Phoenix"



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Technical details

- **A wiki-on-a-stick**
 - Mobile personal knowledge gathering appliance



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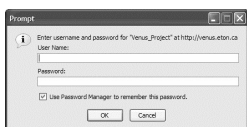
Security and openness

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Security and openness

- **Wiki spam and wiki vandalism (open sites)**
- **Security by wiki software (limit functions)**
- **Security by web server (username/password)**
- **Security by the network (intranet)**
- **The wiki history function**



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Case studies

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Case studies

- **Wikipedia**
 - <http://wikipedia.org/>
 - Free web-based encyclopedia anyone can edit
 - Started 2001
 - Over 1 million articles in 10 major languages




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Case studies

- **IAEA VIFM workshop redevelopment**
 - Authors in Canada and Austria
 - Used to share files
 - Monitor progress
 - World-wide availability
 - Used for other projects




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Case studies

- **Canadian government department wiki**
 - Used by specialist group within department
 - No lead author led to failure at month 6
 - Lead author appointed, wiki revived




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Case studies

- **Other IAEA knowledge-sharing examples**
 - Livelink Enterprise Content Management (ECM) software
 - Specialized groups considering wikis
 - Installed Systems Section of SGTS considering wikis




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Case studies

- **Anonymous examples ...**
 - Enthusiastic users
 - Unwilling to be quoted
 - Security and endorsement concerns
- **Interesting experiment**
 - Use Google
 - Search for "wiki" and the name of your favorite large corporation




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Summary



- **Be biased towards action – start sharing knowledge on your wiki now**
- **Follow the “secrets of success with wikis”**
- **Appoint a lead author**
- **If you don't like it – change it!**



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Any Questions???

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

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