### Free Tools for Knowledge Management

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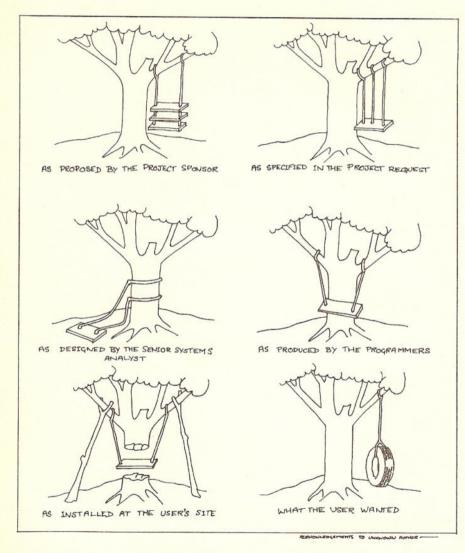




INTERNATIONAL CONFERENCE ON ENVIRONMENTAL SCIENCE AND TECHNOLOGY

## The Problem:

We know we need a place to save, organize, share, and exchange knowledge products, but how do we build it?



From the University of London Computer Centre Newsletter No. 53, March 1973

### A Solution:

#### Build a Knowledge Management System using Free and Open Source Software (FOSS)

### What we need:

People!
 Computing resources
 Training
 A plan...

### 1. People

Subject Matter Experts (SMEs)

#### Management 4

IT staff or outside partners

**AUDIENCE!** 

Content creators \_ and managers

## 2. Computing Resources

#### • Unavoidable costs:

- Outsourced: web hosting/Virtual Private Server...
- In-house: server hardware, firewall/router...
- Software and user licences (maybe)
- Other stuff: backup media...

#### Free Stuff!

- The "Front End" (what everybody sees)
- The "Back End" (databases, programming...)
- Documentation, support, and training (maybe)

# 3. Training

- Managing the Knowledge Management System
- Using the Knowledge Management System
- Content Creation

Manuals
Documentation
Online forums
Books
Online courses
In-house "lunch-and-learn"

### 4. A Plan

Some tips:

- Let the (needs of the) audience drive the project
- Don't burden SMEs with content creation
- Plan for disasters, including "success disasters"
- Take security, privacy, and IP issues seriously
- Keep it as simple as possible, but no simpler



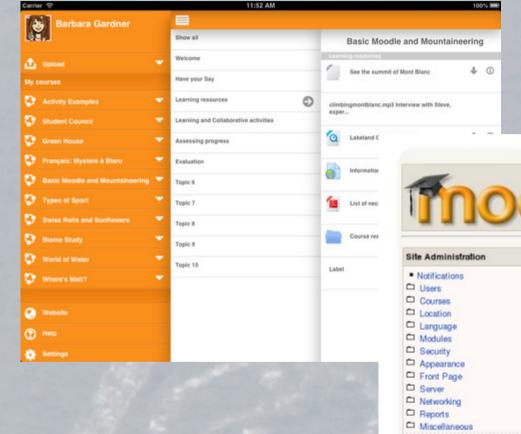
The Front End:

- Learning Management Systems: Moodle
- Content Management Systems: lots...
- Blogs, Wikis, Forums...

The Back End:

- Operating System: Linux, FreeBSD, ...
- Programming and scripting: Python, PHP, Perl...
- frameworks & models: Zend, Codelgniter, CakePHP, Laravel, Yii...
- Databases: MySQL, PostgreSQL, SQLite...

### Moodle





You are logged in as Admin User (Logout)

moodle

## **Free Content Creation Tools!**

- Video (Kdenlive)
- Audio (Audacity)
- Presentations (ActivePresenter)
- Raster graphics (GIMP)
- Vector graphics (Inkscape)
- Data visualization tools (R, gnuplot, python libraries...)

### **Nearly Free Stuff!**

- Microsoft SQL Server Express, et al.
- "Freemium"-model software
- "Deal of the Day" ebooks

### **Take Security Seriously!**



September 13, 2016 - 10:10 p.m. EDT

Dear EurekAlert! Registrants:

The EurekAlert! website has been taken offline as AAAS works diligently to address a serious security breach.

We are taking this step out of an abundance of caution. The integrity of content on our website is of the utmost concern to us. On September 11, we were notified of a potential breach to our system. An investigation revealed that our website had experienced an aggressive attack on September 9 that compromised usernames and passwords. As we were working to implement a secure password-reset protocol for all registrants, the unknown hacker publicly released an embargoed EurekAlert! news release. We then decided to bring the site down immediately, to protect other embargoed content.

Please be assured that financial information from subscribing institutions is not stored on the EurekAlert! website and therefore remained secure. Registrants' usernames and passwords were compromised, however.

We deeply regret the inconvenience that this security breach and the related site outage may cause reporters and public information officers. We will bring the site back online as soon as we can ensure that vulnerabilities have been eliminated. Please email the EurekAlert! team at webmaster@eurekalert.org, or contact me directly with any questions or concerns.

# Summary

- It's complicated, but listening to users will help ensure success
- Measurement know how many users, how much traffic...
- Set goals identify metrics and measure them
- Share your knowledge of knowledge management!

The journey of creating a knowledge management system also consists of knowledge -- share your new knowledge (both successes and failures) so that your organization becomes a part of the Open Source ecosystem, where the more we share freely, the more enriched we all become. Thank you!