

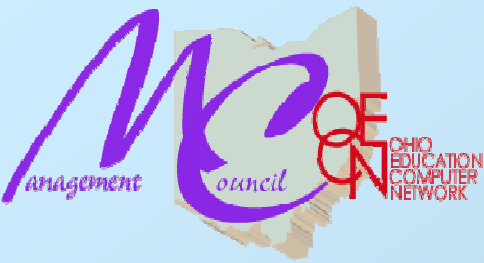


A Technology Journey: Selecting Tools for a Content Management System Web Site

Andrew Tompkins, CTO

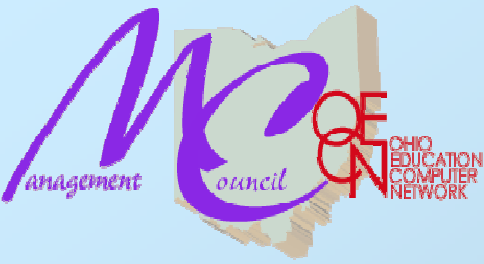
MCOECN

February 13, 2007



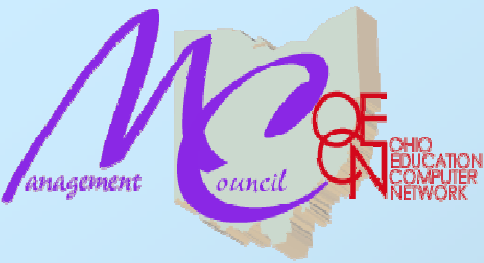
Degree of Difficulty

- Consider this a beginner's session.
- Not a "how to" session.
- If you are currently using a CMS for your web site feel free to stay and share your experiences and opinions.



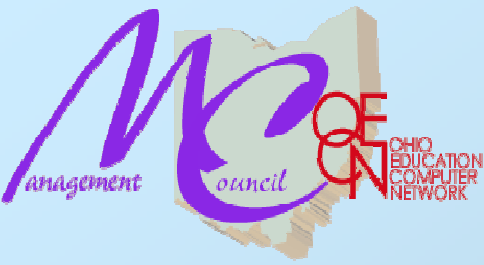
Degree of Difficulty, Continued...

- This presentation today will discuss my journey in learning about and trying to select a CMS-based system for the MCOECN.
- It is not meant to be “expert” advice.
- YMMV – Your mileage may vary.



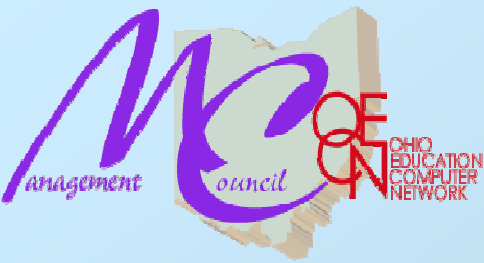
Audience Survey

- Teachers? Techs? Administrators? Vendors?
- How many feel confident they know what a CMS is?
- How many have a CMS-based web site?
- How many are considering a CMS-based web site?



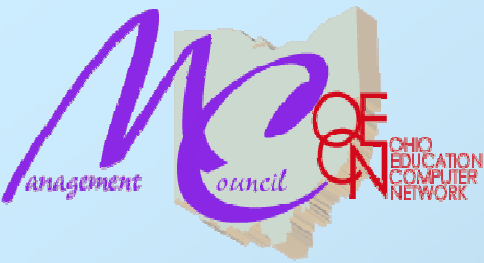
My Background

- B.S. in Computer Science
- 11 Years at SPARCC
 - Programmer/Analyst and fiscal support
 - Networking
 - Systems Administrator
- Five years as Technology Director at Jackson Local Schools (Stark County)
- Seven years as CTO of the MCOECN



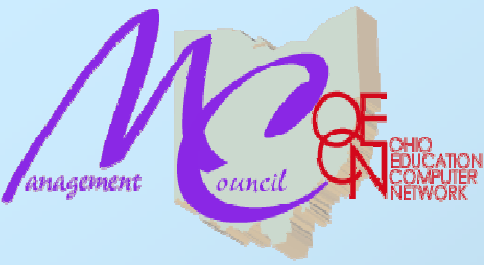
MCOECN

- The Management Council of the Ohio Education Computer Network
- We are a governmental entity providing services to Ohio's Information Technology Centers and Ohio school districts.



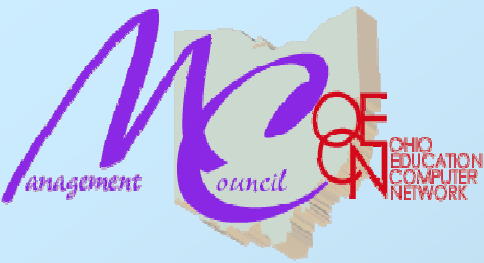
What is a Content Management System?

- Public views a typical web site.
- Behind the scenes, it is a web-based *application*.
- Easy interface for managing content.
- Content stored in a database.
- Style and layout based on templates.
- Pages are generated on the fly.



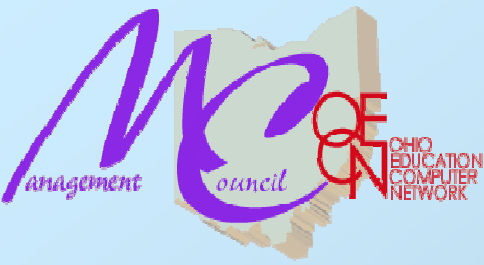
A Brief History of the WWW (According to Andrew)

- As an explanation of CMS, let me explain what is NOT a CMS by covering a little bit of WWW history.
- First some basic terms:
 - ***Content*** – the information (data, pictures, etc.) contained on a web site
 - ***Style*** – the visual format of the page. In other words, the layout, color, font, etc.



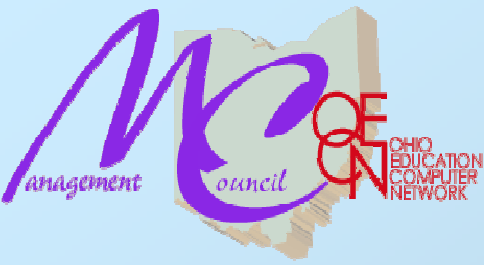
A Brief History, Part I

- WWW started out as static pages built by hand using HTML:
 - Understanding of HTML tagging required
 - Content and style elements stored in one document
- “Static” means the page was not automated – each page has a corresponding hard coded .html file.



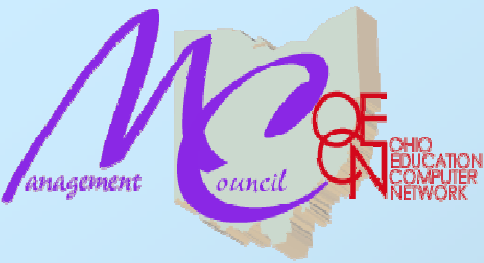
A Brief History, Part II

- Invention of HTML editors:
 - WYSIWYG – less exposure to HTML
 - Assisted in manually creating the page
- Page is still static – not automated.



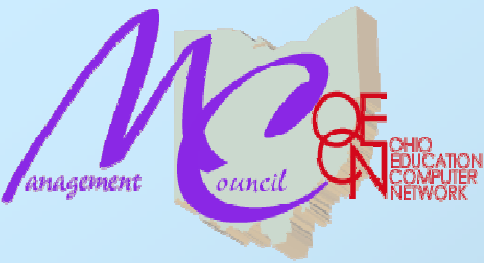
A Brief History, Part III

- Early Content Automation:
 - Perl scripts, PHP, used to embed code in a page
 - Typically handle forms or query a database to provide content
- The page is still partially static – hard coded parts surround the automated content parts.
- Page is still coded by hand.
- Content is automated, style is not...



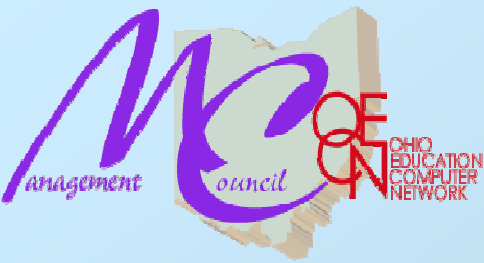
A Brief History, Part IV

- Full page automation:
 - Using Java Server Pages (JSP) or Active Server Pages (ASP) and others
 - These systems query the data and also build the page
- Not for the faint of heart – requires programming expertise.
- Content and style both provided by a program.



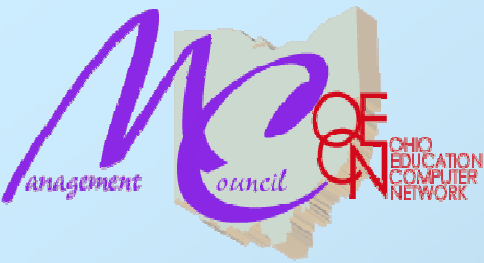
A Brief History, Part V

- Taking automation one step further, you get a CMS:
 - Create a web application to eliminate the programming complexity
 - Simple fill-in-the-blank forms
- Content stored in a database, style provided by built-in templates.
- CMS builds pages “on the fly”.



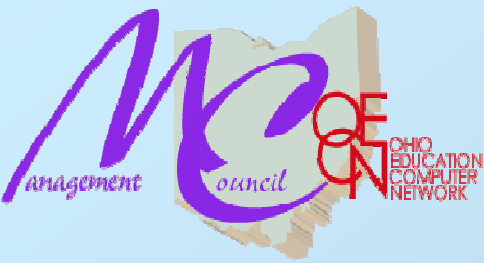
Why CMS?

- Traditional pages have limitations:
 - Time consuming to maintain by hand
 - Hard to keep content current
 - Web Master is a bottleneck
- ASP & JSP are complex and require an expensive skill set.
- CMS makes this easy.



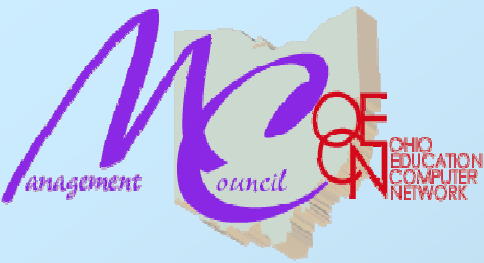
Identified a Need

- MCOECN maintains web site by hand.
- Most work goes through one person.
- Webmaster task is not my primary assignment.
- Desire to add some additional functionality to our site.



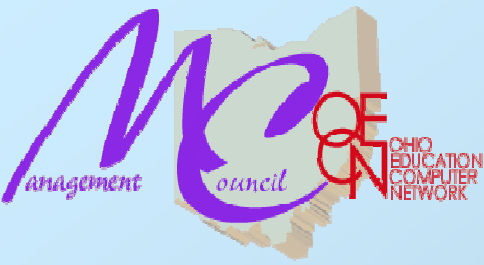
Prior to Beginning...

- Prior to this current effort, I had already observed demonstrations of two commercial products:
 - ActiveSite – used by Dublin City Schools
 - www.dublinschools.net
 - SchoolWires – used at TRECA
 - treca.schoolwires.com



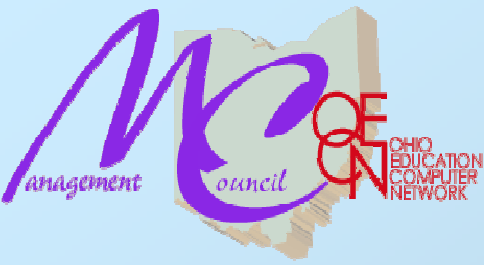
The Journey Begins...

- Started with a Google Search, Got a hit on Wikipedia.
- There are hundreds of different products!!
- Interesting references:
 - CMS Matrix
 - Open Source Scripts
 - OpenSourceCMS



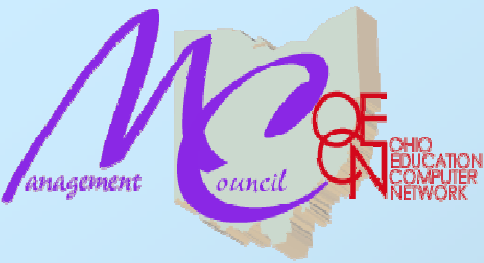
CMS Matrix

- Web site that lists the features of several hundred different systems.
- Can select and compare features of different software.
- Keeps statistics on recently update, most viewed, most compared, etc.
- Leans towards commercial applications.



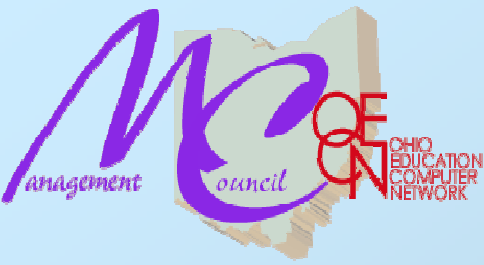
Open Source Scripts

- Listing of open source content management systems.
- List sorted by platform/language.



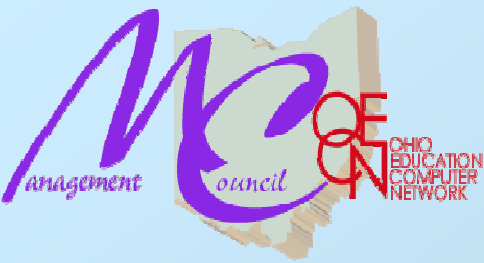
OpenSourceCMS

- OpenSourceCMS maintains a user-voted ratings list (see resources).
- Has forums where real people discuss likes and dislikes.
- Allows for user comments.



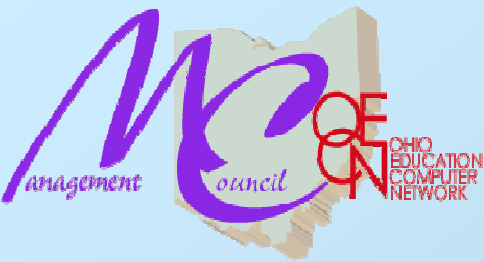
OpenSourceCMS

- This site allows you to actually try out different CMS systems without any download or install.
- Very handy for determining how intuitive and user-friendly.
- Only PHP-based products.



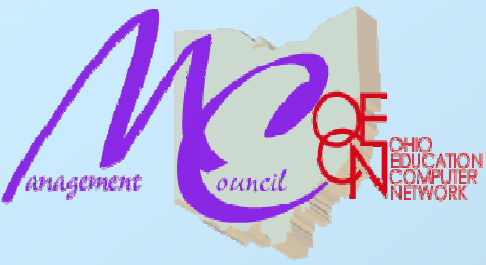
Free is Good

- Up to this point in my journey I had been considering commercial applications.
- Unfortunately, commercial apps mean serious \$\$.
- Started taking a closer look at open source systems
- The price was right...



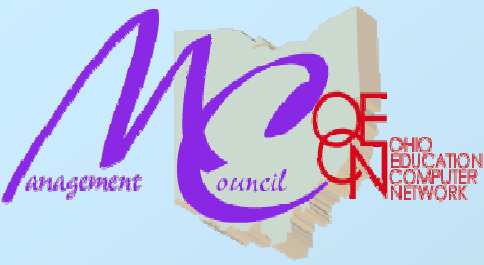
Two Product Families

- Open source CMS systems seemed to be divided into two groups:
 - Systems based on PHP
 - Everybody else: Perl, Python, .Net
- PHP is very popular due to its installed base of web designers.



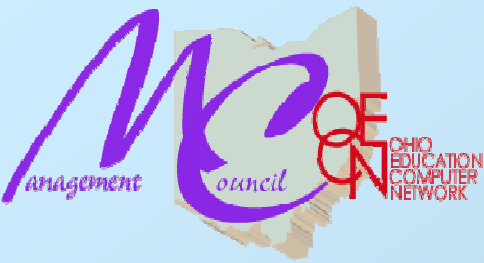
Interesting PHP Systems

- Droopal
- Joomla
- CMS Made Simple
- PHP Nuke
- WordPress (blog)



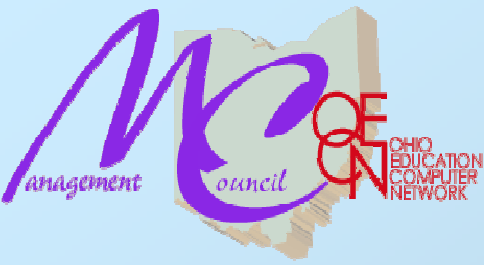
A Problem...

- PHP-based software dominates in the open source category.
- Many very interesting systems.
- But...
- I didn't know peas about PHP.



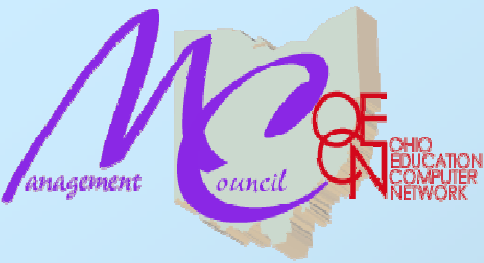
A Path Less Taken

- No PHP experience.
- Some Python experience.
 - I like Python.
 - Runs on everything.
 - Mature programming language.
 - Very easy and intuitive.
- So I avoided PHP and instead looked at Python based software.



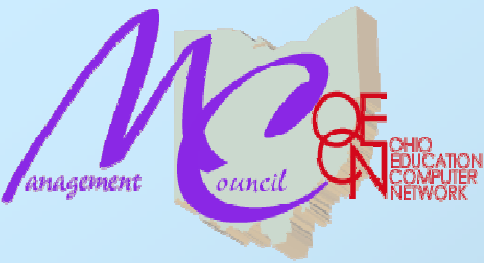
Plone

- So I took a look at systems based on Python.
- The king of the hill in Python-based CMS Systems is something called Plone.
- Named after an electronic music band from England that started around 1994.



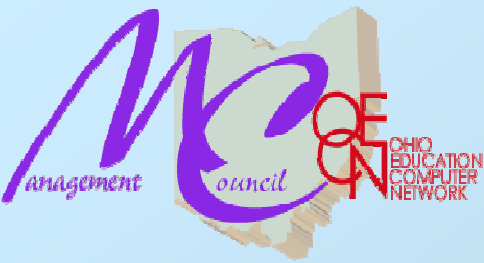
Why Plone?

- Open Source = Free
- Well supported via Plone Foundation.
- Easy to obtain via a web download.
- One-click install of all components.
- Very large community of users and developers.
- Lots of books and documentation.



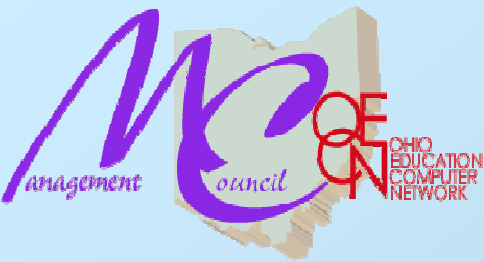
Plone Site Examples

- Partial listing from the Plone.org web site:
 - The Plone.org site
 - Utah State, UCLA, Columbia
 - Official sites for Gov's of Texas and Hawaii
 - eBay's Developer site
 - Rosetta Project
- And many others...



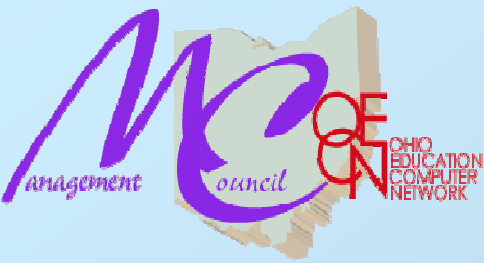
My Plone Period

- So I began what I know call my “Plone period” where I was really hyped about this product.
- I bought three hard-copy books and downloaded a fourth electronically.
- I downloaded and installed the software.
- Started reading, playing... lots of fun.



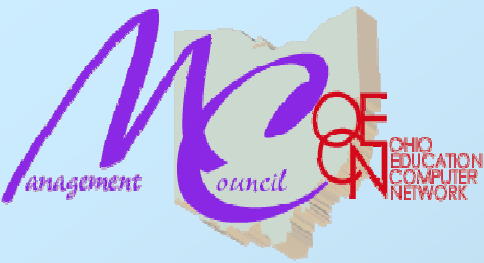
Period Ends

- After 3-4 weeks I ran into some issues:
 - Books were out of date.
 - Did not find on-line help that got me where I wanted to be.
 - Could not turn off self registration.
- I became frustrated.
- Plone is an interesting product, but it is a “heavy” product – big learning curve.



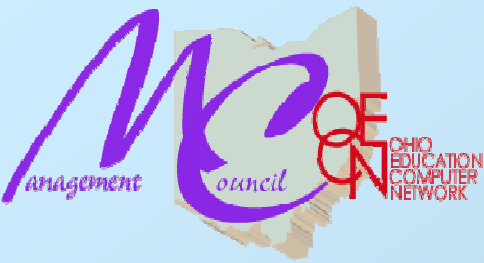
So Now What?

- Two of our ITC's are using a commercial product called SchoolPointe.
- Partnership – SchoolPointe provides the CMS and develops the initial site, ITC's provide hosting and support.
- Although this is not free, it has the advantage of commercial support.



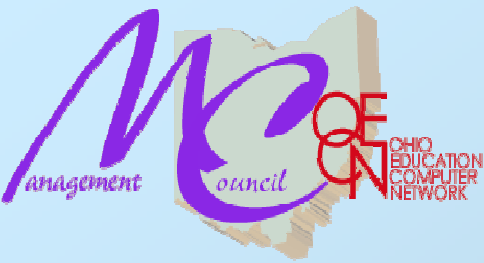
My Next Infatuation

- While looking at Python-based systems I came across a very interesting product called “Django”.
- Not really a CMS.
- It is a site developer tool – something you could use to build a CMS.
- Really slick...



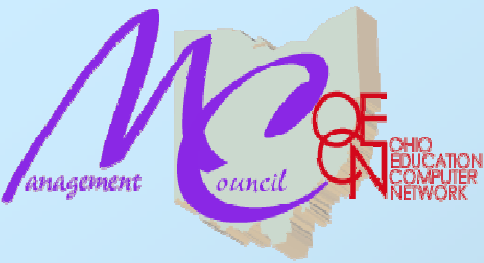
Django

- Named after Django Reinhart, an early 20th century Jazz Guitarist.
- Developed by a newspaper publishing company called World Online in Lawrence Kansas.
- “Battle tested” at the newspaper’s own site.



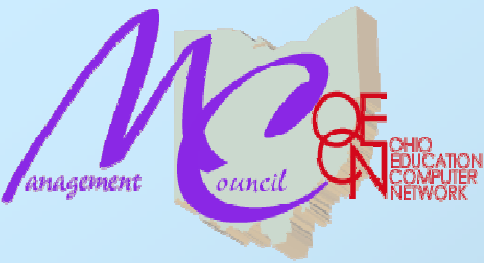
Django, Continued...

- Developed and used internally for two years before release as open source in 2005.
- Used by World Online to create a commercial CMS called "Ellington".



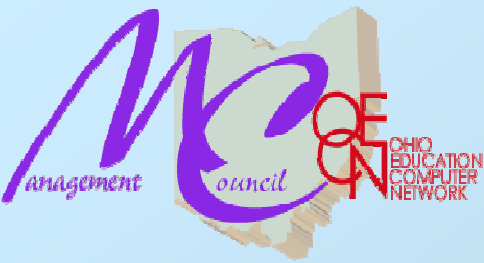
Why Django?

- Based on Python...
- Can create sites very quickly.
- Automates what needs automating.
- Fast, efficient, scaleable, flexible.
- Active and growing support community.
- Best web documentation I have ever seen – www.djangoproject.com



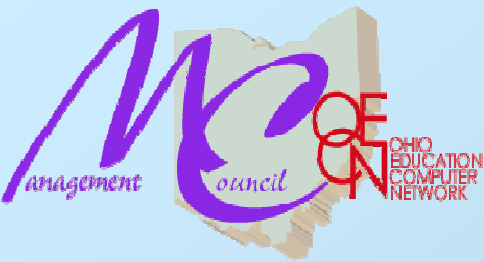
Why Django?

- Django Projects site was developed using Django.
 - Source for the Django Projects web site is available for examination.
 - Django code available in SVN.
- Many other projects, examples, how-to's, video clips, reference docs...



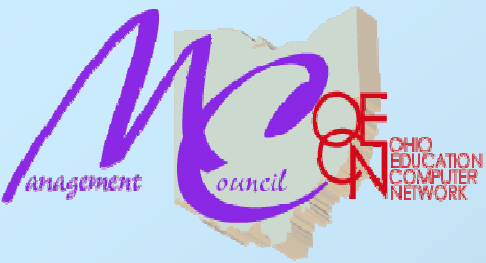
My Django Phase

- Downloaded the software.
- Studying the web site tutorials.
- Playing with the software.
- Also learning about XHTML and CSS.
- Not frustrated yet... but still learning.



Reality Check

- Django is really cool... but it requires developer time.
- In my current position I am not really paid to be a developer.
- Realization that initial build is 20%, but maintaining it (forever) is 80%.
- May have uses, but probably not our main site.



Questions?

- Your questions and comments are welcome.

Additional Web Resources

Additional web references and resources for CMS-based web sites

Wikipedia Article on Content Management Systems:

http://en.wikipedia.org/wiki/Content_management_system

CMS Reference and Listings:

Open Source CMS site:

<http://www.opensourcecms.com/>

Open Source CMS comparison guide:

http://www.opensourcecms.com/index.php?option=com_phorum&Itemid=187

CMS Matrix site:

<http://www.cmsmatrix.org/>

Open Source Scripts site:

http://www.opensourcescripts.com/dir/Content_management_.040CMS.041/

Plone Content Management System:

Plone.org web site:

<http://plone.org/>

Plone powered sites:

<http://plone.org/about/sites>

Django Project “Web Framework for Perfectionists with Deadlines”:

Django projects site:

<http://www.djangoproject.com/>

Django powered sites:

<http://code.djangoproject.com/wiki/DjangoPoweredSites>

Django projects resource page:

<http://code.djangoproject.com/wiki/DjangoResources>

Google application examples:

<http://code.google.com/hosting/search?q=label:django>

Other Sites of interest that were referenced in the presentation:

SchoolPointe: <http://www.schoolpointe.com/>

SchoolWires: <http://www.schoolwires.com/>

ActiveSite: <http://www.activesite.com/> and <http://www.dublinschools.net/>

CMS Made Simple: <http://www.cmsmadesimple.org/>

Mark Steven’s Site (Mark is a graduate student who provided personal experience and feedback during the presentation. Thank you, Mark!): <http://www.maspage.net/>