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# Tutorial: Using Content Management Systems (CMS) and Web Analytics in Information Systems Assignments

Jonathan P. Allen

*University of San Francisco, jpallen@usfca.edu*

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## TUTORIAL: USING CONTENT MANAGEMENT SYSTEMS (CMS) AND WEB ANALYTICS IN INFORMATION SYSTEMS ASSIGNMENTS

Jonathan P. Allen  
School of Management  
University of San Francisco  
jpallen@usfca.edu

### Abstract:

The proposed tutorial is an introduction to using Content Management Systems (CMS) and Web Analytics for assignments in Information Systems courses. The tutorial presents the advantages of using these technologies versus alternatives, provides a brief hands-on introduction to CMS and Analytics, and describes how to use them together to increase student IS skills and motivation. The tutorial will also share practical tips based on years of undergraduate and graduate teaching experience.

**Keywords:** tutorial, content management systems, web analytics

### I. INTRODUCTION

The proposed tutorial is an introduction to using Content Management Systems (CMS) and Web Analytics for assignments in Information Systems courses. These powerful, yet easy to use, technologies give Information Systems (IS) educators the ability to create technical assignments that go well beyond simple web page creation and office applications.

Content Management Systems (CMS) are applications that allow for the publishing and organization of large amounts of web-based information, without having to code HTML by hand [Seadle, 2006]. CMSs provide functionality that allow students to quickly launch business-quality web sites with appropriate security and user registration functionality. The most popular CMSs have surrounding ecosystems that offer tens of thousands of add-ons to modify the functionality or the look-and-feel of a site. CMS technology is used on an estimated 50% of all web sites today, and that number is growing. An example of CMS would be WordPress or Drupal.

The main advantages for using CMSs in assignments, rather than assigning basic web pages written in raw HTML, are increased power, and increased business relevance. When a student launches a CMS-backed web site, the site is much more powerful in terms of functionality, and more professional in terms of interface. Given that most business web sites use a CMS, CMS-based assignments also provide a more relevant set of skills than teaching only basic HTML. The potential disadvantages include the additional learning time required to become proficient in a CMS, and the risk of learning a proprietary application rather than an industry standard. Fortunately, the rise of commonly accepted, standards-based open CMS systems have mitigated many of these concerns. After years of improvements, open CMS systems have also become very easy to use.

Web Analytics is the analysis of data from a web site to improve online experience, and generate desired outcomes [Kaushik, 2010]. Web Analytics not only tracks what customers do on a particular web site, but allows students to test whether changes made to their sites result in improved business performance. An example of a Web Analytics technology would be the free Google Analytics service.

Web Analytics can be used with basic web pages, but becomes much more powerful when used in conjunction with a CMS-backed web site. Web Analytics connects an online presence to data that reveals the business value of a technology.

In terms of IS model curriculum outcomes, the skills developed in this tutorial are most relevant for high-level IS capability #2, 'Exploiting Opportunities Created by Technology Innovations'. Students are able to take a more entrepreneurial approach to IS by creating business-quality sites more quickly. The tutorial skills also relate to the IS-specific skill #3, 'Designing and Implementing Information Systems Solutions'.

## II. LEARNING OBJECTIVES

The learning objectives of the tutorial include:

- understanding the fundamentals of how Content Management Systems and Web Analytics work
- understanding the advantages and disadvantages of using CMS and Web Analytics for IS assignments
- the ability to create a new CMS site
- the ability to configure a new CMS site, add content, and organize content
- the ability to create a web analytics account, and link the account to a web site
- understanding how to interpret basic web analytics information
- the ability to create conversion goals in web analytics.

## III. PROPOSED TUTORIAL STRUCTURE

The tutorial would include the following topics:

1. Why use CMS and Web Analytics for IS assignments?
2. CMS – How it works
3. CMS – Getting started
4. CMS – Configuring a site
5. CMS – adding and organizing content
6. [break]
7. Analytics – How it works
8. Analytics – Getting started
9. Analytics – Linking to web site
10. Using CMS and Analytics together – setting conversion goals
11. Sample assignments
12. Questions and discussion

Each topic would be allotted about 15 minutes, with a total tutorial time of approximately 3 hours.

## LIST OF REFERENCES

Kaushik, A. (2010) *Web Analytics 2.0: The Art of Online Accountability & Science of Customer Centricity*, Indianapolis, IN: Wiley Publishing.

Seadle, M. (2006) "Content Management Systems", *Library Hi Tech*, (24)1, pp 5-7.

## ABOUT THE AUTHOR

**J.P. Allen** is a Professor at the School of Management, University of San Francisco. He serves on the editorial board of the *Journal of Information Technology*, the *International Journal of Electronic Commerce*, and is a senior editor of *The DATABASE for Advances in Information Systems*. J.P. won the Association for Information Systems Innovation in Teaching Award in 2014.