Entrepreneurship at SESP – Piloting Our Content Management System and Digital Portfolio at Other Colleges and Universities

Mark Swindle and Jim Webb, March 5, 2007

Seizing the Opportunity

We have created a unique suite of information management applications that positions our school to market a powerful product answering the demands of educational data management in this era of increased accountability. Our content management system (*MyECMS*) and digital portfolio (*MyPortfolio*) have the potential to yield substantial financial benefit and prestige for SESP. As colleges and universities become aware of a need for tools like ours, we find ourselves in a leadership position – able to provide highly-refined tools not yet available elsewhere¹. We are now prepared to perform a limited pilot of *MyECMS* and *MyPortfolio* outside of SESP. We request your support for this pilot stage.

Allowing Clients to Leverage Existing Resources to Meet New Demands

Recently Google rolled out its *Docs* and *Spreadsheets* software. What makes these two applications² so powerful is their ability to provide all the functionality associated with desktop software – e.g. Microsoft's Word and Excel – with nothing other than a browser required by the user. This model provides a competitive advantage for Google – and a glimpse of our future – that will be difficult for traditional "off-the-shelf," desktop-centric solutions like Microsoft Office to overcome.

MyECMS has been built on the same model that Google has used. We currently provide a solution based on this model for our Northwestern users – and would like to extend this to the broader educational market. Use of this model allows us to manage the software at SESP in the most robust environment possible. Clients benefit by foregoing the large initial investment required to purchase or develop and run their own solution, and are able to take advantage of their existing resources to use the solution we provide.

Clients benefit by use of a robust system that meets their needs for a fraction of the cost of running their own system, and SESP benefits by income and prestige. The following tables compare the costs associated with a "traditional" model vs. the model we propose to offer.

Traditional Model (cost does not include digital portfolio or other components)								
Item	Frequency of Occurrence	Cost						
1. Purchase and configure redundant servers	Every four years	\$8,500						
2. Purchase or develop application software	Initial purchase	\$13,000 to \$500,000						
	Annual Renewal	\$3000 +						
3. Host server (rack space, bandwidth, electricity, electrical protection, environmental								
control electrical protection, environmental control4. Administer Server (systems and application	Annual	\$4,000						
maintenance, disaster recovery 5. Platform and operating system conflicts and	Annual	\$4,000						
exclusions 6. Purchase of new client computers to meet		Possible						
demands of new application software		Possible						

The Client Experience

Our (and emerging standard) Model							
Item	Frequency of Occurrence <u>Cost</u>						
Pay initial setup fee and annual license fee	Once	\$15,000					
After first year, pay annual license fee	Annual	\$10,000					
1. Purchase and configure redundant servers	Included						
2. Purchase or develop application software	Included						
3. Host server	Included						
4. Administer server	Included						
5. Platform and operating system conflicts and exclusions	Browser-based; no issue						
Purchase of new client computers to meet demands of new application software	Browser-based; no issue						
Total (initial)		\$15,000					
_ Total (annual)		\$10,000					

Educational Information Management and Accountability in Higher Education

Tracing an arc from "No Child Left Behind" to the current set of policies under development by the Department of Education, higher education institutions are facing increasing demands for accountability and documentation in meeting state and national standards.³ They are also moving quickly toward fully-electronic systems for report submission and review.⁴

The review of the MSED teacher certification program demonstrated just how effectively our technology can be brought to bear – e.g <u>The Virtual Showroom</u> – in answering these demands and changes. Visiting team members were overwhelmingly impressed with our ability to assemble required documentation into <u>The Virtual Showroom</u>, and to <u>link student artifacts with</u> <u>evaluative standards</u>. They suggested a number of improvements – comprehensive reporting tools with which to examine data, ability to customize Digital Portfolio to suit a variety of users, stronger integration of Digital Portfolio with other components of *MyECMS* – that we have since implemented in Digital Portfolio 2 (<u>My Portfolio</u>).

While there are many proprietary and <u>open-source</u> CMS's available, the decision to develop our own *educational* CMS has given us a targeted, robust, and flexible solution that provides the ability to tie together the <u>artifacts</u> students submit with the <u>courses</u> in which they are created, the performance of <u>instructors</u> teaching those courses, and the <u>evaluative standards</u> to which the artifacts are mapped in a single, tightly-integrated manner. We can also examine these results through various <u>reporting</u> tools that are part of the system. This model satisfies the need for everything from general web content management to digital portfolios, from survey and reporting tools to virtual showrooms – all in a *single* application. This solution is well-suited to the needs and budgets of many other institutions.

Performing a Pilot to Ensure Suitability

MyECMS and *MyPortfolio* represent substantial financial and intellectual investments by SESP. They now runs dozens of web sites, manage and track the profiles of thousands of users, have been instrumental in the success of our ISBE review, and add value to the school through efficient management and publication of data. Their potential for success outside of SESP has been recognized by several prospective users and accreditation organizations, including Cynthia Shanahan, Phyllis Jones, Bob Hall (ISBE Team Members); Claire Dixon-Lee (Chicago Area Accreditors); and Stephen D. Spangehl (Higher Learning Commission of the North Central Association of Colleges and Schools)

As we optimize our in-house deployment of *MyECMS* and *MyPortfolio* for possible use at other institutions, we are planning a pilot program⁵ with participation from as many as three institutions. The pilot will allow us to determine physical resource needs, understand needs represented by institutions other than our own, optimize our user interface, and create a support model for clients. The pilot period (one academic year) would also include the development of a marketing program.

Please view the attached schedules for pilot implementation.

Managing Risk through the Pilot Period

Arrangements with pilot participants regarding participation will be contractual, and all contractual documents will be approved by appropriate University offices before they are used.

The Window of Opportunity is Modest

A quick look at currently-available commercial and open source content management systems suggests no shortage of interest in attempting to create CMS⁶ and Digital Portfolio⁷ solutions. It is only a question of time before the suite of education-centric applications we have developed will face similar competition.

What We Need From SESP

We request permission to solicit and engage as many as three pilot program sites. To ensure an appropriate level of user support, and to assist with current work for SESP, we also request funding for a part-time hourly position⁸ not to exceed an average of 20-30 hours/week for the duration of the pilot. Position responsibilities would include (1) creation of documentation, (2) assist with set-up/implementation, (3) user training and (4) ongoing technical/user support. The cost of this position is estimated to be a total of \$10,000-15,000.

What SESP can Expect to Gain

Pilot project testing is crucial for establishing a baseline set of expectations/metrics with which to build an accurate financial model. Nonetheless we can attempt a model – with knowledge of its limitations:

	Expenses	Income						
Initial in	vestment	\$ 15,000	Setup fee					
\$15,000	Beta testing (including creation of	\$ 10,000	Annual licensing/support fee					
	Documentation/FAQ/Help); other							
	development							
Per-Clier	nt							
\$ 2,000	Setup (40 hrs @ 50/hr)							
\$ 2,000	Training (40 hrs @ 50/hr)							
\$ 5,000	Annual support (200 hrs @ 25/hr)							

This model can be used to create a formula for determining a break-even point:

15000 + x(2000+2000+5000y) = x(15000 + 10000y)where y=Number of years and x=Number of clients

For 1 year the break-even number of clients = 1For 2 years the break-even number of clients = 0.7

The market potential for *MyECMS* and *MyPortfolio* includes hundreds of universities, colleges and community colleges. If we are successful, and the demand continues to grow, we may have the potential of selling rights to a commercial enterprise.

1 The Open Source Portfolio Initiative (<u>OSPI</u>), part of the SAKAI Project, represents a portfolio-specific solution, but is without a CMS engine uniting multiple functionalities – e.g. profiling, web content management, virtual showrooms - in the way our ECMS does.

2 Further information on thin-client computing is available on <u>Wikipedia</u> - a prime example of a thin-client or "webbased" application competing with a traditional "product"]

3 Documents relating to performance and accountability from <u>The US Department of Education</u> and the <u>Illinois</u> <u>State Board of Education</u>

4 NCATE changes in Program Review Process

5 Further information about Beta testing (or "pilot programs"): $\underline{1}$, $\underline{2}$

6 CMS Matrix, CMS Watch, Content Management System 365

7 A Google search using <u>digital portfolio</u> or <u>electronic digital portfolio</u> will return a substantial number of vendors with proprietary solutions, but again without an integrated suite of applications and many with a pricing structure beyond the means of many institutions.

8 One of Bill Siegrist's colleagues, a 3rd year Computer Sciences student, has the full range of required skills and is available for the position described

Pilot Implementation Schedule

Florence Kelley Web Site			2007								2008						
Task name	Dur.	Start	Finish	Apr	Hay	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Hay
Documentation creation	200 h	02/04/2007	31/07/2007														
Create prototype build	15 h	11/06/2007	15/06/2007														
Install MyECMS-MyPortfolio builds	10 h	11/06/2007	22/06/2007														
End-User Training	120 h	02/07/2007	31/08/2007						1								
Server purchase and set-up	10 h	02/04/2007	31/05/2007														10000
Beta testing period	4500 h	01/08/2007	30/05/2008														