

eLearning: A Conversation with Clay Fenlason at Georgia Institute of Technology

5 July 2007 | Atlanta, Georgia USA

Context

In December of this year Georgia Institute of Technology will become the first university to entirely replace WebCT, a Blackboard Inc. product, with Sakai.¹ This conversation focuses on the dynamics of that decision. Clay Fenlason is Director, Educational Technologies for “Georgia Tech.”

Clay is also a member of the Sakai Foundation Board of Directors. He had been an early, active and very successful Blackboard user at Boston University’s School of Management. He was Associate Director for Academic Computing.

The Selection Decision

Clay said the faculty had recommended the WebCT replacement in the summer of 2006 (through a report of their Academic Technologies Advisory Committee), with full support from the provost's office coming in November. The Sakai Conference was held in Atlanta in early December. Clay was asked to head Educational Technologies in March. The use of WebCT was and is still scheduled to be discontinued December 2007.

"This pilot is really a full rollout in that anyone at Tech who wants to use it may, and it will be fully supported...it is already fully operational," said Donna Llewellyn, director of the Center for the Enhancement of Teaching and Learning (CETL).

Jenny Zhang “T-Square pilot launches as WebCT successor,” Technique, 18 May 2007

Georgia Tech had long struggled with its technical support of teaching and learning. The range and variety of needs across campus led to the frank conclusion “that there is no current LMS product that meets the needs of a significant proportion of the users and potential users of an effective LMS at Georgia Tech.” (from “Report from the Subcommittee on Learning Management Systems to the Academic Technologies Advisory Committee” in 2006) Although the use of WebCT remained very low (20%), the use of technology to support needs local to schools was fairly high (a survey counted at least 6 separate LMS systems supported by resources local to particular schools or departments). There was, then, extensive, distributed use of educational technology, it just wasn't found in the centrally provided solution (WebCT), which was both too difficult to use and not flexible enough to meet needs and allow for the technical innovation of Georgia Tech faculty and students. But the end result was that students had to learn and navigate multiple systems while distributed resources struggled to maintain

¹ Other universities are using Sakai, but did not replace a Blackboard Inc. product.

them. The challenge was to find a solution which did afford the requisite flexibility and room for innovation without sacrificing coherence and sustainable support.

The final straw – even for WebCT devotees at Georgia Tech – was the introduction of WebCT Vista. It remained difficult to learn and use and then suffered severe performance problems and a three-week outage during one term. Clay said this interruption to service was unacceptable to Georgia Tech faculty because of its impact on student learning.²

Clay said that what the Sakai community represented, then, was that balance between minimizing local technical burdens while maximizing room for innovation and local control of the “mission critical” service. Control in two senses: first, that Georgia Tech could determine which versions to use when, what features to support, and what functions could be added using locally developed software, and second, that school-level resources would be “freed” from their control and the attendant unsustainable maintenance burdens. This loss of control on the part of local departments and schools would then have to be made up for by a new faculty-and-student driven process for setting development priorities, as well as technical support for niche development of discipline-specific services. This has all been part of the guiding philosophy throughout the entire transition.

Clay made clear that cost was not an issue. Because the Blackboard contract is with the Georgia Board of Regents, Georgia Tech would have to continue to pay its share whether or not the Blackboard software was used. The interest, then, is not in mere short-term cost-efficiency, but in relevance to campus needs and ambitions over the long haul. What is being launched with Sakai at Georgia Tech is not just a new product, it is a new way of doing business. Longer term, the eyes of other Georgia institutions will be on Georgia Tech and their Sakai experience, which may prove to be a vanguard for the rest of the State.

Was Moodle considered? No. When the decision was made—November 2006, the Sakai community interests were more similar to those of Georgia Tech than the Moodle community. Clay also said that when the decision was made, Michigan and Indiana were using Sakai; the Open University implementation of Moodle was not complete.

Faculty would find more of their colleagues in the Sakai community than in the Moodle community. He also observed that more peer colleges and universities were participating the Sakai community than in the Moodle community [here in the U.S.].

The Sakai Conference in Amsterdam

After the Sakai Conference there was an extensive discussion of pedagogy on the Sakai lists. Was this recent conference different? Clay said the presentations were largely similar to those of

² We did not discuss the cause of the service disruption.

previous conferences, but the conversions during breaks, meals and the informal meetings were quite different. There was still a great deal of talk on technology, but there were also more focused conversations on the use of the Sakai Collaborative Learning Environment (CLE), the user experience and how the Sakai community functions. One of the results of these discussions has been a more structured development decision-making process, answering concerns for transparency, peer-review, and stability and reliability of installed code more than simply seeking new features. Another result has been a revival of the pedagogy community within Sakai.

Clay said the selected Executive Director (Michael Korcuska) would now likely be more focused on community development and business operations than on being a source of technical leadership.³ He suggested that this was a part of the transition from the project stage to an open source community, and that this qualitative shift in the kind of Foundation leadership would be a good fit for the community's interests in this new stage: as colleges and universities move from development to implementation and others implement the software product.

Integration of the Learning System with Learning Applications

Would the current faculty-authored or faculty-selected learning applications be integrated using the Service APIs (application programming interfaces) and the Tool Design Pattern [as described by Sakai Chief Architect Charles Severance on 4 January 2004]?⁴

He said probably not, in most cases: it would likely be more often loosely coupled using web services.⁵ He said the most needed function was authentication and authorization services for these "tools." These services would provide single signon for student and faculty users of these applications.

³ "Michael has a long and distinguished career in educational technology, which began over twenty years ago at Stanford University's Courseware Authoring Tools Group and Apple Computer's Multimedia Lab. Throughout this time he has served in a wide variety of roles relevant to Sakai including software engineering, product management, instructional design and information technology management. Michael most recently served as the Chief Operating Officer at Employment Law Training, based in San Francisco and delivering an e-Learning service to 500+ customers and 600,000+ learners. Michael previously held positions of leadership and technology innovation at DigitalThink, Cognitive Arts Corporation and the Institute for Learning Sciences at Northwestern University. He has an M.S. in Computer Science from Northwestern University, and a B.S. in Symbolic Systems from Stanford University." Email Mon, 04 Jun 2007 14:46:22 -0400 From: "Mary Miles" mmiles@umich.edu Subject: "Sakai Foundation announces new Executive Director" for John Norman, Chairman Sakai Foundation Board.

⁴ In a 4 February 2004 presentation based on information provided to her, Lois Brooks, Stanford University, said the Tool Portability Profile would be available February 27, 2004 and the Functional Specification March 30, 2004. "The Sakai Technology Service Portability Profile for Java," by Craig Counterman, MIT, Glenn Golden, Rachel Golub, Mark Norton, Charles Severance, and Lance Speelman, was published by the Sakai Project 29 March 2004. The document was not completed and the design was not implemented.

⁵ See "A Web Services Sakai Framework" in Charles Severance, "Possible Additional Sakai Frameworks," Sakai Project, University of Michigan, 3 March 2004. The Sakai CLE does support Web Services, though the specifications may not support interoperability.

He said faculty needed to set up groups [for authorization] quickly and often informally. As part of a shift in policy that is “part and parcel” of the Sakai deployment at Georgia Tech, faculty members and students can now create guest accounts for external users and grant them access to Sakai. In contrast, the Luminus Portal run at Georgia Tech requires a review and approval process for all group creation requests. Nor has it provided any mechanism for including external users, which is essential for inter-institutional collaboration. This process needs to be done quickly and less rigorously for teaching, learning and research “groups.” This same requirement was recently expressed for Virtual Research Environments by Alan Bowman from Oxford University’s “Building a Virtual Research Environment for the Humanities” project and Mark Baker from the University of Reading’s “VRE in Archaeology” project.

Portals: Luminus, uPortal, and Sakai

Georgia Tech uses Luminus for its campus enterprise portal. Luminus is based on the open source uPortal and is integrated with the Banner administrative systems. The 2.x uPortal series and Luminus include “Groups and Permissions” in the portal code. Developed at Columbia University, “Groups and Permissions” or GAP has one feature needed in higher education, but not found in other portals—the ability to represent a “network” or group relationships rather than a strict hierarchy. A simple research project with faculty in departments in different colleges or schools or faculty from other institutions or associates in business immediately violates the strict hierarchy required of commercial systems. This requirement is almost always found in higher education, but not supported in most commercial portals.⁶ The Sakai CLE also continues to use the hierarchical version originally developed for the predecessor CHEF learning system.

Recognizing this need, uPortal 3.0 separated GAP from the portal itself and made it a separate application that could be used with other portals and other applications. Georgia Tech could implement this version of GAP separately to support the requirement for faculty control of authorization and permissions of their courses or research projects. This alternative has been suggested for the Joint Information Systems Committee’s VRE development.

Currently such groups are developed by having Georgia Tech users sponsor guests for network identification, which is used for identity in group membership.

In his June 2007 briefing at the JA-SIG Conference in Denver, Sakai Executive Director Charles Severance said that a design had been developed for Sakai that would support the use of a JSR-168 compliant portal as portlets. That is, a portal that displays the open standard JSR 168 portlets could be used with Sakai. He also said Sakai now is a JSR 168 compliant portal.

⁶ In October 2003 John Kunze, then President of Plumtree Software, said networked groups (JA-SIG developers used the term “directed graphs”) would become an important feature for corporate use in the future, but did not merit priority at that time. Plumtree was acquired by BEA Systems in August of 2005.

Georgia Tech then has several options that can be selected as further consultation, early implementation, and actions suggested by the work of others. The integration path will be based on requirements; options are available.

Georgia Tech Priorities

Clay said his current priorities are oriented around the migration from WebCT, and that fraction of the faculty and students which have come to rely on this service which will be shortly decommissioned. But if Sakai only satisfies the current WebCT population it will be a failure; the migration is necessary but not sufficient. A second prong of his activity is therefore to listen and learn from faculty and their homegrown educational technology systems and tools what the unmet needs are and how they could be better supported. Finally, Georgia Tech has a strong interest in leveraging Sakai as a platform for ongoing development, and to harness the technical talent of its own students and faculty to drive it further. Clay has begun already to actively engage class projects and research groups to apply resources to the enhancement of Sakai, and plans to have the locally branded Sakai available as an easy download for Computer Science courses and the like, while local developers offer strong support for development pursued by other units around campus, whether it be integration or direct development with Sakai.

The Sakai Foundation Board

Clay said the Foundation Board has consciously become less active in the day-to-day operations of the Foundation, and made more of an effort to surface its discussions on public lists, where appropriate. Operational matters would become a responsibility of the Executive Director. Although the occasions for strategic input through the Board would continue to be of value, he said that it was often his work as a contributing member of the Sakai community that brought the most rewards.