MIT PORTAL PROJECT STATUS REPORT
April 28, 2005

15.568 Practical IT Management
Spring 2005

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Sponsored by: MIT Information Systems & Technology

Provide a dashboard light of the overall prospects for achieving the project as laid out in the original project plan: green, yellow, or red

Green   Task completed or able to be completed on deadline
Yellow   Task has missed the deadline by two weeks or less
Red   Task has missed the deadline by more than two weeks

Objectives Status
1. Determine necessary costs and resources – Green
2. Identify portal implementation issues – Green
3. Identify portal operational issues – Green
4. Document best practices – Green
5. Create reliable documentation – Green

I. Accomplishments

1. **Contacts**:

SloanSpace
> Julie Bergfeld - unresponsive
> Deirdre Kane
> Thanks to Evan's contact, Susie successfully scheduled an interview with Deirdre.

North Carolina State University
> Gwen Hazlehurst
> Director of Enterprise Information Systems
> Adam Powell made contact on Wednesday, April 13, 2005.

Duke University (UPortal Open-Source)
Deborah Johnson
Assistant Vice Provost and Director of Student Administrative Services
> Tiffany Kosolcharoen – Made contact on Friday, April 8, 2005. Tiffany received information, including a 20-page report, that has been compiled into a case.

University of Cincinnati (SAP External Contact)
>   Jim Lewis, Associate Director
>   UCit Systems & Operations
>   Armando Valdes – Followed-through with interview transcript. Tiffany is
>   following-up with Jim Lewis, requesting additional materials regarding their
>   organization, strategy, and SAP systems, and writing a report.

Baylor University – No contact
>   Bill Bevil, CSE, Sr. Project Manager
>   Baylor College of Medicine
>>   Bill Bevil wrote, "I will get back to soon as possible - we are in the
>>   process of going live this weekend with SAP Supplier Relationship
>>   Management, SAP XI and Enterprise Portal and a new Identity
>>   Management system." Out of respect for his schedule, we will not include
>>   Baylor University as part of our studies.

Central Michigan – Renae Eckland, Director of Information Technology – no response

2. **MIT Case Study**: The MIT case study is attached below. It is in its final editing stages.
3. **SAP** – University of Cincinnati case study that Armando covered is now being covered by Tiffany.
4. **Presentation**: Started the presentation outline (see below).
5. **Presentation Invitations:** Invited IS&T contacts to our May 5 presentation.

II. Issues

1. Team member leaves
>   With the departure of Armando Valdes, our team needed to restructure and divide
our work. In addition to his transcript of the interview, we need to follow-up to find
official information regarding the SAP Portal of the University of Cincinnati.
>   For the IS&T team, the University of Cincinnati study is the most important
because of its SAP relevance. It is unfortunate that our team member with this
information has departed.

2. Time
>   We will no longer research additional external schools. As shared in class with
the other teams, our top priority is to make recommendations and provide areas for future
investigation.
>   Therefore, our team will leverage in-class resources (readings, websites,
databases, frameworks) to strengthen our recommendations. Please see the actions to be
taken below.

III. Actions to be taken

1.   Create a case study from Armando's North Carolina State University.

Tiffany is reinitiating contact with Jim Lewis to obtain information regarding the school's SAP Portal implementation. This SAP due diligence is critical to MIT's SAP portal success.

2.   Compile the report with all four case studies.

Adam	MIT Case Study,	North Caroline State University
Tiffany	Duke University,	University of Cincinnati
Susie	MIT Server	

3.   Make recommendations based on frameworks and readings from the class.

The report is outlined with the following parts:

>   Executive Summary
>   Introduction
>   MIT Portal Objective / Background
>   Cases: Duke, NC State, U of Cincinnati, MIT Server
>   Recommendations using frameworks and readings
>   Appendix

4.   Create a PowerPoint Presentation.

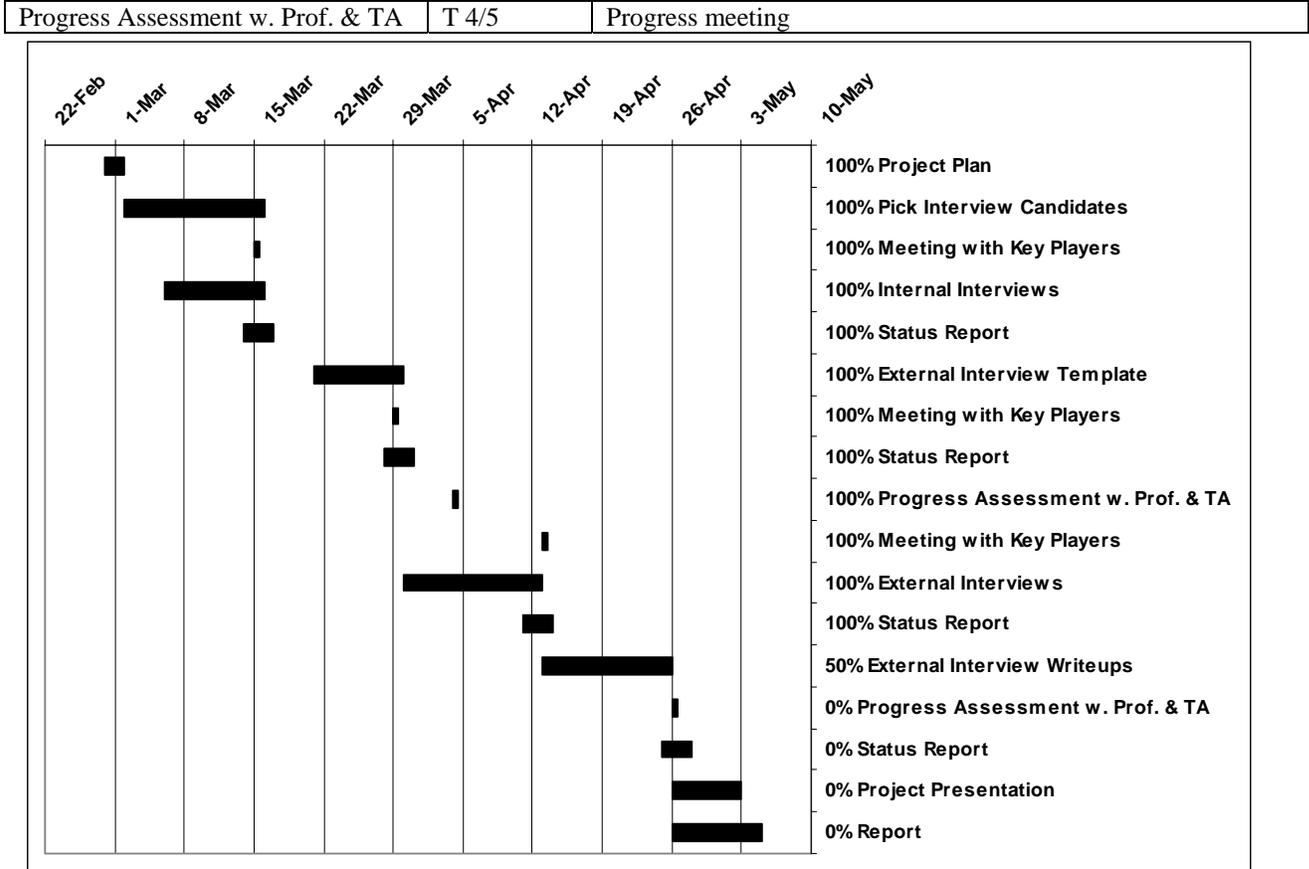Susie has outlined the presentation, similar to the report recommendation above.

IV. Reflections and Learning

It is better to admit room for improvement than to feign strength. Our report will be written realistically, and offer areas for follow-through. We will not offer a panacea "cure-all" prescription, but rather point out specific areas that our contacts found were areas for improvement.

Rise to the occasion. It is the end of the school year, and maintaining momentum in a team that has lost a team member is difficult. We have volunteered to take on extra status reports, case studies, and presentations. It is very hard work, but it strengthens our MIT work ethic.

VI.   Project Timeline

Deliverables	Date Due	Description
Project Plan	W 3/2	3-page initial proposal
Status Report	R 3/17	2-page update of project progress
Status Report	R 3/31	2-page update of project progress
Status Report	R 4/14	2-page update of project progress
Status Report	R 4/28	2-page update of project progress
Project Presentation	R 5/3	Presentation either on 5/3 or 5/5
Report	R 5/5	20-page final report
Internal Interviews	W 3/16	Interviews with UI, Architect, PR, MIT employees
External Interview Template	W 3/30	Questions to interview non-MIT university portal administrators
External Interview Completion	W 4/13	non-MIT university portal administrators all interviewed
External Interview Write-ups	T 4/26	"Case-study"-like summaries of portal implementations
Pick Interview Candidates	W 3/16	Work with Steve Landry to select interviewees
Meeting with Wayne, Steve, Kevin	W 3/16	Status report Meeting

Progress Assessment w. Prof. & TA	T 4/5	Progress meeting

22-Feb	1-Mar	8-Mar	15-Mar	22-Mar	29-Mar	5-Apr	12-Apr	19-Apr	26-Apr	3-May	10-May

- 100% Project Plan
- 100% Pick Interview Candidates
- 100% Meeting with Key Players
- 100% Internal Interviews
- 100% Status Report
- 100% External Interview Template
- 100% Meeting with Key Players
- 100% Status Report
- 100% Progress Assessment w. Prof. & TA
- 100% Meeting with Key Players
- 100% External Interviews
- 100% Status Report
- 50% External Interview Writeups
- 0% Progress Assessment w. Prof. & TA
- 0% Status Report
- 0% Project Presentation
- 0% Report

MIT Sloan School of Management

Tiffany Kosolcharoen, Susie Lee, Adam Powell, & Armando Valdes

Gateway Redesign at MIT's Administrative Computing Department: Integrating Heterogeneous Web Applications into a Uniform Portal

In August 2004, Steve Landry, a Web Services Coordinator from the Administrative Computing division of MIT's Information Services & Technology Department (IS&T), realized that he would soon face a problem. The two administrative gateways that his department had created, referred to as SAPweb and SAPwebss (SAPweb Self Service), had both overgrown their initial design. After numerous additions had been made to both gateways, they were no longer easy to use. In order to research how other universities

have handled similar situations, Professor Cyrus Gibson was contacted, and it was requested that a team of students in his class prepare a comparison of MIT's gateway redesign plans with portal design plans of other similar institutions. This case is the result of that request.

Department Background

Administrative Computing (AD) is a group within IS&T that exclusively handles IT issues related to administrative functions, such as payroll, benefits management, and employee data management. AD has a dedicated staff of managers and developers that work towards fulfilling MIT's needs. When an IT solution is requested, the request is prioritized. Then, the staff implements the solutions in an order dictated both by the priority of the solutions and the availability of human resources.

About Portals

Portal web sites, like the administrative gateway proposed by AD, have been around for several years. Within MIT, notable preexisting portals include MIT Server, the portal for the Sloan School of Management; Stellar, a campus-wide course management portal; MyMIT, the admissions portal; and Infinite Connection, the Alumni Association Portal. Outside of MIT, many major institutions also have portals. Table A contains a list of institutional portals.

Table A: Institutions and their Corresponding Portals

Institution	Portal
Duke University	ACES
UC San Diego	Blink
California Polytechnic	MyCalPoly
Central Michigan University	My cmich
Des Moines	MyDMU
Harvard	MyHarvard
Indiana State	MyISU
UCLA	MyUCLA
University of Washington	MyUW
University of Cincinnati	OneStop
North Carolina State University	PackTracks
MIT Sloan School of Management	SloanSpace
University of Delaware	UD&me
University of Texas	UT Direct

North Carolina State University defined the word portal as:
"A hub or gateway to locate commonly used content. A portal gives approved users access to web-based information, tools, and services from one location, with single sign-on[1] and user-specific views. Roles-based profiles allow for dynamic, customized, personalized data. Use of portals allows for broadcast of messages or notifications, or narrower, targeted messages."

Portals can be custom programmed, or can be produced using packaged or open source software. Choice of portal development software is often determined by a combination of needs and the departmental budget. In the case of the development of MIT's new administrative gateway, referred to as "insideMIT", there is a great amount of flexibility in choosing a platform, as MIT already owns the licenses necessary to use SAP. Thus, primary technical factors are driving whether the gateway should be built with SAP or an alternative technology.

Division Operations

The overall strategy of AD is to build software requested by departments within MIT using internal staff. As AD has a fixed amount of Full Time Equivalents (FTEs), its ability to complete projects is primarily constrained by its manpower. Projects are pitched to AD, and then are assigned a priority for completion. During the planning phase that has occurred thus far, the gateway project has had less than one FTE allocated to it. Thus, a larger team will have to be constructed during the implementation phase. As development resources are limited, projects are designed so that their outcomes will hopefully last for at least five years. Maintaining systems on this time horizon simplify the lives of users, as the users must incur a time cost to learn the system every time the system is changed.

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[1] Because MIT uses certificates, it is more appropriate to think in terms of single session rather than single sign-on.

When AD builds websites and gateways, it essential that they have the MIT "look and feel", and are able to operate well in the MIT environment. Thus, packaged software products without customizable user interfaces are less desirable. The MIT environment consists of a relatively heterogeneous set of computers and browsers. It is expected that a significant number of users will be using Microsoft Internet Explorer, Mozilla Firefox, and Apple Safari, as well as an assortment of other browsers. Therefore, it is essential that the gateway solution comply with W3C standards.

Likewise, it is essential that the interface of the gateway be internally consistent. The administrative services gateway that is currently in place, SAPweb, was originally organized around tabs that were functional groupings, such as "Purchasing", and "Accounting". Due to departmental demands, there has subsequently been the addition of tabs that have departmental, rather than functional titles. (See Appendix Exhibits 1 & 2) In the redesign process, it is essential that all of the components of the new gateway maintain a consistent look and feel, both graphically and functionally. (See Appendix Exhibit 5)

Gateway Redesign Project

As MIT's SAPweb administrative process gateway and SAPwebss employee information gateway grew beyond their original scope, AD began planning to replace the gateways during the summer of 2004. The goal of the new gateway is to simplify the user experience by only providing the user with features pertinent to their position. Users of the new gateway, insideMIT, are categorized into three categories: faculty and students, accounting officers, and general users. Using certificates, insideMIT should automatically recognize the category that a user is in, and then show them the appropriate features. Additionally, users will be able to customize the features they are shown in subsequent logins, so that the gateway best suits their needs. In order to achieve this, the old static HTML gateway will be replaced with a new gateway built on portal technology.

The goals of the gateway project, as synthesized by Nancy Gift in the Administrative Intranet Migration Software Requirements Document are to:

- Enhance employee productivity by providing "one-stop shopping."
- Generate greater awareness of new functionality.
- Stay competitive with other Universities who have been using portal technology for several years.
- Provide technical capabilities that enable end user customization and personalization.
- Enhance job satisfaction.
- Coordinate UI design with other MIT enterprise Web sites, promoting the MIT brand.
- Demonstrate acknowledgement and implementation of user feedback.
- Achieve product stability. A life span of five years is anticipated, but this might be extended by changing only the underlying technology. Product stability reduces user disorientation, reinforces brand recognition, and builds confidence.

Administrative Computing is taking a total redesign approach towards the insideMIT gateway. As development resources are limited, it is essential for AD to begin the gateway project with a clear assessment of the time necessary for development, the cost of development, the cost of maintenance, and probable difficulties to be encountered during gateway construction. During the summer of 2004, Nancy Gift, a web developer at AD, was assigned to spend half of her time devising a plan for the gateway. Gift prepared several documents about the gateway in order to create a functional definition. It was decided that a multi-phased development approach should be taken. Some features will be included in the first phase, while other will not. The following lists have been extracted from Gift's document.

Functionality Included in insideMIT:

1. My Home Page (Personal, customizable page)
   a. Optional trays might include: Calculator, News, Google, Yellow Pages, etc.
   b. User selected Administration trays.
   c. User selected Self Service trays.
   d. My Bookmarks
2. Administration
   a. Financial transactions: All Requisition transactions, Credit Card verification, Journal Vouchers, etc.
   b. Administrative transactions: Update Personal Information, Facilities Repairs, Environment, Health, & Safety look-ups, Student Group Reports, etc.
   c. Administration Bookmarks
   d. User selected additional trays, if desired.
3. Self Service
   a. Employee Benefits Information
   b. My Information
   c. Training & Development
   d. Campus Life
   e. Money Matters (planned future functionality)
   f. Self Service bookmarks
   g. User selected additional trays, if desired.
4. Support
   a. Notifications
   b. Roles
   c. Manuals
   d. Contacts for assistance
   e. Support bookmarks

Features in Phase One:

- Trays with the following capability options: collapse/expand; edit; delete.
- Trays that can be rearranged within and between columns, drag-and-drop if possible.
- Ability to select colors & themes (from a finite selection).
- Ability to resize text.
- Ability to add/delete content by selecting/deleting additional trays.
- Multiple ways to select trays.
- Ability to add/delete additional tabs (pages).
- Ability to create multiple sets of bookmarks with custom names.
- Ability to arrange bookmarks in user order rather than by alpha only.
- Ability to delete a column.

Features Not in Phase One

- Ability to resize column. (Perceived technical difficulty.)
- Ability to add a fourth column. (Would cause horizontal scrolling resulting in poor usability.)
- Choose a different skin (color & theme) for each tab. (Perceived technical difficulty.)
- Ability to detach trays as separate windows, such as a calculator. (Can be evaluated later for value added and ease of implementation.)

Technical Issues

There are several technical issues associated with the gateway project. The gateway will involve two technologies that are currently unfamiliar to the Administrative Computing development team; Web Application Server (WAS), and Java 2 Enterprise Edition (J2EE). The rollout for these systems, and the corresponding "skilling", is to correspond to the schedule designated for new payroll applications, which are also to use WAS. This means that the rollout of insideMIT can occur no later than January 2006. Luckily, human resources allocations will not need to be changed to implement this project, as there is already a redesign of the SAPwebss system scheduled, which this project would supersede. It is believed that the team of developers currently assigned to the redesign of the SAPwebss system is adequate for implementing insideMIT.

WAS may be implemented with a version of SAP R/3 that is older than the version recommended by SAP. Under normal circumstances, the portal module of SAP could be used without any additional hardware or licensing. Due to the usage of an older version of SAP, it must be verified that this is still the case.

Additionally, all of the groundwork done for insideMIT has been conducted by a web development team within Administrative Computing, as well as a group of undergraduates within the Sloan School of Management. It will be necessary to have someone with project management experience to define analyst and project management roles for insideMIT before its implementation.

Appendices
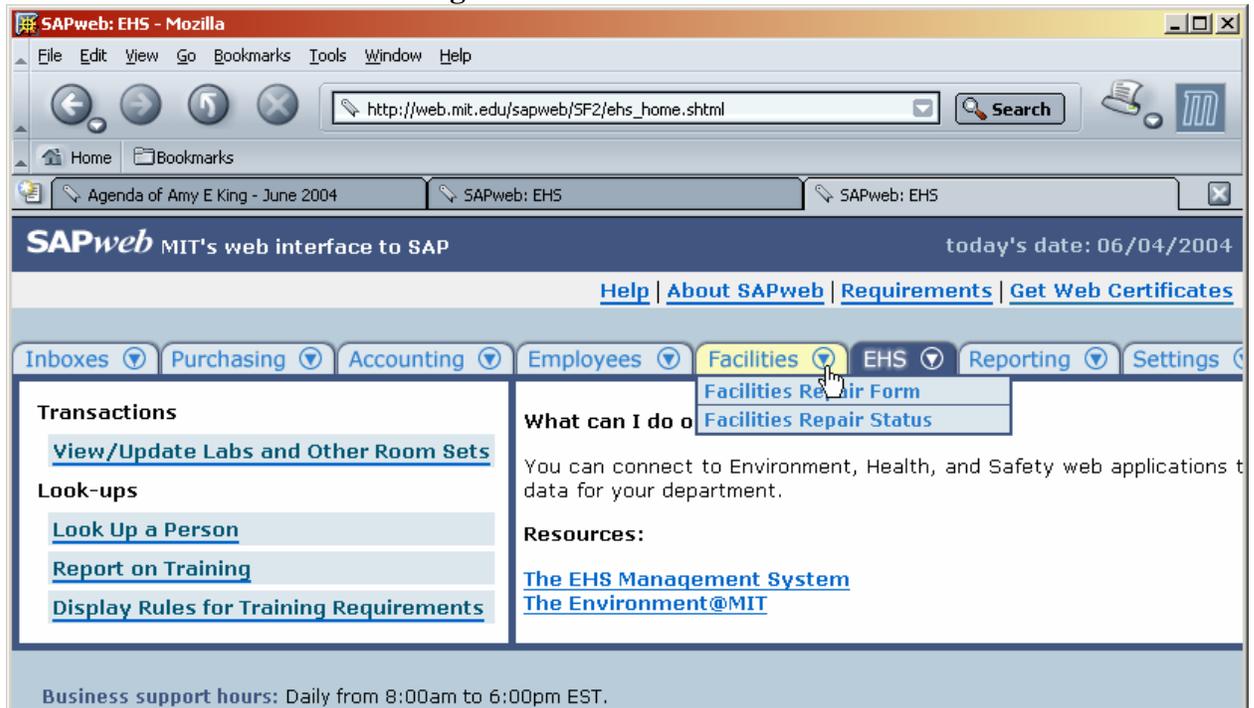
Exhibit 1: Current SAPweb Design
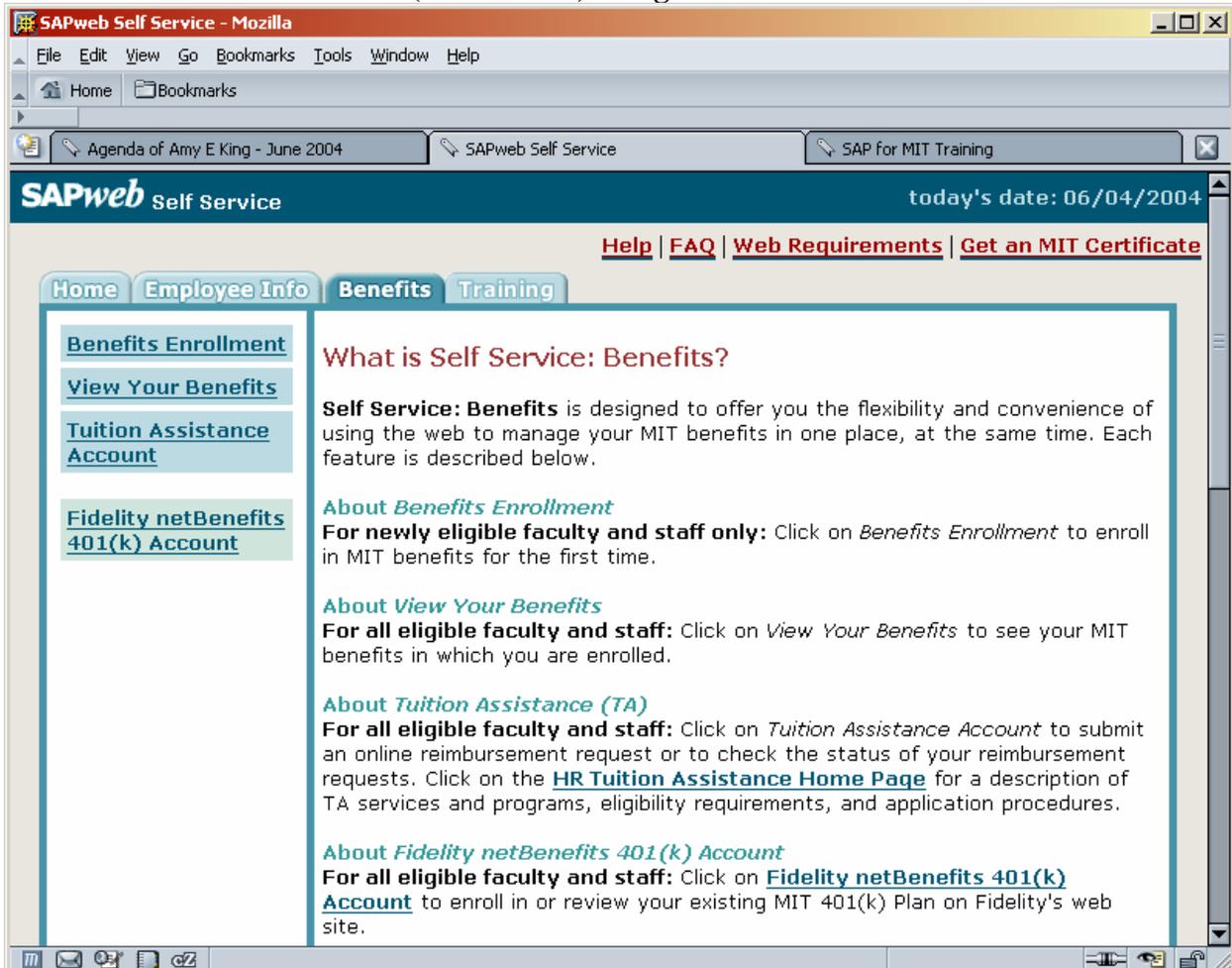
Exhibit 2: Current SAPwebss (Self Service) Design

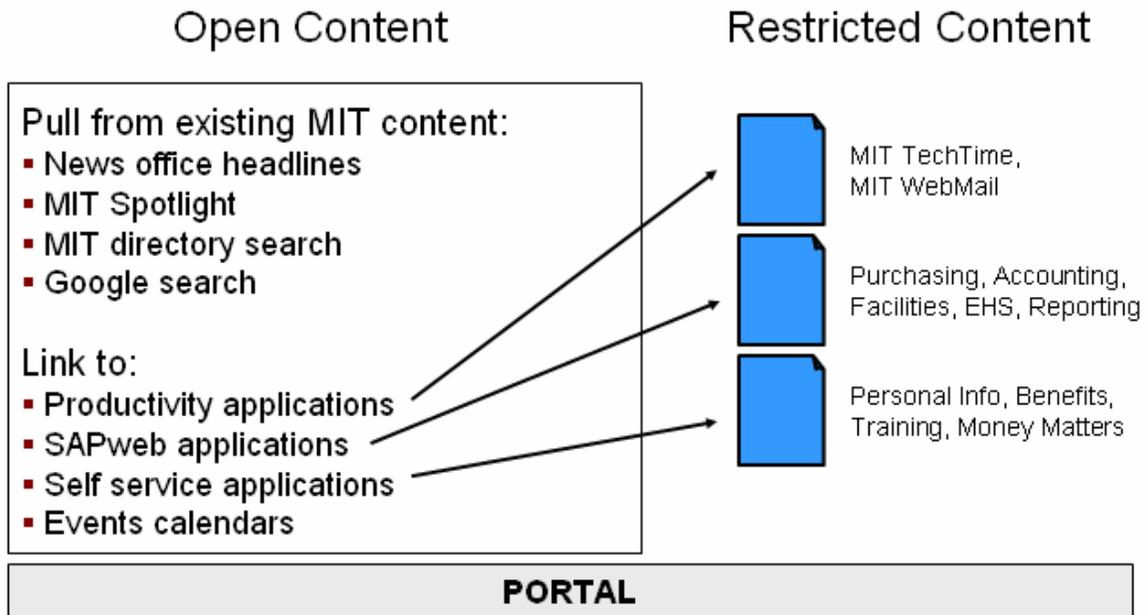**Exhibit 4: Open and Restricted Content on the insideMIT Portal**

Exhibit 5: Mockup of insideMIT Portal

(Material on subsequent pages)

Bibliography

"SAPweb Gateway Redesign 2004", Amy E. King, 13 March 2005. (Internal)

"Administrative Intranet Migration", Steve Landry et al., 10 September 2004. (Internal)

"Effective University Portals: Evaluation of Departmental Participation, Content, and Features", MIT Information Servi