

Multi-tenant Web Content Initiative Project Plan

Problem/Opportunity/Need

Over the years the flexibility of the web and ease of creating web pages has caused a proliferation of different design, styles, navigation systems and content organizations on what are essentially official pages for the University. For example, CIT has several sites and sub-sites that link into the UBIT main site each with differing designs and organization. The School of Medicine has many departmental web sites each with different content, controls, and visual appeal. These problems are rampant within UB's web domain and are the artifacts of disorganized content management for official University communications.

There are many sites that do have stylistic integration, yet fail to capture visual appeal owing primarily to dated design elements or mysterious navigation systems. Often this is the artifact of changing responsibility for the site as personnel change, and capabilities vary. The University's official web pages such as www.buffalo.edu or the UB2020 web site are examples of UB-branded stylistic and content integrity that should be modeled in other University "official" pages.

Finally, UB's official web pages are consistently in jeopardy of being in violation of ADA access requirements- an eventuality if nothing positive is done to correct the negligence.

This initiative proposes a series of pilot projects that addresses these issues of UB-branded, stylistic standardization by utilizing core expertise in at least three areas to demonstrate the development of standards, controls, systems and processes necessary to produce consistently attractive, accurate and integrated "official" web pages for participating areas.

Creative Services, a division of University communications, is well known for developing and maintaining the UB brand, web design expertise, creating visually appealing web pages which contain compelling messages, and intriguing navigation devices and index elements, while keeping in mind audience needs. Creative Services utilizes well-known, award-winning practices to develop these concepts and translate them into web templates, styles and content organization.

CIT provides enterprise infrastructure systems which provide feature-rich services that effectively translate standards, business rules, and workflow to support University goals. CIT's expertise is focused on providing consistent, reliable, scalable and secure systems which are integrated with UB's administrative data. CIT is good at implementing access controls and standards-based delivery mechanisms for content. CIT is also a content provider guilty of the same disorganization practices, owing chiefly to our devotion to our core expertise. CIT works with Creative Services for design and information organization expertise.

The School of Medicine is composed of several departments and program areas, each with their own web sites, page styles and design. Moreover, many of the School's web sites lack critical information typically sought by page viewers presented in a consistent fashion. The SMBS site, especially since the launch of UB 2020, needs to reflect not only the user needs of faculty, students and prospects, but also the growing needs of our communities. Lastly, there is no commitment to regular web page updates for "official" University information.

Proposal

This initiative proposes to combine the expertise of CIT, Creative Services and SMBS to demonstrate effective best practices in web communications through creating a UB branded identity that is easily navigable, accessible, in alignment with the needs of the tenant organization, has consistently applied standards and accurate well presented content that is managed and easily updated through a web content management system.

We propose to accomplish the following goals:

- Create a unified web presentation (look/feel) for CIT and SMBS that aligns with the University brand standards. Productive and necessary diversity should be reflected in limited variations of design.
- Create an information architecture and navigation system that can be adopted for all “official” pages.
- Align web designs with the University brand creating a unified e-user experience, and intuitive use by the user.
- Create a web content management infrastructure that allows content providers to quickly, easily display and update content relative to their roles within their organizations, and reinforces compliance with consistent design elements and proposed navigation systems.
- Organize content providers according to role and function with appropriate privileges within the system so that content can be regularly and routinely created, updated, modified or deleted.
- Put in place a process where stylistic elements are periodically updated according to the needs/goals of the University, and to have those elements automatically reflected in web sites with a minimum of content provider intervention.

Critical Success Factors

- Establishing sponsor approved Core Principles will serve as guidelines for how the multi-tenant system will function collaboratively
 - The Core Principles may serve as a preliminary Multi-tenant Operating Agreement.
 - The Core Principles will influence infrastructure and system sharing rules to encourage collaboration and foster trust among participants.
 - The project team will adhere to the Core Principles at least at the compliance level.
- Consideration of future and diverse technologies will be apparent in the outcomes of this project through design and technology selection.
- Alignment of this project with the information organization goals of the Academic Health Center will be achieved through purposeful planning based on understanding.
- Provision for continual care and maintenance of content will be assured through workflow processes in the business culture of each tenant.
- Timely completion and efficient use of resources will be ensured by sustaining the priority of this project.
- Commitment to Best Practices in web design derived from up-to-date research will assure positive assessments for usability.

Scope

In Scope <i>What the project will do.</i>	Out of Scope <i>What the project will not do or produce.</i>
<ul style="list-style-type: none"> • Utilize formal project management principles for project organization, execution, communication and completion. • Gather functional and non-functional requirements for CMS system implementation for each participating stakeholder organization • Secure consultation to ensure requirements are within acceptable practice and standards for each participating stakeholder organization 	<ul style="list-style-type: none"> • Establish independent infrastructure exclusive to this initiative; this is a shared infrastructure initiative • University-wide standards and practices developments • Solve inter-school or department policy disputes regarding content roles, responsibilities and resource assignments • Automated migration of current web content into CMS system; SME's must manually transfer content

<p style="text-align: center;">In Scope <i>What the project will do.</i></p>	<p style="text-align: center;">Out of Scope <i>What the project will not do or produce.</i></p>
<ul style="list-style-type: none"> • Develop selection standards for CMS systems, and utilized accepted practices for system selection, and procurement. • Arrange for appropriate University infrastructure to host the CMS system • Develop standards and procedures for CMS system implementation, including business rules and appropriate system privileges • Develop standards and practices relevant to the efficient operating principles of the tenants needs and site functions • Develop Information architecture, (content assessment, user assessment, usage data assessment, content mapping) that is intuitive to users and reflects that goals and communications needs of the tenant. • Integrate university wide resources (e.g. news, search) as appropriate to the phased planning [non-functional requirement]. • Tenant organization resources develops new copy as appropriate to the information architecture Tenant organization audits existing copy for integrity (accurate and up to date) • Develop a UB branded visual system for tenant sites and implement as CSS web templates appropriate to UB, SMBS, and CIO's area. To be measured successfully, designs should reduce the need for variations and templates work within the CMS system software for presentation. • Develop style guides that will guide site development including visual standards, editorial style, links to university resources (such as photo database) and style guidance that can be implemented by tenant for databases application or non-official pages residing outside the CMS system. • Develop responsibilities and roles within each tenant organization for content provision on an ongoing basis • Devise adequate training and support for users of said system on an ongoing basis • Recommend system support plan and support team structure for ongoing support to Project Sponsors • New CMS system will run parallel to current web pages to enable migration by responsible parties • Determination of appropriate information architecture native to each tenant, 	<ul style="list-style-type: none"> • Integration of other university wide content management issue such as event calendars, feedback systems, advocacy systems, news channels, and other automated feeds except those clearly stipulated in functional requirements. • One shot, all encompassing deployment; project will use a phased deployment strategy • Project applies only to official pages (Appendix) • Project does not apply to implementation of new visuals for databases • Project does not include integration of Academic Health Center (AHC) branding • Consideration for enterprise scale adoption of this system is not a functional requirement.

In Scope <i>What the project will do.</i>	Out of Scope <i>What the project will not do or produce.</i>
mirrored and facilitated by CMS system features <ul style="list-style-type: none"> • Phased development of content over time, applied in “layers” to ensure consistency among tenant’s organizations • Implementation teams composed of resources from all participating parties and tenants 	

Project Organization

What are some of the roles needed to execute the project plan, who might be likely candidates, how they will work together.

Project Role	Role Description
Program Director	<ul style="list-style-type: none"> • Establish Project Proposal and obtain Sponsor Approvals • Ensure project goals, milestones are achieved • Manage project scope change • work with sponsors to clarify issues • provide project organization direction • develop governance documents in conjunction with project team
Project Manager	<ul style="list-style-type: none"> • Manage overall project schedule • Coordinate resource requirements, allocations and reporting • Coordinate project communications and project team organization • Escalate project issues to Project Director • Monitor project scope; facilitate change management issues • Oversee requirements gathering activities • Oversee procurement activities • Develops overall project risk plan; monitors risk issues
Creative Web Team Leader)	<ul style="list-style-type: none"> • Leads creative web-team during project strategy and implementation • Develops site objectives • Coordinates Consultants • Works with Information architect to do analysis, execute structure • Works with creative team to develop web standards and apply them to design, structure and navigation • Works with creative team and information architect consultant to integrate seamlessly the GUI and the architecture • Presents to clients, PM, and PD with Creative Project Manager (CPM) for their approval
Creative Project Manager	<ul style="list-style-type: none"> • Develops creative aspects of project for the work breakdown structure • Completes creative brief which guides the creative team and is used to evaluate the respective clients need • Presents to clients, PM, and PD for their approval with the Creative Web Team Leader • Coordinates RFP and paperwork of any consultants • Keeps creative team on time, on task, and within the budget—to the extent that this can be accomplished
Tenant Coordinator	<ul style="list-style-type: none"> • Responsible for leading tenant organization content provisioning resources, editors and subject matter experts
Web Information Officer(s) Editor(s)	<ul style="list-style-type: none"> • Editorial responsibility for Tenant web assets • Determines content system permissions for tenant contributors

Project Role	Role Description
	<ul style="list-style-type: none"> • Liaison with tenant content providers and creative team resources • Coordinates tenant training and support needs • Ensures tenant standards are enforced within information organization and content management system • Responsible for the integrity of the content in the system • Responsible for developing a set of maintenance standards and expectations for the content pages • Develops standards for “tone” and style • Develops and implements a system for key wording and meta-tagging content resources for best search return in collaboration with the creative team.
Business Analyst(s)	<ul style="list-style-type: none"> • Assist in development of functional and non-functional requirements for Content Management System • Translates business needs into technical requirements for RFP’s for product/vendor requirements
Subject Matter Experts	<ul style="list-style-type: none"> • Write web copy for submission to Web Editors • Routinely update copy for web pages (see maintenance standards)
System Admin(s)	<ul style="list-style-type: none"> • Translate technical requirements into specific infrastructure needs • Provide software system specifications to system administrators • Implement and support underlying IT infrastructures • Responsible for system stability, reliability and consistency • Monitor system performance • Ensure system security and backup
Application admin(s)	<ul style="list-style-type: none"> • Administer software system for production users • Install and monitor business rules in application • Enable software access to appropriate roles in tenant organization • Plan system upgrades with system administrators
Information architects	<ul style="list-style-type: none"> • Executes Audience and needs analysis • Executes content analysis • Analyses statistical usage data • Develops information architecture system and standards • Applies information architecture systems to existing content
Web designer(s)	<ul style="list-style-type: none"> • Create designs, navigation systems, templates, images and similar web oriented objects
Web programmer(s)	<ul style="list-style-type: none"> • Translate designs, navigation systems, CSS templates, etc. into working web objects and applications • Develop web applets and programs to implement desired features • Integrates designs into Web content management system configurations
Production Coordinator	<ul style="list-style-type: none"> • Responsible for migration of content

Risks Analysis

What are some of the possible problems or issues that the project could face? What assumptions have been made that should be questioned before starting. What will you do to lessen the chance of it happening or avoid it altogether.

Risk Assumption/Constraints <i>Must be specific here.</i>	Probability/Impact <i>Chance of happening and impact if it does</i>	Plans To Deal With It <i>Feed these into the schedule.</i>
Departments unable/decline to comply with web content organization	High/high: lack of available content; confusion of information	<ul style="list-style-type: none"> • Sponsor intervention to ensure compliance
Insufficient staff resources for project phase completion	High/High: lack of progress toward goals	<ul style="list-style-type: none"> • PM/Project Director addresses issue with sponsor(s) to intervene with resource managers regarding project priority • Push out project completion goals • Investigate potential outsource of labor components
Functional requirements cannot be met with any current vendor offering	Low/high: unlikely since satisfactory solutions are known to be in use	<ul style="list-style-type: none"> • Revise functional requirements to ensure only critical elements are addressed, before lower priority issues • Investigate vendor professional services for potential customizations
Unavailability of suitable infrastructure for project	Low/medium	<ul style="list-style-type: none"> • Investigate hosted environments • Investigate UB hosting partnerships • Secure resources for unique platform
Integration of remaining AHC Schools into project	????/high	<ul style="list-style-type: none"> • Scope change • Reformulate project and plan

Communications Plan

People that should be consulted with, what their information and other needs are and how this will be done.

People/Groups <i>Who must be consulted with?</i>	Information/Other Needs <i>What/When/How's for handling the information or need.</i>
Sponsors: SMBS Dean, CIO, Marketing Director	<ul style="list-style-type: none"> • Project proposal with scope, resource estimates and time frame • Sponsor review meetings to handle project phase/gate reviews, scope change, implementation updates
Department Heads/Program Heads/Principal Investigators	<ul style="list-style-type: none"> • Early on involvement to understand proposal and scope • Participation in content provision within their units • Designation of subject matter expert liaisons
Tenant Information Providers	<ul style="list-style-type: none"> • Project requirements gathering • Production selection updates • Regular project updates to aid deployment coordination
Project Team membership	<ul style="list-style-type: none"> • Regular project meetings (at least monthly) • Project collaborative worksite (SharePoint) for project plan, calendar, items, work orders, discussions
UB IT Leadership	<ul style="list-style-type: none"> • Introduce project pilot concept with impending implications for UB wide deployment
Subject Matter consultants	<ul style="list-style-type: none"> • Research appropriate information architectures for departmental sites

Work Breakdown Structure

Use sticky notes (one color) to create Milestones from In/Out Scope and Risk Analysis and place on Flip Chart. Now put them across the top and use different colored sticky notes for the tasks. Limit time not to go into much detail.

Planning	Requirements Definition	Analysis & Design	Build & test	Deployment	Close Out
	Installations	Requirements Definition	Analysis & Design	Build & test	Deployment
Final Project plan	Determine data categories	Document system configurations Determine data categories	Implement Document system configurations	Deploy business rules and roles Implement system configurations	Transfer application control to support team Train users
Organize project	Determine reporting needs	Design support framework and governance Determine reporting needs	Perform user acceptance testing Design support framework and governance	Migrate/transfer content (if any) Perform user acceptance testing	Begin routine content update processes Users on system active
Obtain team resources	Determine information architectures	Determine training needs	Develop content for data entry Determine training needs	Train users	Hold Lessons learned session and close project Governance structure initiated
Develop task breakdown	Establish Core Principles	Devise User acceptance test	Devise User acceptance test	Users on system active	
Organize Teams	Determine business rules and roles	Devise migration/transfer of information strategy	Determine usability testing processes	Governance structure initiated	
Determine measurements and success factors	Assessment (tenant and user needs, current usage, best practices)			Implementation of design system/standards (template creation, standards guide development)	
	Content audit				

Completion Criteria

Use Milestone sticky notes from WBS and place along left edge. Fill out deliverables in the right column. Enter into the circle approximate effort in days as last step.

Milestone	Date	What they expect when completed
Phase 1 Planning	[1.5 months]	<ul style="list-style-type: none"> • Project plan • Project organization • Work breakdown structure • Overall project schedule
Requirements Definition	[3 months]	<ul style="list-style-type: none"> • Functional and non-functional requirements • RFP or other vendor selection process definitions • Business Rules
Analysis and Design	[5 months]	<ul style="list-style-type: none"> • Concept Description • System configurations • Governance organization processes • <input type="checkbox"/> Federated training needs • <input type="checkbox"/> User acceptance and testing plan • <input type="checkbox"/> Assessment (tenant and user needs, current usage, best practices) • <input type="checkbox"/> Determine usability testing processes • <input type="checkbox"/> Develop information architecture • <input type="checkbox"/> Content preparation • <input type="checkbox"/> Develop design system/standards (look, feel, structure) • <input type="checkbox"/> Templates
Build and Test	[4 months]	<ul style="list-style-type: none"> • Functioning system • Trained staff • Functioning governance process and procedures • Testing and refinement of design and arch systems • Implementation of design system/standards (template creation, standards guide development)
Deployment	[2 months]	<ul style="list-style-type: none"> • Production environment released to content providers • Content loaded into system for initial phase deployment
Phase 1 Release	1.25 year after Sponsor go-ahead	<ul style="list-style-type: none"> • Live web environment • Content Audit

Appendix

Definition: Official Web Sites

Level One Web Standards

Official sites: Externally accessible web sites that represents the university at large; UB colleges and schools, departments, offices, and administrative units.

This project: SMBS, IT and their departments, offices, and administrative units

Level Two Web Standards

Ancillary official sites: Websites for all research institutes, centers and labs; Service Sites such as Athletics, Alumni, and Center for the Arts are considered Level two Web pages because of the nature of their affiliations, user demographics, and unique service functions.

This project: SMBS services (such as UBMD or find a researcher), research institutes, centers and labs and IT services (such as Help Desk)

Level Three Web Standards

Individualized research, teaching and learning Sites: Websites that include research or course specific information; UB sponsored conferences symposia and exhibition websites; professional web pages created for faculty members, administrators, and staff

This project: SMBS research, teaching and learning sites and IT/SMBS professional web pages for individuals

Exclusions

Websites that do not fall under the official umbrella:

This project:

- *Personal web sites: Web sites stored on University-owned web servers that are created by, and represent an individual, not the University at Buffalo*
- *Student clubs and organizations web sites: Web sites stored on University-owned web servers that are created by, and represent a student club or organization, not the University at Buffalo*