

# **A report on Web 2.0 and its potential uses within the School of Architecture and Allied Arts, University of Oregon**

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## **I. Definition, overview, and applications associated with Web 2.0 in higher education.**

For a definition of Web 2.0, the obvious place to look is on one of the best examples of a Web 2.0 site: Wikipedia. Wikipedia cites Stephen Fry as saying that the key feature of Web 2.0 sites is the “reciprocity between the user and the provider is what’s emphasized... [P]eople can upload as well as download.” (Wikipedia 2007)

One of the primary features of Web 2.0 is multi-directional communication (Alexander 2006). Web 2.0 sites often include two-way and multi-way communication by multiple authors of content instead of the one-way broadcast communication common to web sites in the 1990s. Web 2.0 sites include blogs, discussion threads, links to other blog entries, RSS feeds, collaboratively-written web pages (often in the form of wikis), and user-uploadable content with tagging by people other than the content creator (e.g. YouTube, Flickr).

Great web sites before Web 2.0 were primarily great because of their content. There are still great web sites that are broadcast-only, with great content, but **all great Web 2.0 sites involve content plus community**, including multi-directional communication of some sort. The content is sometimes generated by a single person or a group, but often it is generated by crowds of people, the visitors to and users of the web site.

Weblogs have been around since 1994, when they were not yet an example of Web 2.0, but they exploded in popularity in the early 2000s and added community features, making them more Web-2.0-like (see <http://en.wikipedia.org/wiki/Weblog> for a history). Many Web 2.0 sites and services incorporate blogging and associated RSS feeds in their efforts to build community.

In a keynote speech at the ACM SIGUCCS Computer Services Management Symposium in 2007, Bryan Alexander of NITLE (many ideas in this report are borrowed from Alexander’s thorough analysis of Web 2.0 in education) quoted Jyri Engesrom on social networks and Web 2.0: “The fallacy is to think that social networks are just made up of people. They’re not; social networks consist of people who are connected by a shared object” (Alexander 2007). In education this **connection via a shared object is the key, and it’s also the easy part**. Students are continually asked to create designs, do research, write papers, or come up with proposed solutions to a policy problem. Each of these assignments can easily become a shared object on which the students work and around which a network can be constructed. A group of shared objects can serve as the hub of a larger network that comprises a class, a curriculum, a department, a school, or a university.

The shared object can also be a person, or a person’s academic work. The most common contemporary example of people as shared objects occurs in Facebook and similar sites, but **e-portfolios are clear examples of people and people’s work as shared objects in academia**.

People often share academic and non-academic interests, work on group projects, and share other common aspects of participating in an academic setting. These shared traits and interests can link people together in a social network.

The Web 2.0 label is also sometimes applied to multi-player on-line games (e.g. World of Warcraft) and to mashups, the combination of sets of digital information to create a new digital work. I do not address either of these types of in this report, because they are not necessarily web-based or community-oriented.

### ***Examples of Web 2.0 in academic and non-academic settings at universities:***

- At the University of Georgia's Grady College of Journalism and Mass Communications, **many professors maintain weblogs outside of the college's web site**. These weblogs are **linked from the Grady College web site** so that visitors have an easy way to find out more about faculty interests. (Jarrell 2007)

<<http://www.grady.uga.edu/resources.php?a1=Resources&a2=Faculty+Blog+Dawgs&page=FacultyBlogDawgs.inc.php>>

- **Students created and edited over one hundred Wikipedia articles** as an exercise in a history course.

<[http://en.wikipedia.org/wiki/Wikipedia:School\\_and\\_university\\_projects#Northwestern\\_University\\_.28Spring\\_2007.29](http://en.wikipedia.org/wiki/Wikipedia:School_and_university_projects#Northwestern_University_.28Spring_2007.29)>

- The web page on which the above project is described contains descriptions of and links to additional academic courses in which students created and edited Wikipedia articles.

- An art history professor sent her students to the Metropolitan Museum of Art with cameras. They uploaded their pictures to Flickr and tagged them collaboratively.

<<http://www.flickr.com/groups/532508@N21/>>

- Eight students created a wiki, a collaborative study of romanticism. Students in a subsequent class expanded this wiki with new information and further discussion.

<<http://ssad.bowdoin.edu:8668/space/about+this+website>>

<<http://www.rc.umd.edu/pedagogies/commons/innovations/rap/pages/prosandcons.htm>>

- Elon University created a social networking site for students, parents, and alumni. Participants contribute information about themselves to the site, creating a network of information and interaction that strengthens their bond with the school. (Jarrell 2007)

## **II. Implications of Web 2.0 environment for A&AA academic and non-academic units.**

Faculty can design exercises, projects, and courses using freely-usable web sites.

Students spend significant time on Web 2.0 sites such as Facebook, MySpace, and YouTube. **It will be easier and more effective to contribute content to those existing sites rather than try to create Web 2.0 sites of our own.**

Assuming current available resources, **creation of new Web 2.0 sites within A&AA will mean choosing which existing services to cut or perform more efficiently.**

### **III. Assessment of readiness of academic and non-academic units within A&AA for Web 2.0.**

Faculty, staff, students, and alumni have information that they are willing to communicate. They need a framework that makes it easy for them to do so. Some of that framework could be added to our existing web site in a reasonable time frame. In some cases, they may need assistance in using freely-available services outside of the UO to make their information available.

Using existing external sites for web-based academic projects should not be difficult. A reasonably tech-savvy faculty member who is willing to spend two or three hours reading about some of the projects above should be able to avoid some of the pitfalls encountered by pioneers in the field. **It would help to have an instructional technology consultant** within A&AA who could help faculty with technical problems that they might encounter. The Library's Center for Educational Technology may be able to help with one or two courses per term.

We have limited database support within the school. Databases are the fundamental back end of Web 2.0 sites. **We will need to have a database specialist on staff in order to create and provide any Web 2.0 services.**

If we create any in-house Web 2.0 sites, we may need to create and maintain a database of A&AA-affiliated people that would serve as a back end for social web sites and services. Most Web 2.0 web sites allow people to create their own on-line nicknames; allowing this on our sites would lead to missed opportunities to integrate with other UO services that are based on existing authentication systems. We should standardize on UO Duck ID user names. **We need to persuade Information Services to allow third-party systems to authenticate against their Duck ID authentication system.** This access will allow people to use a single user name and password to connect to multiple electronic systems.

### **IV. Current services and resources available in A&AA, UO Libraries, and UO Information Services to assist A&AA units in working within a Web 2.0 environment.**

A&AA's web manager can provide design templates and frameworks for use with new web sites.

The Library's Center for Educational Technology may be able to help faculty with one or two courses per term.

A&AA's current web servers and network infrastructure are adequate to the task of providing Web 2.0 services that we could reasonably develop over the next couple of years.

If we are at all typical, some of our faculty, students, student organizations, and staff are already writing on weblogs about topics related to their research, their teaching, and the school.

**Gathering links to these weblogs in one place on the A&AA web site will help raise the visibility of these writers and provide additional information and perspective about our school.**

Students produce creative work every day in A&AA. How can we capture these finished products and post them on the web in places where current and prospective students will see them? Let's start small: **put the Digital Arts Animation Explosion on YouTube.** We already

have video in the right format. All we need is someone to label it and upload it. That will teach us about how to do it and what would be involved in expanding our reach.

**The Duck ID authentication system** run by Information Services can serve as an authentication system for A&AA Web 2.0 services. It is **not yet available for use** by units outside of Information Services.

## **V. Recommendations for implementing a A&AA Web 2.0 plan.**

### *Academic*

Integrate Web 2.0 work into existing curriculum, or create new curriculum that includes it. Make it easier to help faculty enable students to do individual and group work in a Web 2.0 environment.

Consider: use public spaces, or build and use our own spaces? Example: having students contribute to Wikipedia, versus having students create a self-contained wiki about a specific subject. **What happens to the work after the project is done?** Does it contribute to the sum of human knowledge, or does it sit in the web equivalent of a locked drawer? Doing work in public spaces can be less expensive, since A&AA and UO do not have to create or maintain anything. **Doing work in public spaces turns students and faculty into public intellectuals**, exposing the world to the work that the University of Oregon is doing.

### *Non-academic*

**Determine if and how new Web 2.0 services would integrate with A&AA's overall strategic plan.** Determine sources of funds. If Web 2.0 services are a high priority and if sustainable funding is available, proceed with the Web 2.0 plan.

Decide if we are going to provide Web 1.0 services before or at the same time as Web 2.0 services. **A&AA's web sites lack some basic web features and content**, including faculty information, course syllabi, a web-based admissions system, internship information, and scholarship and grant information. Will we provide these features and content as part of a new Web 2.0 environment, or should we provide them as part of a separate, earlier project? Refer to A&AA's strategic plan for guidance.

Determine appropriate staff organization. Should our current web manager continue to work directly for the Associate Dean? Should the new Web 2.0 database specialist work for the Associate Dean, for the web manager, or within Computing Services?

Implement basic Web 2.0 services that would require little overhead to tack on to existing systems. An example: **add full RSS feeds to event calendars, news, and scholarship and grant information.** Another example: add Reddit / Digg / del.icio.us icons to existing pages where appropriate.

## **VI. Overview of A&AA Computing Services Web 2.0 plan -- goal, objectives, implementation strategies, budget, source of funds (state, grants, earned income, etc.).**

### ***Option A: Use existing resources***

**Goal:** Add Web 2.0 sites and features to existing A&AA curriculum and web sites with **minimal resource investment** (i.e. no additional staff or hardware purchases).

#### **Objectives:**

1. Add Web 2.0 work to ten A&AA courses in the 2008-2009 academic year.
2. Add full RSS feeds to existing web pages and create new pages with content and RSS feeds.
3. Gather existing Web 2.0 content hosted outside of A&AA web pages into launch pages within A&AA web sites.

#### **Implementation:**

1. Demonstrate “Web 2.0 in education” projects to interested faculty. Organize training for faculty through the CET.
2. Examine existing A&AA web pages for potential RSS feed content. Create full RSS feeds.
3. Contact A&AA faculty, staff, students, alumni, and board of visitors members to gather links to their blogs and other Web 2.0 content. Consolidate links to that content on A&AA’s web site.

**Budget / Sources of funds:** The resource used for this project is working time of existing staff (A&AA web manager, CET staff). This project would need to be integrated into the workload of existing staff.

**Beyond this goal:** To integrate a significant amount of Web 2.0 work into A&AA courses, we may need to hire an instructional technology consultant.

### ***Option B: Develop new Web 2.0 services within the school***

**Goal:** Create **new Web 2.0 sites and services** that help A&AA to achieve the school’s strategic goals.

#### **Objectives:**

1. Improve student retention and alumni/donor relations by creating information-sharing sites within A&AA’s web sites.
2. Create database of all A&AA-affiliated people to use as the base for any Web 2.0 services within A&AA.

#### **Implementation:**

1. Hire full-time database specialist who can create Web 2.0 services.
2. Connect A&AA web site to Duck ID authentication system.

3. Create web sites, using Web 2.0 technology, that advance the school's strategic goals.
4. Use course release funding to allow faculty to work with the database specialist to develop courses that incorporate Web 2.0 environments.

**Budget:** Funding for full-time database specialist. Course release funding for faculty.

**Sources of funds:** (1) Decide that this project is important enough to the school to spend state money or student fees on it. (2) Seek donations and grants based on specific proposals to incorporate Web 2.0 environments into academic courses or to use Web 2.0 to improve student retention and alumni/donor relations.

## VII. Anticipating Web 3.0.

**Web 3.0 is poorly defined at this time** (see [http://en.wikipedia.org/wiki/Web\\_3](http://en.wikipedia.org/wiki/Web_3) for a discussion). One dominant idea is that web services will become more intelligent, responding to queries that require significant human intervention at this time (Markoff 2006). This artificial intelligence would work in the background to provide intelligent answers to a variety of questions and requests. In an academic environment, we might use such a system to help students find and schedule courses that meet their requirements, find faculty to help them with their independent work, or find scholarships that match their interests and backgrounds.

## References

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## Further Reading

More examples of Web 2.0 projects at higher education institutions, along with evaluation and recommendations.

Franklin, T. & Van Harmelen, M. (2007). Web 2.0 for content for Learning and Teaching in Higher Education. Bristol: JISC.

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