

Pachyderm White Paper



Overview

The Tool

During the development of Pachyderm 2.0, the development team felt the name Pachyderm was appropriate for the tool because of the poem [The Blind Men and the Elephant](#). The metaphor from the poem reminded the project team of how its members had differing expectations and visions and how it was important for them to work toward a shared understanding of what the tool would be. Considering that this was the context for the development of the tool, it is no surprise that in trying to find an intersection between the divergent needs of the team members, the team ended up producing a tool that represents a rather uninspired “lowest common denominator” in the already glutted market of authoring tools that allow users to produce Flash content with minimal technical proficiency.

The Organization

The Pachyderm 2.0 Project is a partnership led by the [New Media Consortium](#) and the [San Francisco Museum of Modern Art](#). It is funded by the [Institute for Museum and Library Services](#).

The Background

Pachyderm is a tool originally developed by the SFMOMA to allow them to develop rich multimedia presentations without requiring programming skills on the part of the collection developer. The design phase of Pachyderm took place between October 2003 and through 2004 and was followed by several iterations of testing and

refinements. The authoring environment went into early beta testing February 2005. That first round of testing, on a very bare-bones version of the application, was limited to the members of the development team (about 30 testers). In April, a second round of testing opened to about 150 NMC members. A third round of testing, which included museum personnel and others, took place in the summer of 2005, when the authoring system became feature complete and the testing community expanded to nearly 250 people.

A final development push led to the final beta test and automated stress testing in October 2005. These tests documented the stability of the system, and the full and complete Pachyderm 2.0 authoring system was released to NMC members in early November.

The Security

Pachyderm 2.0 has no known security holes. Multimedia creators must have an account with Pachyderm to upload and build presentations. The published creations are not password-protected. Presentations can be downloaded via .zip file. Files that are uploaded and not marked “private” can be seen and included in presentations that other users create. As such, it is not [TEACH Act](#) compliant.

The License Model

Pachyderm 2.0 will be released under the Apache License, Version 2.0. You may obtain a copy of the License at <http://www.apache.org/licenses/LICENSE-2.0>. Pachyderm 2.0 is currently in release as a server-hosted, browser-based authoring platform running on servers provided by NMC to its membership. The server versions of Pachyderm 2.0, which are being built for Windows, Linux, and OS X servers, will be freely available for download from SourceForge in the first quarter of 2006 when Pachyderm is released in open source. The availability of the server package downloads will be announced broadly at that time. Authoring accounts are currently available on request

for up to 10 staff at any NMC institution or Pachyderm project partner institution. Free 90-day demonstration accounts will be available to non-NMC members in January 2006.

Adoption

The User Community

There are about 400 user accounts right now. Most are either faculty and staff at higher education institutions or museum personnel, but there are also a handful of grade-school teachers and even some students using Pachyderm as well. Nonetheless, no samples of presentations are available as of yet.

The Output

One example of a module apparently developed with Pachyderm is the SFMOMA's piece [Making Sense of Modern Art](#). (Note that this piece is clearly a hybrid of custom Flash development and some Pachyderm, template-based pages.)

Relevance

The Exigence

Pachyderm 2.0 is a new technology for both traditional and non-traditional educators, and as such crosses sectors that have traditionally been separate. It is also an open source tool that is available free.

Assessment

Strengths

- Allows user to upload many files in one .zip file
- Good concept
- Secure
- Runs on any platform
- Open source
- Doesn't time out while working on it

Weaknesses

- Not as intuitive as it should/could be
- Some level of Flash training may be needed to create Flash objects
- Limited number of templates unless users design their own
- Templates are too rigid (e.g. dial requires 12 images around circle—no more, no less, no choice).
- Template interface is not especially intuitive (e.g. scrollable text is indicated by only a small arrow in the lower right corner—no offsetting background color, no scrollbar, no choice.)
- Template functionality is restrictive (e.g. links created to external URLs pop a new window—no other targets, no control of the window chrome, no choice.)
- When developing a presentation, much of the data entry takes place in an embedded frame. The weakness is that each time you add data by browsing via a dialog box, you are returned to the embedded frame back at the top (i.e. it is scrolled all the way back up regardless of how far down you were scrolled initially.)
- Presentations seem to get corrupted sometimes
- Users have to search for each image/movie. They cannot view their own file list.
- Movies play in a separate window with no autoplay feature.
- If you upload something with the same name, it appends a number after it.
- Users might have to weed through other people's files to find theirs if they don't know the exact name.
- Presentations are not password protected (i.e. security by obscurity). Therefore, the tool is not TEACH Act compliant.
- Sometimes there are long waits to view slides. Database seems to bog down.
- You may use others' non-private files in your presentation, but the owner may delete them from the Pachyderm system at any time. In that case, your already-published presentations using such files will not be affected, but any presentations in production that use others' deleted files will need to have replacement media chosen.

Weaknesses (cont'd)

- Sometimes the screens get corrupted and you need to refresh to get them back.
- When you hit the publish link, it takes you to another page with a publish button. (Why?)
- Zoom slide text is hard to read due to translucent background.
- Sometimes the presentation hangs and doesn't load. You have to hit reload.
- You cannot have a series of screens strung together that have movies. You either link to a movie or to another screen, not both.
- Audio files have to play from a pop-up window the size of a video movie. Cannot autoplay.
- None of the ten templates seem to offer you a menu or submenu functionality, something basic to courses.
- For more complex screens like series or slider, the vertical scroll of the template interface is clumsy and slows you down, especially when you want to preview frequently.

Potential for Integration with ANGEL

Since Pachyderm 2.0 is open source, there is some chance of it being incorporated into ANGEL. It could be used as a built-in tool in ANGEL to create lessons, small presentations, or small learning objects.

Implications for Teaching and Learning

Pachyderm could be good for faculty who do not know Flash or do not have access to some other means of creating multimedia presentations.

Potential Uses within PSU

- If Pachyderm were a tool that was built in to ANGEL, faculty might find it useful, especially if they do not know other ways of creating multimedia lessons.
- It could also be useful for faculty if we had a large repository of images, movies, and flash files that they could search through by using meta tags associated with the images.
- Another scenario might be one in which a somewhat tech savvy faculty member wants to put together a quick learning object himself/herself that exports as a SWF file.
- For someone without experience developing with other tools and who doesn't want to take the time to learn Flash, Pachyderm may fit the need. (To be sure, it would only be advisable for a small, discrete learning object, not an entire lesson or course.)