**Creating K-12 Electronic Portfolios Using Open Source and Web 2.0 tools**

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Steps in the Portfolio Development Process using Open Source or Web 2.0 tools

1. **Purpose.** Decide on the purpose for the portfolio. What are you trying to show with this portfolio? Are there outcomes, goals, or standards that are being demonstrated with this portfolio? In this example, steps 2-4 represent an iterative process, using a blog to provide formative feedback on student work on a regular basis.
   * Teachers and Students: Identify how you are going to organize the portfolio. Will it be around the outcomes, goals or standards that you identified in this first step?
   * Students: Set up template that will serve as the opening page/Introduction to the portfolio and to the portfolio developer (see Section 6 below). This page could include a section entitled, "All About Me."
   * Students: Create a blog page to use as a reflective journal. Call the page "Journal" or "Blog." Create a first post that describes the purpose for developing this portfolio.
   * Teachers: Set up templates for student work, if appropriate.
   * Students: Set personal goals for learning (reflection "in the future tense").

2. **Collection/Classification.** What artifacts will you include in your portfolio? How will you classify these entries?
   * Students: Create a digital archive of work. Offline, this archive would be on a hard drive, flash drive, iPod or local area network server; Online, these files can be stored anywhere on the Internet, as long as each document has a unique URL.
   * Students: (Optional) Use a simple table or spreadsheet to list the artifacts, and assign (classify) each one to the outcome/goal/standard that the artifact will demonstrate. Use the table to keep track of artifacts that might be stored on one of the many Web 2.0 sites that you could use to store your work.
   * Recommendation: Students: convert all attached artifacts into web-compatible formats (JPEG or PDF) so that the potential reader will not need to own the original software in order to read it (i.e., Microsoft Office, Publisher, Inspiration documents could easily be converted into PDF and attached to a blog or portfolio entry.
   * **Web 2.0 storage:** Video files can be saved on one of the video sharing sites, and use the Hyperlink or Embed code to include in your blog entry. Word, Excel and PowerPoint files could be uploaded into GoogleDocs or converted to PDF. Other free websites that allow you to store documents: SlideShare, Scribd. Most of these Web 2.0 sites use an email address as the log-in name, so it will be easy to remember.

3. **Reflection.** Reflection is the heart and soul of a portfolio. Reflection provides the rationale for why these artifacts represent achievement of a particular outcome, goal or standard. Blog entries provide an opportunity for reflection "in the present tense" or "reflection in action."
   * Teachers: Provide students with resources to support their reflection activities. For each learning activity or artifact, what should be the focus of the students' reflections? (See Dr. Barrett's Google Site on Reflection for Learning)
   * Students: Write a blog entry (using Journal set up using GoogleSites Announcements page type--Step #1 above) with a reflection on each learning activity or artifact (what is the context in which this artifact was developed? What did you learn?).
   * Students: Add your own classification using Tags
   * Students: Add appropriate artifacts (through hyperlinks) or as an attachment to the journal entry.

4. **Connection/Interaction/Dialogue/Feedback.** This stage provides an opportunity for interaction and feedback on the work posted in the portfolio. This is where the power of Web 2.0 interactive tools becomes apparent.
   * Teachers and Peers: Use the feedback features of Google Sites or GoogleDocs, such as comments, to provide feedback on the work posted in the ePortfolio/blog entries. Guidelines should be provided to support more effective feedback.
   * Teachers often provide exemplars for different levels of achievement, and provide a rubric for evaluation.
   * Students should be given the option of updating the work, based on the feedback and the rubric.
   * **REPEAT steps 3-4 for each learning activity or artifact, including updating goals when appropriate.**

5. **Summative Reflection/Selection/Evaluation.** At the end of a course (or program), students would write a reflection that looks back over the course (or program) and provides a meta-analysis of the learning experience as represented in the reflections stored in the blog/journal entries.
   * Students: Review the blog/journal entries for that category, and write a last "retrospective reflection" about the learning represented in the artifacts, selecting one or two examples that best represent achievement. This self-assessment should be the first part of a page set up in Google Sites.
   * Students: Prepare a GoogleSites Page for each Outcome, Goal or Standard, and link to the selected "best" blog entries, writing a reflection on each page (by outcome/goal/standard) which should also have the artifact attached or linked.
   * Teacher: Provide feedback and/or evaluation of the selection of work and rationale, using a rubric.

6. **Presentation/Publishing.** The portfolio developer decides what parts of the portfolio are to be made public.
   * Student: Create a set of pages that highlight the best components of the portfolio, linking to specific entries in the blog. Add the evidence (through hyperlinks to blog entries or artifacts) to the appropriate sub-pages in the portfolio.
   * Students: Create an Introduction page, which should contain an overview of the portfolio. It serves as a “letter to the reader” and provides an explanation of the overall goals of the portfolio. Provide links to other pages developed in the portfolio. Advertise this Introduction page as the initial access point in your portfolio.
   * Students: Create a page with Future Learning Goals (reflection in the future tense).
   * Teacher: When used for summative assessment, submit final evaluation of portfolio (assessed using a quantitative analytic rubric or a holistic rubric).

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