Reinventing Project-Based Learning

Your Field Guide to Real-World Projects in the Digital Age

Excerpt Chapter 5: Project Management Strategies for Teachers and Learners

TECHNOLOGY FOCUS: Project Management with Technology

Managing complex projects is the stuff of real work. Students need project management skills and technical support structures in order to grapple with the rich and complicated nature of projects. Teachers as team coordinators, enabling advisers, and evaluators need systems that make their work and communications more manageable, too. Digital tools can support teachers in the high-level orchestration of projects and students as they get into the messy but meaningful business of learning through projects.

Teachers' Project-Management Needs

The project-management tools and strategies teachers need include:

- tools for communicating with students and others about the project
- tools for making milestones and events visible and for notifying students when changes occur
- methods for getting resources to students
- systems for managing work products
- structures that support a productive learning environment in which teams and individuals are engaged in a variety of learning tasks at the same time
- assessment tools and strategies, including:
- ways to gauge whether students are working productively and accomplishing project goals
- ways to assess the load balance within a team so no individuals end up doing too much or too little
- ways to give just-in-time feedback on student work as it develops, not just when it's completed

Students' Project-Management Needs

The project-management tools and strategies students need include:

- systems and tools that help them manage their time and flow of work
- systems that help students manage materials and control work drafts
- collaboration tools
- methods for seeking assistance
- ways to get and use feedback on their work, through self-reflection, team input, and teacher advice
- ways to work iteratively and to see how parts add up to the whole

There are a number of ways you can meet these complex needs. The best solution for your project will depend on what ready-made resources and technical support you have at hand, as well as your own comfort level for innovating with technologies that require some "do-it-yourself" set up.

Start with Available Tools

Note: This section covers desktops, school servers, LMSs, wikis, drupal sites, other ways to organize student efforts, so we are skipping on here to personalized Web pages.

Personalized Web Pages

It is now possible for your students to build their own virtual offices on the Web, configured with the spaces and tools they need to manage research, create work products, and share what they are doing with others. Variously referred to as "home pages," "desktops," and "startpages," these personalized offices support an assortment of handy tools including Web mail, calendars, notepads, and news and blog feeds, to name just a few. Netvibes, Protopage, Pageflakes, Google Personalized Home Page, and My Yahoo! are some of the virtual office providers.

Students participating in the Flat Classroom Project in the Bangladesh school used Protopage for their personal desktops, while their Georgia counterparts used Netvibes. In the Bangladesh school, a student team created a Protopage desktop with multiple "tabbed" pages (including one supplied by their teacher), each with an assortment of Web 2.0 tools, links, images, and work products.

Figure 4.

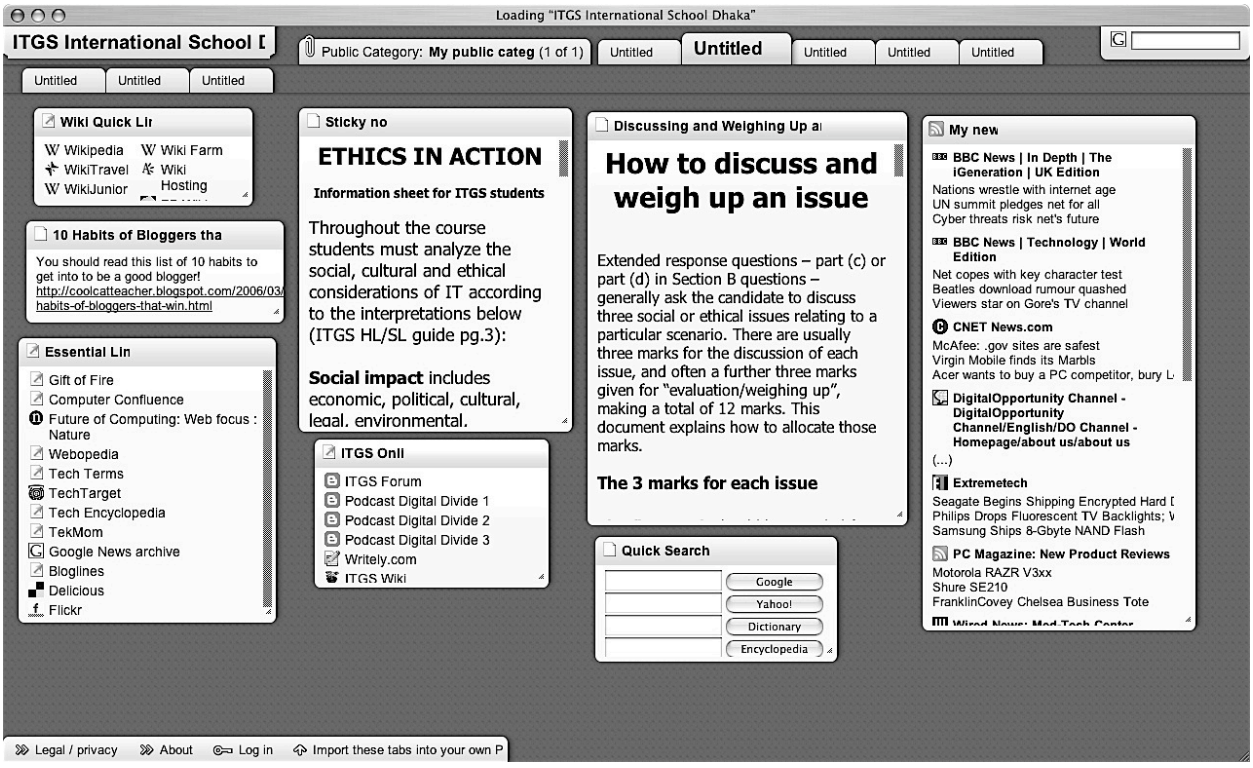

Figure 4. The top page of a "stack" of Protopages populated with selected tools and resources. This page was distributed by the teacher to all teams.

The Bangladesh desktop shows the top of a stack of tabbed pages on one team's desktop. The page on top is one their teacher made and shared with all teams. It contains Web tools and resources she wants everyone to have, each in its own sticky-note style "block" or "widget." These elements include a teacher-created block of text advising "How to discuss and weigh up an issue," a list of topical news feeds, a set of links to class blogs, and more. Her shared page becomes a key element of each team's desktop. The rest of the tabbed pages are built by the team, and they represent the team's own organization logic. In this example, the desktop is organized with tabbed pages for more tools, snippets of research, podcasting resources, team photos, and portfolio items.

The Georgia school used Netvibes, which also allows page sharing. Netvibes works well in schools with firewalls. If a school prohibits a Web site (such as MySpace), that application can be disallowed while leaving others available for use.

If you wish students to set up desktops like these, build a tabbed page with information and tool blocks you want everyone to have and share that page with students. Limit the blocks on that page to those that serve the project management and research functions you imagine all students will need. Beyond this, let students create the rest of the pages by figuring out which tools and organization styles serve them best (more 21st-century thinking!). Your basic requirement should be that the tools support their learning. If you look at a desktop and it doesn't make sense to you, ask the student to explain how it functions for them. Their selection and arrangement of tools and information is really a window into their thinking about the project. If they cannot explain their organizational structure, then they are probably confused, too.

The ever-expanding array of options need not be overwhelming. Jeff Whipple, technology mentor in New Brunswick, says matching tools and kids is easy: "Let them choose. Give them a platform where they can be creative and work together. That's more important than the particular tools they choose."