

Encouraging Lifelong Learning Using Open Badges

Mozilla Open Badges

It can be difficult to gain recognition for skills and experience acquired in informal as well as some formal settings. To solve this, Mozilla developed a credential-issuing platform for what they call Open Badges. Mozilla (n.d.) explained that “Badges provide a way for learners to get recognition for [skills gained in these settings], and display them to potential employers, schools, colleagues and their community” (Mozilla, n.d.).

Open badges are an example of a disruptive innovation. Christensen, Horn, and Johnson (2011) explained that disruptive innovations are products that are able to satisfy the need of an untapped market that was not currently being served by the more established and costly products. Open Badges are marketed towards the non-consumption areas of education. For example, Open Badges reward the informal acquisition of skills and achievements that are not being recognized in today’s formal educational system.

Mozilla uses open badges on their webmaker.org site. The early design of their badges was a cumulative system in which badge “constellations” would be formed. These different constellations and categories of badges became an important concept influencing our own badge system.

Our Technology Course

Our course, IPT 286, strives to teach secondary education majors technological skills, knowledge of how to learn new technologies, and the confidence to be able to do so.

The course services students of all education majors, making it difficult to teach TPACK (Technological Pedagogical Content Knowledge, see Mishra & Koehler, 2006; Koehler & Mishra, 2009) that are specific to each content area.

The course is based on three major projects and a few smaller assignments. Two of the major projects, the Internet Communications Project and the Multimedia Project, each had a short list of technologies from which students could choose one that they would learn.

The third major project, the Personal Technology Project (PTP), asked students to learn technologies they felt would be particularly helpful to them. The PTP could be completed by either completing three less intensive technologies or a single more intensive technology.

Challenges and Opportunities

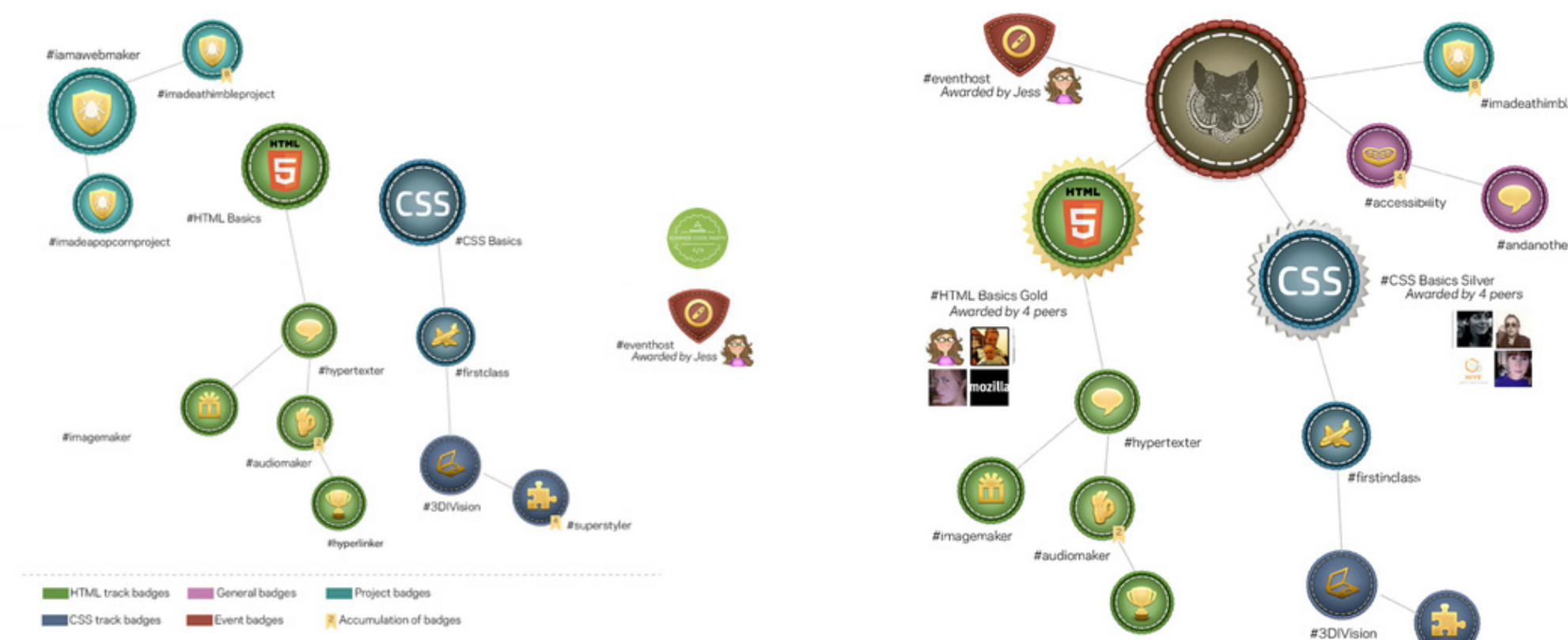
One-credit Course – This course is only one credit while similar courses at other universities are usually three credits.

Multiple Instructors and Sections – We found that assignments and rubrics needed to be standardized and consolidated into one location in order for our badges to have consistency and rigor.

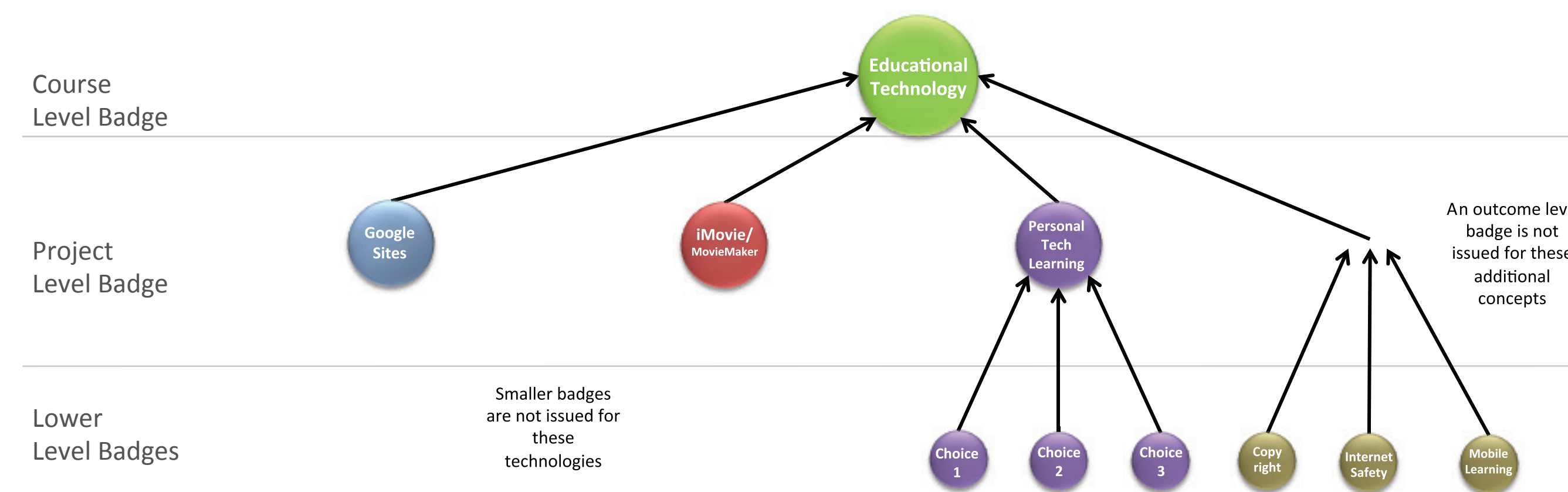
Students with Varying Abilities – Implementing a badge hierarchy was partially an attempt to motivate deeper study by providing incentive for learning.

Showcasing Skills Learned – The badge system links the evidence for the learned skill, along with the rubric for what was expected, together with the actual badge, making it easier for students to communicate to others what skills they have.

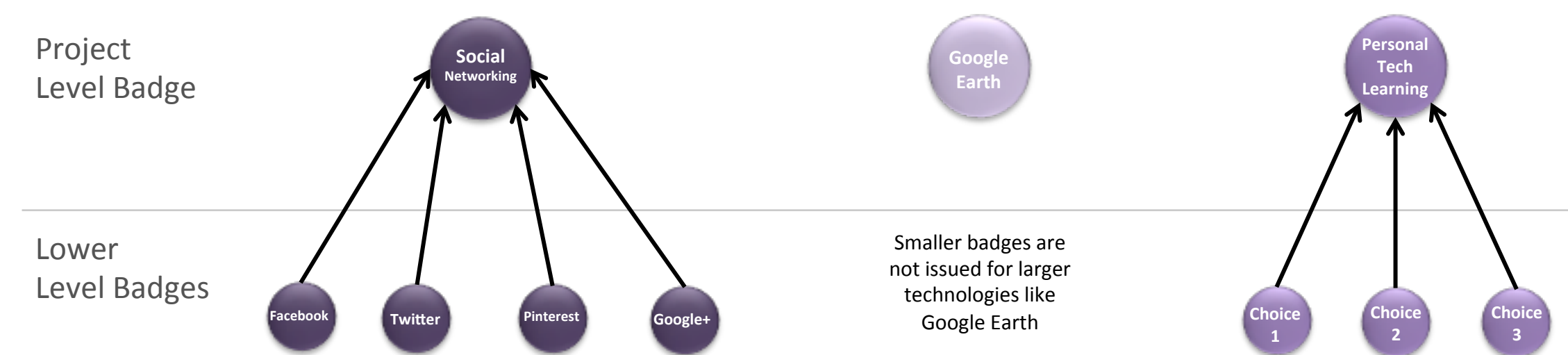
Mozilla’s Cumulative Badge Constellations



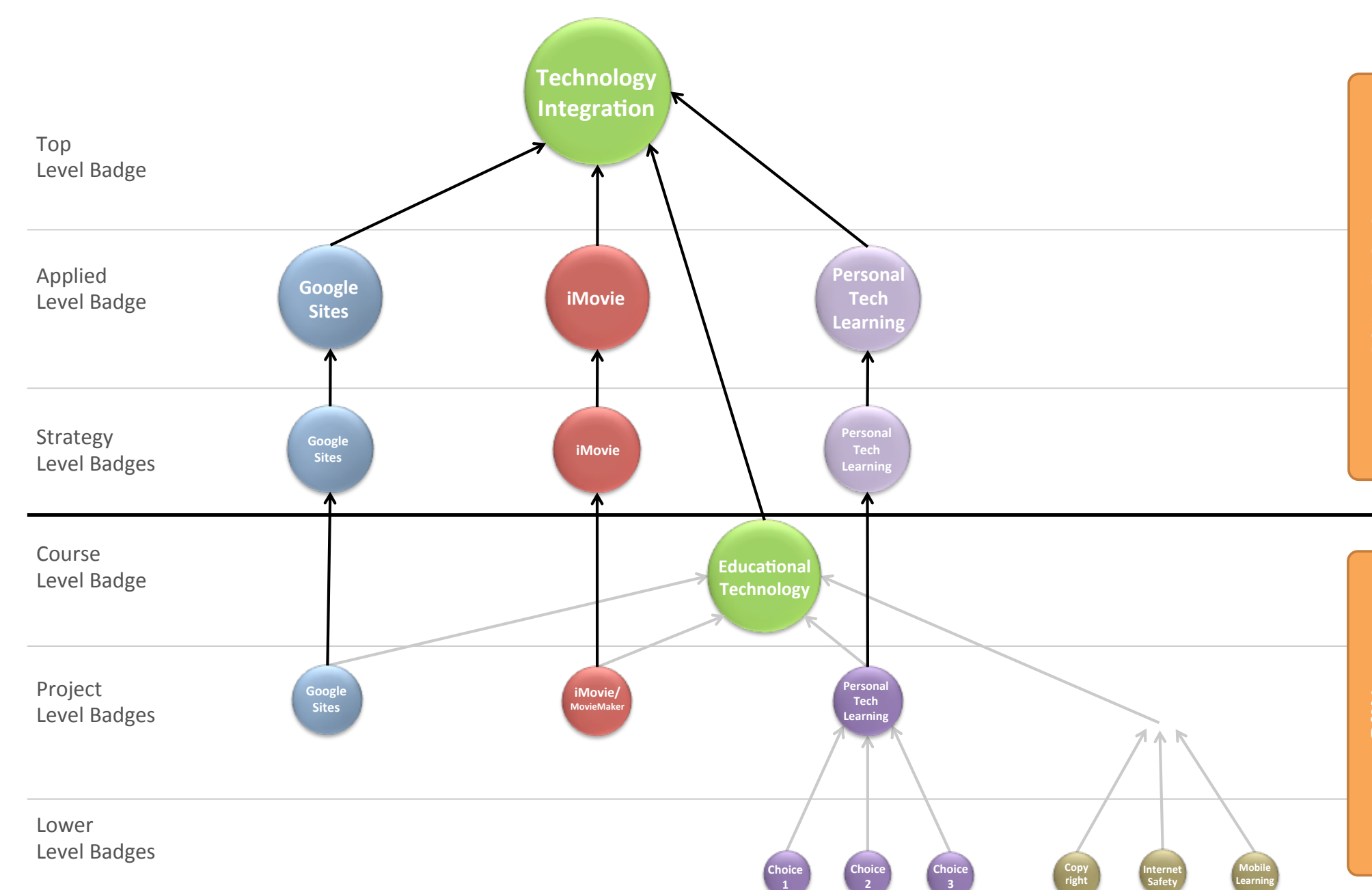
IPT 286 Badge System



Personal Technology Project Badge Options



Post-IPT 286 Badge System



Design and Implementation

IPT 286 Badge System

Based on Mozilla’s design, we devised three levels of badges. The lowest level consisted of badges with a small scope; the second tier of badges represented mastery of larger technologies and corresponded to major projects in the course; and the third badge level represented course-level mastery of all technologies and concepts taught in the course.

For the Personal Technology Project technologies, we decided smaller technologies could be grouped into meaningful clusters, but larger technologies would be their own project-level badge. We also allowed students to choose any three smaller technologies to complete the assignment.

Post-IPT 286 Badge System

In order to address our desire to offer a path for continued professional development, we again borrowed from Mozilla, this time their idea of having different types of badges. Our categories represent a progression from learning TK (technological knowledge) and TCK (technological content knowledge) in our course to our eventual goal of students acquiring TPACK in practice.

The additional levels of badges beyond 286 provide a way for teachers to learn how to successfully integrate into actual teaching experiences the technologies they have previously learned in our class. The strategy-level badge is awarded once teachers prepare appropriate lesson plans to implement a technology and the applied-level badge is earned by showing evidence of successful implementation. The top level badge represents mastery of technology integration for all technologies previously learned.

Implementation of Badges into the Course

We created one location, iptedtec.org, to house the tutorials and badge rubrics, and which is accessible worldwide so non-university students can access the materials and earn badges. The design of the site allows for easy expansion as new technologies are added or taken away.

We used a WordPress plugin, Badge-It-Gadget-Lite, to issue badges. Another WordPress Plugin, WPBadger Display, will allow students to display the badges they receive from our course on their WordPress sites.

The initial student reception to our badges was mixed. Some students caught the vision and were very excited. Most students seemed unsure of badges, wondering if badges would actually make a difference in getting a job.

Future Design and Research

Design Implications

Financial sustainability, assessing higher-level learning, quality control, and expiration dates

Research Implications

Institutional issues, like how to fund, support, and manage badges.

Do badges provide students with additional motivation as we hoped?

Determine what employers’ perceptions of badges are and whether badges positively benefit applicants.

Have badges improved the pedagogy of IPT 286?



References

Christensen, C. M., Horn, M. B., & Johnson, C. W. (2011). *Disrupting Class*. Expanded Edition: How Disruptive Innovation Will Change the Way the World Learns. New York, NY: McGraw-Hill.
 Koehler, M., & Mishra, P. (2009). What is Technological Pedagogical Content Knowledge (TPACK)? *Contemporary Issues in Technology and Teacher Education*, 9(1), 60-70.
 Mishra, P., & Koehler, M. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *The Teachers College Record*, 108(6), 1017-1054.
 Mozilla. (n.d.). *OpenBadges.org About Page*. Retrieved January 18, 2013, from <http://openbadges.org/en-US/about.html>