Interdisciplinary Collaboration for College Access and Success in an Age of Technological Innovation

Paper prepared for the Center for K-16 Education Policy and Research

August 15, 2012

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Abstract

As games and social media gain traction as viable tools for K-16 educators, the need for collaboration among educators, researchers and game designers grows. In this white paper, the authors undertake an analysis of the problems confronted and lessons learned by researchers involved in an interdisciplinary project aimed at increasing access to higher education through the design, piloting and implementation of a series of college access games. The games exist in card game and online formats and were developed by educational researchers, university-based game designers, assessment experts and high school students. Through the medium of games and online technology, the intervention aims to afford thousands of marginalized students access to quality college guidance and boost their motivation to advocate for their college needs. Although interdisciplinary research has gained currency over the last few decades, scholars have focused very little attention on the process of conducting such research. As more and more research projects and practical interventions involve technology, the need for interdisciplinary collaboration is increasing. The authors posit that cultural differences exist among disciplines and need to be addressed at the start, and throughout, a project. Reflecting on the interdisciplinary and collaborative approach of the game project offers an opportunity to analyze how the process and products of interdisciplinary collaboration might be utilized to improve college access and completion for low-income youth and better equip K-16 institutions with the tools to engage students in relevant and effective ways.
Interdisciplinary Collaboration for College Access and Success in an Age of Technological Innovation

Words in academe frequently gain a reflexive interpretation that is either positive or negative. An “effective” organization is good; by inference, an “ineffective” one is bad. “Innovation” is admired whereas a “lack of innovation” is disdained. In higher education “collaboration” and “interdisciplinary” have a positive connotation. A lack of collaboration is negative, and to remain wedded to one’s discipline is a sign of the past, rather than the future. In this paper we explore what happens when two “positives” -- technological innovation and interdisciplinary collaboration-- intersect. We suggest that such undertakings are not simply activities that require individuals from different disciplines to work together, as if adding ‘a’ plus ‘b’ gets us to a collaborative and interdisciplinary ‘c.’ Instead, we argue that collaborative efforts across disciplines require an intellectual and cultural shift for which many of us are unprepared, and the university itself frequently gravitates against.

The basis for our discussion derives from a multi-year project in which we are currently engaged. After working to improve college access research and practice for many years, we sought to bring to scale several of the most effective college access practices we had observed across programs and implemented in our Center’s outreach efforts. We knew that technology offered the potential to transcend the concrete constraints of current practices (i.e. programs are restricted in how many students they can serve due to budget limitations), but we lacked technological expertise. An online game, we thought, would provide an innovative alternative to existing college outreach practices. Yet our research center was not equipped to conceptualize, let alone develop a game.
The challenge of incorporating technology and online resources into the K-16 curriculum is not unique to our project. Teachers and practitioners are often stretched to adapt to new digital tools -- and while game and social media developers might have a keen grasp on design and mechanics of online technologies, they often lack content knowledge and have to rely on outside sources for content for games or websites.

In order to reflect on the process of interdisciplinary collaboration involving a technology partner, we begin with an overview of how scholars have thought about collaborative research that is interdisciplinary. We then describe the nature of the collaboration with which we have been involved. We conclude with an analysis of the challenges and strengths of our collaboration. Our aim is to use our university-based collaboration as an example and to stimulate dialogue about how people in K-16 institutions and industry might best collaborate in order to innovate for effective learning.

**Moving Beyond the Lone Wolf: From Singular Researcher to Collaborative/interdisciplinary Teams**

Collaboration within K-12 settings is common, especially in co-teaching situations. The most common forms of collaboration in a university setting are co-teaching and research that draws from multiple disciplines. Hampshire College is an example of an institution where co-teaching is the norm; Clifford Geertz was a prominent scholar whose work was celebrated as calling upon multiple disciplinary fields. While there is a great deal to say about co-teaching and interdisciplinary scholarship, what we consider here is when individuals from different disciplines and professions work together on a common project
unrelated to undergraduate or graduate teaching or research aimed at contesting disciplinary boundaries. Our focus is on the forms of learning that result in the creation of a particular product and the development of research papers and presentations that derive from that product. An example from the K-12 sector might include inter-departmental collaboration on a health initiative – or college access program – involving various stakeholders and cross-curricular learning.

**Defining Interdisciplinary Collaboration**

Over the last generation not only have there been calls for greater collaboration and interdisciplinary research in postsecondary education, but the assumption has been that it is occurring and increasing. No one has any empirical verification, however, that such a transition is taking place in part because the definitions of collaboration and interdisciplinarity are either contested or vague (Holley, 2009; Klein, 1990). Interdisciplinary scholarship does not simply consist of bringing various disciplinary bodies of knowledge together (Holley, 2009). Rather, as Aram (2004) posits, “knowledge and action lie at the heart of the construct of interdisciplinarity” (p. 398). The National Academy of Sciences (2004) defines interdisciplinary research as:

>a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts and/or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understandings or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice (National Academy of Sciences, 2004, p.2)

Interdisciplinary research is framed as a tool box with ample flexibility with regard to size of research team, methods and theoretical orientations.
Salter and Hearn (1996) characterize debates about interdisciplinarity as fitting into two camps: instrumental and conceptual. Instrumental approaches to interdisciplinarity tend to be “applied or problem-centered” (p.8). Tools of research and analysis from various disciplines are applied to addressing a particular problem or set of problems. Instrumental interdisciplinarity does not tend to challenge existing disciplinary forms of knowledge or disciplinary categories. Rather new “hybrid” categories evolve from interdisciplinary exchange. Conceptual interdisciplinarity is “a theoretical, primarily epistemological enterprise involving internal coherence, the development of new conceptual categories, methodological unification, and long-term research and exploration” (p.9). Conceptual interdisciplinary often contests existing disciplines and knowledge structures. The college access game project, with its focus on external social issues, most closely reflects instrumental interdisciplinarity.

When analyzing the applicability of interdisciplinary research to solving real world problems, McNeil (1999) asserts that the natural sciences and social sciences exhibit significant differences. He suggests that the applications of natural sciences are evident through technology, whereas applications of social sciences and Humanities are translated through policy. To some extent we agree – and have worked on policy issues at local, statewide and federal levels. However contrary to McNeil’s characterization, we are attempting to apply technological innovation to an educational problem by developing a series of online games to address the challenges of college access and success. Consequently the interdisciplinary nature of the collaboration does not fit neatly into his
categorization. The difficulty inherent in not corresponding to a particular category is a recurring theme that we will discuss in the next section and in the propositions below.

Interdisciplinary work is incredibly fluid, not following set patterns at universities or even across disciplines within a university. In a study of 846 scientific research papers analyzing the relationship between collaboration and interdisciplinarity, authors found that significant differences in collaboration existed between disciplines (Qin, Lancaster & Allen, 1997). The lowest levels of collaboration existed between federal and/or industry partners and academe and the highest levels were demonstrated between biology and medical sciences. Institution type, nature of research problems, personal relationships with collaborators, and funding affected collaboration (Qin, Lancaster & Allen, 1997, 914). For example, Hayes (2004) argues that recent research in physics is being enhanced by analyses from epidemiology, sociology, market economics and number theory. What results is a “reshuffling and realignment” within various scientific departments (p.1).

The challenges of interdisciplinary work within a university community are manifold. The vast majority of social science areas remain organized within departments or divisions defined by a discipline (Holley, 2009; Salter & Hearn, 1996). Universities often show skepticism or resistance to when scholars move away from disciplinary practice (McNeill, 1999). Yet numerous examples exist where a discipline has had competing views of knowledge. In those cases, rather than try to ameliorate one’s differences, the department has split into two under the assumption that neither group is able to work with one another because their approaches are so different. Some areas of inquiry also incorporate new theoretical and methodological perspectives. We are not suggesting that
disciplines are static or moribund. Anthropology, for example, once featured functionalism prominently in its focus which eventually gave way to structuralism and then interpretative and reflexive anthropology. However, anthropologists still primarily work with other anthropologists.

Part of the reason that scholars remain wedded to their discipline is that the reward structure in academe is geared toward the discipline. We tell early career faculty to publish in top tier journals in their area and to attend disciplinary conferences; to have a smattering of publications in a wide array of journals outside of one’s intellectual ‘home’ is likely to put an individual’s career at risk. Logically, those who write external letters of reference for a candidate are from the individual’s particular field. Sociologists judge the merit of a sociologist’s scholarship and so on. In a provocative book on academic scholarship, Michele Lamont (2009) points out how refereed research proposals inevitably face disciplinary bias. Even though, for example, reviewers judge proposals without the knowledge of who wrote a particular proposal, reviewers acknowledge their disciplinary biases; they inevitably tend to privilege areas of inquiry with which they are familiar and be more judgmental with those areas that fall outside of their disciplinary domain of interest. Porter & Rossini (1985) found similar disciplinary biases in their analysis of proposals funded by the National Science Foundation. What happens, then, when technology is introduced into an established disciplinary discourse? How do reviews who might lack technological savvy respond?

Furthermore, the Internet and the explosion of web-based knowledge have produced a concentration of scholarship in one’s area. To be an expert in a field suggests
that individuals are more likely to be a specialist rather than crossing into fields. At a time when specialization has resulted in more narrowly configured conferences and journals, the reward structure can easily be seen as gravitating not toward interdisciplinarity but away from it. The result is that even though scholars may call for greater interdisciplinary work, the structural and intellectual challenges to make such work happen are significant.

The federal support system for research and federal funding structure have historically mirrored the disciplinary structure of U.S. universities and thus are not prone to supporting interdisciplinary work (Metzger & Zare, 1999). In addition, long-term collaboration that is formalized rather than casual usually necessitates research funding that also may not be prone to interdisciplinarity. That is, engineers tend to work with engineers on a project; they seldom have use for a historian. Those projects most recently funded by the Institute of Education Sciences (IES) may well be collaborative in that they involve scholars from multiple campuses, but more often than not, the scholars have a similar world-view. IES, for example, now holds randomized trials, regression discontinuity and the like as the ‘gold standard’ for conducting research. The result is that those who are logical positivists are likely to collaborate on a proposal, whereas individuals with competing intellectual or methodological viewpoints are not.

In social science research similar sorts of impediments might be found. Individuals tend to be rewarded more for single authored scholarship rather than a co-authored piece. Articles that have a team of authors where an individual is one of five authors will count less than an article where the author’s name is one of two, and is listed first. The point is not only that the academy values individual work more than team work but that it is harder
to evaluate someone’s contribution to a project when he or she is one of a half dozen authors on an article.

With regard to the field of education, educational research is historically underfunded. The likelihood of someone receiving a million dollar grant is extremely rare, whereas in the natural sciences and engineering such grants are commonplace. To be sure, bench sciences require more equipment and a laboratory whereas educational researchers generally do not. However, the result is that the ability to work with others in a sustained manner can be extremely limited. A $100,000 grant for a senior professor in education that lasts two years is likely to pay for a small portion of his or her salary, a graduate assistant, secretarial support and travel. The ability to include others from other disciplines in any meaningful manner is extremely unlikely. The result is that collaborative educational research, if it is to happen, is generally informal and unfunded.

Despite the challenges in conducting interdisciplinary collaboration, many positive examples do exist. For interdisciplinary collaboration to be effective, Palmer (2001) suggests that structural forces such as institutional interdisciplinarity and cultural forces such as cross-cultural communication are key. Creamer (2003) provides micro-level insight about interdisciplinary collaboration. After studying long-term collaborating partners, she asserts that “collaborative cultures can be created through strong personal relationships, a commitment to a common inquiry goal, respect for each other’s knowledge or expertise, and willingness to work through differences of opinion” (p. 464).

**Interdisciplinary Collaboration in Action: The Collegeology Games Project**
Four years ago, the provost of our university gave us a sizeable grant to pursue the aforementioned online game project with the stipulation that we engage in interdisciplinary work. The focus of our interdisciplinary collaboration is to develop a series of highly interactive, entertaining, online games that will boost students' college aspirations, emphasize connections between middle and high school performance and career choices, and equip players with knowledge about preparing for and succeeding in college.

We launched the project on the premise that ensuring access to college for low-income students does not simply entail educating students in core subjects. A critical aspect of readying students from poor and working class backgrounds for postsecondary education hinges on boosting college aspirations and providing consistent support for college goals. For families who cannot afford college without financial assistance, building college aspirations and acting on college plans go hand in hand with perceptions of college affordability. Far too often, efforts to address college access for low-income students overlook the role of family income in inhibiting or promoting college access (St. John, 2006). Even if students prepare well academically for college, without high quality financial education and support for college plans, low income students run the risk of “under-matching,” or enrolling in less selective postsecondary institutions than they are qualified for (Roderick, Nagaoka, Coca & Moeller, 2008; 2009). Because students are more likely to graduate when they attend the most academically rigorous program that suits their skills (Bowen, Chingos & McPherson, 2009), ensuring a sound college fit has significant implications for college success.
At present, games focus on middle and high school students but will likely expand to include elementary students as well. Through the medium of online technology, our goal is to offer marginalized students access to quality college guidance and boost their motivation to advocate for their college needs. Exploring how the interdisciplinary and collaborative approach of the project affected design and implementation in schools offers an opportunity to examine how a popular form of media might be utilized in the future to target low-income youth in innovative ways.

Researchers from our Center had worked across disciplines before, fairly seamlessly collaborating with scholars from Sociology, English, Anthropology and Ethnic studies, among other disciplines. However none of our previous partners were in the position to do the work we needed for this project. We approached the Game Innovation Lab (GIL) at our university to see if they would be interested in collaborating on the on-line college access game. The GIL director quickly understood the vision behind the project and agreed to participate. The lab is a research space and think tank where new concepts in game design, play, and usability are being developed, prototyped and play tested in an environment separate from the constraints of commercial game development. The goal of the lab is to nurture concepts that push games beyond their currently defined genres, markets, and play patterns, and to make breakthroughs in these areas. Thus we were propelled us into a type of interdisciplinary collaboration we had not previously experienced.

The *Collegeology Games* project has also involved assessment experts from the School of Engineering to support a multi-method, longitudinal design to track what students learn, and contracts with a hybrid media studio, to help build the game. An undertaking such as
this is also expensive to develop. The seed funding has provided the initial stimulus but we continue to seek funding to see the project through to fruition. The result is that we have worked with individuals in the School of Business to create a business plan, entrepreneurs to conceptualize how to market the game, and venture capitalists to help fund it. We have also collaborated with local middle and high school students as junior game designers. By including members from our target population in the design process, we aim to increase the likelihood that the game will be successful.

We have been working together for four years. To date, we have built a paper card game and Facebook game and have play-tested them with multiple groups – students, counselors, and other interested parties such as potential funders, game designers, and school personnel. Feedback from piloting the games is influencing how the third and fourth games develop; one will target middle school students, the other aims to build financial literacy and financial aid knowledge.

The project team meets on a regular basis either in our Center’s offices or off-site at the game lab. Our meetings started off by educating each other about game design and college application processes. For example, game designers illustrated the differences between various game consoles and introduced us to the genre of “serious games.” We shared stories about students we have written about or who we are currently mentoring in order to illustrate the challenges they face in accessing college support. After several months of conceptualizing the game, we focused on design and development. Now that we are piloting the game, we discuss logistics of working with our high school participants, the effectiveness of the game and how to share our piloting and research findings among
collaborative team members and with the broader practitioner and research communities. How to fund the maintenance of current games and development of subsequent games has also figured prominently in our discussions and has structured some of our work patterns. We have needed to become clearer about our vision for the games and articulate dissemination strategies in order to build a marketing strategy and inform the grant writing for various proposals. Although our efforts have been largely harmonious, we also recognize that the manner in which we work differs significantly from that of others. In what follows we offer five reflections about the complexity of collaborative and interdisciplinary research. Our discussion focuses on the particularities of interdisciplinary work involving social scientists and researchers/practitioners in the technology-based fields.

**Reflections on the Collaborative Process**

Housed in the School of Cinema, the Game Innovation Lab is located within a large, modern, built-out warehouse on the perimeter of campus. The lab’s walls are lined with video monitors; bookshelves accommodate stacks of boxed games such as *Scrabble*, *Hungry Hippo* and *Monopoly*; whiteboards show evidence of creative brainstorming sessions; meeting rooms are configured to encourage dialogue; and tables serve as resting places for an assortment of game consoles. A trip to the lab provides a stark contrast to the more staid atmosphere and book laden shelves of our Center.

Whether collaboration occurs between elementary school teachers and administrators, different high school departments or between K-12 and postsecondary
institutions, the process is an undertaking that assumes intellectual, structural, and cultural give-and-take. Of consequence, collaboration is time-consuming. Individuals need to meet with one another; processes and procedures about how to resolve conflicts need to be figured out. Temporal and spatial differences exist. Individuals in different disciplines usually do not work in the same buildings. How they construct their work-life differs. Such an observation is only exacerbated when individuals from outside the educational sector become involved. The pace of work and the time frames set to get work done differ considerably when business people or people from technology fields are involved. Individuals from the business world are able to refocus their energy and concentrate intensively on a particular project and game designers tend to function during different work hours, whereas those in academe are more accustomed to a specific tempo attuned to campus life. A project may be of paramount importance, but classes still need to be taught, papers need to be written for conferences, students need to be advised and the like. In K-12 settings, the academic calendar tends to dictate the length of collaboration and the structure of the school day often inhibits collaborative exchanges and planning – both which ultimately affect project scope.

Below we highlight five lessons learned through our collaboration to illustrate the complexity of interdisciplinary collaboration involving educational social scientists and scholars-practitioners with technological expertise. The five lessons address differences in work patterns, language and translation, size of collaborative team, intellectual home for products of the collaboration and control over work.
Work patterns. Work patterns and temporal frameworks vary in large part based on one’s disciplinary and/or professional backgrounds. Those of us in the social sciences who regularly apply for grants work within particular schemas. These schemas may vary a bit from campus to campus, but they are more similar than different. For example, an individual needs 20% of a grant to buy him or herself out of a course. The grant will fund a particular percentage of the individual’s summer salary. To the extent possible, a graduate student should be written into the grant, and some percentage of a secretary should be covered. The grant is usually in response to a request for proposals (RFP) from the government or a foundation. A deadline exists to submit the proposal, and then the researchers wait to discover if they were successful. If the grant is successful and the project wants to hire someone, then various forms need to be filled out, approvals need to be sought, and a formal hiring process begins that ends with a background check on the prospective candidate. All of these actions seem ‘normal’ to those of us who regularly write and receive grants.

What is normal to one group of individuals, however, is merely a cultural construction about how different disciplinary and professional groups construct work and temporal patterns. Our colleagues in the GIL work in teams; rather than buying out of a course, they search for ways to interact with one another in a group. Venture capitalists work much more quickly than we do in a university setting; they are more likely to develop a business plan, contact various individuals, try to arrange a meeting as soon as possible and respond immediately with additional material. If the venture capitalists provide funding, the assumption is that the work begins the next day. The hiring and approval
processes of the university seem lethargic and antithetical to core assumptions of venture capitalists – which is to develop ideas and take them to market as quickly as possible.

**Language.** Language and translation can be obstacles with one another and to others. To work with individuals from different intellectual arenas often means that one or another phrase or term will be either misunderstood or not understood. Even the most basic of initial tasks create confusion. To create a ‘game’ to help students apply to college meant for some of us that students would learn basic information (e.g. what the FAFSA is, when to apply, etc.) through game play whereas those who develop games think of a ‘game’ as a form of meaningful play and a way to teach strategy and boost aspirations (over teaching specific content). In another example involving confusion over semantics, the term “module” signified units of learning to the educational team members and a component of game mechanics to the game designers. We used the term interchangeably for months until we all recognized the miscommunication.

Even at the outset of the project different groups of individuals, based on their intellectual backgrounds, misunderstood what we were attempting to do. Those individuals in education accept that technology is changing the world, but their understanding of what a game is and/or can do for youth is limited. Educators know a digital (or participate) divide exists and have studied it, but an understanding of how games can impact learning is limited. Those who work in gaming do not tend to study issues such as the digital divide, but they are extremely well versed in what they think of as the capacity of games to help educate students. To “educate,” however does not mean provide information that students then absorb and memorize. Instead, from their
viewpoint, the power of games lies in their ability to engage us emotionally and intellectually, to put players in positions where their choices matter, and to see the impact of those choices. Today, gamers will argue that an emerging genre of games is allowing players to engage with ideas that go beyond just entertainment; games that inspire learning and address important concepts and topical issues in dynamic, interactive systems that combine the power of ideas with the excitement of play is right around the corner. Although those who are traditional educators may agree with such sentiments, generally their main focus lies in the desire to ‘educate’ – which means inform. Thus, even the simplest of statements – ‘we will create a game in order to educate students about applying to college’ – is cause for misinterpretation.

Further, work with individuals beyond traditional disciplines also calls for different kinds of discussions that require translation. Venture capitalists seek to turn a profit; they may be socially liberal, but if the game is not going to generate revenue, then they are not going to venture their capital. Venture capitalists speak in terms of ‘lead generation,’ and the ability to turn the ‘product’ viral. Such language is not anathema to those of us who have applied for grants to foundations and the federal government; the language is unknown, foreign. The point is not that we are against lead generation but that we did not know what it means. Conversely, when we put in a budget that part of the travel budget will go toward conference travel to ASHE (Association for the Study of Higher Education) or AERA (American Educational Research Association), the funders have no idea what those acronyms stand for, and why we would ever want to attend conferences and make presentations. What does that have to do with generating revenue?, they ask. We think of
researchers involved in a research project. They think of chief operating officers and production designers in a start-up company. The result is that to work with one another necessitates learning one another’s language and in effect becoming multi-lingual.

Size of collaborative team. With each additional collaborating partner, the complexity of the relationships and structure of communication changes dramatically. With collaboration between two disciplinary teams, a considerable amount of education must transpire in order to establish common understandings of key concepts, methodologies and developmental processes. Once another partner enters the configuration, terms and concepts need to be clarified again, priorities might be changed – all potentially affecting the work plan. These conversations can slow a project down. Conversely, they can also strengthen the overall product.

When collaborative partners hail from non-academic backgrounds, the complexity of the collaboration is intensified. Collaborating with middle or high school students, for example, entails a different sort of translation of terms, understanding of timeframes and standard of effort. Outreach coordinators and practitioners understand the difficulties of scheduling middle or high school students and maintaining their engagement. Game designers might be enthusiastic about working with high schoolers but not be familiar with the logistical intricacies of working with this population.

Intellectual home. Interdisciplinary and collaborative work frequently has no intellectual home. A project such as creating a web-enhanced ‘game’ that will increase access to college has garnered a great deal of positive commentary, but it also is something that frequently
has no intellectual home. The major academic education conferences (such as ASHE or AERA), for example, offer very few sessions that look at games. When they do, they focus on young children. Similarly, conferences for ‘gamers’ are usually not focused on issues related to access to college. Although games for children are becoming a boom industry, they have little to do with what high school students need to know to get into college. Games in higher education are usually focused on in-class content knowledge (e.g. math education) and have very little to do with motivation and out of class learning.

Funding agencies are unsure where games fit. The federal government covers a great deal of educational territory in its RFPs, but games and out of class learning have not been considered. RFPs solicit proposals on technology or college access but do not accommodate proposals that cover both. Foundations are more concerned with in-class exercises for children, as are venture capital companies. Venture capitalists hope to earn a significant amount on their investment and have yet to figure out how a game that promotes access to college for low-income youth can do that in the next several years.

The point is not that a game aimed at increasing access to college is invalid or not intriguing. But as with many new ideas, because these projects are interdisciplinary, by their very nature they are frequently not a good fit in traditional conferences, disciplines and funding agencies.

**Control.** Interdisciplinary collaboration requires relinquishing control. The nature of interdisciplinary work requires each contributing entity to excel in their area of expertise and defer to other partners in their areas of expertise. Not being able to oversee all facets of
a project can prove challenging. How the project is conceptualized can change depending on input from one or more collaborative parties. Content deemed important by educational researchers might have to be cut back depending on design constraints. Game designers might be pushed to reconsider how the game product will be implemented after learning more about high school schedules. The give and take of interdisciplinary collaboration can be lead to moving deadlines, delays between developmental milestones and at times frustration between team members.

Conclusion

We are living in a new era. The rapid pace of technological change is exciting for some and daunting for others. Regardless of discipline, scholars are grappling with how to respond to technological advances and incorporate technology into their work. But technological expertise is highly specialized. Most social scientists do not have the skills to develop technological tools to enhance their work and must rely on others who do. Whereas before, scholars (and practitioners for that matter) had the luxury of deciding whether to embark on an interdisciplinary project or not, now we rely on interdisciplinary teams in order to tap into the vast array of technological resources available. We believe this trend will grow exponentially in the near future.

With this necessary collaboration comes great learning and also various challenges. In order to minimize the challenges and maximize the benefits of collaborating with our interdisciplinary colleagues, we have found it essential to communicate with each other regularly. We now schedule more regular full team meetings to clarify vision and deadlines,
identify roadblocks and discuss progress. Educational researcher team members have pushed ourselves to take “technological risks.” Whereas before we were reluctant to explore social networking sites, we now frequent Facebook and Twitter, contribute to blogs, share information over Google Calendar and Google Group and have upgraded mobile phones so that we can access email and other sundry applications. Game designers have volunteered to speak at high school information nights and now offer incentives to high school game design participants in order to retain their participation in projects. We are beginning to apply jointly to conferences and will most likely co-author articles for publication. Ultimately, our shared focus on addressing the problem of equity in college access fuels our work, eases our differences and compels us to continue working towards a common goal.
References


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