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# THE NECESSITY OF DEVELOPING RESPONSIBLE USE POLICIES: ADVOCACY FOR USE OF WEB 2.0 TOOLS IN A COMPREHENSIVE SCHOOL COMPUTING PROGRAM

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THE NECESSITY OF DEVELOPING RESPONSIBLE USE POLICIES: ADVOCACY  
FOR USE OF WEB 2.0 TOOLS IN A COMPREHENSIVE SCHOOL COMPUTING  
PROGRAM

David L. Russo

Educational Leadership Doctoral Program

Submitted in partial fulfillment  
of the requirements of  
Doctor of Education  
in the Foster G. McGaw Graduate School

National College of Education

National Louis University

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This document was created as *one* part of the three-part dissertation requirement of the National Louis University (NLU) Educational Leadership (EDL) Doctoral Program. The National Louis Educational Leadership EdD is a professional practice degree program (Shulman et al., 2006).

For the dissertation requirement, doctoral candidates are required to plan, research, and implement three major projects, one each year, within their school or district with a focus on professional practice. The three projects are:

- Program Evaluation
- Change Leadership Plan
- Policy Advocacy Document

For the **Program Evaluation** candidates are required to identify and evaluate a program or practice within their school or district. The “program” can be a current initiative; a grant project; a common practice; or a movement. Focused on utilization, the evaluation can be formative, summative, or developmental (Patton, 2008). The candidate must demonstrate how the evaluation directly relates to student learning.

In the **Change Leadership Plan** candidates develop a plan that considers organizational possibilities for renewal. The plan for organizational change may be at the building or district level. It must be related to an area in need of improvement with a clear target in mind. The candidate must be able to identify noticeable and feasible differences that should exist as a result of the change plan (Wagner, et al., 2006).

In the **Policy Advocacy Document** candidates develop and advocate for a policy at the local, state or national level using reflective practice and research as a means for supporting and promoting reforms in education. Policy advocacy dissertations use critical theory to address moral and ethical issues of policy formation and administrative decision making (i.e., what ought to be). The purpose is to develop reflective, humane and social critics, moral leaders, and competent professionals, guided by a critical practical rational model (Browder, 1995).

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## Abstract

Technology is omnipresent in our modern age: anyone with an Internet connection can use a computer, tablet, or phone to access an unfathomable amount of information. Today, teenagers use e-mail, texting, and social media to stay in nearly constant communication with friends and family anywhere in the world. With so much time spent exchanging ideas in cyberspace, there is an increased likelihood of teachers and students regularly crossing paths electronically for both legitimate academic purposes and social contexts. Without sufficient school district policies to guide these interactions, students and teachers could realistically place themselves in awkward situations and face district sanctions due to inappropriate behavior. The purpose of this project is to develop an Acceptable Use Policy (AUP) governing student and teacher computer use that must be reviewed and signed by parents, students, and teachers at the start of every school year. The policy advocacy focuses on inclusion of social media and other Web 2.0 tools as legitimate applications for the classroom. Research provides valuable information regarding responsible ways to utilize Web 2.0 tools to enhance teaching and learning and incorporate them into a school's repertoire of instructional methodologies. These technologies tap into students' inherent interests, create opportunities for active learning and higher-order thinking, and prepare students for the challenges of tomorrow's workplace. However, schools also need to protect students against cyberbullies, online predators, and exposure to inappropriate content. The project concludes that allowing Web 2.0 tools into classrooms while developing responsible computing skills across the curriculum outweighs any perceived risks. The proposal outlines an adoption plan that factors in educational activities, staff development, budget, and progress monitoring.

## Preface

My interest in developing skills stretching thinking and challenging students to the highest levels of cognition has led me to explore a *Policy Advocacy Project* centered on technology. The Internet is the environment where skills will grow and mature. With knowledge always only a few clicks away, students' ability to discern reliability of sources, weave disparate pieces of information into a coherent argument, and collaborate across geographic divides are the highly prized traits of the modern classroom and workplace. The policy in my project advocated for allowing teachers and students to enhance teaching and learning by using Web 2.0 tools and a full spate of Internet resources.

Despite concerns over cyberbullying and online predators, I provided an extensive list of reasons why students should be taught responsible computing skills through exposure to Web 2.0 tools. Reasons cited ranged from drawing upon students' inherent preference for electronic sources, having grown up in a digital age, to using the tools of Web 2.0 to best prepare students for the workplace skills necessary for success in the industries of tomorrow. Advocacy of this policy comes at a time when my district is on the precipice of a one-to-one computing initiative. Teachers are committed to redesigning their curriculum to take advantage of students having computer access throughout the school day. If we are to reap the greatest benefits from this program, we must allow students and teachers to use all the electronic platforms where Internet users share and develop new knowledge.

This third-year project was an important exercise to gain experience for the level of reflection necessary to design and implement thoughtful policies. It seems many

districts frequently enact weak policies as a hasty reaction to unfortunate events. Working through this process causes one to pause and think through many factors before moving forward. Personally, the policy advocacy process supported my growth as an aspiring district-level administrator because the format required me to provide evidence supporting my premise from several different perspectives. Developing educational, social, political, economic, and moral/ethical arguments supporting my beliefs allowed me to realize how deeply one has to consider policies before their adoption. Such consideration is thoroughly warranted given the far-reaching implications on students' lives. A district-level leader must consider the pros and cons of a policy while finding counterpoints to arguments meant to dissuade decision-makers from approving a measure. As I move forward with career aspirations, I believe I will be more thoughtful and judicious when recommending policies since having been exposed to this set of procedures.

Reaching this point in the dissertation process comes with both a sense of relief and excitement—relief in the sense that an arduous journey is nearly complete, and excitement that I have achieved the goal of becoming a more confident, articulate instructional leader. Along the way, I have uncovered a clearer sense of where the focus of classroom instruction must lie in order to meet the challenges of educating today's students.

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## **SECTION ONE: VISION STATEMENT**

### **Awareness of Policy Issue**

Technology is omnipresent in our modern age. Any person with an Internet connection can use a computer, tablet, or phone to access an unfathomable amount of information. In this day and age, teenagers use e-mail, texting, Twitter, and social media to stay in nearly constant communication with friends and family anywhere in the world. With so much time spent exchanging ideas in cyberspace, there is an increased likelihood of teachers and students crossing paths electronically on a regular basis for both legitimate academic purposes and social contexts. Without sufficient school district policies to guide these interactions, students and teachers could realistically place themselves in awkward situations and face district sanctions due to inappropriate behavior. Interactions starting out innocently have the potential to cross boundaries of appropriate student-teacher or student-student relationships by sharing intimate information or other provocative notions. Therefore, for the purposes of this *Policy Advocacy Project*, I will advocate for an Acceptable Use Policy (AUP) that reflects 21<sup>st</sup>-century usage of modern computing platforms.

I became aware of this policy as a district priority during work with other members of the administrative team over the past year developing a one-to-one technology initiative for the 2014-2015 school year. In preparation for that program, we discovered that we currently do not have a practice where students, parents, and staff annually acknowledge their understanding of district policies related to acceptable usage of the district's hardware and network. In the 2013-2014 school year, students in grades 4, 7, and 8 will pilot usage of Google Chromebooks with the intention of expanding that

program the following year for all children grades 4 through 8. Therefore, it stands to reason that both the use of social media as a learning tool and the number of staff-student electronic interactions will increase exponentially over the next two years. Failure to institute a formal AUP policy leaves the district open to numerous levels of liability for students and teachers in this growing electronic environment.

### **Critical Issues Making Policy Problem in Need of Response**

There are three issues providing rationale to create a policy responding to this concern: First, integrating web tools seamlessly into everyday instruction has already begun. Students are doing more and more of their school work online. During this past school year, 2012-2013, many teachers were allowed and encouraged to institute Google products as a means to provide students with materials necessary to complete assignments. Classrooms using this technology created online cohorts, allowing teachers to share everything from articles to rubrics to project directions. Throughout the year teachers reported benefits such as increased completion rates of homework, the ability for students to work more successfully on collaborative projects using the “cloud,” and opportunities to provide meaningful suggestions to students in real time. After only one year of extensive use, students have already collaborated electronically to produce PowerPoint presentations, including an Ellis Island simulation, and silent movies in a unit on the 1920s; chat online during the first Presidential debate; and utilize Edmodo to submit assignments. The change in the student learning process and output means students and teachers will be distributing, receiving, accessing, and producing ideas on cloud-based platforms the majority of time. Teachers and students will comment on work

and communicate electronically in ways they never have before; therefore, policies to set parameters for these interactions are necessary.

Second, our current practices provide an insufficient layer of awareness for what legally can and cannot be done on our computing network to support the educational mission of the district. Parents, as well as teachers new to the district, acknowledge their understanding of and intended adherence to Board Policy 6:235, *Access to Electronic Networks*, though through limited documentation. Language in this policy meets minimum requirements set forth by the Children’s Internet Protection Act (CIPA), which was enacted by Congress in 2000 to address concerns about children’s access to obscene or harmful content over the Internet. According to the Federal Communications Commission (FCC) and Consortium for School Networking (CoSN),

CIPA imposes certain requirements on schools or libraries that receive discounts for Internet access or internal connections through the E-rate program—a program that makes certain communications services and products more affordable for eligible schools and libraries. CIPA requires entities receiving discounts offered by the E-rate program to certify that they have an Internet safety policy that includes technology protection measures. The protection measures must block or filter Internet access to pictures that are: (a) obscene; (b) child pornography; or (c) harmful to minors (for computers that are accessed by minors).

Schools subject to CIPA have two additional certification requirements: 1) their Internet safety policies must include monitoring the online activities of minors; and 2) as required by the Protecting Children in the 21st Century Act, they must provide for educating minors about appropriate online behavior, including interacting with other individuals on social networking websites and in chat rooms, and cyberbullying awareness and response. (CoSN, 2013; FCC, 2012)

Board Policy 6:235 uses the aforementioned language nearly verbatim, which fails to address many of the day-to-day usages of technology as would an updated, comprehensive AUP. An improved AUP is needed to enumerate with greater clarity how technology is to be used in the district and what consequences exist for misuse. The

single reference to social media is found in Board Policy 5:125, in which faculty use of social media and use of personal technology devices throughout the school day are described. Specifically, faculty will:

Adhere to the high standards for appropriate school relationships in Policy 5:120, *Ethics and Conduct*, at all times, regardless of the ever-changing social media and personal technology platforms available. This includes District employees posting images or private information about themselves or others in a manner readily accessible to students and other employees that is inappropriate as defined by policy 5:20, *Workplace Harassment Prohibited*; 5:120, *Ethics and Conduct*; 6:235, *Access to Electronic Networks*; 7:20, *Harassment of Students Prohibited*; and the Ill. Code of Educator Ethics, 23 Ill. Admin. Code §22.20. (Fairview School District 72, 2013a)

It is my contention that language in both 6:235 and 5:125 is inadequate for use of social media and other Web 2.0 tools for curricular purposes. This is why I believe my policy recommendation is important and especially warranted given the impending one-to-one computing initiative.

Although Board Policy meets minimum legal requirements, the reality is that students and teachers are given nothing written in plain English explaining the purposes of technology use. The lack of clear policy and procedures creates liability for the school district, considering the circumstances when students may see content they are not supposed to, misuse equipment or software, or face consequences for these actions.

Until this point, the small size of our district and relationships established with parents, students, and staff have prevented any egregious misuse of technology and have not resulted in challenges to administrative decisions when technology has been abused. For example, two years ago, I suspended a student for hacking into the network account of another student and erasing files. There was evidence to document that the student had accessed the account, and he confessed to the misuse of technology. Although the parents

did not challenge the suspension, they could have done so because of our inadequate AUP. We have been reliant on good will of all constituency groups; however, proliferation of computing within our district mandates that we create a set of policies in the form of a modern AUP. This document is rooted in guidelines set forth by Board Policy 6:235, but written in language that speaks to ways students and teachers use technology in everyday learning and governs how they interact electronically. Developing a modern AUP also includes the establishment of administrative procedures necessary to ensure students, teachers, and parents are aware of expectations and covers how a wide range of “what if” scenarios might be handled.

A third issue making a response to this policy problem essential is our failure to communicate the district’s belief in technology as a 21<sup>st</sup>-century learning tool through a written document reviewable by students, parents, teachers, and community members. We have no documentation informing constituency groups of the district’s commitment to technology, what we value in its use, what we identify as goals for improvement of teaching and learning, or proper usage of equipment. For example, parents will need guidelines for what is expected of families when computers start going home and coming back to school beginning in the 2014-2015 school year.

### **Policy Recommendation**

My policy recommendation is to develop an AUP in keeping with provisions set forth by Board Policy 6:235 governing student and teacher computer use that must be reviewed and signed by parents, students, and teachers at the start of every school year. Because of expansion of web applications and various software packages, the electronic signature of parents allowing their students to use computers solely in accordance with

Board Policy 6:235, along with our failure to have annual faculty review of policies, is no longer acceptable.

Based upon research done for this project, I also advocate for the AUP to be written in a positive tone, acknowledging how schools have the obligation to educate students on responsible use of technology, rather than emphasizing a litany of restricted usages and their associated consequences. A major emphasis for this policy advocacy will focus on inclusion of social media and other Web 2.0 tools as legitimate applications for teaching and learning. The case will be made that my district's AUP should consider the value of these platforms and embrace ways students can be taught to use them responsibly, enhancing learning rather than enforcing a blanket prohibition as is currently done in a majority of districts around the country.

Although Board Policy 6:235 does not specifically mention the use of social media sites such as Facebook or MySpace, the policy does state, "All use of the district's electronic networks must be: 1) in support of education and/or research, and be in furtherance of the goals stated herein, or 2) for a legitimate school business purpose." Up to this point, both the School Board and administration have made it clear that these sites are not part of our curriculum, and thus should not be used with regard to classwork or accessed during school hours. The Pratt<sup>1</sup> School Board policy reads, "The District's electronic network is part of the curriculum and is not a public forum for general use." Thus, since social media is not an accepted form of curriculum, it should not be used in any subject area.

I advocate that the prevalence of social media and other Web 2.0 tools in students' lives, coupled with emerging research that these platforms add to learning,

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<sup>1</sup> A pseudonym for the actual school district.

requires rethinking this prohibition in the overall context for creating a comprehensive AUP. There needs to be language that establishes boundaries for how and why students and teachers would be allowed to communicate with one another on electronic and social media forums. In today's world it is insufficient for my district to remain silent and turn a blind eye toward a plethora of considerations that these tools generate. Questions regarding acceptable use of technology include: Can students and teachers "friend" each other on Facebook? Should students and teachers communicate via e-mail on non-district issued accounts? Can non-academic documents (i.e., photos, videos, etc.) be shared in a cloud-based environment? Should students and teachers use FaceTime or Skype during non-school hours? Blanket prohibitions are short-sighted solutions to the power that new web tools hold for teaching and learning. Therefore, absent guidelines and parameters on the topic, the district faces the same type of precarious liability as when teachers work with individual students and leave the door closed.

### **Vision for How the Policy Effectively Meets the Problem**

My policy vision effectively meets the problem because it will:

- Fill a perceived void
- Communicate our current efforts to meet CIPA Law requirements
- Incorporate components of an effective AUP
- Address the role of Web 2.0 tools in the modern classroom
- Reflect district beliefs about teaching and learning

The ultimate goal for this Policy Advocacy is to provide end users (students, teachers, staff, and parents) with guidelines for computing, particularly in regard to social media and Web 2.0 tools, in clearer, more definitive language than Board Policy 6:235.

Therefore, the mere fact that I seek to put a policy into place where there is an insufficient one is an effort to effectively meet the problem.

The new AUP will better communicate how we meet CIPA law minimum requirements, while offering guidelines for areas where the law is either silent or vague. The district employs a state-of-the-art content filtering device which blocks offensive or inappropriate Internet content. It is a dynamic piece of hardware updated continuously to meet the changing nature of websites that seek to attract students. We also require 5<sup>th</sup> and 6<sup>th</sup> grade students to take a Digital Literacy class. The course content includes units on cyberbullying, online predators, and security of personal information. Our new AUP can more clearly explain to constituency groups efforts in these areas so that everyone has a clearer understanding of steps undertaken to make the network secure and appropriate.

Although there is no single format to follow when constructing an AUP, a review of several sources suggests commonalities that the Pratt District AUP should incorporate:

- **An Introduction or Preamble.** This section describes why the policy is necessary, communicates the intent, and outlines goals (King, 2012). Embedded within this opening can be definitions of key terms, descriptions of values and philosophies supported by Internet access, and/or a statement of the educational uses and benefits of the Internet in school (Uhls & Peterson, 2013).
- **A Policy Statement or Outline for the Terms and Conditions.** This section is meant to describe the limited computing services covered by the AUP and situations under which students can use computing services (King, 2012). It may also cover privileges of Internet access, due process

if rights are revoked , personal use, network etiquette, restricted access to inappropriate and harmful materials, vandalism, and privacy policies (“AUP Best Practices for K-12,” 2009; Uhls & Peterson, 2013).

- **Defining Acceptable Use.** This section defines how students use computers for educational purposes and what constitutes unacceptable use. In this part, the AUP notes any network sites that should be off limits to students and what kind of student sending, forwarding, or posting of information, if any, is prohibited (King, 2012). These restrictions can also include using the network for private or commercial gain, intentionally using the network for illegal activity, or unauthorized downloading or copyright infringement (Uhls & Peterson, 2013).
- **Violations/Sanctions or Enforcement.** This section explains what happens when there are violations of the AUP and how the network will be monitored and usage reported. Some policies also include a description for how content is blocked and ways to keep minors safe in public electronic environments.

Before one can understand tensions created on AUPs by Web 2.0 tools, one must understand the differences between Web 1.0 and Web 2.0. Web 2.0 is the fulfillment of the original vision of Internet creator Tim Berners-Lee for the Web to be used as a platform instead of a medium, and as a read-write web as opposed to a read-web (Ullrich et al., 2008). Use of Web 1.0 was linear: a handful of experts possessed the knowledge to create websites from which the rest of the world consumed content (“Difference between Web 2.0 and Web 1.0,” 2009). Information on these sites was static and only updated

irregularly, while users had little ability to control or create what they were viewing (“Web 1.0 vs Web 2.0,” 2010). The term ‘Web 2.0 tool’ was coined around 2004 to describe a growing series of websites that incorporated a strong social component with user profiles and encouraged user-generated content in the form of text, video, and photo postings (Cormode & Krishnamurthy, 2008). According to Almeida (2012),

The Web 2.0 introduces the idea of a Web as a platform. The concept was such that instead of thinking of the Web as a place where browsers viewed data through small windows on the reader’s screens, the Web was actually the platform that allowed people to get things done. (p. 152)

In Web 2.0, the rate of change for information is constant and dynamic. Web applications, such as Google Drive, were introduced as part of Web 2.0, which includes software that allows you to produce work that does not reside on your computer but rather through an online service. Social networking sites such as Facebook, MySpace and Orkut and micro-blogging sites such as Twitter shift control over content to users (“Web 1.0 vs Web 2.0,” 2010). The success of these platforms relies upon a high volume of users setting up networks of sub-groups where any participant can be a content creator (Cormode & Krishnamurthy, 2008). In addition to social networking and micro-blogging sites, Almeida (2012) described the following as additional Web 2.0 technologies, as listed in Table 1:

Table 1

*Web 2.0 Technologies*

<b>Web 2.0 Technology</b>	<b>Description</b>
Wikis, shared workspaces	Facilitates co-creation of contents across large and distributed set of participants.
Blogs, podcasts, videocasts	Offers individuals a way to communicate and share information with other people
Prediction markets, polling	Harnesses the power of community and generates a collectively derived answer.
Tagging user tracking, ratings, RSS	Add additional information to primary content to prioritize information.
Social networking, network mapping	Leverages connections between people to offer new applications.

The introduction of Web 2.0 tools creates tension in the development and enforcement of acceptable use policies because of competing interests to keep students safe on the Internet while exposing them to the wide range of technologies that exist—which have already piqued students’ interests outside of school walls. I advocate for an AUP that embraces responsible use of all Internet resources, particularly Web 2.0 tools, by educating students with skills and dispositions necessary to successfully navigate the Web throughout their lifetime. In the modern world these skills are essential to professional and personal life, and are nearly as important as the ability to read and understand.

Another source of tension emanates from the lack of clarity derived from legal sources. The CIPA law mandates schools take certain precautionary measures to ensure safe computing by students and staff during the school day. However, the original concern when CIPA was passed in 2000 was to keep students from viewing pornography

on the Web. In 2013, Web 2.0 applications have become so commonplace that schools have to consider their incorporation for responsible and legitimate academic purposes as teachers demonstrate the power of these tools to enhance learning experiences in classrooms (CoSN, 2011). Subsequent laws passed after original CIPA legislation are not definitive in their support or prohibition of Web 2.0 tools in the classroom: In 2011, the FCC issued an order stipulating that schools needed to educate students about appropriate online behavior, including behavior while interacting with individuals on social networking websites and chat rooms. This order went on to indicate that social media sites could contain harmful materials, but did not ban their use. In fact, the FCC order spoke to the value of social networking by stating, “Students can participate in online social networks where people from all over the world share ideas, collaborate, and learn new things” (CoSN, 2013). The FCC concluded these guidelines by noting that declaring social networking sites harmful would be inconsistent with educating minors about appropriate online behavior, interaction on social networking sites, and awareness of cyberbullying (CoSN, 2013). With no legal prohibition, it seems that every school has the discretion to decide how much access students and staff may have to Web 2.0 tools.

A final source of tension originates from the proclivity of students to use Web 2.0 tools in their personal life when they are generally barred from incorporating that expertise into academic work. Glud, Buus, Ryberg, and Davidsen (2010) and Schuck, Aubusson, and Kearney (2010) discussed the prevalence of Web 2.0 tool use among adolescents. Both sources discussed the growing comfort of young people to employ Web 2.0 technologies as a means of creative expression by creating and publishing new media content; contributing to creations such as artwork, audio, video and photographic

products; and posting creative writing. According to the Pew Research Center and American Life Project, 95% of all teens ages 12-17 use the Internet on a regular basis, 80% of them use social networking sites, and 75% have cell phones (CoSN, 2011). At the classroom door, students must abandon these skills and interests in favor of traditional methods of demonstrating creativity and knowledge. An AUP embracing responsible usage of these tools effectively acknowledges the world in which today's students have grown up and seeks to harness their natural inclinations and interests.

My advocacy for creating an AUP espousing responsible Web 2.0 application usage runs contrary to current trends. Bosco and Krueger (2011) stated, "In many school districts, Web 2.0 and mobile technologies are largely viewed as inappropriate and are banned or severely restricted" (para. 1). Almeida (2012) cited a 2010 study by Joakan and Sharma showing that 81% of organizations restricted the use of at least one Web 2.0 tool because they were concerned about security. Organizations limited social media usage through policy, technology and restrictions on the use of user-owned devices.

Although advocacy of Web 2.0 tools in the classroom conflicts with policies in most districts, which prohibit or severely restrict access, support for incorporation and responsible usage is congruent with my district's promotion of skill-, problem-, and project-based learning. Providing teachers with license to employ these Internet applications means students can harness the full power of a vast array of information sources to synthesize and demonstrate knowledge on a topic. Use of Web 2.0 tools also expands the number of platforms on which students can present their understandings. This aligns with best practices for students with special needs, and is also espoused for all learners in models such as Universal Design for Learning (UDL), a set of principles

for curriculum development that give all individuals equal opportunities to learn. UDL provides a blueprint for creating instructional goals, methods, materials, and assessments that work for everyone—not a single, one-size-fits-all solution but rather flexible approaches that can be customized and adjusted to meet individual needs (CAST, 2012c).

Traditional notions of teaching and learning focus on content, teacher control and instruction aimed at providing students with a relatively fixed amount of agreed-upon knowledge (Glud et al., 2010). The type of problem-/project-based learning environment recently explored in my district reflects a desire to move from a teacher-centered to learner-centered classroom. In this setting, students distill multiple sources of information related to the topic into a cohesive presentation, argument, project, etc. Redecker (2009) likens this type of transformation in classroom structure to that occurring from Web 1.0 to Web 2.0. In the Web 1.0 world, a select group of programmers (i.e., teachers) created all the content for others (i.e., students) to consume. Similar to a learner-centered classroom, Web 2.0 allows and expects users to be producers of knowledge. Later portions of this *Policy Advocacy Project* will illustrate how an AUP inclusive of Web 2.0 tools enables teachers to provide students with learning experiences honing the skills necessary to function and compete in modern times.

## **SECTION TWO: ANALYSIS OF NEED**

### **Educational Analysis**

Warschauer (2007) states that the future of learning is digital. In the period between 1983 and 2005, the ratio of computers-to-students fell from 1:168 to 1:3.8, and high speed Internet access is now commonplace across all socioeconomic strata.

Warschauer goes on to reason that digital technologies in the long run will have the same type of impact on learning and literacy as did Gutenberg's printing press, which revolutionized notions of reading, writing and scholarship (Warschauer, 2007). As society fully transitions to a digital world, a review of literature suggests that creating an AUP document allowing responsible usage of Web 2.0 tools is the right thing to do for myriad educational reasons.

As educators, we have to realize the type of world in which our students are growing up and how they engage and connect to their reality. The literature suggests that blanket prohibitions of Web 2.0 tools in schools blocks an entire genre of applications on which students are highly skilled, creative, and can deploy sophisticated critical thinking skills. Ahn, Bivona, and DiScala (2011) suggest that "teaching students to be critical consumers and creators of online material may more align with the challenges young people will face in a participatory, social online world" (p. 6).

Use of Web 2.0 technologies fosters learner-centered classrooms where all students are actively engaged in the task. Web 2.0 enables and facilitates the active participation of each user because, by definition, the value of Web 2.0 tools increases as more people use it and create knowledge (Ullrich et al., 2008). The applications made

available through Web 2.0 are congruent with my district's goal to have active, student-centered classroom experiences characteristic of the constructivist approach to learning:

In constructivism, control over the learning process shifts from the teacher to the student, with the learner playing an active role in the learning process. Learning takes place in a context and in collaboration and provides opportunities to solve realistic and meaningful problems. In contrast, the teachers focus mainly on preparatory activities and provide support in case assistance is needed. Consequently, the teacher is an initiator of and an advisor in the learning process. (Ullrich et al., 2008, p. 706)

Web 2.0 applications advance constructivist theory because they enable the user to gain access to unprecedented amounts of information in the form of pictures on sites such as Flickr or map data on Google Maps. Students can use these resources as information sources or as building blocks for creating new knowledge. Another educational advantage stems from the mobility of information on Web 2.0 platforms. Information deployed on a mobile phone or other hand-held device is available wherever students are located. They do not need to be in the classroom or physically present with other members of the learning community in order to be productive members of the group. Individuals can access and use necessary information in an authentic moment rather than at an artificial time such as a particular class period during the school day. Additionally, there is great opportunity for real-time dissemination and critique of student work through Web 2.0 tools. Making content public is now easier than ever, promoting producing, publishing, receiving and giving feedback (Ullrich et al., 2008).

At the collegiate level, Williams and Chinn (2009) introduced a new project incorporating Web 2.0 tools into a sports marketing class. In this experience, students developed a campaign using Web 2.0 tools to increase attendance at one of the school's basketball games. What they found was that use of digital media and discussion of tools

that were part of students' daily lives provided an assignment platform that was immediately intriguing. Students went well beyond those technologies they were familiar with at the onset of the assignment. Through informal discussions at every stage of the project and a formal survey and written work associated with the endeavor, the authors concluded, "The goals of the assignment were to increase the engagement level of students as active learners and to improve literacy levels in the use of Web 2.0. Assessment of individual and team components of the assignment indicated that both goals were met" (Williams & Chinn, 2009).

Web 2.0 tools are associated with active student learning because they tap into inherent interest and familiarity students have from growing up with these systems. Oberlinger and Oberlinger (2005) contend that incorporating strategies that require students to be actively involved using higher-order thinking skills such as analysis, synthesis, and evaluation was particularly relevant and meaningful for students growing up in a digital age (as cited in Williams & Chinn, 2009, p. 165). What this implies is that traditional methods to learning may no longer be adequate to meet the needs of today's learners because modern students process information differently. Skiba and Barton (2006) maintained that instructors must consider the learning characteristics for this generation of students when designing course work because they have preferences for digital literacy, experiential learning, interactivity, and immediacy (as cited in Williams & Chinn, 2009, p. 165).

Today's students need to find relevancy and meaning in their school work, oftentimes finding it through interactive environments where they can communicate and create in multiple ways and seek to be actively involved in their learning (Williams &

Chinn, 2009). These notions are congruent with characteristics of active leaning, including “the use of higher-level thinking and engagement of students and activities that encourage exploration and subsequent evaluation of their involvement.” (Williams & Chinn, 2009, p. 166).

These ideas seem to suggest that embracing Web 2.0 tools into my district’s AUP is the right thing educationally for students because it accomplishes three goals: 1) it is congruent with my district’s vision to build more active, skill-/problem-/project-based classrooms; 2) tools lend themselves to technological skills students have built through informal use of these platforms for most of their lives; and 3) usage of these applications satisfies students’ need to use tools they have grown up with to their academic advantage.

Researchers in Canada conducted a survey of 45 teachers using a toolbox of Web 2.0 technologies available in the Advanced Broadband Enabled Learning (ABEL) program. “ABEL is a proven program that leverages information communication tools including Web 2.0 tools and applications to develop, design and deliver job-embedded professional learning to teachers and teacher-leaders” (Murphy & Lebars, 2008, p. 135). The data from this research suggested that the majority of teachers surveyed incorporated more extensive use of constructivist, inquiry-driven, and student-centered strategies in their teaching as the result of familiarity with the ABEL professional learning program (Murphy & Lebars, 2008). These learning experiences were essentially applications of Web 2.0 tools such as blogs, wikis, podcasts and other collaborative processes. This study suggested that usage of Web 2.0 tools impacts students’ performance positively. Seventy-six percent of respondents indicated that their

students tended to be more engaged and on task and engaged in a wider range of learning while conducting work using Web 2.0 tools. Sixty-six percent responded that the quality of student work remained constant or was higher; 55% said that students took more initiative and demonstrated better self-management (Murphy & Lebens, 2008):

As teachers who were interviewed integrated Web 2.0 tools in their courses and assessed their impact on student learning and achievement, they all confirmed what the research had already indicated: increased student engagement with the subject content, greater responsibility of their own learning, deeper investigations of issues, and improved student assignments. (Murphy & Lebens, 2008, p. 141)

Web 2.0 tools seem to hold promise to capture students' attention and promote active engagement of children in their own education, but what are some concrete educational applications for Web 2.0 that cause me to advocate for their inclusion in our repertoire of resources when so many other schools are banning their use? First, I can draw upon several activities introduced by teachers at my school which excite me about the possibilities of Web 2.0. In one example, a social studies teacher created a Google Drive spreadsheet with a number of issues related to the first Presidential Debate of 2012. Students were expected to watch the debate and record each candidate's view on a particular topic. Additionally, the chat feature was used to allow students to comment and ask questions of the teacher and each other about what was being debated. This resulted in a lively online conversation and deeper understanding for the issues of the day, each candidate's approach to solving problems, and their individual speaking and presentation style.

In another instance, students were asked to develop a silent movie depicting themes from the 1920s. In small groups, students wrote, acted, and produced these short films. Because of technology, they only had to meet to film their production. Writing

and researching scripts, editing footage, adding music and graphics could all be done through the cloud. I cannot rely only upon my most creative and technologically savvy teachers to provide students with these types of learning experiences when we are on the precipice of a one-to-one computing initiative. Therefore, I feel the district needs to give formal license for all teachers to use Web 2.0 tools through support of responsible usage in the AUP. It would be irresponsible for the district's students to settle for less.

There are other examples of classroom applications of Web 2.0 exciting me about the engaged learning they reflect. At the Shanghai Jiao Tong University in China, students were given Twitter feeds to practice their English writing skills in between classes. The entire class was connected with one another in an exchange of ideas that provided far more practice than could be expected in the time reserved for actual class gatherings (Ullrich et al., 2008). Bryan Alexander (2006) provided a number of ways that Web 2.0 applications could be incorporated into the classroom. He suggested:

- Use of social bookmarking sites such as del.icio.us, which allows users to build annotated search research on a given topic. Students could use these as sources of reliable information when conducting research or add to them when they find additional credible sources.
- The writing process takes on an entirely new form through the Web. Platforms such as wikis or blogs allow teachers to develop writing exercises based on these tools as an alternate form of peer editing, allowing students to create ideas and give/receive feedback in near real time.

- Web 2.0 supports queries for information and reflections on all types of current events. Students could search the “blogosphere” for political commentary, current cultural items, public developments in science, business, news, etc. Additionally, students could use other tools to analyze how a story or topic changes over time and collaborate with students anywhere in the world on their ideas.
- A political science class could explore different views on a news story through traditional media using Google News, then from the world of blogs via the site Memeorandum (Alexander, 2006).

It appears that from an educational perspective, allowing Web 2.0 tools into the classroom holds great promise to engage students in their natural interests and to produce work at high levels of cognition. Schuck, Aubusson, and Kearney (2010) see Web 2.0 technologies as potentially revolutionizing education because they have the power to 1) affect human cognition, 2) change the knowledge and skills necessary to participate in one’s local and global communities, 3) impact upon the future development of society, and 4) disrupt school education. Young people are already using the applications at home; therefore, educators have to recognize the relationship between students and these tools. “Web 2.0 technologies are currently enjoying great popularity among young people, and to view them purely as destructive technologies loses a great opportunity to capitalize on their potential for learning” (Schuck et al., 2010, p. 237).

Incorporating Web 2.0 tools into classrooms holds promise not only for regular education students, but also for those with a variety of special needs. Universal Design for Learning (UDL) is a vision for pedagogy that draws upon neuroscience and the study

of media to create curriculum using alternatives that make it accessible and appropriate for individuals with different backgrounds, learning styles, abilities, and disabilities in widely varied learning contexts. It is not simply students identified with a learning disability or other special need who benefit from multiple access points to the curriculum. Given the diversity of digital experiences students of this generation have coming into school, everyone stands to benefit from classroom educational practices that provide flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged (CAST, 2012b).

Curriculum is modified according to the three principles of UDL:

- Principle 1: To support recognition learning by providing multiple, flexible methods of presentation.
- Principle 2: To support strategic learning by providing multiple, flexible methods of expression and apprenticeship.
- Principle 3: To support affective learning by providing multiple, flexible options of engagement.

Digital media hold great promise for fulfilling the principles of UDL and meeting the needs of diverse learners in classrooms because they allow teachers to present concepts in multiple formats simultaneously. Fixed materials such as textbooks cannot. Digital sources are preferred for their versatility, their ability to transform ideas from one medium to the next, and their capacity to be networked (CAST, 2012c). If a teacher were to apply all the tenets of UDL into their curriculum design, digital sources, including Web 2.0 tools, would seem to play a pivotal role in creating mechanisms by which

instructors could create the variety and flexibility necessary to reach an audience of a wider ability levels.

### **Economic Analysis**

From an economic perspective, Web 2.0 tools are intriguing resources to make available to students because they by and large are free for users. Although certain terms and conditions must be agreed to, most applications require simply setting up an account or user profile for one to begin using features available through the application. As educational budgets tighten, it makes sense for schools to examine resources that tap into student interest, hold promise to promote development of high-order thinking skills, and come at no or nominal cost.

In some instances school districts have adopted a Bring Your Own Device (BYOD) policy, allowing students to use computing hardware purchased outside school for academic work. This alleviates budget stress because the school district is not actually purchasing units students use in classrooms. In this environment it is essential to maintain an AUP that articulates guidelines covering personal devices as well as those that are school-owned (Johnson, 2012). When students use their own devices, it is even more important for districts to take a stance on inclusion of Web 2.0 tools in the instructional repertoire. It must be clearly expressed if filtering protocols used during the school day will follow devices home when students are using hardware for both personal and academic use and how that will impact their ability to log in to Web 2.0 tools that students might already be using.

The most significant economic argument for allowing and encouraging classroom use of Web 2.0 tools is that they expose students to skills necessary for workplace

readiness in the 21<sup>st</sup> century. Information navigation is the new literacy beyond text and knowledge (Sendall, Ceccucci, & Peslak, 2008). “The importance of information systems literacy in the business world is well documented and managers across a range of industries are assessing the value and capabilities of Web 2.0 applications” (Williams & Chinn, 2009, p. 167). According to the Economist Intelligence Unit (2007), almost 80% of corporations believe that Web 2.0 has potential to increase revenues (as cited in Sendall et al., 2008, p. 5). Pearce predicted in 2008 that the global market for Web 2.0, including social networking, user-generated content, mobile search and mobile instant messaging, would increase from \$5.5 billion to \$22.4 billion in 2013 (as cited in Sendall et al., 2008, p. 5). “It is clear that students must be prepared to use Web 2.0 tools in the workplace. It is no longer a question of ‘if’ they will use these tools; it is question of ‘when’ they will be called upon to use them” (Sendall et al., 2008, p. 5). In the 21<sup>st</sup> century, students must possess a developed sense of multimedia literacy in order to be prepared for the wide range of occupational paths being created in the Information Age (Warschauer, 2007). As far back as 1993, Lanham predicted that “the predominate position of multimedia in today’s world of digital communication has placed such skills in high demand” (as cited in Warschauer, 2007, p. 43).

In his book *The Global Achievement Gap*, Tony Wagner describes seven ‘survival skills’ he deemed crucial to workplace readiness after conducting interviews with leaders in a variety of industries. Many of the seven skills outlined can be addressed by working with Web 2.0 technologies. Wagner discusses the changing nature of the workplace, in which individuals are placed on teams to work through a specific problem. Therefore, individuals must be adept at asking the right questions and using critical thinking and

problem solving skills to be effective in their teams (Wagner, 2008). Aforementioned research suggests that Web 2.0 tools place students in environments where they use higher-order thinking skills.

Wagner's second survival skill, collaboration across networks and leading by influence, also lends itself to usage of Web 2.0 tools since students must become skilled at collaborating with individuals electronically from around the world. One's ability to lead comes not from the title, but from understanding how to work fluidly and across boundaries (Wagner, 2008). Again, the collaborative nature of Web 2.0 technologies allows students to grow accustomed to working in these roles. The fifth survival skill is effective oral and written communication. According to Wagner, students "are unable to communicate their thoughts effectively." Therefore, schools need to prepare students to "create focus, energy, and passion around the points they want to make" (p. 35). Web 2.0 applications have been shown to prepare students for presenting on multimedia platforms and to collaborate, receive, and give feedback on written communications. The final survival skill I believe applies to this analysis is the sixth, accessing and analyzing information:

Employees in the 21<sup>st</sup> century have to manage an astronomical amount of information flowing into their work lives on a daily basis. Individuals have to be able to access and evaluate information from many different sources. Indeed, all this access to information is of little use—and may even be dangerous—if we don't know how to evaluate it. (Wagner, 2008, pp. 36-37)

Web 2.0 tools are either technologies honing students' ability to distill essential information from superfluous information, or are platforms that can be used to organize ideas from a variety of other sources into a coherent set of original ideas. Equipping students with a keen sense of Wagner's seven survival skills can prepare the next

generation for the workplace they will inherit in the coming years. From my perspective, harnessing the power of Web 2.0 tools in schools will be a critical way to build these proficiencies, allowing students to compete financially.

Educational thinker and speaker Heidi Hayes Jacobs also views Web 2.0 as a portal to skills students will need as they transition into the workplace. According to Hayes Jacobs, the definition of literacy has changed. Literacy is:

not limited to words on the page: [it includes] still and moving images, such as photographs, television and film. Today, being literate also means understanding wikis, blogs, Nings, digital media, and other new and emerging technologies. These are the tools that will allow students to acquire 21<sup>st</sup>-century skills. More specifically, these are the tools that will allow students to acquire and develop these skills in ways that are applicable for success in the 21st century. Another way to think of these skills is that they are the skills necessary for students to develop and foster higher-order thinking skills. (Wilensky, 2010)

Hayes Jacobs has an entire website, *Curriculum 21*, and development team dedicated to resources and forums making Web 2.0 (and their classroom applications) readily accessible to teachers. She believes that Web 2.0 is a fundamental piece of restructuring of schools for the year 2030 (ASCD, 2012).

Schools are doing kids and the economy a disservice if they do not place students in learning environments where they are working with multiple points of information on Web 2.0 platforms. If we do not keep moving in this direction, the threat of a new educational divide becomes more of a reality—that of a digital divide. Those students without these experiences and skills will be at a competitive disadvantage when they seek jobs, competing against those individuals who are well-versed in certain technologies. These are skills that individuals will need to have in order to collaborate and access information vital to solving tomorrow's problems. Therefore, it is essential to draft an

AUP allowing and encouraging responsible use of Web 2.0 tools in order to develop these necessary competencies.

### **Social Analysis**

Web 2.0 tools are inherently social and open (Ullrich et al., 2008). They facilitate community building because they are “places” people gather to “meet,” share information and exchange ideas. A characteristic of Web 2.0 applications is the ability to create a profile of user information that can be shared with others and updated dynamically (Cormode & Krishnamurthy, 2008). This process is a social enterprise. Another key social feature of Web 2.0 is the ability and expectation that users create content. It is the way we can build and add to knowledge:

Web 2.0 enables and facilitates the active participation of each user. Web 2.0 applications and services allow publishing and storing of textual information, by individuals (blogs) and collectively (wikis), of audio recordings (podcasts), of video material (vidcasts), of pictures, etc. Authoring of this user generated content is greatly facilitated by providing easy to use desktop-like interfaces. (Ullrich et al., 2008, p. 706)

Ullrich et al. (2008) found the social dimension to Web 2.0 tools was important in their work with foreign language students and Twitter. In this instance, researchers discovered that students encouraged each other to participate. In some weeks students held competitions among each other. Ease of publication for consumption of any interested user is another positive feature of Web 2.0. Once published, finding people with related interests can magnify one’s work by learning from others or by leading to new collaborations (Alexander, 2006). Finding peers with similar interests for school and personal life is a hot topic for Web 2.0 as exemplified by the number of sites that attempt to bring users together based upon similar interests expressed through browsing history (Ullrich et al., 2008).

Students in today's classrooms view social networking sites, blogs, wikis, and multimedia applications as an essential part of social interactions, educational activities and future planning (Williams & Chinn, 2009). In particular Web 2.0 tools allow the world to become a much smaller place as individuals from all parts of the globe interact and benefit from each other's experiences and knowledge. The Internet brings individuals together to collaborate and learn from each other's work. This is an unprecedented shrinking of the planet and bringing together of varying cultures and people. To deny students access to these forums during the school day seems to bury the collective head of educators in the sand and ignore progress occurring around us. It would seem to further gaps between the reality of society and antiquated classroom structures.

### **Political Analysis**

A school district's desire to access E-Rate funds to obtain affordable telecommunications and Internet access drives compliance with CIPA Laws established to protect students from pornography available online. As described in an earlier section of this *Policy Advocacy Project*, more recent orders from the FCC have mandated education for students about responsible online behavior, including social networking sites. The FCC both acknowledges the danger of such sites and the potential benefit to student learning. Absent a federal or state prohibition, each district maintains autonomy in deciding what level of access students may have to social networking and other Web 2.0 tools. Therefore, the political culture and climate of each community will have a large influence on what is deemed acceptable in a particular locale. In places where access to technology and media literacy is the dominant point of view, policies to widen student access to new media are appropriate. If safety is the dominant frame of reference,

monitoring and blocking access to new technologies become relevant policies (Ahn, et al., 2011). The fundamental dilemma for policy makers at all levels of education is: how do school institutions promote media education so young people can learn to use new technologies safely and ethically and simultaneously safeguard students against involvement with negative behaviors (Ahn et al., 2011)? The following series of competing interests makes the problem more complex and less solvable by simple strategies: 1) expanding technology to afford students opportunities to be economically competitive adults, 2) preventing widening of a digital divide between students who have not had these experiences and those who have, and 3) alleviating fears about student safety on the Internet, compelling districts to greatly reduce student access to new technologies. Knowledge for these types of issues can make final language in an AUP pertaining to Web 2.0 tools highly political. Policy makers may feel it is essential to expose students to responsible use of these applications in the classroom, but if this comes into conflict with more conservative perspectives from parents or other community members, conflicts are sure to arise.

It is imperative to consider parents' perspective in the process of developing AUP language. In the book *From Fear to Facebook*, Matt Levinson talks about his school's process when adopting a one-to-one computing initiative. At the onset of the roll out, two camps of parents materialized: one that felt their students needed freedom to explore and learn with little or no restriction, and another believing in more restrictive use of laptops at home and school. The conflict was precipitated by the fact that many parents had already developed at-home Internet use guidelines with their children that were fairly restrictive in nature. The school's policies were seen as more permissive. Therefore,

parents felt blindsided by that decision-making process because they had been given no choice in the matter (Levinson, 2010). The lesson learned from this example is that parents should have a voice while the AUP is still in draft stage. This allows them to consider how the usage the school is considering conforms or conflicts with what they might already have established in the home. From there, they can offer suggestions to the school or make amendments to their home-use policies to mirror those of the classroom.

A final point in this area is both a political and economic argument for inclusion of Web 2.0 tools in school use. Young people are using social media to learn about their world while away from adult-imposed constraints (Ahn et al., 2011). Kids are going to turn to these platforms outside of school in unsupervised settings. Therefore, expanding access to technology becomes a waste of resources if hardware is purchased and students are restricted from the features that attracted them to the technology in the first place. When computers sit idle or kids demonstrate little interest in their use, the original acquisition appears unwarranted. These types of misappropriations have financial implications for districts with limited resources but also political ramifications for Boards of Education who approved the purchases and/or administrative leadership who recommended procurement of additional technology and established policies that led to their underutilization.

There is a delicate political balance in weighing the right options for each school district when it comes to providing student access to Web 2.0 tools. Because of economic globalization, educators have an obligation to prepare students for a modern-day workforce as means to maintain economic competitiveness. This requires equipping students with technological experiences that provide them with skills important in

cutting-edge workplaces. This desire must be balanced against need to keep students safe while navigating through content laden with inappropriate material or applications leading students to negative interactions with others in cyberspace.

### **Moral and Ethical Analysis**

Creating an AUP that embraces responsible use of Web 2.0 technologies is the right thing to do for kids because educational leaders have a responsibility to provide students with in-school access to the same kinds of tools they have at home. It seems counterintuitive that platforms allowing individuals to access vast archives of information, communicate with people from around the world, and express themselves on multimedia platforms are denied to students during the seven or eight hours of the school day: students are undoubtedly underwhelmed when they cannot use these tools in their academic efforts when they are so prevalent and available in their everyday lives outside of school.

Although the district has access through a subscription service to suggested administrative procedures for Board Policy 6:235, we have chosen to neither incorporate these practices into the Board Policy Manual nor use them in our day-to-day practices. Currently, we have no annual review of acceptable technological usages by students or teachers. The only practice is to have parents electronically sign off on Board Policy 6:235 on an annual basis. Although available to parents, the policy is generically written and does not provide any practical examples of dos and don'ts for everyday computer use in school. Therefore, I feel my school has an ethical obligation to create a document putting everyone on notice for how computers and the network are meant to be used and consequences associated with misuse or abuse. It only seems fair that we empower our

users with this knowledge so they understand the goals and purposes for harnessing the capabilities of the Internet, namely preparing students with skills they will need as they move forward in their professional and personal lives.

On other topics, schools take an approach of educating students with responsible decision-making and usage in much the same way I believe is necessary with Web 2.0 tools. In the case of driving, students are given technical skills for how to operate a car. However, there is great emphasis placed on the responsibilities associated with driving: Driving sober, texting/talking on the phone while driving, and having a reasonable number of people in the car are all discussions instructors have with students to help them with the ethical/practical decisions they are likely to encounter as young drivers.

A second area is human sexuality. I see great similarities in the debate between abstinence versus safe sex education and prohibition of Web 2.0 tools and education on responsible usage. In many cases, school districts have adopted policies that only allow for abstinence education during sexual education units. Certainly this presents the most effective means to prevent teen pregnancy and venereal diseases. However, what teenagers are actually doing in the real world makes this approach somewhat naïve. Therefore, other districts have chosen to teach students about responsible and safe sex measures, such as contraception and the consequences of disease and unwanted pregnancy, to build responsible and mature attitudes toward emerging sexuality among adolescents. This mirrors the debate over Web 2.0 tools; many schools have chosen to block sites or severely restrict use. In this *Policy Advocacy Project*, I contend that we need to teach responsible usage of Web 2.0 tools in order to prepare students for the realities faced while working with technology in later life.

When the Internet first emerged in schools, there was great concern regarding the formation of a digital divide over gaps in technology and Internet access between rich and poor districts. Original E-rate legislation was both meant to connect students to the information superhighway and equalize access to the Internet through schools and libraries. Today, the problem of access is essentially a non-issue, as 93% of teenagers report regular Internet access at home (Ahn et al., 2011). A new digital divide has emerged, however, over Web 2.0 tools. I have attempted to show through the research presented that the skills students will need to be competitive in the workplace of the future are rooted in skills that can be honed through exposure to and application of Web 2.0 platforms. The divide will be most pronounced for those two groups of students: those who will be afforded digital access and become subsequently better prepared for the jobs of tomorrow, and those who will not be exposed to these technologies and are therefore left behind. We owe all students the prerequisite experiences we know are necessary for success in future careers, which includes competency with Web 2.0 tools.

## SECTION THREE: ADVOCATED POLICY STATEMENT

### Goals and Objectives

The key balance in developing an AUP embracing responsible use of Web 2.0 tools is: how can we best provide access to the tools that educators know can improve classroom experiences while diminishing the chance that students will not have access to pornography, hate sites, or other salacious Internet content or experience sexual or physical harassment? There is also concern about students wasting instructional time exploring social media websites, engaging in cyberbullying, harassing other students, or cheating on tests (CoSN, 2013). (See Section Four of this document.) When this is the prevailing concern, districts extensively block Internet sites and restrict or substantially limit use of student-owned mobile devices in the classroom. Oftentimes “locked-down” systems provide the appearance of security; however, students are often adept at finding ways to bypass measures to find content and/or the services they use outside of school. These concerns of teachers, administrators, and parents are counterbalanced against the belief that students need to learn how to be responsible users, make informed choices, and be held accountable (CoSN, 2013). It is this latter stance that forms the basis of this *Policy Advocacy Project*: First, establish an AUP document that must be reviewed annually by students, staff, and parents. Second, this document should provide specific guidelines on acceptable and responsible use of Web 2.0 to support a modern instructional program.

The tone of language in an AUP document is an important first consideration. Some sound cold, legalistic, and even vaguely threatening. Others are student-friendly and warm, with clearly-defined terms. Their message is that “students have intellectual

freedom based on their taking responsibility for accepting limits to that freedom” (“Getting Started on the Internet,” n.d.). Therefore, my first goal for this policy is to develop an AUP that is positive in tone, stresses responsible usage of the network and Internet by all members of our school community, emphasizes the important role that teachers have serving as mentors to students in the technological world, and promotes the computer skills needed for competency and proficiency in a 21<sup>st</sup>-century workplace in a mentored way.

Other goals and objectives for this process include:

- Setting the district’s goals and vision for what technology can do to augment teaching and learning
- Explicitly stating how the network should/should not be used within the confines of the school day, and explaining how online behaviors occurring outside of school might still be adjudicated through the school
- Embracing the use of Web 2.0 tools such as social networking, wikis, blogging, social bookmarking, micro-blogging, etc. This section describes their value for learning, acknowledges the role these tools play in students’ everyday lives, and recognizes their importance in building skills for 21<sup>st</sup>-century workplace readiness.
- Governing how teachers and students should interact in Web 2.0 environments in and out of school
- Placing the focus on student behavior and choices rather than the technologies themselves when dealing with situations involving misuse. The platforms themselves are not inherently problematic; this is why we

must teach kids to use them responsibly and for appropriate purposes in and out of school. However, the AUP must govern what constitutes misuse and how those matters will be dealt with.

- Emphasizing the roles and responsibilities of students and parents for maintenance and care of equipment as it is transported to and from school. Dealing with issues of loss or theft is another consideration, along with deciding what, if any, of the school's security protocols will follow the unit home when students are using school-owned devices outside of the building.
- Outlining the degree of customization students can make to a unit still owned by the school. The policy must be clear about which files, if any, students can download that are not expressly necessary for academic work onto their machines, e.g., music, photos, podcasts, and videos. This will be a difficult part of the process because it will challenge just how much responsibility we are willing to give students.
- Explaining the curriculum and courses teaching responsible usage of the aforementioned tools

These goals are meant to reflect the kinds of ways in which kids need to interface with technology today. I want to provide guidelines to steer faculty and students toward using new technologies and embrace them in a meaningful way. Language chosen will reflect emphasis of appropriate behavior and expectations for responsible computing (Scrogan, 2007.). I envision the final product will incorporate a process where 1) all stakeholders have been consulted, 2) policies are detailed enough to be enforceable, 3)

policies are effectively communicated, and 4) policies are aligned with protocols in other areas as applicable (Almeida, 2012).

In order to accomplish these goals and objectives, it is important to understand the framework around which individual policies and guidelines would be organized, as well as some of the specific policies advocated in the literature from which we would choose. Although several formats were presented earlier in this *Policy Advocacy Project*, I believe a modified version of an outline presented by the National Education Association is most useful. This format contains six key elements:

- A preamble explaining why the policy is needed, its goals, and the process of developing the policy
- A definition section defining key words used in the policy to avoid ambiguity and to ensure parent and student comprehension
- A policy statement telling which computer services are covered by the AUP and the circumstances under which students can use computer services. This is where we would outline efforts to educate students about responsible Internet use.
- An acceptable-uses section defining appropriate student use of the computer network, including the use of Web 2.0 tools. Included in this could be how students will responsibly deal with the sending, forwarding, and posting of information.
- An unacceptable-uses section in which the AUP should give clear specific examples of what constitutes unacceptable student use. The final draft

should consider what kind of student behavior will be destructive to the computer network.

- A violations/sanctions section that tells students how to report violations of the policy or whom to question about its application (“Getting Started on the Internet,” n.d.)

Ahn et al. (2011) offered a noteworthy consideration for the development of consequences for computer misuse. They contend that the majority of schools revoke usage privileges when there are violations. From their perspective, this system runs contrary to the mantra that technology is a vital tool in schools. If it is so vital, how can a student function without it for a significant period of time? Therefore, the authors suggested that administrators view technology as the medium for misbehavior and punish root causes of disciplinary situations. For example, if a child bullies another online, the district may well not wish to revoke their computing privileges that are vital to academic success, but instead address causes of harassing behavior in much the same way one would handle the situation if technology were not involved (Ahn et al., 2011). I believe this to be an important consideration for the overall plan.

Although numerous resources readily available on the Internet provide a menu of guidelines that schools could implement to promote responsible usage of Web 2.0 tools, I will present two alternative plans for the purposes of this project.

David Warlick, creator of *Citation Machine* and 35-year veteran teacher/speaker in the field of education technology, suggests the following points when redesigning an AUP to encompass 21<sup>st</sup>-century learning tools:

- Establish goals for the use of Web 2.0 tools. These goals should address administrative uses, classroom management, and instructional objectives.
- List specific Web 2.0 applications supported by the district. Address how applications will promote learning.
- Clearly identify those activities that are prohibited such as conducting business, advertising commercial products and services, defaming the character of others, and jeopardizing the safety of students (“Internet Safety,” n.d.).

In 2009, a wiki collaboration of educators posted a series of suggested guidelines for social media usage by students. These suggestions cautioned students 1) to be aware of the digital footprint created by social media, 2) to be cognizant of sharing of confidential information, and 3) to conduct oneself with the same level of academic honesty and formality accustomed to the classroom (“Social Media Guidelines,” 2011). (See the Appendix for a complete list of the guidelines.) I feel these ideas would be an excellent starting point for a discussion of responsible Web 2.0 use in my district.

The aforementioned guidelines all seem to be practical ways to encourage and guide students toward responsible Web 2.0 application usage. I feel they represent clear expectations my school could make of students if incorporated into a comprehensive district AUP. This fits into the project’s overall goals of both establishing an AUP for the district and incorporating responsible Web 2.0 usage to augment teaching and learning in the district.

### **Needs, Values, and Preferences Represented by the Policy Advocated**

My own values and preferences are incorporated into this policy to a certain degree, because it is a reflection of my leadership of the school over the past eight years. I believe strongly that we have outstanding students who come to school every day positive, productive and ready to learn. They adhere to all other policies and procedures well and work diligently to please their teachers and accomplish personal goals. Therefore, I have no doubt that the overwhelming majority would responsibly use Web 2.0 tools within certain guidelines. It has been my leadership style to enforce blanket policies that are more lenient and then deal with the exceptions individually, i.e., those who demonstrate behaviors and choices contrary to our goals. It is counterproductive to forbid everyone from doing or using something at my school when students have shown me that most will use good judgment and make positive choices. The policy in this project is also reflective of an administrative team who believes kids are inherently good and will rise to the occasion when given the proper structure and modeling.

This policy reflects the need for students to have the same tools at their disposal for academic work that they would have at home when interacting with technology. Unfortunately, cyberspace is also the area where my students most frequently struggle with decision-making. There needs to be more direct instruction and modeling of acceptable and responsible social networking behavior at my school. Instances involving hurtful and slanderous comments have been reported to me, which have included students who would never make these types of comments face-to-face to one another. Therefore, we need to engage kids in these technologies both to tap into their inherent interest for

academic success as well as to create structured environments in which they learn how to treat one another with respect in the electronic world.

Preferences of my younger teachers are probably best reflected in this policy because they, too, have generally grown up in the Web 2.0 world of Facebook, Google, and Twitter. These platforms tap into their strengths and creativity as teachers. The projects already implemented at my school presented in earlier parts of this document have been developed exclusively by teachers with less than six years of teaching experience. Because this demographic represents the largest group of teachers in the district, I want to validate their efforts by expressly permitting and encouraging their ideas through policy. However, I recognize that taking this stance could put the more progressive teachers at direct odds with faculty who are not as well-versed in the technologies, or who believe students will inherently abuse privileges such as the ones suggested by this *Policy Advocacy Project*. It will be an important aspect of the development process to demonstrate the power of Web 2.0 to teachers less familiar with the technologies and subsequently include opportunities for them to provide input on the AUP. Although we are a small district without the vast resources in personnel that many larger districts possess, we attempt to be progressive and comprehensive in our curricular offerings and methodological approaches. Knowledge and exposure to Web 2.0 tools is what our students need to remain current in technology.

Finally, there is a need to recognize the changing nature of knowledge acquisition and the skills students need to be literate in today's world. Teachers must no longer feel encumbered to teach their representative content as an isolated group of facts students will regurgitate for an assessment and immediately forget. The answer to any question is

a few clicks away and available within seconds. Instead of memorizing facts, students must possess skills to find information, discern its value and validity, synthesize multiple points into a cohesive response, and communicate that knowledge on some platform to an audience. Usage of Web 2.0 tools provides teachers with an entirely new series of technologies in which students can refine these skills toward mastery.

### **Basis Validating Goals and Objectives to be Appropriate and Good**

After reading literature about the importance of Web 2.0 skills, the inherent interest students possess for these technologies, and the direction of teaching and learning in the district, I conclude that we must focus on teaching students responsible computer skills rather than pretend certain applications do not exist and completely forbid their use. I believe my goals and objectives are validated as appropriate and good based upon the fact that responsible usage of Web 2.0 technologies is espoused throughout the literature from multiple sources. Many individuals and organizations from within and outside education have a growing concern that AUPs written in the mid-to-late 1990s were prepared for a Web 1.0 world and need to be updated to reflect Web 2.0 realities. Several of these points of view are provided as justification for the pursuits listed in the ‘Goals and Objectives’ subsection above.

The Consortium for School Networking (CoSN) suggested that educational leaders need to consider the consequences for learning that imposing limits on use of social media would produce. CoSN advocates:

One of the most powerful reasons to permit the use of social media and mobile devices in the classroom is to provide an opportunity for students to learn about their use in a supervised environment that emphasizes the development of attitudes and skills that will keep them safe outside of school. (CoSN, 2011)

I-SAFE America Inc. is a 501c(3) nonprofit Internet safety organization established in 1998 dedicated to educating and empowering young people to safely, responsibly and productively use Information and Communications Technology (ICT). This organization cites ability of students to navigate around security measures and the encumbrance that blocking sites with legitimate educational use places on teachers as reasons to take a method of proactive education: “By teaching students responsible behavior, asking them to sign an agreement, and providing written descriptions of the consequences for wrongful action, students develop a sense of responsibility and ownership for their online experience” (I-SAFE, n.d.).

Bosco and Krueger (2011) noted that the media gives too much attention to negative usages of Web 2.0 tools without highlighting ways these technologies can enrich learning in schools. They believe schools need to provide educational experiences to promote responsible digital citizenship because highly restrictive policies give only a false sense of protecting kids. In some instances, students are drawn to the material simply because it is banned. They further contend schools need to write policies that treat students as persons responsible for ethical and healthy Internet use:

The role of the teacher is to help students acquire the skill to responsibly use the Internet and mobile devices. Included in this education process is gaining a disposition to avoid inappropriate and malicious sites, as well as the skill to assess the validity of information found on the Internet or passed along by others via social networking. (p. 1)

Finally, there are legal and legislative sources that support AUPs promoting responsible usage of Internet tools rather than blanket prohibitions. The law firm of Fagen, Friedman, and Fulfroost represents educational clients throughout California. In a bulletin issued by the firm called *digit@l citizenship*, they advise clients to “consider

updating policies that embed responsible use of technology throughout all relevant areas” (“digit@l citizenship,” 2012). Paska (2011), writing on behalf of the New York State

Education Department, stated:

Active use, rather than blocked use, means that students and educators continuously understand the privileges and responsibilities of using technology for learning. Instructional programs should focus on teaching students how to navigate the online world--not shutting down the equipment and closing off access. (p. 585)

I believe that these sources create a compelling argument: forbidding use of Web 2.0 technologies creates a false sense of security and denies students access to skills they will need to be successful at later stages of their academic career as well as in the workplace. Therefore, developing a set of policies expressed through an AUP that stresses responsible usage is the highest priority for this policy advocacy.

## **SECTION FOUR: POLICY ARGUMENT**

The idea of allowing classroom use of Web 2.0 is a vehemently debated issue. In this section, I will balance why Web 2.0 is an educational necessity against concerns and dangers to school use of these technologies.

Many of the points raised in the aforementioned analyses can be used as justification to adopt this policy. Here, I will expand on several of the ideas previously presented and introduce new, critical information for my district to consider when weighing the merits of including Web 2.0 tools in our repertoire of instructional methodologies.

Reasons to develop an AUP that includes language allowing use of Web 2.0 tools in classrooms and describing their responsible application begins with the evolution of laws governing technology in schools. Groundbreaking legislation passed in the late 1990s was primarily focused on schools preventing students from having access to pornographic content through the Internet. Now, laws clearly acknowledge that students live in a society of Web 2.0 tools where daily, if not nearly constant, interaction with the world occurs through computers. Section 215 of Title II in the Broadband Data Improvement Act passed in 2008 requires schools to “educate minors about appropriate online behavior. This includes how to interact with others on social networking websites and in chat rooms, as well as cyberbullying awareness and response” (CoSN, 2013). In order to comply with the law, schools must provide some measure of exposure to Web 2.0 tools, how they are used, and the pros and cons of this use. Since the law mandates direct instruction that creates awareness of these technologies, it seems like a waste of instructional time to provide students with this knowledge during the school day but then

restrict them from actually using these tools during the school day. It is through this irony that a school informs students of the technology's power while simultaneously denying them the opportunity to apply the skills taught through unleashing Web 2.0 applications for educational purposes.

Incorporation of Web 2.0 tools into teaching methods creates learning experiences congruent with the Common Core State Standards (CCSS). The CCSS is a higher, clearer and deeper set of learning standards for English-Language Arts, math, writing, and media-technology. These new standards were written to ensure that our students are better prepared for college and the workforce by emphasizing more complex content and the development of real-world skills like problem solving, collaboration, critical thinking and creativity (Common Core Illinois, 2013).

In my district, teachers have worked with a consultant to understand both the meaning and structure of the CCSS, and also to get a feeling for ways units of instruction must be redesigned in order to meet heightened expectations. In the past year, faculty members have been breaking down their courses to identify how curriculum and instruction must evolve to conform to CCSS. Teachers have discovered that the CCSS do represent an increased level of comprehension in each subject area; they are developing new units of study in which students are actively involved in the learning process. Teachers are also the making the conscious decision to exchange cursory coverage of ideas for in-depth investigation of material. Such inquiry-based learning produces lessons that do not lead all students to the same answer, but rather place students in situations where they must analyze information from multiple data sources and explain their thinking.

I believe the use of Web 2.0 promotes active engagement of students in their learning while promoting use of higher-order thinking skills, mirroring expectations established by the CCSS (Ahn et al., 2011; CoSN, 2011; Ullrich et al., 2008; Williams & Chinn, 2009). In my district, we are actively seeking to replace traditional teacher and student roles in order to create a learning environment based on inquiry, skill, and problem solving for students. Transitioning into this new mindset will not be complete unless teachers embrace Web 2.0 tools as a component of their instructional repertoire. It is our goal to place greater value on student-centered methodologies where kids are collaborating on original problem-based projects in and out of school. Instead of an emphasis on memorization of content, we seek learning experiences where students apply knowledge to create their unique point of view while simultaneously developing metacognitive strategies. Web 2.0 platforms meet these objectives because students have the opportunity to create knowledge either by adding to the work of others or by taking existing information, evaluating its value, and synthesizing ideas into their own understanding (Ullrich et al., 2008; Williams & Chinn, 2009). Because students can demonstrate deep and meaningful comprehension of topics, Web 2.0 must be one means by which we raise the level of rigor to fulfill the vision of the CCSS.

My district also needs to embrace Web 2.0 to maximize the power of computers in classrooms. In the 2013-2014 school year, 131 Google Chromebooks will be available to students at a cost of \$36,500 to the district. Additionally, the district spent \$150,000 in 2012 to upgrade the wireless technology necessary to create the foundation for a one-to-one computing initiative. The instructional power of these tools comes from the applications, or apps, and “widgets” developed to perform certain functions or designed

to allow students to explore or organize information in novel ways. Many of these apps and widgets place students into a Web 2.0 environment where they collaborate and interact with individuals both inside and outside our district. If we were to allow security or misuse concerns to trump the instructional opportunities created by these platforms, we should have simply purchased the latest textbooks in print because the computers would sit and gather dust.

The acquisition of all this technology embraces the notion that Web 2.0 tools tap into student interest and background knowledge. Many come to school having already used them to create and collaborate. Project Tomorrow (2010) reported on the 2009 national Speak Up survey that “students engage in tremendous learning activities outside of school that are self-directed, interest-derived, and social” (as cited in Ahn et al., 2011, p. 1). “Students have grown up in a digital world and they expect to use these tools to their advantage” (Williams & Chinn, 2009, p. 166). Traditional methods used in schools, such as textbook and teacher-driven instructional methods, cannot compare to the interactive nature and engagement created by Web 2.0 tools.

Without access to these platforms in schools, students experience a “powering down” of their world when they enter the school building. The policy of embracing responsible Web 2.0 tool use affords students the opportunity to take skills developed informally and refine them under the guidance of their teachers. Since our country has an existing adolescent online culture that largely goes unchecked by adult supervision, we owe it to students to teach them how to responsibly use those same tools by bringing them into the classroom. Students must be taught how to balance personal and professional accounts; how their digital practices of today can harm them tomorrow; how

to develop techniques to deal with bullies, predators, and harassment; and how to protect oneself against misinformation (CoSN, 2013; Paska, 2012.). At a time when the use of mobile Internet devices and social media by young people is widely prevalent, more schools are moving away from policies that ban their use and instead toward guidelines integrating them into the classroom (CoSN, 2011). Instead of fighting this trend, my district needs to embrace Web 2.0, dissect the ways these tools can benefit classrooms, understand their negative features, and educate students on exploiting the positives while avoiding the dangers.

Web 2.0 applications give teachers an entirely new set of tools at their disposal to meet the needs of diverse learning styles. A variety of presentation platforms for teachers and students is congruent with curricular individualization called for in the Universal Design for Learning (UDL) principles presented earlier in this paper. According to the Center for Applied Special Technology (CAST), an organization working to expand learning opportunities through UDL, individuals bring a huge number of skills, needs, and interests to learning as unique as DNA or a fingerprint. Table 2 illustrates the various brain networks one must consider when planning learning:

Table 2

*Universal Design for Learning*

<b>Recognition Networks</b>	<b>Strategic Networks</b>	<b>Affective Networks</b>
The “what” of learning	The “how” of learning	The “why” of learning
How we gather facts and categorize what we see, hear, and read. Identifying letters, words, or an author’s style are recognition tasks.	Planning and performing tasks. How we organize and express our ideas. Writing an essay or solving a math problem are strategic tasks.	How learners get engaged and stay motivated. How they are challenged, excited, or interested. These are affective dimensions.
Teachers must present information and content in different ways.	Teachers must differentiate the ways that students can express what they know.	Teachers must stimulate interest and motivation for learning.
There must be multiple means of representation.	There must be multiple means of action and expression.	There must be multiple means of engagement.

(CAST, 2012a)

Web 2.0 tools make information more accessible to students by presenting ideas in multiple modalities, providing more formats to find the one(s) fitting the needs of individual learners and creating opportunities to transform accessible information into usable knowledge (CAST, 2011). In teacher-centric classrooms, only one form of presentation is used, producing obstacles to accessing information for those with different needs. Web 2.0 allows teachers to employ a plethora of sites, tailoring an individual source to those students who benefit from presentation in that format. For example, students studying whales could simultaneously receive information by reviewing a Prezi, Wiki, podcast, blog post, YouTube clip, Facebook page, or traditional source led by the teacher. Use of Web 2.0 tools is the right thing for kids because they allow teachers to efficiently provide multiple platforms for receiving and producing knowledge best suited to the learning profile of each student.

Allowing use of Web 2.0 tools embodies each principle in our new middle school social-emotional framework *Four to Soar* (Fairview School District 72, 2013b). The four tenets are:

- Kind and decent: Students reflect on their own behavior and understand the social situations that promote “everyday heroes.”
- Creative and critical thinkers: Students ask questions. They link new knowledge to their own lives and focus on key information.
- Effective communicators: Students are excellent at receiving and sending all types of messages.
- Engaged and passionate learners: Students are active participants in their own learning.

Teaching students to use the Internet and Web 2.0 tools is congruent with each aspect of *Four to Soar*. To block these technologies would deny students opportunities to learn how to treat other people fairly and kindly in cyberspace, rather than simply bully or harass. Web 2.0 tools would allow students to have an array of platforms on which they can think about information in new ways and make individual meaning of ideas. Additionally, the collaborative nature of Web 2.0 means students would have numerous opportunities to practice ways of conveying meaning both formally and informally in order to become a more polished communicator. We want students to become more engaged and active in their learning, so I contend Web 2.0 technologies allow students to explore topics that have meaning to them and become active producers of knowledge rather than continuously playing a passive role, receiving predetermined content.

A final reason to allow Web 2.0 applications into schools is because they employ the same tools and skills necessary for workplace readiness (Ahn et al., 2011; Sendall et al., 2008). Because most industries see Web 2.0 tools as a means to better connect with their customer bases, students will be utilizing these technologies on the job. Through use of Web 2.0 tools and other strategies, educators need to teach kids how to find information quickly, evaluate its validity and usefulness, synthesize disparate pieces of information into something cohesive, hone oral and written communication skills, and develop the ability to lead in virtual teams (Alexander, 2006; Wagner, 2008). Schools seeking to create Internet safety for students through strict bans on Web 2.0 tools will actually be leaving their students behind in the preparation for the jobs of tomorrow. When the Internet was first brought to the masses in the late 1990s, there was concern that socioeconomic factors would dictate those having access to the information superhighway and those denied entry. Fifteen years later, nearly ubiquitous Internet access in school districts prevails across the country. Denying students access to Web 2.0 tools has the potential to create the next great digital divide. Unless schools look at finding ways of tapping into the positive aspects of these technologies while safeguarding students against their dangers, blanket prohibitions doom those students from developing the types of skills they will need to be competitive in the job market of tomorrow.

The benefits of using Web 2.0 web tools as additional strategies for augmenting students' educational experience do not come without certain risks and concerns. The leading argument against educational use of Web 2.0 tools is that increased access to Web 2.0 applications has the potential to expose students to greater levels of cyberbullying, harassment, sexting, and interaction with online predators (Alexander,

2006; CoSN, 2011; Schuck et al., 2010). Generally schools seek to implement policies that limit liability; therefore, they may be reluctant to open up the very portals allowing students to participate in the aforementioned negative behaviors.

One of the great benefits of Web 2.0 is that it brings people together to collaborate and learn more about each other, allowing individuals with similar interests to find one another. However, this functionality is both a blessing and curse because young people can unknowingly provide too much private information that could harm them, their reputations, or their futures. The posting of these details might also open doors for online predators to “groom” victims before conducting face-to-face meetings. These dangers are real, and opening up Web 2.0 tools at school would give students more opportunity to be confronted with these dilemmas. However, this is the exact type of responsible-use education that young people need. Unchecked or uneducated students will continue to exhibit negative behaviors online or unwittingly put themselves at risk to online predators. With education on responsible use, schools have the opportunity to prevent aggressive students from starting the behavior in the first place, to empower victims to seek help prior to the consideration of dire alternatives, and to help students recognize when they might be in over their head with an online “relationship.”

There is also legitimate concern that increased exposure to sites that stress collaboration of written work and other ideas leads to greater instances of plagiarism and copyright violation (Alexander, 2006). Again, one must keep in mind that students are already using these sites outside of school where the temptation of academic dishonesty exists outside of the watchful eye of teachers and parents. Knowing that the technology allows for easy copying of ideas from one person to another, isn't it more consistent with

the goals of education to teach kids about academic honesty, plagiarism, and copyright while actually using tools in school where these opportunities exist, rather than teaching concepts in isolation and expecting students to apply precepts when they are at home? I believe mentoring, role modeling, and proper oversight to prevent academic dishonesty are endeavors best started in the classroom and carried into all other academic use.

The argument promoting use of Web 2.0 tools in schools is predicated to a degree on the assumptions that: 1) students will want to use these tools in school the same way they do outside, 2) the quality of student work will greatly increase, and 3) students will flourish when left to work independently or in small groups. Detractors of the idea point to flaws in these assumptions. Glud et al. (2010) warn that educators must be careful when assuming that students are motivated by the tools themselves. It is quite possible that students will not find blogging for a math class equally as fun or motivating as maintaining a personal blog. As teachers begin to implement Web 2.0 tools in the classroom, they will have to be thoughtful about creating learning contexts that maintain levels of intrinsic motivation when students use the applications outside of school. Otherwise, students may view the projects as something where Web 2.0 has been thrown in just for the sake of having it.

Students' work is not automatically improved when using Web 2.0 tools. Kids still need to simultaneously develop reading, writing, and cultural literacy while they sit down in front of a computer with Web 2.0 tools (Warschauer, 2007). Absent these prerequisite skills, students' work might result in simple cutting and pasting or superficial forms of Web 1.0 technologies such as posting a PowerPoint to the Web. Use of these technologies does not guarantee that all students will know how to work independently,

nor can we rely on the computer to do the teaching. The teacher's role remains vital: Instructors cannot assume that all students come to class knowing how to use these technologies. There must be direct instruction on each of the platforms such as Google, Facebook, Moodle, wikis, blogs, and podcasts. Just as they might with traditional strategies, teachers have to prompt and model for students how to engage in higher-order thinking in students' posting to blogs and wikis (Murphy & Lebens, 2008). With any knowledge source emanating from the Internet, some Web 2.0 tools are going to be better and more reliable than others. Therefore, teachers need to provide students with examples and characteristics of exemplar Web 2.0 tools to establish credibility when consuming knowledge and developing targets students must strive toward when producing content.

Warschauer (2007) contends that there will only be additional value to online resources when teachers have provided strong mentoring and instruction on the purposes of the tools inside the classroom. While students are working on Web 2.0 projects, the role of the teacher is to actively instruct and mentor students, especially at the vital initial stages of an assignment. Therefore, those saying students will automatically know how to use Web 2.0 to create grand examples of higher-order thinking are forgetting that learning is first a social process in classrooms. In order for this to be successful, teachers must 1) receive intense staff development on what tools are and how they can be used in classrooms; 2) maintain close oversight on student work, guiding and facilitating as necessary; and 3) provide direct instruction on how to use tools and model behaviors for being a productive group member.

Others remain concerned that students will use Web 2.0 tools inappropriately throughout the school day, detracting from their work and general academic learning.

Since the dawn of education, students have sought distractions from their school day in myriad ways. At any moment students may be daydreaming, passing notes, or bothering other students. In these instances, we deal with root causes of behavior. Web 2.0 tools present exactly the same challenges: rather than repudiate their academic benefits in favor of strict prohibition because they have the potential to distract students, teachers and administrators need to address choices and decisions students have made while using Web 2.0 outside of their express purpose.

Tension between home and school derived from differences of opinion on the openness of policies is another area of concern. As Levinson described in his book, *From Fear to Facebook*, his district did not consider how conservative parents would react when the school's more permissive guidelines ran into direct conflict with more restrictive policies for at-home computer use. Any community that adopts less restrictive computing policies opening up Web 2.0 tools to the schools may face challenges from community members adhering to conservative points of view. To confront this potential roadblock, it is incumbent upon schools to provide parents with the information necessary to open up a regular dialogue with their children about computer use. In my district, we would adopt practices to inform parents of our computing goals by:

- Involving parents in the development of AUP language
- Posting computing resources to empower and educate parents on our website
- Supporting participation in computer classes of our second-language parents as offered through the Niles Township ELL Parent Center

- Hosting “Technology Open House Nights” where parents can view their student’s work and experience technologies with which they might be unfamiliar

All security systems can be breached if students have the time and willingness; therefore, parents and schools have to enforce reasonable guidelines and continually discuss with kids the pros and cons of computer use.

Beyond the safety risks associated with exposure to inappropriate content, a final argument against inclusion of Web 2.0 considers the network security risks that these platforms invite when incorporated into a school’s technology portfolio. The top four perceived threats due to use of Web 2.0 include malicious software, viruses, overexposure of information, and spyware (Almeida, 2012). The threat by an individual user inside school, or a student who unknowingly opens up the network to outside attack, is legitimate. However, in my opinion, security risks alone should not deter a school district from allowing these tools. Instead, this is a challenge for network administrators to overcome. Almeida (2012) recommends several safeguards: 1) customized browser and security settings at their highest levels, 2) introducing strong password authentications, 3) avoiding ‘clickjacking’, where users interact with the first layer that looks benign, but opens a pathway to something malicious, and 4) adopting data loss protection software.

In this section I have attempted to demonstrate that incorporation of Web 2.0 tools into a school’s repertoire of instructional methodologies has a great amount of instructional benefit to students. These technologies tap into students’ inherent interests, create opportunities for active learning and higher-order thinking, and prepare students

for the challenges of tomorrow's workplace. The decision is not without concerns: Districts must ensure that students remain safe from the dangers of online predators and unwanted harassment through cyberbullying. Teachers need to understand how to use tools and must maintain close contact with students as they work through projects. Parents must be informed of the importance of these technologies while network administrators seek ways to ensure that the district's data and computing infrastructure is safe from external or internal attack. Although these challenges are significant, I feel none of the issues individually or collectively outweighs the gain to student learning if my district were to adopt Web 2.0 tools as recommended in this *Policy Advocacy Project*.

## **SECTION FIVE: POLICY IMPLEMENTATION**

### **Needed Educational Activities**

To bring this policy to fruition, I would form a committee consisting of the Director of Technology, a member of the Board of Education, a parent from the middle school, a parent with primary-aged children, five teachers representing varying programs of our school ranging from the core academic classes to Special Education, and myself as building principal.

The process begins by educating this group on the following:

- What do we want to accomplish with technology, and what are the tools we need to meet those objectives?
- What is an AUP? What is the purpose for each component of an AUP?
- What are Web 2.0 tools? How can they improve teaching and learning?
- How does the language in a Responsible Use Policy differ from that in an Acceptable Use Policy?

I envision sharing many of the same articles and resources used for this project for building the knowledge base necessary to make informed decisions about developing language that allows teachers to use Web 2.0 applications, as well as promoting responsible computer usage among students.

Next, providing samples of policies used in other districts is crucial for assisting the group in selecting how we want our policy to look and sound. In my experience, sample documents can help generate ideas for specific language and organizational structures that can be difficult to envision without a reference point. Sample policies that embrace core principles of Web 2.0 classrooms, promote responsible student computing,

and offer a wide range of additional considerations (such as degree of student customization for devices) are applicable to the process. Reading and understanding how other districts resolve tensions balancing accessing cutting edge Internet tools and maintaining student safety will provide confidence for the committee when selecting the best language for our needs.

Finally, the committee can build knowledge through site visits in districts with existing one-to-one computing initiatives. Once on site, committee members develop a genuine feel for ways students use technology in authentic settings to build collaboration and critical thinking skills. Sitting down with administrators, teachers, students, and parents to ask questions about how their policy was developed; how it has impacted teaching and learning; and what, if anything, they would do differently are invaluable resources when making final decisions.

### **Staff Development Plans**

As the committee meets to develop the policy, the rest of the faculty require staff development on:

- Usage of Web 2.0 tools in the classroom
- Promoting responsible computing among students
- The changing teacher role in a Web 2.0 classroom

Additionally, the policy development committee needs to share their progress at regular intervals so the full faculty is aware of their expectations regarding computer use and teacher-student interaction online. As more is finalized on the policy, teachers may find that the kinds of staff development sessions needed to best prepare for the tools at their disposal changes as the policy evolves.

This plan calls for three ways to in-service teachers on the aforementioned topics: First, my district has a Monday early release calendar. Each week students are dismissed ninety minutes early, allowing teachers to meet for a range of purposes. One strand of the Monday staff development calendar is called Pratt University. On Pratt University Mondays, teachers sign up to attend sessions in a conference-style format. In the past, sessions have been led by colleagues or outside experts. In this instance, I would solicit Pratt teachers or outside speakers who are well versed in using Web 2.0 tools, integrating technology into the classroom, facilitating student projects using the Internet, or defining the teacher's role in the age of one-to-one computing. Pratt University offerings are provided several times throughout the year; therefore, the schedule can be arranged so that teachers can follow a topic through multiple sessions or explore something new each time.

In between each Pratt University session, the second staff development piece includes roundtable user sessions facilitated by faculty who are "trailblazers" in the field of classroom technology. I have identified seven teachers (two English teachers well-versed in Google Apps, two math teachers who integrate technology on a daily basis, two teachers currently enrolled in a graduate program on educational technology, and our technology teacher) who can train teachers on the Google family of products, introduce new apps or websites, or allow participants to share their recent experiences on what works and what doesn't.

The third component of staff development would be to release teachers to observe area schools' novel and cutting-edge usages of technology in the classroom. This could occur using Monday time or involve obtaining classroom substitutes while individuals or

small groups of teachers witness something for a more prolonged session. For example, teachers could attend events similar to the *Leyden High School District 212 1:1 Summer Symposium*. At this three-day event, I learned more about logistics of one-to-one implementation, specific applications useful in the classroom, and saw examples of student work produced using Web 2.0 tools. I feel it is important for teachers to get outside their own building to generate ideas from other's work and to spark their own creativity by looking at the issue from another perspective.

### **Time Schedule**

#### **Early September 2013**

- Form committee of teachers, parents, and Board of Education
- Prepare packet of reading materials and sample documents
- Arrange 1-2 site visits in districts with Responsible Use Policies and/or one-to-one computing initiatives. Visits to be held before December 2013.

#### **Late September 2013—February 2014**

- Committee meets every other week to discuss specific language and structure of new computing policies
- Share progress with full faculty via e-mail on the first of each month
- By January 2014, a complete draft is expected
- February 2014 is used to edit and finalize language before sending to the Board
- Send to legal counsel for review

### **March 2014**

- First Board reading of policy

### **March –May 2014**

- As necessary, convene committee to make edits recommended by the Board

### **May 2014**

- Second Board reading/policy adoption

### **July—August 2014**

- Host multiple parent/student night sessions to introduce families to their new computers, discuss the features of the technology to be used in the classroom, review tenets of new Responsible Use Policy, and obtain student/parent sign-off on policy

### **Program Budgets**

The budget to develop and implement this policy is minimal. Since teachers are contractually required to stay longer on Mondays, teacher committee participation comes to the district at no additional cost. We do not pay board members or parents for their participation. Additionally, the existing annual budget of \$9,000 pays for registration fees associated with teachers attending conferences or workshops. Events attended for the purposes of this policy could be billed to this existing fund. Although minimal, the following budget is proposed to support the implementation plan:

Table 3

*Implementation Budget*

<b>Description</b>	<b>Cost</b>
1. Substitutes for committee members to do site visits (5 teachers x 2 days x \$100)	\$1000
2. Outside speakers for staff Development Mondays (8 speakers x 1.5 hours x \$200/hr)	\$2400
3. Legal review of draft policy (8 hours x \$200/hr)	\$1600
4. Teacher participation in summer orientation sessions (7 teachers x 3 sessions x 1.5 hrs/session x \$41.35/hr)	\$1302
<b>Total Implementation Budget</b>	<b>\$6302</b>

**Progress Monitoring Activities**

To ensure the project stays true to its message and timeline, I will regularly refer to the established time schedule to remind me of anticipated benchmark points.

Additionally, I will include a monthly progress report to the other members of the administrative team. These updates will be important because: 1) it will force me to make certain there is progress to report each month, and 2) the other administrators will have the opportunity to comment on the direction of the project and offer their suggestions for how the policy is developed. Finally, members will be expected to share committee work with their colleagues beyond updates I provide at the beginning of each month. Again, this review ensures all feel invested in the process and affords non-committee members the opportunity to question draft language and offer suggestions for improvement or consideration.

## **SECTION SIX: POLICY ASSESSMENT PLAN**

Once the policy is adopted by the Board of Education, everyone at Pratt plays a role in its success. The Director of Technology and I will have responsibility to organize summer student/parent informational meetings describing the technologies and reviewing the policies. The two of us are also charged with providing teachers with the resources and training necessary to stay current with practices and trends in technology. Teachers have to be willing to learn what the applications are and how to incorporate them into instruction. All the adults must model appropriate computing and take time to impress upon students the importance of responsible Internet use.

After implementation, the appropriateness and success of the new computing policies will be measured by several metrics:

- The quality and depth of student work using Web 2.0 tools can be put on display at “Technology Fairs” held at the end of each semester. At these events, the school is opened to the community for students to showcase and explain their projects. Students could demonstrate their expertise on a chosen topic while providing visitors insight into how the platform chosen best conveys the student’s knowledge. Additionally, many Web 2.0 applications allow students to archive their work to create a digital portfolio. These artifacts can be used at parent-teacher conferences to demonstrate the skills students have mastered and those still needing growth. Currently, teachers have no good way of presenting student work at a conference, and this would improve the quality of those conversations greatly.

- The role of teachers changes in a Web 2.0 classroom; therefore, Pratt faculty could create a blog describing ways they are incorporating technologies into their classes. These reflections describe new learning experiences created and how students respond to these settings. Additionally, blogging gives the administration a sense of whether or not more permissive computing policies are empowering teachers to turn the control for learning over to students.
- In the next two years, the state of Illinois will have a new standardized test aligned with the Common Core State Standards. Learning structures advocated in this project are meant to be congruent with increased expectations of the Common Core. Therefore, scores on this next-generation test are another measure of success for these policies. Web 2.0 experiences require students to think independently and deeply about topics, which should prepare them for material covered on the new version of state testing.
- Using Web 2.0 tools in the classroom is meant as a means of modeling and teaching responsible computing. Therefore, disciplinary logs can be tracked to see if the strategies are having an effect. If very few students are cited for inappropriate use during the school day, this can be taken as one sign that the policies are working. If students abuse the technology, either we have to revamp our curriculum or consider tightening controls. Additionally, we could survey students about their online experiences

outside of school to determine if efforts are having any impact on improving civility among users and helping students protect their privacy.

Computing policies should be revisited often because social media products change, the district's culture might change, and policies or laws could change. The literature suggests reviewing one's policies annually, but some advocate for as many as three to four times a year (Anderson, 2012; Scrogan, 2007). In order for policies to remain current, the Director of Technology is responsible for updating language to include new technologies or trends as they happen throughout the year. Annually, computing policies would be reviewed by members of the administration and faculty in a summer curriculum project. At this time, we could consider any changes to law or updates made in other districts to amend our policies as necessary. Revising the document over the summer allows us to ensure we have the best possible policy before students and parents are expected to review and approve the guidelines at the start of the next school year.

## **SECTION SEVEN: SUMMARY IMPACT STATEMENT**

Affording teachers and students the use of Web 2.0 tools positively impacts teaching and learning because it moves our district closer to achieving its goal of incorporating more student-centered learning. Vast amounts of information at students' fingertips via the Internet free teachers to create learning experiences where individuals apply knowledge and demonstrate understanding of complex relationships among disparate points of view. Teachers no longer have to stand at the front of the classroom delivering copious amounts of facts that can appear isolated and irrelevant to students. With Web 2.0, teachers can prepare dynamic lessons with students, working in small teams to create unique understandings on topics they find meaningful. Students no longer assume a passive role in their education, but rather assert their proper place as an engaged and passionate learner.

This policy is important because it increases access to learning for students with diverse needs. With all the tools of the Internet at their disposal, teachers can simultaneously provide information via multiple platforms tailored to students' individual styles. Instead of a single basis for information, the teacher and students can gain exposure to content using sources rich in multimedia that contain the right combination of sight, sound, and text to aid in their comprehension. In this environment, students are not solely reliant upon the expertise or background knowledge of the teacher to find resources; they can employ commonly-used search engines to independently discover sources that best meet their information needs. In today's world, every learning device that of possible benefit should be made available to teachers and students so that no one is left behind.

The policy advocated in this project is congruent with my district's goal to fully utilize the capacity of new computing hardware to be purchased in the next year. Our vision is to have a Google Chromebook in use by every 4<sup>th</sup> through 8<sup>th</sup> grader at the beginning of the 2014-2015 school year. The district intends to spend nearly \$100,000 to meet this goal. However, having necessary hardware is only the first step in a successful one-to-one program because the learning potential is derived from software and apps installed on the devices. If we prohibit an entire genre of Internet tools, we limit the capability of students to create, share, and collaborate with millions of other learners from around the world. In order to get the greatest return on the original monetary investment, all features of the Internet, including Web 2.0 tools, should be made available for use throughout the school day.

Incorporating Web 2.0 tools into a teacher's repertoire of methodologies creates opportunities for students to hone skills in collaboration, communication, information evaluation, and argument analysis. These are the same skills that employers value in a 21<sup>st</sup>-century work environment. Employers seek individuals possessing an adaptability of mind to see problems in new ways and to create products that will resonate with consumers. They also want to hire those with experience working in virtual teams and using Internet technologies to bridge geographic divides. If we are to prepare the current generation of students for the competitiveness of a global marketplace, we must put them in classroom experiences where they are actively engaged in the aforementioned skills.

Beyond teaching content knowledge in subjects such as reading, math, science, and social studies, schools have an obligation to provide direct instruction and time for self-reflection on issues of social-emotional development and positive decision-making.

Social media and other Web 2.0 technologies are the meeting places of the 21<sup>st</sup> century, where students interact on both a social and academic level. Devoid of any guidance, students operate in an “electronic Wild West” where they feel emboldened to say or post anything coming to mind without fear of repercussion. Preteens and teenagers can give little, if any, thought to the negative impact their words may have on the receiver. They also lack the depth of experience to comprehend long-term consequences when creating a lengthy, negative digital footprint. Therefore, education has a responsibility for educating students about social norms as well as the dangers inherent to regular electronic communication. In a structured classroom setting, where students use the same tools for academic purposes as they might for social, individuals learn the etiquette that comes with responsible digital citizenship. In the same way that schools help children become safe drivers and reflect on decisions related to human sexuality, educators need to take on the additional role of developing experiences where students learn proper form on social media and other electronic outlets.

We live in a digital age where electronics dominate information access and permeate nearly all aspects of our professional and social lives. The genie has been out of the bottle for nearly a generation, and there are no signs indicating our society will step back from the power of the Internet. Students in schools today have grown up knowing nothing but these technologies in the way they communicate, find entertainment, and learn. This *Policy Advocacy Project* has attempted to illustrate the importance of embracing a genre of Internet technologies called Web 2.0 that schools have been fearful to allow because of concerns over student safety and district liability. Many are resistant to these platforms due to apprehension over potential contact with online predators and

cyberbullying. However, if schools are to harness the full power of computer hardware purchased, they must support responsible computing policies and allow for classroom use of Web 2.0 tools. I believe there are compelling educational, economic, political, and social arguments that far outweigh any concerns associated with bringing these technologies into the classroom. These positions have convinced me that the computing policies in my district must promote responsible use and include Web 2.0 platforms as teaching tools. My advocacy champions the teaching and learning that best positions students for the successful acquisition of the skills and experiences necessary to excel at all levels of their education and beyond.

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## Appendix

### Social Media Guidelines for Students (“Social Media Guidelines,” 2011)

- Be aware of what you post online. Social media venues including wikis, blogs, photo and video sharing sites are very public. What you contribute leaves a digital footprint for all to see. Do not post anything you wouldn't want friends, enemies, parents, teachers, or a future employer to see.
- Follow the school's code of conduct when writing online. It is acceptable to disagree with someone else's opinions, however, do it in a respectful way. Make sure that criticism is constructive and not hurtful. What is inappropriate in the classroom is inappropriate online.
- Be safe online. Never give out personal information, including, but not limited to, last names, phone numbers, addresses, exact birthdays, and pictures. Do not share your password with anyone besides your teachers and parents.
- Linking to other websites to support your thoughts and ideas is recommended. However, be sure to read the entire article prior to linking to ensure that all information is appropriate for a school setting.
- Do your own work! Do not use other people's intellectual property without their permission. It is a violation of copyright law to copy and paste others' thoughts. When paraphrasing another's idea(s) be sure to cite your source with the URL. It is a good practice to hyperlink your sources.

- Be aware that pictures may also be protected under copyright laws. Verify you have permission to use the image or it is under Creative Commons attribution.
- How you represent yourself online is an extension of yourself. Do not misrepresent yourself by using someone else's identity.
- Blog and wiki posts should be well written. Follow writing conventions including proper grammar, capitalization, and punctuation. If you edit someone else's work be sure it is in the spirit of improving the writing.
- If you run across inappropriate material that makes you feel uncomfortable, or is not respectful, tell your teacher right away.