

Peace Village: A Teacher's Web Tool

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Abstract

The Teacher's Web Tool: Peace Village (<http://www.people.fas.harvard.edu/~gvdaukan/peacevillage>) is designed for the purpose of providing educators with an intuitively designed Web-based resource to augment student learning in at least three curriculums. The audience intended for this Web site includes teachers of computing in K-12 educational settings. A variety of interactive material and content is matched with three interactive quizzes, which act as a tool to re-enforce student learning and the teaching of computing in K-12 grades.

This site shares information concerning an integrated Web-based theme that addresses the topic of friendship, mutual respect, and peace to those who teach about computers, computing, and computer science. The Web site contents were constructed with Web authoring tools - Adobe Dreamweaver CS3, Adobe Flash CS3 Quiz templates, and Adobe Photoshop CS3. The site was implemented to include the necessary digital and textual information that focuses students on Web-based activities embedded within a folk tale quiz, a history quiz, and a rocks, caves, and eco-systems quiz. The Teacher's Web Tool site incorporates a collaborative approach to Web design by incorporating three interactive learning modules and quizzes that address six randomized questions in sequential order. This approach establishes a clear consideration of a teacher's epistemic or pedagogical beliefs about the infusion of technology in the classroom. The issues of programming pedagogy, computer literacy/fluency, and computer skills courses or instructional aides are embedded within the learning modules and quizzes

1. Project Report

The Professional Technologies of Education program is considered a highly innovative pilot project by many graduate and certificate students attending Harvard University Extension School. The acceptance of my participation in the graduate and certificate program was always met with a warm and accepting tone at every educational technology course. As a result, I have had the opportunity to rethink and refresh my mind as a student (candidate) with the help of highly respected Harvard Faculty Lecturers and staff. It is to that end that I have developed this Web site promoting the cause of peace - Teacher's Web Tool: Peace Village site, which is available at

<http://www.people.fas.harvard.edu/~gvdaukan/peacevillage>. The site was a collaborative Web team approach and earned

the Web author a certificate in educational technologies under the auspices of the Harvard University Extension School Technologies of Education Program in 2008. The Web site audience that the author attempts to address through his Web authoring is an effort to explain the phenomenal response to "technology infusion" in public schools.

2. Project Description

Basically, the Teacher's Web tool application provides teachers with a technologically rich tool for advancing their curriculum agenda. The Web activity learning modules provide students with a "cognitive nudge" that credits each student with "active technological participation." An Adobe Flash version 8 (CS3) quiz template and three interactive quizzes move the "static" state of the Web design links and activities to a "dynamic one" and allows a Web author or a computing teacher to adapt the interactive quizzes within the components inspector. The learning modules address six interactive questions (placed within quiz_1.swf), which is an English Language Arts Orphan Tale quiz (quiz_2.swf) containing a United States History and Social Studies narrative and a Science Eco Rocks, Caves, and Minerals quiz (quiz_3.swf).

The key terms section provides an explanation of how the Teacher's Web Tool: Peace Village application engages students with the Internet as a technologically rich tool. The Internet enhances the quality of students' education and students' lives (Honey, Culp, & Spielvogel, 2005). The Teacher's Web tool examines past history, present day reality, and futuristic approaches to an issue-based topic. This is set against the backdrop of regional curriculum frameworks and requirements as set forth in the fifth grade Massachusetts Curriculum Assessment System (MCAS) standardized tests in English Language Arts (ELA), United States History, and Instructional Technology.

The philosophy underlying the Web design incorporates the ecology of human development perspective. The topic of "mutual respect, friendship, and peace" is introduced as a rule of thumb in the building of human relationships and will provide students with a "cognitive tool" toward understanding digital literacy. Students then can cross pollinate and apply this to other areas in their lives inside and outside the classroom. The structural components that comprise the Web design are supportive of Lewin's formula of $B=f(P,E)$, which states that behavior (B) is a function of the person (P) and his or her environment (E)

(Lewin, 1936; Sandberg, 2002). A heuristically designed rubric will establish clear expectations for students to promote optimal success on the Web site at the beginning of each activity module and quiz.

3. Project Goals

The goal of the Teacher's Web tool application is to help teachers to deliver instruction for a typical fifth grade English Language Arts (ELA), United States History, and Educational Technology class. The Web site application attempts a two-fold task. First, it introduces a realistic Web course topic of interest to fifth grade students. It is not unusual for teachers to perform redundant tasks in their classes while relevant Web technology tools are available in another area of the classroom. Secondly, to introduce a realistic fifth grade Web course, I have applied six principles to rule out student misunderstanding and focus on the underlying six facets of good student understanding. The students use students a Web-based forum to interpret Web information, Web evidence related to a Web idea, Web concept or Web event; to be able to explain a Web idea, Web concept, or Web event; to be able to apply Web knowledge of that Web idea, Web concept, or Web event to diverse contexts; to view the Web ideas of others from a different perspective; to empathize or find worth with another's unfamiliar thoughts and assumptions about the Web; and to have self knowledge about the habits of mind and the traits and endowments that shape or impede personal learning styles surrounding lesson planning and Web based information (Wiggins & McTighe, 1998).

One major goal of the Web site is to help teachers gain more experience in Web course activities related to problem solving issues. The Teacher's Web Tool: Peace Village can become a Web-based application in mathematics or science. Hopefully, the application can be hosted at any acceptance server and be capable of import utility features. Once a Web portal, such as the Teacher's Web Tool, is implemented, teacher's applications could be used, merged, and transferred in various ways. For example, an area set aside in a teacher's day plan could include a quiz on clouds as a science enrichment activity, a quiz on shapes and numbers as a mathematics enrichment activity, a quiz on words as a language arts activity, a quiz on artifacts as a history enrichment activity, or a discussion forum for students to input their overall satisfaction about the quizzes.

4. Project's Purpose

Teachers will recognize the elements of a sound Web tool application that stretches the realms of possibilities for the learners. In order to gauge student, teacher, and parent satisfaction for the Web course topic, an online assessment will rate four elements within the Web site - organization, content, instructional delivery, and navigation. Included in

these elements are the visual, digital, textual, and technical literacy and creativity necessary in effective Web page structural design. The path of student inquiry includes a narrative style that will outline what students will do in a sequential manner (e.g., "first we do this, then we do this, and then we do this"). The intent is to firmly connect the content of each learning module with each quiz. The unit goals, performances of understanding, ongoing assessments, and the culminating project will be stored electronically in a student logbook or scrapbook.

5. Reason

In an effort to promote interest for a brighter 21st century, quality enhanced student classroom experience, the teacher of computing science can use the interactive quizzes and augmented student activities found within the Adobe Flash CS3 Quiz Templates. This will promote a strong sense of parallel structure in a teacher's classroom schedule, incorporate a strong re-enforcement activity that reflects student understanding inside and outside the classroom, and promote students' confidence in quiz participation during the era of standardized testing and standardized assessments.

6. Concepts

Primarily, the basic philosophical foundation for the Web site is based upon Lewin's formula of $B=f(P,E)$, which states that behavior is a function of the person and the environment. In the final analysis, the Peace Village Web site will be evaluated for its degree of interactivity and then for its ability to promote interaction. Cracking the interactive issue posed by this type of Web design involved moving three learning units from a static to a dynamic state of interaction. I approached my solution to the interactivity issue by engaging the Adobe Flash (CS3) quiz template and designing the activity modules to reflect the type of interaction suited for the audience. It is my belief that I have "cracked" the surface of my Web based dilemma by incorporating the Adobe Flash (CS3) quiz templates and action tools available for such a problem. Rather than become immersed in Adobe Flash (AS) action script coding, the first measure that the author prescribed for moving the "static" state of the Web design links and activities to a "dynamic" one was to modify and adapt the quizzes within the components inspector, which allowed three interactive leaning modules to address six interactive questions placed within the English Language Arts Orphan Tale (quiz_1.swf), the United States History and Social Studies narrative (quiz_2.swf), and the Eco Rocks, Caves, and Minerals quiz (quiz_3.swf).

7. Web Site Content Inventory

In an effort to display the highest level of Web site organization, the presentational tools, navigational links,

and learning modules for technical analysis in class, an annotated content inventory is presented here. The absence of a Web site content inventory would only act to confuse the Web based architectural planning involved in any such a project

1. The Teacher's Web Tool: Peace Village site's main page uses a basic two column (Adobe Dreamweaver CS3) template that allocates the lowest common pixel (1000) denominators to display a 300 pixel navigational side bar and nine navigational links to include a course calendar for meeting times and locations for each class. An allocation of 650 pixels for five graphic and textual elements includes a top and bottom world flag hyperlink, which acts augment student activity by connecting to a proprietary Web site - <http://www.internationaldayofpeace.org>. Finally, the footer cites credit to the Web author and the collaborative Web design team members.
2. The Web course illustrations, diagrams, and images are used as examples during class presentations and are attached to the Web interface.
3. An online discussion form serves as an assessment forum for students, parents, and teachers. It will be provided to students and parents to rate the Teacher's Web tool for its organization, content, instructional delivery, and navigational flexibility.
4. A heuristically designed rubric will be posted at the beginning of each of the three activity modules and will establish clear expectations for optimal student interaction, performance, and technological literacy throughout the course of the application.
5. Credit will be given to reward those who have used the course Web site. For example, a percentage of the course grade will be given for Web site participation or questions may be included based on the content and the Web site activity modules.

8. Implementation Plan

A meeting with site design team and the Educational Technologies Director was considered necessary to secure a letter of support for the certificate of technologies internship. Also needed was a conversation with the site principal to establish confidence in the intended educational technology internship and to secure approval for the school as an internship site. Also, the issue of hosting the Web portal at the technologies of education school's server was agreed upon at that meeting.

Once the internship proposal was approved, the Web site application was uploaded in time for a July, 2008, start date. Web authoring options were always discussed in a collaborative manner amenable to forward thinking 21st century Web design with the Instructional Computing support staff and the Technology Support Team (TST). These people were fully informed about obtaining a Web site account and an acceptable Web address for the Web site, which is located on the Internet at <http://www.people.fas.harvard.edu/~gvdaukan/peacevillage>.

The issues of a collaborative Web design approach, good rapport, and excellent instructional computing staff communication were essential to the success of the Web site project. They were exceeded only by the generous and unyielding support for the Web project by the instructional computing staff, who ultimately allowed me to successfully launch and release the Web site.

The collaborative Web design approach attests to what can be accomplished by a promising graduate certificate candidate in technologies of education program. In the final analysis, the Web site will be evaluated for its degree of interactivity and also for its ability to promote interaction.

Cracking the interactive issue posed by this type of Web design involved moving three learning units from a static to a dynamic state of interaction. I approached my solution to the interactivity issue by engaging the Adobe Flash (CS3) quiz template and designing the activity modules to reflect the type of interaction suited for the audience. It is my belief that I solved my Web-based dilemma by incorporating the Adobe Flash (CS3) quiz templates and action tools available for such a problem.

Rather than become immersed in Adobe Flash (AS) action script coding, the first measure that I prescribed for providing dynamic user interaction was to align the Web design links and activities, modify and adapt three Flash CS3 interactive quizzes within the components inspector. This decision allowed the leaning modules to address six interactive questions placed within quiz_1.swf, quiz_2.swf, and quiz_3.swf files. That made the Web site quizzes, activities, and scores available for feedback and discussion http://www.adobe.com/support/flash/applications/quiz_tutorial.

The Teacher Web Tool index file was uploaded from a thumb drive to the secure (fx.crt) server portfolio. I have referred any questions that may arise on the use of open source program used on most UNIX computers and some NT workstations UNIX: <http://www.perlfect.com/articles/chmod.shtml>.

In an effort to avoid any fallout regarding portions of the Teacher's Web tool structure and to avoid other copyright problems, a copyright checklist and copyright letter were seriously reviewed and considered prior to Web site launch (Horton, 2005). Web authoring had weighed the fair use copyright infringement factors referenced online and retrieved from <http://vos.ucsb.edu/browse.asp?id=689>, <http://cyber.law.harvard.edu/node/4021>, and <http://cyberlaw.stanford.edu>.

The Adobe Dreamweaver CS3, Adobe Flash CS3 Quiz Templates, and Adobe Photoshop CS3 Web authoring tools were capable of round editing, meaning they have the capability to cross pollinate their state of interactivity from one design platform to another. The initially measured template was the considered to be the lowest pixel denominator at every opportunity. That is, a contemporary browser is given 1000 pixels of Web space, the amount of space necessary for an introductory main page, then a navigational side bar with nine interactive links is allocated 300 pixels, then 650 pixels are allocated for five graphic and textual elements to the structural framework of the entire Web site. Fifty (50) pixels were used for a footer that included site credit for the Web site author and the collaborative Web team members.

9. Literature Review

In order to emphasize the importance of the author's Web topic within the topic of discipline of community of practice, a synthesis of research is provided. The review seemed to indicate that while the association between children and technology may seem commonplace, the experience of urban school children with the use of educational technologies may demonstrate otherwise. The current research literature on technology infusion in urban schools settings indicates that the normative group of teachers and their administrators may be remiss in offering themselves assistive Web tool options and Web mediated instruction to their classes. The area of concern is that professional development in the area of educational technologies may not be fully provided to teachers and that this insufficient professional development is preventing the transformation of mind and mentality that improves the culturally low expectations for large populations of learners.

Secondly, the current body of technology based literature seems to indicate that teachers' epistemic and pedagogical beliefs surrounding the infusion of technology in their classrooms are generally incongruent and may have far reaching consequences. For example, on consequence might the fostering of a "self-fulfilling" prophecy for large groups of learners (e.g., urban students and students with special needs) and their school communities (Sing & Teo, 2006;

Zhao, Lei, & Frank, 2006; Zhao & Cziko, 2001; Zhao, & Frank, 2003).

10. Key Terms

Each student is provided an opportunity to click on and consider the visual, digital, and textual vocabulary and technical terminology embedded within six interactive quiz questions and submit their answer with a click of a mouse. In this way, students are provided with the elements of an excellent fifth grade enrichment activity using the Internet.

- **Drag and Drop.** The drag and drop quiz provides an opportunity to channel a student's handiness and dexterity on a basic coordination event. Students must use their eyes to match an object and use the cursor to move it to its target.
- **Multiple Choice.** Sometimes a cognitive nudge is needed to focus a student on a task or to help a student overcome fear or self-doubt on the Internet. The multiple choice test questions a student's cleverness by accepting more than one choice as the correct answer.
- **Hot Object.** Students are asked to use their, visual, technical, digital, and vocabulary skills to identify an object described in the passage. They then select and click on that object on the screen and view the feedback.
- **Hot Spot.** The hot spot question asks students to use their visual, technical, digital, and vocabulary skills to identify an object described in the passage. Then students select and click on that object on the screen and view the feedback.
- **Fill-in-the-blank.** The fill-in-the-blank question provides an idea for a student. The student must make the logical connection that would complete the answer.
- **True or False.** The true or false question asks a student to consider the statement or questions asked and click on the true or the false check box.
- **Bricolage.** The construction or creation of a work from an Information Technology background concerning the Internet.

11. Augmented Student Activity

Students can simply connect to other students their age in the global village and compare how they are promoting the cause of mutual respect, friendship, and peace on the Information Highway. Professor Negroponte's laptop cyber-schools/cyber community initiative is one example. By simply clicking on, plugging in, and engaging a re-enforcement link (<http://www.internationaldayofpeace.org>) located at the top and bottom world flags on the Web site, students can get a better sense of geography in knowing where other places are located in relationship to the United States of America. In this way, students become much more aware of the language, religions, and other cultural universal similarities and differences peculiar to each country they

visit. They then can apply their technical skills on the augmentative student activity (Howland, Jonassen, Moore, & Marra, 2003).

13. Demographic Learning Community

By providing the present systemic factors that could influence a decision for accepting or rejecting the Teacher's Web Tool application, the learning community is better informed and equipped to act as school following technological infusion strategies. The internship site has an in-place Technology Support Team (TST) staff. In fact, the library/media specialist, librarian, and two teachers are a collaborative team who have a computer lab facility to engage students beginning at the grade two.

Demographically, the learning community is structured to accept over 900 boys and girls from differentiated ethnic persuasions to include Vietnamese, Latin American, European Caucasian, African American, Native American, and more. Architecturally, the learning community site is constructively fashioned with 30-50 years of change influencing its support structure and its acceptance of 21st century student needs and capabilities. The learning community has Web-based resources and community interaction through computer modules.

14. Teacher Assessment

The Teacher's Web Tool: Peace Village Web site will be evaluated via the four basic elements: organization, content delivery, navigational flexibility, and organization, as well as realistic Web site expectations for fifth grade students (Horton, 2005). For example, for the element of Web site organization, the teacher's task is to define what activities and elements enhance student performance relative to organization. E.g., was the Web site activity visually appealing or whether the Web presentation was titled or untitled, was the objective of the activity stated, and were the multimedia presentations in sequence? For the Web site content, was the subject matter age appropriate? For Web site delivery, was there a strong parallel structure or a consistency and continuity in the learning activity modules? For Web site navigation were the links flexible enough? For this demographic community, teachers can electronically submit the results of a fifth grade standardized test or alternate forms of a standardized curriculum assessment such as the Massachusetts Curriculum Assessment System (MCAS) tests in English language arts, U.S. history and social studies, science, mathematics, instructional technology, art, or any other framework and upload it all to the regional portal (<http://www.doe.mass.edu>). Augmentative student scores gained by the interactive quizzes are stored in separate student portfolios and logbooks. The assessments will have significance in revealing to teachers, students, and their

parents the level of student understanding and mastery of the topics required of them for optimal student interaction and success on general and alternate standardized tests.

15. Student Outcomes

The quiz elements and augmentative student activity modules that comprise the Teacher's Web Tool site could not be complete without the support of the Instructional Computing Support staff at Harvard University Extension School. The "crucible" that brings together and binds the entire community of learners together lies within the philosophical principles underlying the Teacher's Web Tool. The site is supportive of the ecological perspective, which believes that students, parents, and educators should be involved in a family engagement that is considerate of student performance supported by a community of access (see Figure 1).

The current literature review supporting the Teacher's Web Tool site indicates that traditional teaching delivery options become redundant for teachers in the light of the standardized test era and are presently characterized by:

- Student barriers: poor Web designs, low expectations, and no home-school links.
- Educator barriers: lack of confidence in student ability to learn in Web-based environments is marked by low performance/low expectation, technology fears, a lack of technology competencies, and a lack of involvement in student learning.
- Parent barriers: access to the technology learning process presently maintains low expectations, limited awareness of curriculum, limited teacher contact, and a lack of access to the technology.

By creating the conditions for successful Web based integrations, the flow of instruction established with Web authored course applications yields the following outcomes:

- Student increased engagement, confidence in performance, and access to the curriculum.
- Improved learning outcomes (e.g., formative assessments, MCAS).
- Educator increased expectations for students, greater comfort with technology, greater willingness to build more units on the Web and greater communication with parents.

Parent's involvement increases expectations, provides greater comfort w/technology, enhances greater communication w/teacher and w/students, which generates a climate more conducive for improving student outcomes (see Figure 1).

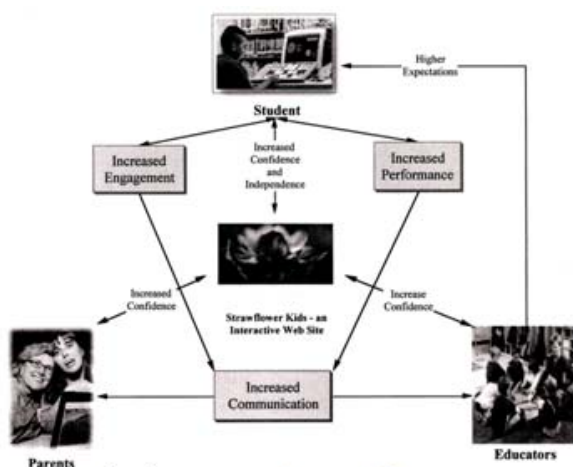


Figure 1. Inspiration 7.5 Software Diagram

16. Feedback

The success of the Teachers' Web Tool application will depend on how well the site is accepted by the teacher for its creativity, its capability to produce thought provoking Web site activity modules, and for its ability to play a supportive role in the classroom. Essential input will be necessary from host teachers willing to open a dialogue regarding any of their epistemic and pedagogical beliefs and their willingness to accept technologically enriching, creative course Web sites as noted here. A meeting between mentors and intern candidate occurred on an ongoing basis beginning January 8, 2008, and culminated in a successfully launched Web site at the technologies of education program at Harvard University Extension School on August 1, 2008. The next logical step for the site application is to port the application to an external location provided that the site would be agreed upon by a school teacher of special education, general curriculum, or an educator administrator and also by the University, the Dean's Office, the Director of Technologies of Education Programs and the Web author.

17. Questions

Considering the gestalt of the Web site audience, the authoring team observed the layout plan as it was sketched out. Throughout the process, the author reflectively asked if he could justifiably say that his expectations for fifth grade students were realistic. Such self reflections constitute a critical issue when using technology to improve student achievement

(<http://www.ncrel.org/sdrs/areas/issues/methods/technology/te800.htm>).

Supportive of the spirit of the path of inquiry and the age appropriateness of the Web tool application, the author did provide the key terms of the three interactive quizzes embedded within each learning module. Web site authoring

was considerate of the Internet audience and always attempted to anticipate any lost access to the Internet community such as caused by the sudden dismantling of an Internet Web page or a broken Web link. Such instances curtail access to a cyber school or a cyber community intended to connect the user audience to the global referencing community (<http://cyberlaw.stanford.edu>). The Web site authoring team anticipated providing answers to the Internet community as to the who, what, why, where, when, and how questions related to the dismantling of an Internet Web page or broken links. During Web site authoring, the author always anticipated fitting Web site quizzes and activities to promote overall teaching success. Web site authoring attempted to convey a clear sense of user interaction within Web site quizzes, plus convey a freshness of concern for the Web site topic of mutual respect, friendship, and peace to those who teach about computers, computing, and computer science. There was a conscious attempt to ask what other computing support staff members thought of the Web site. Web site authoring attempted to weigh overall expectations for students, especially if those expectations were unrealistic.

18. Criticisms

The Web site author had a gestalt-like consideration of the site's reviewers. It is in this regard that the author included more information in this paper on how the Web site was constructed, including a more detailed description of how pixel space was measured to show how the Adobe Dreamweaver CS3, Adobe Flash CS3 Quiz Templates, and Adobe Photoshop CS3) Web authoring tools addressed the interactivity issue. That information helped move the path of inquiry on the Web site from a static to a dynamic state of user interaction, including what the Web author would do differently next time he builds a Web site.

In a formalized assessment of the Certificate in Technologies of Education internship and the Web site, including what the Web author would do differently the next time he builds a Web site, etc, the internship supervisor noticed that the Web site was sufficiently developed to complete the assignment of the internship. However, in the eyes of some of the intended audience, when viewed under a more critical Web site analysis, the Web site may not seem sufficiently developed enough to be used actively by teachers and students. For example, to some teachers of computing science, the quizzes and student augmentative activities may not seem robust enough, the Web site content might be judged too thin, or the online resources could seem to depend too heavily on the resources of a proprietary site. To the author, to go live with these resources, the Web author needs to do the due diligence on developing these resources more thoroughly. Instead of doing that, the Web author may have chosen a path of premature public

exposure, which may do more harm than good to the reputation of an agent of change and reform in schools. Again, the concept of the work is to create a climate for understanding of the information highway otherwise known as the Internet, but the Web author feels that he has only surfaced the tip of the iceberg. The rest of the iceberg needs to be explored further before exposure to Web the site faces much more scrutiny.

Summary

The Teacher's Web Tool: Peace Village Web site was a collaborative Web team approach and earned the Web author a "certificate in educational technologies" in the Harvard University, Extension School Technologies of Education Program in 2008. The Web site audience that the author attempts to address through his Web authoring is an effort to assist the phenomenal response to "technology infusion" in public schools, which in turn is an attempt to improve the education for a perceived challenged group of urbanized groups of learners.

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Additional Material

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I bear the privilege of having my name referenced in Marquis Who's Who Publications and my biography appears at <http://www.marquiswhoswho.com>: Who's Who in American Education, 6th Edition, 2004-2005; Who's Who in America, 54th Edition, 2000; Who's Who in America, 56th Edition, 2002; Who's Who in America, 57th Edition, 2003; Who's Who in America, 58th Edition, 2004; Who's Who in The East, 27th Edition, 2000; Who's Who in The World, 18th Edition, 2001; Who's Who in The World, 19th Edition, 2002; Who's Who in The World, 20th Edition, 2003; and Who's Who in The World, 21st Edition, 2004. The John Fitzgerald Kennedy Presidential Library and Museum archives contain correspondence and documents between the late President Kennedy and my late father's immigrant experience (1909-1968), accession #164-1995 at <http://www.jfklibrary.org/>. Avocations: ocean swimming, yoga, chess and Web site authoring.