



THE DIGITAL SAFARI: A MODEL OF SUCCESS

Teaching Innovation, Changing Lives

The **Digital Safari Academy (DSA)** is an award-winning career academy at Mt. Diablo High School in Concord, California (San Francisco's East Bay area) with an industry focus on multimedia design and production.

The Digital Safari has developed a comprehensive multi-subject, multi-teacher project-based learning framework that encourages and supports collaborative teaching. DSA's **Innovation Project Model™** has revolutionized how core subjects such as English, Economics and Geography are taught. Innovation Projects engage young people in the process of being inventive through real-world challenges. Projects are specifically designed to improve academic competency while fostering competitive "Silicon Valley executive skills," enhancing digital intelligence, and preparing students for 21st century jobs.

The Innovation Project Model™ encourages and supports collaborative teaching. This has proven to be fundamental to the academy's ability to attract and retain top teachers despite the challenging teaching environment. It also allows academy teachers to set higher academic and behavioral standards with excellent results.

In 2009, DSA was selected as one of two academies in the country to participate in the two-year Career Academies Project - a pilot program funded by the U.S. Department of Education to develop and test models for increasing student exposure to careers and career paths through enhanced interaction with businesses and employers. Each year in the academy, DSA students are prepped for their transition to college through the **Career Explorations Program**, a carefully crafted series of college readiness workshops, college campus visits, job shadows and summer internships.

A Profile of DSA Students

- Over 90% of DSA's students qualify as socially, economically and/or academically "at risk"
- A very diverse population - Hispanic (52%), Caucasian (17%), African-American (13%) Filipino (7%), and Asian (5%)
- 22% are English learners, 62% qualify for free or reduced-price meals



DSA instructors Randy Depew and Heather Fontanilla with GreenBizz Project award-winners

"Since we implemented Innovation Projects as the core of our teaching methodology, we've seen a dramatic increase in the quality of student work and engagement with class. Innovation Projects have revolutionized how we teach all of our subjects."

- Randy Depew, DSA Multimedia Instructor

Proven Success with Challenged Students

The **Digital Safari Model™** has proven to be very effective in raising academic test scores, increasing attendance and graduation rates, decreasing behavioral problems, and increasing self-confidence among students who are from diverse and challenging backgrounds.

Since its founding in 1996, DSA has received state and national recognition including:

- National High School Alliance
- Career Academy Support Network at UC Berkeley
- Autodesk Foundation for Project-Based Learning
- National Association of School Administrators

DSA students have won over 20 design awards at the California Student Media Festival and top academy students have won the statewide "Multimedia Student of the Year" award five times.

"Making Innovation as Cool as Music and as Exciting as Sports"



THE INNOVATION PROJECT MODEL™

A Framework for Effective Teaching and Learning

The **Innovation Project Model™** for project-based teaching and learning was developed by the Digital Safari Academy (DSA) at Mt. Diablo High School (MDHS) in Concord, CA. Innovation Projects are designed to increase competency in core subjects and improve technical fields while fostering competitive “Silicon Valley executive skills,” enhancing digital intelligence, and preparing students for 21st century jobs.

The Innovation Project Model™ has been successfully applied to Economics, English, World Geography and U.S. History classes at the sophomore, junior and senior class levels in a multimedia career academy (DSA) and a culinary academy (the International Hospitality and Tourism Academy at MDHS). We are actively exploring ways to apply the Digital Safari Academy Model™ to other career academies.



Key Elements of the Digital Safari Innovation Project Model™

1. Emphasis on Relevance and Innovation

Project topics are designed to be relevant and stimulate creativity. Where appropriate, students are encouraged to “think beyond the edge” in terms of their solutions.

2. Students Work in Teams

Students work in teams of three or four (not of their choosing). Teams are intentionally designed by teachers to balance skills and academic abilities.

3. Includes Varied Outcomes

Each project includes research, analysis, innovation and deliverables such as a business plan or proposal, and audio/visual production, a presentation, and printed collateral materials.

4. Involves Mentoring

Teams are mentored by volunteer adults with subject matter expertise or experience. For example, GreenBizz Project mentors are representatives from the business community.

5. Requires Public Display

Projects take students outside of the classroom (outside of the traditional learning environment) and involve interaction with non-academic audiences. Examples include performance, presentation, thesis-style defense and film festival. Each project culminates with a formal or informal competition where presentations or performances are given before a panel of judges from the community:

6. Linked to State Standards

Projects and related activities are rigorously linked to the State Educational Standards.



Training Next Generation Entrepreneurs

The GreenBizz Project is the capstone Innovation Project™ at the Digital Safari Academy. Students spend one full semester in their senior year tasked with forming virtual companies, creating innovative products, then pursuing the same steps that any Silicon Valley entrepreneur would follow to raise equity financing from angel investors and venture capitalists. The Project represents 50% of each student's fall semester grade in English, Economics and Multimedia.

The GreenBizz Project has adopted *sustainability*, *social entrepreneurship* and *creative capitalism* as guiding themes. GreenBizz products must fall into one of the following categories:

- Clean Technology (energy generation, energy efficiency, waste reduction, new materials, etc.)
- Sustainable Consumer Products
- Green Building
- Medical/Health Devices
- Safety Products

Students companies (teams of three to four students) are responsible for the following deliverables:

- a. Creating a corporate identity
- b. Conducting an opportunity assessment
- c. Writing a business plan and a marketing plan
- d. Designing collateral material
- e. Producing a PowerPoint presentation
- f. Making a video commercial (optional)

Business plans must also include a lifecycle analysis that addresses both the social and environmental impacts of the product and offer solutions for mitigating negative factors.

Inventing Beyond the Edge Technology™

In the spirit of "innovation without limitation"™ GreenBizz products must be based on "beyond the edge" technology that is uniquely developed by each student company. Some of the GreenBizz products invented by Academy students include:

- An in-car low-power cell phone signal jammer to prevent teens from calling and texting while driving
- A GPS-based personal guidance system for the visually impaired with friend identification system
- A biodegradable rechargeable battery based on potato starch
- A pocket scanner that can measure the nutritional value of a meal with the swipe of a hand
- A gyroscopic stabilization system for people with physical disabilities and balance issues

See photos and business plans at www.InnovationFair.org

Innovation Without Limitation™

Volunteer Mentors



High-tech entrepreneur mentors
a student team

Experienced business men and women volunteer to mentor student companies at least once a month. We have seen many GreenBizz products appear on the market from real companies. One of our goals is to support students with the best ideas in commercializing their inventions.

Competition and Scholarships



Students take on executive roles
such as CEO, CFO and CMO

The GreenBizz Project culminates with the annual **Digital Safari Innovation Fair™** at which student companies compete for awards and scholarships. The Fair features a **Beyond the Edge Technology Exposition** and a formal **Business Plan Competition** judged by a panel of bankers and angel investors.

"The Digital Safari students know more about economics, marketing and how to convince people to invest in a business than some professionals we have seen."
- Matt Ching, Regional Vice President
City National Bank

JOIN THE DIGITAL SAFARI!

*Making Innovation
as Cool as Music and
as Exciting as Sports!*



*"The Digital Safari students
know more about economics,
marketing and how to convince
people to invest in a business
than some professionals
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- Matt Ching, Regional VP
City National Bank
(Innovation Fair Sponsor)

**Building Bridges Between
Business and Education**

6th Annual



DIGITAL SAFARI INNOVATION FAIR

BEYOND THE EDGE TECHNOLOGY
AND NEXT GENERATION ENTREPRENEURS

2011

INNOVATION WITHOUT LIMITATION!

Wednesday, January 12th, 5 to 9:30 pm, Centre Concord, Concord, CA

Come to the Fair! A Grand Showcase of Youthful Creativity!

- The 6th annual **Digital Safari Innovation Fair™** is an interactive showcase of youthful imagination and entrepreneurialism. It is also a **forum for presenting high school seniors and their talents to the community** while building a foundation for maintaining our country's global competitiveness into the future.
- The Innovation Fair is the capstone event of the **GreenBizz Project™** at Mt. Diablo High School in Concord, CA. Developed over the last ten years, the GreenBizz Project™ is highly successful integration of standards-based core curriculum and team-oriented project-based learning with mentoring from business professionals.
- Using the **Silicon Valley model**, senior class student teams **form virtual high-tech companies, create innovative products**, then follow the same steps that high-tech entrepreneurs would on their quest to raise money and launch their businesses.
- Each GreenBizz team must create a corporate identity, write a business plan, develop a marketing plan, design collateral material, and produce a PowerPoint presentation and a video commercial. In addition, each business plan must include a lifecycle analysis that addresses the product's social and environmental impacts.
- Students are from two career MDHS academies:
 - **Digital Safari Academy** (multimedia),
 - **International Hospitality and Tourism Academy**
- **From 5 to 7 pm**, the Fair is our **GreenBizz Investor Fair** - students interact with Fair visitors playing roles as "virtual investors." **From 7:30 to 9 pm**, the top five companies make their pitches for "virtual venture capital" in a formal **Business Plan Competition**. **From 9 to 9:30 pm**, we recognize winning individuals and companies with **Digital Safari Innovation Awards**.

Invest in Our Next Generation of Innovators and Entrepreneurs!

- **The Innovation Fair is seeking sponsors** who believe in our mission, share our vision and are willing to invest in our next generation of innovators and entrepreneurs.
- Sponsors underwrite the cost of hosting the Innovation Fair and provide funds for Innovation Awards scholarships.
- **Sponsor Opportunities:**
 - Support the Innovation Fair \$50
 - Sponsor a student company \$100
 - Donate to our Scholarship Fund \$500+
- **Donate now at www.InnovationFair.org**

For more information, call Mark Westwind at 925-372-8486.

DIGITAL SAFARI INNOVATION FAIR

DIGITAL SAFARI ACADEMY

2010 PARTICIPATING COMPANIES

AUTO-BALANCE INTELLIGENCE	Auto-Balance Intelligence has developed the Auto Buddy™, a new product to reduce traffic and accidents, while being eco-friendly. The Auto Buddy's flexible system of computer, bumper sensors, and calibrators help motorists maintain steady speed and avoid the "gas-break-gas" nature of in-traffic driving. The Auto Buddy™ also fosters greater awareness in drivers of the traffic around them, helping them respond to potential dangers safely.
THE CATERPILLAR	The Caterpillar has created the world's most convenient eco-friendly bottle ever invented. Made from plasticized potato skins and, with its patented Shrink as you Drink™ and Dribble Stopper™ technologies, the bottle is collapsible, washable, reusable and 100% spill-proof making it the perfect bottle for anyone on the go.
COMPOST POWER	Compost Power has developed the DecompoPower Bio-Digester™, which harnesses methane gas produced in decomposition and redirects it through the customer's gas line to power appliances. The end product is clean mulch that can then be used as a fertilizer in farms, gardens, and other agricultural-based businesses where it may be needed.
COPY&PASTE	Copy&Paste Inc. provides a fast, easy, and efficient way to paint highly detailed, scalable designs in a variety of commercial applications. Our Scan&Paint™ process lets you scan and reproduce any image, on virtually any surface, at any size with PixelPoint™ accuracy. Using refillable CMYKW canisters, our product will end the slow, often inaccurate process of mixing individual colors of paint while simultaneously reducing incorrect paint disposal and pollution.
DIABETIC SOLUTIONS	Diabetic Solutions Inc. offers the Hyscent™, a small, wearable pendant, providing diabetics with regular alerts by constantly measuring blood sugar through its patented, no lancet, no blood, "sniffing" technology. The Hyscent™ provides safety and peace of mind to millions diabetics and their families.
EARTH CELL	Earth Cell Incorporated has created the first battery that is completely compostable and recyclable. This eco-friendly battery aims to reduce the amount of heavy metals in landfill waste and prevent future environmental problems such as chemical leeching. By compacting and refining potato starch we have been able to find a new and more environmentally friendly battery that stands up to the intense power demands of modern customers.

ELECTRIC SOUND	Electric Sound introduces the Sound Harvester™ which, through its advanced technology, provides the solution to noise issues in society. The easily installed system of Sound Harvester™ plates absorbs sound, not only canceling out its presence, but also converting it into usable energy. Designed for installation in high noise industrial and public settings, the Sound Harvester™ offers a quieter, cleanly powered future.
FIBERGREEN	FiberGreen™ cardboard is a revolutionary, high quality cardboard made using absolutely no trees! Instead FiberGreen™ cardboard is made entirely out of cogon grass, an abundant grass which quickly reproduces, creating a sturdy environmentally friendly cardboard that is 100% compostable, allowing consumers to deposit it into their green waste bins, completely bypassing landfills.
FOSHI	Foshi has developed The Core™, plates designed for installation under parking lot asphalt that absorbs excessive blacktop heat and converts that heat to energy we can use for our daily needs. A positive side effect of its excellent power generating potential is a decrease temperature in parking lots with The Core™ installed making an overall more positive experience for customers and other guests to a business.
GAIA POLY	Gaia Poly has created an environmentally conscious and profitable way to create synthetic fabric from the glut of recycled newspaper in our waste stream. The high-quality fabrics resulting from the Gaia Poly process can be used in a variety of fashion or industrial applications and help end our dependence on petroleum-based products.
GAMBA CAN	Gamba Can has created state-of-the-art waste technology for homes, offices and large businesses that automatically sorts trash and promotes composting and the recycling of resources through clean, user friendly products.
GREEN BURN FUEL TECHNOLOGY	Over 35 million machines with largely unregulated small gasoline power engines are sold in the U.S. each year. The resulting pollution is much greater than that produced by much more publicized automobile emissions. To combat this problem, Green Burn Fuel Technology has created the Green Burn Carburetor™ which catalyzes the air-gasoline mix prior to ignition to produce burns as much as 70% more efficient than current carburetors.
NOVINO	Created for independently living seniors and sufferers of bone density loss, Novino Inflowear™ uses airbag technology to reduce the impact of falls on the hips, spine and shoulders of its wearers. Designed to be worn as a belt and suspenders under clothes, Inflowear™ uses a gyroscope and accelerometer in the belt's buckle to identify falls and inflate airbags at strategic points before impact happens – preventing serious injury and protecting independence.

<p>PORTA-PURE</p>	<p>Porta-Pure is a company dedicated to saving the lives of people across the globe and in undeveloped countries with Porta-Pure™ water purifiers. Our low cost, sturdy, easy to use, water purifier puts an end to bacterial and viral contamination in unsanitary water, and provides important hope and relief to the 1.1 billion people of the world's population who do not have access to clean water. Water is life - live pure.</p>
<p>RECYCLONE INDUSTRIES</p>	<p>Recyclone Industries is a company dedicated to the eco-friendly recycling through the development of the patented Recyclone™ system designed to maximize profits from e-waste, thereby promoting ever larger efforts at recycling and reclaiming e-waste. Through its process of crushing and filtering e-waste into discrete components immediately ready for resale, the Recyclone™ will revolutionize recycling as we know it.</p>
<p>SOLARGIZE!</p>	<p>Solargize! is an ultra-efficient and affordable state-of-the-art solar technology with a focus on fuel saving applications in automobiles and the trucking industry. SolFlex™ is a revolutionary "solar tissue" that combines ultra-flexibility with increased efficiency and may be molded onto any surface. Protecting SolFlex™ is Nanobright™, a cover paint that is based on nanotechnology to increase efficiency, absorption and durability of the system.</p>



DIGITAL SAFARI CAREER EXPLORATIONS PROGRAM



Helping Students on Their Paths to Success!

In 2009, the Digital Safari Academy (DSA) was selected as one of two academies in the nation to participate in the **Career Academies Project** funded as a pilot program by the U.S. Department of Education. Through this project, DSA has developed the Career Explorations Program with three primary components:

1. In-Class College and Career Preparation Workshops – These workshops are designed to introduce students to fundamentals of college and career while also giving them tools for making good personal and academic choices.

2. College and Career Exploration Visits – Students visit selected college and university campuses (including SF State and UC Berkeley) to get a first-hand impression of the college experience. Students also visit cooperating private media-oriented businesses to learn more about the world of work and successful pathways to good jobs.

3. Internships – As part of this program, each DSA senior class student is expected to complete an internship with a cooperating host company. The goals of these internships are to promote students' interest in post-secondary education, and to help them develop the skills that are required to be successful in the 21st century workplace. Internships combine hands-on learning and skills development with a real-world project-based work experience under the guidance and supervision of supportive adults. An internship is designed to be a work/learn exchange between the student and the internship host. Internship hosts include local businesses, government agencies and non-profit organizations. Students receive academic credit for their completed internship. Internship supervisors provide students with letters of recommendation for future job interviews.



What Have Our Student Interns Accomplished?

Media Production Assistant – Created an animated video and supporting brochure targeted at middle school students to promote the use of reusable bags.

Host: Contra Costa County Solid Waste Authority

Event Assistant – Helped manage over 30 free summer concerts as part of the City of Concord's Summer Music Series.

Host: OceanWorks Productions

Video Production Assistant – Helped edit an anti-drunk driving video called "Every 15 Minutes" used as part of a countywide teen education.

Host: Guava Films

Video Production Assistant – Produced an educational human resources video profiling employee roles and responsibilities.

Host: Kaiser Permanente

Graphic Design Assistant – Helped design and produce the printed program for the 2010 Sustainable Contra Costa Awards.

Host: Sustainable Contra Costa

Video Production Assistant – Produced an educational video about water conservation for the County Watershed Program.

Host: Contra Costa Television



THE DIGITAL SAFARI: OUR VISION



Our Challenge: Engaging At-Risk Youth

There are almost 300 California Partnership Academies in California each of which is dedicated to career development in a specific industry, trade or business sector (e.g. environmental studies, construction, hospitality, etc.). The State of California intends to significantly increase the number of career academies over the next decade.

The problems in our academies are well-known and well-documented: high drop-out rates, difficulty engaging students in academic subjects, and addressing the behavioral challenges that often surround at-risk students.

As a result, teaching at an academy is often very challenging and **retaining quality teachers is a critical issue**. Even the most enthusiastic teachers often find themselves isolated from their peers and struggling to find meaningful ways to engage their students.

Based on years of interaction with numerous California Partnership Academy teachers, we believe that **there is a desperate need in these academies for a teaching framework that is truly effective, particularly with at-risk students**.



The Digital Safari: Supporting Innovation in Our Academies

Over the last decade, **we've developed proven solutions to address these issues** – the **Digital Safari Model™** for creating a culture of excellence at career academies, and the **Innovation Project Model™** as a project-based teaching/learning framework for fully engaging students in the process of education. Toward our goal of developing the Digital Safari Academy Model™ and taking the Innovation Project Model™ to other career academies, the core team at the Digital Safari Academy formed the **Digital Safari** in August 2008. The Institute is fiscally sponsored by **The Praxis Group**, a 501(c)(3) non-profit organization.

Our Vision: Training Our Next Generation of Innovators

With the success of the GreenBizz Project at the **Digital Safari Academy (DSA)**, we are reaching out to implement the Innovation Project Model™ at other career academies.

Here's where we're going ...

- **Develop GreenBizz Project Curriculum and Support Materials** such as short how-to videos to help teachers in adopting and implementing the GreenBizz Project.
- **Train New Academy Teachers in the Innovation Project Model™** by hosting one or more teacher training workshops.
- **Launch the GreenBizz Project at Other Bay Area Academies** over the next several years.
- **Host an East Bay (or Bay Area) Innovation Fair** with students from at least three or four Bay Area academies and substantial scholarships for the winners.
- **Conduct an Impact Assessment** to document, measure and evaluate the impact of the Innovation Project Model™ on participating student populations.
- **Take the Digital Safari Model™ Statewide and National!**



THE DIGITAL SAFARI TEAM

RANDY DEPEW, MA

Digital Safari Educator: Multimedia
925-682-4030 x 3417



- Founding teacher and co-Lead Instructor for the Digital Safari Academy at Mt. Diablo High School
- Co-developer of the Innovation Project Model™
- Recognized expertise in the area of curriculum development, cross-curricular integration, project based learning and career academy development
- Presented on these subjects at several state and national conferences including the Autodesk Foundation's national project-based learning conference, "*Kids Who Know and Do*," the California Tech Prep Conference, the California CUE Conference, and the California Partnership Academy Conference.
- Selected as the 2000 California Technology Teacher of the Year by *Technology and Learning Magazine*
- 2001 Mt. Diablo Unified School District Teacher of the Year and a finalist for Contra Costa County Teacher of the Year.
- M.A. in Education and California Teaching Credential from Chapman University
- Instructor at Chapman University teaching *Technology in the Classroom*, *Introduction to Teaching*, *Secondary Teaching Strategies*, and *Strategies for Culturally Diverse Classrooms*



THE DIGITAL SAFARI TEAM

HEATHER FONTANILLA, JD

Digital Safari Educator: U.S. History, Economics, Government
925-682-4030 x 3417



- Co-Lead Instructor for the Digital Safari Academy
- Co-developer of the Innovation Project Model™
- Presented at several state and national conferences including the Autodesk Foundation's national project-based learning conference, "*Kids Who Know and Do*", the California Tech Prep Conference, the California CUE Conference and the California Partnership Academy Conference on the subjects of curriculum development, cross-curricular integration, project-based learning and career academy development
- Juris Doctorate with distinction from University of Pacific, McGeorge School of Law
BA in History. California Teaching Credential from Chapman University
- Practiced law in southern California and the Bay Area
- Nominated for Mt. Diablo Unified School District Teacher of the Year (2007)
- Received recognition from several organizations including the national High School Alliance, the Career Academy Support Network at UC Berkeley, the Autodesk Foundation for Project-Based Learning and the National Association of School Administrators.



THE DIGITAL SAFARI TEAM

MARK WESTWIND, MPA

Consultant to the Digital Safari Academy
925-372-8486



- Owner of a professional and technical services firm - 30 years experience working with businesses, government and non-profits
- Co-developer of the Innovation Project Model™
- Producer of the annual Digital Safari Innovation Fair™
- Founding director of the Contra Costa Software Business Incubator
- Founding associate director of John F. Kennedy University's Center for Entrepreneurship
- Technology consultant for the Contra Costa Small Business Development Center
- Former U.S. Associate for Canton Venture Capital Company, a \$100 million Chinese venture capital firm
- Mentor for high-tech start-ups selected to participate in the annual World's Best Technology Showcase (his 2005 mentored company won the WBT Gold Award).
- Co-author of *What Makes Silicon Valley Tick?* with Dr. Tapan Munroe, former Chief Economist for PG&E
- Founder/co-founder of over a dozen community organizations
- Master of Public Administration (MPA) degree from Cal. State University, East Bay
B.A. in Environmental Studies from UC Berkeley
Certificate in Entrepreneurship from John F. Kennedy University
Credentialed community college instructor.