

## Create Change.

*This is the second in a series of essays reflecting upon pressing national issues that impact the future of Art Center and the educational experience of our students.*

# Creativity and Prosperity in the New Economy: Why Industry Needs Good Design

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We are all familiar with Apple Inc.'s extraordinary knack for imagining devices and services that anticipate what consumers want, and we continually read about the role that design thinking plays in driving the company's best innovations. In August 2012, Apple achieved a new first. It set a record for market capitalization, overtaking perennial top-ranked corporations Exxon-Mobil, General Electric, Microsoft and IBM.

While many companies struggled to survive the most disruptive economic crisis since the Great Depression, Apple soared by plugging into an innovation strategy that coupled breakthrough technology with superior design. From being ranked No. 85 on the *Financial Times*' Global 500 list in 2007, it rose to No. 33 in 2009, to No. 3 in 2011, and reached the No. 1 spot in 2012. The recent drop in stock price notwithstanding, the company's success continues to foster new appreciation for the critical roles designers play in developing and sustaining an advantageous business strategy.

Today, as much of the national discourse focuses on improving the economic health of our country, business executives, policy makers and thought leaders are seeking ways to speed recovery, create jobs, adapt to the new economy and ensure the future relevance of our industries. They are asking: *How can we compete effectively in today's complex, global marketplace? What are the strengths and qualities of our workforce? and What sets us apart?* Increasingly, the answers include an attribute Art Center has cultivated since its inception in 1930: creativity.



Apple's combination of breakthrough technology and superior design has turned it into the most valuable public company in history. This Apple mini store was designed by a team at Eight Inc. that included firm founder and Art Center Trustee Tim Kobe ENVL 82, firm partner Wilhelm Oehl PROD 94 and designer Tracy Zhou ENVL 01.

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Art Center fosters creativity through the discipline of breaking down problems and making solutions. The result is alumni who are able to tackle a wide range of challenges...with surprising, inventive results.

IBM's 2010 survey of 1,500 CEOs identified creativity as the "most important leadership competency for [today's business] enterprises," adding:

Creative leaders invite disruptive innovation, encourage others to drop outdated approaches and take balanced risks. They are open-minded and inventive in expanding their management and communications styles, particularly to engage with a new generation of employees, partners and customers.<sup>1</sup>

A recent National Governors Association report on "New Engines of Growth" further highlights the role that arts, culture and design must play at the state level as part of an "all-hands-on-deck approach" to invigorating economic expansion:

Governors and states are finding that arts, culture, and design can be important components of a comprehensive strategy for growth. They touch the economy at crucial leverage points, including innovation, entrepreneurship, employment, and revitalization. An arts, culture, and design strategy, coupled with other strategies, can provide states a competitive advantage...<sup>2</sup>

Art Center's educational model embodies the qualities that today's business leaders seek in their organizations: transdisciplinary collaboration, problem solving, social responsibility, adaptability and design thinking—an approach to innovation that "draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success."<sup>3</sup> These attributes make our graduates particularly resilient to swings in the consumer, financial and business climates; and position them as key players on an increasingly global stage. In short, our alumni have both the ability and the opportunity to create new value.

The versatility of the Art Center graduate stems, at least in part, from a deeply practical education that provides a framework and a process for understanding and solving problems. Generations of our alumni practice the design thinking methodology woven into the fabric of our school: define, research, ideate, prototype, choose, implement and learn. We cultivate the applied creativity our nation's organizations seek through education that emphasizes:

- Project-based, collaborative and trans-disciplinary learning;
- Tangible, real-world outcomes and solutions that can be implemented with direct positive impact on the lives of others;
- Design placed in direct conversation with other fields, such as engineering, science, public policy, social health and education;
- Extending the learning experience beyond the classroom, into the community and often in a global context; and
- Partnerships with established corporations, government agencies, community organizations and other educational institutions.

Consider three examples of Art Center projects integrating many of these learning types:

- The **Cadence** system grew out of a class project in which Product Design major Seth Astle set out to design a prosthetic and pedal system for below-the-knee amputee para-cyclists. Astle began his research by going to the velodrome at Home Depot Center in Carson, Calif., to observe competitive indoor cycling. Through interviews with para-cyclists, he gained

valuable insights into the challenges they face. His innovative Cadence system went on to win the Industrial Designers Society of America's Gold IDEA award for Product Design and the U.S. James Dyson Award.

- Through **Design for Disaster**, a partnership between Art Center and the American Red Cross, our graduate Industrial Design students took on the challenge of imagining an improved Emergency Response Vehicle (ERV). After extensive research, student Pengtao Yu proposed conversion kits that would change ordinary rental trucks into effective emergency response vehicles in a fraction of the time and cost previously required to deploy a fleet to large-scale disasters. The Red Cross is currently putting his idea into action to save millions of dollars and to speed aid to those in need. For this significant contribution, Art Center and Yu were awarded the Certificate of Appreciation from the American Red Cross. Yu's design also earned him a Core77 Design Award in the category of Student Winner for Products/Equipment.

- The **Embrasync** is a concept developed by Product Design major German Aguirre Raeder in an Interface Design course. It allows parents to interact with premature babies from whom they are separated immediately after birth. Utilizing a specially designed incubator for the infant and a "tender pad" device for the parents, the Embrasync uses technology to connect parent and child through sight, sound and simulated touch. Whether from another part of the hospital or from home, parents can watch, hear and talk to their baby; experience the child's heartbeat and respiration; and deliver parental sensations of touch and breathing to the child.



Product Design student Seth Astle designed Cadence, a prosthetic and pedal system for below-the-knee amputee para-cyclists.



Graduate Industrial Design student Pengtao Yu designed a conversion kit that would transform rental trucks into emergency response vehicles for the American Red Cross.



Product Design student German Aguirre Raeder's Embrasync concept allows parents to interact with premature babies from whom they have been separated.

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Vivid examples of projects employing empathy, creativity and rationality—characteristics commonly associated with design and the foundation of an Art Center education—these projects also place students in direct contact with the individuals (“users”) who would ultimately benefit from their designs, exemplifying another key success strategy relevant to many organizations today. As IBM also stated in its 2010 survey report:

The most successful organizations co-create products and services with customers, and integrate customers into core processes. They are adopting new channels to engage and stay in tune with customers. By drawing more insight from the available data, successful CEOs make customer intimacy their number-one priority.<sup>4</sup>

Each year, dozens of similar team- and project-based opportunities are made available to our students, from 14-week transdisciplinary studios to three-day intensive workshops, in partnership with such organizations as Honda, Avery Dennison, Bernhardt Design, the National Association of Surface Finishing, the City of Pasadena, Nestlé, Johnson & Johnson, LG Electronics, Disney Consumer Products and Nike. Through field research, our students gain insight into customer needs before crafting solutions in the studio. This hands-on approach to learning, a vital aspect of higher education in the arts and design, helps students link concepts with experiences and draws on intuition as well as analysis. Art Center fosters creativity through the discipline of breaking down problems and making solutions. The result is alumni who are able to tackle a wide range of challenges—in the for-profit, non-profit and public spheres—with surprising, inventive results.

In my first essay, I cautioned against relying too heavily on top-down educational metrics which, while well-intentioned, may overlook the profound value art and design learning can bring to both the degree holder and to the public good. Such value includes the impact art and design education can have on giving flight to our creative economy, the making and distributing of cultural goods and services that accelerate growth, generate jobs and improve lives.

Like our students, who learn to look at the world with fresh eyes, it is our responsibility to seek new ways to expand the role of artist and designer as a catalyst for innovation and, in doing so, make art and design education an even more powerful force for positive social change. Understanding the connection between creativity and economic health underscores the responsibility we all share in preparing the creative citizens of the 21st century. ●

1 “Capitalizing on Complexity: Insights from the Global Chief Executive Officer Study,” IBM Corporation, 2010.

2 “New Engines of Growth: Five Roles for Art, Culture and Design,” National Governors Association, April 2012.

3 Tim Brown, president and CEO, IDEO, in “Our Approach: Design Thinking,” at <http://www.ideo.com/about/>.

4 “Capitalizing on Complexity: Insights from the Global Chief Executive Officer Study,” IBM Corporation, 2010.