By Mike Glaser

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Mike Glaser is an associate professor and program director of product design at Drexel University's Antoinette Westphal College of Media Arts & Design. With 25 years of design experience, his focus is on educating designers and non-designers alike in developing an applied design way of being that ignites a person's will to create.

From Designer to Thinker-Maker

THE EVOLUTION OF DESIGN

On the heels of National Industrial Design Day, it feels appropriate to encourage a dialog around the question, "What is design and what will it become in the future?" Please allow me the liberty to be a provocateur and propose a vision of design's future:

In 2030, after emerging from an era of Orwellian control, populations around the planet have returned to an age of enlightenment fueled by an applied design-centric education. Scientists using advanced neuroimaging technology have discovered that human progress was stunted by a constant diet of Common Core education, reality TV and sugar. This steady attack on our gray matter produced generations of individuals deficient in empathy, critical thinking and intuition. Scientists measuring brain stimulation determined that the best solution for reversing the effects of this human devolution was a design education consisting of curiosity-based exploration, playful experimentation, critical thinking, abductive logic, sense making and novel problem-solving, combined with the development of one's individual affinity.

This new educational approach has been so successful that design is no longer an independent subject but has been integrated into all academic and vocational pursuits, and at all educational levels. This new breed of student, ignited with the will to create, is not called a "designer," but is known as the intellectual maker, or "thinker-maker." In short, design as we know it has dissolved, replaced by the practice of design doing along with the development of a self-actualized affinity. Upon entering the world, students have taken the soul of design into new and uncharted fields; they no longer see themselves as designers, but as engineers, politicians, nurses, parents, scientists, etc.

lumiware: A light therapy device for people with Seasonal Affective Disorder. The glasses emit a blue LED light that is reflected onto the user's eyes, helping to increase serotonin levels in order to mitigate depression. By student Troy Hudson.
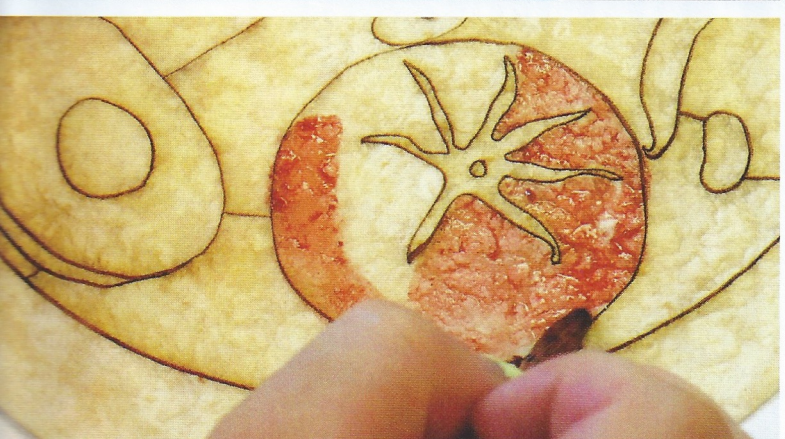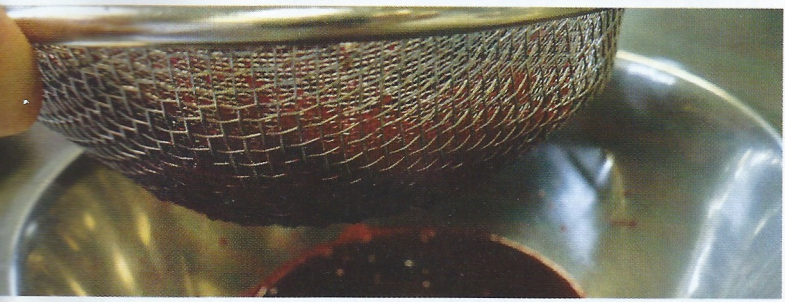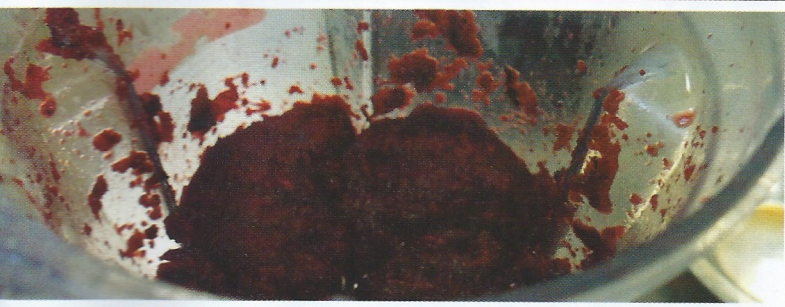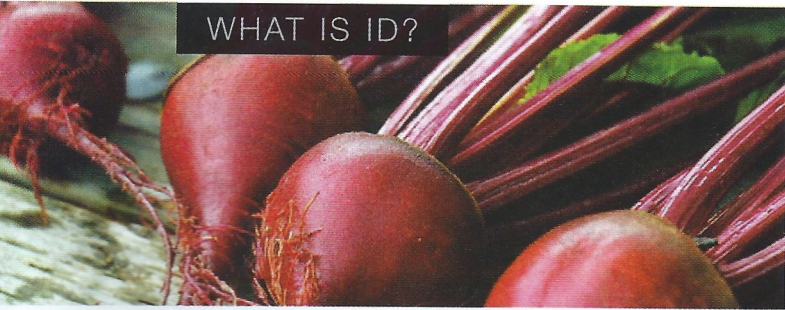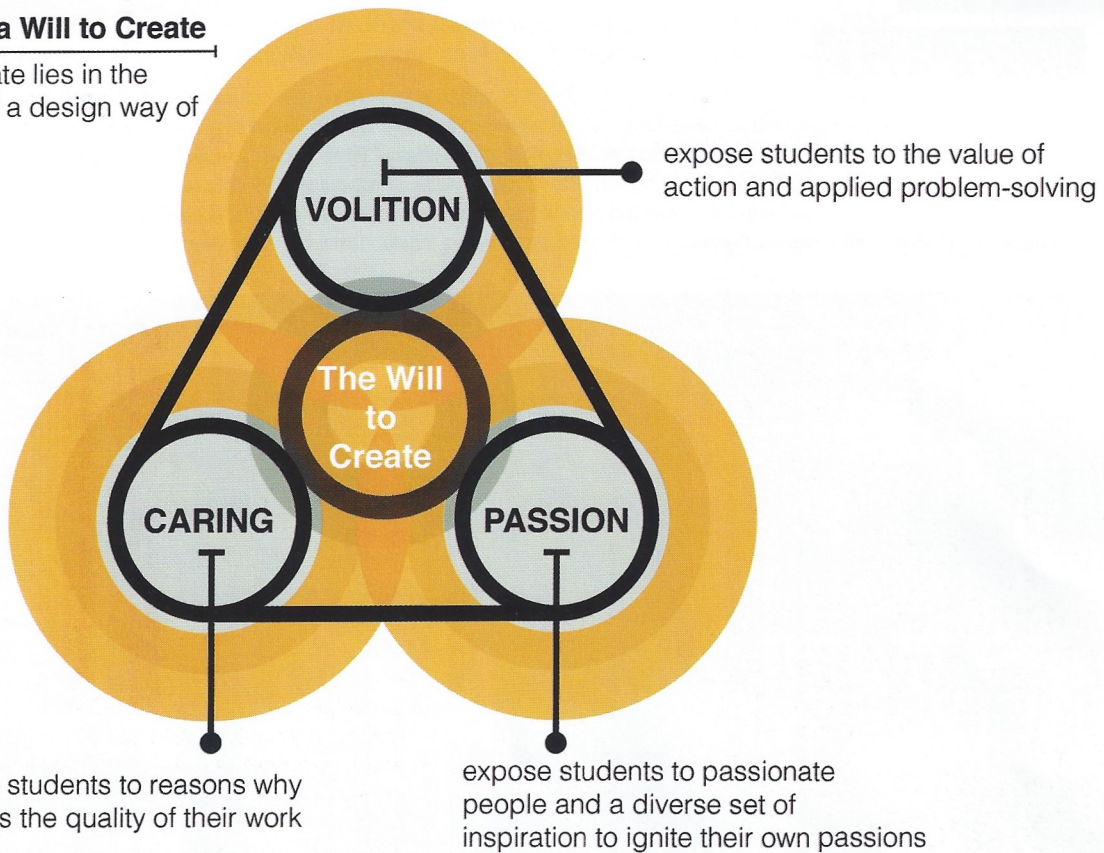
How Did We Get to Where We Are Today?

My own design career started in 1983 when I was fresh out of the University of Cincinnati with a degree in industrial design. I entered the workforce at the tail end of what I call the era of process manipulation, a time when a designer's value lay in creating innovation by manipulating materials, processes and distribution in an effort to create new markets. In the late '90s this quickly transformed into the era of disruptive technologies. With Moore's Law in full swing, low-cost computing and a tsunami of investment in technological advancement made this a time when a designer's value was in integrating technology into everything to redefine and transform markets. The 2000s saw the development of designing for customer delight by building brand loyalty around connecting tangible and digital lifestyle products, and a designer's value was in creating innovative customer experiences. Moving into the late 2010s, design has fractured into a range of specializations, causing designers to self-select fields in which to trade that vary from design for good to UX design. All of these trends, however, pale in comparison to the next stage, for we are now at the cusp of the era of disruptive ideas. ("Disruptive" here means an unexpected development that creates a new desire or perception in the market that ultimately displaces products, markets, services and now other ideas.)

In *The Third Wave* and its companion book, *Revolutionary Wealth*, futurist Alvin Toffler explains that society's eras emerge like waves, with each new wave disrupting the past until the past catches up with us. As Toffler envisioned, we are witnessing the last dying vestiges of the post-industrial aristocracy desperately fighting to milk every last petrodollar from the global population. Meanwhile, we are at the crest of the third wave, the technetronic or information age, and are accelerating toward the fourth wave as ubiquitous technology surrounds the planet with artificial intelligence, quantum computing and other advancements that are shaping our future economic and political landscapes. We are on track to inhabit distant planets, extend our lives past the limits of geriatrics, create new life forms through genetic manipulation and scour the earth and mine the heavens harvesting raw materials to create incredible machines such as the Hadron Collider.

Play with Your Food/Tortilla Puzzle: Laser-cut tortillas hand painted with edible beet and matcha tea dyes. By student Lily McClure.

Developing a Will to Create

the will to create lies in the intersection of a design way of being

VOLITION

expose students to the value of action and applied problem-solving

The Will to Create

CARING

PASSION

expose students to reasons why caring impacts the quality of their work

expose students to passionate people and a diverse set of inspiration to ignite their own passions

The will to create is ignited as students develop a design way of being through three character traits that are activated, rather than taught.

On a different frontier, gamers and programmers are diving headlong into creating the enhanced virtual reality realm. Hopefully, all this leads us to ponder the ultimate question for the future, "What mediates human potential when we have the means to create or destroy anything we desire?" From my designer's perspective, the answer is human empathy and the ethical production of ideas.

Where Does This Leave Us?

Design will need to evolve from a vocation to a way of being and from a profession of design to a pedagogy for thinker-makers. In this new value, design as a construct will continue to play an important role in human endeavors, not in design outcomes but in a way that instills creators with appropriate human-centered ideas. This way of being will act as the ethical arbiter of the imagination. Just as designers are the advocates for human-centric solutions, the thinker-maker of the future will need to be the standard bearer of human-centric awareness in disruptive ideas. Melvin Kranzberg, a noted history professor, stated in his first law of technology that "technology is neither good nor

bad; nor is it neutral." This statement implicates the role of human decision-making in a determinist application of technology, a point that will be even more critical in the era of disruptive ideas.

Enter the Thinker-Maker

The thinker-maker of the future, who has a deep foundation in applied design thinking, creative problem-solving and sense making, is being educated at Drexel University today. This foundation instills a way of being and doing that ignites students' will to create. Thinker-makers do not necessarily see themselves as designers, and don't consider the outcome of their actions to be design. They combine design with math, science, engineering, culinary arts, humanities, politics and entrepreneurship, among many other endeavors. In their design education, attention is shifted away from applying design as an outcome-driven vocation or specialty toward an affinity-driven pursuit. (An affinity in this context is a focus of interest or ability outside of or along with the pursuit of being a designer.) The added affinity is used to guide design into new and uncharted applications. Bluntly speak-

Educational Models: The Pond vs. Funnel
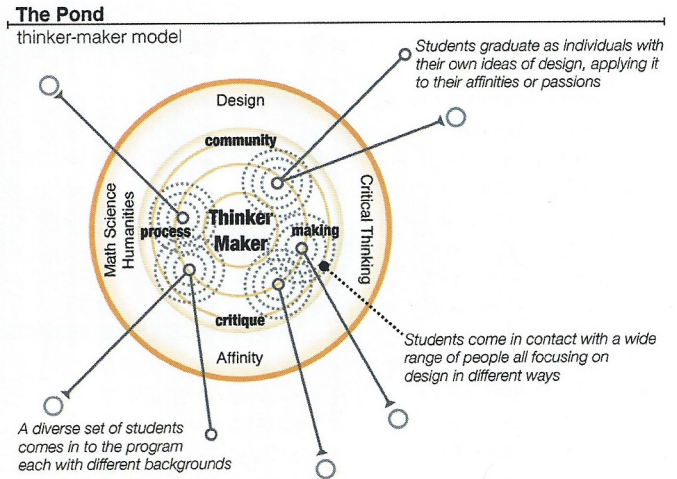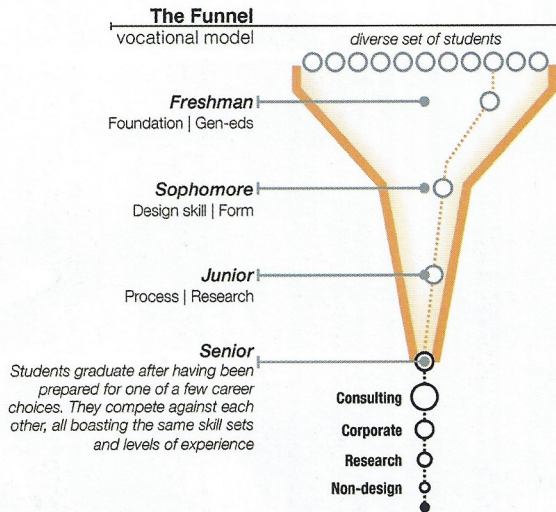
Changing the educational model from a vocation to a way of being allows students to develop their individual affinities, thus empowering students to apply design in new ways. This enables them to own and trade on their own respective values.

ing, imagine an era of ubiquitous making when everyone has access to tools to create, produce, distribute and fund solutions, no matter how ridiculous—everyone will be a designer. Our program, by shifting to an affinity-based design education instead of a concentration- or specialist-based education, creates thinker-makers who are empowered to trade on their own value.

Coming full circle, we return our focus to education and its pivotal role in the future of design by its ability to craft the meaning of design. A decade ago, designers were educated on the premise that design was both a verb and a noun: "design" as in the thing and "design" as in the act. This distinction is now blurred. What this ultimately means is that design as a way of being will be as ubiquitous as information. I'm therefore advocating that everyone be trained with a core of design doing.

Drexel started its Product Design program with a clean sheet of paper and has shifted the paradigm of design education from practitioner to influencer. Here the core of design doing (what I call the golden nugget) is instilled as a foundation, not a specialty. Students now centered in design doing can focus on broadening their impact by adding an affinity of their choosing. This mashup between design and affinity is powerful; students steeped in traditional design skills are eager to disrupt markets that never had design.

Our students are mixing design with culinary arts, material science, film and biomedical engineering, to name a few.

Metaphorically, the education model for this type of learning is no longer a funnel but a pond. In a funnel model, a divergent set of students move through a program structured to mold them into the image of a designer defined by the school. In Drexel's model of a pond, a diverse set of students jump into the program and self-direct their educational experience, interacting with the other students in a community setting. Students study an applied design curriculum along with a self-directed affinity. When they launch into the world, they are empowered to take design in new directions.

It appears to be working: We are attracting a wide range of nontraditional design students. Of the product design students enrolled in our program, 60 percent come in as self-described math and science kids with not a lick of creative training, stating that they want to do something different and non-traditional. While we are a young program, Drexel Product Design has a nearly perfect placement rate with no two graduates taking the same job path.

In closing, I want to put out a call to designers and educators to move past focusing on just the perceived educational needs of today to start developing curricula to prepare students to lead the thinker-maker movement of the future. The world and the future will thank us. ■