

Sustainable Design: Beyond the Innovation-Driven Business Model

—HARTMUT ESSLINGER

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Abstract—This essay discusses an evolving business model, the sustainability-driven business model, that designers are especially well suited to implement and promote. Designers have a responsibility to connect and coordinate human needs and dreams with new opportunities and inspirations from science, technology, and business in order for products and their usage to be culturally relevant, economically productive, politically beneficial, and ecologically sustainable.

DESIGN as a young and very dynamic profession has come a long way from individualistic “artsy” creativity to a problem-solving discipline requiring conceptual vision and competent implementation. It has become a respected partner with true power in the business/design alliance. This process hasn’t been easy but what’s new is the rapidly growing recognition of this power and the need for cultivating it. An initial step toward achieving that goal is a firm understanding of the vital role of design in shaping an innovation-driven business model. What is required next, however, is a reassessment of the innovation-driven business model, its evolution, and to more broadly consider the needs of its various stakeholders (as well as a broader definition of who the stakeholders are, or should be). Specifically, I will argue that a new business model is needed: one that considers (a) consumers as individuals with a complex set of needs that consumption of products only partially satisfies and as members of a larger community with complex interdependencies; (b) today’s underrepresented communities; and (c) tomorrow’s communities, i.e., the generations of individuals and communities that will follow our own and which depend

critically on our current decisions and behaviors. I will refer to this evolved business model as the sustainability-driven business model—a model that I believe designers are especially well suited and positioned to address.

CONSUMERS WITH COMPLEX NEEDS AND AS MEMBERS OF A LARGER, INTERDEPENDENT COMMUNITY

In the larger context of creativity, design is the living link between our human goals and needs and the material culture that helps to fulfill them. Designers and their business partners have an almost unparalleled opportunity to build an environment that’s not only livable and sustainable, but also fun and culturally inspiring. Our material culture is man-made—every component of it is manufactured, sold, used, discarded, recycled, and (hopefully) reused. Every individual element of it has passed through a process in which human ideas are shaped into designs, and designs are manufactured into physical and virtual matter. To build a material culture that uplifts and sustains us, we have to remain ever alert to the opportunities—and sometimes dangerous temptations—of our

business models, our strategies, our tools, our processes, and our factories.

The holistic challenge for design is to create physical and virtual objects which are useful art, and inspire spiritual values by as few atoms and bits as possible. In my view, design is our modern-day continuation of “technical” functionality converted into human-historic and metaphysical symbolism. When designers create a new and better object, a mechanism, a software application, or a more inspiring, human-centric experience, this becomes a “branding symbol” through meaningful innovation, good quality, and ethical behaviors. People recognize the resulting visual symbols as a cultural expression of humanized technology and not just a fashion statement. It must advance our industrial culture by providing sustainable innovation, cultural identity, and consistency so as to create emotional and social belonging. Designers have a responsibility to connect and coordinate human needs and dreams with new opportunities and inspirations from science, technology, and business in order for products and their usage to be culturally relevant, economically productive, politically beneficial, and ecologically sustainable.

TODAY’S UNDERREPRESENTED COMMUNITIES

The acceleration of globalization—including the current crisis caused by financial excesses and cultural colonialism—is posing both huge challenges and offering new opportunities. It requires designers that are both talented and competent to influence and

define new trends with regard to mastering outsourcing to “lower cost” economies and reversing the current excesses of overproducing generic and hard-to-use products. Designers also need to invent new concepts for “home sourcing” by converting local and tribal cultures into beneficial concepts. To succeed as competent and respected “executive partners” in the rational world of business, designers must become creative entrepreneurs or creative executives themselves. However, ultimately, design must rise above commercial-functional benchmarks and aspire to near-eternal cultural relevance and spirituality. At one extreme are products in the Museum of Modern Art without commercial success—“imposters.” At the other extreme are products that are commercially successful but have no soul. Both commercial success and sustainable relevance are possible.

As a creative strategist and entrepreneur, I am optimistic that this new business paradigm will also promote livelier, lovelier, and more emotionally fulfilling products and a more appealing product culture will actually be part of a winning green strategy. And this will be true for *all* countries and cultures on Earth. Humanizing our industries in Europe and the United States involves developing and implementing an ecological ideal. It will enable us to industrialize poorer countries without destroying those countries’ identity and culture. A mobile device, designed, produced, sold, used, and recycled in China will not have to compete with one provided by a modular production model in Central Africa, the Baltics, or Brazil. It will enable all of us to buy

locally and therefore be more closely engaged in the full life cycle, the profits and costs, of our consumable goods.

TOMORROW’S COMMUNITIES

Design, like marketing, still is mostly about driving mass consumption, and anything produced on a mass scale contributes to pollution and global warming. That makes designers and their business clients systemic players in an economic model that has a profound effect on the environment—with significant implications for tomorrow’s communities. The more items we send flying off the production line, according to traditional business reasoning, the better our chances for economic success. But now, we’ve realized that the traditional indicators of economic success might not have been giving us the whole story. We’ve seen the powerful influence of design on the business model, and how strong leadership shapes and implements creative, innovation-driven strategies to achieve more sustainable profitability. We also have to understand that design’s role in building sustainability extends well beyond the profits of individual enterprises.

All of those “cheap” goods that have been churned out have proven themselves to be much too expensive culturally, socially, and environmentally—in fact, they’re killing us—and “green thinking” finally has taken hold as a mainstream political and economic issue. Today, governments around the world are joining forces, admitting that our thoughtless destruction of the earth’s environment has created an immense—and man-made—problem. Now, we

can only hope that our human intellect and ingenuity will be up to the task of solving that problem and saving the planet. The growing movement toward eco-capitalism isn't an exercise in "do-goodism." It's driven by self-preservation, and it demands a rapid change of course in our approach to production and consumption.

We need to envision and design a more intelligent and ecological industrial model of production, product support, and recycling. And our solutions can't stop with good product designs. Outsourcing our designs to be produced elsewhere doesn't eliminate our responsibility for the pollution and other negative outcomes of that production, just as we can't take care of our own trash problem by tossing it in our neighbor's yard. The "out of sight, out of mind" paradigm must shift, if we want to be responsible industrial citizens. I believe we have a philosophical obligation to strive for a better world. We have to create a more human-centric conscience in science and business by rethinking our objectives in such ways that our business efforts must create results that look good to ourselves, our families and friends, our neighbors and communities, and to people all over the world. Essential and quite challenging objectives, such as social accountability and conservation, will help to reverse the destruction of the planet. Ultimately, the money will follow—the *Wall Street Journal* has recognized that sustainable and "green" products are growing and can outperform traditional products.

WHAT IS NEEDED NEXT?

Traditionally, ecology hasn't rated high in the value perception of many. That's changing, of course, for many of the reasons I've written about in my book *A Fine Line*. Biofuels are beginning to liberate us from Big Oil, and solar and wind energy technologies are making inroads into the traditional coal-fired energy sector. The Internet is unraveling the old telecommunications companies' hold on customers. And, as we've learned, more companies are adopting sustainable strategic goals and building business models based on long-term vision and ongoing innovation. Or in other words: the old-fashioned monopolies are falling, creative endeavors are rising.

One of our most powerful methods for achieving that shift is to reshape the industrial process. Designers, with the help of their business partners, have a strategic opportunity to affect the early stage of the product life-cycle management (PLM) system. In fact, we *must* define the strategy in that early stage if we want it to be effective. By changing the industrial process model from one designed to support mass efficiency to one designed to promote socially and environmentally responsive innovation—for example, by incorporating ecological competence and waste reduction or elimination into our process model—we can both increase the value of a company and improve its sales.

This important shift requires a change in the way companies work, and in the way they interact and collaborate with their customers. We have to innovate business

models so that customers join executives, employees, and owners/shareholders on equal footing as competent "caretakers" of businesses and the world they serve. Designers, whose work forms the interface between humans and science, technology and business, have the obligation and opportunity to shape the drivers of the new "green" economy, and to be on the front lines of that effort.

Given the size of the challenges, no single discipline—even design—can single-handedly take on the task of "greening" industry and business. Alix Rule, a student of politics at Oxford, underscored this point in her *In These Times* blog entry titled "The Revolution Will Not Be Designed." Rule noted that, in spite of the optimism expressed by designers, we need more than a "can-do attitude" to address "the nastier socioeconomic and environmental corollaries of growth." The industrial system is too complex, with too many different players. The cycle of production, usage, and recycling is "finite," meaning nothing will just disappear, and we can't just discard established systems, such as our electric grid or transportation networks. Instead, we have to transform them organically, in stages. We've already looked at how egotism, special interests, and limited competencies among the world's leaders in business, science, politics, and industry have fractioned efforts toward environmental progress, and limited progress with narrowly defined motivations and goals. Nevertheless, designers have a unique opportunity to drive the development of sustainable products by virtue of our role in the early stages of the product lifecycle process.

HOW DOES DESIGN PARTNER WITH MARKETING?

Like Alix Rule, I admire the progressivism behind much of the current generation of design thinking. But I also know she's right when she says that the belief that design can save the world without a "coherent set of ideas" represents a type of progressivism that is "naïve, at best." Sustainability-driven design, at its core, is not about the "next new thing" but about the "next better thing," and many

designers find this goal very boring and limiting. That's why designers rely on strong alliances with marketing leaders to devise sustainable strategies that will succeed in the world as it is, while helping to shape the world as we want it to be.

For all of these reasons, evolving our industrial processes is going to require a much deeper understanding of our potential. There are many great opportunities—how we can apply technologies, or products, or practices that are

currently available or can be easily adapted from existing models and practices—both in regard to innovating design methods as well as creating new business models and processes. Naturally, there is some radical change required and a lot of work to be done. New ideas and concepts for the "greening and humanizing industry and business" are critical elements for developing and achieving sustainable strategies that are driven by a more environmentally and economically driven vision of a better future.

Hartmut Esslinger founded "frog design" in Germany and expanded the company to the United States in 1982. Together with his partner and wife Patricia Roller he built the company into the world's most prominent and successful strategic design agency. In 2005, Flextronics acquired the majority of frog and since 2006 frog is a business unit of Aricent, owned by prestigious private equity pioneer KKR. Today, frog design employs about 550 strategists, designers, and technology specialists in nine studios around the world. During the last 41 years, Hartmut worked with some of the most prestigious global companies and in some cases such as Sony, Apple, Louis Vuitton, SAP, and Lufthansa he helped them to convert their technological competences and entrepreneurial desire into global brands. Hartmut was the first designer to bring human-driven, high-touch design to world of complex hardware and software technology. *Business Week*—where he also was featured on the cover in 1990—called him the most influential American industrial designer since the 1930s and the first Superstar of High-Tech Design. Hartmut also engages in educating and mentoring young designers: he is a founding professor of the Hochschule fuer Gestaltung (College for Design) in Karlsruhe, Germany and since 2006, he is a professor for convergent industrial design at the University for Applied Arts in Vienna, Austria and he received a honorary doctorate in Fine Arts from the Parson School of Design, New York as well as various lifetime awards around the world.