Preface

The start of the twenty-first century has been undeniably shaped by the rise of a new sociotechnological context[1] accompanied by a broad spectrum of paramount changes that not only span the professional, social, cultural, and education sectors, but also trigger a major overhaul in parts of the economy, forging ahead with an urgency and insatiable appetite for service sector growth. The urgency and appetite to revisit long-standing and ultimately stagnant consumer business models are determined to turn them upside-down, and especially those with an emphasis on industrial development and production. The ensuing transformations are the result of increasingly demanding levels of effectiveness, efficiency, and output that take into account a series of variables, including flexibility, resiliency, decentralization, and versatility, all of which are offset by value-added probabilities whose competitive advantage is defined with the world in mind. To make the desire, determination, and deployment reality, creativity, adaptability, radical diversification, and breakthrough innovations[2] form the buzz words inherent in these new and ever-evolving thought processes. These processes address, on the one hand, how consumer models evolve over time within a "function-friendly", service-driven economy,[3] in contrast to one oriented around material property gain, and on the other, how companies are to tweak their strategic and operational *modi operandi* through an open-door policy of idea exchange for "actors"[4] there within.

In view of such a context, some designers ("makers", "builders", etc.) are now shifting their focus to new ways of designing and producing, which, in turn, is

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[1] Due to the exponential rise in digital technologies.

[2] Finding some kind of middle ground wherein to reconcile technological advances in a market economy literally in standstill mode because of the competition.

[3] See (Giarini and Stahel 1989).

[4] Toward greater acceptance of corporate in-house and external skill sets and competencies (subcontractors, clients, consultants, public sector—universities, public laboratories, private R&D centers, a wide audience, opinion leaders, etc.); in search of new inter-company, economic synergies (regardless of whether partnerships involve same-sector competitors or not).

giving rise to yet another facet in the designer–user relationship.[5] To give
"crowdsourcing"[6] initiatives an even longer shelf-life, these same designers are
dedicated to building new bridges, and pairing creativity with production, but this
time, more sustainably and alongside motivated users yearning to make a signifi-
cant dent in the design scene, which, up to now, has been more or less confined to
utility. A number of active user or "user-actor"[7] communities have since popped up,
whose members' capacities, demands, opinions, and behaviors have broken far
away from the passive mold of uttering mundane recommendations on usage and
changes in routine,[8] to one of action and influence, ultimately driving through the
idea that we need to constantly revisit what we do (*habitus*), on what grounds we do
it, and how suitable it is on myriad playing levels in order to keep the new use-and-
habit wheel forever turning. These same user-practitioners are also called upon for
their input in the design of new goods and services, and to join the ranks of those
experts on the matter striving to unleash the potential in new techniques and
technologies. Their insight is also used as a springboard to propel fresh, clearly
outlined projects crossing over into a number of specialty areas, such as Graphic
Design, Product/Object Design, and Interactive Design, to greater heights.

Wanting to do away with as much as possible the complex-ridden and apathetic
user[9] weighed down not only by incompetence, but also ignorance, these designers
are banking on the concept of "creative acculturation", whose premise rests upon
the ideas of cooperation and remote collaboration,[10] in addition to making a range
of creation-design and manufacturing-production tools[11] available to individuals of
all ages, even the youngest generations.[12] Specially designed spaces and venues,
such as the "Creative and Fabrication Lab" and "Hackerspace", are quintessential to
laying the foundation for a breeding ground of group-friendly encounters, initia-
tives, and synergy transfer.

Bred from this new episode of cultural "seed-sowing" come other dynamics that
prove both communitarian and unifying in nature, shaping individual intelligence
networks that boast underlying notions of interconnectedness, intricacy,[13]

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[5] In reference to the new types of rising innovation models and how they are used described by
Massachusetts Institute of Technology (MIT) Prof. Eric Von Hippel in his work, entitled
"Democratizing Innovation" (Hippel 2005), available for free download at the following link:
http://web.mit.edu/evhippel/www/books.htm (accessed October 22, 2013).

[6] E.g. Eyeka online platform, URL, October 22, 2013: http://www.eyeka.com.

[7] In his book, *The Third Wave*, futurist and forward-thinker Alvin Toffler (1984) coins the term,
"prosumer", which is a contraction of "producer" and "consumer."

[8] Reverting to what Montaigne (1993) called back in his day "routine activities" (*Essays*, Book I,
Chapter 26, referenced version, 1, p. 156).

[9] Between receiving and consuming.

[10] In reference to social networks, online co-working platforms, various types of "groupware", etc.

[11] Featuring a mix of speed, flexibility, agility, strength, and robustness.

[12] E.g. DIY, URL, October 22, 2013: http://www.diy.org; Makedo, URL, October 22, 2013:
http://www.mymakedo.com.

[13] From "Open Design" to "Peer-to-Peer Design."

dissemination, and division. These networks have become a haven wherein eruptive, pollinating, and atoll-rich[14] (and not atom-bound[15]) phenomena thrive, further prepping the terrain for even more exhilarating and intense user contributions.[16] Advocating new forms of interrelated expression, these networks illustrate a new creative ecology. There within, users settle into the prime spot of ensuring that technological "artifacts" transform into models with definition and direction. Free to roam and think, users take advantage of this blank canvas to sketch out the future of design, as well as collaborative, ongoing, and repetitive means of production.

The role the user has become accustomed to playing is now in the midst of undergoing a revolutionary facelift; one whose essence requires a combination of creative capacity and production savvy on the part of the user now in possession of the skills and expertise[17] necessary to cooperate and collaborate in the execution and evolution of future products and services, in addition to changing the face of and influencing[18] the structural stance (formal and functional) of production means today. Therefore, a primarily technological product or service's economic value should not be reduced solely to its utility, function, or purpose, for there exists an entirely separate world of criteria deemed "productive",[19] resulting in a very different take on values[20] and broken down as follows: The first is transformation,[21] which involves redefining, redirecting, and redesigning new products and services. Next are adaptability and ownership, which create an endless number of avenues for the said items in terms of accountability, utilization, and function. What follow are the transmission and passing down of knowledge and experience, both of which endorse an increasingly sustainable life cycle of "used and reused" products and services,[22] and consequently, countless owners.

Given the user's commitment to revolutionizing how technological products and services take root and flight, not to mention the innate stakes and pending solutions, it is only natural that a work such as this regroups a multitude of intersecting and interdisciplinary viewpoints. The naturally tangential nature of the topic demands a mammoth web of far-reaching expertise among researchers[23] of seemingly opposing, yet complementary backgrounds from scientific to geographic for the

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[14] Relating to a form of "archipelization" of various collective actions, metaphorically evoking a strengthening of bonds forged between individuals and cultures: from a "rhizomatic" sequence (Gilles Deleuze and Félix Guattari) of interactions to new forms of dependency.

[15] Reverting to a "balkanization" phenomenon or fragmentation of multiple contributions.

[16] Toward new types and levels of user involvement.

[17] Boasting an even greater number of competencies.

[18] Pointing out and rectifying, if need be, areas needing attention or improvement.

[19] In a way, these productive criteria designate emerging product and service know-how/knowledge and, in turn, trigger a new social *praxis* (*praxo-poietic*).

[20] Cutting ties with the field of merchandise-, trade-, and utility-related values.

[21] Retaining new instances of product and service transformation in response to use and function.

[22] Perpetually volatile changes in ownership likely, fueling constant product and service movement and evolution.

[23] Designers, creators, architects, and engineers alike.

purposes of fostering a crossroads of thought to better grasp the breadth and magnitude of an undertaking of this kind. This efflux of information has led us to deliberately divide the work into a sequence of views serving as "chapters", but without formal section breaks. This succession allows the reader to transition from one text to the next, while preserving the thematic thread binding them all in one way or another. The reader is, thus, in control of the conclusions he wishes to draw, and on a broader level, can glimpse at the relationships and overlapping nature inherent in the fields covered.

The contributions here within adhere to a relatively orderly progression wherein subject matter ranges from "general" to "specific" in nature. More precisely, the opening pages of the book kick off a handful of thoughts and analyses founded in theory and concepts, and which set out the aims and expectations of the user's commitment to the field of design, all the while harboring no doubt around the major changes and challenges that he foresees in its practice. Next is another batch of reflections and analyses, this time, on how the user's active involvement will affect new innovative, design-driven processes and methodologies that have yet to surface, giving birth to a new form of design that welcomes *in*volvement, *out*volvement, and a conduit of exchange and feedback. A third round of contributions ensues with particular emphasis on the latest tools, methods, and new approaches in technological product and service design and development, in addition to a real push to incorporate the user at various stages of the process. The work concludes with a few case studies that offer a view into some of the advances made thus far and the important headway that has resulted.

Well aware that our modest selection of scientific insight hailing from a score of disciplines could neither measure up to nor fully address a subject as vast and complex as this one, we are, nonetheless, pleased to have had the opportunity to enable readers to perspicaciously assess and acknowledge the profusion of opportunities streaming from this user-oriented and user-driven emancipation.

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