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Notes on Designer Entrepreneurs and “The Geppetto Effect”

by Jose Aldo Valencia Hernandez and Alison Pearce

Entrepreneurship and innovation are closely related. No matter the size of the company or the stage of its development, to close the gap from invention to innovation requires an entrepreneurial effort. Entrepreneurship is a way of management; it can manifest itself as a startup or a spinoff. Even big companies work to stimulate entrepreneurial action in their employees to foster innovation inside their organizations. This is known as “strategic entrepreneurship,” a term first coined by Stanford University’s Robert Burgelman.

Product-based startups have a unique opportunity to thrive due to the conditions influenced by new technologies in recent years. This new ecosystem allows them to accelerate the process of getting an idea to market. Product designers are well integrated in this ecosystem. Designers manage their startups by tapping into a design approach to create value, shaping new ways of looking at traditional management and business practices.

This article reports on the experiences and opinions of more than 30 participants in the consumer product startups ecosystem, including designer entrepreneurs, non-designer entrepreneurs, investors and venture capitalists, heads of crowdsourcing platforms, directors of business incubators, accelerators and startups, and leading academics in the fields of design and business. We documented the entrepreneurial path, decisions, challenges, and interactions with other members of the ecosystem to draw a clear picture of the role of the designer entrepreneur. This is ongoing research, so the names of the participants have been anonymized. Our work is undertaken under the auspices of Global Entrepreneurial Talent Management 3 (also known as GETM3), an EU-funded international, interdisciplinary research and innovation staff exchange project. Its overarching aim is to improve employability and future global talent management to support economic development.

To begin with...

When we started researching designer entrepreneurs in the consumer product sector, it became clear that

these products needed to have a market and appeal to customers. They had to be mass produced rather than bespoke artefacts made for a few, which resemble craft more than a mass-market product.

Initially, we needed to understand the startups’ challenges in reaching the market. After studying academic research and observing the workings of business consultancies, we decided to construct a map (Figure 1) of the reasons why startups might fail. We classified those reasons into six

37 types: product, user, corporate, team, personal, market. Then we broke them down further to study
38 which of them a designer could address and solve. The following figure shows the map created from the
39 studies available. It can be assumed that designers are well-prepared and equipped to face the
40 challenges within the blue perimeter.

41 For example, it is common to start the design process with users in mind, asking for their
42 feedback in the early stages. This can tackle the problems “ignore customers”, “User unfriendly
43 product”, offering nice-to-have but not essential value” and “pleases investors but not customers”.

44 Of course, having a designer in the driving seat doesn’t guarantee product success either. Perhaps
45 consumer attention spans are shortening, or competition is too intense. Consider that startups struggle
46 to gain not only market share but also mind share. And obviously, it is difficult to come up with
47 something that captivates or even catches the attention of customers. Product saturation is a given,
48 and clever advertising, beautiful packaging, or amazing features are not a guarantee of success—
49 because most users take those attributes for granted.

50 Designers might require additional help to face the challenges the right hand side and lower section of
51 the map.

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54 **Is the ecosystem influencing designers?**

55 The personal traits of the entrepreneur are not the only ones responsible for tackling the challenges of
56 the startup. There are other external forces that influence the performance and results of startups.

57 We needed to understand the ecosystem in which designer entrepreneurs set up their startups. Figure
58 2—our ecosystem—illustrates a small sample of the platforms, services, software and communities to
59 which a UK-based entrepreneur in a consumer-product startup has access. This ecosystem includes
60 investors, business accelerators, crowdfunding, social media and events platforms, prototyping tools,
61 product development software, Massive Open Online Courses, startup methodologies, online
62 marketplaces, distributors, offshoring companies, design organizations, and manufacturing companies.
63 Some of these are available worldwide and others locally. In the past, this ecosystem was still in its infancy,
64 not very well connected among industries and still finding its role in the game. Now, with the help of social
65 media, entrepreneurs can run queries, access networks of potential customers, and receive feedback
66 about their product in real time. Online retailers allow entrepreneurs to sell their products across the
67 world without the need for big inventory warehouses. Open hardware and software platforms have
68 reduced the complexity involved in building devices. Additive manufacturing speeds up the prototyping
69 stage, and crowdfunding provides a faster user validation, not to mention access to seed capital. The costs
70 of tooling and manufacturing have decreased considerably. On top of that, specialized e-commerce
71 platforms allow businesses to contact a remote manufacturing base faster than ever before.

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75 **Early findings and insights**

76 We conducted some initial analysis of the data collected from 11 successful designer entrepreneurs
77 based in the UK, about the way they started their companies, how they manage them. We interrogated
78 their personal journey from being a designer to becoming an entrepreneur, and their mindset. From this
79 we can draw some preliminary conclusions.

80

81 The designer entrepreneurs we interviewed had no business training. None of them knew how to set up
82 a company. They did not come up with their business idea based on market research, potential profit, or
83 availability of technology, and none of them studied people's needs in order to conceptualize their
84 products. They decided to start their business after focusing on their own needs and aspirations, actively
85 mining their personal experiences and previous projects to come up with the product.

86 This immediately sounds contradictory to "have the user in mind" and "receive feedback from early
87 stages". There is a debate on When does a designer have to include user's feedback in a startup?

88 Entrepreneurs working on a new product and in a new market, have insufficient data to make informed
89 decisions. This is where the designer's prototyping ability helps them to run small tests and
90 experiments, generating useful information on which to base decisions..

91

92 In some cases, product contests and design competitions gave them the external validation that
93 reinforced the idea of starting a business. Such contests turned out to be crucial because of they helped
94 them to attract the media attention they needed. They also received feedback from industry insiders
95 and the initial community that later on became their first testers. Contests and competitions attract
96 possible mentors and the required funding. Entering competitions was a self-serving process, but
97 effective, in that it gave them a clear understanding of possible problems and instant feedback on how
98 to solve them.

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100 **The craft behind the product development**

101 All of the entrepreneurs in this study solved something that could impact their own lives, regardless of
102 how many potential users they could reach. They used their apparent "lack of resources" (time, money,
103 access to tools, and network) as an asset to focus their creativity into a single idea. The resources
104 available in the ecosystem made a big difference. None of these products would have happened ten
105 years ago when the entrepreneurial ecosystem had not enough resources to offer, and it was less open
106 to designers.

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109 We must note that these entrepreneurs did not reach out to potential users and customers until after
110 they had built their first prototypes. That let them clarify their proposal, and build on it. They asked for
111 feedback on how to improve the prototypes they had already made, rather than asking for initial ideas.

112 The business model in most cases evolved once the designer entrepreneurs had clarified product
113 features.

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115 **The Geppetto effect**

116 All of our participants had a book, a diary or a digital backup of ideas they want to develop. A creative
117 vessel that could be worth millions or just pennies. In some cases, there were years' worth of sketches
118 and concepts waiting to see the light.

119 In six of our participants, we spotted a peculiar pattern: an idea that “spoke” to them, one concept that
120 transcended the product dimension and encouraged them to take it to the next level. These designers
121 spent so many hours crafting their solutions that part of their own identity was transmitted to the
122 objects they designed. From IoT items to medical devices, from baby products to kitchenware, designers
123 used information that came from within themselves (experiences, perceptions, values and anti-values)
124 to shape, one by one, the characteristics of the product. Each decision taken was thoughtfully
125 considered to find coherence between the product and the designer's own vision and intent. In effect,
126 this was an inside-out process, since these designers created items that were meaningful to themselves,
127 disregarding the market (although the market received their products well). We call this the “Geppetto
128 Effect” after the impoverished woodcarver who made the puppet Pinocchio in Carlo Collodi's famous
129 fantasy adventure. It features a master carpenter who was given a special block of wood to work with—
130 a block of wood that spoke to him - whereupon he carved it into a boy.

131

132 By the ‘Geppetto Effect’, we mean the search for perfect “craftsmanship” that becomes a double-edged
133 sword, because it focuses on the excellence of execution of the product rather than the development of
134 the company formed to market that product. It was an approach that all of the entrepreneurs admitted
135 increased the time and expense of product development and business setup. Essentially, their attention
136 to detail and the determination to stick to their vision worked against them in establishing a commercial
137 enterprise.

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139 At the same time, there were some advantages. This identity-giving process reinforced the story behind
140 the product—a story that became very useful in inspiring sales. Crowdfunding sites supported these
141 companies even when they didn't yet have a fully operational product—because of the stories.

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143 Backers were looking at the product through a “human” as well as a business lens. They enjoyed
144 supporting it because that struggle resonated with their lives, values, and experiences. Certainly, a
145 product's story and identity can influence public perception.

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147 **Entrepreneurs are pragmatic; designers are synthetic**

148 Cognitive scientists have developed multiple theories to explain the logic of entrepreneurs. In 2001,
149 Sarasvathy¹ hypothesized that entrepreneurs tend to operate by either *causal logic*, or *effectual logic*.
150 Causal logic describes building up a prototype once the business plan has identified an opportunity. This
151 logic seeks to minimize risk and unexpected situations by planning every step and sticking to it. Starting
152 up a company thus follows a step-by-step procedure. It's an approach that works when enough
153 information is available, the environment is stable or predictable and the company can proceed by
154 innovating incrementally.

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156 Effectual logic is more explorative. Here, the business plan is developed once the product has
157 contributed to create the opportunity. Trial and error work under this logic. For us, this approach might
158 work well when a new product is targeted at a new market, and not enough information is available to
159 calculate the business goals involved. This approach works better in a turbulent, complex or fast-
160 changing environment where a 'muddling-through' strategy might be effective.

161 Our participants with a business background started their product development after sizing the market
162 opportunity and creating a solid business case. Designer entrepreneurs tended to fall into the 'effectual'
163 camp —developing the solution before working on a business model. Their market and technology
164 acumen was minimal, resulting in a naïve approach to business. However, their product acumen
165 provided them with a robust approach to achieving a desirable product.

166 After having their first launched product, they learn how to create and use business metrics to measure
167 their performance and evaluating their innovation strategy to growth, despite of not having formal
168 business training.

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170 **Talent management**

171 Although universities are delivering more skillful and talented design professionals, they are not training
172 them to work for a startup or to start a business themselves. This generally involves tasks that are ill-
173 defined, and it may require the ability to communicate with different disciplines and learn from them
174 quickly. It's difficult for designer entrepreneurs to learn to manage new talent with ill-defined job
175 descriptions.

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¹ Sarasvathy, S.D. (2001). "Causation and Effectuation: Toward a Theoretical Shift from Economic Inevitability to Entrepreneurial Contingency," *The Academy of Management Review*, vol. 26, no. 2), pp. 243-263.

177 Early insights show that designer entrepreneurs work better with professionals who can see the “big
178 picture” of startup, product, and context. The best fit comes with individuals who are capable of seeing
179 clearly how their skills can contribute to that complete picture. Designers generally don’t wait to gather
180 vast amounts of information in order to predict the future. Instead, they learn to control the variables at
181 hand, working with their available resources and shaping what they believe is compelling in their vision
182 of the future. Communicating their preferred scenarios to the rest of the team, designers tend to use
183 visual aids. Some even produce videos to align the team with their vision. As one said: “Let them run
184 wild—but make sure they share the same vision.”

185 **So, what’s next?**

186 The entrepreneurial process consists of intertwined activities: One thread is the product idea and its
187 development, and the other thread is the business setup. In studying this issue, it’s difficult to
188 disentangle these threads because they toggle back and forth iteratively. Some product decisions affect
189 the business, and vice versa. We are currently working on identifying milestones that can be used as a
190 system of references to compare different participants and draw conclusions. We are also planning to
191 conduct a longitudinal study to follow the decisions taken by design entrepreneurs. Through the
192 opportunities afforded by working on a major international project and the transnational mobility it
193 funds, we hope to broaden and extend the reach of our research with a view to recommending
194 ultimately how business and design schools can collaborate to produce successful designer-
195 entrepreneurs.

196

197 **Acknowledgment**



This project has received funding from the European Union’s Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 734824”

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199 CONACYT (National Council of Science and Technology in Mexico).

200 **Captions**

201 Figure 1. Map of the reasons why startups fail. Designer are most likely to tackle the challenges within
202 the blue perimeter.

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204 Figure 2. A brief sample of the ecosystem for a product based startup in the UK. This map shows a
205 diverse array of elements in the ecosystem in an advanced stage of integration. Designers are tapping
206 into this ecosystem to come up with products better than ever before as it is the right timing to
207 accelerate the pace of product development and bridge the divide between product and consumer.

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209 **Author bios**

210 Aldo Valencia is a PhD scholar in the School of Design at Northumbria University, in the UK. He has
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225 design consultancy.

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