

Francesco Biondo / Gevisa La Rocca /
Viviana Trapani (eds.)

Information Disorder

Learning to Recognize Fake News

**FAKE
NEWS**



PETER LANG

Francesco Biondo / Gevisa La Rocca / Viviana Trapani (eds.)

Information Disorder

The Fake News project was developed as a social project to suggest an idea of a plural, open, and dialectical society. One product of social action is public opinion, which directly and indirectly influences policy decisions, including those concerning the control and prospects of social innovation, thus exerting pressure on any kind of democratic regime. Disinformation hinders the free process of public opinion building by using various means to negatively influence public opinion with the effect of widening the chasm between decision-making power and active citizenry, who in turn needs to be properly informed to usefully contribute to achieving publicly shared goals in a transparent manner.

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by *Ferdinando Trapani*

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Salvatore Di Dio, Mauro Filippi & Domenico Schillaci

“Fake it ‘til you make it”: The designer playground for crafting prototypes, orchestrating frauds and pushing the ecological transition

Abstract In the past thirty years there has been a radical change in almost every business sector: companies nowadays offer increasingly complete packages or “bundles,” i.e., combinations of goods, services, assistance, self-service and customer-focused knowledge. But it is services that have the lion’s share. In this context, those involved in the servitization process, such as designers, entrepreneurs, and venture capitalists, seem to focus more and more on the customer experience than on enabling technology. This has led to the birth of many successful new companies as well as to financial scandals. The aim of this article is to understand how the “fake ‘til you make it” approach in design and business has found a key ally in the media. Furthermore, in view of the unprecedented opportunities offered by ICT and artificial intelligence, and in light of the challenges of the green transition, we discuss its ethical and pedagogical implications for the entire field of design.

Keywords: Bauhaus, design pedagogy, as if, MVP, fake it until you make it, start-up

Introduction

One hundred years after the founding of the Bauhaus, in “Bauhaus Futures,” Carl DiSalvo tackled the question “What would keep the Bauhaus community of teachers and students awake at night if the school were still active today?” and answered it by reformulating several diagrams of the original Bauhaus circular curriculum (image 1, left).

What is described as “A Pedagogy for a 21st-Century Bauhaus, Silicon Valley” (image 1, right), is a curriculum for a world steeped in digital products, where a young designer before dealing with algorithms, sensors, data, models, robotics, VR (Virtual Reality) and AR (augmented Reality), AI (Artificial Intelligence) and ML (Machine Learning), is called to have in-depth knowledge of complex systems, information and communication, behaviour, culture, politics and ethics. DiSalvo’s diagram is very topical (RaiNews, 2022) and, as defined by the author himself, “close to contemporary practices of fabricating the artificial” (DiSalvo, 2019, pp. 77–82).

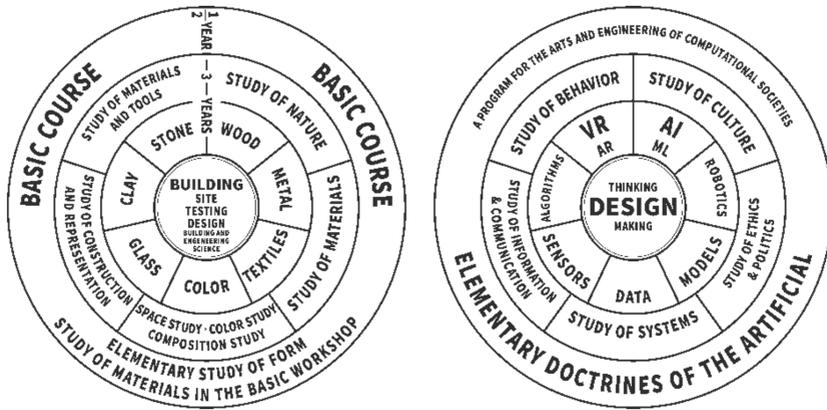


Fig. 1: Left is the original diagram, right is DiSalvo's 2019 proposal

Indeed, with the advent of the digital revolution, we have seen a radical change in almost every industry. The expectations of digital-first customers (Kraus et al., 2018, pp. 353–357) have driven companies from a wide variety of industries to offer more comprehensive products through the integration of services, assistance, self-service and information. But it is digital services that have radically and very rapidly revolutionised almost all industries (Vandermerwe & Rada, 1988, pp. 314–324), and today, unlike thirty years ago, it is precisely those companies that were born for this purpose or that have been able to adapt to new customer expectations that dominate financial markets around the world (Ghezzi, 2020).

The reason for such speed and success lies in two essential features of the digital and hi-tech industry: (1) thresholds for access to markets in the digital economy are almost irrelevant, (2) computational capacity appears to be increasing with a linear trend following Moore's law (Thompson & Parthasarathy, 2006, pp. 20–25), and this supports the promise that artificial intelligence systems have infinite possibilities.

These two characteristics have allowed those involved in servitization processes, such as designers, start-up founders, and venture capitalists, to increasingly focus on the customer experience (Stickdorn et al., 2018, pp. 136–140) than on the actual technology required for the services themselves to function (Livermore, 2007, pp. 82–86), while also neglecting the potential impacts on society, the environment, and the economy.

This approach can be summarized in the “fake it until you make it” culture typical of the innovation design world (Standing & Mattsson, 2018, pp. 385–399): in order to reduce business risk to a minimum and to be able to compete at low cost even with leading players in the industry, the experience of using the product/service is simulated from the start, leaving out the technical and logistical aspects, so that immediate feedback can be gathered from the market and thus validate the business model (Eisenmann et al., 2012).

Therefore, the designer is not designing the finished product but rather a plausible version of it, often even putting communication design before product design until market demand has been proven or confidence built in investors.

That said, it is therefore clear how thin and opaque the line is between designing an elaborate prototype and orchestrating a scam, especially in the burgeoning field of artificial intelligence, where technology seems magical, has the confidence of an increasingly less knowledgeable media and academia with less and less access to data. However, all this is difficult to grasp and corroborate.

This article therefore aims to trace the phenomenon’s cultural origins, focusing in particular on the Theranos scandal, and finally to offer a new diagram for the 21st-century Bauhaus, as proposed by DiSalvo and adapted to the challenge of the green transition.

Simulate to survive

While in his famous “Survival through design”, Richard Neutra described how beauty and utility cannot be separated in the art of design, today the boundaries of the debate in which designers of digital experiences work have been stretched to the concepts of “reality” and “intention”.

The reference scenario for this ambiguity is that of the world of technological innovation processes and start-ups, and it affects the designers involved because, in stark contrast to previous decades, the start-up of a digital product/service can be realized with a “shoestring” budget thanks to the low cost of the tools needed to implement even the most complex prototypes (Petersen, 2015, pp. 143–152). Indeed, a profound transformation of the industrial structure of the world economy is currently underway. The production of intangible assets is taking an increasingly larger share of GDP; even more traditional industries are experiencing rapid technological change, and industrial spin-offs and start-ups of various kinds are springing up everywhere.

But for all intents and purposes, these new products/services are essentially unproven ideas that are based on entrepreneurs’ intuitions about the unexpressed or currently unmet needs of potential customers. The key challenge

here is that the new offering must be stand out from what already exists, but it cannot be so different as it risks being deemed unrealistic or impossible to execute. In the early stages of conceptualisation and development, entrepreneurs and designers tend to claim that their solution is distinctive and at the same time they try to establish the legitimacy of their project through branding and storytelling. Images and stories are developed and used to paint the picture of the entrepreneurs' visions and to build an image of the solution and the enterprise that aligns with the expectations of external audiences, such as customers and investors.

This is where “fake it 'til you make it” comes into the equation (Wood et al., 2021, pp. 117–125).

Reality and intention

“Fake it till you make it refers to the idea of projecting self-confidence in order to convince yourself that you can attain a goal that you feel as though you do not yet have the skills to achieve” (Mann, 2022, pp. 99–100).

According to psychologist Adler, “When people have difficulty [...] speaking assertively or responding with some measure of empathy, the clinician might encourage them to act “as if” they were assertive or empathic several times a day until the next session. As people begin to act differently and to feel differently, they become different”.

Acting “as if” gives people the opportunity to enact the best possible outcomes or create new stories about their lives. Asking people to fake it helps them overcome resistance to change by reducing risk. The rationale for this reconstruction strategy is that as someone begins to act differently and to feel differently, they become a different person (Watts et al., 2005, pp. 380–387).

So, the root of the “fake it until you make it” approach lies in the clinical suggestion of “as if”, which is functional in transforming perception and thus the way those involved in the processes of change and innovation are perceived.

Investors are often those who encourage start-up founders to think big, and a high percentage of them fail anyway. So, what if someone stretches the truth a little (Griffith, 2018)?

Stories are built, and an image is designed consistent with the ambitions of the project (and the market) to overcome the “imposter syndrome.”

This is not limited solely to communication design and storytelling, but often, in defining a product's or service's features, one pretends that it actually works using, for example, role play through prototypes or other materials that can facilitate the representation of intentions, referred to as Minimum Viable

Product or MVP (Duc & Abrahamsson, 2016, pp. 118–130). Even start-up founders with the best of intentions have to convince investors and customers to believe in a future in which their totally made-up idea will be real but, depending on the degree of verisimilitude of the prototypes and the degree of spectacular staging, such an approach can easily lead to stakeholder deception and thus fraud.

Theranos: Faked it but didn't make it

The story of Elizabeth Holmes, founder and former CEO of Theranos Technology and once heralded in the media as the next “Steve Jobs” (Stevenson, 2015), provides a chilling example of how the self-confidence underlying the “fake it until you make it” ethic can lead to self-delusion and fraud.

In 2003, at the age of 19, Elizabeth Holmes dropped out of Stanford University to found Theranos, the health-tech start-up that promised to revolutionize the blood diagnostics industry with a new technology that would make blood tests cheaper, more convenient and more accessible to consumers.

In September 2007, designer Ana Arriola joined Theranos as Chief Design Architect to develop the Theranos brand identity and to design the Edison device (later renamed minLab) for blood testing. Arriola had previously worked for Adobe, and when Holmes hired her, she was a senior product line manager at Apple and one of the original iPhone design team members.

According to “Bad Blood” author John Carreyrou, after only a few months at Theranos, the Edison machine whose design Arriola had been tasked with improving was not working, and after discovering that they were conducting tests using a defective machine on cancer patients for a study in Tennessee, she quit.

About six years later, in 2013, Theranos began to publicise its technology, which claimed to screen more than 200 health conditions with a few drops of blood drawn from a single fingertip, and all of this with the help of an artificial intelligence system as well.

Theranos’ vision and its founder’s story immediately generated media hype, allowing Holmes to make countless important public appearances (TedMed, 2014), and magazine covers (Kulwin, 2015). This attracted the likes of Rupert Murdoch and Henry Kissinger to join the company’s board.

From 2003 until John Carreyrou’s 2015 investigation in the Wall Street Journal (Carreyrou, 2015), Theranos raised \$900 million and reached a market value of \$9 billion. Then came the downfall climaxing in 2022 with the fraud trials for Holmes and her former partner Balwani (The Guardian, 2022).

The Theranos miniLab

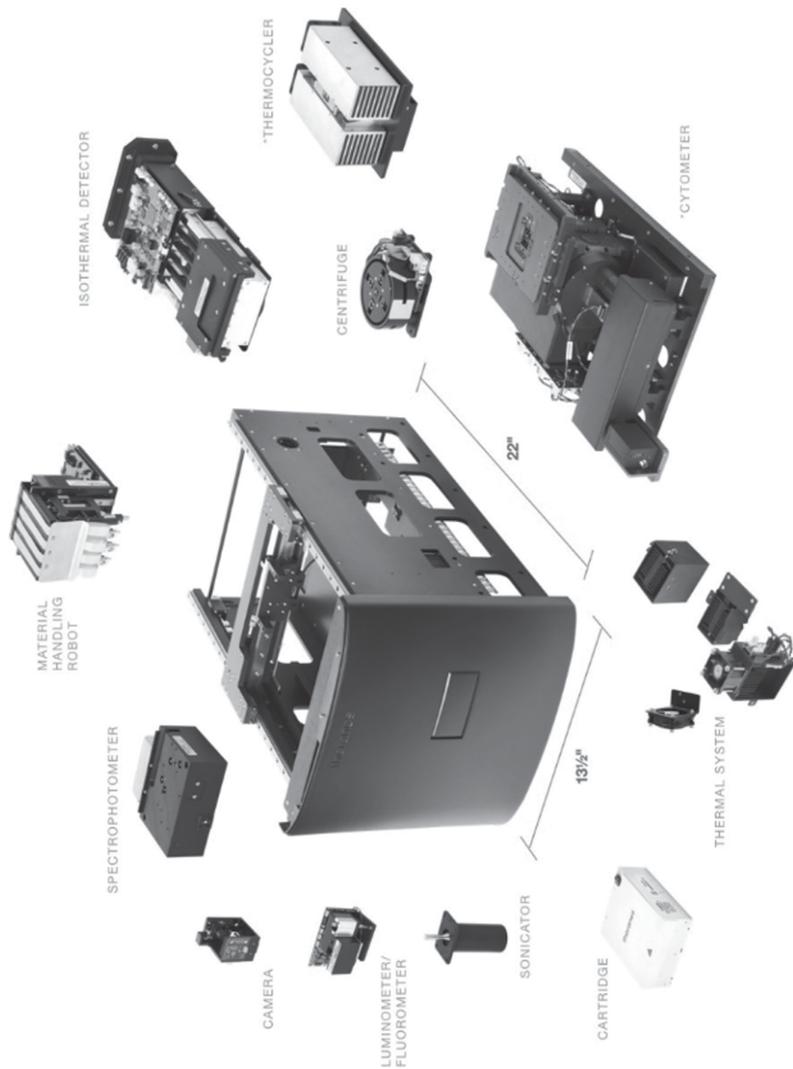


Fig. 2: From the Theranos website

The journalistic investigation described the company working in a scientific vacuum.

But a biotech company can hire the best designers in the world, build a credible brand reputation for all the world's media, and not be forced to do research on its products publicly available.

Conclusions: Fake it until you make ... what?

In the minds of venture capitalists, certain investment areas such as cybersecurity, personal services, and health care are a prime target. Investment is booming and there is unbridled enthusiasm for new technologies. But there is a huge gap between the goals of those with capital and the purposes of the field of investment: while the goal of cybersecurity is the protection of sensitive data, of personal services individual well-being, and of health care the protection of health, the goal of start-ups is unhindered growth and short- and very short-term gain.

Such distance can, as in the case of Theranos, jeopardise the lives of those receiving the service by going in the exact opposite direction from the goal claimed by the vision, mission and overall branding. In this context, developing an innovative product/service requires that entrepreneurs and designers have to try to follow this advice from Buckminster Fuller: “as a designer, you have to decide whether you want to make money or make sense, because the two are mutually exclusive”.

At a time when the concept of “change by design or by disaster” is now clear for all to see (IPCC, 2022), administrators, entrepreneurs and, above all, designers are called upon not only to design products and services capable of meeting the needs of users, but also to design the new foundations of a society that is more just, inclusive and mindful of the consequences of its consumption and behaviour on the environment.

The complex social and, above all, green transition we are experiencing needs a new generation of designers capable of impacting the design disciplines as powerfully as the Bauhaus did at the beginning of the twentieth century. And precisely because of the inherent ambiguity typical of transition phenomena, mastering the “fake it until you make it” approach will be more than useful, it will be necessary (Transition Design Seminar, 2022). An example reminiscent of the media impact of Theranos and Elizabeth Holmes, but not the denouement, is that of Ocean Cleanup and its founder Boyan Slat. As soon as Boyan was 16, he had the idea of developing a passive concentration system to collect plastic from the oceans.

After graduating from high school, he was invited to present his idea at a TEDx conference in 2012 (TEDxDelft, 2012), and after dropping out of college and founding the non-profit, the video went viral allowing The Ocean Cleanup to raise the first \$90,000 and conduct six expeditions in the North Atlantic to measure the vertical distribution of plastic in the sea, the interim results of which were published in scientific journals (The Ocean Cleanup Scientific Publication, 2022).

In 2015, the first “Array” system for collecting surface plastic received a “Design of the Year” award from the London Museum, but tests at sea failed.

A new solution “System 1 – Wilson” was successfully tested in the open sea in 2018, in 2019 the first “Interceptor” was installed at the mouth of a river in Indonesia, in 2020 “System 2 – Jenny” collected dozens of tons of plastic (some of which was then recycled to produce sunglasses and fund the project) and makes use of AI-enabled satellite tracking systems to monitor plastic density in the oceans (Vries, 2022).

With a goal of eliminating 90 % of floating plastics from the world’s oceans by 2040, fixed assets of more than \$51 million at the end of 2020, investors such as Coca-Cola, Moller-Maersk, PayPal’s Peter Thiel, and Salesforce’s Marc Benioff, Ocean Cleanup moves between philanthropic action and greenwashing (Dickie, 2021). But Slat’s story can nonetheless be an example for how he used the “fake it until you make it” approach in a transparent way with the media and investors, how he has, despite the ambiguity that is the backdrop for projects like these, opened his offices to the scientific community, never shying away from debate (Jones, 2022).

So, returning to DiSalvo’s proposal presented in the introduction, we can conclude that in the face of the new and important opportunities of technological evolution and the survival challenges we are already facing today, it is desirable to add a “sensemaking” module (Kolko, 2010) to the diagram presented by the American author that complements the “study of ethics and politics” module to focus on the intrinsic intentions and motivations of (present and) future designers.



Fig. 3: From the Ocean Cleanup website

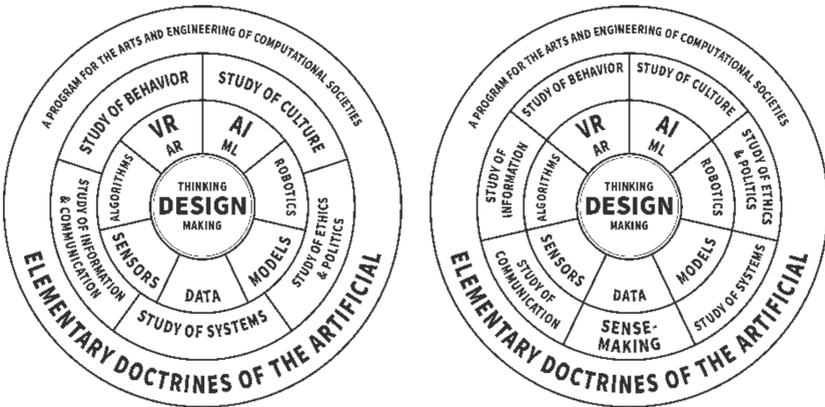


Fig. 4: On the left is the diagram proposed by DiSalvo, on the right the one proposed by the authors

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