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Fashion and Work Organizational Ecosystem

Prospects and Post-COVID-19 Scenarios

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Keywords

Fashion, Work, Organizational Ecosystem, Organizational Sustainability, Scenarios.

Abstract

Design is the basis of organizations' innovation and sustainability process and an indispensable re-source for meeting short-term sustainability goals and transforming the long-term economic model.

However, it is known that the current configuration of the organizational work ecosystem in the Fash-ion sector has been marked by a panorama of sanitary, social and economic instability. That said, the objective of this paper is to map the organizational ecosystem of work in the Fashion sector from a systemic perspective between the individual, organization, work environment, products, tasks, and tools in a post-COVID-19 scenario and of profound technological changes. Thus, it is essential to re-think corporate culture and organizational ecosystems through new models of collaboration and inno-vation between partners. The rele-

vance of this study for the Design area is in determining strategies for stakeholders in the present, from the projection of future work scenarios in Italian fashion companies, as vectors of development and a balance factor in the relationships between people, objects, and the environment. The research approach was systemic-constructivist, and the methodological design included Grounded Theory and Triangulation.

1. Introduction

Epidemics and economic crises have disproportionate consequences in certain countries or specific segments of the population, triggering an increase in social, economic, gender, educational, or legal inequalities. In Italy, the pandemic is having a profound impact on the labor market, in addition to the imminent concerns about the health of workers and their families. All Italian companies in the fashion sector, regardless of their size, face serious difficulties, with the real risk of a significant drop in revenues, an increase in insolvencies, and the consequent loss of jobs. As a result, the world of work is affected by the resulting economic shock from this health and social crisis, especially in three main dimensions (ILO, 2020): (1) The number of jobs, both concerning unemployment and underemployment; (2) In the quality of work, such as, for example, wages and access to social protection measures; (3) The adverse effects felt in specific groups in the labor market, such as in the community of women, workers in the service sector and unprotected workers, including self-employed, casual and platform economy workers.

In addition to this scenario of instability, the current configuration of work is also being shaped by the adoption of artificial intelligence in the work environment; by blockchain technology; by organizational innovation; by expanding the workforce, inside and outside industries; by new forms of work; by flexible production processes, and by current national and international regulations. These variables cause inconsistency in the organizational ecosystem of companies in the fashion production chain, which is articulated, in a diachronic and synchro-

nous manner, depending on tangible and intangible resources and skills. Consequently, both the pandemic and the new work configurations directly impact the organization of work, the labor market, the work environment, and the formulation of policies for work. Some jobs are disappearing, and others will cease to exist due to the current world situation and automation in the manufacturing and service industries. Other work is being transformed to include new tasks and interactions, displacement of work activities among employees, or collaboration with machines and computers. Therefore, the entire structure of the work is affected.

On the other hand, there is the emergence of new productive possibilities and inclusive practices in this context. The priority aspects of sustainability give rise to innovative ways of thinking and doing since true sustainability does not mean only "ecology" (SMI, 2016).

"[...] being a sustainable tout court company means respect for the environment, saving raw materials and economic resources, and the health of workers and consumers, respect for human rights, rationalization of creative and productive processes, stimulating innovation" (SMI, 2016).

Sustainability is strongly linked to the concept of innovation and develops, transversally, from research and academic and professional training, passing through the designers' projects, until reaching the companies' production workshops.

We need to rethink what we design and put on the market, removing the embedded obsolescence that comes from adopt-

It is the alchemy that perceives design as a proactive element of responsibility in the confrontation between people and society, as well as a necessary component in the innovation process (Fig. 1) and an indispensable resource for inducing and improving competitive strategies (Franzato & Celaschi, 2012; Bonsiepe, 2011). Thanks to the intrinsic capacity to transform itself to adapt to society's changes, supporting changes, or even anticipating them, the design is the motto for economic growth and positive consequences for the socio-cultural fabric. It is clear that to achieve these results strategically, the significant contribution of all stakeholders involved is necessary: government, business people, designers, employees, consumers.



Figure 1. Innovation has been scaled-up along the entire fashion value chain and is here to stay, BOF, 2020.

- How is the outbreak of COVID-19 influencing and will influence the world of work in the fashion ecosystem?
- How to manage a governance system on digital work platforms?
- How to organize the new work settings without affecting the entire production system?
- Is there a job guarantee that protects workers' fundamental rights, an adequate salary, working hours limits, safe and healthy workplaces, skills, and abilities?
- Is it possible to reorient the post-COVID-19 organizational, productive, technological, and communicational processes?

The answers to these questions are not simple. It is known that some gaps and challenges impose obstacles to business models in the scope of fashion, in addition to a limited amount of literature that discusses and prospects the opportunities and challenges of working in the sector.

"To survive, fashion must recover its function and respond first of all to the needs of the public, of the people in real life, and it must do so by abandoning personalism". (Mazzoni, 2021)

2. Prospective Activity

The effort to know the future has been lost in the history of humanity since remote civilizations. Still, in the 17th and 18th centuries, trend studies were based on mathematical and statistical sciences. Currently, what is fundamental in the generation and implementation of studies of the future is the relational understanding between context, content, and approach, with the purpose of strategic reorientation, as well as the definition and implementation of policies (organizational, scientific, technological, business, governmental, environmental, social).

The term prospective was coined by the French philosopher Gaston Berger in the late 1950s to emphasize the importance of a future-oriented attitude to face future transformations. The word *progetto* originally refers to projecting forward, from the Latin *projectare*, *gettare avanti*, *proporre*, prefigure what is intended to happen (Conti, Poletti & Rinaldi, 2016).

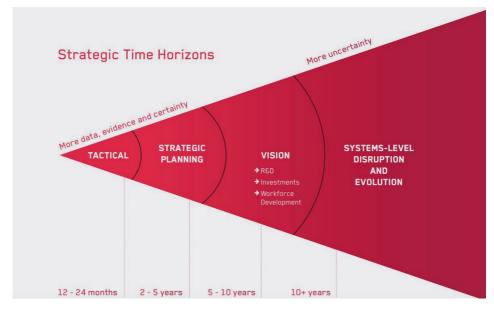


Figure 2. Strategic Time Horizons, Webb, 2019.

Conceptually, the prospective activity is a reliable tool for organizational sustainability. It allows the capture and perception of the behavior of variables in the corporate environment in an orderly manner, which are relevant to institutional strategic definitions. Foresight practice takes place through four different attitudes and/or behaviors towards facing the constantly evolving future:

- Reactive, when it opposes the changes to come and tries to delay, stop or even reverse the future;
- Passive, when it does not perform positive or negative actions, it only accepts the future;
- Active or Proactive, when positive actions are taken to quickly adjust and even take advantage of the signs of change;
- Leadership, when positive actions are taken to initiate, guide, lead, and even accelerate future transformations.

To effectively plan for the future, organizations need to learn to cover different time bands simultaneously and think about a broad temporal spectrum. For any uncertainty about the future (Fig. 2) - be it risk, opportunity, or growth - leaders must think about tactics (12 to 24 months), strategies (2 to 5 years), vision (5 to 10 years), and changes in systems-level (more than ten years). In short, the prospective activity is a tool that allows the company, through a collective reflection on future challenges, to structure and evaluate its strategic and marketing options to clarify its actions (Rech, 2014). Thus, it is clear that the prospective attitude consists of controlling change, acting proactively, preparing for changes, and causing desired changes in the present scenario.

3. Methodology

This explanatory exploratory research is qualitative and involves inductive and deductive processes (Creswell, 2014; Bauer & Gaskell, 2013). Consequently, the research approach was systemic-constructivist, whose assumption was based on the object of study, providing the basis for a transdisciplinary approach and becoming relevant in the design's current complexity.

The methodology was composed of Grounded Theory (Glaser and Strauss, 2017), whose investment as a research reference influences this method's most crucial procedure: the data coding stage. Triangulation was also used (Kawamura, 2015; Denzin & Lincoln, 2006), whose form of multiple operationalization, or convergent validation, is generally used to describe various data collection techniques to build a concept different qualitative or a mix between qualitative and quantitative procedures.

4. Italian Panorama

The Italian Fashion System has developed a very complex structure made up of small, medium, and large companies; again, this industrial system is one of the few to keep the supply chain that constitutes it unchanged. Let us analyze this system from a phenomenological point of view. We will also be able to notice how, in recent years, it is no longer classifiable only as the result of a series of trends and changes that enter the world of aesthetics. However, it must be considered a reflection of a broad cultural, social, and economic dynamic that belongs to the postmodern industrial culture (Conti, 2012, p. 28). The Italian sphere of fashion is characterized by being a group of micro, small and medium industries highly fragmented, independent, and with a high degree of specialization in different production process stages. These characteristics enable productive flexibility, which guarantees a high capacity for innovation and, consequently, constitutes the competitive basis of the Italian Fashion System in international markets. It is a concept of network business, an inter-relationship strengthened by the link with the territory, which combines productive and organizational strength with

market intelligence to optimize synergies. This context can be seen by the vital position of the national supply chain in the European market for quality fashion products and the sector's export performance in recent years.

Despite being one of the first industries to convert to technology, to invest in R&D continually, and to rethink the production chain with a view to circularity and innovation in the phase of recycling and reusing products, this year, the sector is going through a setback unprecedented that is reflected mainly in:

- Fall in the production of textiles, clothing, leather goods, and accessories;
- Interruption of global supply chains;
- Reduction of hours worked per year;
- Review of the need to design seasonal collections;
- Inventory accumulation, which depreciated quickly due to trends;
- Product price deflation;
- Closing of commercial channels, excluding online channels;
- Reduction in retail sales, particularly in luxury, due to the decrease in the flow of tourists to Italy;
- Cancellation of events.

The pandemic has established an unprecedented global crisis in terms of speed and scope. Similar situations were only experienced during the Great Depression, in the 1930s, and 2008, with the global financial crisis. The economic shock scale is evident in the severe drop in GDP in most countries globally during the first half of 2020. Moreover, the projec-

tions made by major international institutions for the coming years are also not optimistic. It is important to note that, according to the *Studi Confindustria Center* (2020), a decrease of -10% in Italian GDP is estimated this year and a partial recovery of + 4.8% in 2021 (Fig. 3), with the current GDP retraction goes back to the levels of 23 years ago.

	2019	2020	2021
Gross Domestic Product (GDP)	0,3	-10,0	4,8*
Consumption of resident families	0,4	-11,1	5,9
Gross Fixed Investments	1,6	-15,8	9,7
Exports of goods and services	1,0	-14,3	11,3
Total employment	0,2	-10,2	4,0
Debt of the PA (1)	1,6	10,8	5,8*

⁽¹⁾ Values in% of GDP

Including this maneuver, according to government estimates, GDP could reach 5.7% and debt to 7.1% in 2021 Source: Confindustria Studies Center and estimates based on ISTAT data

Figure 3. Forecasts for the Italian Economy, CSC, 2020.

The Italian fashion supply chain is responsible for 8.5% of sales and 12.5% of employment in Italy's manufacturing industry. The sector of micro and small fashion companies, which comprises 55 thousand enterprises and employs approximately 312 thousand employees, together with the automotive category, was one of the most affected manufacturing areas in the initial phase of the COVID-19 crisis (CONFARTIGIANATO, 2020). According to studies by the Ellen MacArthur Foundation (2020, p. 269), "all in all, a 27–30% reduction on year-on-year revenues for the global fashion industry is predicted for 2020". Despite the internationally

ULA = equivalent units of full-time work

^{*} Does not incorporate the maneuver outlined in the NADEF for 2021

recognized quality of products Made in Italy, companies in the sector registered a drop in turnover of around 29.7% in 2020, totaling 29 billion euros.

Many companies were forced to implement recovery plans to recover the financial losses and compensate for the scarcity of materials from industries located in areas affected by the virus's spread. This situation led to a reassessment of local supply chains. It encouraged companies to reshoring, which is the economic phenomenon that consists of returning to the country of companies that had already moved their industrial structures to Asian countries, such as China or Vietnam, or states in East Europe, like Romania or Serbia.

Until the beginning of the pandemic, the companies that opted for reshoring were those that needed to value the Made in Italy brand and position their products at the top of the line or those that did it for simple economic factors. In recent years, the best-known cases of reshoring refer to major fashion brands, including Prada, Ferragamo, Piquadro, Benetton, and Falconeri.

However, to return to the positive trends of the last decade, the sector needs a strategic and articulated plan for regrowth, establishing policies to encourage value and innovation in long-term business models. Also, other issues are pertinent in the current scenario, and that should be considered for the projection of plans, such as:

- Sustainability as a new business model;
- Increase in the resumption and strengthening of the national productive ecosystem;

- Renewal of partnerships in search of innovations for the sector, that is, the relationships of the vertical and horizontal sectors;
- Incorporation of digital fashion and e-commerce;
- Survey of new consumer behaviors due to digital access to purchases.

In summary, this scenario of social and economic uncertainties must be managed with political agility, affirmative actions, and governmental interventions to stabilize the volatility of the markets and overcome the challenges of unemployment, the increase in poverty, the high number of bankruptcies, and the need credit lines for business survival. Today, Italian government officials adjust their contingency plans and examine their priorities to preserve lives, protect their citizens' health, and stabilize the economy within possible limits. Some changes imposed by this new reality are not temporary and will profoundly reshape much of the industrial system as we know it today.

To cope with new restrictions, mitigate the pandemic's damaging impact, and adapt to economic and consumer shifts, companies must introduce new tools and strategies across the value chain to future-proof their business models. Fashion players must harness these innovations and scale up those that work to make radical and enduring changes to their organizations – and the wider industry – after the dust settles (BOF, 2020, p. 32).

The current situation provides essential inputs, which must be

considered in new adaptation and transformation strategies. The widespread impact on all human beings opens an opportunity to reevaluate, rethink, or adapt our ways of life, attitudes, principles, and values. Thus, future actions need to be economically viable, socially just, and ecologically correct concurrently, that is, a development process based on socio-environmental responsibility. In the business context, the pandemic brought the need to revisit priorities within the organizational ecosystem. Currently, the increase in production and consumption is seen as inappropriate. It is necessary to rethink the value given to people, the environmental impact, the engagement for specific causes, and the positive impact on society.

4.1. Prospects and Post-COVID-19 Scenarios

In April of 2020, the designer Giorgio Armani published an open letter on the WWD portal. He reflected on the status quo of fashion and how the coronavirus pandemic's situation can contribute to changes in the system. It was a sensitive testimony about a business's inconsistencies, relational dimension, the durability of the products, and the imperative paradigm shift. The document provoked debates and supported distinguished colleagues such as Donatella Versace, Elisabetta Franchi, Marco Baldassarri, and Rick Owens. Since then, several reports have been published by confederations of industries or market research companies on the post-COVID-19 effects in the fashion sector. With some nuances, everyone warns that the current moment is turbulent, but there are alternatives for the industry. Confindustria (2020) says that the economic, social, environmental, and technological challenges are interconnected. It is crucial to

face them systemically, reconfiguring the Italian industrial sector, vocation, and competitive position in the world panorama. This proposal includes rethinking the value system, new business configurations, business habits, strategic alliances, drivers of innovation, creativity, distribution channels, employment levels, as well as the well-being of citizens/employees, the international division of labor, protection of the environment, and multifunctional collaboration between people and businesses (Creative Industries Lab, 2020). The original and withstanding idea of sustainability is a powerful aspiration to make better decisions today so that we all benefit in the future. Sustainability involves considering and

erful aspiration to make better decisions today so that we all benefit in the future. Sustainability involves considering and working toward harmonizing the social, economic, and environmental aspects of the things we do, be it the businesses we run or the actions we take as workers and consumers (Acaroglu, 2020, p. 7).

The real presence of sustainability in the organizational ecosystem makes it possible to assess inputs and control outputs, focusing on the redesign of products and services to result as neutral in these input and output actions. Sustainability is the ability to design strategic business operations, considering the holistic consequences of companies' actions (Fig. 4), without perpetuating only economic motivations.

The organizational ecosystem at work has undergone profound changes since the last century, and each decade has brought new challenges and warning signs for business and government leaders. Some economic trends and social practices were already considered in the business context, but they were accelerated by the global pandemic, challenging commercial operations, and health systems (Acaroglu, 2020a).

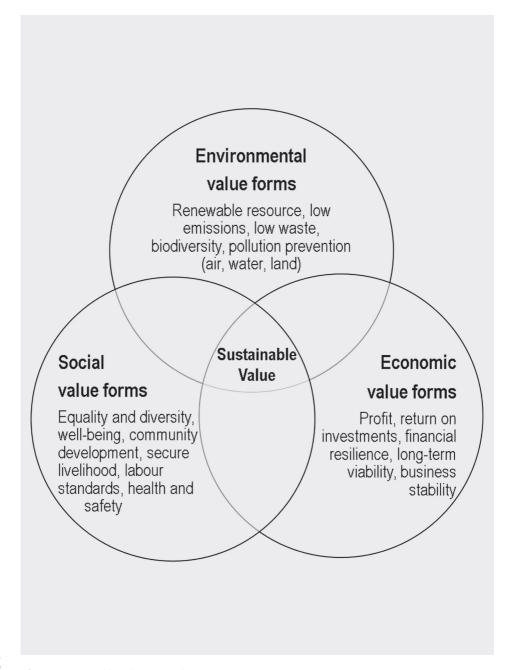


Figure 4. Sustainable Value, Acaroglu, 2020, p. 7.

Figure 5. Future of the Sustainable Workplace, Acaroglu, 2020a, p. 15.

The drivers of change (Fig. 5) that were already operating in the organizational ecosystem and are manifesting themselves more intensely since the outbreak of COVID-19 are (Acaroglu, 2020a, p. 16):

- The industry 4.0: "Exponential changes in technological development are altering the way we manufacture, produce, and consume goods and operate within the economy, offering significant opportunities to increase efficiency, reduce waste and streamline production processes";
- The green recovery: "In response to the global waste and pollution crises, the Circular Economy calls for a total reconstruction of how we design, produce, deliver and discard goods and services that make up the economy";
- The global health crisis: "As the response to the Covid-19 reminded many that action to abate the negative impacts of climate change also requires collective action and immediate changes to the way we run the economy";
- The 2030 global goals: "Companies all over the world are now tracking their performance against the 17 Sustainable Development Goals and reporting on new actions taken to enable the accomplishment of them";
- The climate change: "Predicted changes that will occur this decade if we do not curb greenhouse gas emissions will give the weather entirely new meaning";
- The circular economy: The European Union is "driving the campaign to build back better by tying economic in-

centives to climate-positive actions for a more sustainable and resilient economy" as a driving force behind the rapid transition to a green economy.

The fact is that we are unaware of the long-term impacts of the pandemic and the potential for an increase in new epidemics in the future. However, absolute certainties are already evident as (MIT, 2020):

- The way of working is changing faster and faster, aided by technology, to reduce risks to human health and increase productivity in times of crisis;
- Business managers are learning to combine events arising from the Covid-19 outbreak, social and economic conflicts, technology, automation, and organizational repositioning;
- The identification of high risk of contagion functions and specific training is essential to protect the health of employees and ensure productivity in these functions;
- Governments must support industrial development, a technology policy available to all, and education systems to ensure national resilience in a future pandemic.

5. Final Considerations

This investigation aspired to the multidimensional, making it possible to examine the scenarios for the future of work in fashion companies and understand the changes in this production chain's organizational design, which is being affected by post-COVID-19 transformations and technological development, contributing to the process of innovation and

changes in the organizational project. Thus, in this process of profound changes in the system, it is essential to rethink corporate culture and organizational ecosystems through new collaborative and innovation models between partners. Design innovation will play a vital role in meeting short-term sustainability goals and transforming the long-term economic model (BOF, 2020a). Therefore, the role of the designer changes, and he "can continue to carry out his function by synthesizing and catalyzing different knowledge; his task will increasingly be that of practicing the profession to exchange, mixing his contributions with those of other professionals involved" (Conti & Franzo, 2020, p. 133). Consumers and employees will continue to demand more from purpose-driven companies that champion their values – from climate change consciousness to diversity and inclusion (BOF, 2020a, p. 7).

Although the priority, at this moment, may be to overcome the crisis without significant losses, companies cannot miss the opportunity to act, redefining responsibilities and functions to reshape the future driven by demand and sustainability. "If the fashion industry and press were to encourage consumers to think beyond buying products that reflect their desires for status, prestige, and social recognition, then garments may inherently achieve a longer, more useful life-cycle" (Gwilt, 2011, p. 23). It is a shortsighted view that reducing the consumption of products from the fashion industry does not make economic sense. It is important to remember that this production chain's future depends, above all, on a balanced and creative approach in the design, production, use, and responsible disposal of fashion clothes.

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BIOGRAPHIES

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Italian fashion designer focused on the research of biomaterials and new technologies in the fashion industry for developing new body concepts. I have a Bachelor's degree in Fashion Design and a Master degree in Innovation Design from the University of Campania, Italy. I collaborate with research groups in fashion design, graphic communication, bio-materials and digital fabrication creatively investigating the material throughout develop smart, innovative and sustainable fabrics and assist in the research of innovative technologies and bio design applied to fashion.

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She is conducting her studies at the intersection of Design and Science, in particular related to the application of biologic processes in substitution of the conventional manufacturing processes, in order to exploit their potentiality in terms of new aesthetics, languages and fruitions patterns. She has conducted several department researches and experimentations in the field of biomaterials, obtained from the re-use of organic waste from the agri-food chain, and collaborated as teaching assistant on the topic. She is actually part of the team of the Interdepartmental Center Saperi&Co of Sapienza University.

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Visiting Professor at the School of Fashion and Design (SOFD) of the GD Goenka University in Gurgaon (New Delhi, India) and at the EDC Business School (Ecole des Dirigeants et des Créateurs d'entreprise) in Paris.

From 2011 to 2020, she has been a contract lecturer at the School of Design of the Politecnico di Milano and from 2009 to 2018 research fellow at the Design dept of the Politecnico di Milano, developing research on communication for the fashion system and on the relationships between design, culture and territory.

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After the three-year course in Bologna in "Industrial Product Design" he graduated at CDLM in Fashion System Design at University of Florence. He is interested in the creative sphere, confronting different expressive disciplines such as illustration, painting, videomaking, DIY, gaming, musical composition and writing.

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For over 20 years she worked in projects in Ethiopia, Algeria, Tunisia, Morocco, Yemen, Jordan, Haiti, with the most important national and international donors WHC - UNESCO, UNCCD, World Bank, European Commission, WMF, AICS. Since 2011 she has been collaborating with the DIDA UNIFI especially in projects around Maghreb countries and in the social field promoting Social Design projects and workshops using co-design methodologies.

She is professor of Service Design at DIDA UNIFI, professor of Design for Cultural Heritage in the License Course in Design at Ecole Euro-Méditerranéen d'Architecture Design et Urbanisme de l'Université Euro-Méditerranéene de Fès EMADU – UEMF in Morocco and visiting professor in some universities in Mediterranean countries.

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Main focus of his line of research are parametric design, medical design, and advanced manufacturing – knowledge acquired during his academic path. The Ph.D. course with industrial characterization has allowed him to carry out and consolidate his research activity, as well as at his university, also at the Escuela Técnica Superior de Ingeniería y Diseño Industrial (Universidad Politécnica de Madrid, Spain) and a company from Campania, based in Gricignano di Aversa, to design a system of innovative orthopedic devices through parametric design.

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A graduate of the CDLM in Fashion System Design, is interested in art, music and writing. She coordinates the virtual lab at DIDA (Department of Architecture) of the University of Florence (Italy), Design Campus section. Currently she works in communication projects of and for CDLM in Fashion System Design. She was involved in "Metamorphic Fashion Design" offering her contribution in the design of environments, as well as in the collection and organization of material. elena.pucci@stud.unifi.it

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He is currently engaged in the research project: "Design, Art and Business: innovation, strategy and sustainable channels for the creation of value", which focuses on the analysis and collection of information relating to the mapping of the relationships between Design, Contemporary Art and Companies starting from the Tuscan territory.

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She was a Visiting Professor at the Politecnico di Milano (Italy) and was awarded a CAPES PVEX scholarship (2019/2020). She is the Editor-in-Chief of ModaPalavra e-periódico (UDESC), Coordinator of the laboratory FPLab - Futuro do Presente (UDESC), Collaborating Researcher at the University of Lisbon (CIAUD/Portugal), and Integrated Researcher at the Trendsobserver platform (Portugal).

Her areas of interest are focused on the following themes: Fashion Design, Trend Studies, Scenarios, Consumer Culture, Qualitative Research, Methodologies.

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Since 2015 she has been teaching fashion and communication design courses at the Accademia delle Belle Arti di Napoli. Since 2009 she has been working as a professional visual designer and in 2017 she is co-founder of the Pluff design studio specialized in visual communication projects of national and international importance.

Among the main projects are the visual identity of the Italian Pavilion at the Venice Biennale (2015) and the creative direction of Milano Book City.

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Juliet Seger

She is a vocationally trained tailor, clothing engineer and designer. Her academic path at The University for Applied Sciences Hamburg (Clothing – Technology and Management B. Eng., 2019) and The University of Edinburgh (Design for Change MA, 2020) was paired with diverse practical experience in the fashion industry. Following placements in bespoke tailoring and an extensive tailoring training with the HOLY Fashion Group, she worked as technical designer and studio manager for menswear designer Alex Mullins in London and spent one season with Proenza Schouler in New York. For several years she led sewing workshops for children and supported the student sewing lab at HAW Hamburg. Her label PAID VACATION functions as creative platform for contemporary tailoring and made-to-order fashion design. Since Autumn 2020 Juliet is based in Berlin where she works as fashion product developer. **juliet@paidvacation.de**

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Her research interests concern the heritage/creativity sphere within the digital evolution; thus, the application, impact and opportunities that lie in the relationship between digital technologies and cultural heritage. She is currently working on a research project titled "Living archive. Disseminating and reusing the Fashion cultural heritage" founded by Regione Toscana.

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She is a color, materials, and finishes (CMF) designer at Garmin International and previously at Newell Brands spanning professional experience in consumer electronics and home goods. She is also a published researcher on trend forecasting and CMF trends as well as a published theorist on future aesthetics after artificial general intelligence is created and society heads toward artificial superintelligence. Kellie is focused on the direct impact that social and political events have on future aesthetics and their relationship with the economics of design.

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