

Student Name: Patrick Harry

Student Number: 2103803

Programme of Study: furniture/product design

Module:

Tutors Name: Julia Lockheart

Task:

Question 1: What is the role of the designer/maker in the 21st Century and how might this role change in the next 10 years?

Discuss your ideas with reference to two of the practitioners or thinkers discussed in your lecture strand.

Word Count: 2362

The Evolving Role of the Designer/Maker in the 21st Century

In today's changing world, designers and makers play a vital role in blending creativity, technology, and meeting society's needs. This essay explores how this role has evolved, its current state, and speculates about the next decade. Drawing insights from Jonathan Ive and Tim Brown (Mahler, 2023), we delve into the balance between tradition and innovation, ethical dilemmas, and the expanding scope of collaborative design. The aim is to understand the complexities shaping the contemporary and future landscape of design and creation.

A "Designer/Maker" is someone who combines creativity with hands-on manufacturing of real things. They need both creative and technical skills to conceptualize, plan, and physically create objects. Key aspects include design, craftsmanship, problem-solving, prototyping, material knowledge, collaboration, and continuous learning. In the 21st century, the Designer/Maker role is crucial for promoting sustainability, personalization, and innovation. They contribute to distinctive and visually appealing goods, catering to the growing demand for unique customer experiences (Yang et al., 2018). By

supporting local and small-scale manufacturing, Designer/Makers provide premium artisan products. They integrate cutting-edge technologies like 3D printing, connecting their work with the digital era (Chick & Micklethwaite, 2011). The Designer/Maker paradigm encourages cross-disciplinary collaboration, fostering entrepreneurial ventures (Berman, 2012). Cultural preservation is emphasized, drawing inspiration from traditional crafts and promoting skill acquisition through educational programs (Yang et al., 2018). In the contemporary context, the Designer/Maker role reflects the evolving needs of the 21st century, promoting economic diversification, sustainable practices, and the preservation of cultural heritage (Chick & Micklethwaite, 2011).

The historical background of design and making spans centuries, mirroring human civilization's progress, technological innovations, and cultural transformations. Key periods include Bauhaus, a German school led by Walter Gropius, influencing the integration of design and craftsmanship. The Bauhaus movement aimed to unify arts, crafts, and technology, emphasizing collaboration between designers for aesthetically pleasing products (Lohtaja, 2021). The mid-20th century to the present witnessed the rise of modernism, with designers like Ray Eames and Eero Saarinen shaping the aesthetics of the era (Miller, 2018). Throughout history, the relationship between design and creation has adapted to cultural, technological, and economic changes.

In the contemporary context, the Designer/Maker role embodies a fusion of time-honoured craftsmanship and contemporary design principles, highlighting individual creativity and the pursuit of unique creations. Design Making represents a dynamic journey influenced by cultural, technological, and societal changes. From traditional craftsmanship, where skilled craftsmen created items through apprenticeships, to today's designers

engaging in the entire process from concept to production, the emphasis is on individual creativity, sustainability, and the integration of digital tools with traditional craftsmanship (Maseleno et al., 2018).

The impact of technology on the field of design and manufacturing has been profound. It has revolutionized methodologies, materials, and potential design outcomes. One key aspect is the use of digital design tools, such as CAD software, which empowers designers to create intricate and detailed designs (Rindfleisch et al., 2017). With just a few clicks, they can make significant changes to a design, including numerous moving parts. Additionally, these tools facilitate 3D printing, reducing waste and enabling rapid prototyping, thus transforming the prototyping and small-scale manufacturing processes.

Another notable technological influence is seen in the integration of robotics into manufacturing. Robots now handle repetitive and labour-intensive tasks, increasing efficiency, minimizing human errors, and enhancing the precision of manufacturing operations. This ongoing advancement in technology continually expands creative capabilities, providing designers with a broader range of possibilities in what they can create, produce, and manufacture.

What is the role of a designer/maker?

The role involves a variety of tasks that connect design and hands-on creation. These tasks include generating ideas and concepts for products, using sketches, digital models, or other visual aids to convey design concepts. The designer/maker's role is dynamic, requiring

a blend of creativity, technical skills, adaptability, and a passion for both design and crafting tangible items.

Success in this role hinges on proficiency in navigating the intersection of design and craftsmanship. In today's design landscape, collaboration across traditional boundaries is common, involving diverse skills and perspectives to address complex challenges and create innovative solutions. Jonathan Ive serves as a great example of this multidisciplinary approach (Butt & Dimitrijević, 2022).

Jonathan Ive, born in February 1967, is a British designer celebrated for his pivotal role in shaping the design ethos of Apple products (Dubberly, 2012). Commonly known as Jony Ive, he served as Apple's Chief Design Officer, leaving an indelible mark on the company's design philosophy and product aesthetics. Ive's focus revolves around simplicity and functionality in product design.

Renowned for his innovative approach, Ive championed simplicity, elegance, and functionality, fundamentally influencing the visual language of consumer electronics and setting new standards for industrial design in the 21st century. As the lead designer at Apple, Ive played a crucial role in creating iconic and successful products such as the iPhone, iPad, and MacBook. Not only did these products achieve immense success, but they also became influential benchmarks for design across various industries (Hirschmann, 2007).

Ive's meticulous attention to detail, from material selection to production procedures, has set a precedent for excellence in the design industry, contributing to the premium feel associated with Apple products. His design philosophy is characterized by a multidisciplinary nature, where he integrates various disciplines, including functionality and

user experience. Unlike focusing solely on visual aesthetics, Ive's holistic approach ensures that designs meet the practical needs of users (Dubberly, 2012).

A key aspect of Ive's methodology is collaboration with engineers throughout the product development process. He strongly believes in working closely with engineers to ensure that designs are not only visually appealing but also feasible for manufacturing. This collaborative approach underscores the importance of merging design and engineering to create products that are both aesthetically pleasing and practical (Hirschmann, 2007).

Emerging Trends

Keeping up with emerging trends is crucial for designers and makers, given the rapid evolution driven by technological advancements. This constant change poses challenges in designing for these trends, but a focus on sustainability and a commitment to enhancing user experiences are key. Staying updated on the latest developments and understanding current trends are essential for success (Hirschmann, 2007).

The emphasis on sustainability is on the rise, with designers incorporating eco-friendly materials, energy-efficient processes, and circular design principles (Mahler, 2023). Minimising environmental impact throughout a product's lifecycle, from initial ideas to end-of-life, is gaining importance. This sustainable design practice responds to the growing awareness of the need for environmentally responsible and socially conscious production approaches.

The impact on product design is substantial, influencing material choices, design shapes, manufacturing processes, and pricing. Circular Design, a commendable principle, centres on creating products that can be easily disassembled, recycled, or repurposed at the

end of their life, ensuring product longevity. Integrating sustainable practices contributes to a more responsible and environmentally friendly approach to design and manufacturing, meeting the rising consumer demand for eco-friendly and socially conscious products (Chick & Micklethwaite, 2011).

The Future of design

The future of design is being significantly influenced by technological innovations. Notably, Generative Design utilises algorithms and artificial intelligence to explore various design possibilities based on specific parameters, pushing beyond traditional limits. Artificial intelligence (AI) is transforming design by automating tasks, analysing data, and recognising patterns. Virtual Reality (VR) enhances design visualisation and prototyping through immersive experiences, as seen in programs like Gravity Sketch (Maseleno et al., 2018). These technological advancements not only streamline the design process but also expand creative horizons, offering designers unprecedented possibilities across diverse fields. The rapid and ongoing progress in these technologies is poised to continue shaping the future of design (Miller, 2018).

The Exploration of “Visionary” Concepts

Tim Brown is a design thinker and CEO of IDEO, a well-known design and innovation firm. He is a big advocate for design thinking, which focuses on solving problems with a human-centred approach (IDEO design thinking, 2023). Some key ideas from his work include rapid prototyping and iteration. Brown encourages designers to quickly test and improve their ideas through prototypes, learning from failures to enhance concepts before finalizing solutions.

Another important principle for Brown is building an "Innovation Culture." He highlights the need for organizations to foster a culture that values experimentation, sees failure as a chance to learn, and promotes creative thinking. This kind of culture is crucial for ongoing innovation.

Brown's visionary ideas have significantly influenced the design thinking movement. He emphasizes the transformative impact of human-centred and collaborative problem-solving approaches. His work continues to shape how designers, businesses, and organizations tackle challenges and opportunities.

Implications for the future of design

The course of design and creation is influenced by diverse factors, including advancements in technology, cultural shifts, and the continually evolving expectations of consumers. With human centered design likely to grow, with a focus on understanding and meeting the needs and preferences of end-users. Designers will increasingly leverage empathy and creating solutions that are meaningful and user friendly by employing user centric approaches. The trajectory of design and creation is marked by the merging of human-centric principles, technological advancements, sustainability, and a collaborative, inclusive ethos. Those designers and creators who adeptly navigate these currents and adopt a forward-looking mindset are poised to play a significant role in shaping the ever-changing realm of creativity and innovation (Butt & Dimitrijević, 2022).

The future of design and making presents both challenges and opportunities, reflecting the dynamic nature of the field these challenges could include the rapid evolution of technology, designers face the challenge of adopting sustainable practices and minimising the ecological footprint of their creations. Another challenge designers face is ensuring

inclusivity in design to meet the diverse need of users can be challenging. Designers must consider cultural, social and accessibility to create products and environments that are truly inclusive. There are quite literally endless opportunities within design, especially with the rapid development in technology embracing and leveraging emerging technologies such as AI and IoT present opportunities to create groundbreaking solutions and push the boundaries of what is possible (Maseleno et al., 2018). Navigating these challenges and seizing these opportunities requires a combination of creativity, adaptability and commitment to ethical and sustainable practices whilst making/designing.

The Next Decade Predictions and Speculations for design/making

As a practicing designer, I am confident in integrating artificial intelligence (AI) into the design process. AI algorithms can aid in ideation, generate design variations, and analyse user data for informed decision-making. With the advancements in Biodesign and living materials, designers are likely to explore incorporating these principles and biofabrication techniques, leading to sustainable and adaptive products with unique properties.

However, the trajectory of design and making will be influenced by unforeseen innovations, societal shifts, and global events in the next decade. The role of designers/makers is expected to evolve, requiring a blend of new skills, methodologies, and mindsets. Continuous learning and staying updated on emerging technologies, materials, and methodologies will be crucial. Adaptability will play a significant role in navigating the evolving landscape.

To address future challenges, designers/makers should embrace these adaptations, positioning themselves as catalysts for positive change. This involves approaching challenges with creativity, innovation, and a commitment to ethical and sustainable design practices.

In conclusion, being a Designer/Maker tells a fascinating story in design history, starting from the early days of the Bauhaus movement to today's influencers like Jonathan Ive and Tim Brown (Lohtaja, 2021). Ive's varied skills at Apple and Brown's people-focused design ideas define this role.

Looking ahead, the Designer/Maker faces a future shaped by new trends and technology. There is a growing focus on being eco-friendly and using smart design principles. At the same time, new ideas like generative design and artificial intelligence are changing how we create things.

In the next decade, the Designer/Maker role is set to change more. Artificial intelligence and Biodesign principles will play a big part in creating sustainable and adaptable designs. However, this journey into the future needs designers to be adaptable, as they deal with fast technological changes, making designs inclusive, and thinking about ethics.

As a designer myself, I see a future where success comes from being adaptable and always learning. Embracing these changes does not just make the Designer/Maker a force for good but puts them right in the mix of creativity, innovation, and responsible design. In this changing world, the Designer/Maker not only shapes the future but does so with strength, cleverness, and a commitment to doing the right thing.

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