

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?

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“Good design is making something intelligible and memorable. Great design is making something memorable and meaningful.”-Dieter Rams, industrial. Designer. The role of a designer or a craftsperson has always been held in high regard as there has always been a need for products that will allow humanity to move forward and improve. But what is the role of a designer and craftsperson in the 21st century, and what might it look like in the near future ? History tells us that anything we make can be improved or reinvented in a way that allows for the product to evolve into something new that can improve quality of life or push society forward in a drastic way such as the invention of the microwave which was accidentally created in 1945 by Percy Spencer whilst he worked on radar technology. This essay will explore influential designers and craftspeople from the 21st century such as Elon Musk and Jonathon Ives as well as others who have had a n impact on design in the 21st century. I will then also go on to talk about recent products that have had a large influence on society in the 21st century. Finally, I will have a look at what products may look like in the next 10 years and we can speculate what the future of design may look like.

Product designers have become architects of innovation in the fast-paced 21st century, profoundly altering the way we work, live, and engage with the world around us. Designers have spearheaded technological advancements with their artistic vision and technical know-how, bringing in a new age of slick, user-friendly devices that are an essential part of our everyday lives. Wearable technology and mobile phones are examples of smart technologies that have the fingerprints of designers who have successfully combined function and form. Arguably the most influential designer in this field of technological design would be Sir Jonathon Ives. Ives joined Apple inc. in 1992 and went on to become its senior vice president of industrial design and oversaw the development of household Apple products such as the iPhone, iPod, iPad, MacBook, the Apple watch, and a variety of other Apple products until his departure from his role in the company in 2019. In an interview with the author of Ives' biography 'Jony Ives, the genius behind Apple's greatest products', Leander Kahney was reported saying "Ive is now more important to Apple than Jobs was when he died", (dezeen, 2013). The focus on interface design and user experience in the digital sphere has changed how we interact with the virtual environment and made technology more approachable and user-friendly. Outside of the digital sphere, designers are promoting sustainability and incorporating environmental awareness into the very fabric of their works. With the introduction of sustainable design principles and the encouragement of a Reducing ecological footprints is emphasised by the circular economy. The majority of designers in the 21st century try to adhere to the circular economy, but there is one who stands above the rest in this field. Elon Musk, the entrepreneurial CEO of SpaceX and Tesla, has long advocated for environmentally friendly behaviours that are consistent with the circular economy's tenets. By driving up the use of electric cars, Musk's leadership in the electric vehicle sector—especially through Tesla—has been instrumental in pushing the development of a more environmentally friendly transportation system. Another aspect supporting a circular economy is Tesla's dedication to battery technology. Elon Musk has expressed interest in recycling and reusing battery materials to reduce their negative environmental effects. Apart from electric cars, Musk's engagement in renewable energy projects highlight a larger dedication to sustainable energy solutions. Examples include the purchase of SolarCity and the creation of solar products like roof tiles. According to the Tesla UK Website, "As a producer of industrial Lithium-Ion batteries, we take back waste industrial batteries supplied to an end user for treatment and recycling at no cost" (Tesla, 2023). A research paper written by Michael Naor demonstrates how Tesla's current strategy to recycle, reduce reuse, repurpose, and recover batteries sold in their vehicles. According to the

study “Tesla is regarded by almost forty percent of customers as role model for future electric car manufactures” (Long et al, 2019, p.3). In the field of healthcare, designers have had a revolutionary effect; medical and assistive equipment combine comfort, functionality, and state-of-the-art technology. Product designers work to create visually beautiful public spaces and smart cities in urban regions that improve people's quality of life. An influential figure in the fields of architecture and urban planning, Bjarke Ingels is a visionary Danish architect. His creations are made to adapt to the changing demands of metropolitan settings and being the creator and creative partner of Bjarke Ingels Group (BIG), his designs are known for being avant-garde and breaking convention. In addition to practising architecture, he has contributed to education by imparting knowledge to the upcoming generation of architects. Bjarke Ingels is an architect who continues to change the architectural landscape and leave an enduring impact on the built environment with his landmark projects like the Google headquarters in California, the 8 house and the CopenHill in Copenhagen, the Copenhagen powerplant that is also a ski slope. An article from the Guardian, Ingels is quoted on saying that the 8 house was “a very inexpensive project. It was finished in the middle of the biggest financial crisis in my lifetime. Every cost that could be reduced was reduced”, (The Guardian, 2020). In addition, product designers have a cultural impact in the fields of branding and aesthetics, as their works transform from simple tools into also manifestations of identity. Basically, product designers are important writers of the 21st century, creating a society that skilfully combines innovation, sustainability, and human-centered design.

Whilst there are designers who are household names now such as Elon Musk and Steve Jobs, it is their products that gave them their platform the stardom to be able to make a difference. And with new technologies and software's and being released, it has never been easier for a designer to create a product and to promote it to the masses. There is one recent invention however that has embraced the evolution of new technology and used it to improve lives all over the world. This invention is the Tesla car. Founded in 2003 by inventors Martin Eberhard and Marc Tarpenning and later joined by philanthropist Elon Musk in southern California, Tesla has been a leading car manufacturer in the development, manufacture, and distribution of electric vehicles (EVs) across the world. In an interview with CNBC, Eberhard was quoted on “believing electric vehicles are key to protecting the planet” (Eberhard, 2021). Tesla has incorporated a sleek and streamline look into its design to make it look futuristic. The 4 models

available to the public at the moment are the model S, the model 3, the model X and the model Y, with the model Y and model 3 being within the top 3 most popular plug-in electric vehicles worldwide in 2022, as shown in the graph below.

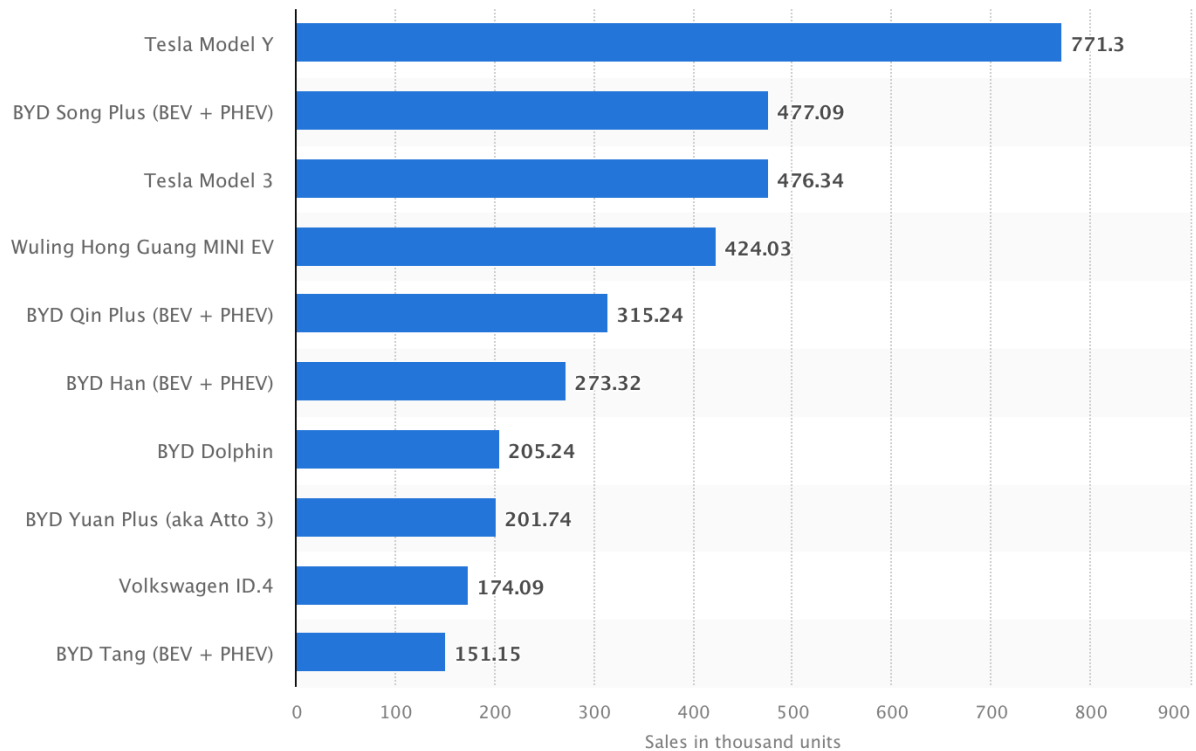
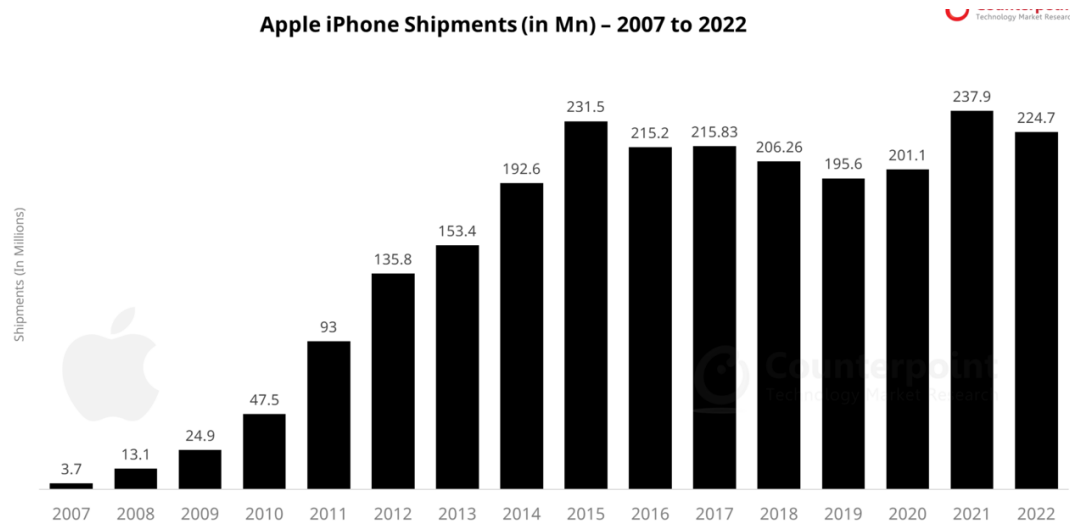


Image provided by Statista.

However, Tesla is not just bound by automobiles. According to the Tesla UK website, tesla also sells a variety of accessories for their cars such as wall mounted and free-standing charging ports that can be attached to a customer's wall (Tesla, 2023). Not only that but Tesla's giga factories are some of the worlds highest volume plants for electric motors, energy storage units, vehicle power trains and batteries (Tesla, 2023).

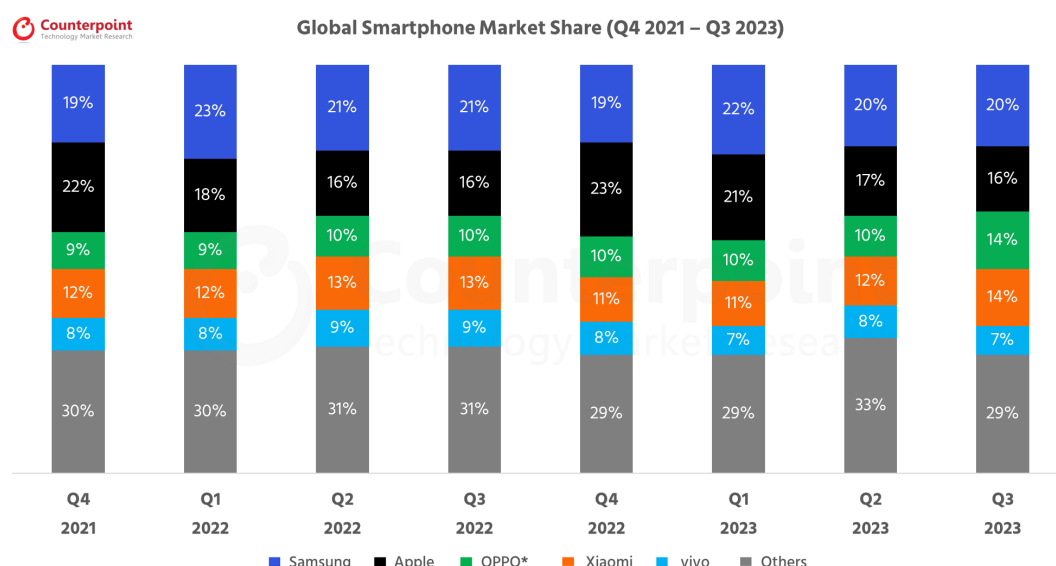
The Tesla car is one of the most well-known and innovative creations of the 21st century. However , some would say that this next product is more revolutionary and has had more of an impact on 21st century life than any other product on the planet. The product in question is the Apple iPhone. The iPhone, which was unveiled by Apple Inc. in 2007, is a seminal product that has significantly influenced the development of contemporary technology and communication. The iPhone, the first commercially successful smartphone, completely changed the mobile market by combining a media player, internet communicator, and phone into one stylishly designed gadget. Co-founder of Apple Steve Jobs said at the iPhone's launch, "This is just the beginning". There were many doubters however in the new touch screen smartphone. Steve Ballmer, the then

Microsoft CEO, was quoted in an interview with USA today saying, “There’s no chance that the iPhone is going to get any significant market share” (USA today, 2007). Despite the expectation that the iPhone will fail from competitors, the iPhone went from 3.7 million shipments in late 2007, to 224.7 million shipments in 2022, taking up around 23% of the market share for smartphones according to recent data.



Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Shipments (in Mn)	3.7	13.1	24.9	47.5	93	135.8	153.4	192.6	231.5	215.2	215.83	206.26	195.6	201.1	237.9	224.7

Data provided by counterpoint.



* OPPO includes OnePlus since Q3 2021

Data provided by counterpoint.

The iPhone was the jumping off point for many other products in the Apple arsenal such as the iPad and Apple watch and is also responsible for the transition and implementation of touch screens into other products like

touch screen TVs, touchscreen laptops, other touchscreen smartphones such as Samsung and Microsoft and more recently the incorporation of touchscreens in vehicles.

However, arguably the most influential and ground-breaking creation in modern times is the search engine, Google. Founded by Sergey Brin and Larry Page in 1998, Google has grown to become one of the most significant technology businesses in the world, influencing how people use and access information on the internet. Introduced as an easy-to-use but incredibly powerful tool for online information retrieval, Google's search engine swiftly rose to prominence as the world's most used search engine with an 83.84% share of the global market (impression, 2023). Doing an internet search is now synonymous with saying "Google it". Not only that but google captures almost 95% of mobile traffic. Google is the go to choice for many people due to its network speed, large range of sites and its advanced algorithm. The sophisticated algorithm can determine which sites are most and least relevant depending on what the user is searching for (sleepingGiant, 2023). Although googles search engine isn't the only major selling point of the company. The introduction of Gmail in April of 2004 and google maps in February of 2005 further grew googles brand and allowed to become the tech giant that it is. Other features of google such as google translate, released in April of 2006 (Google) further educated people and allowed for language barriers to be crossed more easily.

A revolutionary wave of technical advancements is about to completely change the consumer products market during the next ten years. It is expected that wearables and smartphones will become even more advanced, with technologies like augmented and virtual reality added to improve user experiences. Elon Musk's neurolink aims to incorporate human brains with AI to as Musk puts it " achieve a symbiosis with artificial intelligence" (vox, 2023). Neurolink has recently been FDA approved meaning that they can begin human testing. It is anticipated that the introduction of 5G technology will completely transform connection, creating a multitude of interconnected devices and facilitating the Internet of Things' broad adoption. With sophisticated features like improved voice assistants and tailored recommendations, artificial intelligence is expected to become a more important part of products. With self-driving automobiles and advances in logistics, autonomous vehicles hold great promise for a revolution in transportation. On the contrary to this, a recent article by the guardian suggests that driverless cars are perhaps not the way forward. Elaine Herzberg was killed by an Uber that was in autonomous mode after its computers got confused by her bicycle with

bags on the handlebars (the Guardian, 2023). There have been multiple other incidents with driverless cars that could have been avoided if there had been a human driver which has greatly dimmed the dream of one day not having the need to drive vehicles. The network of smart homes will keep growing, providing smoothly integrated security, automation, and energy-saving solutions. We have already started digitally improving our homes and introducing new technologies. The Roomba for example is one of the early introductions into automated house chores of the future. Furniture company Ori living is working with household name IKEA to design furniture that can change based on what the user needs. Not only that but computer graphics company Nvidia is currently working on a robotic arm that is capable of cooking and cleaning (time magazine, 2019).

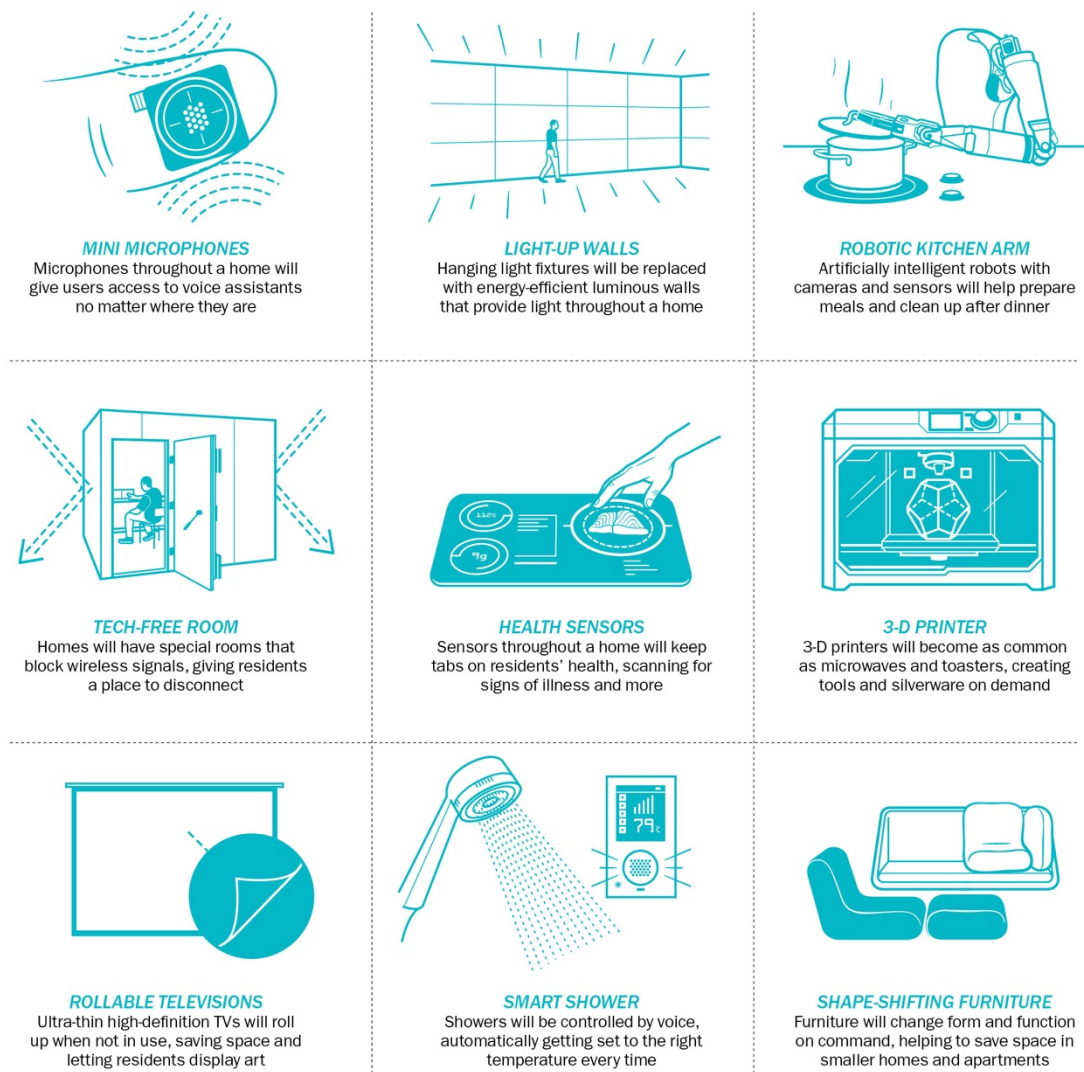


Illustration sourced from TIME magazine.

Biometric technology is expected to advance in sophistication, impacting security and authentication systems with its applications ranging from fingerprint scanning to facial recognition. Advances in medical diagnostics, telemedicine systems, and wearable health trackers are predicted to completely transform healthcare. The field of health technology is set for breakthroughs. As the need for environmentally friendly solutions grows, products that emphasise sustainability and renewable energy are likely to become more popular. Large mega-corporations such as McDonalds and Apple have already made a commitment to reducing non-recyclable plastics in their packaging. Car manufacturers are also increasing the use of recycled materials with the Nissan leaf being composed of 25% recycled materials including plastic bottles for seats, recycled fabric for pads, and reused electrical components (plasticexpert, 2020). The emerging sciences of robotics and quantum computing have the potential to revolutionise automation and computing power in a number of different industries. The technology giants IBM have recently released a 1,000-qubit quantum chip, a large jump from the last quantum chip released last year containing 433-qubits (nature, 2023). If this pattern continues, quantum computing will continue to evolve in a similar fashion to that of the regular computer. These forecasts provide a window into the future, but the real course will be determined by unanticipated discoveries, social factors, and the changing relationship between technology and worldwide issues.

Much is yet to be decided about the future of design and the products created as a result of the change in society. In the upcoming ten years, a revolutionary surge of technical advancements is anticipated to completely alter the consumer products market. It is expected that cutting-edge smartphones and wearables will experience major improvements, bringing augmented reality and virtual reality capabilities to improve user experiences. Although projecting the exact shape of design in the next ten years is difficult, the overarching themes of innovation, inclusion, sustainability, and technological integration are most likely going to influence the development of a landscape that is both forward-thinking and sensitive to the changing demands of a changing world.

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