

The Evolution of Technology and the Important Innovators of Technology and Modern Day Furniture

As the world is changing, technology is beginning to take over all aspects of life, from driverless cars to mobile phones. Technology is being implemented into all sorts of devices to make them easier to use and more functional, however some are beginning to worry that they may be taking over human roles and could leave humans jobless in the future [1]. Technology has gradually become more prominent over the years, however in the last couple of decades, the amount of technology in the world has increased dramatically. This is why I decided to do a project based around technology and using technology to increase the efficiency of a piece of furniture.

The earliest knowledge of technology is thought to be the creation of fire by humans; a source of energy [2]. However, there is much controversy over the date at which this happened [3]. Many years later, humans began to create other ways of making energy. One item believed to have possibly been designed to create energy was the wheel, invented around 3500 BC [4]. Once humans had discovered how to generate energy, products were created that could use that energy to carry out functions, such as the first car in 1672 and Thomas Edison's lightbulb in 1879 [5][6].

Large discoveries in technology were said to be due to the discovery of steam power in the 18th century during the British industrial revolution [7]. The industrial revolution caused a huge advancement in technology, moving from hand production to machinery to increase the efficiency of many factors such as textiles production, where machine output beat human output by a factor of 40 [8]. This began to show the world that there could be so many uses for technology to increase the efficiency of tasks.

The industrial revolution and the discovery of steam power enabled one of the biggest transportation inventions, the passenger train. In the late 1700s to early 1800s, various people worked on designing a locomotive that ran on steam power [9][10]. In 1804, a steam locomotive was built and designed by a man called Richard Trevithick, which was the first to run properly [11]. Just over a decade later, an act was passed to allow passengers to travel on railways and public trains were produced. On 27 September 1825, the first passenger train began its service. This development in public transport then caused other ideas such as the first mechanically powered bus on 22 April 1833 [12].

My project is partially about the implementation of technology, but also about furniture and how the technology and other simple features can be implemented into everyday furniture to increase its efficiency. It is also about the use of space within the furniture and maximising the use of space to allow many functions whilst still being able to use the item of furniture for its sole purpose.

My project was, originally, very much based around the idea of modern technology and using that to add loads of different functions to my furniture. I wanted to integrate things such as screens into the furniture to allow many different functions. I looked into the background of Steve Jobs to find out some information on how Apple's multi-touch displays came around.

In the early 1970s, people began working on personal computers; the beginning of modern, personal technology. In 1971, Steve Wozniak and Steve Jobs first met, and they began working on the first Apple computer [13]. Jobs was an ideas man, telling Wozniak what sort of computer people would want, what it should do and how it should look. Wozniak, however, was much more physically capable than Jobs and was therefore responsible for putting all of Jobs' ideas into a physical product. Other companies such as Microsoft began to develop, and the personal computer industry took off. In the early 2000s, Steve Jobs came up with the idea of creating a tablet; a multi-touch display where you could type on the screen with your fingers [14]. However, before



Apple got to the stage of creating the tablet, Steve looked at the technology and said that they could make a phone out of it. The tablet idea was then “put on the shelf” and the iPhone was released on January 9th 2007 [15]. The tablet idea was then ‘taken off of the shelf’ and released a few years later. These two Apple product revolutionised the whole industry and influenced other companies designs, not only for phones and tablets, but for many other pieces of technology that we see in the world today [16]. Although I didn’t use touch screens in my project, I did decide to integrate a screen into the furniture and connect an Apple TV box to allow the closest possible functionality to a touch screen by controlling with a tap on your phone to navigate through recipes. However, although the technology within Apple products are incredible, the design o the products is also important. Apple use very simplistic materials and shapes when designing their products. Apple has transitioned over the years, for example, from gloss finish iPhones to more matt, aluminium finish backs. The shape of the iPhone has also developed over time to fit with current trends make the phone more simplistic whilst still looking incredible. I thought about this when deciding on materials for my table, as I wanted a simplistic feel but with a beautiful final outcome.

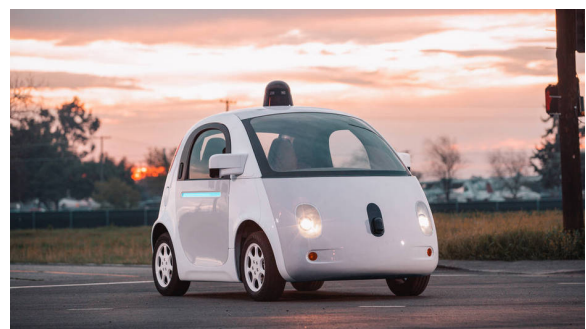
Other companies have looked at increasing efficiency of items using technology. In 2013, Google began to release a prototype of a product they had been working on called ‘Google Glass’. This was a piece of wearable technology that allowed you to carry out many functions you would use on your mobile phone but on a pair of glasses [17]. The glasses were created by a part of Google called Google X, who are also responsible for Google’s driverless car project [18][19]. The Glass had been developed for many different functions and developers were given lots of leeway to create their own uses for the Glass. In 2013, the Google Glass was even used during a live procedure by a Venezuelan surgeon in the US [20]. However, although Google did a lot to



allow many functions on the Glass, may factors such as its look and its battery life caused the product to fail and it was taken off of production. However, a next generation of Glass called the ‘Glass Enterprise Edition’ was revealed [21], being produced by X, which is the new name for Google X [22]. The Google Glass project was all about increasing the efficiency of a pair of glasses using technology, which is what I wanted to do with furniture. It was all

about adding technology that could give glasses so many more functions, but functions that are actually useful rather than just random. Looking at the functions available on Google Glass really allowed me to think about what functions the furniture could have that were actually useful, rather than just having them for the sake of having them. It made me think about what people really require when cooking and how I could implement that into my table design with maximum efficiency. It also forced me to think about what materials would best suit certain implementations, as wood wouldn’t be a good material to surround an induction hob, for example.

In recent years, autonomous vehicles are beginning to come to the front line of modern life. Companies such as Uber, Google (Waymo) and, supposedly, Apple are beginning to work on autonomous vehicles which allow you to sit back and enjoy the ride while the vehicle drives itself to your chosen destination [23]. Waymo says that it’s aim is to create a safe driver for everyone [24]. However, Uber immediately proved that autonomous vehicles may not be safe when theirs crashed on a test in Arizona [25]. However, companies are still continuing to push this idea. It is even being introduced into trucks to transport goods easier, using satellites and road markings to navigate along main roads to drop-offs [26]. Like



Apple and Google, autonomous vehicle projects are all based around making an item more efficient, in this case, the car. It really showed me that making furniture more efficient would be a good idea as it is being done with more or less every other product in the world. However, although this autonomous vehicle technology would be incredible and, if it worked, would make transportation of products easier and cheaper, lorry drivers are worried that they will lose their jobs [1]. This has lead the public to wonder what other jobs could be lost in the future as a result to more intelligent technology and so this made me think that people may not want loads of items

in their homes with this sort of technology in case it leaves them with nothing to do themselves. When working on my project, I took this into consideration and made sure that the user still plays the main role in the use of my table. Although the screen allows a much easier way of cooking and reading recipes, the human is the driving force behind the cooking and preparation, which I feel is important as we are entering a world where more and more people are worried about the idea of technology taking over.

As I mentioned earlier, my project is not only to do with technology but also to do with furniture and the materials and structure used to allow maximum use.

One person that I looked into when creating my table was Norman Foster. Norman Foster is a British architect who developed technical skills in design and material whilst working as an engineer in the Royal Air Force as a young adult [27]. He is responsible for buildings such as 30 St Mary Axe (The Gherkin) in central London, Apple Park in Cupertino and the Sainsbury Centre for Visual Arts at the University of East Anglia, Norwich [28]. However,

Norman Foster has not only been designing buildings but has also been working on furniture throughout his career. One piece of furniture that relates to my project is the Walter Knoll Foster 520 Armchair, created in 2012. The armchair's purpose is to be able to suit a variety of different settings, such as an office, a living room or other residential settings [29]. This, therefore, increases the efficiency of the furniture as it isn't just stuck in one environment. However, as well as being an efficient piece of furniture, it is also has beautiful aesthetics which is extremely important. The chair is very minimalistic, using simple curvature and colour to allow it to blend into any setting or scene. The fact that the chair uses very simple colours allows it to blend in to any scene. The calm finish makes it stand out in a room without pushing the boundaries of what would suit the room that it is in. I thought about this a lot when designing my table. I wanted to use materials and colours that would make the table stand out in a kitchen but still fitting into its environment and a variety of different kitchen styles. This is why I used a common wood and simple colours which would, most likely, be found in the majority of kitchens, whether minimalistic or old fashioned. I also used a simple bend of steel for my table raise to make it stand out, without taking away from the simplicity and minimalism of the design. The steel that I used for my table was 6mm thick, however if I were to produce this table with a larger budget, I would have used a stronger, thinner metal for a larger contrast between wider table surface and the thinner table raise.



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When thinking about materials for my furniture, I also looked into the work of Tom Sachs and how he combines different materials to create his most recent furniture. Tom Sachs is an American artist who started out in New York, where he has continued to work to the present day. His original work consisted of art surrounding violence, including working homemade guns [30].



However, more recently, Sachs has created a range of furniture. He experiments with materials that wouldn't usually match, such as graphite and plywood, to create stand-out furniture. This was also part of the reason why I chose to combine steel and plywood in my design; to make it stand out, much like Tom Sachs' designs. Tom Sachs also created a range of chairs made with titanium and plywood [31], which is the combination that I would most likely have chosen instead of steel for my table on a larger budget. Tom Sachs was also very interesting to look into regarding the technology side of my project as he created an exhibition of his interpretation of NASA's mars space mission [32].

Overall, I feel my project successfully combined aspects of technology and well thought spacing, material and design to create a minimalistic, efficient kitchen table. The table stands out

without being too individual within a space. It blends beautifully with its surroundings, wherever placed, whilst still standing as an individual piece and an individual style.



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