

Abstract

For my student devised assessment I chose to make a brochure from a gene editing clinic. The idea is that 50 years into the future, we have managed to perfect CRISPR-CAS 9 technology which has given rise to designer babies and mainstream adoption of gene editing. However, due to patents and licensing, the price tags for gene editing is extremely steep. The brochure is set in a future where ethics and morality have given way to profit making and disregard for social divide. Wealth is no longer measured by the size of our houses and the brands we wear, but by our internal genome. The area which I have placed my focus on is ethics, with references to reproductives and genomics.

I find ethics and genetics interesting because it is one example of technology moving faster than regulation. Studies have shown that visual learning through diagrams, pictures and videos aid the brain in retaining information (Clarke, Flaherty and Yankey, 2006). Also, I feel that we are much more moved when we see actual suffering in front of our eyes, rather than through the news. This is why I have chosen to present the ethics of gene editing through the form of a visual brochure. It is supposed to make the reader feel uncomfortable, through the casual disregard for saviour siblings, and the price tags that have taken over life. On the front page, I have included pharmaceutical awards for the company in order to show how mainstream adoption of gene editing might happen in the future. Companies no longer compete for creating new drugs to deal with diseases, instead they are ranked based on their reputation for creating genetic disease free embryos and humans. This is to help the reader to place themselves in the scenario where they are walking into one of these genetic clinics, and brochures like these would be handed out to them in the same way we enter beauty clinics now and are handed a list of treatments available.

Liberarian philosopher Robert Nozick, proposed a “genetic supermarket”, where everybody could go shopping to create their own ideal baby (Sandal, 2008). The introduction to the company is my way of portraying to the reader that the battle between choice and nature has been settled. In this future, choice is the prevailing winner. Ethics has been thrown out the window in favour of freedom of choice. Throughout my discussions with my fellow students in this module, I have realised that many of them are more liberal in their views of gene editing, and see its widespread adoption as the next step in genetic evolution. To me, I have no doubt that this technology is revolutionary, it may come to maturity in our generation and I understand the importance of ethics in its development. I hope that by presenting a visual representation of where that will lead us, I will be able to convince them of the importance of setting boundaries.

In the next page titled “menu of selections”, I have drawn inspiration from the film Gattaca. In the film, it shows how engineering embryos are the norm, with the naturally conceived protagonist being plagued with a list of genetic disorders the moment he is born. He is predetermined to lose in the society that is so focused on perfection. The prices that I have chosen are intentionally steep, this is to show how the capitalist mentality of our society will lead to an increasing social economic divide. Clearly only the rich will be able to afford these enhancements and this will only serve to create a caste system which prevents social mobility (Sandal, 2008). This is already happening in our society with people paying up to \$50000 for an egg from a woman who was “at least five feet ten inches tall and athletic, had no major family medical problems, and had a combined SAT score of 1400 and above” (Sandal, 2008). Already with our limited ability to choose, we are commercialising genetics, so I ask the reader, is the reduction of our genetics to commercial genetic engineering really what we want to see in the future? The Indians had a caste system which was extremely rigid and unforgiving to those at the bottom. In this case, is the future really advancing humanity as a whole? Or are we just taking technological steps forward and cultural steps backward.

I also want to highlight the ethics of free will in the “menu of selections”. In the lectures and seminars, we have heavily discussed how choosing a child’s genes sets them onto a certain path in life, thus they have a portion of their autonomy removed from them by their parents. However, one could argue that our genes would set us up on a certain path in life either way, and it would be better to have a clear understanding of the advantages we have rather than spend time and effort searching for them (Harris and Chan, 2008). The problem with engineering babies and taking genes into our own hand is that we are assuming the responsibility of God (Sandal, 2008). Nowadays in our life, when we are simply incapable of something extraordinary, such as breaking the world record for a marathon, nobody is held accountable for that. It is rare in humanity that such a talent is born, a miracle that such a combination of genetics, training and opportunity happen to form the record breaking Olympian. Once we start to take control of this process, we start to bear the responsibility for this (Sandal, 2008). Picture this, in the future that this brochure is created for, the rich are able to engineer prodigies so easily that they have become commonplace. There are so many talented individuals that it has become even harder to succeed in any fields due to the intense competition, achievements are no longer great, they are normal. People blame genetics for failures as much as they appraise genetics for success instead of hard work. It is easy to see how having 10 Johnny Depp’s in this world would be underwhelming. I wanted to portray this to the reader by showing them just how easy it was to manufacture talent, to make them question their views on enhancement being good for our society, when in actual fact it dilutes our achievements.

For the page titled “our promotions” I have taken inspiration from “My sisters keeper” and I bring in the ideas of cloning and saviour siblings. In the brochure, I have taken to giving the option of “insurance” for the clients through cloning and embryo freezing. It is meant to give the reader a sense that the value of life has been decreased in the future. The clones are mere limb and organ farms where they are kept alive and frozen just for the sake of preserving the integrity of the client’s child should any accidents happen. The ethical debate surrounding saviour siblings is not well known, even with films such as “my sister’s keeper”, the general public is not aware of this issue. I introduced the idea in a way that would make the reader question if this was even possible, and to spur them to do their own research on the matter because of how outrageous it seems. This is to bring to attention to cases such as the thalassaemia case in china (Sui and Sleeboom-Faulkner, 2010). This saw a woman give birth to a child with thalassaemia, and her subsequent attempt to give birth to a saviour sibling to save the firstborn. This process was repeated twice with a total of four children being born. The idea utterly disgusted me because it seemed she was just using two of the children as a means to an end, and not an end in themselves. What is more shocking is that the hospital allowed this process not once, but twice, with it being perfectly legal. Hopefully, the example is shocking enough for the reader to be more aware of these things happening around us, and ponder the ethical debate surrounding this controversial issue.

In conclusion, the brochure is meant to bring forward the ethical dilemmas that genetic engineering has brought about to modern society, and to shine some light on these issues. It is an area which is underdeveloped but important, yet there are too many people who are ignorant on this matter. I hope that through a visual approach, I am able to bring across some information on CRISPR-CAS 9 technology and to present some problems that genetic editing may bring to modern society.

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