Questionnaire

Title of Project: The Social and Ethical Impact of the Singularity Project

Thank you for taking the time to read this and consider taking part in this study. You are being invited to answer this questionnaire as part of a research study. Participants are randomly chosen and will not be identified individually at any point of the study or thereafter. You are under no obligation to take part in the study, however if you do choose to take part in the study then your data cannot be removed at a later data due to the inability to identify a single participant’s responses from the collection of anonymous data.

By taking part in this questionnaire:

1. You understand that participation is voluntary
2. You understand that the questionnaire will remain anonymous
3. You understand that if you participate in the study your responses cannot then be retracted at a later date due to the anonymous nature of the data
4. You understand that all data collected will be treated in accordance to the Data Protection Act 1998
5. Your response is assumed to have been provided after carefully reading the provided information
6. You understand that you have the opportunity to ask the researcher any further details regarding the study
7. You agree to take part in the above study

If you would like more information about the research before deciding whether or not you wish to take part in this questionnaire feel free to contact me:

Name of Researcher: Daniel Tydeman

E-mail Address: [1101603@chester.ac.uk](mailto:1101603@chester.ac.uk)

If you wish to complain or have any concerns about any aspect of the way you have been approached or treated during the course of this study, please contact:

Professor Sarah Andrews  
Dean of the Faculty of Life Sciences  
University of Chester  
CH14BJ  
Tel: 01244511980

There are no special compensation for feeling harmed by this research, though if you were harmed due to someone’s negligence you might have grounds for private legal action.

Thank you for your interest in this research.What is your gender?

1. Female
2. Male

What is your age?

1. 0 – 9
2. 10 – 19
3. 20 – 29
4. 30 – 39
5. 40 – 49
6. 50 – 59
7. 60+

What is your current highest level of education?

1. High School
2. College/Sixth Form
3. Undergraduate
4. BSc/BA Postgraduate
5. MSc/MA Postgraduate
6. PhD Postgraduate

What is your current employment status?

1. Unemployed
2. Student, Unemployed
3. Student, Employed
4. Student, Retired
5. Part-Time Employment
6. Full-Time Employment
7. Retired

If you answered either ‘Part-Time’ or ‘Full-Time’ Employment for the previous question, is your employment involved in:

1. Hospitality, Tourism and Leisure
2. Transport and Distribution
3. Building and Construction
4. Business and financial business
5. Manufacturing
6. Shops, Retailing, Hairdressing and Beauty
7. Health, Education and Local Government
8. Other (Please specify)

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Please read the information carefully before answering the questions.

Current medical technology has allowed the use of technological implants known as cochlear implants. Cochlear implants aid those with little to no hearing by converting sounds into electrical impulses that can be comprehended by the brain (Merkett. 2012).

What is your opinion regarding using technology to repair issues with the human body (such as deafness)?

1. Very Positive
2. Slightly Positive
3. Neither Positive nor Negative
4. Slight Negative
5. Very Negative

As technology advances, new medical technologies are predicted to appear. One of these includes the possibility of optogenetics, which involves utilising implants to affect light sensitive proteins in the brain to trigger reactions, which has been used in creating falsified memories in mice (Kim. 2013). It is suggested that this same technology can, one day, be used to create or remove memories in humans, and may even be used as a treatment for diseases and injuries that result in memory-loss.

How do you feel about the idea of being able to create and remove memories at will?

1. Very Positive
2. Slightly Positive
3. Neither Positive nor Negative
4. Slight Negative
5. Very Negative

Another possibility is that of advancements in biomechatronics, this involves the use of technological prosthetic limbs being used to replace damaged or amputated biological limbs, which can help to provide mobility and function to those whom have lost limbs (Freudenrich. 2007).

If you were to lose a limb, how inclined would you be to receive a technological prosthetic?

1. Very Positive
2. Slightly Positive
3. Neither Positive nor Negative
4. Slight Negative
5. Very Negative

Please read the information carefully before answering the questions.

Current military technologies has allowed for use of military drones, unmanned vehicles that can be used in the same way most manned vehicles can. These drones can help to reduce numbers of casualties in conflict by replacing the people that would usually be taking part in said conflict (Cole, Wright. 2010).

What are your thoughts on the use of military drones for combat and/or surveillance?

1. Very Positive
2. Slightly Positive
3. Neither Positive nor Negative
4. Slightly Negative
5. Very Negative

Military technology is also predicted to advance as new technology become available, one such predicted technology is that of technological exoskeletons, military suits that act as both an enhancing suit and armor, which can be used to help enhance and protect the people whom enter dangerous conflict (Didymus. 2013).

How do you feel about military personnel being equipped with technological exoskeletons?

1. Very Positive
2. Slightly Positive
3. Neither Positive nor Negative
4. Slightly Negative
5. Very Negative

Another potential use of advancing technology regarding military application is that of defense lasers, located in space, and used to defend countries from high threat missile attacks (Rogers. 1997).

How would you feel about a space-based laser defence system that could prevent physical projectiles?

1. Very Positive
2. Slightly Positive
3. Neither Positive nor Negative
4. Slightly Negative
5. Very Negative

Please read the information carefully before answering the questions.

Current education technology allows for implementation of electronic learning, the incorporation of computers into education to allow for online learning or use of audio and video in learning, to help provide more options for people to undergo education and to help enhance education by providing the learning materials in different forms (Leypold, Nölting, Röser, Tavangarian. 2004).

How do you feel about the increase in use of video and/or audio equipment in learning over the use of books and/or speech?

1. Very Positive
2. Slightly Positive
3. Neither Positive nor Negative
4. Slightly Negative
5. Very Negative

With the advancements in technology, education is likely to see the implementation of Cloud computing. Cloud computing, in this nature, will allow massively online access to courses and education materials from around the world, enabling people to undertake courses, or read specialist educational materials, from any location via almost any device with internet access (Britland. 2013).

How would you feel about being able to partake in any course at any educational establishment without having to go there in person?

1. Very Positive
2. Slightly Positive
3. Neither Positive nor Negative
4. Slightly Negative
5. Very Negative

Future education technology will mainly involve the usage of electronic learning, though there is the possibility that education could be eliminated by the simple transferal of knowledge via optogenetics, using this technique to transfer the information to someone rather than teach them (Kim. 2013).

How would you feel about the option of instant knowledge transferral rather than the current several years of education?

1. Very Positive
2. Slightly Positive
3. Neither Positive nor Negative
4. Slightly Negative
5. Very Negative

Please read the information carefully before answering the questions.

Current business technologies have allowed for the use of automated assembly lines. These automated assembly lines allow businesses to have the means to manufacture hundreds, if not thousands, of identical products in a short space of time. Compared to a human work force on the assembly line, automation allows for much fast production and removes the element of human error thus ensuring that everything produced will be identical (Rifkin. 1998).

How do you feel about businesses introducing more automated elements instead of a human workforce?

1. Very Positive
2. Slightly Positive
3. Neither Positive nor Negative
4. Slightly Negative
5. Very Negative

Technology is advancing both physically and programmatically, due to advancements in the field. One example of new artificial intelligence being used in the business sector is the use of Intelligent Profiling. This involves a program taking inputted data (including but not limited to age, gender, criminal records and education) and outputs a user profile about a person from this information. More advanced software can allow for the program to search for the individual online to increase the data collected for the user profiles. Some organisations are implementing this technology for use in recruitment, to help select more appropriate candidates (Schiaffino, Amandi. 2009)

How do you feel about intelligent profiling being used to determine the outcome of your jobs application to a particular business?

1. Very Positive
2. Slightly Positive
3. Neither Positive nor Negative
4. Slightly Negative
5. Very Negative

Similarly to future advancements in educational technology, business technology will make use of cloud computing. Cloud computing, in this area, will enable businesses to contact their customers, employees, shareholders or their international centres instantly to collaborate. Which will not only allow for instant transferral of documents but will also remove intermediate communications, such as call centres, allowing customers to receive immediate help regarding their issues (Jones. 2013).

How do you feel about the use of cloud computing to remove intermediate communication between businesses and their customers?

1. Very Positive
2. Slightly Positive
3. Neither Positive nor Negative
4. Slightly Negative
5. Very Negative

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