

### Question - Should immunizations be required by school age children?

**Reason** - It saves time and money overall

**Quote** - “For example, the cost per hospitalization for an infection with haemophilus influenza type B (Hib), a very serious bacterial illness, with resulting meningitis can cost over \$43,000. An estimated 19,000 cases of Hib infection will be prevented over the lifetimes of children born in 2009 because of routine immunization, saving an estimated \$1.8 billion in disease-treating costs” (Naprawa, 2015).

- Hib with resulting meningitis can cost over \$43,000 in hospital fees
- An estimated 19,000 cases of Hib will be prevented over the lifetimes of children born in 2009
- Routine immunization can save an estimated \$1.8 billion in disease-treating costs

**Analysis** - The quote exemplifies the benefits of immunizations by proving that not only do they help keep us healthy, they even save us money. The amount of cases of Hib prevented demonstrates that most of the time, the shots are highly effective in preventing the problems they were created to prevent.

**Evaluation** - When obtaining shots at an annual doctor's appointment we would already be going to anyway, we are helping to prevent the possibility of illness at a later date, therefore saving us money in both doctor and hospital visits. When gauging the appeal of saving so much money and time, it is clear that they are highly beneficial to us in the long run.

**Reason** - Vaccinations have eliminated diseases over time

**Quote** - “Diphtheria killed 21,053 people yearly, measles killed 530,217 people yearly, mumps killed 162,344 people yearly, rubella killed 47,745 people yearly, and Hib killed 20,000 people yearly in the twentieth century United States; by 2012 each of these diseases were decreased by 99% because of vaccinations” (Orenstein, 2013).

- Diphtheria killed 21,000 yearly, Measles- 530,000, Hib- 20,000
- By 2012, each of the diseases were decreased by 99%

**Analysis** - This example suggests the need of vaccines; in the past, these diseases were a huge problem that couldn't be solved. In light of scientific and technological advancements and knowledge, we now have a prevention method for diseases that were fatal. The large number of diseases that were previously common compared to the drastic reduction of cases demonstrates that we can trust vaccines to aid our immune systems in the process of fighting off bacteria.

**Evaluation** - In assessing the importance of vaccines, we can see that without them, we could be right back in the past with people dying left and right. Now that we now have a way to prevent these previously prominent diseases, they should be readily taken advantage of; without vaccines, we may all be dead of these widespread diseases of the past.

### Question: Was Lincoln an effective wartime leader?

Reason: Lincoln was a racist

"According to Bennett, no American story was as "false" as the traditional picture of Lincoln as the Great Emancipator. Lincoln, he charged, was no idealist; he was a "cautious politician" who was never committed to abolishing slavery but only to preventing its extension. He was motivated by a concern for the interests of his white constituents, not the needs of the oppressed blacks."

- he was a "cautious politician" who was never committed to abolishing slavery but only to preventing its extension.
- He was motivated by a concern for the interests of his white constituents, not the needs of the oppressed blacks.

A: The quote shows the importance of the emancipation proclamation in Lincoln's presidency and the different views of how the emancipation proclamation can be taken, such as Lincoln as a racist. This is important to keep in mind as it helps prove the idea that Lincoln was a racist.

E: This quote therefore helps prove the view that Lincoln was a racist during the Civil War and was not concerned about the lives of slaves but however about the safety of the Union.

Reason: Lincoln as a Constitutionalist

"Constitutional historian Herman Belz agrees with Oates that the Proclamation was the product of a genuine ideological commitment to freedom. The military needs of the nation, invoked by Lincoln in justifying the Proclamation, were merely "legal fiction." Belz contends that "the real reason for it, considered in broad historical perspective, was hostility to slavery based on commitment to republicanism and the principle of equality on which republicanism rested."

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- the real reason for it, considered in broad historical perspective, was hostility to slavery based on commitment to republicanism and the principle of equality on which republicanism rested.

A: The quote helps understand the idea that Lincoln wrote the emancipation proclamation with the intentions of the union first and with an understanding of the constitution.

E: This quote helps the reader grasp the idea as Lincoln as a constitutionalist because of in-depth talk about Lincoln's true intentions.

## Question: Is engineering children the wave of the future?

**Blue highlight** = facts found within the given quote

**Yellow highlight** = words signifying analysis

**Green highlight** = words signifying evaluation

- **Reason:** genetic engineering (GE) of children brings a host of health risks

...a Chinese team attempted to correct the faulty gene that causes beta-thalassaemia in 86 human embryos. The procedure worked properly in only a tiny portion of those tested...[and] 'off-target' edits happened far more than expected in Huang's study... (Sample, 2015)

- 86 embryos tested
- Off-target edits were more common
- **Content analysis:** The safety of these procedures **is brought into question** in this situation, **emphasizing** the multitude of ways in which the intentional modification of human genes can go awry and cause unexpected mutations to occur. **Because** the risk of unintentional edits from these procedures **is shown** to be so high, **the incentive to use** this technology is minimized, **considering how** valuable a human life is. The use of GE technology, **therefore**, is **determined** to bring too **significant** of a risk to the safety of human embryos, **strengthening the argument** against GE.

- **Reason:** GE of children brings a host of health risks (same as previous)

... [researchers at the Oregon Health and Science University] report a difference between their experience with the macaques and their work so far on fertilized human eggs. More than half of the human zygotes — single cells formed by the merging of an egg and sperm — had abnormalities not observed in the fertilized eggs of the monkeys (Darnovsky, 2014)

- Difference between macaques DNA reaction & human DNA reaction
- Half of the human zygotes had abnormalities
- **Content analysis:** **Because** the effect of GE is still unknown, much of this testing is conducted on non-human subjects, such as the macaque monkey to minimize the harm to human embryos. This situation, however, **highlights** the inaccuracies that occur between the results of the macaque and humans, **which eliminates** the purpose of conducting these procedures as precaution to human embryo safety. With this step **having an insignificant importance**, there are **not many alternatives** to testing GE technology on non-human subjects, **bringing** the original issue back to prominence. The risk of GE, therefore, is **resolved** to be too elevated no matter what subject the technology is tested on, **further supporting** the argument that GE brings unintentional health risks to humans.

## Question: Is Space Colonization the answer?

**Bulleted points** = data found in the quote

**Yellow Highlights** = key words that cue analysis

**Green Highlights** = key words that cue evaluation

### **Quote 1 Reason:** Overpopulation

Mankind should be ready that the problem of survival will inevitably emerge, and if the Earth keeps degrading and destroying as well as becomes unfit for human life due to catastrophic processes, space expansion will become the only possible saving scenario...With the general growth of population on the Earth, growth rates are falling; in the middle of the XXI century it is expected to have ~ 9 billion people; at the end of the century, stabilization at the level of ~12-15 billion people is expected by forecasts by the United Nations... (Krichevsky, 2000)

- 9 billion people by 2050
- 12-15 billion people by 2100
- Earth is being destroyed and becoming unfit for human life

Krichevsky elaborates that the human population is increasing at a rate **that shows** that we will have reached the Earth's maximum holding space for us by the end of the century. The Earth simply cannot sustain our continual growing population **because** of the amount of space and resources we use. With our ever-growing population, the Earth will not be able to sustain the human population in the future **due to** the rate at which our natural resources are being depleted. Mankind is fast-approaching it's carrying capacity for Earth, **therefore, plans need to be made** to sustain the human race, such as colonizing other planets. Overall, humanity is growing at too fast of a rate for Earth to sustain us at the current state of the planet, so other alternatives, such as colonizing another planet, **need to be considered** to ensure the continuation of mankind.

### **Quote 2 Reason:** Several restrictions and limitations that come with living in space.

Orbital settlements are often said to have a major problem...all the materials must be imported. All space settlements require shielding to protect the inhabitants from the extreme radiation in space...so millions of tons of material are required per habitat... To build that first settlement major problems that must be solved include: Earth to Orbit transportation.... Large scale orbital construction.... space settlements must reproduce the biological processes that produce our food, breathable air and clean water.... massive funding to develop the technology, build the infrastructure, and ultimately create functioning orbital space settlements. (Globus, 2011)

- All materials must be imported to build orbital settlements (Earth to space transportation)
- Settlements will require shielding to protect from radiation
- Settlements must be able to produce food, oxygen, and clean water

Globus clarifies that orbital settlements will be difficult and time-consuming to build. **Furthermore**, these settlements must protect the inhabitants from problems that wouldn't occur on Earth due to the difference in climate and atmosphere. Not only would building the settlement be a problem, but also creating ways for food to be grown and attaining clean air and water. The orbital settlements will be a tedious task to undertake **because** they will effectively have to recreate an earth-like environment on a completely different planet. These settlements will be extremely difficult to complete; **therefore**, we should not colonize space because we are not technologically advanced enough to recreate Earth's climate on another planet. **In the final assessment**, creating and maintaining orbital settlements will prove to be extremely tedious and must have a livable environment that can sustain mankind, **which proves that** colonizing another planet will be extremely difficult and limiting.

### Question: Are people with disabilities truly disabled in the 21<sup>st</sup> century?

Reason: Some countries still treat their disabled population as inferior.

Quote: In 2014, a two-year investigation into the state of facilities for people with disabilities in Mexico City found residents were sexually abused, locked in cages, left permanently in cribs, and overall detained in “dehumanizing conditions”, as the charity described it. “People with disabilities have the right to stay in society and not be locked up,” said Eric Rosenthal, executive director of DRI. In Mexico he witnessed “effectively no community services; a total system of segregation”, (Larsson,2017).

- Disabled residents in Mexico City are sexually abused, put in cages and left permanently in cribs
- There are no community services available to people with disabilities in Mexico City.

Analysis: This means that not all people with disabilities are treated fairly in their societies. Therefore, illustrating that the world has a long way to go before everyone with disabilities are not truly handicapped, and are thought of as equals. The conditions listed in the quote demonstrate that some countries have developed methods of dealing with their disabled population that are comparable to how animals are treated, rather than how people are treated. This is important because it shows the reality that although more developed countries are working to help people with disabilities, this is not the case in other countries that still treat their disabled population as outcasts of society.

Evaluation: When weighing the factors of what classifies a person as being handicapped, the knowledge that many less developed cultures treat their disabled population in animalistic ways shows that people with disabilities are truly handicapped in the 21<sup>st</sup> century being that they don't receive the resources and help that they need.

Reason: New technology allows for people with disabilities to not be truly handicapped in the 21<sup>st</sup> century.

Quote: Eye-gaze control technology can be used by people with significant physical disabilities. For example, writing, accessing the internet or using social media. This technology can provide opportunities to operate a TV, telephone and music through remote control. The way it works is that an eye-gaze camera tracks the person's eye movements, which then moves the mouse on a computer screen", (Cerebral Palsy Alliance Foundation, 2016).

- Eye-gaze control can be used to operate a TV, phone, or remote control
- Eye-gaze works by tracking a person's eye movements to move the mouse of the computer

Analysis: This means that there are now alternate ways of doing tasks that people with physical disabilities would not be able to do without technology. Therefore, new innovations in technology today will allow for people with disabilities to have more independence in their daily lives. This is crucial because today we strive to accommodate and include the most amount of people possible and having access to eye-gaze technology will make this desire to include people with differences, which will make them less handicapped.

Evaluation: When assessing if people with disabilities are truly handicapped in the 21<sup>st</sup> century, the recent advancements in technology have allowed for less of a handicap amongst people with physical disabilities.

## Question: Is the use of technology impacting mental health?

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**Green highlight** = words signifying evaluation

Quote: Researchers in Australia and China studied pathological or uncontrolled Internet use and later mental health problems in 1,041 teenage students in China. The students were free of depression and anxiety at the start of the study. Sixty-two of the teenagers were classified at the start of the study as being moderately pathological users of the Internet, and two were found to be severely at risk for uncontrollable urges to go online. Nine months later, the youngsters were evaluated again for anxiety and depression and 87 were judged as having developed depression. Eight reported significant anxiety symptoms. Researchers say that their work suggests that teens who use the Internet pathologically may be about 2.5 times more likely to develop depression than teens who are not addicted to the Internet. The youths in the study were between 13 and 18 and attended high schools in Guangzhou, China. The researchers say that most of the youths in the study, 93.6%, were classified as normal users. The study reports that 45.5% said the most common use of the Internet was for entertainment. 28.1% said they used the Internet to search for information. 26.4% said they used the Internet to avoid boredom, make friends, or communicate with school chums. (Hendrick, 2010).

- Sample Size: 1,041 ages between 13 to 18
- Free of depression and anxiety at the start of the study
- 62% were classified as being moderate users if the internet
- 2 were severely at risk for uncontrollable urges to go online
- 87 diagnosed with depression at the end of the study, 8 had anxiety symptoms
- Students who use internet pathologically were 2.5 times more likely to develop depression
- 93.6% of students were classified as normal users
- 45.4% use internet for entertainment, 28.1% use internet for searches, 26.4% use internet for boredom, to make friends, or communicate with school friends

The study done in China **showed** that students who were previously free of mental health problems at the start of the experiment and were considered **moderate** users of the internet were two and a half times more likely to develop depression and anxiety disorders than those who were not addicted to the internet. This study **illustrates** that **frequent** users of the internet are **more likely to develop** mental health disorders such as depression and anxiety than non-addicted users of the internet. Thus, **proving** that the use of technology can negatively impact mental health disorders such as depression and anxiety **however**, more information is needed to explain what can be done to limit young students from developing mental disorder due to the staggering impact that one can have with these serious diagnoses. If nothing is done these numbers will only increase furthering the severity of the issue. **When gauging the importance of this study**, one can

see the **impact** of the **overuse** of technology and the detrimental impacts to ones' mental health in convincing the world of the need for change.

Quote: In Sweden, Doctoral student Sara Thomée and her colleagues at the University of Gothenburg's Sahlgrenska Academy conducted four studies to find out the effects of heavy computer and cell phone use on the sleep quality, stress levels, and general mental health of young adults. For the study, Thomée and her team asked 4,100 young adults between age 20 and 24 to fill out questionnaires. They also interviewed 32 of them who were considered heavy information and communication technology (ICT) users. The researchers analyzed and compiled the data, and the results revealed that intensive use of cell phones and computers can be linked to an increase in stress, sleep disorders and depressive symptoms in young adults. (Dr.Volpi, 2012).

- Four studies to determine the effects of heavy computer use and cell phone use on sleep quality, stress levels, and general mental health
- Sample size: 4,100 young adults aged 20-24
- 32 were interviewed who were considered to be heavy users of the internet and communication technology
- Intensive use of cell phones and computers can be linked to increased stress levels, sleep disorders, and depressive symptoms in young adults

This information **demonstrates** that the use of technology being in the form of a computer or cell-phone are **linked** to an **increase** in sleep disorders, stress, and depression in young adults. This is not only **negatively impacting** their mental health but also their quality of life. **By reducing** the time that people spend on their electronics it could **positively impact** those individuals by **allowing** them to spend **more** time on other **equal meaningful** things and at the same time **reduce** fatigue, stress, and depression associated with the use of technological devices. **When diagnosing the complexity of this issue**, it **is imperative** to see the **connection** between the use of technology and the **increase** in sleeping disorders and depressive behavior in young adults.

Quote: In Israel, another innovative device changing the mental health game is the Fisher Wallace Simulator, an FDA-approved neurostimulation device to help treat depression, anxiety and insomnia. Based on a recent pilot study at Mount Sinai Beth Israel, this device may also help treat bipolar depression. By gently stimulating the brain, the headband-like device that you place over your temples stimulates the brain to release serotonin and dopamine, which reduce stress and increase feelings of happiness. Although you need a provider to approve your use, the Fisher Wallace Stimulator makes it possible to sit at home, sip a cup of coffee and engage in neurostimulation therapy. This can help patients to be naturally treated with results along the same lines as many long-term benefits of antidepressant treatments. (Utley, 2016)

- Fisher Wallace Simulator is a device used to treat depression anxiety, and insomnia
- The device works by stimulating the brain by placing it over your temples and stimulates the brain to release serotonin and dopamine
- Serotonin and dopamine reduce stress and increases feelings of happiness
- This is a natural alternative that has long term benefits like benefits from antidepressant treatments

Contrarily, though the use of technology may have detrimental effects to ones' mental health due to overuse, it can also be used to help individuals cope with depression and anxiety as well as positively promote improved mental health and overall wellbeing. In the final assessment, though the use of technology can negatively impact mental health, technology can also be a positive mechanism to catalyze long-term improved mental outlook.