SOCIAL ISSUES IN INFORMATION SYSTEMS AND TECHNOLOGY

The Importance of Social Responsibilities

Social responsibility is an ethical theory where individuals are accountable for fulfilling a civic duty that benefits society. A balance between economic growth and the welfare of society should be observed to accomplish social responsibilities.

Social responsibilities are built on a system of ethics wherein decisions and actions must be ethically validated before proceeding. If the action or decision causes harm to society or the environment, it is considered socially irresponsible.

Here are social responsibilities in information systems and technology:

Human Safety

It is a responsibility to protect public safety, health, and welfare with every new system and technology. An example would be developing devices with robotics that automate bathing for the elderly. Creating devices with specific sensors that help detect health hazards such as gas and chemical leaks.

Source: https://www.scmp.com/news/hong-kong/community/article/2148223/automated-bathing-device-helps-elderly-shower-safely-and

Figure 1. Automated bathing device for the elderly

Environment and Sustainability

With technological progress, a future in which electronic waste or e-waste becomes a much bigger problem is possible. It is responsible to dispose of devices and electronic wastes in their appropriate bins.

Fortunately, technologies like smart machines are built to separate waste from the streets or the sea. Machines that improve the quality of life of animals and trees help fulfill this responsibility.

Source: https://www.waste360.com/recycling/bin-e-creates-contactless-smart-bin

Figure 2. Bin-e creates a contactless smart bin

Internet Safety

As personal and organizational information such as intellectual property transitions to the cyber world, the number of cyber criminals increases, posing a risk to these assets. It is a responsibility that concerns not just big corporations but also the most vulnerable individuals.

It can be resolved by applying lawful and stricter rules to the systems and conducting close monitoring to avoid any cyber-attacks.

Pro Bono Publico

It means "*for the public good*" in Latin. It is a responsibility to share knowledge and skills in technology through voluntary participation in seminars, conferences, advisory groups, and one-on-one consultations for those who are not privileged enough to access nor pay for them.

Source: https://www.sti.edu/sti_news.asp

Figure 3. STI computer lab on wheels

One example is *STI's Mobile School: Computer Lab on Wheels*, an outreach program to cater to unprivileged individuals by bringing computers and teaching them basic computer skills.

Societal Impacts of ICT

Computer technology has been the most significant technology since the beginning of the Industrial Revolution.

It can save lives, make people healthier, and create new wealth. It has helped humankind explore space, communicate conveniently, create entertainment, and do other beneficial tasks humans enjoy.

Positive Impacts of ICT

Technology has helped societies increase productivity and inclusivity of services and improve overall well-being.

Healthcare & Wellness Advancements

Tech possesses a vast potential for health and healthcare systems improvements, from AI-powered clinical drug trials to enabling preventative patient monitoring to wellness solutions such as wearables.

Wide tech adoption by patients and healthcare professionals has excellent potential to improve public health entities' efficiency as advancements in preventative health can remove healthcare expenditures and allow early patient monitoring and symptom detection.

Initiatives and healthcare tech companies work significantly faster than traditional companies. An example is **xCures' Beat-19** study, an AI-fueled company that matches cancer patients and their oncologists with optimal investigational or approved therapies. It also utilizes the algorithm for data collection for Covid-19, including gender, race, and one's underlying conditions.

Education

E-learning platforms host courseware materials from different industries that contain videos and interactive boards, making education much more accessible and available to students.

Technology in education does not just end with virtual learning but extends to virtual reality, artificial intelligence (AI), and neuroscience, making learning more immersive and interactive.

Startups like **Immerse** use VR to help students learn English by communication and practice through a range of topics and themes using VR headsets. AI can also help students with disabilities identify the best way to learn efficiently and with tangible progress.

Environment Protection

Environmental initiatives are creating sustainable solutions to recycle and reduce waste, purify water, and monitor changes in the environment to ensure a more sustainable future.

For example, a Nigerian startup, **Brickify,** recycles plastic waste into bricks resistant to water, fire, and heat and can be used for road construction and low-cost housing.

After the significant wildfires in Australia in 2020, Dryad Networks launched a wireless environmental sensor network based on the leading open standard for long-range radio IoT networks to detect wildfires about 60 minutes before they spread out. Some measured metrics include humidity, drought, air quality, carbon dioxide levels, and oxygen concentration in water.

Equal Opportunities

The universal value of technology is bringing equality in products and services through minimizing socioeconomic gaps in society. As proved earlier, it made health and education available to more people by making it easier to learn and get medical care regardless of social status and by creating persons with a disability-friendly environment.

In work settings, technology helps detect all kinds of discrimination, such as the gender gap and exclusion of minorities using artificial intelligence models that detect hate speech.

Social Issues

Aside from its positive impacts, technology also creates powerful problems including the potential loss of privacy, online thefts, and breakdowns of reliable complex systems.

However, the adverse impacts of technology on society are mostly blamed on social media. According to research, social media is listed as the most common place where misinformation, hate speech, and harassment is widespread, leaving some people isolated and depressed.

Adverse Impacts of ICT

Fake News and Misinformation

These are not brand-new issues, but with the pace of tech advancements, people find it challenging to identify what is true and what is not.

Edelman Trust Barometer in 2020, an annual trust and credibility survey on data protection, showed that 60% of the respondents say that the pace of change in tech is too fast, while 57% think social media platforms are filled with untrustworthy information.

After the Cambridge Analytica scandal with Facebook, 76% of the respondents worry that fake news will be weaponized to polarize and radicalize specific groups. This idea was reinforced by the pandemic, which resulted in the rise of fake news regarding COVID causing more confusion and insecurity in healthcare.

Social media platforms themselves are struggling with content moderation as well. In 2021, Twitter launched the *Birdwatch* program to build a community to help fight misinformation and fake news.

It is necessary to double-check whether the information on social media is legitimate or not. It is also encouraged to counter fake news and misinformation by spreading the truth based on studies, research, and historical facts.

Social Media's Impact on Mental Health

Social media platforms rely on instant gratification to keep their users. Their notification systems are there to lure users back. Neuroscientists at Freie University in Berlin further validate this, stating that social media notifications for likes activate the brain's reward system.

Additionality, studies suggested that social media exposure leads to loneliness and detachment. *FOMO,* or fear of missing out, is linked to excessive social media use.

FOMO happens when someone is flooded with posts of others doing exciting things while their personal life seems mundane and worse. The youth is vulnerable as they are prone to easily feeling lonely, even with the awareness that the content is just a fraction of reality.

Detaching social media is difficult for users that are heavily ingrained in the platforms. It is advisable to set a time limit for consumption and realize that everything on social media is not the absolute reflection of somebody's life.

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