Technology affects the way individuals communicate, learn, and think. Technology has both positive and negative affects on society including the possible improvement or declination of society.

Society is defined as, "the sum of social relationships among human beings" and

Technology is defined as, "the body of knowledge available to a civilization that is of use in fashioning implements, practicing manual arts and skills, and extracting or collecting materials." Technology shapes our society and has both positive and negative affects.

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Societal issues and cultural changes induced by technology

Social issues –

1. **Identity Theft**
2. **Cyber Bullying**
3. **Gaming Addiction**
4. **Privacy**
5. **Health & Fitness**
6. **Education**
7. **Terrorism & Crime**
8. **Communication Breakdown**
9. **Defamation of Character**

Technology and society:

Societal issues and cultural changes induced by technology

<u>Cultural changes</u>–

Technology has completely changed our culture. From our values, To our means of communication. Now, Many people have trouble having a face to face conversation, Skype does not count. When people spend time with friends, Its on their phones, Tablets, Or computers. Also, Now people judge others by how techy their car is, Or if they have the newest iPhone or Tablet Most people want to put their headphones in and listen to music rather than listening to another person. Videogames isolate all things from the world. Most people prefer technology today, Just because that is all they know. Today it's all about touch screen cell phones. Technology just isolates people from reality. People now a days don't know how to communicate in real world situations like personal relationships, Problem solving and exhibiting adult behaviors.

Societal issues and cultural changes induced by technology

Cultural changes–

Let's take the daily personal view here:

•**Every time a notification pops up on our phone or computer, that's technology influencing culture.**

•**Every time we at a table with our friends and interacting with them and interacting with our phone, that's technology influencing culture.**

•**Every time we can order something from an online vendor rather than going to a local store, that's technology influencing culture.**

•**Every time we log on to have some social time with friends rather than going over to their houses, that's technology influencing culture.**

•**Every time a teammate or our entire team is so buried under email that they can't think straight, that's technology influencing culture.**

•**Every time we go to a new place based on its Yelp profile and reviews, that's technology influencing culture.**

•**Every time one of us sits down to consume our nightly on-demand entertainment, that's technology influencing culture.**

E-waste Management:

Whenever an electronic device covers up its working life, or becomes non- usable due to technological advancements or becomes non-functional, it is not used anymore and comes under the category of

e-waste or electronic waste. As the technology is changing day by day, more and more electronic devices are becoming non-functional and turning into e-waste. Managing such non-functional electronic devices is termed as e-waste management.

E-waste management can be defined as the practical and holistic approach and the founding pillar of cutting down waste from our mother earth. It is reusing and recycling of e-waste which is no longer in use and can be salved for some of its components. We are on the verge of a technological breakthrough with the introduction of AI and we need to dispose off toxic e- waste from our home before we pile up more and more e-waste. We are is dire need of introducing a customer awareness campaign because of lack of interest and knowledge regarding e-waste.

E-waste Management:

Proper disposal of used electronic gadgets

E-waste is a growing problem for us in India. As an 132cr strong economy, we produce e- waste in large quantities. It is very important to dispose off waste in a pragmatic manner.

Ways to dispose off e-waste:

1.Give Back to Your Electronic Companies and Drop Off Points

2.Visit Civic Institutions

3.Donating Your Outdated Technology

4.Sell Off Your Outdated Technology

5.Give Your Electronic Waste to a Certified E-Waste Recycler

Identity theft occurs when someone uses our identity or personal information—such as our name, our license, or our Unique ID number—without our permission to commit a crime or fraud.

Common Ways ,how our Identity Can Be Stolen

- Data Breaches
- Internet Hacking
- Malware Activity
- Credit Card Theft
- Mail Theft
- Phishing and Spam Attacks
- WiFi Hacking
- Mobile Phone Theft
- ATM Skimmers

Common Ways our Identity is Used

•**Thieves open fraudulent credit card accounts in our name.**

•**Thieves use our credit cards or account numbers to make purchases.**

•**Thieves sell our personal information on the dark web— Unique ID no, credit card, and account information—to commit credit fraud, medical fraud and more.**

•**Thieves file fraudulent taxes and/or steal our tax refunds.**

•**Thieves know your account passwords, bank PIN numbers or other passwords to access your computer.**

How to protect identity online

- **Protect our computer and smartphone with strong, up-to-date security software**
- **Learn to spot spam and scams.**
- **Use strong passwords.**
- **Monitor our credit scores**
- **Freeze our credit.**
- **Only use reputable websites when making purchases**

Steps immediate after identity theft

1. **Contact our lender, notify them of the fraud. If it's a credit card account, freeze your card immediately.**
2. **Register an FIR with the police.**
3. **Follow up with the lender to ensure that the fraudulent transaction (if it appears) the FIR is removed**

Unique IDs and biometrics

- **Biometrics** is the science of analyzing physical or behavioral characteristics
- specific to each individual in order to be able to authenticate their identity.

- **Physiological measurements** -They can be either morphological or biological. These mainly consist of fingerprints, the shape of the hand, of the finger, vein pattern, the eye (iris and retina), and the shape of the face, for morphological analyses.

- **Behavioral measurements** -The most common are voice recognition, signature dynamics (speed of movement of pen, accelerations, pressure exerted, inclination), keystroke dynamics, the way objects are used, gait, the sound of steps, gestures, etc.

A **unique identifier (UID)** is a numeric or alphanumeric string that is associated with a single entity within a given system. UIDs make it possible to address that entity, so that it can be accessed and interacted with.

Unique ID Generation

An image processing tool like MATLAB is used for the conversion of fingerprint to unique ID in the form of a QR code. The most important step is to identify a unique point in the fingerprint which will serve as a reference point. All the other minutia features will be calculated with this point as the origin. And hence the fingerprint of the same individual taken in different orientations will all produce the same ID. Core point of the fingerprint is one such unique point.

Core point
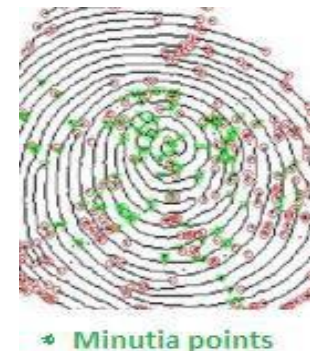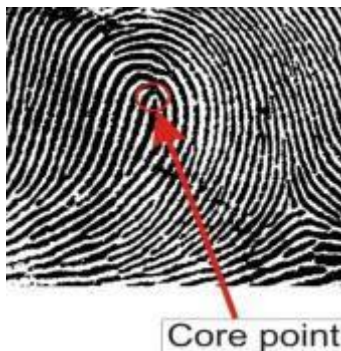
⁎ Minutia points

After finding the core point, the minutia points are extracted by taking the core point as reference. there will be a large number of minutiae. But only a few minutiae which are absolutely unique for that particular fingerprint is needed to generate the unique ID. For this only the minutiae which are inside a Region Of Interest (ROI) centered around the core point are taken.

Unique ID

The reliability of biometrics

Biometric authentication relies on statistical algorithms. It therefore cannot be 100 %-reliable when used alone. "false rejections" or "false acceptances"

multi-modal biometrics

For a number of years now, the use of several biometrics in combination, for example the face and the iris or the iris and fingerprints, has made it possible to reduce error rates considerably.

How accurate is biometrics?

The technical challenges of automated recognition of individuals based on their biological and behavioral characteristics are inherent in to the transformation of analog (facial image, fingerprint, voice pattern...) to digital information (patterns, minutiae) that can then be processed and compared/matched with effective algorithms.

Gender and disability issues while teaching/using computers

Gender Issues

1.Preconceived notions – Notions like "boys are better at technical and girls are good at humanities.

2.Lack of interest

3.Lack of motivation

4.Lack of role models

5.Lack of encouragement in class

6.Not girl friendly work culture

Issues list above are not intentionally created , hence need a different type of handling

1.There should be more initiative program for girls to take computer subject.

2.Film and tv censor board should ensure fair representation of female role models in tv or cinema

3.In practical room they should be more helped and assisted

Gender and disability issues while teaching/using computers

Disability Issues
1.Unavailability of teaching materials/aids
2.Lack of special needs teachers
3.Lack of supporting curriculum

Possible Solution
- Enough teaching aids must be prepared for specially abled students
- Must employ special needs teachers
- Curriculum should be designed with students with specially abled students in mind.