

# Professional Practices in ICT

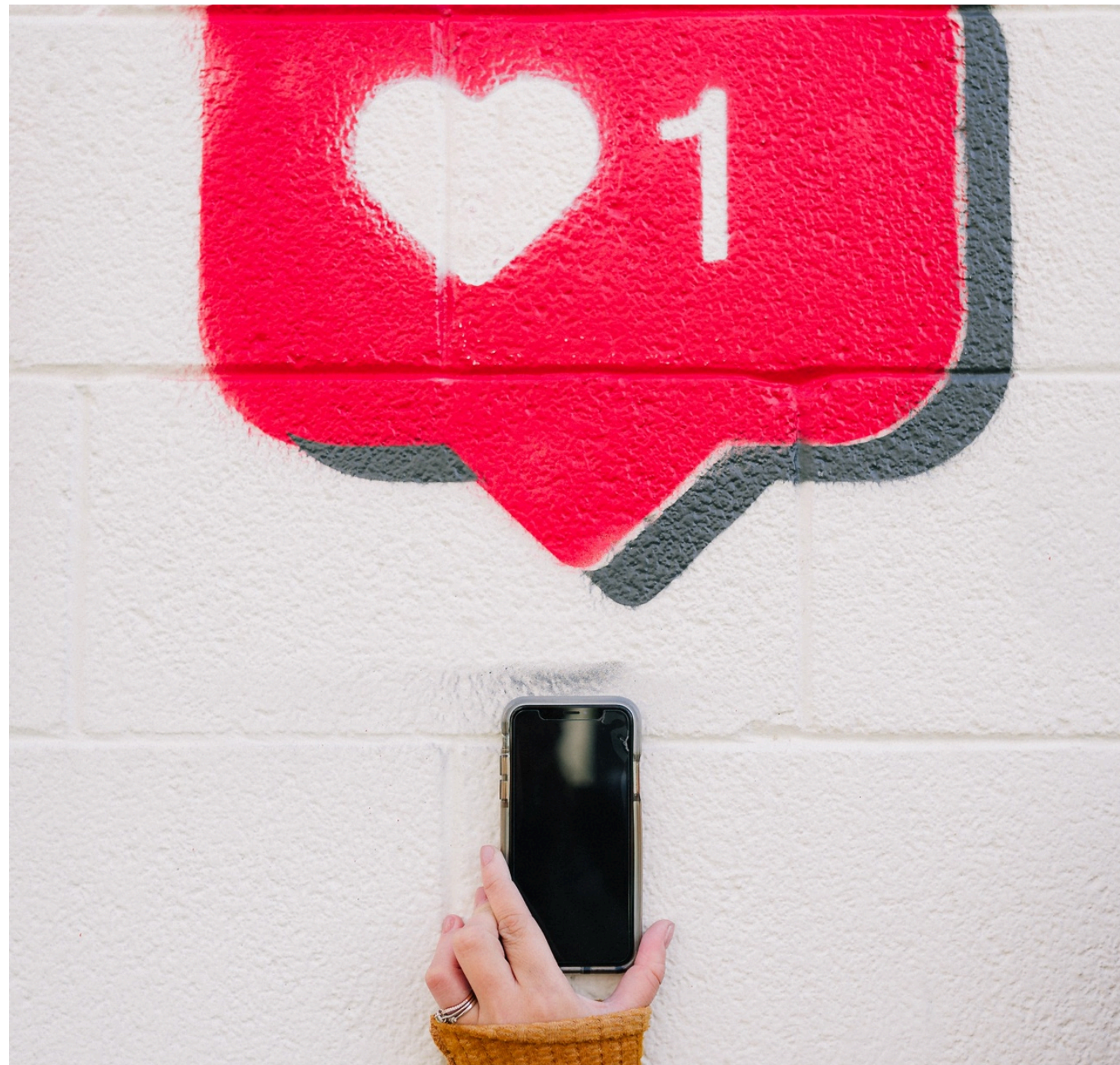
## ITC4182

### Lecture 10

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# THE SOCIAL IMPACT OF INFORMATION AND COMMUNICATION TECHNOLOGY

An exploration of how information and communication technology (ICT) is transforming and empowering individuals, communities, and societies worldwide.

# SOCIAL RESPONSIBILITIES OF ICT PROFESSIONALS



## **Protecting User Privacy**

ICT professionals must ensure user data is securely stored and only accessed with consent, respecting individual privacy rights.



## **Promoting Digital Literacy**

ICT professionals should actively work to educate the public on safe and responsible technology use, bridging the digital divide.



## **Addressing Ethical Concerns**

ICT professionals must consider the ethical implications of their work, such as algorithmic bias and the impact of technology on vulnerable populations.



# IMPACT OF ICT ON SOCIETY

- Information and Communications Technology (ICT) has become an integral part of our daily lives, revolutionizing how we communicate, work, and access information.
- It has introduced new avenues for collaboration, education, and entertainment, leading to increased productivity and access to global knowledge.
- This transformation also presents challenges related to data security, job displacement due to automation, and the environmental impact of technological advancements.



# ECONOMIC, ENVIRONMENTAL, AND EDUCATIONAL IMPACT OF ICT

## **Economic Growth**

ICT has driven economic growth by improving productivity, enabling new business models, and fostering innovation across industries.

## **Remote Work Enablement**

ICT has enabled remote work and flexible work arrangements, allowing businesses to operate efficiently and employees to maintain work-life balance.

## **Environmental Impact Reduction**

Digital solutions powered by ICT have reduced the environmental impact of various sectors, such as transportation and energy, through optimized resource utilization and decreased carbon emissions.

## **Expanded Educational Opportunities**

ICT has expanded educational opportunities by providing access to online learning platforms, digital educational resources, and virtual classrooms, especially for underserved communities.

## **Learning Revolutionization**

ICT has revolutionized the learning experience by incorporating interactive, personalized, and collaborative tools that enhance student engagement and improve learning outcomes.

# ICT AWARENESS AND ACCESSIBILITY

- Bridging the Digital Divide

Implementing strategies to provide accessible and affordable ICT (Information and Communication Technology) infrastructure, devices, and internet connectivity to underserved communities.

- Promoting Digital Literacy

Delivering comprehensive digital skills training programs to empower individuals with the knowledge and skills to effectively utilize digital technologies.

- Inclusive Design Practices

Ensuring that ICT products and services are designed with the needs of diverse users, including those with disabilities, in mind to enhance accessibility and usability.

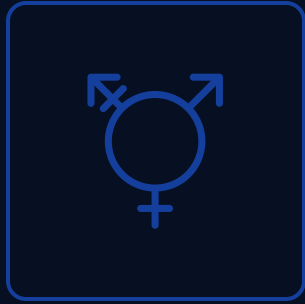
- Awareness Campaigns

Launching widespread public awareness initiatives to educate and sensitize the population about the importance of ICT accessibility and the benefits of digital inclusion.

- Regulatory Frameworks

Establishing and enforcing regulations and policies that mandate ICT accessibility and inclusion, ensuring that digital services and platforms are accessible to all.

# DIVERSITY, GENDER-RELATED, AND CULTURAL ISSUES



## Gender Equality

Promoting equal opportunities and representation for people of all genders in the workplace and society.



## Cultural Awareness

Understanding and respecting the diverse cultural backgrounds, traditions, and perspectives of individuals.

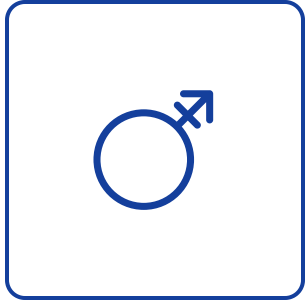


## Inclusive Environments

Creating work environments that are welcoming and supportive for people of all backgrounds and identities.

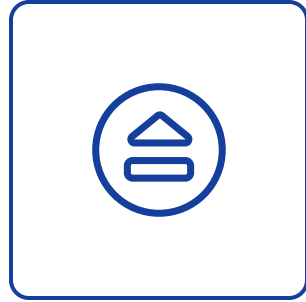
Embracing diversity, addressing gender-related issues, and fostering cultural understanding are crucial for building a more just, equitable, and innovative workplace and society.

# DIVERSITY ISSUES IN ICT



## **Underrepresentation of Minorities**

Ethnic and racial minorities are often underrepresented in the tech industry, facing challenges in hiring, promotion, and career advancement.



## **Lack of Opportunities for People with Disabilities**

The ICT field often lacks accessibility tools and employment opportunities for individuals with disabilities, limiting their participation.



## **Socioeconomic Barriers**

The high costs of ICT education and resources prevent equal access to the field for disadvantaged groups, exacerbating the digital divide.



## **Ageism in Tech**

Older professionals often face biases in the ICT industry, with jobs favoring younger employees and limiting opportunities for experienced workers.



# GENDER-RELATED ISSUES IN ICT

- Gender Gap in Workforce

Women are underrepresented in software development, cybersecurity, and AI fields, with fewer women pursuing and succeeding in these high-growth, high-paying tech careers.

- Gender Pay Gap

Women in tech roles often earn less than their male counterparts, even when performing the same job functions and possessing similar qualifications.

- Bias in Hiring and Promotions

Women face implicit biases in recruitment and career advancement, with gender stereotypes and unconscious discrimination hindering their professional progress.

- Workplace Harassment & Discrimination

Many women experience gender-based discrimination and harassment in tech workplaces, creating a hostile environment that discourages women from entering and remaining in the industry.

- Lack of Female Role Models

The scarcity of women in leadership positions within the tech industry contributes to a lack of mentorship and encouragement for young girls interested in pursuing STEM careers.

# CULTURAL CHALLENGES IN THE GLOBAL ICT INDUSTRY

- Language Barriers

English dominates programming languages and documentation, making it harder for non-English speakers to access and contribute to the field.

- Global Collaboration Challenges

Differences in work ethics, communication styles, and business practices can affect the efficiency and cohesion of multinational tech teams.

- Bias in AI & Technology

AI systems often reflect biases present in their data sources, leading to unfair treatment and outcomes for certain groups of people.

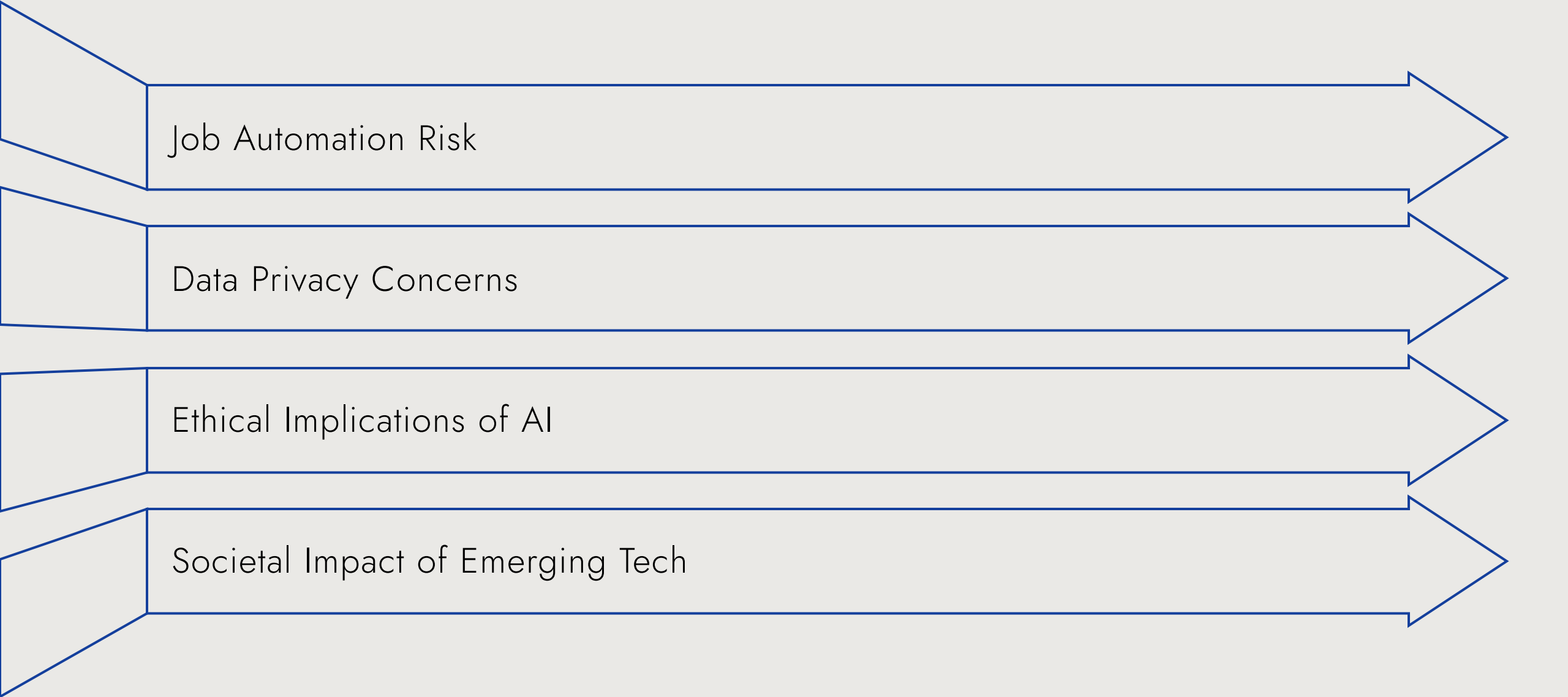
- Digital Divide

Unequal access to ICT tools and the internet affects people in developing countries, limiting their opportunities for technological advancement.

- Cultural Sensitivity in Software & UI Design

Applications may unintentionally exclude or offend certain cultures if they are not designed with inclusivity and cultural awareness in mind.

# SOCIAL CHALLENGES IN THE FUTURE



Job Automation Risk

Data Privacy Concerns

Ethical Implications of AI

Societal Impact of Emerging Tech