ICT:
Emerging Technological Trends
and
Society

TuK

Btech IT/CT/CCN Year IV term 3

INTRODUCTION TO ICT EMERGING TECHNOLOGICAL TRENDS AND SOCIETY

SUBJECT CODE: ECII/ECSI/ECCI 4204

INTRODUCTION

ICT

EMERGING TRENDS

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AIMS & OBJECTIVES

1) Introduce emerging technology and their impact on everyday life in society.

2) **Study emerging technology disruptiveness**

3) Explain how critical emerging technology is and examine the roles they play, as well as their social and ethical impacts related to their use

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LECTURESE & TOPICS

0) Overview and Introduction To ICT Emerging Technological Trends and Society

1) Exploring Emerging ICT Tech And Trends In Computer Applications And Society

2) Computer H/W and S/w Emerging Technological Trends And Society

3) Computer Management Emerging Tech Trends In Society

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LECTURESE & TOPICS

4) Emerging Tech Trends In Data Communication and Society

5) The 4th Industrial Revolution And Emerging Tech Trends In Society

- БУДЬТЕ В БЕЗОПАСНОСТИ БРАТЬЯ

BE

SAFE

BROTHERS

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RECOMMENDED READING LIST

1. Fawad A Khan, Jason M Anderson "Digital Transformation Using Emerging Technologies:- A CxO's Guide To Transform Your Organization" Independently Published 2021

2, Sarah Pink "Emerging Technologies/Life at the Edge of the Future" Routledge 2022

3. Kelly and Zach Weinersmith "Soonish: Ten Emerging Technologies That'll Improve and/or Ruin Everything" Penguin Press 2017

4. Schwab,Klaus "The Fourth Industrial Revolution", 2018.

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WHY STUDY ICT: EMERGING TECH TRENDS & SOCIETY

THE 10 MOST IMPORTANT TECH TRENDS OF THE DECADE

(https://www.cnet.com/tech/computing/countdown-the-10-most-important-tech-trends-of-the-decade/)

1) **4G LTE**
2) **NON-TRADITIONAL KEYBOARD CENTRIC COMPUTERS (SMARTPHONES, TABLETS, NETBOOKS)**
3) **B.T. S. TECHNOLOGIES (CLOUD, DATA, A.I.)**
4) **SMART TV, TV STICKS AND VOD**
5) **TECH TRACKERS FOR EXERCISE, DIET AND SLEEP**
6) **ELECTRIC VEHICLES AND SELF-DRIVING CARS (Drone)**
7) **WEARABLES (A.R., V.R.)**
8) **SMART SPEAKERS**
9) **WIRELESS EARBUDS**
10) **THE SHARING ECONOMY APPS (Uber/AirBnB/Lyft etc)**

WHY DO SOME TECH TREND?

- **That is the FIRST question**

WHY STUDY ICT: EMERGING TECH TRENDS & SOCIETY

WHAT HAPPENED TO THESE TECH TRENDS?

<u>**KENYAN STARTUPS THAT COLLAPSED RECENTLY**</u>
(<u>https://www.businessdailyafrica.com/bd/corporate/technology/why-six-kenyan-promising-tech-start-ups-fell-3987374</u>)

1) **Kune Foods 2020-2021 (food tech venture)**

2) **Notify Logistics 2018-2022 (rent-a-shelf to vendors)**

3) **WeFarm Shop 2014-2022 (Agritech mobile shop)**

4) **BRCK 2013-2018 (mobile internet routers (rugged and reliable) for Africa)**

5) **Nopearide 2018-2022 (Kenya's first EV taxi service)**

WHY STUDY ICT: EMERGING TECH TRENDS & SOCIETY

WHAT HAPPENED TO THESE TECH TRENDS?

10 KENYAN STARTUPS (WHY DID THEY COLLAPSE?)

1) **Raised huge amounts of dollars in seed funding(Ksh 117 million + 45 million +11 million) but money does not turn things around**

2) **Operational costs(e.g. Financing to break even) could not be handled**

3) **Market conditions in Kenya (difficult for startups growth)**

WHY DO SOME TECH TREND BUT OTHERS FLOP?

- **That is part B of the FIRST question**

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ANSWERING

THE

WHY

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WHAT IS ICT: EMERGING TECH TRENDS & SOCIETY

DISAPPEARING COMPUTER IN THINGS:- BECOMING "SMART" Vs "INVISIBLE"

- **Should computers in tech devices completely fade into the background or entirely disappear?**

- **Invisible tech (the waiting computer) Vs smart tech (sensors / ambient computing)**

- **Characteristics of Smart tech:- (1) Can actively run or not run (2)…**

- **Characteristics of Invisible tech:- (1)waits to be activated (2)…**

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WHICH TECH WILL BECOME INVISIBLE? WHAT'S THE NEXT THING THAT WILL BE MADE SMART?

- **THIRD AND FINAL question**

WHAT IS ICT: EMERGING TECH TRENDS & SOCIETY

EMERGING TECHNOLOGY DEFINITION BY ROTOLO & HALAWEH

• Emerging technological trends can be defined as: -

"New technologies currently being developed or will be developed in the next 5 to 10 years, that alter the business and social environment, and are perceived as capable of changing the status quo.

They generally are new but include older technologies, and are still controversial and relatively undeveloped in potential"

WHAT IS ICT: EMERGING TECH TRENDS & SOCIETY

- **EMERGING TECHNOLOGY DEFINITION BY ROTOLO & HALAWEH**
  - May result from technological convergence of different systems evolving towards similar goals.

  - Are technical innovations representing progressive developments within a field for competitive advantage

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WHAT IS ICT: EMERGING TECH TRENDS & SOCIETY

•EMERGING TECHNOLOGY CHARACTERISTICS:-

•Radically novel and relatively fast growing technology

•Characterised by a certain degree of coherence persisting over time

•Potential to exert considerable impact on socio-economic domain(s) (actors, institutions and patterns of interactions, associated knowledge production processes)

•Most prominent impact lies in the future

•Still in the emergence phase thus somewhat uncertain and ambiguous

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WHAT IS ICT: EMERGING TECH TRENDS & SOCIETY

WHAT IS A TREND?

•**A trend can be defined as:-**

1 A general direction in which something is developing or changing

2. Can be upward or downward

3. A change or development in a general direction

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WHAT IS ICT: EMERGING TECH TRENDS & SOCIETY

WHAT IS SOCIETY?

•Society can be defined as:-

1. The aggregate of people living together in a more or less ordered community

WHAT IS ICT: EMERGING TECH TRENDS & SOCIETY

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•<u>WHAT IS DISRUPTION?</u>

- A process whereby a smaller company with fewer resources is able to successfully challenge established incumbent businesses

WHY STUDY ICT: EMERGING TECH TRENDS & SOCIETY

THE BIGGEST TECH FLOPS OF 2019

1) **FOLDABLE PHONES**

FOLDABLE PHONES:- A BIG TECH FLOP IN 2019

FEATURES

-Folds in half, bendable displays, rollable

-Only keyboard (not screen) flexible

FORMAT

Two screens with a bezel in the middle (or single flexible screen that folds seamlessly)

FOLDABLE PHONES:- A BIG TECH FLOP IN 2019

1) **CHALLENGES**

-Flexibility in bendable display i.e. made with **polymer plastic**

-Scratching and scuffing:-**prevention**

-**Battery Power**:- more required for larger/dual displays

-**OS**:- needs redesigning:- WHY?

-Apps adaptation:- To changes in screen size

-Manufacturing issues:-

    -Change display case

    -Adhesives and components used inside the phone etc

FOLDABLE PHONES:- A BIG TECH FLOP IN 2019

SOCIETY:-

-Received with much hype

-Structural issues-started breaking

FOLDABLE PHONES:- A BIG TECH FLOP IN 2019

USE CASE SCENARIOS :- APP QUALITY UCS

1. **What situations would users need to move apps from one state to another?**

2. **When would users require rotation, unfolding / Folding phone / tablet?**

3. **At what points will user's need to open multiple apps at once? or stretch and place apps on screen at the same time?**

FOLDABLE PHONES:- A BIG TECH FLOP IN 2019

USE CASE SCENARIOS

1. **APP QUALITY UCS**

-Apps e.g. Youtube

-continuity

-

-more options and convenience

FOLDABLE PHONES:- A BIG TECH FLOP IN 2019

USE CASE SCENARIOS

2. **OPTIONS & CONVENIENCE UCS (SMART Vs INVISIBLE)**

-MULTI-TASKING:-

– PORTABILITY Vs SPACE:-

FOLDABLE PHONES:- A BIG TECH FLOP IN 2019

BENCHMARK TESTS (BATTERY TESTS)

8" foldable

8"	Display	Resolution		Logical Display	
	Size	X	Y	densityDpi	Size
Unfolded	8.03	2200	2480	420	large
Folded	6.62	1148	2480	420	normal

•<u>ASSIGNMENT # 2 WORKING IN GROUPS LIST THREE REASONS WHY THESE EMERGING TECHNOLOGIES FLOPPED?</u>

1) **Mpesa 1tap?**

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QUESTION AND ANSWER SESSION

ANY

QUESTIONS

?

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