



Cybersecurity Awareness and Digital Literacy for Women

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Presentation outline



- Digital Literacy
- Role of higher learning institutions in cybersecurity awareness
- What MUST is doing to create cybersecurity awareness
- Challenges faced

Cyber Security and Digital Literacy



Cybersecurity is ensuring that digital resources remain safe and secure in an increasingly interconnected world.

Digital literacy is the ability to access, manage, understand, integrate, communicate, evaluate, and create information safely and appropriately through digital technologies.

Cybersecurity



Cybersecurity focuses on the protection of digital systems and networks from cyber threats.



It **deals** with the prevention, detection, and response to attacks and unauthorized access to computer systems, networks, and connected devices.



Cybersecurity **aims** to defend against various cyber threats

Digital Literacy



Why Digital Literacy for Women



Women become informed by being digitally literate.



They become more aware by having access to the internet, which is a wealth of information.



Better access to information leads to women making more informed choices in life, and it helps them learn something new and develop new skills and interests.

Two Categories of Cybercrime

- The Computer as a target:
 - Using a computer to attack other computers
e.g. Hacking, Virus/Worm attacks etc
- The Computer as a WEAPON
 - Using a computer to commit real world crime
e.g. credit card fraud



Cyber Attacks in Africa

In the first quarter of 2023, the African region had the highest number average weekly cyber-attacks per organization, with an average of 1,983 attacks





Cyber Attacks in Malawi



financial sector has been greatly affected.

Other key cybercrime incidents include

identity theft

various email scams

distribution of compromising images

attacks on computer data and systems.



WHY?


Insufficient cybercrime specialists in the country make it difficult to incriminate the suspects.

Cyber Security and Mobile Money

cybercriminals steal about \$117,000 through mobile money transfers every month.



Impact of Digital Attacks



Cybercrimes can have a profound impact on women, as they are often targeted

Personal

- The future of privacy

Reputational

- Fake news

Legal

- Conflicting rights

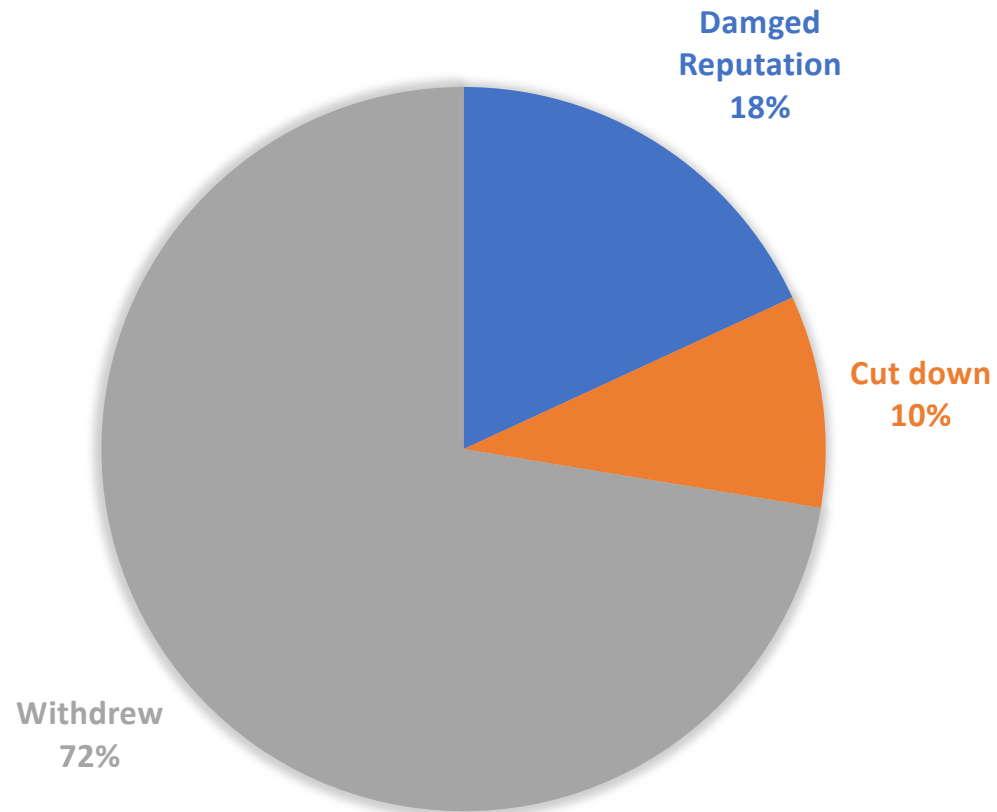
Infrastructure

- Internet shutdowns



How are cyber crimes affecting women?

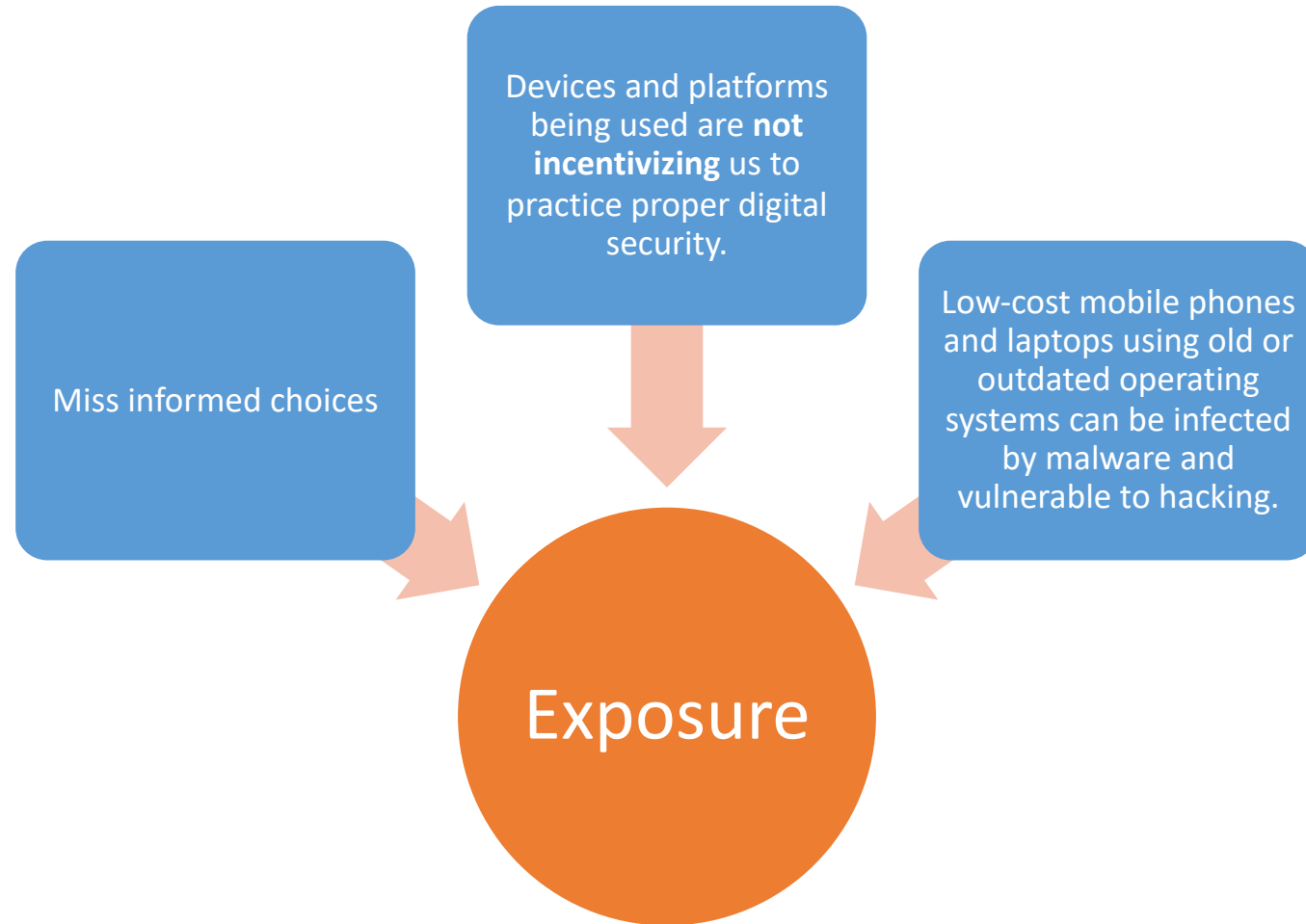
SOCIAL ACTIVITY



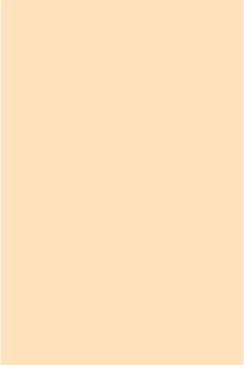
Every victim or survivor of a cyber attack may have experienced:

- Mental health issues
- Social status dilemma
- Economic fraud/opportunities
- Physical harm or even death

How do we get exposed to these dangers?...



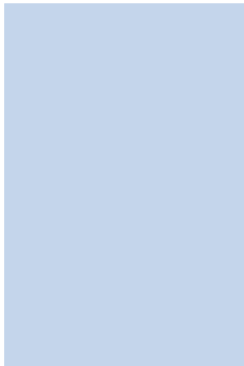
How should we protect women?



Fill gaps in technological knowledge between companies, society and **policymakers**.



Governments and industry must work together to **improve awareness**, information-sharing, and education on cyberthreats, mitigation and implementation of sanctions, and trust-building initiatives in society.



'Digital resilience' requires a **human-centered** approach to prevent, respond and quickly recover from disruptive events.

Recommendations



Increase awareness of digital security threats and vulnerabilities

- low awareness of actual threats and attacks have created an “it won’t happen to me” attitude.

Build secure tech tools and apps that work effectively

- Improve digital security training and practice
- Enhance digital security practices



Technology Ethics & Lessons for life



Data, digital platforms, and technology
are not inherently bad.

By [Nathalie Balabhadra](#)

The way they are used can be harmful
if individual freedoms and private
information is jeopardized, leading to
greater social distrust and insecurity.

What Malawi
University of
Science and
Technology (MUST)
is doing to create
cybersecurity
awareness



Role of higher learning institutions in cybersecurity awareness



Create curriculum which include issues in cybersecurity in all our student

Include modules cybersecurity and computer security modules in IT and computer Science degree programs

Outreach programs should target rural women and girls on cyber security issues

Encourage female students to participate in class and outside activities

Invest in cyber security research



What is MUST doing to create cybersecurity awareness

- All first-year students are taking computer courses in first year
- We have BSc in Computer Systems and Security
 - We train ethical hackers
- Entry levels
 - Normal entry – 1st year
 - Economic fee paying – 1st year
 - Mature entry – 2nd year



What is MUST doing to create cybersecurity awareness



Promote female students to participate in class and cyber security competitions

Cyber 9/12 Strategy Challenge

SANReN Cyber Security Challenge



What is MUST doing to create cybersecurity awareness



- Introduction of the cyber security certification academy
 - MUST has partnered with Africa Cyber Defense Forum (ACDF) on CyberGen Program to provide hands-on cybersecurity fundamentals
 - Pilot phase – 5 female and 5 male students
 - Cisco Academy Cybersecurity certifications
 - MUST Huawei Academy – Huawei Certified ICT Associate - security

What is MUST doing to create cybersecurity awareness



Doing research in
Cybersecurity

Outreach
activities concentrating
on women and girls

Girls science camp

- Cybersecurity awareness
- Programming



Challenges

Funding for our students to participate in international competitions

Scholarships for needy female BSc IT and BSc in Computer Systems and Security

Laptops and mobile phones for needy students doing BSc Computer Systems and Security