Introduction

- Global competition is becoming increasingly knowledge based and skills relating to the specific requirements of information driven society are increasingly becoming critical.

- The current global society has become increasingly dependent on accessing and using information.

- Global networked economy, Information and knowledge have become strategic resources upon which governments, private sector and public make decisions.
Continuation

- e-skills programmes in tertiary education have helped equip students with the relevant knowledge and skills critical for employment.

- The socio-economic development of a country is dependent upon the availability of accurate and current information disseminated through ICT’s.

- The importance of ICT has awakened many institutions to invest in E-skills programmes

- ICT’s and e-skills should be used as tools for empowerment and keys to e-inclusion.
The traditional learning environment
The modern learning environment
Integration of ICT’s into education

- Social construction proposes that attitudes and users of technology converge in social system anchored on access to ICT’s and acquisition of e-skills.
- Technology and education become incorporated into each other through projects, collaborations and social media.
- Integration of ICT’s will help to demystify the myth surrounding e-learning.
Continuation

- Use of ICT’s in education has a positive impact on:
  - learning outcomes like exam performance and employability.
  - intermediate learning outcome, for example, learner motivation, engagement and independence
  - non-learning outcome like management efficiency and workload reduction.
Continuation

- Institutions of higher education have embarked on e-skills programme as a strategy to gain competitive advantage in preparing students for e-inclusion.
- Educational services and programmes remain in sync with the demands of the dynamic ICT driven world.

“ICT’s ceases to be the preserve of the privilege few but becomes a tool which the poor liberates themselves from wretchedness – an escalator that enables people to progress out of second to first economies…” (Mbeki, T. (2008))
ICT Policy

• Zimbabwe’s ICT policy provides a basis for the development of ICT and an ICT driven economy.

• The policy’s is inspired by the vision to transform Zimbabwe into a knowledge economy by 2020, and a calling to accelerate the development and application of ICT in support of economic growth and development.

• The policy’s objectives are to promote the development of ICT infrastructure, to create a knowledge economy and to integrate ICT’S into education and training.
• This policy highlights the high priority Government places on ICT’s as a tool for development in Zimbabwe.

• The Ministry of Higher and Tertiary Education has taken the initiative to promote e-skills programmes for life-long learning.
E-skills: Empowering girl student with e-skills
Importance of e-skills

- e-skills are pervasive and all encompassing because they permeate every aspect of our lives in the ICT embedded economies.
- E-skills are needed in all sectors and at all level which require creativity, innovations and interdisciplinary team work because they provide leverage for competitiveness.
- Institutions of higher education are in the business of knowledge production and as such they do rely on ICT’s as the keys to unlock creativity and innovativeness through research and commercialisation of technology.
Continuation

- e-skills are crucial in today’s information driven economy because they enable those who possess them to participate effectively in the global information economy.
- They also provide opportunities to learn research and conduct business online irrespective of space and time.
- E-skills enable both students and lecturers to claim their space on cyber space and contribute towards content on the internet.
- E-skills promote inter-institutional cooperation thereby fostering international cooperation.
Definitions of e-skills


- The National E-skills Plan of Action (NeSPA) defines e-skills as “…the ability to use and develop ICT’s within the context of an emerging South African Information Society and Global knowledge economy and associated competencies that enable individuals to actively participate in world in which ICT is a requirement in government, business education and society in general”
The following definitions have been adopted from the European E-Skills Forum:

- **ICT user skills**: capabilities for effective application of ICT systems and devices by the individual.

- **ICT practitioner skills**: capabilities for researching, developing and designing, managing, producing, consulting, marketing and selling, integrating, installing and administering, maintenance, supporting and service of ICT systems.

- **e-Business skills**: capabilities needed to exploit opportunities provided by ICT.
Categories of learning In an Information driven society

• There are various types of learning in an information driven society and these include digital learning, virtual learning and resource based learning among others.

• Digital learning is high-tech, content filled teaching and learning whereby the networked learners experience a rich and complex online information environment through which they navigate themselves.

• It is through such serendipitous learning that students are able to make happy discoveries.
This type of learning involves the use of online learning packages and computer based assessments.

Virtual learning is also mediated by technology but the focus is on online discussion, the exchange of ideas and individualised learning support.

In virtual learning resources are available online and focus is on collaborative learning or learning through action and reflection and feedback and support.
College Information Technology Enhancement Programme (CITEP).

- A local capacity building project initially funded by the Flemish Office for Development and Cooperation and Technical Assistance (VVOB) to promote ICT Infrastructural development at Tertiary levels.

- Such collaborations are necessary since it is increasingly becoming clear that no one single entity can any longer deliver the complexities education without networking with other institutions.

- Project was initially funded by donors but has since been taken over by the college.
The project was a partnership between VVOB and the Ministry of Higher and Tertiary education.

Currently the Harare Polytechnic has taken over the funding of the project and it now operates as an E-Skills development Project.

The project is anchored on ICT User skills, ICT Practitioner skills, e-business skills and e-participatory skills.
Achievements of the CITEP programme

- Lecturers and support staff equipped with the prerequisite knowledge and skills to operate in an e-environment.
- Capacity to maintain and manage ICT Equipment developed.
- Institutional staff empowered with skills and knowledge to effectively and efficiently manage and use ICT’s.
Continuation

- Upgrading and enhancement of the skills and knowledge of the institution’s ICT unit.
- Development staff development strategies for the promotion of ICT supported teaching and learning at Harare Polytechnic Developments.
- Students and staff equipped with e-skills for e-inclusion or e-compliance.
- Students chances of gaining employment in in ICT driven environment enhanced.
E-Learning project
E-Learning project

- networked technologies are dramatically revolutionaryising education and training, as they enable people to access more information online.

- E-learning has an advantage over the traditional brick and mortar education in that it liberates the learner from the constraints of place and schedule.

- The trainers targeted at least two people including the Head of Department / Division and a lecturer who were then expected to cascade the training to their subordinates.

- The training is based on the scientific model which takes cognisance of the trainees E-skills background and builds on it.
The project has seen nearly ninety percent of the lecturing staff receiving training and certificates.

Currently the project is being pilot tested on students who are studying ICT in the Department of Information and Communication.

The e-learning project was initiated on the moodle platform

The project is an innovation that is transforming the mode and delivery of learning in technical institutions.
Advantages of e-learning project:

- Provision of flexible learning opportunities for students.
- Transforming the mode of instructional delivery in technical institutions.
- Provision of flexible and wider access to tertiary education.
- Provision of value added interactive learning through the use of ICT’s.
Impact of (CITEP)

- (90%) of staff have received training in Basic and Advanced ICT skills.
- The college’s capacity to maintain and manage computer laboratories has been enhanced.
- The lecturers have greatly improved in records management, research and development.
- An increase in ICT learning enhances chances of employment, economic prosperity and productivity.
- College has been able to create a College Area Network which has seen the various departments being networked.
**Business Benefits**

- The effective deployment of ICT coupled with appropriate skills constitutes a far more significant determinant of productivity growth.
- Initiatives to revitalise the economy in the banking sector, agriculture, debt relief, anti-corruption will not bear any positive results without the integration of ICT’s.
- Higher education should be influenced by studies that emphasise the importance of self-learning and in-house training.
Continuation

- E-business skills has enabled graduands to exploit opportunities provided by ICT especially the internet and e-business ventures.
- ICT’s, e-skills and entrepreneurship will secure a brighter future in the global information driven economy
- Creation of new jobs and wealth in emerging economies is dependent upon the prioritisation of e-skills and entrepreneurship.
Conclusions

- **(CITEP)** has built capacity, enhanced ICT and e-literacy skills, and the quality of graduands.
- Programme has revolutionised the delivery of education as learners are now experiencing virtual learning.
- Quality of education and training has improved because lectures and students are able to research for current information online, exchange notes with networked colleagues, exploit the opportunities of the open access age.
Continuation

- E-Skills project has also enabled the college to be competitive through its research on alternative energy sources like bio-fuels, solar energy and irrigation projects.
- There is need to double investment in hardware, software and persware and also the extension of the e-learning project to other department.