E-learning for Education

Multimedia University

What is E-learning?

The use of Internet technologies to deliver a broad array of solutions that enhance knowledge and performance

Rosenberg, 2001

E-learning is Internet-enabled learning

http://www.cisco.com

Truth of e-learning

Internet has started reshaping education.
Education will not be the same in the next decade

There is no going back. The traditional classroom has to be transformed

Web-based Education Commission, US

Many universities/colleges may not survive by the end of this decade

e-business in e-learning

E-learning market will swell from US$2.2 billion to US$11.4 billion by 2003

Cushing Anderson of Framingham, IDC

Only about 1% of the population have taken an on-line course

E-learning is still new

E-learning is going to be big

Education and training forms one of the largest sectors of the economy in most countries

Over the last decade, the number of corporate universities grew from 400 to 1,800

Meister, Jeanne op. cit., endnote 23

40% of Fortune 500 companies have established corporate universities

Moe and Blodgett, op. cit., endnote 21, p. 230.

Skilled jobs now represent 85% of all jobs in US, in contrast to 20% in 1950.

http://www.webcommission.org/directory

Education Market will be big

A big growth is expected in the education market

Student population in US colleges increase from 232,000 at the turn of the century to 13 million today

In Malaysia, with one university in 1957 to over 21 public and private university

The US Army has established a online educational portal and hope to enroll 15,000 to 20,000 of its army personnel for a degree programme

The future soldiers will not be carry guns but computers

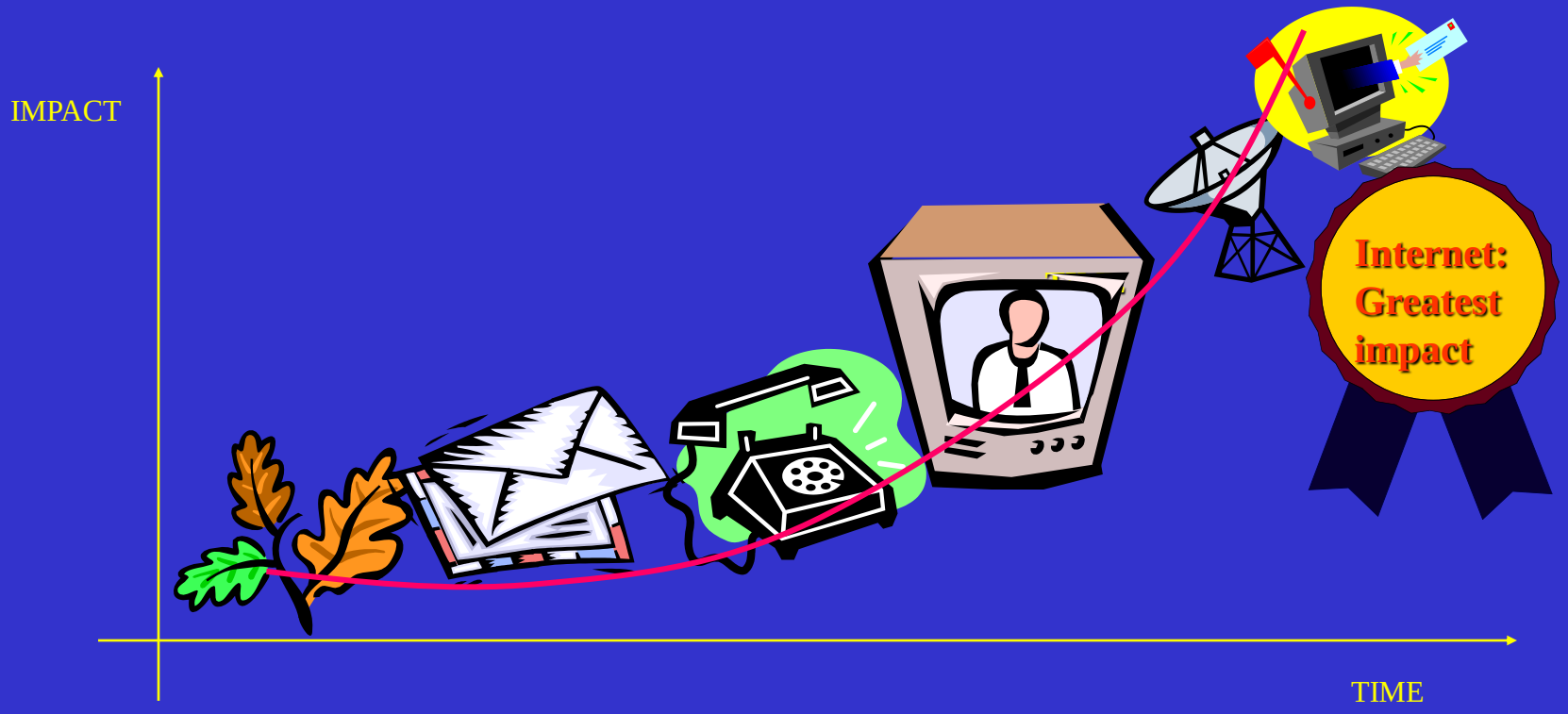
Internet Users will continue to grow

Table: Internet Users in Asia (2000)

Country	Number of Internet Users	% population
Hong Kong	3,460,000	48%
Indonesia	400,000	0.18%
China	17,000,000	1.3%
India	4,500,000	0.45%
Japan	38,000,000	30%
Malaysia	1,500,000	7%
Philippines	500,000	0.6%
Singapore	1,850,000	44%
South Korea	16,000,000	34%
Taiwan	6,400,000	29%
Thailand	1,000,000	1.6%
Vietnam	100,000	0.13%

Source: http://www.nua.ie

Evolution of Education Technology



E-learning: Blended mode

Chalk-and-board has long ruled the classrooms

- will not be eliminated
- Less emphasis

Interactive Digital Content:

- more emphasis
- on demand learning
- interactive

National ICT Agenda

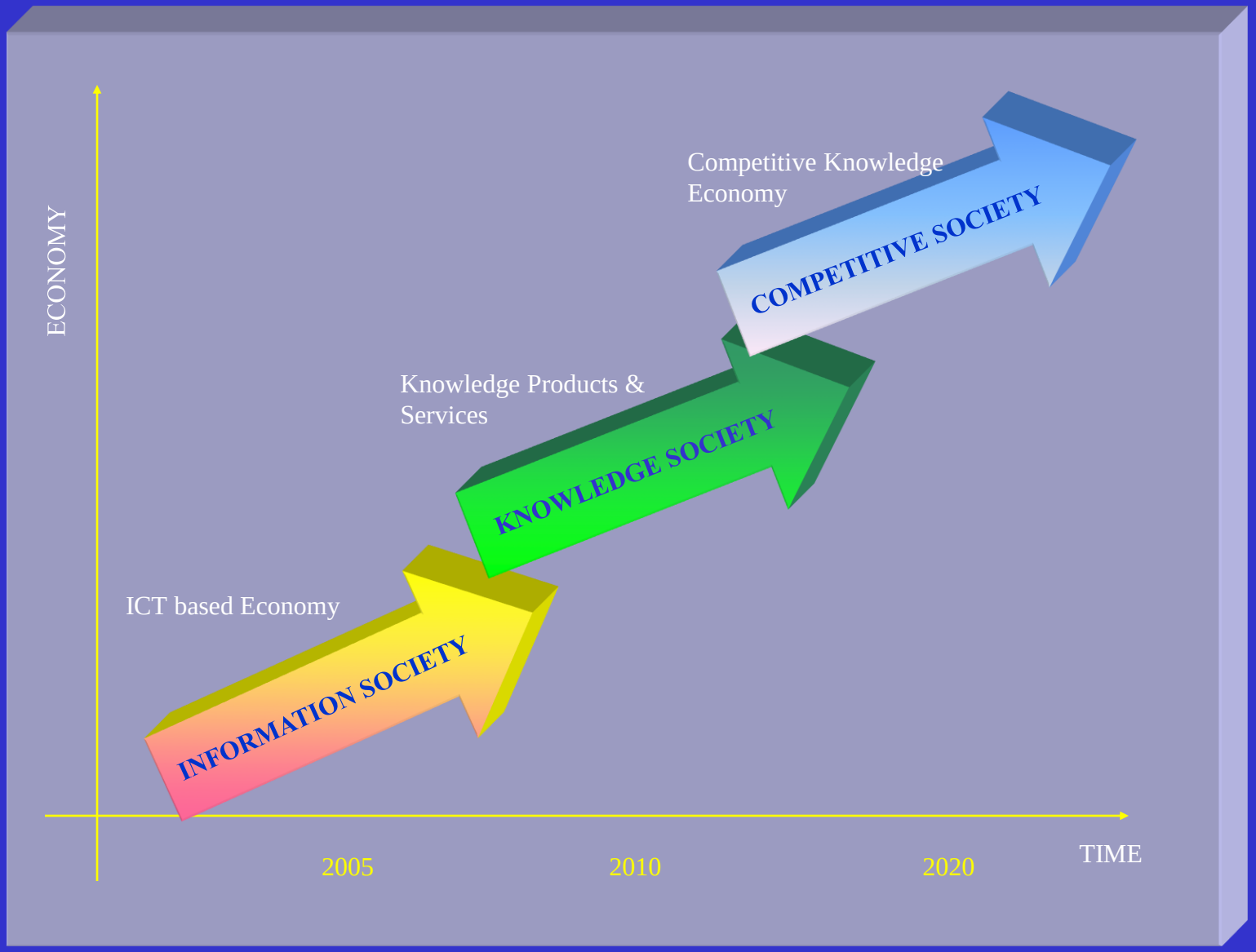
PEOPLE
- Work Culture
- ICT Skills
- Knowledge worker
- Learning Society
- United, moral & ethical

KNOWLEDGE-BASED ECONOMY

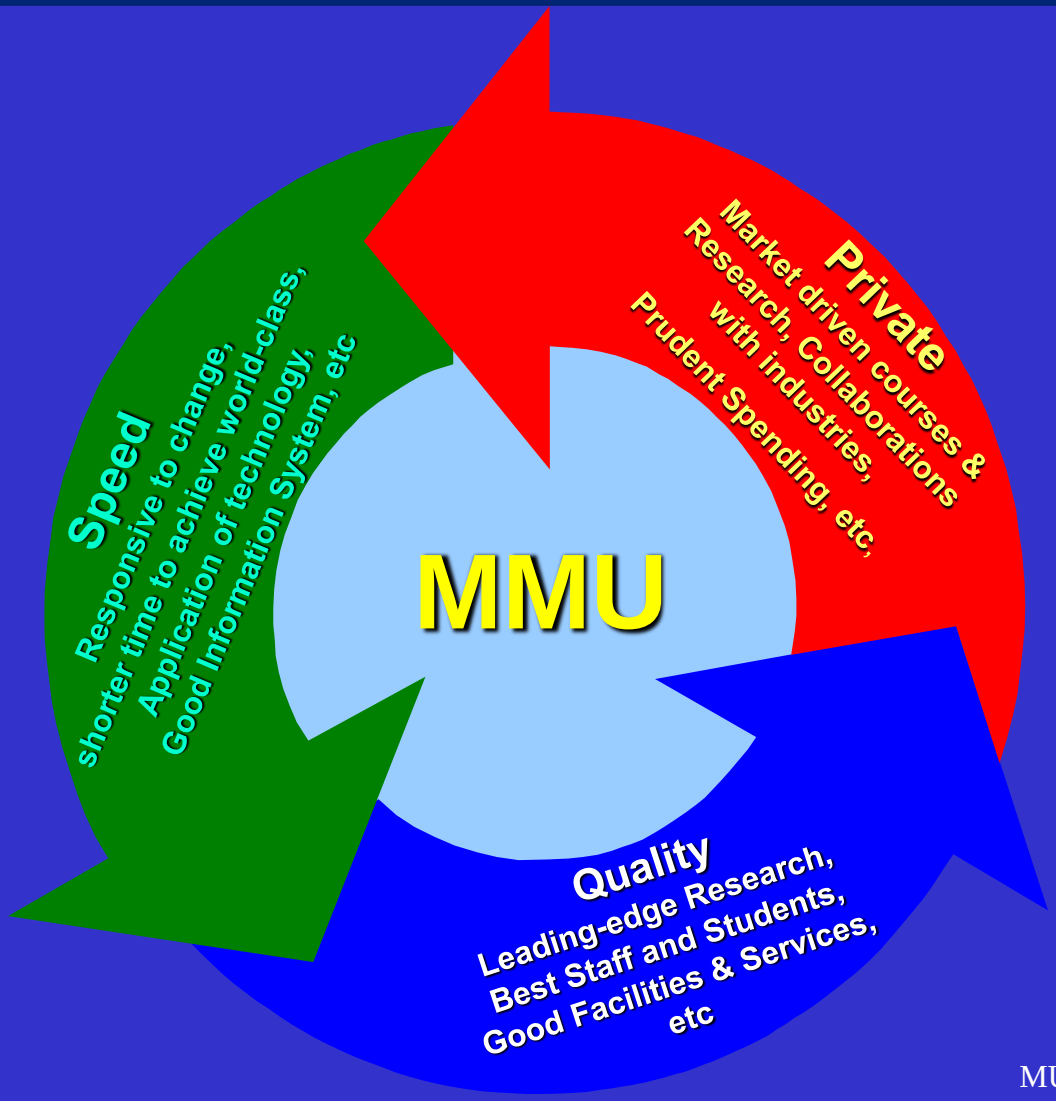
INFRASTRUCTURE
- Communication
- Fibre-Optic Cabling
- Gigabit ATM
- Satellite
- Transport/Logistic
- etc

APPLICATION & CONTENT
- Smart Schools
- e-govt.
- Smartcard
- Tele-medicine
- Others

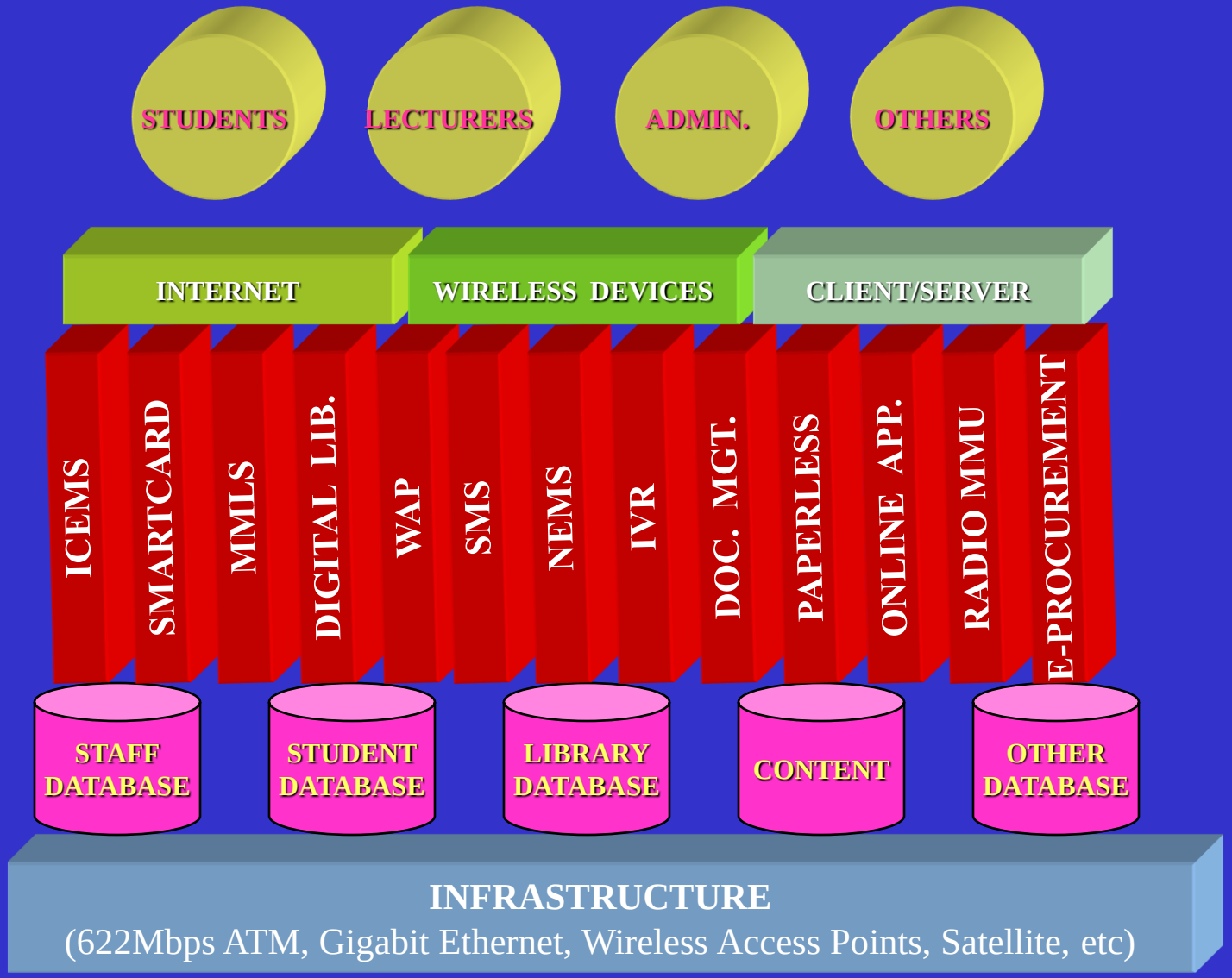
NATION's ICT EDUCATION VISION



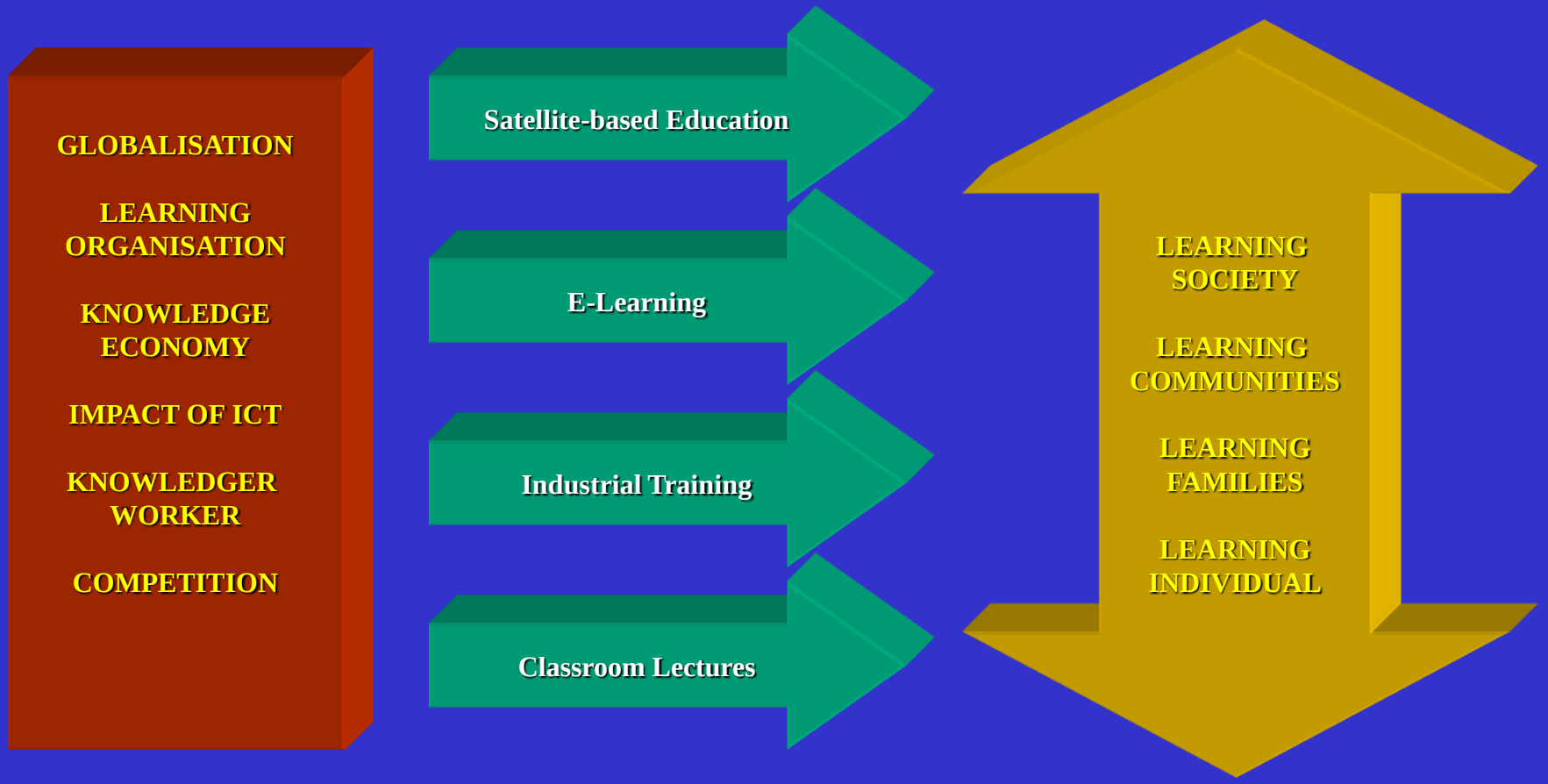
MMU Objectives



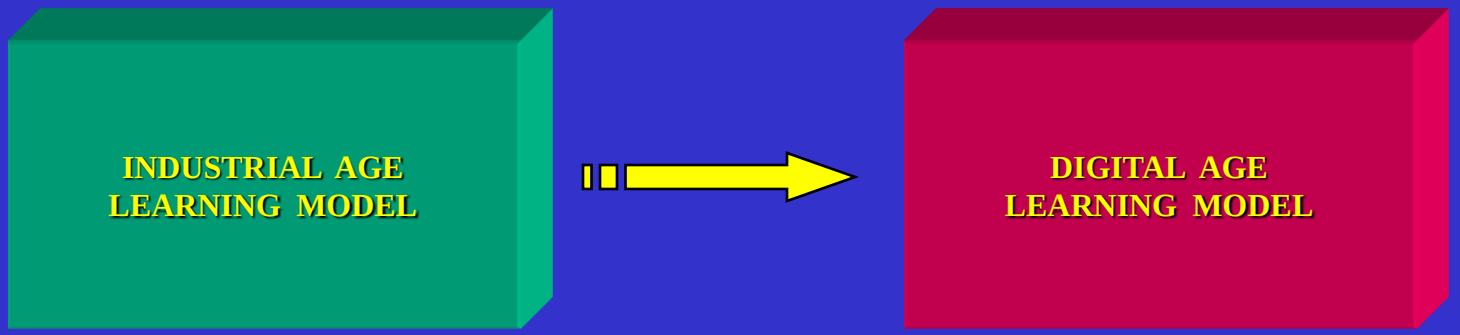
Framework of MMU



MMU: Preparing students for lifelong learning



Learning models will need to change



How do people learn in a digital environment?
Is e-learning effective?
Are learners ready?
New learning model are needed

Traditional & E-learning Approach

Traditional and E-learning approaches		
	Traditional Classroom	E-Learning
Classroom	• Physical – limited size • Synchronous	• Unlimited • Anytime, anywhere
Content	• PowerPoint/transparency/etc • Textbooks/library • Video • Collaboration	• Multimedia / simulation • Digital library • On demand • Syn & Asyn. Communication
Personalisation	• One learning path	• Learning path and pace determined by learner

Delivery mode will change

BRICK

Delivery Mode
100 : 0 (F/T)
80 : 20 (F/T)
20 : 80 (DE)

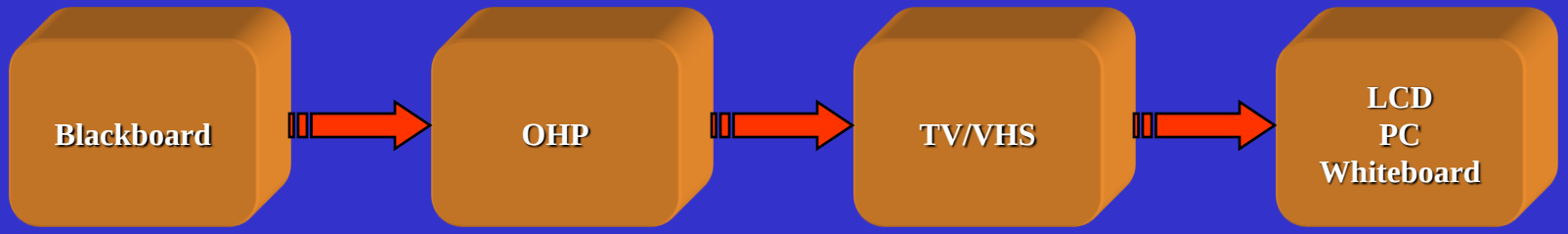
CLICK

- Growing student population
- Increase in tuition fee
- Lack of facilities and funding

→

- More virtual universities
- Cost effective solutions (e.g. e-learning)
- Privatisation of education

Teaching aids will change

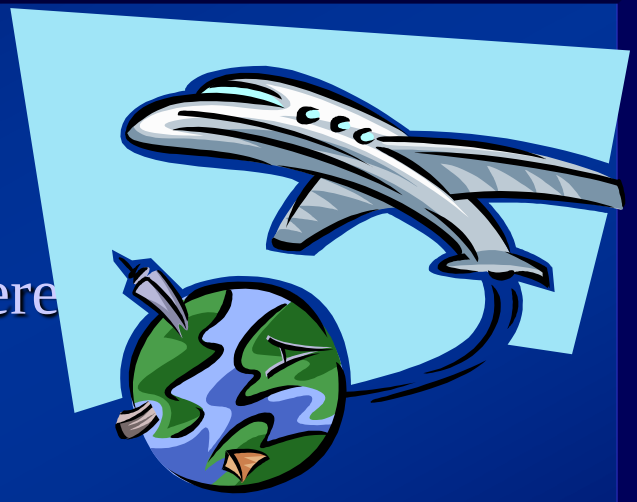


E-learning

- In an on-line multimedia learning environment:
  - teaching & learning is ‘one-to-one’ (individual)
  - more interactivity (in normal classroom, it varies with the class size)
  - learner-centred
  - Learner monitoring & grading system

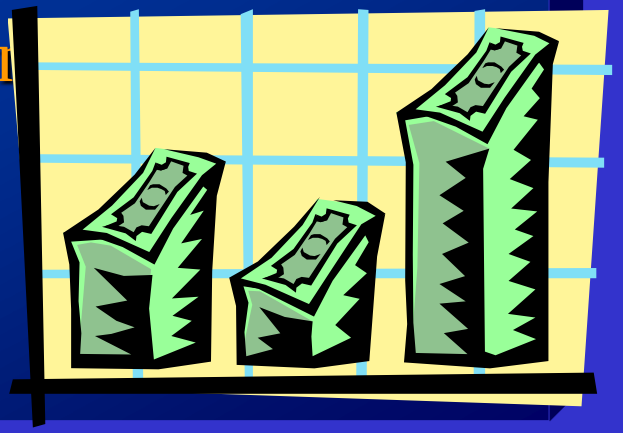
Benefits

- Convenient
  - self-service (mix and match)
  - on-demand (anytime, anywhere
  - private learning
  - self-paced
  - Flexibility: (modular package)



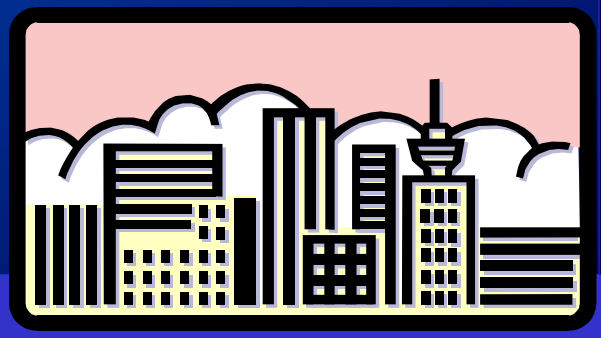
Benefits

- Cost-effective
  - Virtual learning environment
  - Share lessons among schools
  - Reduce material cost
  - Reduce travel/accommodation



Benefits

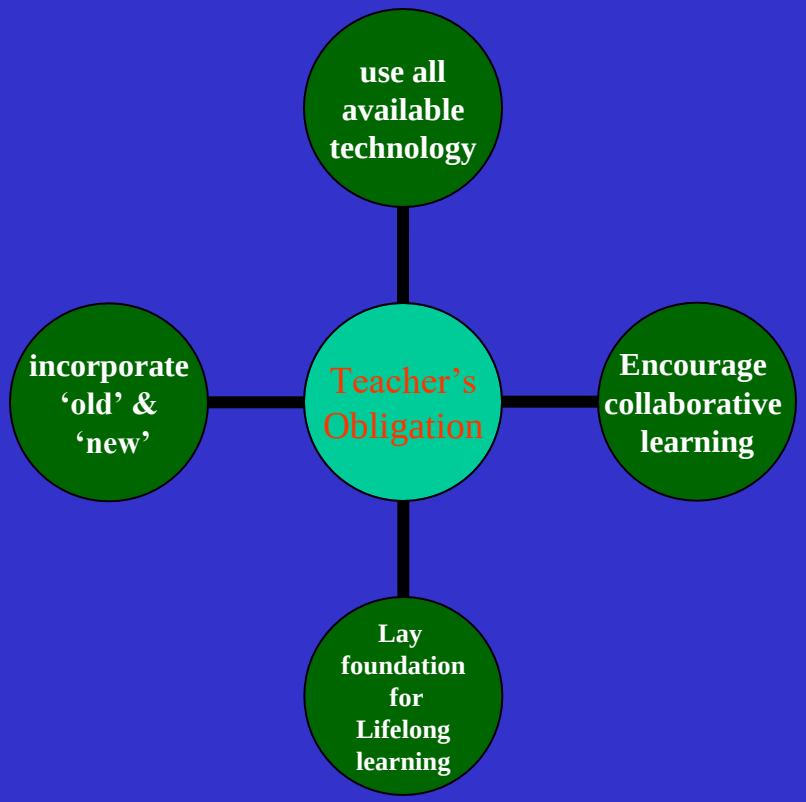
- Consistent
  - Central control of content
  - Same quality of content for all
  - Same quality of education for all



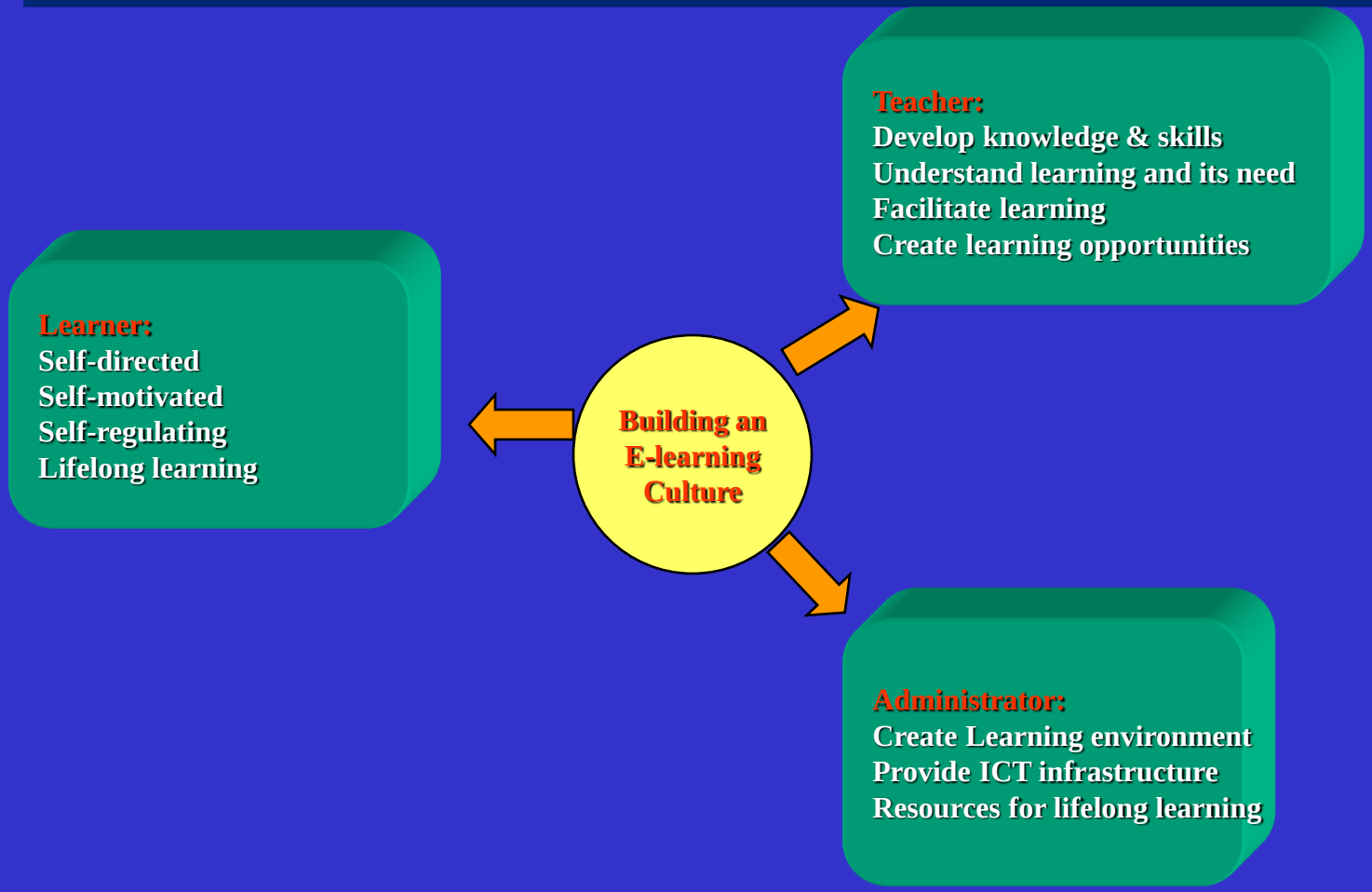
Benefits

- media-rich
  - Easier to understand & more engaging
- repeatable
  - As many times as you like
- easier to monitor progress
  - less administrative work
  - can be more precise

Teacher's Obligation



Building an e-learning culture



E-learning tools: E-mail

- Every teacher should have an e-mail account
- Communicate with students
- Communicate with parents
- Students can submit assignment
- Can have attachments
- Create a paperless environment
- Simple but effective
- Efficient and cost effective

E-learning tools: Chat

- Synchronous communication tool
- Communicate with students
- Communicate with parents
- More students participate
- Collaborative learning

E-learning tools: Online Forum

- Asynchronous discussion forum
- Teacher can create discussion groups
- Teacher could post a question and request students to comment
- Students can post their comments
- Can encourage community participation
- Collaborative learning can be fostered
- Feedback from diverse culture

E-learning Tools: Web

- Wide range of materials available
- Teacher will need to narrow down
- It is a resource centre
- Sharing of resources
- Supported by images, audio, simulation and multimedia

E-learning tools: Video Conference

- Can conduct a live lecture
- Communication with students
- Communication with parents
- Support by audio, chat and whiteboard
- Support sharing of applications
- Can be recorded and later be used for on demand lectures
- Demo…

Tools: Learning Management System (LMS)

- Management of content
- Tracking students
- Administrative features
- Integration with various tools such as chat, forum, e-mail, etc.
- Reporting
- Demo... of Multimedia Learning System (MMLS)

Where to start?

- **Traditional**
  - Pen and paper
  - Personal presentation
  - MS Word
  - Use Kid pictures
- **Beginning**
  - Use MS Publisher
  - Use MS Powerpoint
  - Use creative writing
  - Regularly access the Internet
  - Students can navigate your Network
  - Students frequently use a Digital Camera
- **Evolving**
  - I.C.T. is formally taught to every student
  - Students manage the school Internet
  - Students and teachers use a wide range of CD ROM
  - Student can craft web pages

Where to start?

- **Consolidating**
  - School website is current and reflects school culture
  - School website has educational value for students and the wider community
  - Students can use multi media
- **Advanced**
  - Teacher use the Intranet to display and initiate learning
  - Teachers can design web pages
  - Students submit learning using floppy, Network, Print format
  - Use selected software to source knowledge
  - Use the Internet to compliment learning outcomes
  - Use of personal web pages to link to a variety of program
- **e-learning / digital classroom**
  - Teacher use the Intranet to initiate and measure learning
  - E Mail is a focal educational exchange medium
  - Students are able to manage and produce digitally edited movies
  - Multimedia visual literacy is a valued learning focus
  - Teachers can comfortably use digital multimedia to enhance learning

Conclusion

- ICT and e-learning offers opportunity to raise educational standards in schools
- Large range of ICT tools are available for teaching and learning
- Closes the gap of "Digital Divide"
- Involvement of teachers and parents is important
- Schools will need funding, access and training