

**WORLD CONGRESS
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ENGINEERING AND
TECHNOLOGY
(WCSET)**

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Conference VENUE :

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79-81 Avenue Du Maine Paris, 75014 France

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Impact of Technology on Education



Research Studies

Dale Mann's Research Study

Research Study	Year	Theme of Research
Basic skills / Computer education program analysis Sample Size-950	1991-92	Integrating learning system technology

Outcome :

- ✓ Students and teachers both became more enthusiastic

James Kulik Research Study

Research Study	Year	Theme of Research
Kulik Meta-Analysis Sample Size- 500	1994	Computer based Instruction

Outcome :

- ✓ Computer users have secured 60% marks and non-users have secured a maximum 50% marks .
- ✓ Study also highlights positive attitude of students towards the study.

Backer, Gearhart and Herman Research Study

Research Study	Year	Theme of Research
Apple Classrooms to Tomorrow(ACOT)	1994	Impact of interactive technology on teaching and learning

Outcome :

- ✓ Use of technology directly affects higher level reasoning and problem solving.
- ✓ Inculcates group work and less lecturing.

Marlene Scardamalia and Carl Bereiter's Research Study

Research Study	Year	Theme of Research
Computer supported international learning environment (CSILE)	1996	Collaborative computer applications

Outcome :

- ✓ Increased the depth of understanding, reflection and language.
- ✓ Encouraged progressive thought, multiple and independent thinking.

Harold Wenglinsky's Research Study

Research Study	Year	Theme of Research
Simulation and higher order thinking Sample size- 6,227	1998	Mathematical Software Impact

Outcome :

- ✓ Developed higher order thinking.
- ✓ The use of technology made learning a playful proposition through games
- ✓ Facilitated fast forward thinking.

Jay Sivin-Kachala Research Study

Research Study	Year	Theme of Research
Sivin-Kachala's Study Sample Size- 215	1998	Effect of Technology on Learning

Outcome :

- ✓ Rich technological environment is well correlated with learning.
- ✓ Study also highlights the positive attitude of students towards the study.

Ldit Harel Research Study


Research Study	Year	Theme of Research
Teaching through programming software e.g. LOGO	1998	Software as a tool in mathematics teaching learning process

Outcome :

- ✓ Learning process improved as compared to traditional tools, i.e. board & chalk.
- ✓ Programming made learning of mathematics easier.

Research Studies conclusion

- ⇒ Process of learning and teaching improved.
- ⇒ Initiated network, creative design skills and positivity among students.
- ⇒ Teaching & learning effectiveness enhanced.
- ⇒ Pedagogy improved & Andragogy initiated.



Education enlightens, enables &
facilitates empowerment &
enactment

Other key contribution of 'Education'


- ⇒ Quest for reality / truth
- ⇒ Spirit of learning is encouraged
- ⇒ Consideration for humanity
- ⇒ Self esteem
- ⇒ Noble thoughts
- ⇒ Contribution to advancement of civilisation in fact 'onward march of human progress'

Technology

- ⇒ Tool for the learner & the facilitator
- ⇒ Greater opportunities for exploration
- ⇒ Skills refinement
- ⇒ Problem solving

A combination of Education and Technology

- ⇒ Knowledge asset / bank
- ⇒ Professional attitude
- ⇒ Positive attitude towards research
- ⇒ Passion for learning



Technological education interface has contributed to better management by teaching / learning in term of –

➔ Speed

➔ Accuracy

➔ Relevance

➔ Economy of time, money and effort spent

Thus Technological Education interface facilitates

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- ➔ information efficiency
- ➔ information integration
- ➔ retrieval of information

Technological Interface Stages

Applications

Awareness

Satisfaction

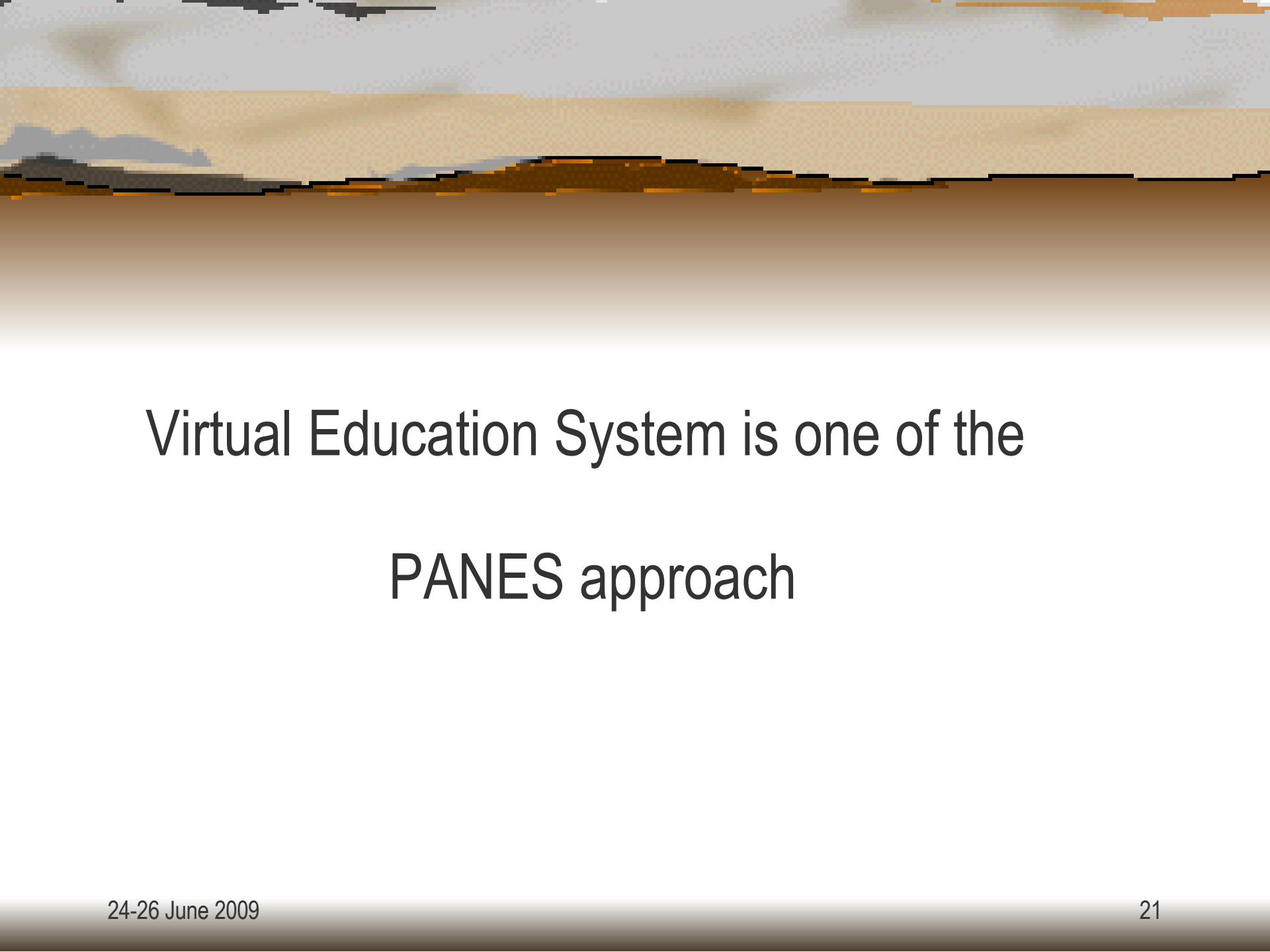
Successs

Education System in 21st Century

POES



PANES

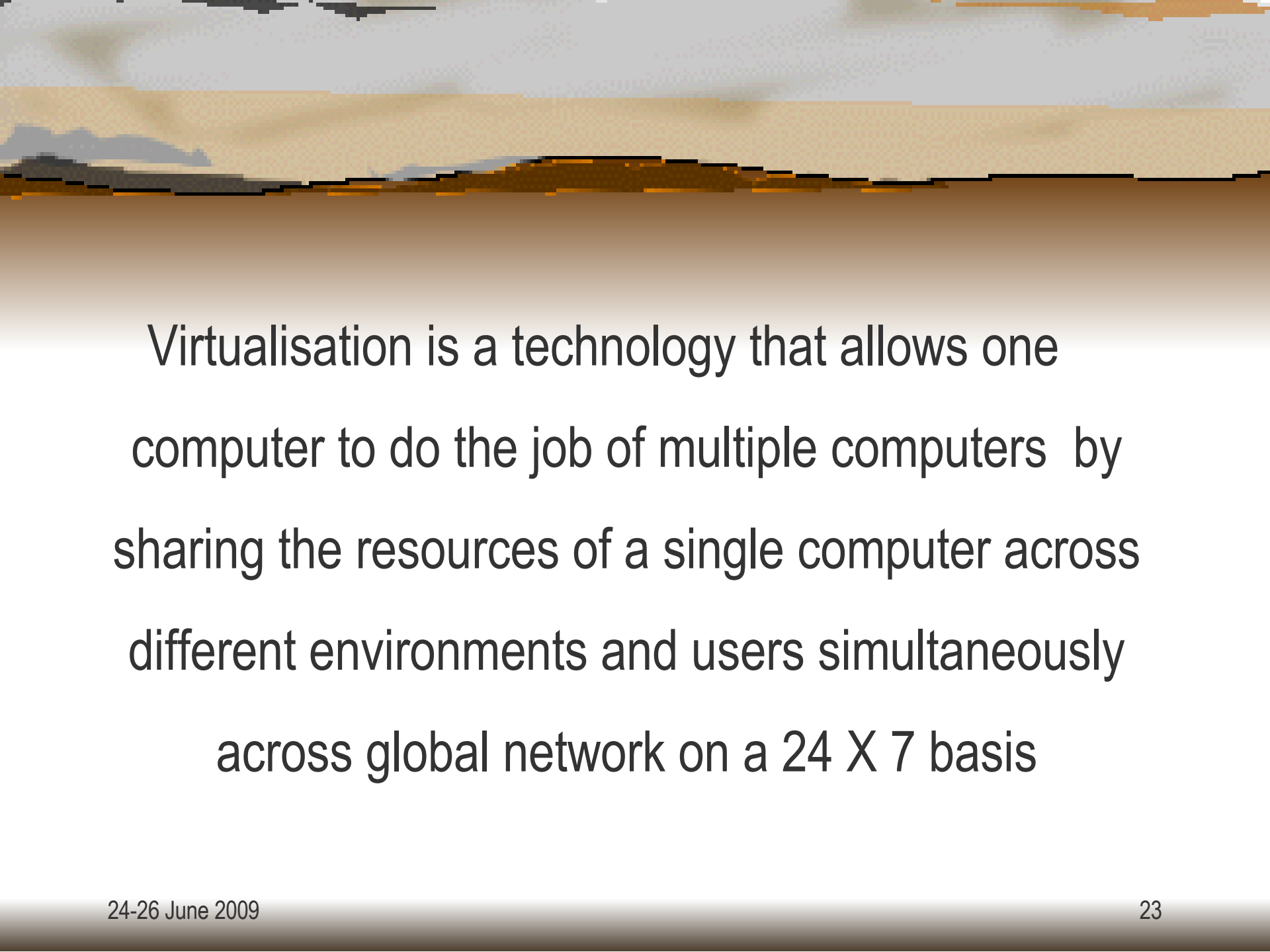


Virtual Education System is one of the
PANES approach

Virtual Education Concept

A learning environment where teacher and students are on different ends.

Teacher conducts classes through the technological tools



Virtualisation is a technology that allows one computer to do the job of multiple computers by sharing the resources of a single computer across different environments and users simultaneously across global network on a 24 X 7 basis

Virtual Education System

- ⇒ Globalisation
- ⇒ Equalisation
- ⇒ Liberalisation

Features of Virtual Education World

- ⇒ Multiple Outlook Integration
- ⇒ Permission Based Remote Control
- ⇒ Share Course Material
- ⇒ Annotation tool for Testing and Evaluation

Different Forms of Virtual Education

- ➔ E-conference
- ➔ E-library
- ➔ E-blogs
- ➔ E-chat

Inputs – Course contents with
IT Resources



Four mantras –

- Focus – Focus on core competency and enhance other areas
- Fun – Humour can inject interest in teaching/learning process
- Fraternity – Achieves greater momentum in the activities and assuring the dignity of every individual and group
- Functionality - Ideas to be acted on immediately

Virtual Education Model

Blended with pedagogy and Andragogy

Change through presenting perceptions
and realities

Network based multiage tutoring through
graphic simulation

Main Objectives of VEM

Demands of Learning



Conceptual mode with responsibilities

Role of Teacher



Practical examples with facts

Purpose for learning



Goal Oriented

What is important in VEM ?

- ⇒ Connectivity
- ⇒ Course Contents
- ⇒ Technology tools knowledge
- ⇒ Time Management



Survey Study

Respondents – Delhi University and
Mumbai University

Descriptive Survey Outcome

Dimensions	Respondents	Outcome
Applications	68	100%
Satisfaction	68	50% - completely satisfied 29% - neutral 21 % - not satisfied
Awareness	68	37% - completely aware 28% - neutral 35 % - not aware

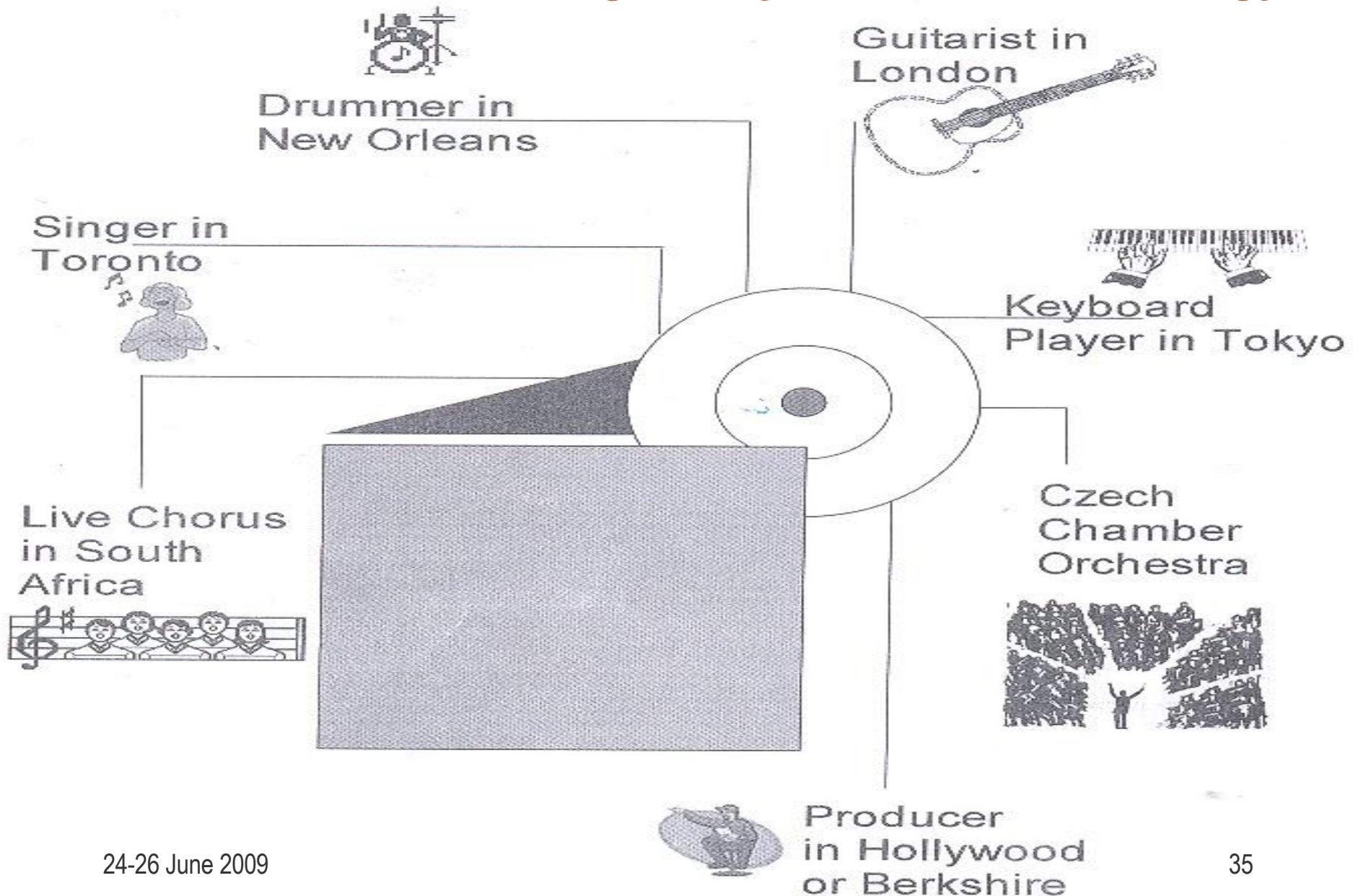
Suggestions on the basis of survey

- While analyzing, it was observed that there is a common belief that only IT faculties can effectively use the technology. Moreover, the concept of Virtual learning is not very much clear to all faculties and being a facilitator, it is important to know the applications and process/procedures of applying.
- Therefore, with proper training and guidance, faculties can apply technology in their respective disciplines. Knowledge of core content is very important and success would depend on the use of technology comprehensively.

Conclusion

- ⇒ Change in technology paradigm if applied in systematic order can give remarkable results and help to achieve the objective of education.
- ⇒ Expand the World of digital knowledge.

An illustration – Paradigm Shift Due to Technology





Thank you !!!