Hybrid/Blended Learning*

Panelists

Gregory Moses, University of Wisconsin (US)
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Moderator

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*Teaching

Hybrid Teaching:

- A *necessity* (and distinguished characteristic of bricks-and-mortars university)

- As opposed to, but also driven by, MOOCs or Massive On-Line Courses (one-to-many)

- Derives from an (evolving) understanding of how learning happens- *Engaged Learning*

- *Socratic Method (400 BC)*

THE EVOLUTION OF KNOWLEDGE (HENCE EDUCATION?)
FROM DAVID DEUTSCH'S BOOK "THE BEGINNING OF INFINITY"

› *Variation* creates new ideas, conjectures
› *Selection* favors those that pass criticism and tests
› Both require dialogue and discussion, hence *interactivity*
› Universities are the crucibles for such creation

› Teaching only as good as the learning that takes place
› Education meaningless when reduced to a list of content topics for which the student quickly learns the facts, takes the test, and then forgets it all
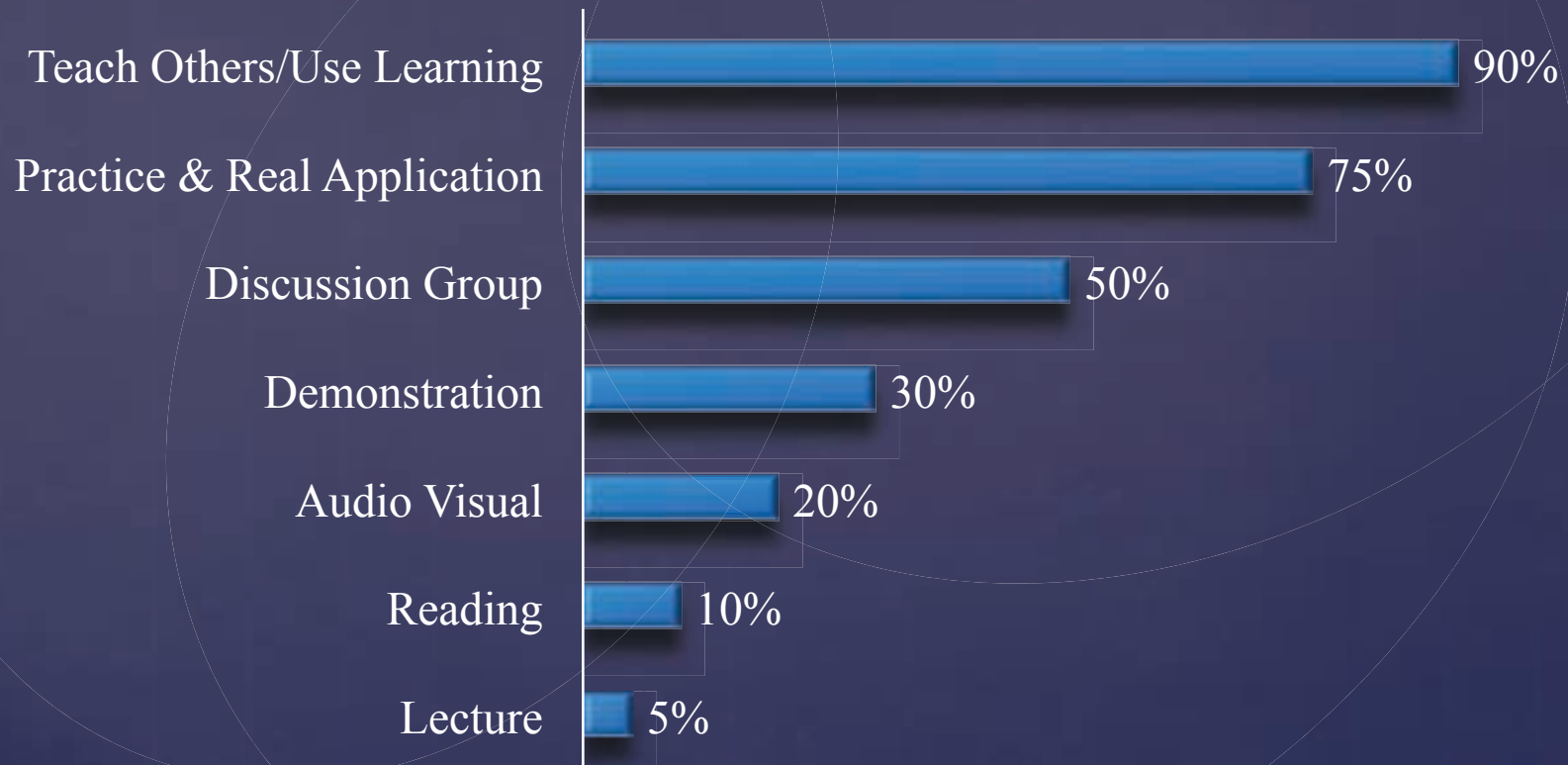
Information Processing
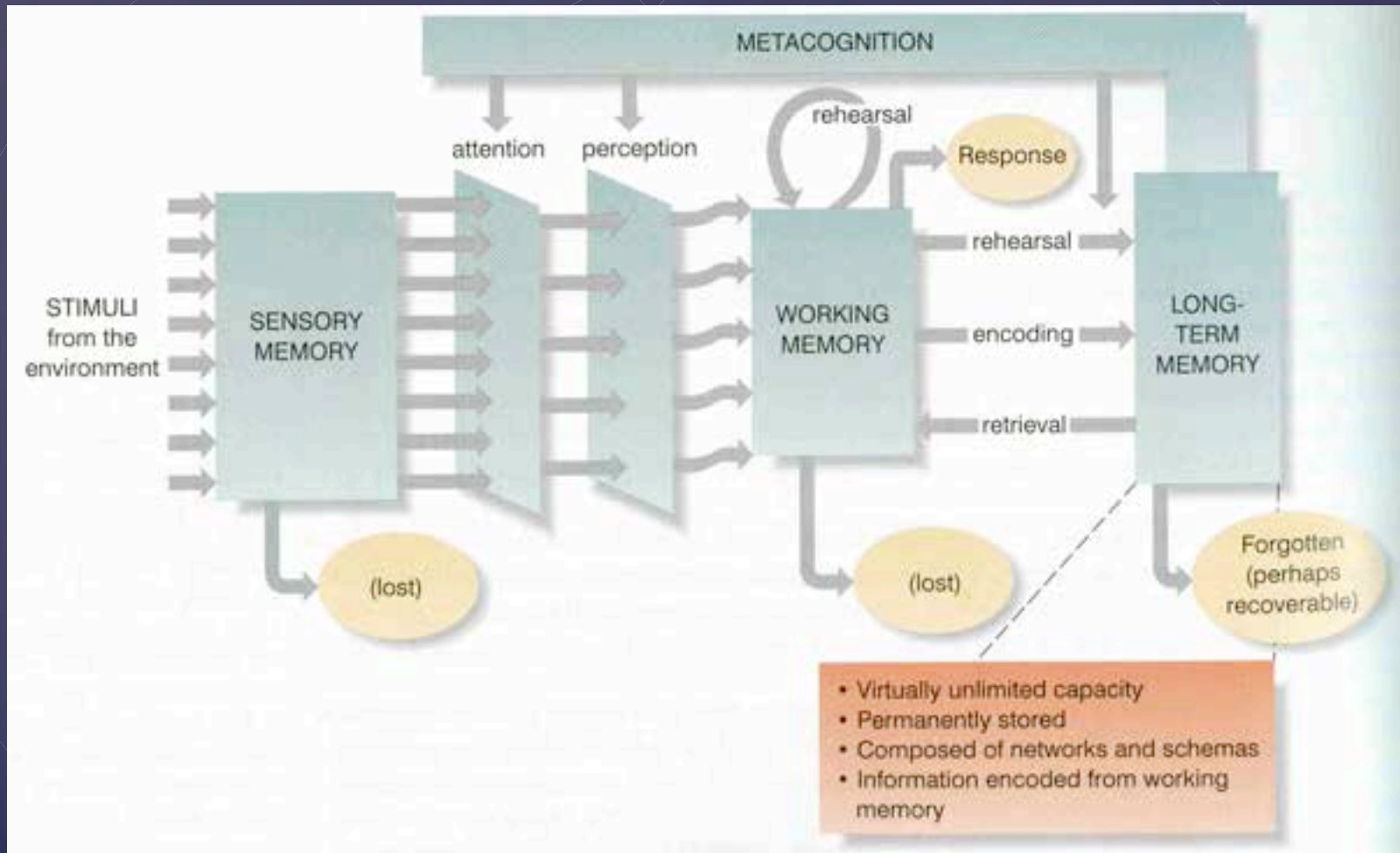
Eggen & Kauchak, 2001

Excellent pedagogy does not necessarily require technology; however, it can benefit greatly from it.

Engaged learning:

(1) Taxonomy- classify courses according to content, type, and objectives (from conceptual to capstone)

(2) Provide mechanisms to maximize learning (e.g. demos, within course investigations, applied problem solving, flipped classroom).

It is the latter which technology empowers (at two different levels, undergraduate and professional MS).

Factors to Consider in Technology Selection

Course type(s):

    Conceptually focused
    Principle focused
    Laboratory
    Design
    Capstone

Pedagogy and course content guides technological choices (not the reverse)

Technology is meaningful if it increases opportunities for student engagement with each other and with faculty

Opportunities for Technology Use

Flipped course (or outside of courses in non-flipped)

Collaboration outside of class

Review and interaction with mini-lectures (never longer than 15 mins) with formative interaction and just-in-time learning via assessment
Collaborative assignments in small groups outside of class (e.g. discussion rooms)

Collaboration in-class

Shared problem solving
Think -pair-share
ACT (alone , compare , teach)
Student generated demos
Collaborative design (also outside of class)

USC Engineering Engagement with Technology

1. Distance Education Network- since 1972
2. iPodia platform for global partnerships

3. In-house technology: no "income-sharing" with a
   for-profit entity

DEN@VITERBI: CELEBRATING 40 YEARS!

1972

1980

1988

1997

ITV offers first courses via microwave delivery (local)

Early 1980's: DEN's first students outside California via tape delivery

Mid 1980's: DEN adds numerous companies to list of corporate students

1997's: DEN launches satellite delivery

ENGINEERING 101

October 31, 2013

DEN: 1999-NOW

1999   2001   2004   2005   2006   2010

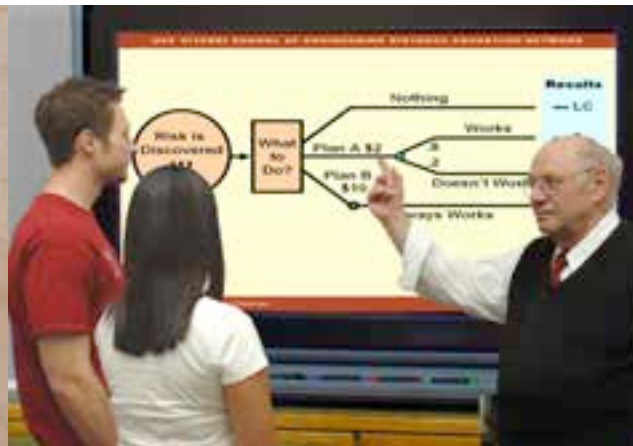| Internet delivery introduced | Programs and courses entirely webcast | DEN adds 28th Master's program. Now, more than 40 MS programs | Partnerships formed with Chevron and Korean Airlines | Integrated enhanced interactivity e.g. Web Ex, Adobe Connect | I-Podia introduced; Kuwait Oil Company Research Center established |

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October 31, 2013

DEN: On-line students are no different than on-campus

- All students (DEN or on-campus) meet the **same** admissions criteria and receive **identical** academic instruction

- DEN is a delivery mechanism that enables students around the world access to the **same** education as on campus

- Classes are taught by the **same** professors in an integrated classroom environment. Material is always **current** and the **same** as for on campus

iPODIA : INTERACTIVE, SYNCRHONOUS, GLOBAL
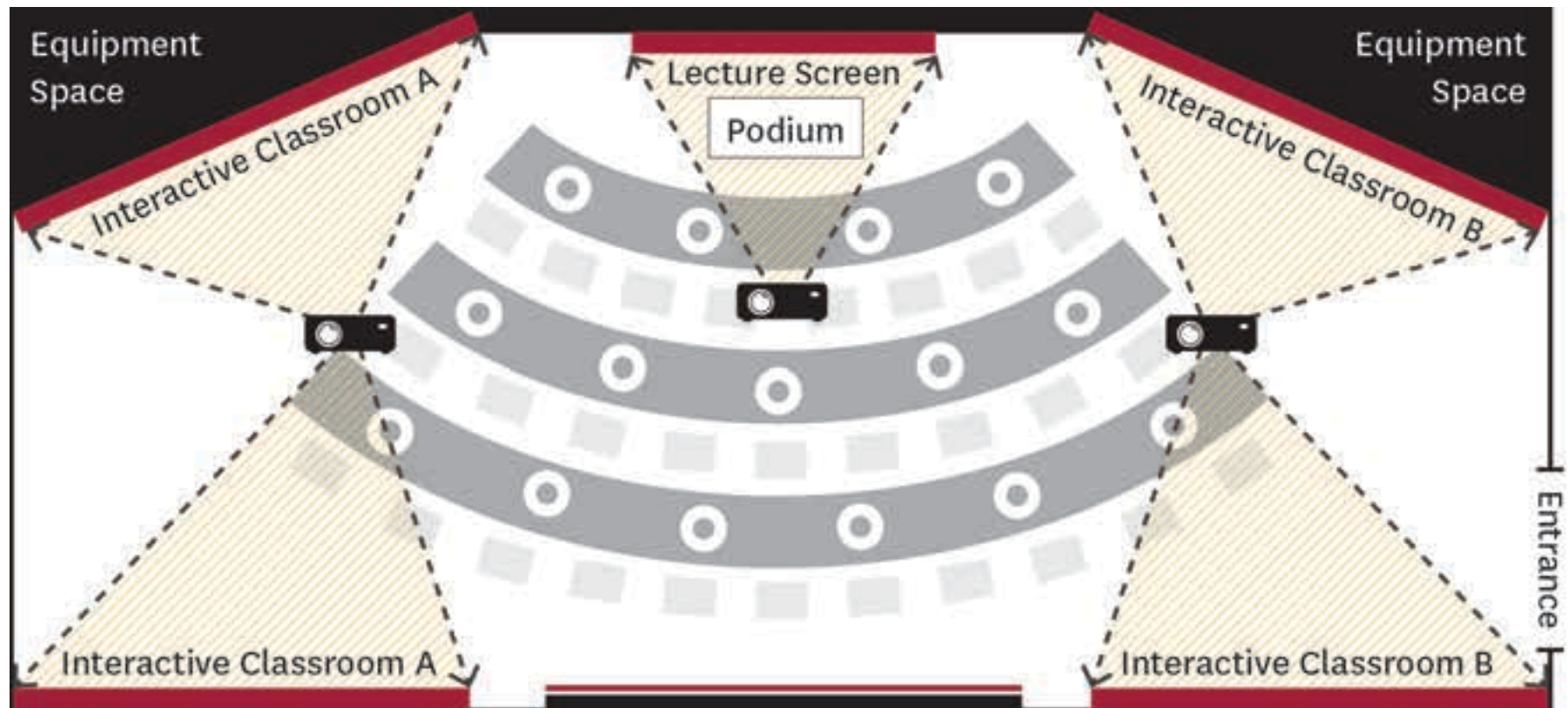
USC+PKU+NTU

USC students in Los Angeles @ 7pm, Tue.

PKU Students: Beijing @ 10am, Wed.

NTU Students: Taipei @ 10am, Wed.

Needs for and from Technology

Must be flexible for use across course types

Should be used synchronously and asynchronously

Need ability to conduct automated assessments

   accommodate both quantitative (e.g. multiple choice) and qualitative (e.g. open choice, narrative) solutions

Must facilitate engaging pedagogy

Must enable scalability of programs and courses

Must be updatable to accommodate changes in student and faculty needs (and technological advances).