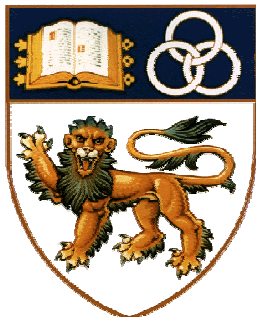


IVLE

Integrated Virtual Learning Environment



Founded 1905

Sun Jinlie
Email: citsunjl@nus.edu.sg
Systems Engineer

Centre for Instructional Technology
National University of Singapore

Agenda

- ❖ Background
- ❖ Overview
- ❖ Key Features
- ❖ Demonstration
- ❖ Q & A

Background

❖ NUS Stance


Information Technology continues to be an enabler/facilitator to improve teaching and learning processes, primarily in the context of an on-campus education scenario

❖ Objectives

Support and supplement courses in all major academic areas

- **Not to replace 'traditional' lectures**
- Alternatives avenues for peer-peer interaction and communication
- Promote independent learning and reduce administrative teaching load
- Suit university size, institutional culture and integrate with existing network, student admin. and legacy systems

Background

- ❖ Started with launch of NUS IT Strategic Plan in early 1998 for the need for an excellent IT infrastructure to support teaching and learning
- ❖ Systems at that time were unable to meet all of the desired criteria. Lack of suitable off-the-shelf solution lead to an in-house developed platform, thus the birth of **IVLE**
- ❖ Project started in June 1998 with delivery of IVLE Version 1.0 in Nov 1998 and **Version 5.0** in Dec 2000
- ❖ Developed by  **Centre for Instructional Technology**

Milestones

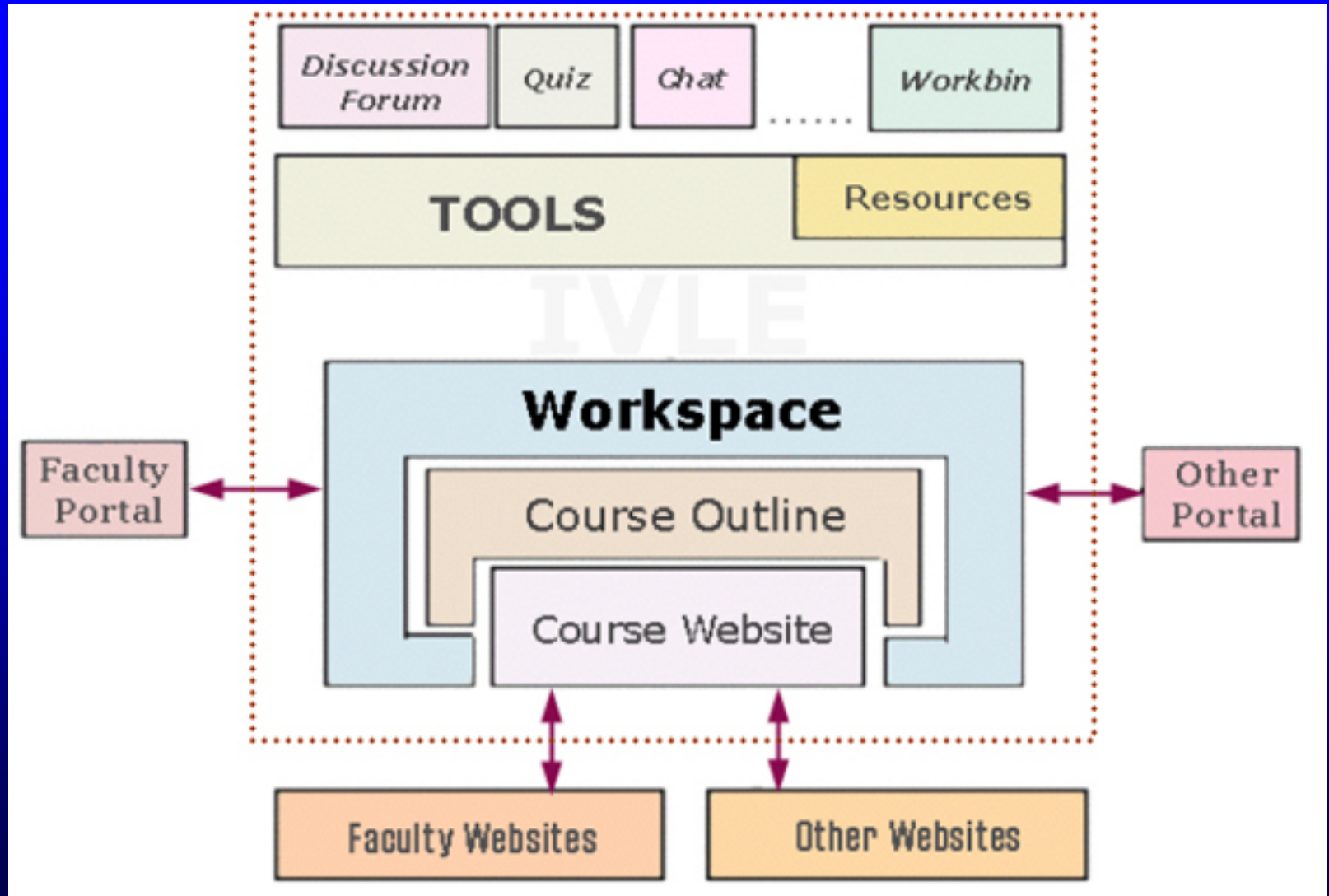


- ❖ Accorded the E-nnovator's Award, 2000 (Open Category)
- ❖ Showcased at Comdex USA, 2000

What is IVLE?

- ❖ An enterprise wide **I**ntegrated **V**irtual **L**earning **E**nvironment
- ❖ An E-learning management system that supports Staff-Student and Student-Student interaction
- ❖ Enables collaborative teaching and learning over the Internet through a rich set of easy-to-use tools

How does IVLE work?



Key Features

- ❖ 100% web-based courseware management
- ❖ Dual mode support
 - Staff mode
 - Student mode
- ❖ Single sign-on
- ❖ Supports both asynchronous & synchronous T&L
- ❖ Web-based and designed to meet diverse T&L pedagogical styles. New components can be added as needed
- ❖ Multilingual Support
- ❖ Web access statistics analysis

Key Features

Search

Course Outline



Personalized Staff/Student Workspace

**T
O
O
L
S**

- Announcement
- Chat room
- Calendar
- FAQ Builder
- Discussion Forum
- Lesson Plan
- Media Channel
- Quiz
- Workbin

**I
N
F
O**

- Personal Profile
- My Bookmarks
- Class Roster
- Tracking
- Statistics
- Subscription
- Feedback

IVLE Workspace

IVLE HOME : MY WORKSPACE STATISTICS | FEEDBACK | HELP | SEARCH

Good Morning, YASMIN BINTE MUSTHAFA

Profile Mail

MY COURSES Create/Modify/Delete Course

IT1000 Internet Studies
Announcement
Calendar Internet Studies
Lesson Plan Internet Studies
Chat Room (Starts at 02/01/2001 9:27 AM)

OTHE475 Test
Announcement
Workbin Test

MY BOOKMARKED COURSES Add / Delete Bookmarks

CM1111 Basic Inorganic Chemistry
Multimedia Archived Lectures
Discussion Forum Basic Inorganic Chemistry
Workbin Basic Inorganic Chemistry

MY LIVE CHANNELS
Live Lectures
None

MY BOOKMARKS
NUS Resources
Course Web Site
NUSCast

MLE SETUP
Course
Class Groups
Distribution List

TOOLS SETUP
Chat Rooms
Discussion Forums
Course Calendar
Course FAQ
Glossary
Lesson Plan
Course Web Builder
Media Channels
Quizzes
Workbin

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**Staff
Workspace**

**Student
Workspace**

IVLE HOME : MY WORKSPACE FEEDBACK | HELP | SEARCH

Good Morning, STUDENT TEST ACCOUNT

Mail

MY COURSES

Notice : IVLE itself does not handle course registration. The MY COURSES list in your IVLE workspace is updated daily from the admin. server. Therefore, please refer to your faculty's course registration website to check your registered courses and allow at least one day for it to propagate to IVLE.

OTHE164

IT1000 Internet Studies
Calendar Internet Studies
Lesson Plan Internet Studies
Chat Room (Starts at 02/01/2001 9:27 AM)

MY BOOKMARKED COURSES Add/Delete Bookmarks

CCSE02 THINKING ABOUT POLITICS
Announcement (2 new)

MLE SETUP
My Profile
My Groups

TOOLS SETUP
My Chat Room
My Forums

STUDENT LINK
Student Chatrooms
Student Forums

MY LIVE CHANNELS
Active Chatrooms
CH1101: General History of China
Online Users : 1

MY BOOKMARKS

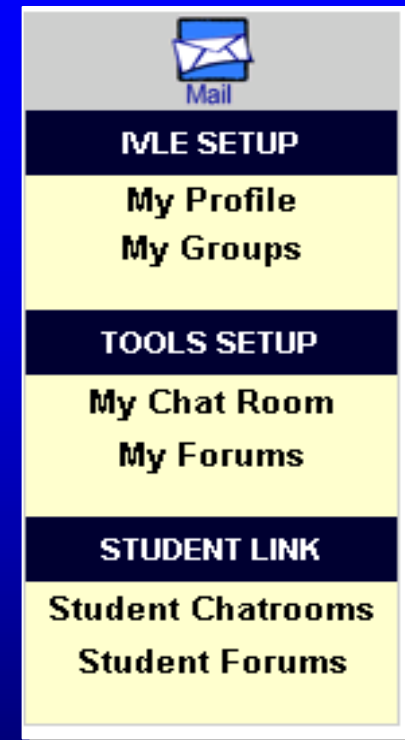
<http://ivle.nus.edu.sg>

IVLE Tools

Staff Tools



Student Tools



Course Outline

IVLE HOME : MY WORKSPACE : SN1101 FEEDBACK | HELP | SEARCH

Course

Course Information

Tools

Chat Room
Discussion Forum
Workbin

Others

Tracking
000515

THE EMERGENCE OF CONTEMPORARY SOUTH ASIA

Course	SN1101 - THE EMERGENCE OF CONTEMPORARY SOUTH ASIA
Lecturer(s)	DR. GYANESH KUDAISSA sasgk@nus.edu.sg
Department	SOUTH ASIAN STUDIES PROGRAMME
Semester	I, 2000/2001
Course Website	http://courses.nus.edu.sg/course/sasGK/SN1101/index.htm Search

[Schedule](#) | [Synopsis](#) | [Objectives](#) | [Syllabus](#) | [Practical Work](#) | [Assessment](#)

SCHEDULE [Top](#)

Lectures on Monday 1400-1600 Venue : AS7-01-06

SYNOPSIS [Top](#)

This module aims at providing students with introduction to economic developments that have shaped contemporary South Asia. It also examines the continued legacy of colonial rule on state and society, and the political and economic challenges faced by the emerging nations.

Template 1

Template 2

MEDNet
SYSTEMS BIOLOGY
SESSION : M1SBKHYL3

Faculty of Medicine, National University of Singapore

000301

How Is Body Fluid Compartmentalised and Filtered at the Kidney?

Professor Peter L.H. Hwang civ1@nus.edu.sg

Summary References Notices Roster Tracker

Objectives

- To describe the fluid compartments of the body and explain how they relate to one another.

References

- Review of Medical Physiology, 18th ed., W.F. Ganong (1997).
- Physiology, 4th ed., R.M. Berne and M.N. Levy (1998).
- Renal and Electrolyte Disorders, R.W. Schrier, 5th ed., (1997).

Discussion Forum

Discussion Forum : Problem Solving in Computing (test) [FEEDBACK](#) | [HELP](#) | [CLOSE](#)

Real Name Mode | Sort by Date | Quick Search | Go | [Guideline](#) | [Post](#) | [Search](#) | [Refresh](#) | [Option](#) | [Forum](#)

Current | **Archived**

Page: [01] | [Expand](#) | [Collapse](#)

- * [last tutorial](#) YAO ZHEN 21/4/2000
- * [Final Exam---open-book?](#) ZHANG LEI 18/4/2000
- * [CA marks](#) ZHOU JINGTAO 14/4/2000
- * [arithmetic progression](#) LI ZICHAO 11/4/2000
- * [Quiz 2 Solutions](#) LEE WEE SUN 10/4/2000
- * [answer for fallacies problems](#) LI ZICHAO 9/4/2000
- * [All abt Dominoes](#) RAHUL MADHAV DESAI 9/4/2000
- * [Where is the exam solution?](#) WANG CAIXIA 8/4/2000
- * [Can anyone give me some ideas about fallacies?](#) LI ZICHAO 7/4/2000
- * [Boiling an Egg](#) RAHUL MADHAV DESAI 6/4/2000
- * [homework question2](#) LI ZICHAO 6/4/2000
- * [fallacies in last tutorial](#) LI ZICHAO 6/4/2000
- * [Homework 8 solutions](#) LEE WEE SUN 6/4/2000
- * [Homework 7 Solutions](#) LEE WEE SUN 6/4/2000
- * [Pigeonhole Principle](#) XIAO WEI 1/4/2000
- * [np-complete and np-hard](#) ZHONG YINGQIN 20/3/2000
- * [Homework 6 Solutions](#) LEE WEE SUN 17/3/2000
- * [P vs NP](#) ANNABELLA SONWELLY SOEN 15/3/2000

Post | **Reply** | **Reply/Quote** | **Email to Poster** | **Delete**

Previous | **Next** | **Previous Topic** | **Next Topic**

Topic: last tutorial
From: YAO ZHEN
Date: 21/4/2000


Hi,
What's the answer to question 4 in the last tutorial?
How about the 9th question? As I remember, the answer tutor gave us is "Irrelevant/Misleading". But I think it seems like "Emotional Appeals to Fear or Pity". Am I correct?
What's the answer to the Testing for Success problem?

Post | **Reply**

Discussion Forum controls/features include:

- o Forum start and end dates controlled by lecturer
- o Controlled access to forum via:
 - i. **Groups** – Users in a specific group
 - ii. **Class** – Registered students in your class
 - iii. **Managers** – Users with admin privileges
- o Option to display either poster's real or nickname
- o Threaded posting/reply with attachment
- o Notification of new postings by e-mail
- o Forum/Message search
- o Forum statistics / User Guidelines

Quiz

 HOME : MY WORKSPACE : QUIZZES : IT1000

FEEDBACK | HELP | SEARCH

Quiz

Quiz

Sections

Questions

Results

Sessions

Marks

Durations

Questions

Survey

▶ Preview

Question Source : ☒ New Question ☐ Existing Question in My Question Bank
*All new questions created will be saved to [My Question Bank](#) automatically.

Question Type : Select the type of question you want to create.
*To make use of the **Survey** feature found in **Results**, all questions in your quiz MUST be **Multiple Choice** questions.

<input checked="" type="radio"/> Multiple Choice	MC	When a question requires only one answer.
<input type="radio"/> Multiple Response	MR	When a question supports multiple answers.
<input type="radio"/> True or False	TF	True(yes) or false(no) answers only.
<input type="radio"/> Select List	SL	A pull-down list of answers for the user to select from.
<input type="radio"/> Fill in the Blank	FIB	Fill in the blank within the question.
<input type="radio"/> Text Field	TXF	When a question supports 256 characters.
<input type="radio"/> Essay	ES	Essay type question.

Quiz

Quiz

Sections

Questions

Results

Sessions

Marks

Durations

Questions

Survey

▶ Preview

General

Course Code : IT1000

Quiz Title : Revision 1

Description : ☒ Text ☐ Html
Covers Chapter 1-3

Perfect Score : 10 Perfect score for this quiz

Red denotes required fields.

Access

Open Date : 18 Dec 2000 12 PM : 00

Close Date : 25 Dec 2000 11 PM : 59

Start date is the date the quiz becomes active and end date when this quiz will be in-active (closed).

Number of Tries : 0

Number of times a user can take this quiz. Default: 0 means unlimited tries.

Workbin

- ❖ A file repository where both staff and student can upload or download files

Workbin features include:

- o Workbin open and close date controlled by lecturer
- o Restricted access to workbin via:
 - i. **Groups** – Users in a specific group
 - ii. **Class** – Registered students in your class
 - iii. **Managers** – Users with admin privileges
- o Limit uploaded file size
- o Set up new directories within a workbin
- o Notification of new file uploaded
- o Workbin upload/download statistics

Workbin

Workbin

Folders


Files

Statistics





Uploads

Downloads

▶ Preview

 **Files**

Folder Name : Lecture Notes

<input type="checkbox"/> Select All	File Name	Description	Sender	Date ↓	Size
<input type="checkbox"/>	lec02-6.pdf 		SUN JINLIE	7/3/2001 11:15:00 AM	168KB
<input type="checkbox"/>	lec01-6.pdf 		SUN JINLIE	7/3/2001 11:14:00 AM	264KB
<input type="checkbox"/>	lec06-6.pdf 		SUN JINLIE	7/3/2001 11:13:00 AM	914KB
<input type="checkbox"/>	lec03-6.pdf 		SUN JINLIE	7/3/2001 11:13:00 AM	63KB

Upload

Change Description

Delete

Class Roster

Course	Class Roster : AS3217	
Course Information	E-mail to Class	
Tools		
Announcement		
Chat Room		
Discussion Forum		
Archived Lectures		
Multimedia		
Workbin		
Others		
Class Roster		
Tracking		
000832		
	ANG SOCK HONG fba70312@nus.edu.sg BEH SHU-SIENN,TARA snmha@pacific.net.sg CHENG CHYE HSERN get_lost@pacific.net.sg CHOO HUEI MIIN fba70340@nus.edu.sg CHUA PEI PEI fba70209@nus.edu.sg GROSSE SHAUN PHILIP art01361@nus.edu.sg HO KWOK SENG,ROBIN robin_hoks@hotmail.com KELVIN LAWRENCE art00014@nus.edu.sg KUAN WEIHUI,LYDIA alecbld@pacific.net.sg LEE SWEE TECK art01471@nus.edu.sg ZHENESSE S. HEINEMANN art07362@nus.edu.sg	AU YONG CHIU KUAN,BELINDA art80505@nus.edu.sg CHAN MANN HAR,JEANNIE jwe07@hotmail.com CHEW SHU WEN,CINDY chewhome@mbox2.singnet.com.sg CHU YEE MING calvinchu@pacific.net.sg DEEPA D/O MOHANAN sci00492@nus.edu.sg GUNGADIN CHANDINI DEVI art91611@nus.edu.sg HO YIN DUAN art80781@nus.edu.sg KOH FONG YET art81517@nus.edu.sg LEE MEIYU,CHARLENE liquid_poison@mail.com LIM BOON CHONG fba70111@nus.edu.sg
	21 student(s)	

Tracking

Course

Course Information

Tools

Announcement

Chat Room

Discussion Forum

Archived Lectures

Multimedia

Workbin

Others

Class Roster

Tracking

000832

Course Tracking Report

Report Range : 04/01/2001 - 07/03/2001

	User-ID	Name	Bookmark Date
1	ART70537	FIONA WENSLAUS SILVA	19/01/2000
2	ART80441	NG SU CHING	04/02/2001
3	ART81211	CHAN MANN HAR,JEANNIE	17/01/2001
4	ART90145	LIM JOO LIN,JULIAN	11/01/2000
5	CITLEWKH	LEW KOK HOE	18/01/2001
6	CITTIUD	TIU AI KI@DAPHNE TIU	11/01/2001
7	HISGKC	CLANCEY, GREGORY KEVIN	08/01/2001

	User-ID	Name	Hits
1	ASCILG	GORDON, IAN LEWIS	117
2	FBA70071	POH SZE PENG	34
3	ART00001	TANDRAYEN ANNE AUDREY GERALDINE	23
4	ART80441	NG SU CHING	23
5	ART07362	ZHENESSE S. HEINEMANN	18
6	ART00743	SEAH KANGLIN,DIANA	17

Live Lecture Broadcast

[View Previous Slides](#) | [Feedback](#) | [CIT](#) | [NUSLive](#) | [MOD](#) | [NUScast](#) | [VOD](#) | [Help](#)

Advanced PKI & ECC

- **Public Key Certificate**
 - A user's electronic ID
- **Conventional PKI**
 - RSA based issuing/managing X.509 based certificates
 - Typical end entity certificates > 800 bytes, even larger for CA certificates
 - No problem in desktop environment but not suitable for hand-held devices, e.g., mobile phone, PDA, etc.



7/21/00 KRDL



Playing 13:35 / 01:10:42

MMT6005 Technopreneurship - Lecture 1 : Introduction to High Tech Start Up; Part I

Fri Jul 21 18:00:00 UTC+0800 2000

Presenter:
Dr Desai

NUSCast : Network TV



bbc

Sunday	
TIME	EVENT
6.00 AM	BBC News
6.30 AM	Holiday Guide To.. (R)
7.00 AM	BBC News
7.30 AM	Correspondent (R)
8.00 AM	BBC News
8.30 AM	Simpson Os World (R)
9.00 AM	BBC News
9.30 AM	Hardtalk (R)
10.00 AM	BBC News
10.30 AM	This Week (R)
11.00 AM	BBC World News
11.30 AM	India Business Report
12.00 PM	BBC World News



<http://ivle.nus.edu.sg>

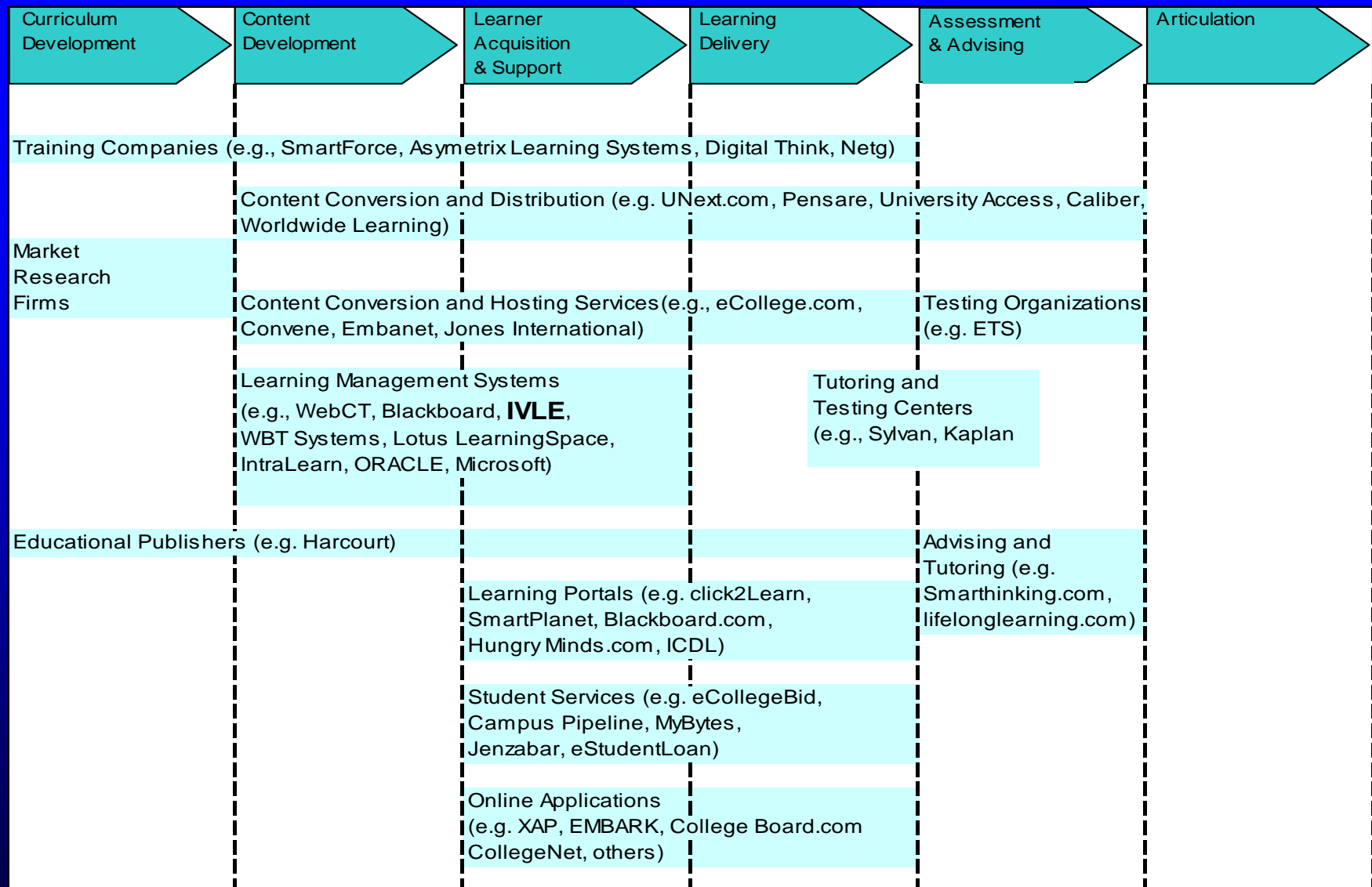
Acceptability & Pervasiveness

- ❖ 80% of the courses in NUS have an IVLE presence

Tools	Faculty														
	FAS	FBA	DEN	ENG	PGS	LAW	MED	COM	SDE	SCI	OTH	ELC	HRM	SMA	TOTAL
▶ Course Outline	423	208	37	288	2	41	618	39	147	176	45	18	4	17	2063
▶ Course Website	227	155	29	209	0	25	582	33	93	147	26	7	2	10	1545
▶ CWB Course Website	7	7	0	4	0	0	0	1	2	3	2	0	0	0	26
▶ Chat Room	26	9	1	10	0	0	0	4	32	8	11	1	0	1	103
▶ Course Calendar	58	31	2	18	0	4	0	4	28	16	11	1	1	1	175
▶ Course FAQ	10	3	0	4	0	0	0	4	5	1	6	0	0	0	33
▶ Discussion Forum	97	71	3	86	0	12	9	37	71	58	17	3	1	1	466
▶ Glossary	1	0	0	0	0	0	0	0	0	1	0	0	0	0	2
▶ Lesson Plan	19	10	2	1	0	1	0	3	17	5	9	0	0	0	67
▶ Media Channel	20	3	1	6	0	0	0	0	0	4	6	0	2	0	42
▶ Quiz	7	3	0	7	0	0	2	48	8	12	8	0	0	1	96
▶ Workbin	63	63	1	54	1	13	15	5	70	8	9	0	0	0	302

LEGEND			
♦FAS	Arts & Social Science	♦FBA	Business Administration
♦DEN	Dentistry	♦ENG	Engineering
♦PGS	Graduate Schools	♦LAW	Law
♦MED	Medicine	♦COM	School of Computing
♦SDE	School of Design and Environment	♦SCI	Science
♦OTH	Others	♦ELC	English Language Communication
♦HRM	Human Resource Management	♦SMA	Singapore-MIT Alliance

Learning Management Systems



Source: PricewaterhouseCoopers, 1999.

OPEN IVLE

OPEN IVLE

Overview

Demo

Services

Support

Community

Background

Features

FAQ

The Integrated Virtual Learning Environment (IVLE), launched in June 1998, is developed by Centre for Instructional Technology, National University of Singapore. IVLE is part of the NUS Global Campus Initiative to facilitate the use of Information Technology in teaching and learning.



IVLE is a learning management system designed to manage and support training and education over the Internet. It has a compilation of tools that allow teacher-student communication and collaboration in a virtual learning environment. We wish to share this progress in instructional technology with other institutions that would be interested for a similar application. As such, the project, Open IVLE is developed.



Developed based on the Instructional Management System standard.

System Requirement

❑ Hardware

- ❖ Pentium II 300 CPU
- ❖ 128MB Memory
- ❖ 100 MB Disk Space

❑ Software

- ❖ Windows 2000 Server or NT Server 4.0
- ❖ IIS 4.0 + (free with NT Option Pack and windows 2000)
- ❖ MS SQLServer 7.0
- ❖ SoftArtisans SA-FileUp (commerical, US\$100)

- ❖ **IVLE 4.0 Source Code & Installation Scripts**
(free under OpenIVLE Licence)



Demonstration



Question & Answer



Thank you for your attention