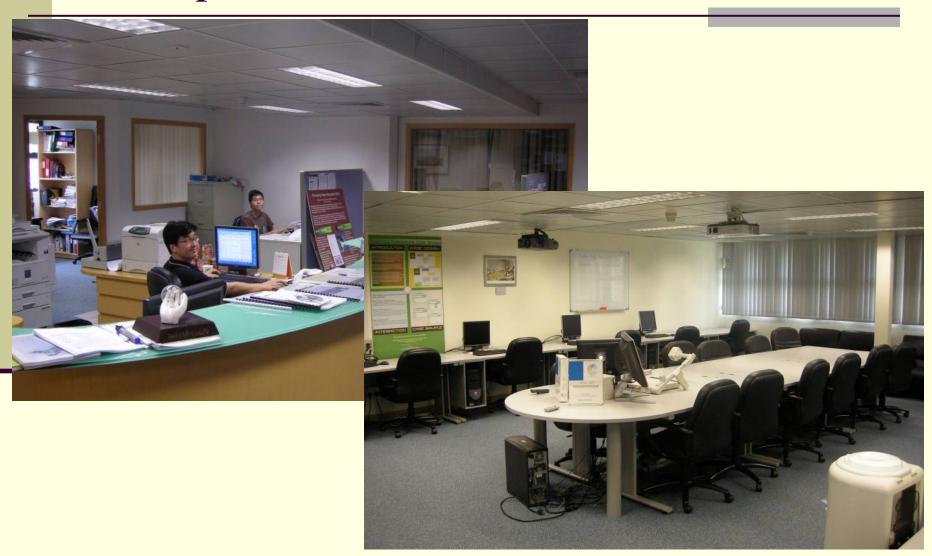# Virtual Patients:
An International Perspective

Professor Lester AH Critchley
Dept. Anaesthesia & Intensive Care
Faculty of Medicine
The Chinese University of Hong Kong

Teaching & Learning Resource Centre:
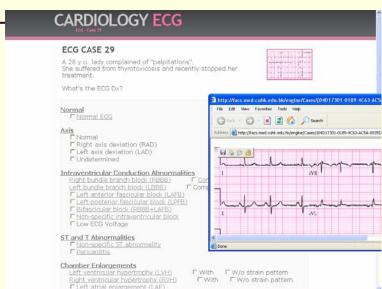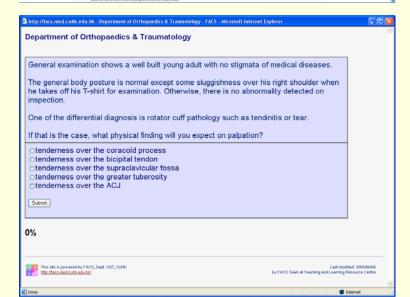## Reception & Office / Seminar room

FACS
Formative Assessment Case Studies

■ Software System:

　　■ Interactive Patient Case Studies

■ Web-based

Software for building a FACS

What is a Virtual Patient?

Good VPs are difficult to create.

- Time consuming
- Experts in content
- Skill / Experience to write
- Expensive

Plan material & layout

Write Script for FACS

Add Clinical Data
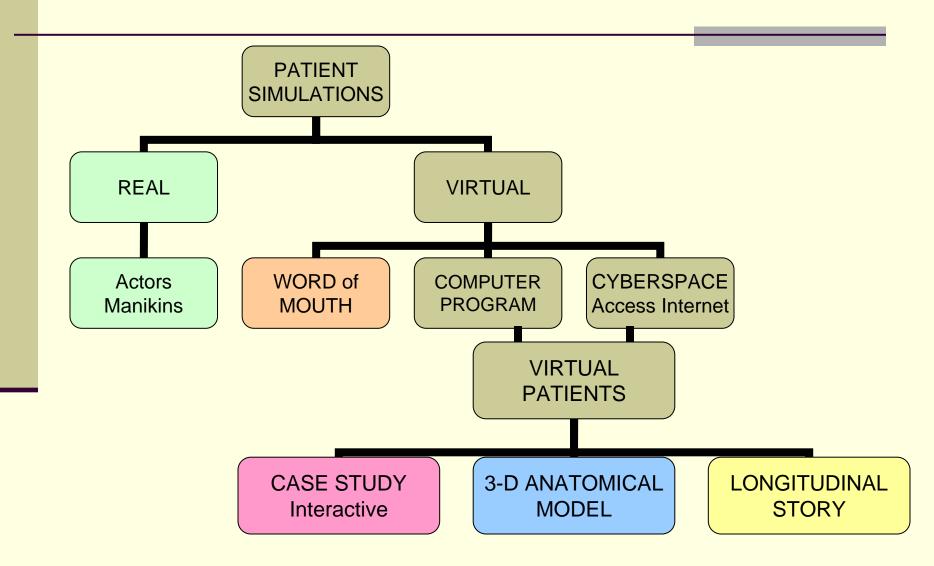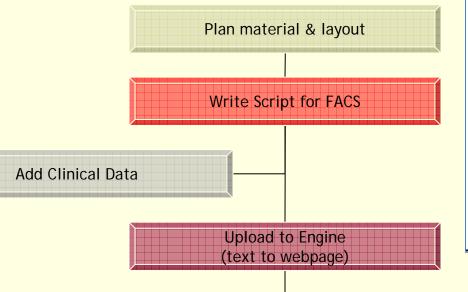
Upload to Engine
(text to webpage)

Test on Student groups
Revise content

One Solution:

- To share cases with other medical schools

Who are using Virtual Patients?

- Europe – 4 well developed systems
  - CASUS Player
  - CAMPUS
  - WebSP
  - Open Labyrinth

Click on the map for information about eViP partners

- North America – 3 or 4 systems
  - McGill University, VP
  - Maryland VP
  - Pittsburgh University, vpSim
  - NetWoRM (CASUS / multicenter / occupational M)

- SE Asia – Hong Kong (FACS & VP) & Taiwan VP

CACUS Player
Munich, Germany

- Since 1993
- Linear design
  - Series of web-pages
  - 9 different question types
    - Scoring system
  - 6 different languages
- 1000 cases
  - Including 125 Law Schools cases

CAMPUS
Heidelberg, Germany

- Since 1997
- Clinical Case Design / Linear
  - Classic-Player & Card-Player
    - Case Diagnosis
- Non- Commercial / University funded
- Major users
  - Paediatrics

Play systems

- Design:
    - LINEAR (serial)
        - CACUS, CAMPUS
    - BRANCHING
        - Open Labyrinth

- Navigate the system
    - forward only
    - back & forth
    - loops / network

- *Similarities to FACS*

History / Exam

Lab. Data

Diagnosis

Management

Outcome

Patient Presentation

OPEN LABARYNTH
NETWORK DESIGN
Branching
St. George's Medical School,
London, UK

Mrs Pat Hurst enters the consulting room of her General Practitioner's surgery. Below is a transcript of the initial conversation between her and her GP:

GP: How old are you Pat?
Pat: I am 65.
GP: What's the problem?
Pat: Terrible backache! Really, really bad.
GP: How long have you had this for?
Pat: I've had it for quite a while. I keep thinking that it's because I've done too much work. It's so persistent now, getting out of bed is a bit difficult.
GP: You've had it for a while. Can you put some kind of estimate on that? Months? Weeks?
Pat: I've had it for months and months. It's just one of those things.
GP: As much as a year?
Pat: Could be over a year.
GP: You say it's persistent?
Pat: Yes.
GP: Day and night?
Pat: Yes.
GP: Is it enough to keep you awake at night?
Pat: Yes, very often.
GP: Is it worse when you're walking or carrying shopping?
Pat: Yes, definitely, yes.

Patient Presentation and History

Can they be shared?

- **YES,**
  - *but there are problems:*
- Need a compatible software system:
- Other issues:
  - Language
  - Cultural differences
  - Ownership
  - Patient confidentiality

Current situation:
Quote by Rachel Ellaway

■ <u>Developing Virtual Patients is like a cottage industry with many tribes and many designs</u>

electronic VirtualPatients

eViP

Co-funded by the European Union

Welcome to eViP

Welcome the eViP website! This site is dedicated to bringing you information about the eViP programme, a collaboration between nine universities and MedBiquitous Europe.

eViP aims to create a bank of 320 repurposed and enriched virtual patients. These virtual patients will be available under a Creative Commons Licence.

All virtual patients are repurposed using MedBiquitous Virtual Patient Technical Standards.

0:00 / 1:15

AMEE 2009
Malaga, Spain

Click here for news, commentary & analysis

Who we are

eViP Partners

eViP is a collaboration between nine universities located across Northern Europe and MedBiq (Europe) who lead the field of technical standards and specifications for e-based healthcare Click on the institution logo for more information.

Click on the map for information about eViP partners

Karolinska Institutet

St George's University of London

LMU

UniversitätsKlinikum Heidelberg

Universiteit Maastricht

THE UNIVERSITY OF WARWICK

universität Witten/Herdecke

UNIVERSITAS MEDICINAE ET PHARMACIAE NAPOCENSIS

eViP Associates

eViP also works closely with MedBiquitous (Europe), the University of Northern Ontario in Canada, and is co-funded by the European Union. Click on the logos below for more information.

Northern Ontario School of Medicine

MedBiquitous

Aims of eViP

- Create a bank 320 reusable VPs
  - Develop **Technical standards**
  - **Repurpose** existing cases

- Contact *"like minded"* centers
  - 1st International Conference
    - Krakow, Poland - June 2009
    - London, England - April 2010

Home > Working Groups > Virtual Patient

MELD

SEARCH

Follow us

>>> **Virtual Patient Working Group**

Mission
The mission of the MedBiquitous Virtual Patients Working Group is to develop XML standards and Web services requirements to enable interoperability, accessibility and reusability of Web-based virtual patient learning content.

Discussion List
Virtual Patient Discussion List

Workspace
Virtual Patient Working Group Wiki

Documents
- Virtual Patient Data Draft Specification (PDF, 2 MB)
- Virtual Patient Player Draft Specification (PDF 787 KB)
- Virtual Patient Schemas (ZIP 5 KB)
- Working Group Charter (PDF, 31 KB)

US Organization that sets:
Technical Standards in Health Care
*Virtual Patient Standards

Developing reusable cases
Repurpose & Enrichment

- Dr. A in country B has a case that I would like to use on my course to teach my students

- *BUT PROBLEMS*
  - The case is written in German not English
  - Some of the histology slides need improving
  - The picture with a religious cross may be offensive to my muslin students
  - Should I be using pictures that identify the patient?

Repurpose & Enrichment

Strip the CASE down to basic structure & contents

Enrich it with new pictures & laboratory data

Depersonalize & remove any cultural aspects

Translate into different languages

Make it available in a bank of cases / VPs

Conforms to MedBiquitous standards format

I can now import the case into my system and use it

Ownership of cases:

- I have put a lot of time and effort into developing my VP cases.

- How do I get credit for all my hard work?

- Do I want someone overseas claiming credit for my case?

Authoring Virtual Patients:
Association of American Medical Colleges

- **MedEdPORTAL** (www.aamc.org/mededportal) is a free **peer-reviewed publication service** and **repository** for medical and oral health teaching materials, assessment tools, and faculty development resources.

- All copyright and patient privacy issues are addressed during the submission process so users around the globe can download and utilize any and all of the published resources for educational purposes without legal infringements.

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News

Notes from the Editor

MedEdPORTAL strives to maintain a comprehensive pool of expert reviewers. At this time MedEdPORTAL is asking the community to nominate reviewers for the following specialty areas: Pediatrics, Anesthesiology, Neurology, General Surgery, Dermatology, and Psychiatry.

MedEdPORTAL Recognizes Published Authors and Peer Reviewers

In the summer of 2008, MedEdPORTAL mailed formal thank you letters to each reviewer who had completed a review within the prior academic year. Based on the positive feedback that was received from this effort, MedEdPORTAL decided to repeat this annually to recognize these individuals and their invaluable contributions to the program. MedEdPORTAL would like to extend our thanks to our reviewers once again for volunteering their time and expertise in order to ensure the quality of each and every MedEdPORTAL publication.

AAMC 2009 Annual Meeting: The MedEdPORTAL Agenda

The Association of American Medical Colleges (AAMC) will host its 2009 annual meeting in Boston, MA from November 6-11, 2009. These sponsored sessions will be held at the Hynes Convention Center, Marriott Copley Place, and Sheraton Boston. MedEdPORTAL ® will conduct sessions which will take place on Saturday, November 7, 2009, in the Hynes Convention Center.

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ASSOCIATION

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Eric Alper, MD
University of Massachusetts

*Special Clearance Required

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Angelika Rampal, MD
University of California Los Angeles David Geffen SOM

Fixed Prosthodontic Learning Dossier Assignment
Vanessa L. Swain, DMD, MSc
University of Manitoba Faculty of Dentistry

Contact Dermatitis: A Learning Module
Lauren Cao, B.S.
Case Western Reserve University School of Medicine

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admsep — Psychiatry

Project L.I.V.E. — Pediatric Virtual Patients

TEAM BASED LEARNING COLLABORATIVE — Team-Based Learning

Partner Collections

ADEA — Dental

McGill Molson Medical Informatics — Multimedia Assets

Plogoe — Geriatrics

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Questions? Contact MedEdPORTAL

Thank you

Why do we need Virtual Patients?

STUDENTS LIKE BOOKS!!

What do VPs provide
that books don't?

Interactive
Multi-media presentation
Informative

Accessed any-time,
any-place, any-where