

# IVIMEDS: An idea ahead of its time?

IAMSE Webinar – 14 March 2013



# Overview

- IVIMEDS – the concept
- Issues and barriers to participation
- Ahead of its time
- New trends – MOOCs & FOAMed

The logo for ivimeds, featuring the word "ivimeds" in a blue, lowercase, sans-serif font.

The International Virtual Medical School

An idea is born ...

Ronald Harden & Ian Hart

2002

Feasibility study involving 52 medical schools from across 16 countries

# Concept endorsed

... develop carefully but purposefully to an agreed timetable with clear targets and milestones guided by the Partner Institutions

# 2003

IVIMEDS formally launches with 32  
founding partner institutions ...

Membership £25k

# Purpose

Setting new standards in medical education through a **partnership** of leading edge medical schools and institutions, blending high quality e-learning and face-to-face learning.

# Objectives

- Academic excellence
- High quality & reliable delivery system
- Sound business practice



# Continuum of education

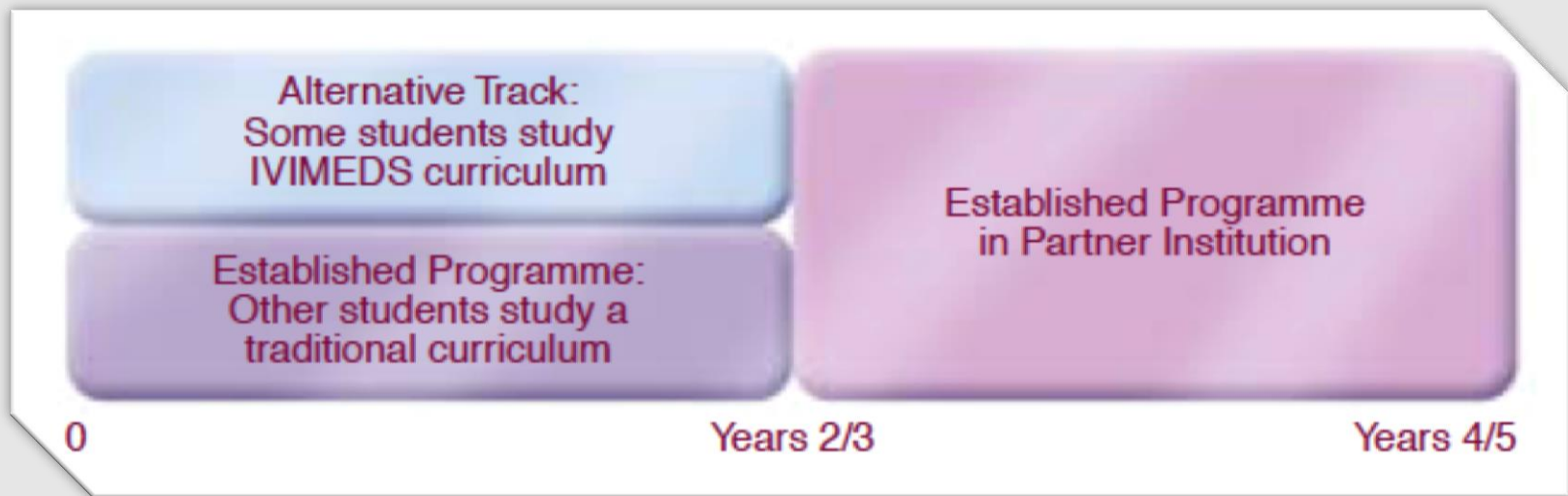


Undergraduate  
Education

Postgraduate  
Education

Continuing  
Professional  
Development

# Aspiration



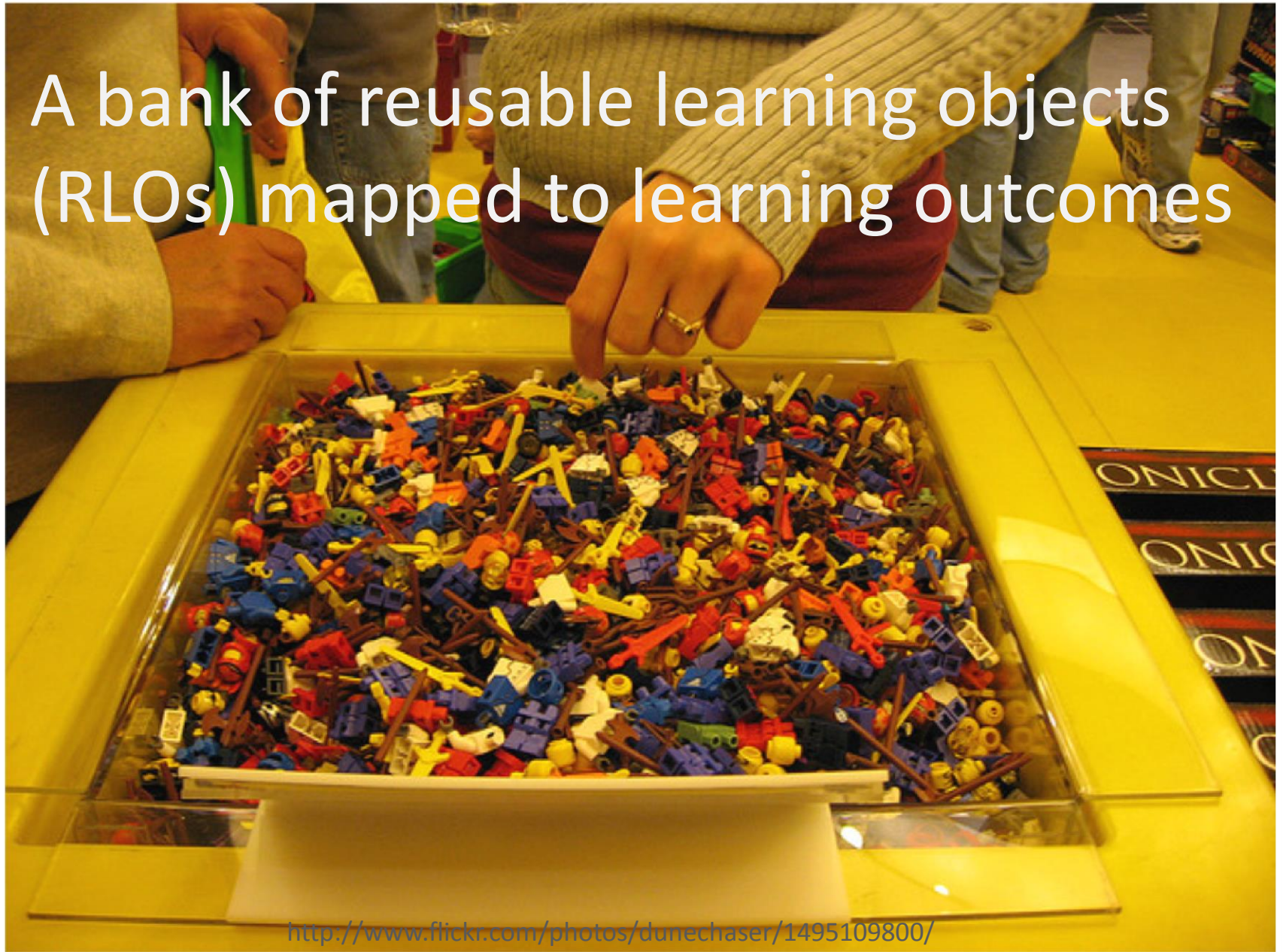
# Governance

- Board of Directors
- Executive Council
- Steering Council – annual meeting
- Working groups -education & technology

# Delivering the vision

Learning resources to support the undergraduate curriculum and a reliable platform

A bank of reusable learning objects  
(RLOs) mapped to learning outcomes



<http://www.flickr.com/photos/dunechaser/1495109800/>

# RLOs repurposed into learning resources and courses to meet local context



<http://www.flickr.com/photos/rob-young/2833241526/>



<http://www.flickr.com/photos/rob-young/2833238084/>

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ENT Clinic Visit 1 - 1 week later

- William McKay
  - GP Visit 1
    - GP Visit 1
    - Problem list
    - Multiple Choice Question
    - Learning objectives
    - Further information
    - Management Plan
  - ENT Clinic Visit 1
    - ENT Clinic Visit 1 - 1 week later**
    - Patient problems
    - Learning objectives
    - Learning objectives
    - Management Plan
  - ENT Admission
  - ENT Clinic Visit 2

## Virtual Patient Viewer

ivimeds



**Name:** William McKay  
**Age:** 68  
**Sex:** Male

Extended Information

ENT Clinic Visit 1

Patient Record

Drug History

Problem List

Patient Charts

> Inbox	Test	Result	Normal Range
> History	Haemoglobin	15.9 g/dL	13.0 - 18.0 g/dL
> Physical	Red blood cell count	4.43 x10 <sup>6</sup> /mm <sup>3</sup>	4.5 - 6.0 x10 <sup>6</sup> /mm <sup>3</sup>
> Office Procedures	Haematocrit	0.449	0.40 - 0.52
> Investigate	Mean Corpuscular Volume (MCV)	101.4 fl	80 - 96 fl
> Management	Mean Corpuscular Hemoglobin Concentration (MCHC)	35.9 pg	27 - 32 pg
	Mean Corpuscular Concentration (MCC)	35.4 gHb/dL	32 - 36 gHb/dL
	White cell count	4.6 10 <sup>9</sup> /l	4.0 - 11.0 10 <sup>9</sup> /l
	Neutrophils	2.4 10 <sup>9</sup> /l	2.0 7.5 62 10 <sup>9</sup> /l
	Lymphocytes	1.1 10 <sup>9</sup> /l	1.5 - 4.0 10 <sup>9</sup> /l
	Monocytes	0.6 10 <sup>9</sup> /l	0.2 - 0.8 10 <sup>9</sup> /l
	Eosinophils	0.47 10 <sup>9</sup> /l	0.0 - 0.4 10 <sup>9</sup> /l

Virtual patients based on core clinical problems

# Learning Resources Peer Reviewed



<http://www.flickr.com/photos/ajc1/6735929719/>

Y.



How did things unfold?

# Core content delivered

- Cardiovascular course developed with input from Universities of Florida, Miami and Dundee
- Stroke resources developed by Dundee with input from Wake Forest
- Virtual patients
- Learning repository



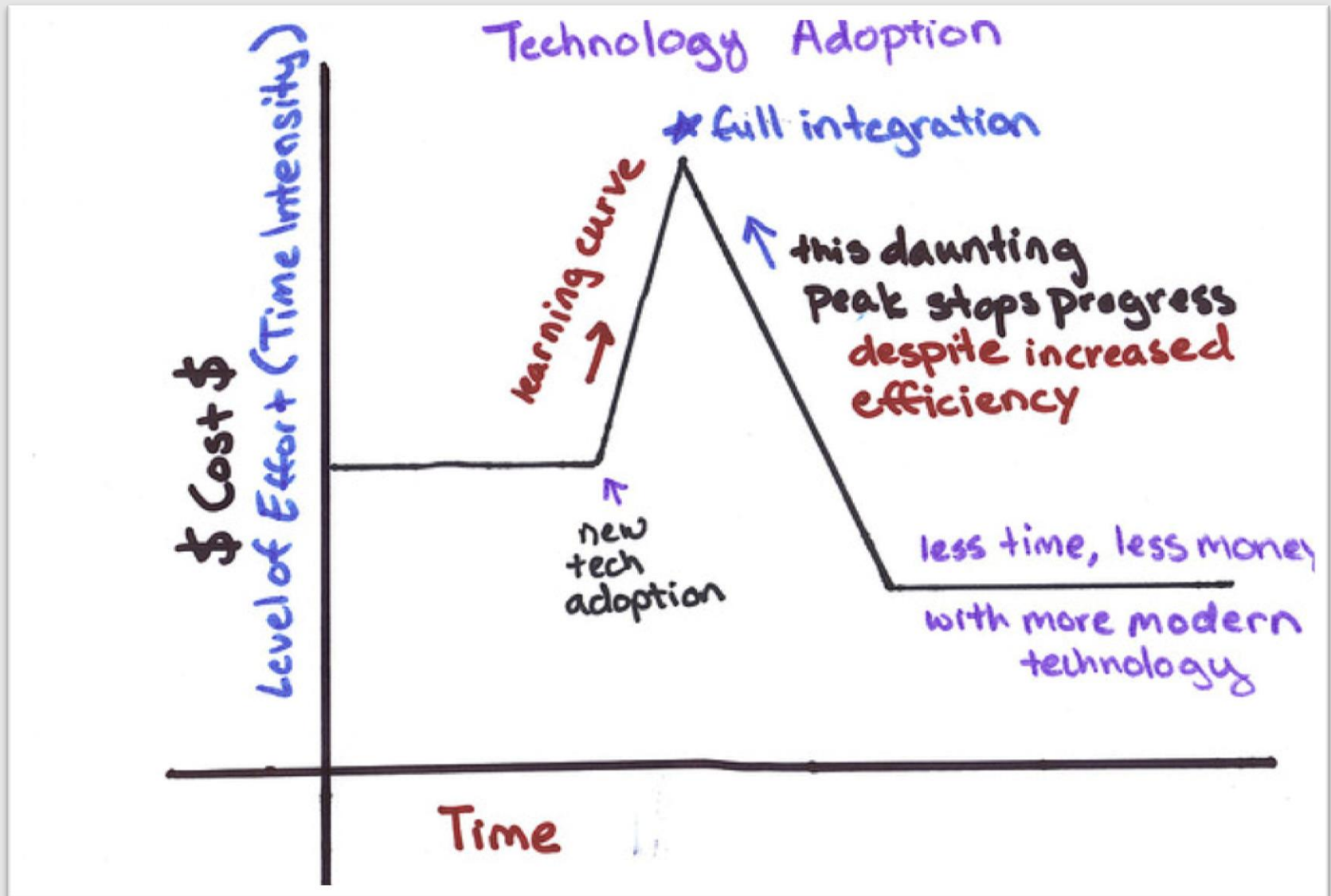
# Motives

Why did institutions become members?



Time committed...  
institutional priorities

# Different levels of technology adoption





Cart before the horse ...

Lack of content development tools

# Peer review becomes a bottle neck



<http://www.flickr.com/photos/ajc1/6735929719/>

Y.




# Competition



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# Deliverables not delivered

Members pull out

Not seen as value for money

But also some positives

# Integration of e-learning resources into a medical school curriculum

S.E.O. KHOGALI<sup>1</sup>, D.A. DAVIES<sup>2</sup>, P.T. DONNAN<sup>1</sup>, A. GRAY<sup>1</sup>, R.M. HARDEN<sup>1</sup>, J. MCDONALD<sup>1</sup>, M.J. PIPPARD<sup>1</sup>, S.D. PRINGLE & N. YU<sup>1</sup>

<sup>1</sup>University of Dundee School of Medicine, UK, <sup>2</sup>Warwick Medical School, UK

## Abstract

**Background:** E-learning has the potential to make important contributions to medical education, but there has been limited study of a blended approach in which the digital resources are introduced alongside traditional teaching methods such as lectures.

**Methods:** We describe the successful embedding of an e-learning resource into 3 of the 5 weeks of cardiovascular system teaching for 164 first-year medical students by providing scheduled slots in the timetables. A questionnaire completed by the students at the end of the 5 weeks had a response rate of 66%. Students varied in how they made use of the resource, some systematically working through it and others browsing and studying sections felt to be personally most relevant.

**Results:** Almost all (96%) rated the e-learning resources as probably or definitely of value: they particularly valued interactive activities, animations, video demonstrations, video clips of experts and self-assessment exercises. Graduate students had a significantly more favourable assessment of the e-learning resources than their undergraduate colleagues, while female students felt the value in supporting existing learning opportunities more strongly than male students.

**Conclusions:** It should not be assumed that all students will choose to use an e-learning resource in the same way and instructional design should enable alternative approaches. The sequence in which the e-learning resource is used in relation to the other learning opportunities, such as lectures and PBL group discussions, may be important and merits further consideration. The experiences reported in this study provide encouragement and pointers for others engaged in the integration of e-learning in their curriculum.

Navigation Menu

- Mr Murray - Shoulder Pain
- Visit 1 - aged 35
  - Introduction to visit 1
  - Meet Mr Murray
  - Physical examination
  - Anatomy
  - Investigations & patient management
  - Patient record of visit 1
- Visit 2 - 4 weeks later
- Visit 3 - 11 years later - aged 46
- Visit 4 - 20 years later - aged 66
- Visit 5 - 5 years later - aged 71

Introduction to visit 1

Image [trash] [undo] [redo]

Teacher's Comment [trash] [undo] [redo]

- Virtual Patient
- Text
- Teacher's Comment
- Reference
- MC Question
- Open Question
- Flash Object
- Video
- Image
- Audio
- File Attachment

Save Package

Riverside content authoring tool



# Drugs

instantly accessible interactive clinical pharmacology learning modules

## Adenosine



**Anti-emetics**

**Benzylopicillin**

**Gentamicin**

**Morphine**

**Statins**

**Prescribing Skills 3**

**Prescribing Skills 7**

## Antacids



**Anti-epileptics**

**Beta blockers**

**IV Fluids**

**N-acetylcysteine**

**Trimethoprim**

**Prescribing Skills 4**

**Prescribing Skills 8**

## Anticoagulation1



**Antimotility drugs**

**Blood & transfusion**

**Laxatives**

**NSAIDS**

**Prescribing Skills 1**

**Prescribing Skills 5**

## Anticoagulation2



**Aspirin**

**Flecainide**

**Macrolides**

**Paracetamol**

**Prescribing Skills 2**

**Prescribing Skills 6**

these are approximately 20 minute modules. The aim is to support clinical learning on the wards and in the clinics in a useful and interesting manner.

# 2013

IVIMEDS still going with 12 members  
...changing organizational structure  
from company to academic  
partnership to

# Meanwhile ...



MOOCS

Massive Open Online Courses



# MOOC providers

- Coursera
- EdX
- Udacity
- Futurelearn



Search by course name, category, or university

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ELIGIBLE FOR

Signature Track

LANGUAGE

- English
- Spanish
- French
- Chinese
- Italian

CATEGORY

- Arts
- Biology & Life Sciences
- Business & Management
- Chemistry
- CS: Artificial Intelligence
- CS: Software Engineering
- CS: Systems & Security
- CS: Theory
- Economics & Finance
- Education
- Energy & Earth Sciences
- Engineering
- Nutrition



Emory University

**AIDS**

with Kimberley Sessions Hagen

Feb 25th 2013

9 weeks long



Duke University

**Introductory Human Physiology**

with Jennifer Carbrey & Emma Jakoi

Feb 25th 2013

12 weeks long

**Signature Track**



University of Pennsylvania

**"Pay Attention!!" ADHD Through the Lifespan**

with Anthony L. Rostain

Mar 18th 2013

12 weeks long



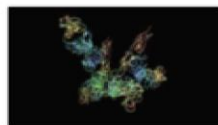
Duke University

**Medical Neuroscience**

with Leonard E. White

Mar 25th 2013

8 weeks long



University of California, San Diego

**Drug Discovery, Development & Commercialization**

with Williams S. Ettefasi & Joseph D. Me...

Apr 19th 2013

9 weeks long



# Clinical Problem Solving

Catherine R. Lucey

Participants will learn how to move efficiently from patient signs and symptoms to a rational and prioritized set of diagnostic possibilities and will learn how to study and read to facilitate this process.



**Current Session:**

Feb 11th 2013 (6 weeks long)

[Sign Up](#)

189 112 1.3k  
 Tweet +1 Like

**Workload:** 4-6 hours/week

## About the Course

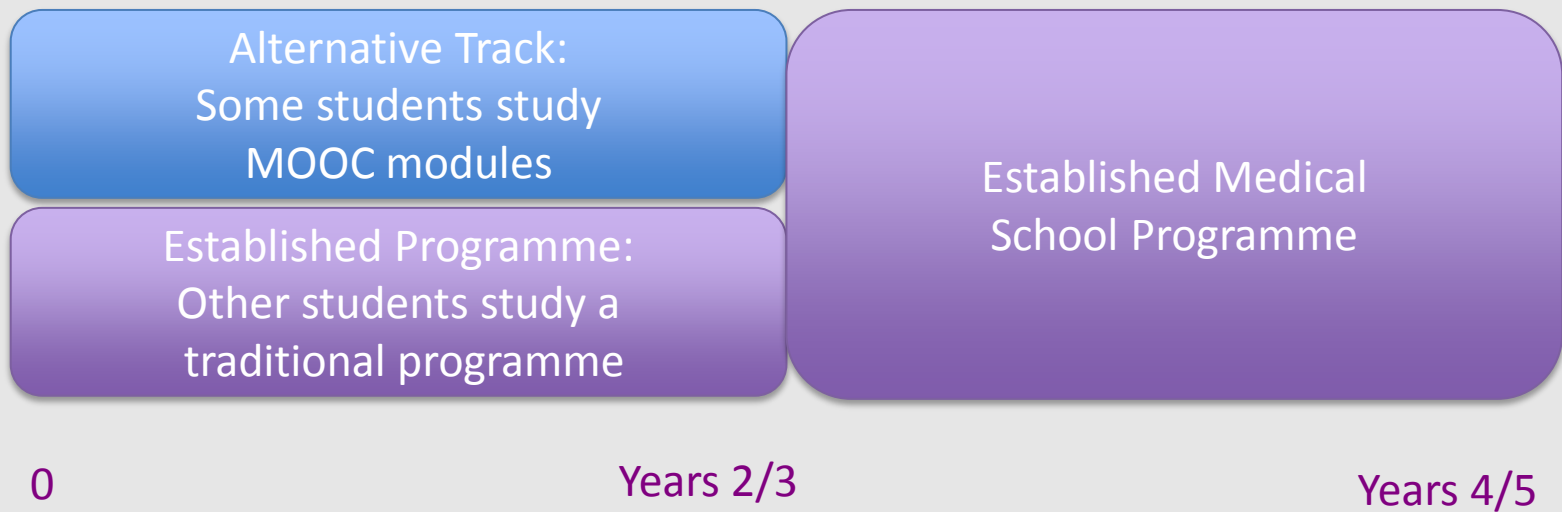
Clinical problem solving or diagnostic reasoning is the skill that physicians use to understand a patient's complaints and then to identify a short, prioritized list of possible diagnoses that could account for those complaints. This differential diagnosis then drives the choice of diagnostic tests and possible treatments. Despite advances in information technology, clinical problem solving has not yet

## About the Instructor



**Catherine R. Lucey**  
 University of California,  
 San Francisco

# Will this model develop?



But ... concerns about pedagogy in MOOCs



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#FOAMed

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**Laura Overton** @lauraoverton  
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**C. David Caceres** @DavidACNP 35 mins  
 Free lecture for ultrasound for critical care [bit.ly/15u9NQH](http://bit.ly/15u9NQH) #FOAMed  
 #ultrasound #meded #emergency  
 View summary



**Laleh Gharahbaghian** @SonoSpot 39 mins  
 Fee lectures on Bedside #ultrasound topics from some of the best!  
[wp.me/p2rHH1-xc](http://wp.me/p2rHH1-xc) #FOAMed  
 View summary



**Lauren Westafer** @LWestafer 58 mins  
 @dreapadoirtas I was flattered! (now I have to work to meet that expectation...apparently #FOAMed results in constructive/+ peer pressure)  
 View conversation



**Domhnall Brannigan** @dreapadoirtas 1 hr  
 @LWestafer thanks Lauren - you even got a mention! #FOAMed  
 View conversation



**Lauren Westafer** @LWestafer 1 hr  
 Excellent talk on #FOAMed by @dreapadoirtas [vimeo.com/60971127](http://vimeo.com/60971127)  
 (! love this trend in hospitals & med schools-cheers to more FOAMites!)  
 View media

#FOAMed Community – Grass roots



# Global Medical Education Project



Jarrah Passlow  
Earned the profile  
completed badge  
**250 POINTS**

QUESTIONS ANSWERED  
NEW MEMBERS THIS WEEK  
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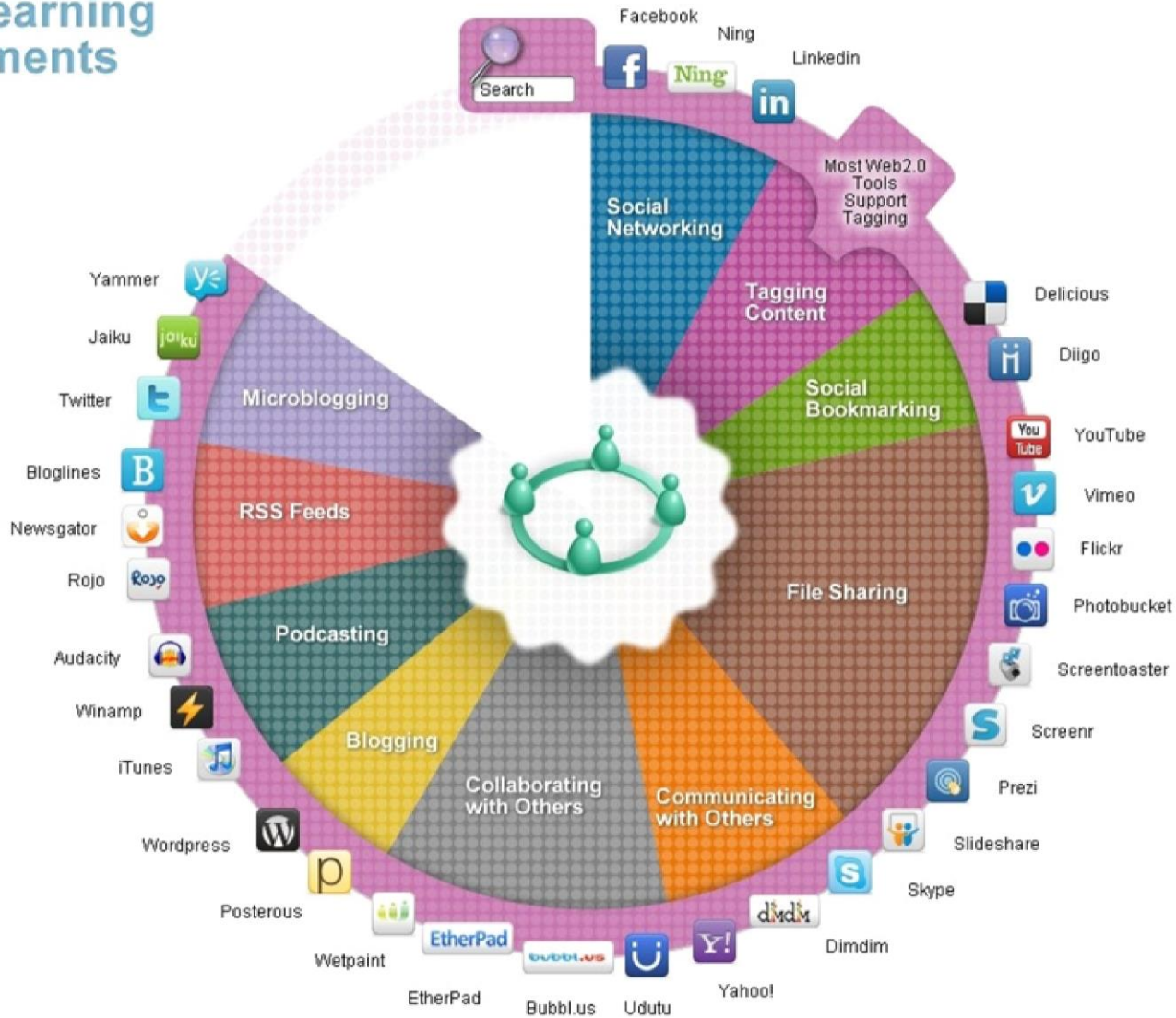
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gmep.org

# Elements for Constructing Social Learning Environments



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# Web 2.0 tools for social learning



# What Happens in an Internet Minute?



## And Future Growth is Staggering



## **YouTube as a Platform for Publishing Clinical Skills Training Videos**

David Topps, MD, Joyce Helmer, EdD, and Rachel Ellaway, PhD

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### **Abstract**

The means to share educational materials have grown considerably over the years, especially with the multitude of Internet channels available to educators. This article describes an innovative use of YouTube as a publishing platform for clinical educational materials.

The authors posted online a series of short videos for teaching clinical procedures anticipating that they would be widely used. The project Web site attracted little traffic, alternatives were considered, and YouTube was selected for exploration

as a publication channel. YouTube's analytics tools were used to assess uptake, and viewer comments were reviewed for specific feedback in support of evaluating and improving the materials posted.

The uptake was much increased with 1.75 million views logged in the first 33 months. Viewer feedback, although limited, proved useful. In addition to improving uptake, this approach also relinquishes control over how materials are presented and how the analytics are generated. Open and anonymous

access also limits relationships with end users.

In summary, YouTube was found to provide many advantages over self-publication, particularly in terms of technical simplification, increased audience, discoverability, and analytics. In contrast to the transitory interest seen in most YouTube content, the channel has seen sustained popularity. YouTube's broadcast model diffused aspects of the relationship between educators and their learners, thereby limiting its use for more focused activities, such as continuing medical education.

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# Learning networks



The conditions were perhaps not right back in 2003 for IVIMEDS to realise its original vision ...

Perhaps if it was starting in 2013 it would be different ...

Keys to success would include funding, engagement and available technologies

Is it needed?

# Questions and discussion

Natalie Lafferty

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