





### Stanford give all medical students an iPad



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Subclavian catheter placement: what can go wrong?

An analysis of failed subclavian catheter placement attempts by residents identified 6 common errors in technique.

Central Venous Access, Subclavian Vein, Subclavian Approach, Clinical Procedures

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- Allergy and Immunology
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### Benign Breast Disease in Teen Girls

Symptoms Alone Do Dot Predict Acute Otitis Media in Young Children

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Browse Topic InfoSites

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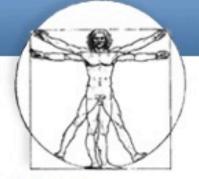
#### FREE MODULES

- · Rheumatoid arthritis: an update on management - in association with NICE
- Attention deficit hyperactivity disorder: a guide to management in adults and children - in association with NICE
- Chronic kidney disease: early identification and management in adults - in association with NICE
- Anxiety disorders in adults: in association with NICE

#### User help

- BMA member? Get free access
- · Need help? Read our FAQ
- · User guide A step by step guide through the site

#### Hot exams



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Natalie Lafferty

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Communities **	gency Medicine	Adult ADD and ADHD	<u>Diabetes</u> <u>Medical Ethics</u>	Hypertension	Women's Health	Influenza
Editor of	the Week	Group of the Week	Institution of the	e Week	Article of the We	ek
1		Az	UCSan Diego		The state of the s	
Jonathan Williams MD, MMSc		Alzheimer's Disease International	University of California San Diego School of Medicine		Pleurisy	

In association with:

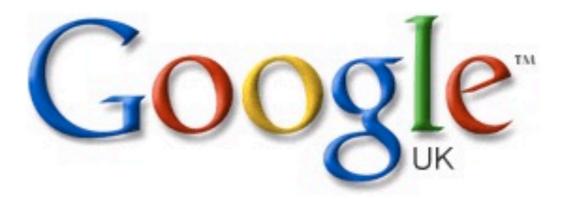








Medpedia Portals - Adult Primary Care Allergy and Immunology Anatomy Cardiology Emergency Medicine Endocrinology Epidemiology Gastroenterology and Hepatology General Medicine Infectious Diseases Internal Medicine Neurology & Neurobiology Nutrition OB/GYN and Reproductive Health Oncology Orthopedics Pathology Pediatrics Pharmacology Psychiatry Public Health Pulmonology Rheumatology Women's Health



Advanced Search Language Tools

Google Search

I'm Feeling Lucky

Search: 

the web 

pages from the UK

Advertising Programmes - Business Solutions - About Google - Go to Google.com

@2009 - Privacy



http://www.flickr.com/photos/conskeptical/191048988/



http://www.flickr.com/photos/andercismo/2349098787/



# Open Content ... No need to reinvent the wheel ... Review ... Reuse ... Remix



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Coping With Stress -Biofeedback...

23,121 views **UCtelevision** 



Obesity, Diabetes and Energy Met...

21,281 views ResearchChannel









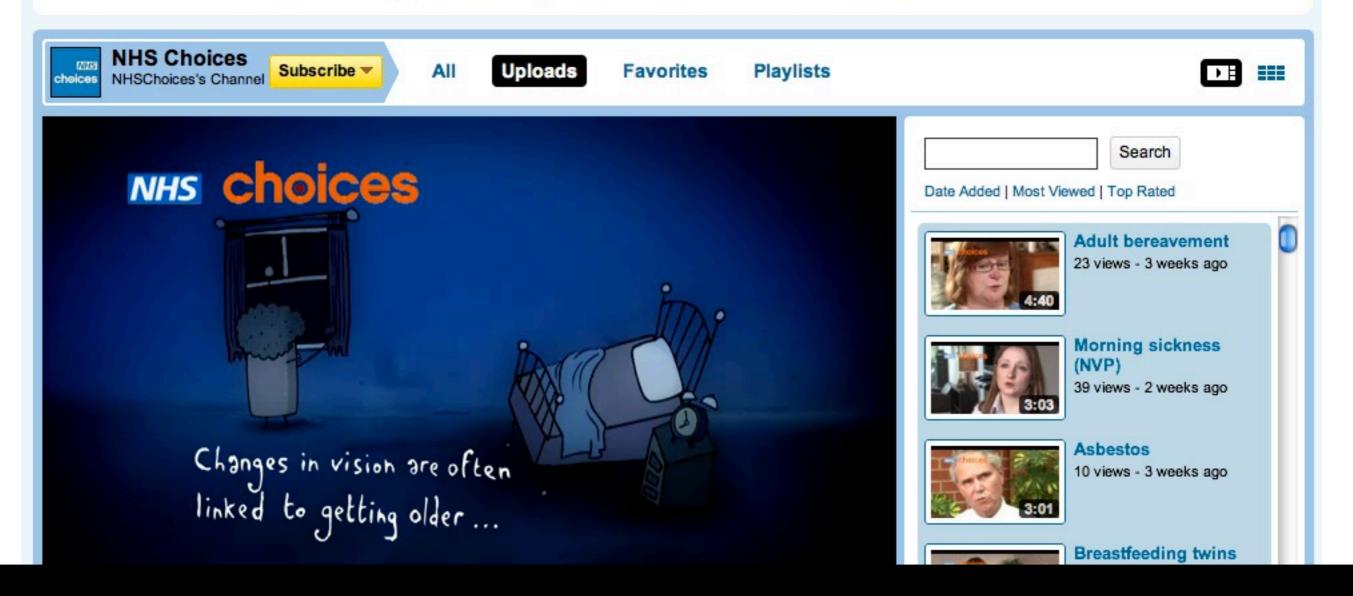


# You Tube EDU





Watch hundreds of health and lifestyle videos and get information and advice at www.nhs.uk



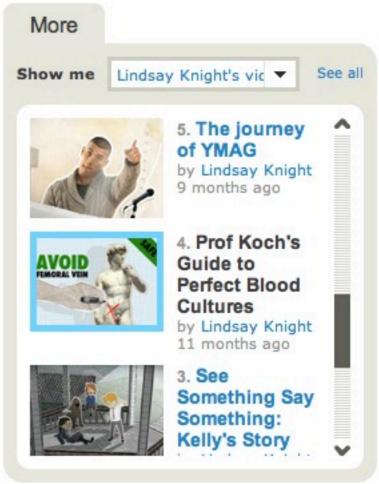
## You Tube



## Prof Koch's Guide to Perfect Blood Cultures

by Lindsay Knight 11 months ago

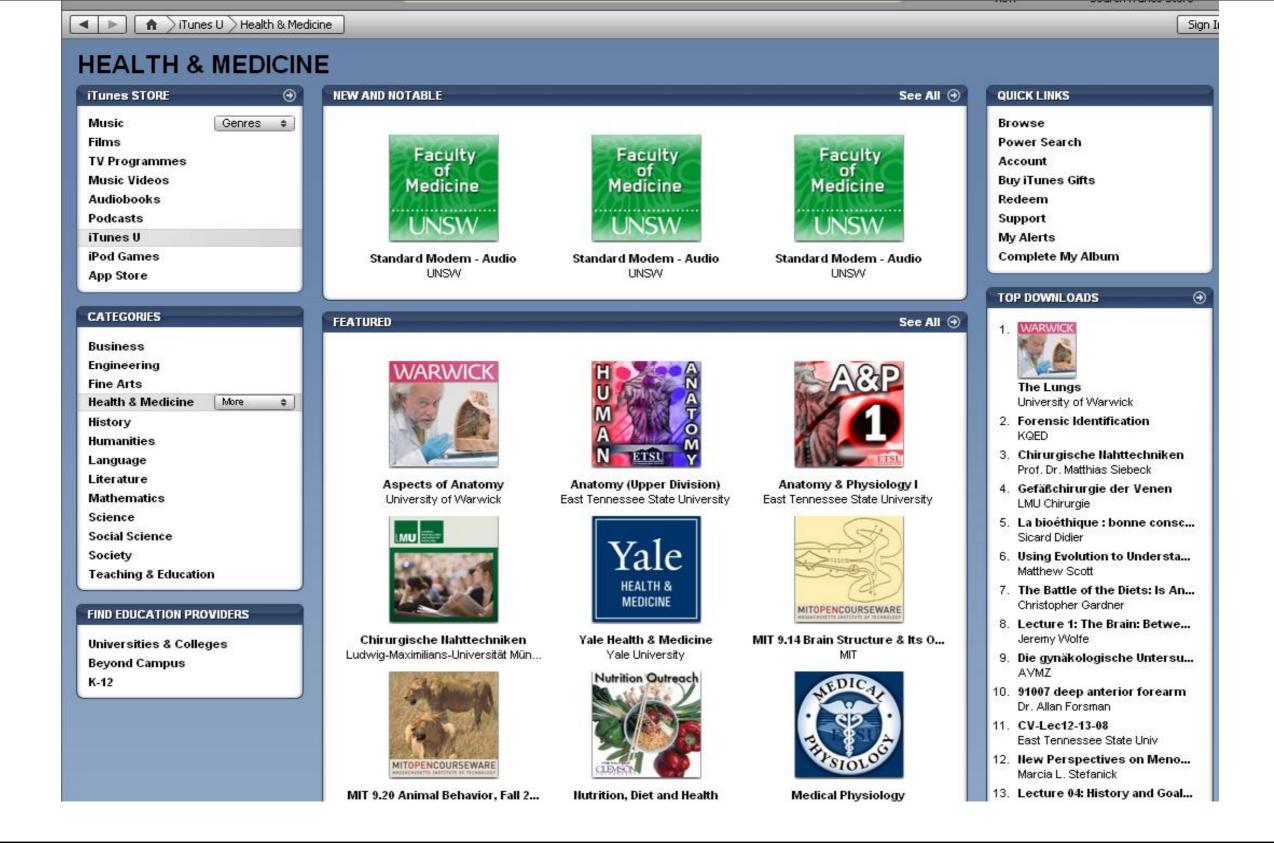




Ever wondered how to take the perfect Blood Culture? Never fear, Prof Koch is here to help. Codeveloped with staff from Barts & The London Hospital infection control team.

Switch to HTML5 player

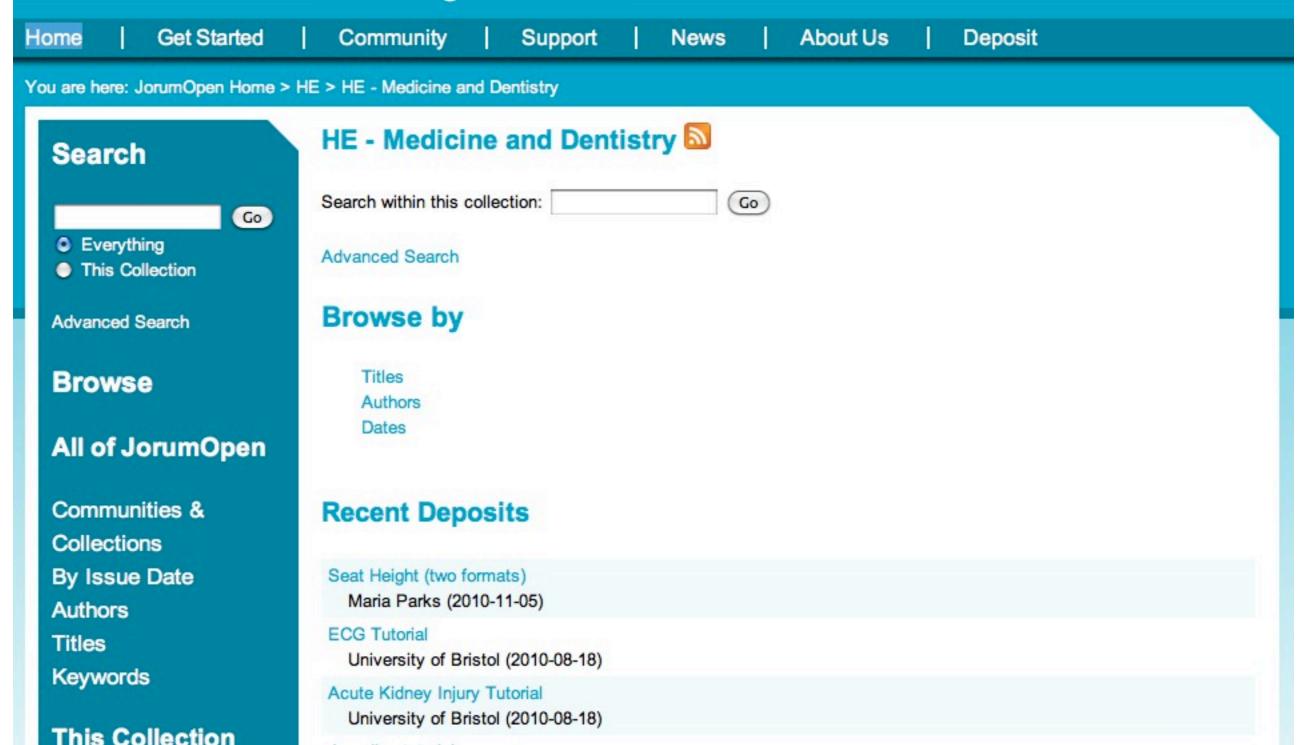
### Vimeo



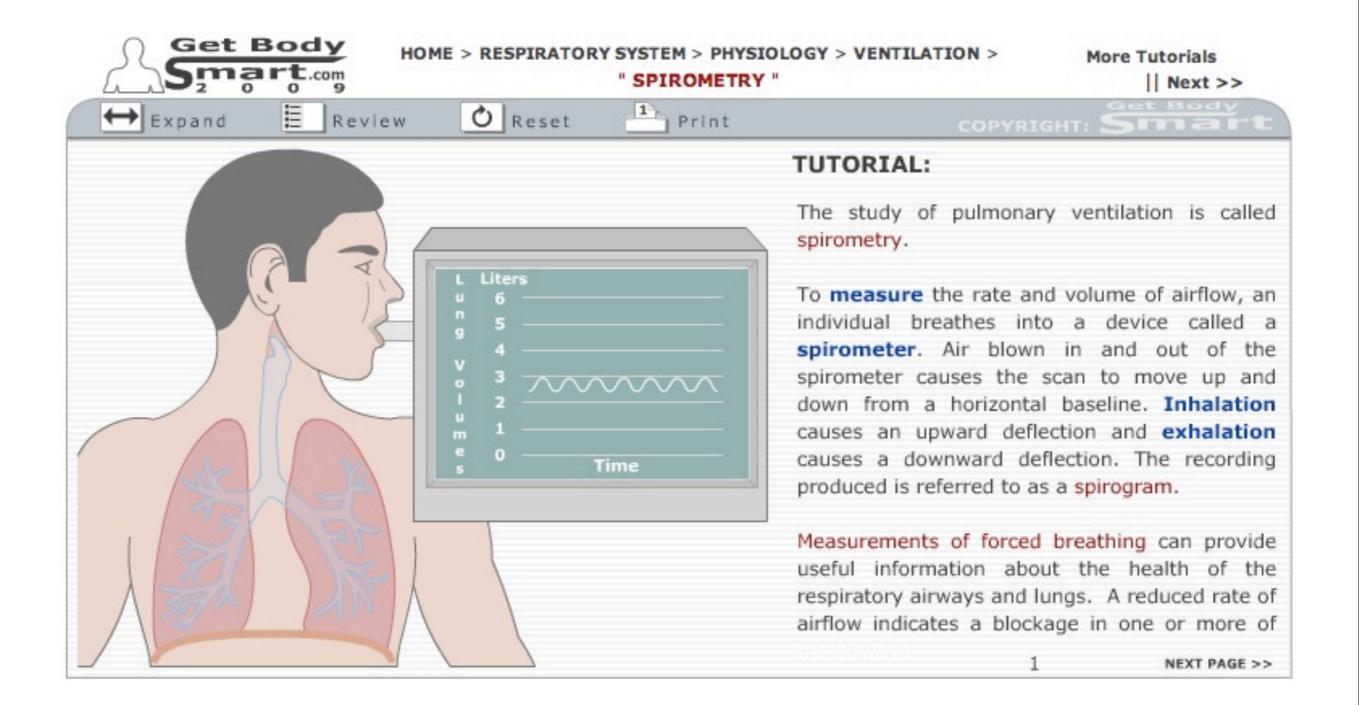
# i-Tunes U



### Learning to Share



# Repositories



### Interactive tutorials

### A NEW KIND OF GP

SATURDAY, 12 JUNE 2010

### The wonders of Google....

Jason is 23, an electrician. It was a hot day, and he arrived in my consulting room, apologising for being in his work clothes. This included a vest which showed off his very fine physique, suggesting hours of work in the gym.

He clearly needed to be seen by an orthopaedic surgeon, so I set about getting a letter done for him. But I needed to refresh my knowledge of the anatomy of the forearm. I am a locum GP and work in lots of different surgeries so I do not have a bookshelf of textbooks that I can delve into for information. Google came to the rescue.

I typed in "wrist flexors" and narrowed down my identification of the tendon affected as flexor carpi ulnaris. I clicked on google images and came up with several diagrammatic representations of this muscle.

Another couple of clicks and I found a great website, getbodysmart.com which provided a detailed diagram of this particular muscle together with a button to click on to show how it moves the hand/wrist - movements which my patient had lost.

Biceps brachii

Brachialis

Brachioradialis

Extensor carpi radialis longus

Pronator teres

Palmaris longus

Extensor carpi radialis brevis

Flexor carpi radialis

Flexor carpi ulnaris

Flexor digitorum superficialis

Flexor retinaculum

Click Blue Links

To View Actions

And Attachments

My patient was suitably impressed by the visual explanation and I felt

# Students & patients

Slideshow

The Tour Sign Up Explore -

Upload

Search Patrick J. Lynch's photostream Search -

### Patrick J. Lynch > Collections > Illustrations

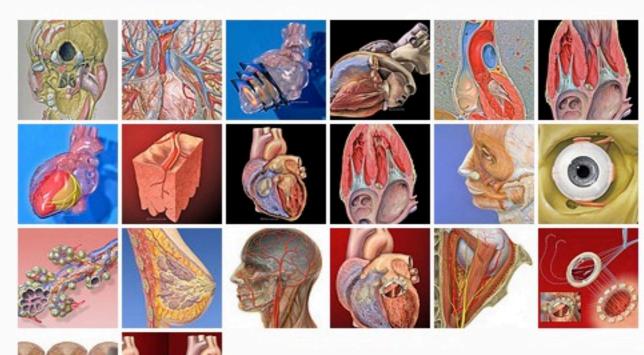


### Medical illustrations Thumbnails Detail 1 comment



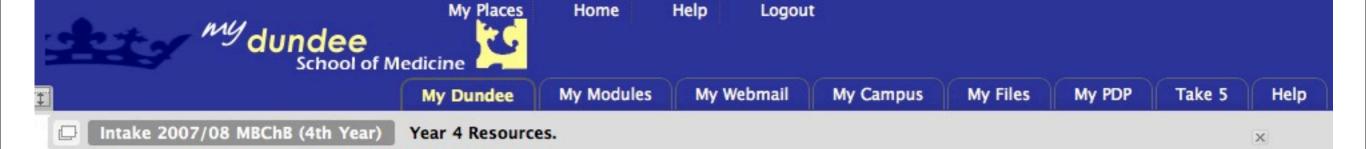
20 photos | 3,870 views

items are from 07 Apr 2007.

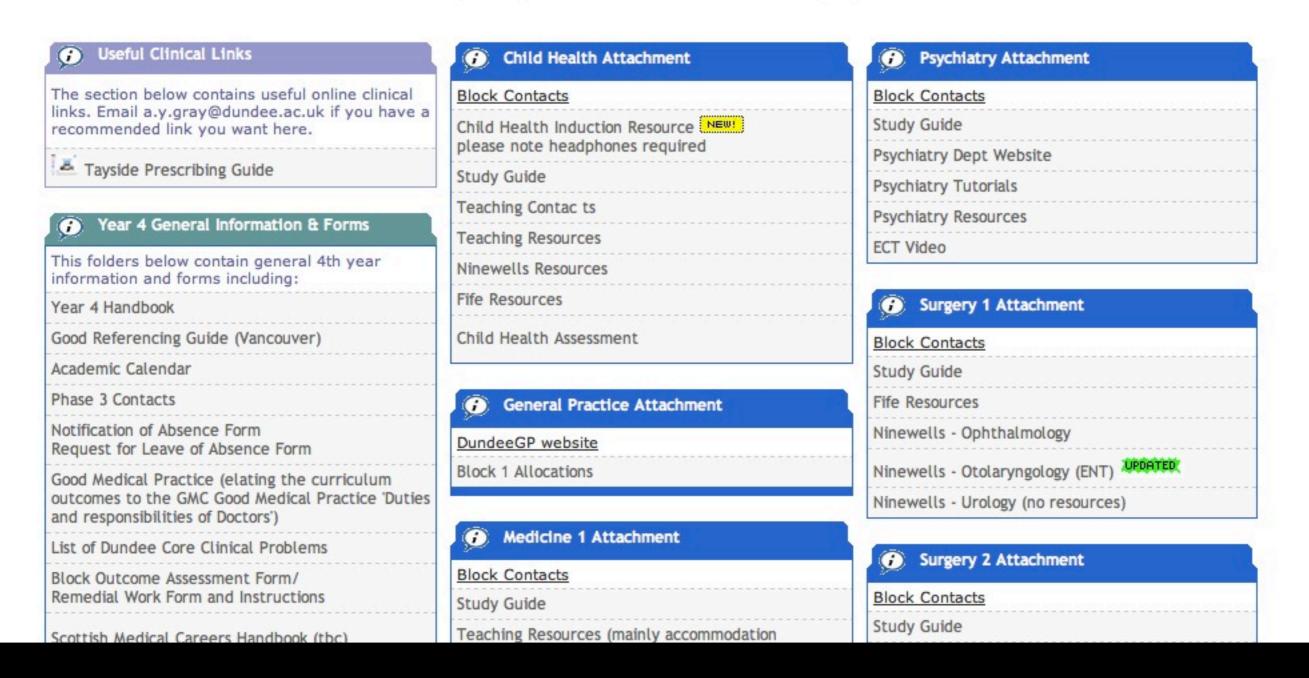


# lmages

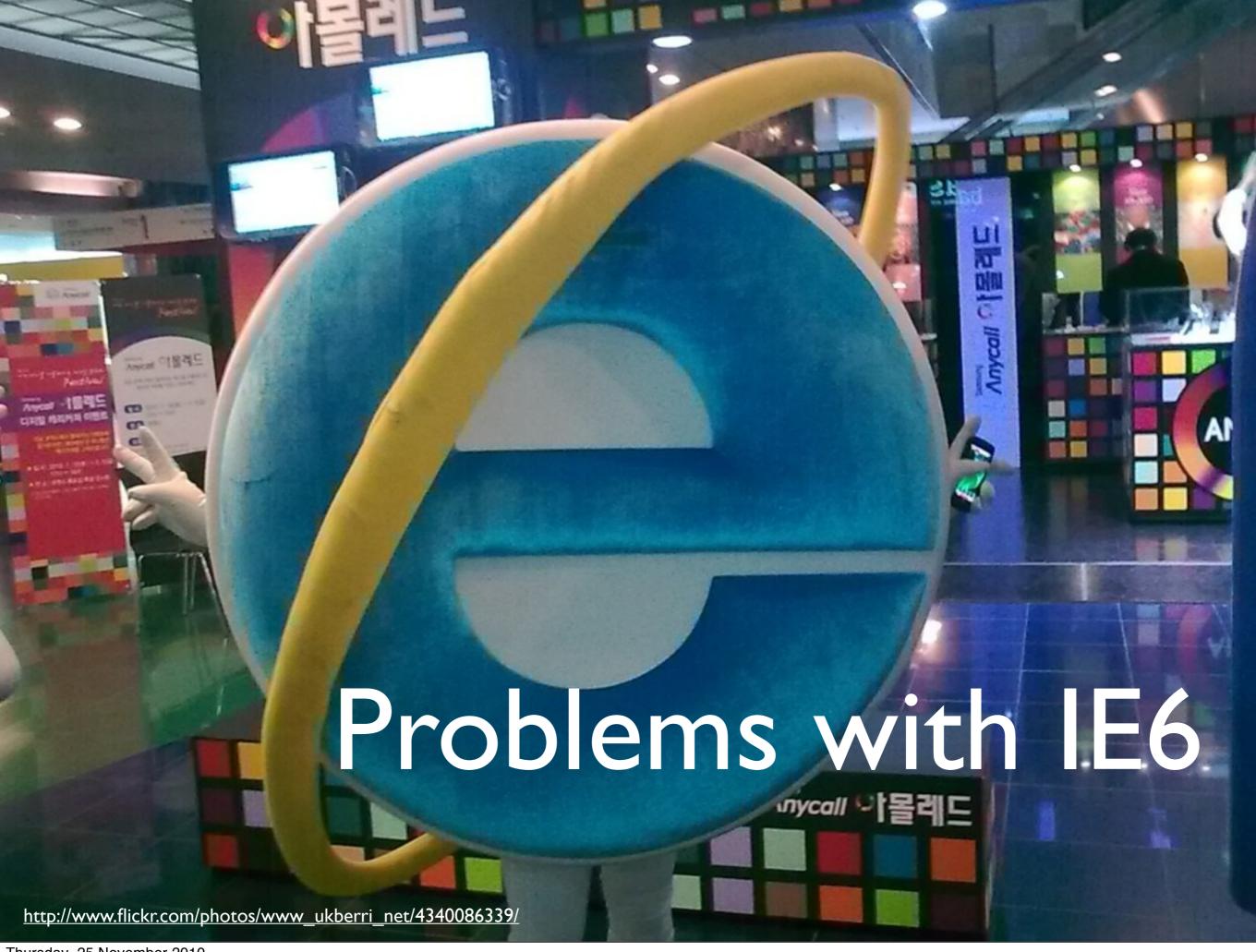




Please click on the 'MBChB Intake 2007-08 (Year 4)' link above to return to homepage.



### Medical School VLE



### **PBWORKS**









diigo



























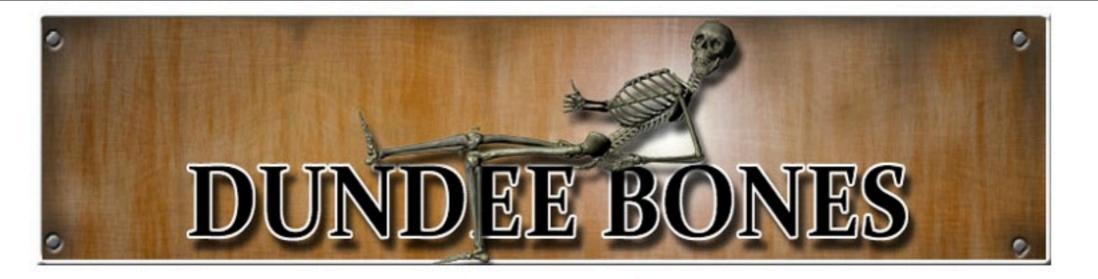








# Increasing use of free learning tools



### A case of a very painful shoulder

February 17, 2010 by John Dent



This is the Xray of the left shoulder of a 42 year man following a fall from a height onto his outstretched hand.

He has a painful, immobile shoulder with loss of the normal contour of deltoid.

What do you think the Xray shows? (there are two abnormalities to notice here).

### **DUNDEEBONES**

DundeeBones is all about the musculoskeletal system at Dundee. Find out about bones, x-rays, fractures and a whole lot more.

### EMAIL UPDATES

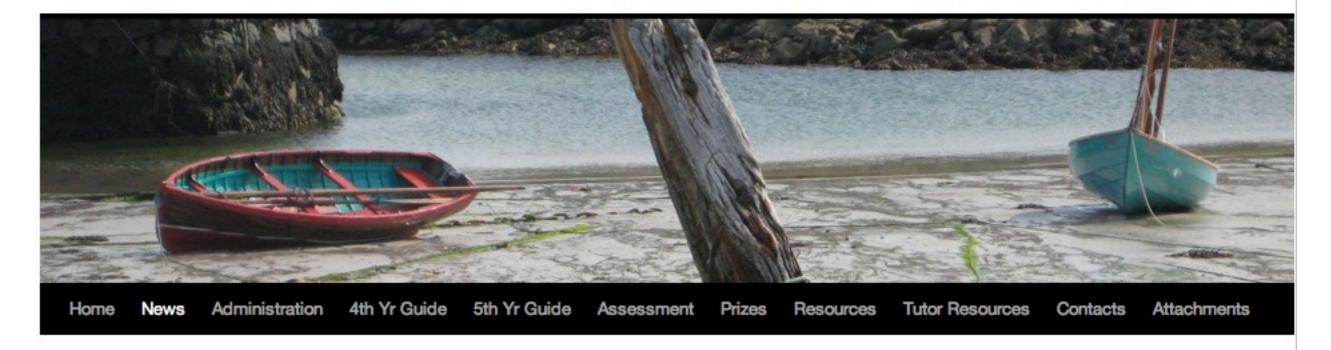
Click to subscribe to DundeeBones and receive notifications of new posts by email.

Sign me up!

# Wordpress

### **Dundee University GP Attachment**

Primary Care Medicine attachment



### Assessment Forms

Posted on November 15, 2010 by sxlaw

Dear Tutor

The route to access the assessment forms is from within the <u>forms page in Tutor</u> <u>resources</u>, one tutor raised the confusion of the login site in the sidebar which is for administrative purposes only. I have placed links to the form page thought out the assessment section which I hope will help.



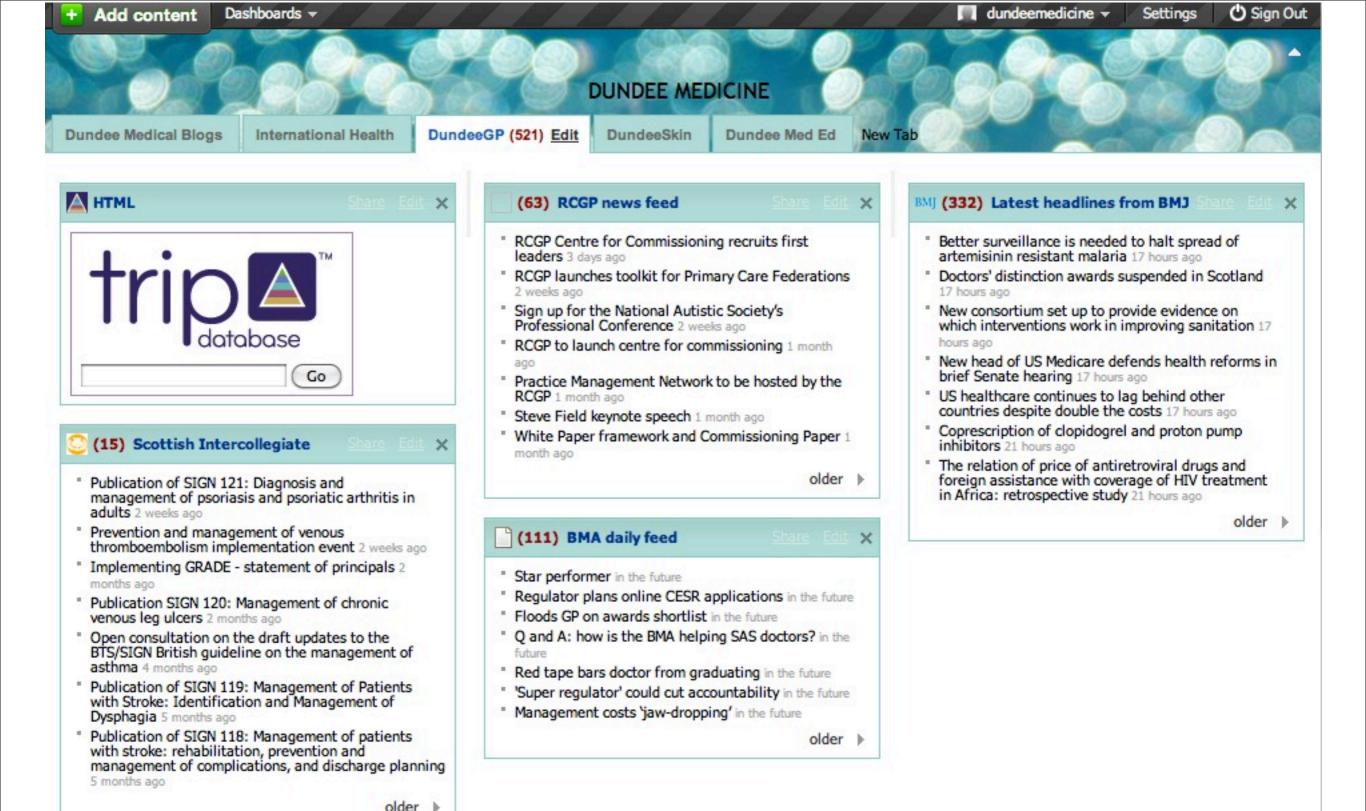
#### Recent Posts

- Assessment Forms
- Attachment Accommodation
- Roger Neighbour Lecture
- Third Fourth Year Block
- Tutor Development Programme

### **Upcoming Events**

There are no upcoming events at

# Dundee GP on Wordpress



### Sharing information - Netvibes

### Social Media in Medicine and Medical Education



Natalie Lafferty //

Nov 7 / 2:00pm

### TILT - you'll be amazed at what you don't know

by Natalie Lafferty

Welcome to TILT - the place to record and share clinical learning

To start, type your learning in the box above (& register later), or you can register straight away using the button below.

Become a member

via tit.tripdatabase.com

This site has been set up by Jon Bassey at Trip Database. The idea is doctors post something, they learned today, something they need to learn and further learning.

I wonder if something like this would work with students?

Filed under // learning TILT Trip Database

Comments (0)

Nov 4 / 4:44pm

Online Social Networking by Patients with Diabetes: A Qualitative Evaluation of Q

MY OTHER SITES

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#### **GET UPDATES**

P Subscribe to this posterous »

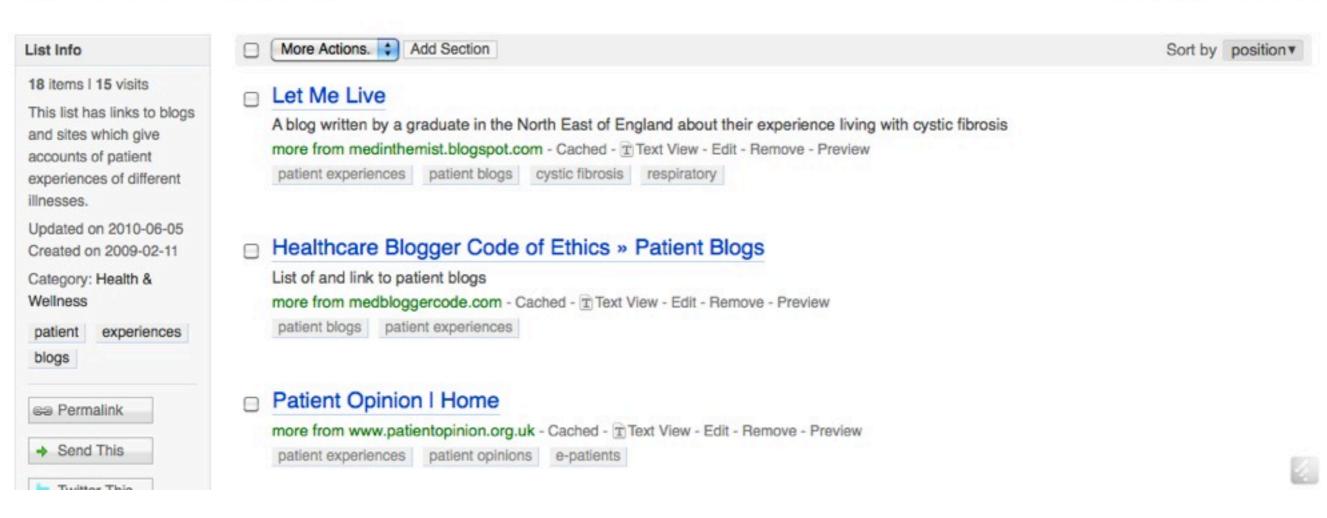
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### Project spaces - Posterous

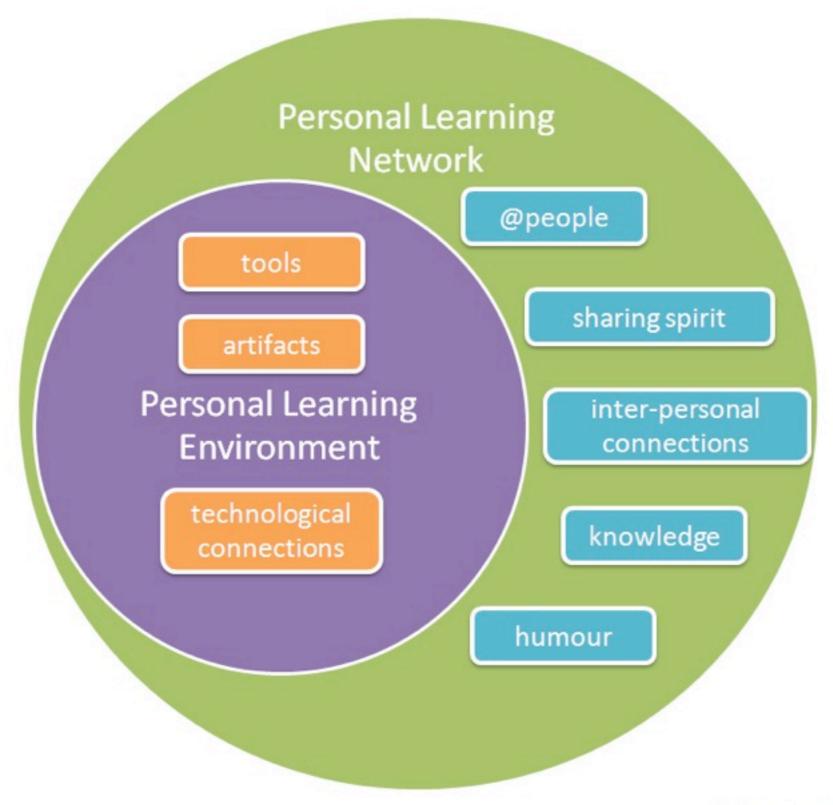


### My List: Patient Experiences



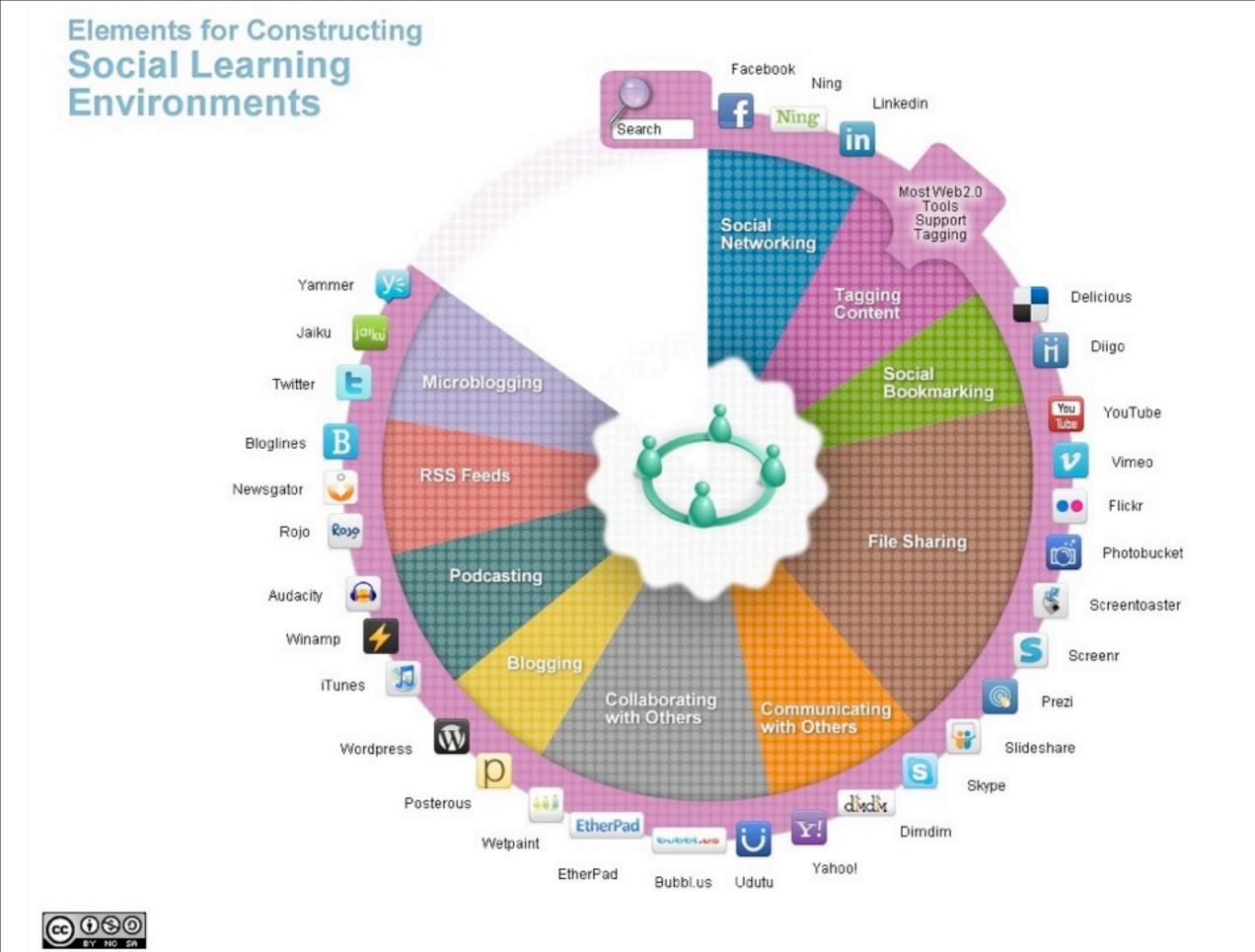


### Sharing Bookmarks - Diigo

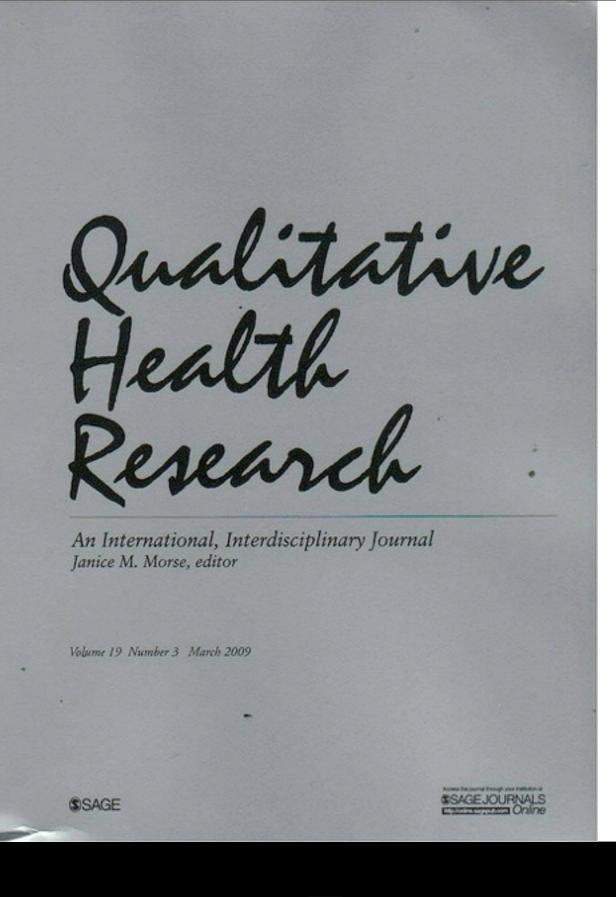


Joyce Seitzinger / catspyjamasnz 19-12-2008

# Personalising learning



Licensed under Creative Commons









### Research tools

BUT ... Many of these sites blocked by NHS IT departments





### Welsh health board blocks social networking

An NHS body in Wales has blocked most staff from interacting with services including blogs, Twitter and Flickr

GC News

Smart Healthcare, Thursday 4 November 2010 13.01 GMT

Abertawe Bro Morgannwg University Health Board is blocking its 10,000 computer users from uploading material to social networking services by default. It allows general exceptions for the communications and IT departments, and specific exceptions for clinical staff who use such services for research.

The specific exceptions can be detailed, he said, with a member of staff or a group being granted access to a specific section of Flickr, but not the rest of the site. NHS Staff are looking for the green light ...

for permission to access & use social media sites for teaching and research purposes ...

for patient information ...

to collaborate & share ...

http://www.flickr.com/photos/chainedreactions/2391435961/



# Other Problems

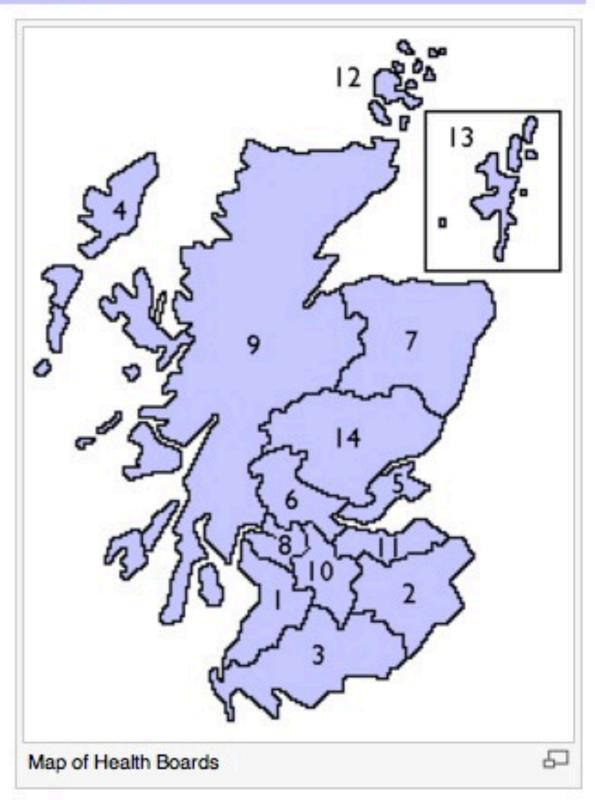


http://www.flickr.com/photos/paloetic/4625640575/

### **NHS Scotland Health Boards**



University of Dundee GP Placements



Source: <a href="http://en.wikipedia.org/wiki/NHS\_Scotland">http://en.wikipedia.org/wiki/NHS\_Scotland</a>















Access from the NHS to University teaching and learning facilities: local issues

Solutions for improving access to University information systems from NHS sites



### Objective:

"To achieve good inter-operability between NHS and Higher Education (HE) networks that enable secure anytime, anywhere access by medical, nursing and allied profession students, clinical teachers and researchers "

NHS-Higher Education Connectivity Project



### **Dundee University – affected groups?**

- Students
  - Medicine, Dentistry, Nursing & Midwifery
- Clinical Teachers
  - NHS Clinicians involved in teaching
- Research Staff
  - Many NHS-University Collaborations
    - Clinical Research Centre (CRC)
    - Dundee Cancer Centre (DCC)
    - •Tayside Academic Health Sciences Centre (TAHSC)



# The approach to improving access to University resources from NHS sites

- 1. Increase provision of University infrastructure at NHS sites
- 2. Local approach
  - Connect2Campus Citrix Zen App Implementation
  - SSL Web VPN Concentrator
  - Removing local NHS Firewall restrictions
- 3. National Approach
  - •N3 JANET Gateway



### **Increase provision of University infrastructure at NHS sites**

- •Installation of University WiFi in NHS teaching rooms at Ninewells Hospital, Dundee
  - •Only cost-effective where current infrastructure exists
- •Installing LANs at remote NHS sites
   •Not cost-effective at every remote
   NHS site

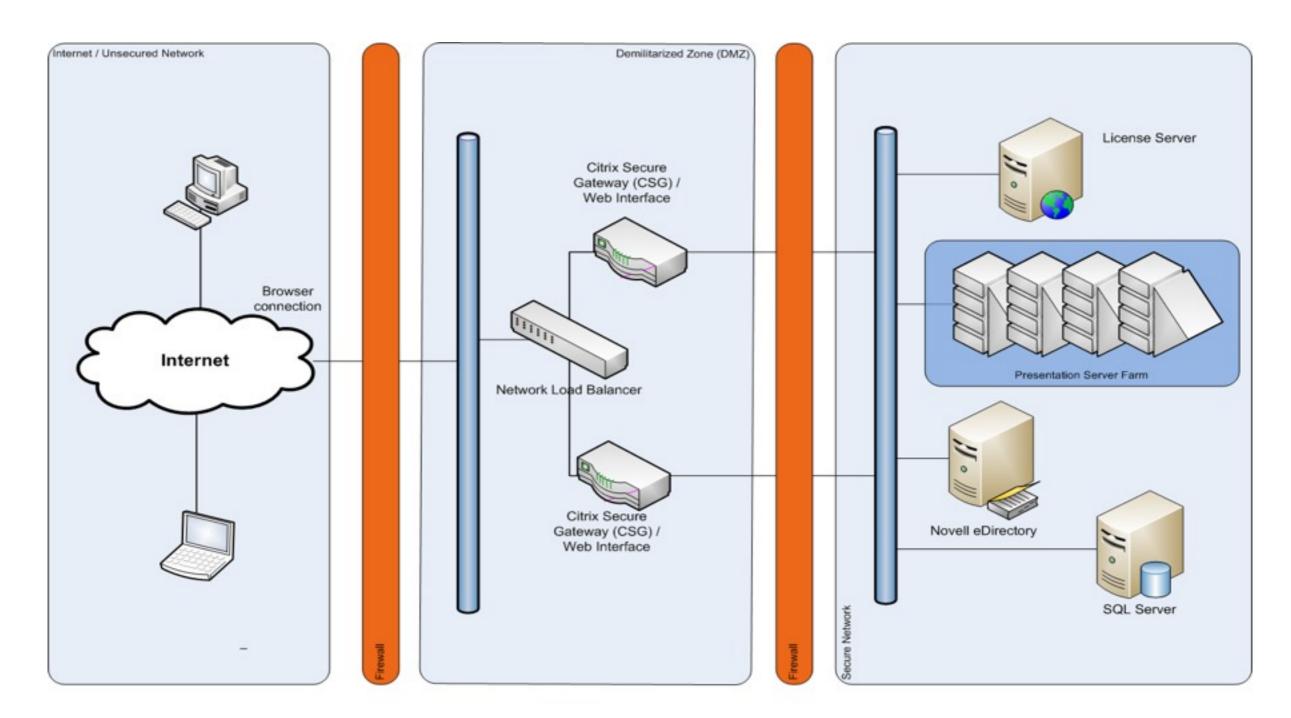




### **Local Approach**

- Connect2Campus
  - •To provide School of Medicine staff and students access to the University of Dundee information systems, to which they have authorised access, from NHS Tayside sites.
  - •Implement a thin client system based on Citrix Presentation Server. (Now rebranded as Citrix ZenApp)
  - •Delivers a managed desktop to staff and students providing access to information systems and campus software.
  - •NHS Tayside support this implementation and have configured local firewall policies to allow access.





Citrix Secure Gateway deployment securing Citrix Presentation Server







### Continued Improvement

- Upgrade Server version
- Enabled Audio
- Use of Full ICA Client
- Use of high definition virtual desktop using HDX technology
- Deliver applications rather than complete desktop

### **Issues**

- Only NHS staff with University contracts
- Supported by NHS Tayside but not by other Trusts/Boards
- •NHS PCs often have incorrect JAVA client or no speakers



### •Expensive – Adding new users

	ltem	Cost	Estimated Cost Per Staff User	Estimated Cost Per Student User
•	Additional Citrix license	£282.00	£282.00	£282.00
		(£240.00 ex VAT) <sup>1</sup>		
•	Additional Terminal Server Client Access License	£3.41	£3.41	
	(device CAL) for a member of staff	(£2.90 ex VAT)		
•	Additional Windows Desktop Services External	£2,090.89		£41.82
	Connector License (per server) for students	(£1,779.48 ex VAT)		
•	Additional Windows Server External Connector	£497.54		£9.95
	License (per server) for students	(£423.44 ex VAT)		
•	Microsoft Office 2007 license	£46.24		£46.24
		(£39.35 ex VAT) <sup>2</sup>		
•	Additional physical server	£3,781.15	£75.62	£75.62
		(£3218.00 ex VAT) <sup>3</sup>		
		Cost per additional user	£361.03	£455.63



<sup>&</sup>lt;sup>1</sup>Subject to the Pound - Dollar exchange rate

<sup>&</sup>lt;sup>2</sup>The Microsoft Campus Agreement covers staff use but does not apply to student users

<sup>&</sup>lt;sup>3</sup>Based on 50 users per server and using the cost of the last server purchased in 2008 Based on VAT @ 17.5%

•Expensive – annual running costs

			<b>Estimated Cost Per</b>	Estimated Cost Per
	ltem	Cost	Staff User	Student User
•	Esteem Respond Service maintenance	<b>£6,951.30</b> (£5,916.00	£46.34	£46.34
	contract	ex VAT) <sup>1</sup>		
•	Citrix Subscription Advantage	<b>£6,144.19</b> (£5,229.10	£40.96	£40.96
		ex VAT) <sup>2</sup>	2	
Α	Annual cost per user		£87.30	£87.30

<sup>1</sup>Based on the current infrastructure of four physical Citrix servers, two physical Citrix Secure Gateways and one virtual server

<sup>2</sup>Based on 150 licenses, subject to the Pound – Dollar exchange rate

Based on VAT @ 17.5%



### **Local Approach**

- SSL Web VPN Concentrator
  - Access resources through University network from NHS PCs
  - •This traffic can be routed through the N3 JANET Gateway

- Removing local NHS Firewall restrictions
  - Access University resources directly from N3
  - •Requires change in local information access policy



### **National Approach**

- •N3 JANET Gateway
  - •Support from Local NHS Boards/Trusts for the gateway

    "It remains a local NHS organisation responsibility to ensure that
    use is appropriate through local information governance
    arrangements"

•NHS Tayside have indicated support for the gateway and have asked for a list of University information systems we require to be accessible from NHS Sites.



Service	IP Address	Protocol	Port
Webmail	134.36.3.160	ТСР	80,443
https://webmail.dundee.ac.uk			
File Store	134.36.0.45	ТСР	80,443
https://netstore.dundee.ac.uk			
VLE	134.36.3.40	ТСР	80,443
https://my.dundee.ac.uk			
Websites	134.36.2.74	ТСР	80,443
http://www.dundee.ac.uk			
Library catalogue	134.36.2.71	ТСР	80,443
https://library.dundee.ac.uk			
Academic Resource Finder	134.36.2.160	ТСР	80
http://cross-search.dundee.ac.uk			
Student Management System	134.36.82.5	ТСР	80,443
https://evision.dundee.ac.uk			
Citrix remote access solution	134.36.3.19	ТСР	80,443
https://c2c.dundee.ac.uk			
IPSEC/SSL VPN	194.81.114.238	ТСР	80,443,IPSEC
https://webvpn.dundee.ac.uk			
Blogs	134.36.192.242	ТСР	80
http://medblogs.dundee.ac.uk			



### **Summary**

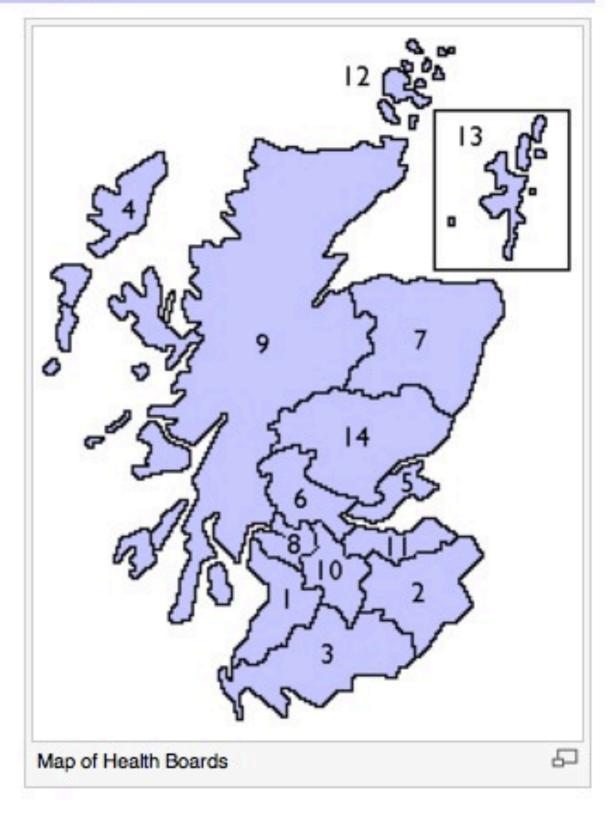
- •Success in providing improved access to Dundee University information systems from NHS sites in Tayside.
- •Feedback from students suggests that access is still an issue when on clinical attachments in other hospitals in UK
- •Fast, secure IT infrastructure is available, issue lies in restrictions blocking access to information.
- Should local NHS Trusts/Boards be mandated to support N3 JANET Gateway?
- •Process for Universities to create a list of information systems that are accessible from all NHS sites in UK?





### **NHS Scotland Health Boards**

No	Name
1	NHS Ayrshire and Arran
2	NHS Borders
3	NHS Dumfries and Galloway
4	NHS Western Isles (Gaelic: Bòrd SSN nan Eilean Siar)
5	NHS Fife
6	NHS Forth Valley
7	NHS Grampian
8	NHS Greater Glasgow and Clyde
9	NHS Highland
10	NHS Lanarkshire
11	NHS Lothian
12	NHS Orkney
13	NHS Shetland
14	NHS Tayside



## Need to negotiate with 14 Health Boards just in Scotland

# Thursday, 25 November 2010

# Can we find a national solution?

http://www.flickr.com/photos/lenny\_meriel/13828674/



Andrew Howe - email <u>a.howe@dundee.ac.uk</u>

Natalie Lafferty - email n.t.lafferty@dundee.ac.uk

College of Medicine, Dentistry & Nursing

