

# COMPUTER APPLICATIONS

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# Objectives

- Becoming a digitally literate student
  - To introduce the use of Digital Literacies to support becoming a student in a digital age
  - The use of digital tools for
    - Personal effectiveness in support of becoming an engineer.
    - Communication to share, analyse, and present data.
    - Collaboration tools for team working.
- Skills in programming for engineering solutions.
  - Python applications
- Working in a team to develop a practical engineering software application.

# Practicalities: Teaching

- Lectures Do not be late!
  - Groups 3 & 4 Monday 09:00 building 44, 1041
  - We will have some of the lectures in the lab (44/1061), starting at 9:00 – we will let you know which ones!
- Labs
  - Groups 3 & 4 Monday directly after lecture until 10:50
    - Building 44/1061
  - Register taken at labs.
  - You are responsible for ensuring that a demonstrator has seen your work and marked it in assessed labs.
  - Ask for help when you **need** it.
- Self Study

# Practicalities: Teaching

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June 2008 ©Cartographic Unit  
School of Geography  
University of Southampton



# Introductions

- Me
- You:
  - Spend 5 minutes talking to the person sitting behind or in front of you.
  - Find out & make notes:
    - Their name
    - Where they're from
    - What degree they want to do after FY
    - What are their interests outside study

# Learning

- Attending lectures will help you to pass the module.
- The lectures will not give you all the answers.
  - One of the objectives of this course is learning how to learn to use new software.
- Labs are practical sessions where you learn how to apply what is taught in the lectures
  - Help yourself first but ask questions if you are truly lost.
  - Sign the on-line attendance sheet at each lab.
- If you have little or no previous experience of MS Office,
  - Microsoft have some good online tutorials
  - Lynda.com, sign on with your UoS user account

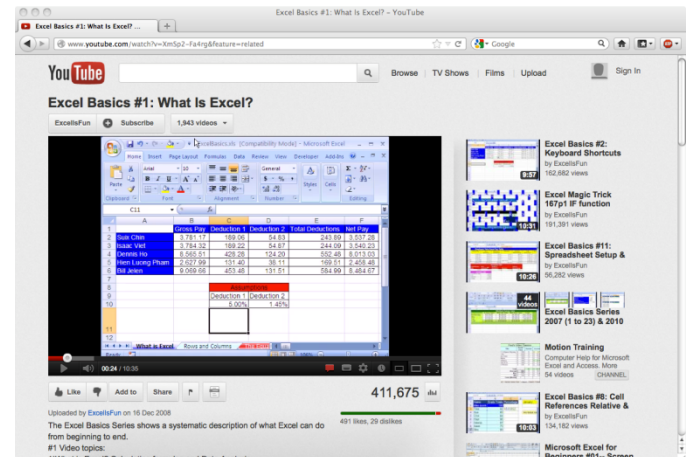
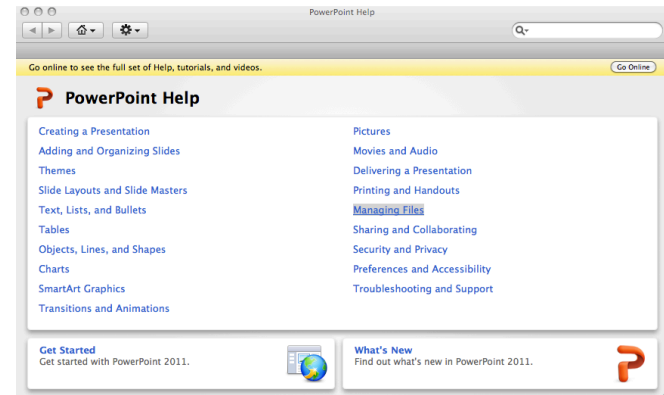


# How to do “xxx” in yyy

- Help yourself - every application will have some help available- check before asking the post grads

- Application-Help menu

- Look for resources on the web, the application’s own tutorials are very useful and there are many others e.g on YouTube



# Lesson Plan Semester 1 (1)

- University computing environment and the web as a study tool
- Organising Life
- Working Together
- Online Identity

# Lesson Plan Semester 1 (2)

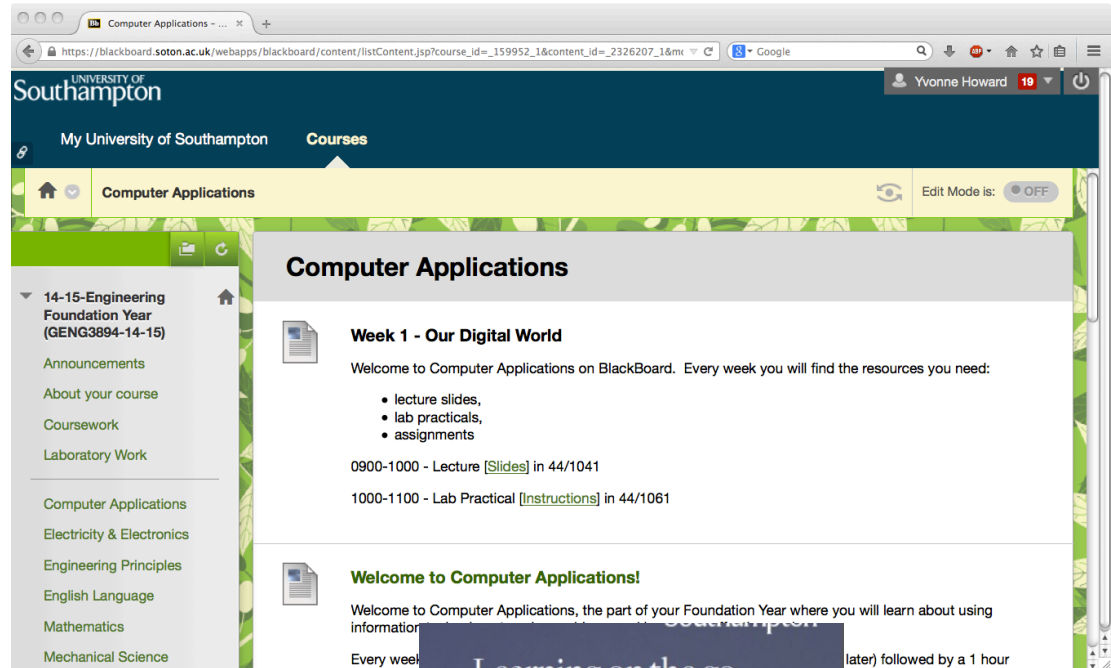
- Programming concepts
- Introduction to Python
- Variables and Operators
- Decision Structures
- Loops
- Revision

# Assessment

- All coursework is handed in online through Blackboard
- Coursework pass mark 60%
- Assignment 1, worth 20% of course total
  - Data analysis + presentation
  - Electronic Hand in November 2017 (date to be confirmed)
- Assignment 2, 30%
  - Simple Python applications
  - Assessed through labs
- Assignment 3, 50% Semester 2
  - Team programming project, details closer to the time

# Resources

- Available through Blackboard
  - Foundation Year – Computer Applications
  - Lecture slides
  - Possibly extra notes and links to other resources
  - Practical exercises.
- The Web



UNIVERSITY OF Southampton

My University of Southampton Courses

Computer Applications Edit Mode is: OFF

14-15-Engineering Foundation Year (GENG3894-14-15)

Announcements

About your course

Coursework

Laboratory Work

Computer Applications

Electricity & Electronics

Engineering Principles

English Language

Mathematics

Mechanical Science

### Computer Applications

#### Week 1 - Our Digital World

Welcome to Computer Applications on BlackBoard. Every week you will find the resources you need:

- lecture slides,
- lab practicals,
- assignments

0900-1000 - Lecture [Slides] in 44/1041

1000-1100 - Lab Practical [Instructions] in 44/1061

#### Welcome to Computer Applications!

Welcome to Computer Applications, the part of your Foundation Year where you will learn about using information technology. This includes practical exercises (later) followed by a 1 hour



# Appropriate use of University Systems

- Read and follow the University regulations
  - Protect account passwords
  - Don't use the university network (including halls) for anything that you can't justify to:
    - Hugh, Jian and Yvonne
    - Dr Barney
    - the police
    - your grandmother
- Plagiarism and Academic Integrity
  - [www.sell-me-an-essay.com](http://www.sell-me-an-essay.com)
- University Policy on Plagiarism
  - <http://www.calendar.soton.ac.uk/sectionIV/academic-integrity-regs.html>
  - **You are cheating yourself, you will be caught**
- Google doesn't find everything, you might try the following search engines:
  - [duckduckgo.com](http://duckduckgo.com)
  - [www.yahoo.com](http://www.yahoo.com)
  - [www.bing.com](http://www.bing.com)

# Literacy, n.

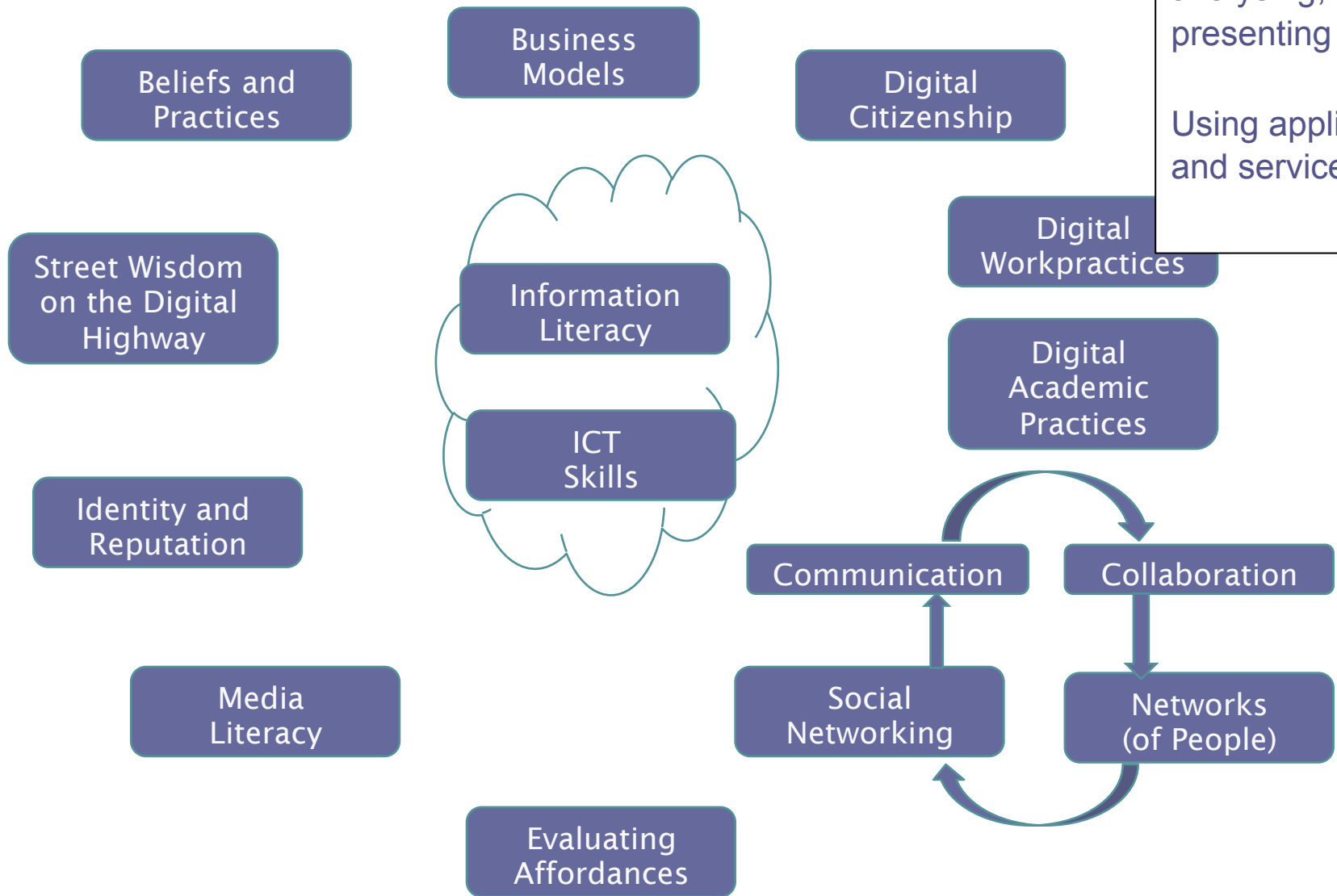
**“The quality or state of being literate; knowledge of letters; condition in respect to education, esp. ability to read and write.”**

*- The Oxford English Dictionary*

## Discussion (5 min)

In small groups (3-4) what are the types of **digital literacy** that you can think of (skills concerning the use of ICT and Web 2.0 technology)?

Finding, evaluating, processing, organising, analysing, presenting  
Using applications and services





- The learner is given the stuff via the network
- The learner finds stuff on the network
- The learner finds stuff from the network (of people)
- The learner is part of the network and contributes
  - Stuff
  - Meaning and Understanding

Bus  
Mo

Beliefs and  
Practices

Street Wisdom  
on the Digital  
Highway

Identity and  
Reputation

Media  
Literacy

Information  
Literacy

ICT  
Skills

Digital  
Workpractices

Digital  
Academic  
Practices

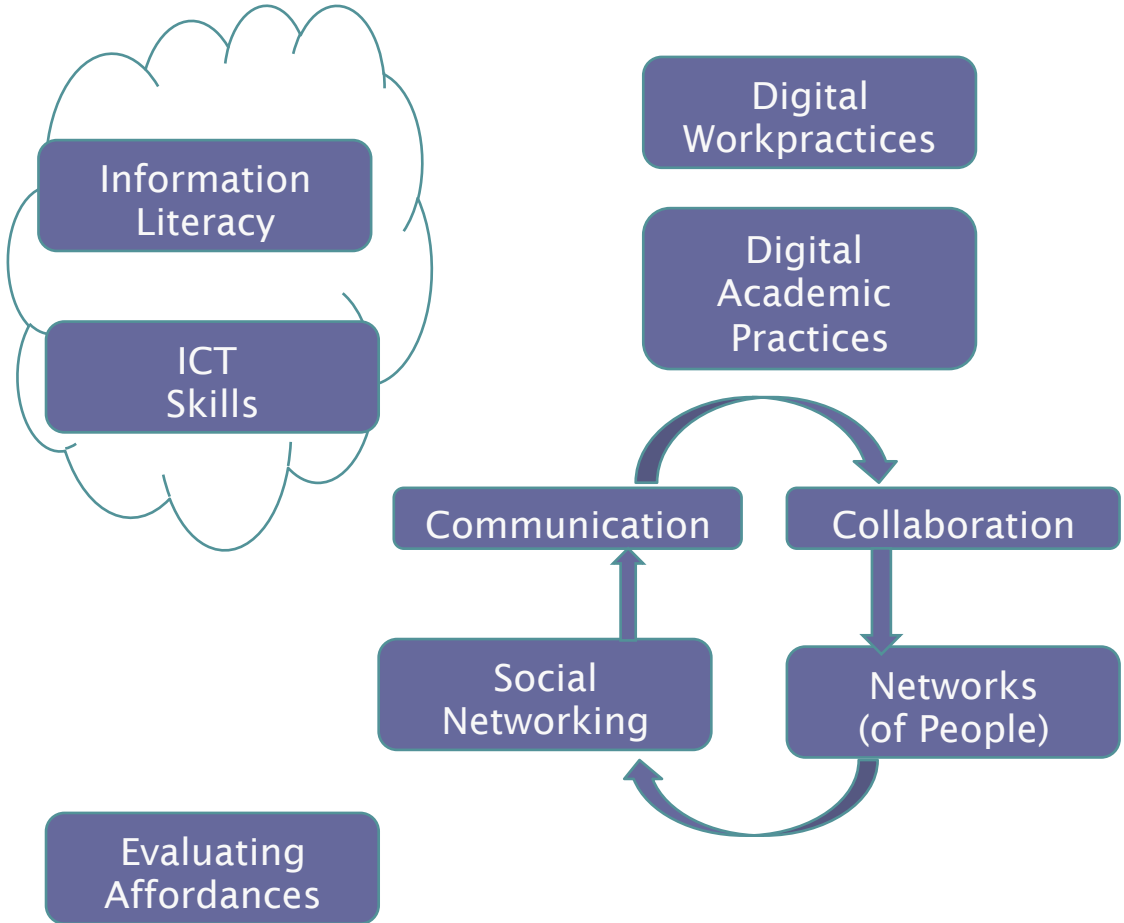
Communication

Collaboration

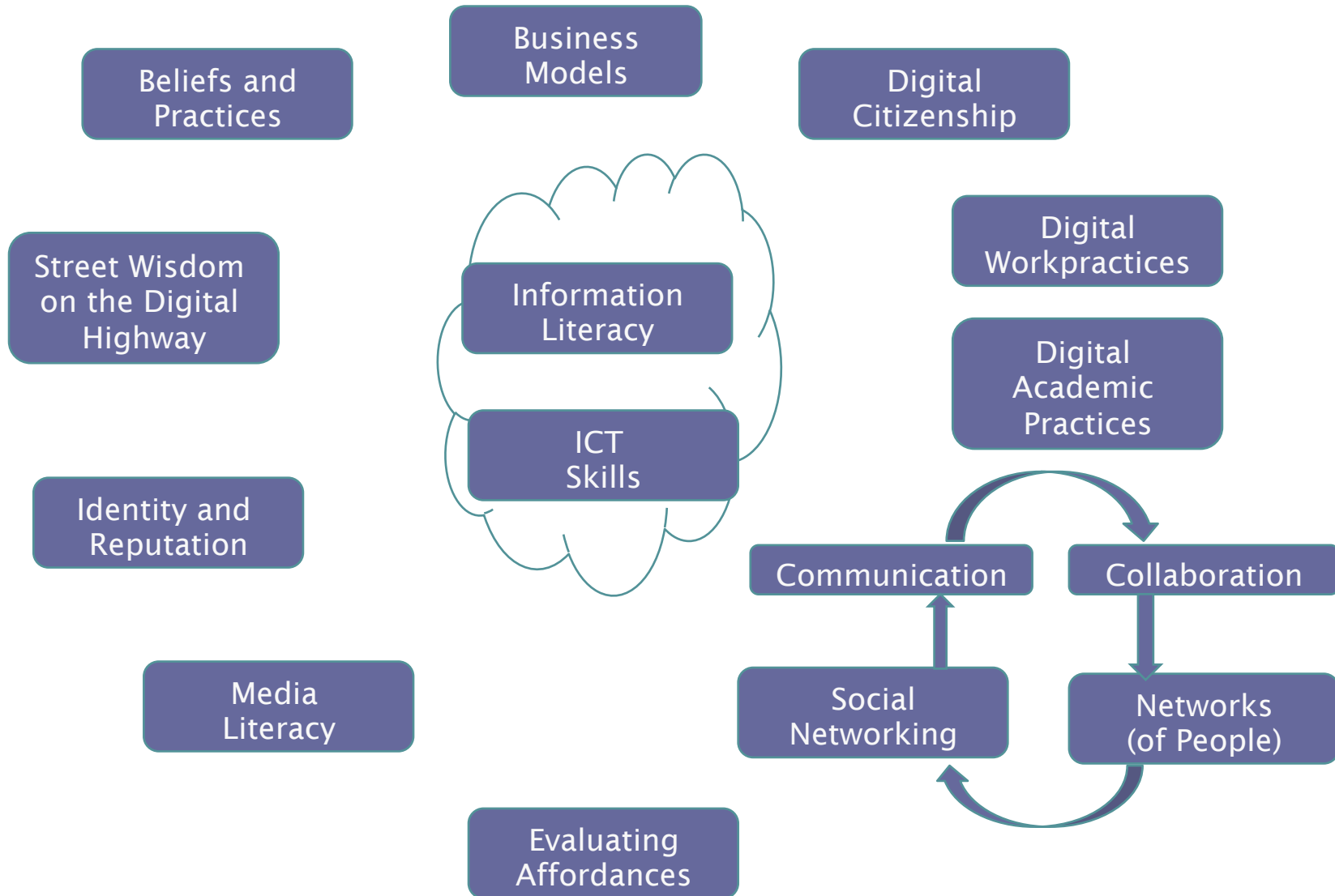
Social  
Networking

Networks  
(of People)

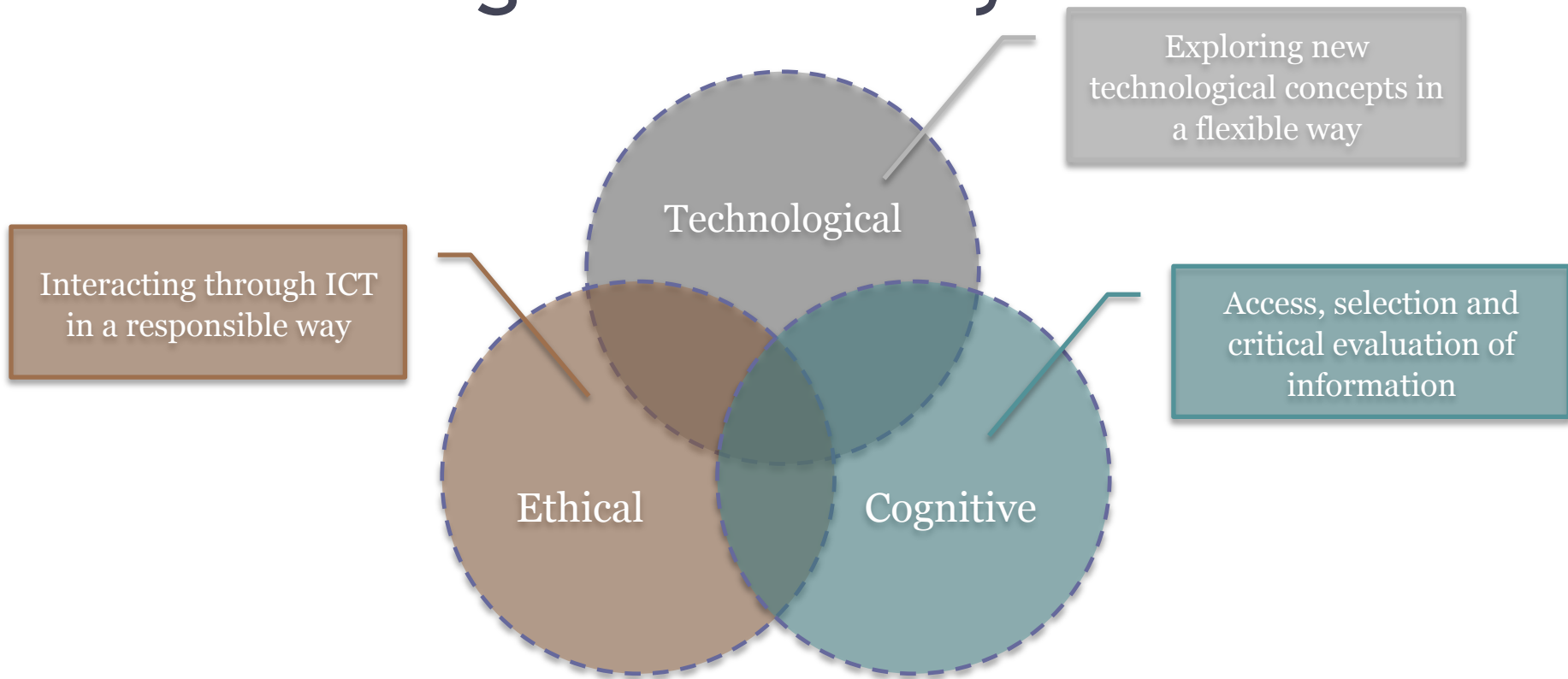
Evaluating  
Affordances



Digital Literacies are the skills needed to live, learn, work, collaborate, influence and lead in the virtual and digital world



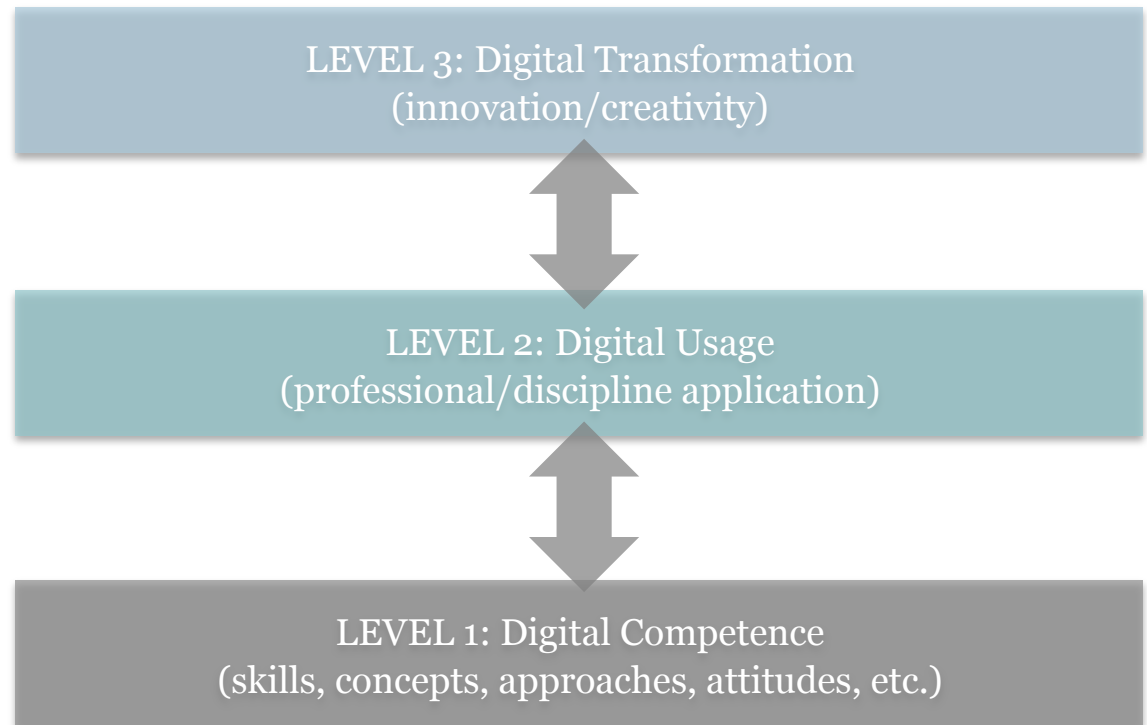
# What is Digital Literacy?



Adapted from: Calvani, A., Fini, A., and Ranieri, M. (2009). Assessing Digital Competence in Secondary Education – Issues, Models and Instruments. (M. Leaning, Ed.) Issues in Information and Media Literacy: Education, Practice and Pedagogy , 153-172.

# What is Digital Literacy?

**awareness, attitude** and **ability** of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyse and synthesize digital resources, construct new knowledge, create media expressions, and communicate with others, in the context of specific life situations, in order to enable constructive social action; and to reflect upon this process.



# Why is Digital Literacy important

In an increasingly digital world, where the workplace is often virtual, we see it is our responsibility to equip students with 'digital literacies' so they develop skills to flourish, influence and lead in that environment.

*-Professor Hugh Davis*

# By the end of the Practical Session

- Log in to public workstation, SUSSED, Blackboard
- Use digital tools for research
- Use a word processing application to record your findings





# University Computing Environment

A decorative graphic consisting of several horizontal lines of varying lengths and colors (teal, light blue, white) extending across the bottom of the slide.



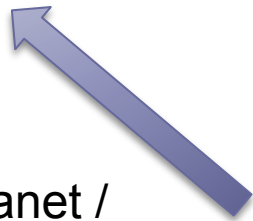
# Where's my stuff?



## Institutional

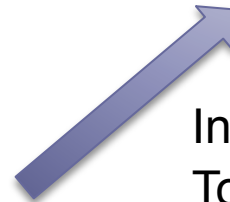
Wired/ wireless intranet /  
- Institutionally provided software

- Blackboard
- Timetable
- Email
- edShare
- MSOffice 365



## Personal / local

No connection needed  
MS Office  
Software applications



## Global

Internet connected  
Tools: Google docs,  
gmail, Hotmail  
Storage: Dropbox  
Social Networking:  
Facebook, Twitter  
...

# Personal Software

- On your own computer you might have Office 20xx or Open Office (free Open Source equivalent)?
- Python for programming, this is available for free download
- Links
  - Open Office <http://www.openoffice.org/>
  - Python Programming Language <http://www.python.org/>
- Mac vs Windows vs Linux
  - I own a Mac and a Windows 7 PC, I regularly use Mac OSX , Windows 7, and Linux
  - You will be taught using Windows 7/8 and Mac OSX
  - MS Office is available for Macs, Last year several students used Windows software on Macs by using Parallels Desktop
- Other Software
  - When looking for software it is often a good idea to see if there is a free open source program that suits you before shelling out hard cash
  - Web Browser, Firefox <http://www.mozilla-europe.org/en/firefox/>, google chrome, opera
  - Email, Thunderbird <http://www.mozillamessaging.com/en-US/thunderbird/>
  - Graphics, Gimp <http://gimp-win.sourceforge.net/>
  - Chat, Pidgin <http://www.pidgin.im/>
  - Anti Virus, Clam <http://www.clamwin.com/>
  - Media Player, VLC <http://www.videolan.org/vlc/>

# Personal Hardware

- You can survive without your own computer (if you are happy using public workstations / the base room)
- Laptop vs Desktop vs netbook vs iPad vs smartphone?
  - For the same computing power a laptop is more expensive and more fragile.
  - Having a laptop means that you can always have the computer you use on campus set up how you want it.
  - Carrying your laptop around all day can get heavy , and will your battery last the day?
  - Netbooks are great for email and taking notes but don't have full apps.
  - Tablets (e.g.iPad's) are great for looking up resources on the web and communication but don't have full apps ( would you like to write a report on your iPad?)
- Backup
  - Whichever you choose ensure that your computer is backed up regularly
  - Maybe agree with a friend to hold backups of each other's files
  - On line storage (e.g. Dropbox?)
- Memory sticks
  - great for transporting files
  - very easy to break or lose
  - do not rely on them as the only place to keep your files

# Questions

- Software

- This course will be taught using Microsoft Office 20xx (Word, Excel, PowerPoint) and Python (2). You will be expected to submit your assignments in formats that can be opened by these programs. All of these are available on the public workstations. Python is available for free download from Python.org.

- IT Support

- Public workstations have Windows 8, and have Office 365, Python
- The public workstations and halls network are provided by ISS. If you have problems with these not working how you think they should, try the ISS support pages  
<http://www.soton.ac.uk/iss/essentials/help/index.html>

Most student resources can be accessed through the university's SUSSED portal.

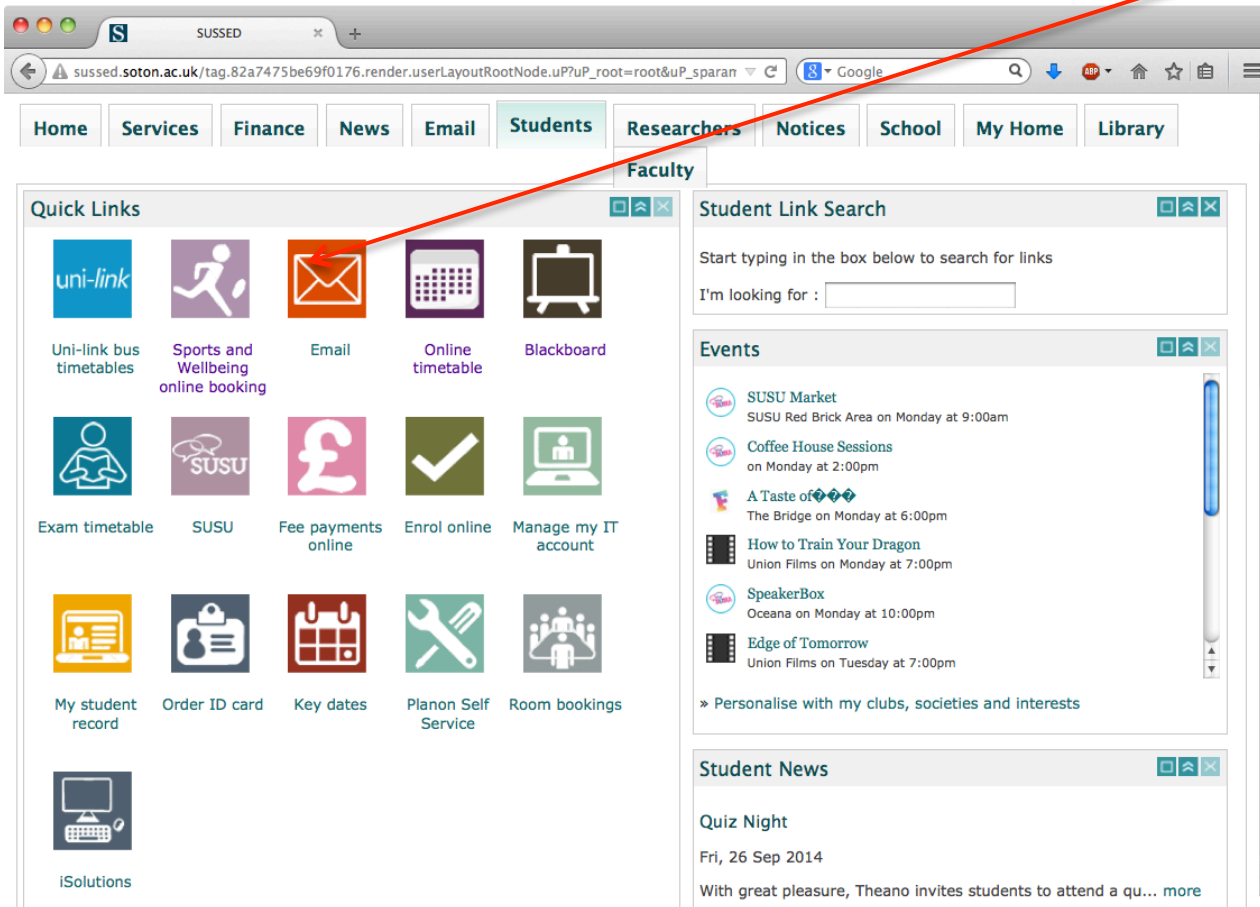
This can be used off campus as well.

The screenshot shows the SUSSED portal interface. At the top, there is a navigation bar with tabs for Home, Services, Finance, News, Email, Students (selected), Researchers, Notices, School, My Home, and Library. Below this is a sub-menu for Faculty. The main content area is divided into several sections:

- Quick Links:** A grid of 15 icons with labels: Uni-link bus timetables, Sports and Wellbeing online booking, Email, Online timetable, Blackboard, Exam timetable, SUSU, Fee payments online, Enrol online, Manage my IT account, My student record, Order ID card, Key dates, Planon Self Service, Room bookings, and iSolutions.
- Student Link Search:** A search box with the text "Start typing in the box below to search for links" and "I'm looking for :".
- Events:** A list of upcoming events: SUSU Market (Monday 9:00am), Coffee House Sessions (Monday 2:00pm), A Taste of (Monday 6:00pm), How to Train Your Dragon (Monday 7:00pm), SpeakerBox (Monday 10:00pm), and Edge of Tomorrow (Tuesday 7:00pm). A link to "Personalise with my clubs, societies and interests" is provided.
- Student News:** A section titled "Quiz Night" dated "Fri, 26 Sep 2014" with a snippet of text: "With great pleasure, Theano invites students to attend a qu... more".

You can access your university email account. You are expected to check this every day during term time.

SUSSED Email



The screenshot shows the SUSSED website interface. At the top, there is a navigation bar with tabs for Home, Services, Finance, News, Email, Students, Researchers, Notices, School, My Home, and Library. Below this is a 'Faculty' dropdown menu. The main content area is divided into several sections:

- Quick Links:** A grid of 15 icons with corresponding text labels: uni-link, Sports and Wellbeing online booking, Email (highlighted with a red arrow), Online timetable, Blackboard, Exam timetable, SUSU, Fee payments online, Enrol online, Manage my IT account, My student record, Order ID card, Key dates, Planon Self Service, and Room bookings, and iSolutions.
- Student Link Search:** A search box with the text 'Start typing in the box below to search for links' and 'I'm looking for :'. Below the search box is a vertical scrollbar.
- Events:** A list of events with icons and text: SUSU Market (SUSU Red Brick Area on Monday at 9:00am), Coffee House Sessions (on Monday at 2:00pm), A Taste of (The Bridge on Monday at 6:00pm), How to Train Your Dragon (Union Films on Monday at 7:00pm), SpeakerBox (Oceana on Monday at 10:00pm), and Edge of Tomorrow (Union Films on Tuesday at 7:00pm). Below the list is a link: '» Personalise with my clubs, societies and interests'.
- Student News:** A section titled 'Quiz Night' dated 'Fri, 26 Sep 2014' with a snippet of text: 'With great pleasure, Theano invites students to attend a qu... more'.

# SUSSED

Library information can be accessed here.

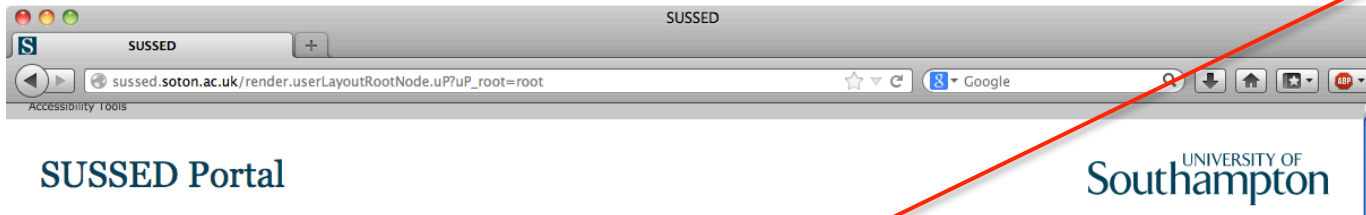
Sussed Library

The screenshot displays the SUSSED Portal for the University of Southampton. The browser address bar shows the URL `sussed.soton.ac.uk/tag.16b4f2534bf793e5.render.userLayoutRootNode.uP?uP_i`. The page features a top navigation bar with tabs for **Students**, **Researchers**, **School**, **Notices**, and **Library**. A secondary navigation bar includes **Students**, **Researchers**, **School**, **Notices**, **Library**, **Email**, and **Programme**. The main content area is divided into several sections:

- Quick Links:** A grid of icons for services like Uni-link bus timetables, Sports and Wellbeing, Email, Online timetable, Fee payments online, Enrol online, Manage my IT account, My student record, and Blackboard.
- Links To Information And Services:** A sidebar menu with categories like "When you need help", "Careers and my personal development", and "Learning resources". A red arrow points to the "Library resources" link.
- Resources & Support:** A section titled "Library resources, services and support" containing a list of links:
  - Subjects:** Includes resources for your subject; support for you from the Library.
  - Resources & Training:** All the Library's electronic resources, plus guidance on how to best use resources.
  - Research:** Includes: e-Prints Soton, bibliometrics, data management, ISBNs and ISSNs, e-theses.
  - Services & Sites:** The Library's full range of services: loans, photocopying, Course Collection, etc. - plus info about our sites.
- News:** A section titled "News about the University Library, its services and resources" with articles such as "Introducing LibGuides and DelphiS: two new library services", "Long loan renewal", "Changes to Loans Services at Hartley Library", and "Meet your Liaison Librarian" film.
- Catalogues:** A section titled "The Library's catalogues" with links to "Delphis", "WebCat", "TDNet", and "e-Prints Soton".
- Quick Links (right):** A section titled "Useful pages and resources on the Library's website" with links to "LibGuides", "New Users", "Opening Hours", "Ask a Librarian", "Text us!", "Feedback / Enquiries", and "FAQ".















## Link to BlackBoard



Welcome Howard, Dr. YM

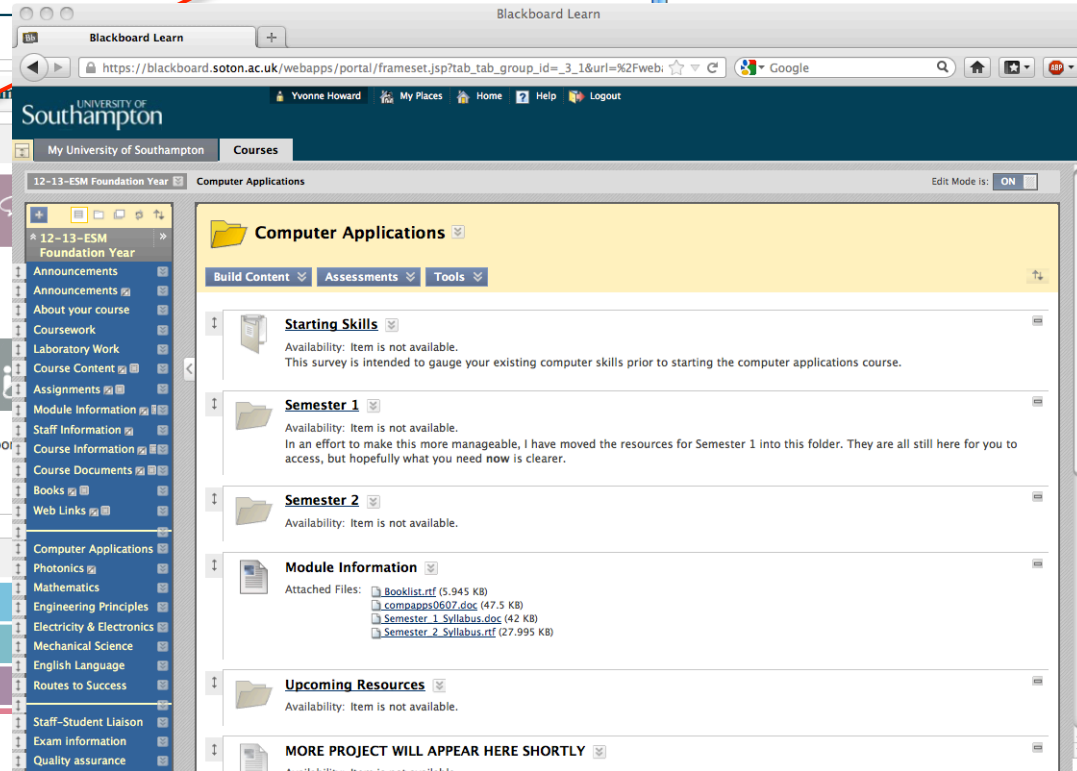
Students Researchers School Notices Library Email Program

### Quick Links

 Uni-link bus timetables	 Sports and Wellbeing online booking	 Email	 Online timetable	 Blackboard	 Exam timetable
 Fee payments online	 Enrol online	 Manage my IT account	 My student record	 Order replacement ID card	 Key dates

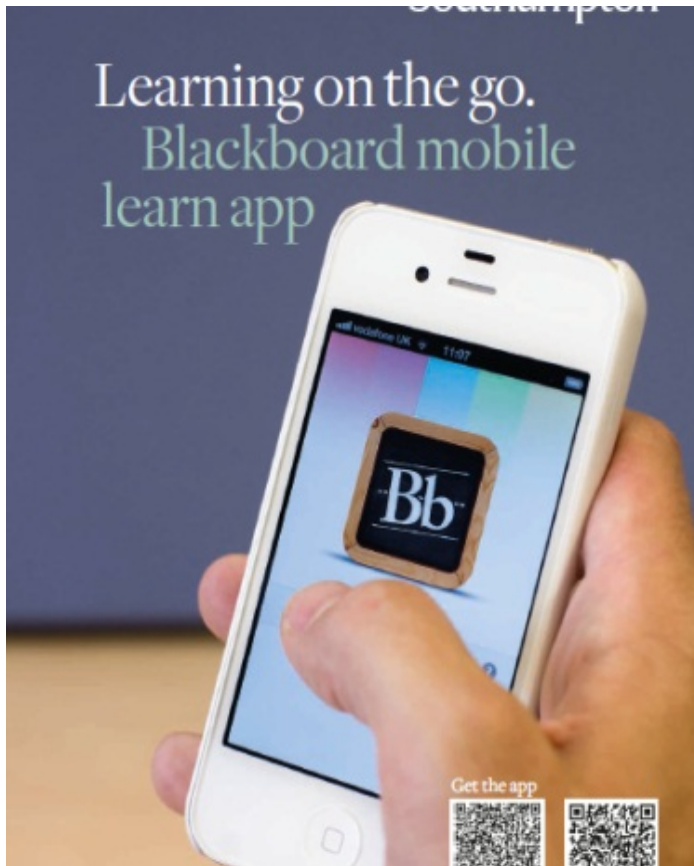
### Links To Information And Services

- When you need help
- Careers and my personal development
- Learning resources





# Mobile apps: Blackboard



free app from:

- the Apple store for iphone, ipod and ipad,
- Google Play for Android,
- Windows store for Windows phone..

<http://www.southampton.ac.uk/isolutions/computing/elearn/mobilelearn/>

# Mobile apps: MySouthampton



Maps, timetable, bus times, staff directory, new student information, 'Your Library', Sports Centre times  
free app from:

- iphone,
- Android,
- Blackberry
- Browser version for for Windows phone and PCs

See  
[http://  
www.southampton.ac.uk/  
mysouthampton/](http://www.southampton.ac.uk/mysouthampton/)