

# COMPUTER APPLICATIONS

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# *Objectives of CompApps*

- 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
    - Wednesday 09:00 or 13:00 online using MS Teams and Blackboard Collaborate
  - Labs
    - directly after your Wednesday lecture for 50 minutes
      - On line
    - progress check taken at labs.
    - Lots of PG helpers
    - Ask for help **when** you need it.
  - Programming Support Session every week
    - To be arranged
  - Self Study
    - around 5 hours a week assumed
- Do not be late!

# Practicalities: Assessment

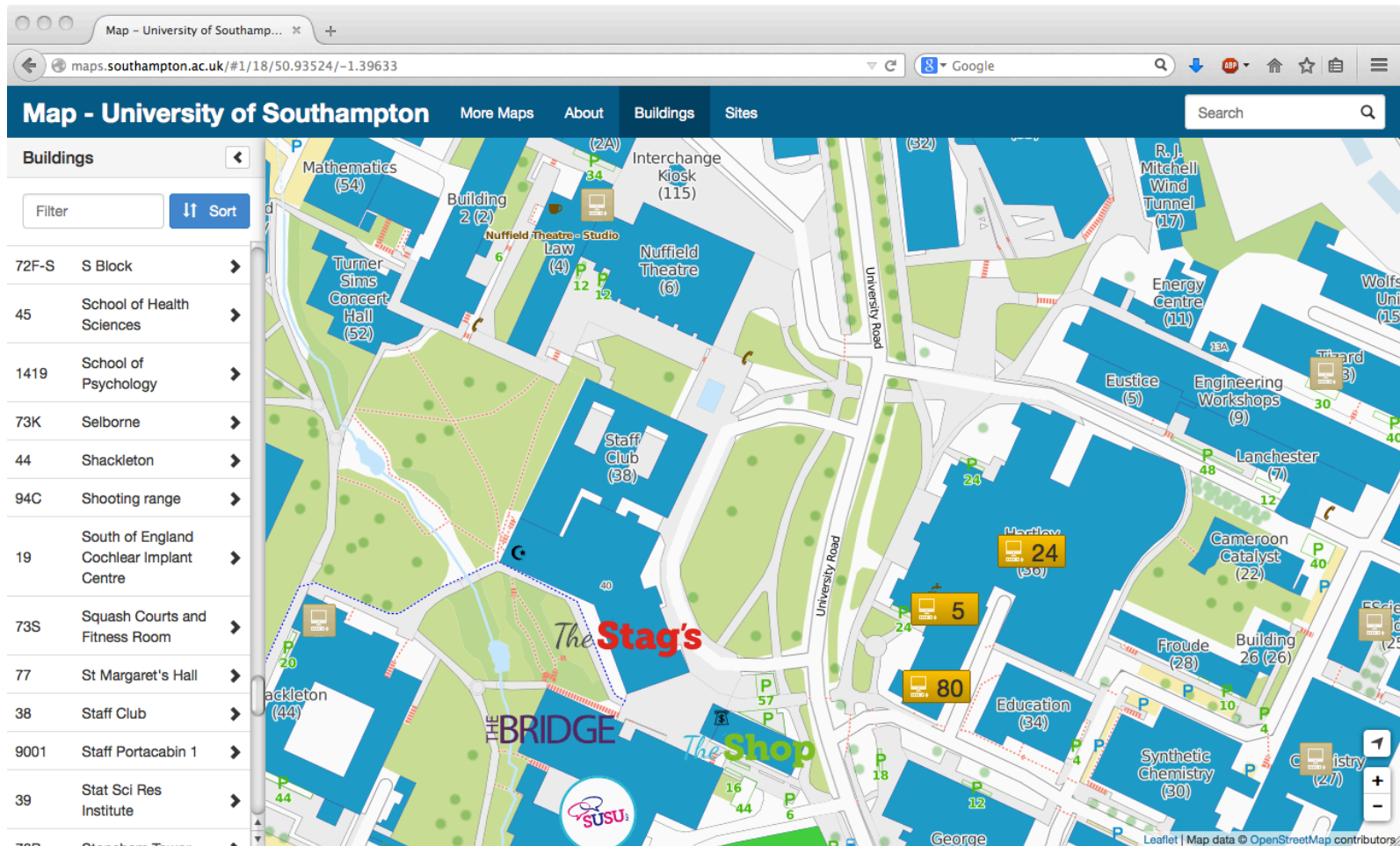
Assessment for CompApps has the following components:

- Coursework 1: Digital Literacies.
  - Based on the work/labs of the first 3 weeks of term
  - Handin – 13/11/20
  - 10%
- Python Labs:
  - Assessing your understanding of the principles of programming taught weeks 4-19.
  - There are Assessed Labs in Weeks 7, 10 and 20. (12% each)
  - Your progress and attendance in Labs is assessed (4%)
  - 40%
- Project
  - You carry out a group programming/engineering project to solve a significant problem.
  - Weeks 21- 33.
  - Handin 14/5/21
  - 50%

# Online only this year



# Interactive University map using open data [maps.soton.ac.uk](https://maps.soton.ac.uk)



# Introductions

- Me
- You:
  - Spend 3 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

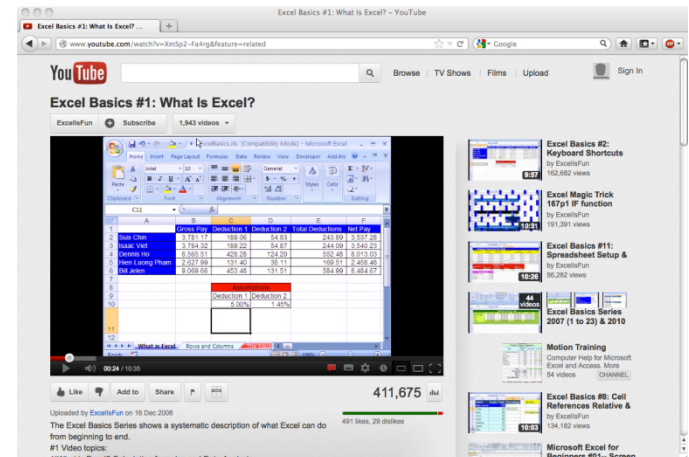
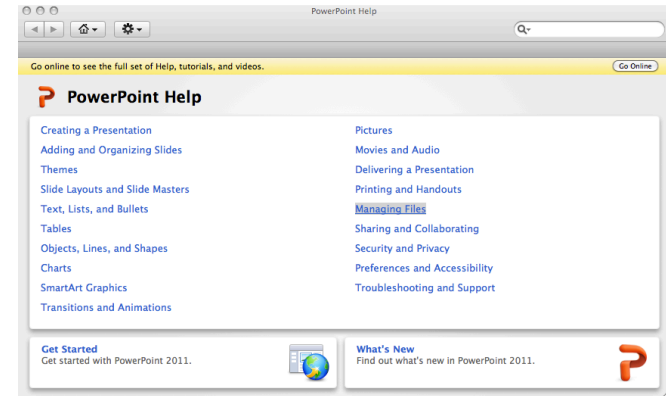
# Learning

- 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.
- 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



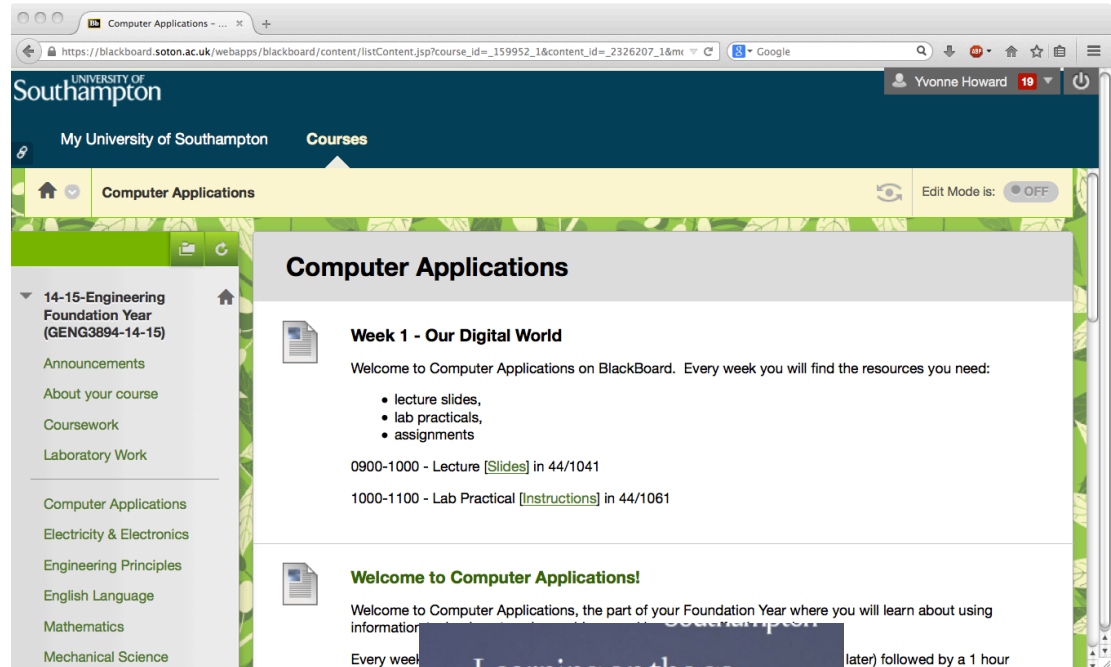
# How to do “xxx” in yyy

- 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



# Resources

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



The screenshot shows a web browser displaying the Blackboard interface for the University of Southampton. The page title is "Computer Applications" and the user is identified as "Yvonne Howard". The course page is titled "Computer Applications" and features a sidebar menu with the following items: "14-15-Engineering Foundation Year (GENG3894-14-15)", "Announcements", "About your course", "Coursework", "Laboratory Work", "Computer Applications", "Electricity & Electronics", "Engineering Principles", "English Language", "Mathematics", and "Mechanical Science". The main content area is titled "Computer Applications" and contains the following text:

**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 part of the course is followed by a 1 hour



# Appropriate use of University Systems

- Read and follow the University regulations
  - Protect your account passwords NEVER share!
  - Don't use the university network (including halls) for anything that you can't justify to:
    - Yvonne and Reza
    - 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)



# Global The New Web

All you need is a browser  
and an internet connection

# University Computing Environment

A decorative graphic consisting of a solid teal horizontal bar that spans the width of the slide. Below this bar, on the right side, are several horizontal lines of varying lengths and colors, including teal and white, creating a layered, stepped effect.

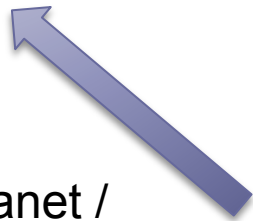
# Where's my stuff?



## Institutional

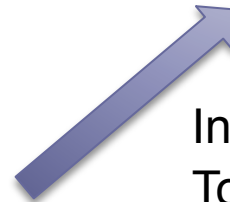
Wired/ wireless intranet /  
- Institutionally provided software

- 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

- This year you will need your own computer (University public workstations and the base room are not available for now)
- **If you do not have your own equipment, please contact me and the course team immediately**
- 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?
  - 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?). How can you program on a tablet?
- 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. Onedrive, 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. Python is available for free download from Python.org.

- IT Support

- Windows, and Office 365 and other software is available through the university iSolutions
- Python 2 is available through the web
- The University network and services are provided by iSolutions. If you have problems with these not working try the iSolutions support pages available through Sussed <https://www.southampton.ac.uk/isolutions/>

# SUSSED

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

This can be used off campus as well.

The screenshot shows the University of Southampton SUSSED portal. At the top, there is a dark blue navigation bar with the university logo and a search bar. Below this is a horizontal menu with links for Home, Services, Assessment, Students (highlighted), Researchers, and Library. The main content area is divided into three columns. The left column, titled 'SUSSED Announcements', features a list of announcements with expandable arrows and a 'Show Hidden' checkbox. The middle column, 'Student Feature Story', highlights 'COVID-19 Reporting for Students' with a date of 'Tue, 06 Oct 2020'. The right column, 'Quick Links', contains a grid of icons for various services: H&S Incident/Crime Reporting, Blackboard, Email, Enrol online, Events Calendar, Exam timetable, Fee payments online, Find your academic rep, Integrity, Ethics and Governance, iSolutions, Key dates, and Manage my IT. At the bottom left, there is a section for 'Today's University Events'.

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. The browser address bar displays the URL <https://sused.soton.ac.uk/web/sused/students>. The page is divided into several sections:

- SUSSED Announcements:** A box titled "Automatic deletion of phishing emails" with a delivery date of 24 Sep, 2018.
- Student Events:** A list of events including "Bongos Bingo Freshers' Special", "WSA Big Day", "Ocean's Eight", "A Fantastic Woman", and "Ant-Man".
- Campus Map:** A map showing the university campus with labels for "Highfield" and "Boldrewood".
- Student Feature Story:** A featured article titled "Four top tips for safe drinking" dated Fri, 28 Sep 2018, accompanied by an image of drinks.
- Student News:** A section with three news items: "Recruiting a new Vice-Chancellor - your opinion", "Undergraduate students: earn yourself an Amazon voucher", and "The Confucius Institute free open day".
- Quick Links:** A grid of icons for various services: Blackboard, Email (highlighted with a red arrow), Enrol online, Events Calendar, Exam timetable, Fee payments online, Find your academic rep, Integrity, Ethics and Governance, iSolutions, Key dates, Manage my IT Account (Subscribe), MyCareer, My School, My student record (Banner Self Service), Online timetable, Order ID card, Planon Self Service, Web Room Booking, Sport and Wellbeing online booking, Student Opportunities (OPUS), Students' Union, uni-link, Student Voice, and Agresso Web.

# SUSSED

Library information can be accessed here.

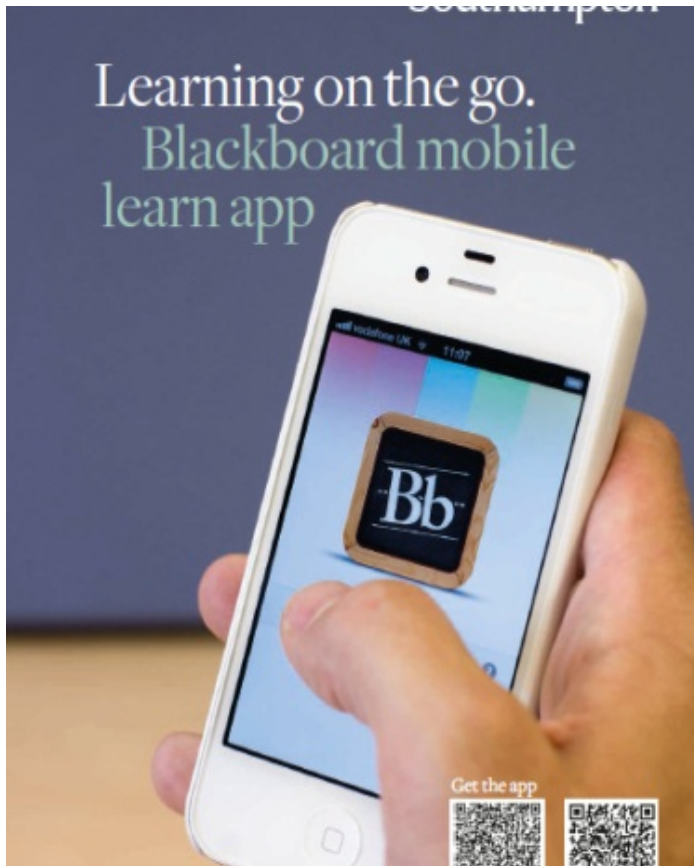
Sussed Library

The image shows two screenshots of the SUSSED website. The top screenshot displays the main navigation menu with the 'Library' link highlighted. A red arrow points from the 'Library' link in the top screenshot to the 'Opening Hours' icon in the 'Library Links' section of the bottom screenshot. The bottom screenshot shows the 'Library Links' section with various icons for services like Library Search, WebCat, DelphiS, eJournal Title Search, Getting Started, Library Group Study Rooms, Subject Guides, Opening Hours, 24 Hour Opening, LibGuides, Off Campus e-access, Past Exam Papers, Resources, Academic Skills, Services/Sites, Enquiries/Feedback, Collections, Library Research Services, Special Collections, and Pure Soton. Other sections visible include 'SUSSED Announcements' (Automatic deletion of phishing emails), 'Student Events' (Sports Tasters, Solo: A Star Wars Story, Bongos Bingo Freshers' Special, WSA Big Day), 'Chat' (Start online chat), and 'Twitter' (Tweets by @UniSotonLibrary).

## Link to BlackBoard

The image shows a composite of two web browser screenshots. The top screenshot displays the SUSSED website at <https://sussed.soton.ac.uk/web/sussed/students>. It features several sections: 'SUSSED Announcements' with a notice about 'Automatic deletion of phishing emails' (dated 24 Sep, 2018); 'Student Feature Story' with a photo of drinks and the headline 'Four top tips for safe drinking' (dated Fri, 28 Sep 2018); 'Student Events' listing 'Bongos Bingo Freshers' Special', 'WSA Big Day', 'Ocean's Eight', 'A Fantastic Woman', 'Ant-Man', and 'Ant-Man and the Wasp'; and a 'Campus Map' showing 'Highfield' and 'Boldwood'. A 'Quick Links' section contains icons for 'Blackboard', 'Email', 'Enrol online', and 'Events Calendar'. A red arrow points from the 'Link to BlackBoard' text to the Blackboard icon. The bottom screenshot shows the Blackboard Learn interface for a 'Computer Applications' course. The left sidebar lists navigation options like 'Announcements', 'Coursework', and 'Assessments'. The main content area shows a folder named 'Computer Applications' containing items for 'Starting Skills', 'Semester 1', 'Semester 2', 'Module Information', 'Upcoming Resources', and 'MORE PROJECT WILL APPEAR HERE SHORTLY'. The 'Starting Skills' item has a note: 'Availability: Item is not available. This survey is intended to gauge your existing computer skills prior to starting the computer applications course.'

# 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/>

Also see

<http://elearn.southampton.ac.uk/>

# Digital Literacy

A decorative graphic consisting of several horizontal lines in teal and white, extending across the width of the slide below the title.



# Literacy, n.

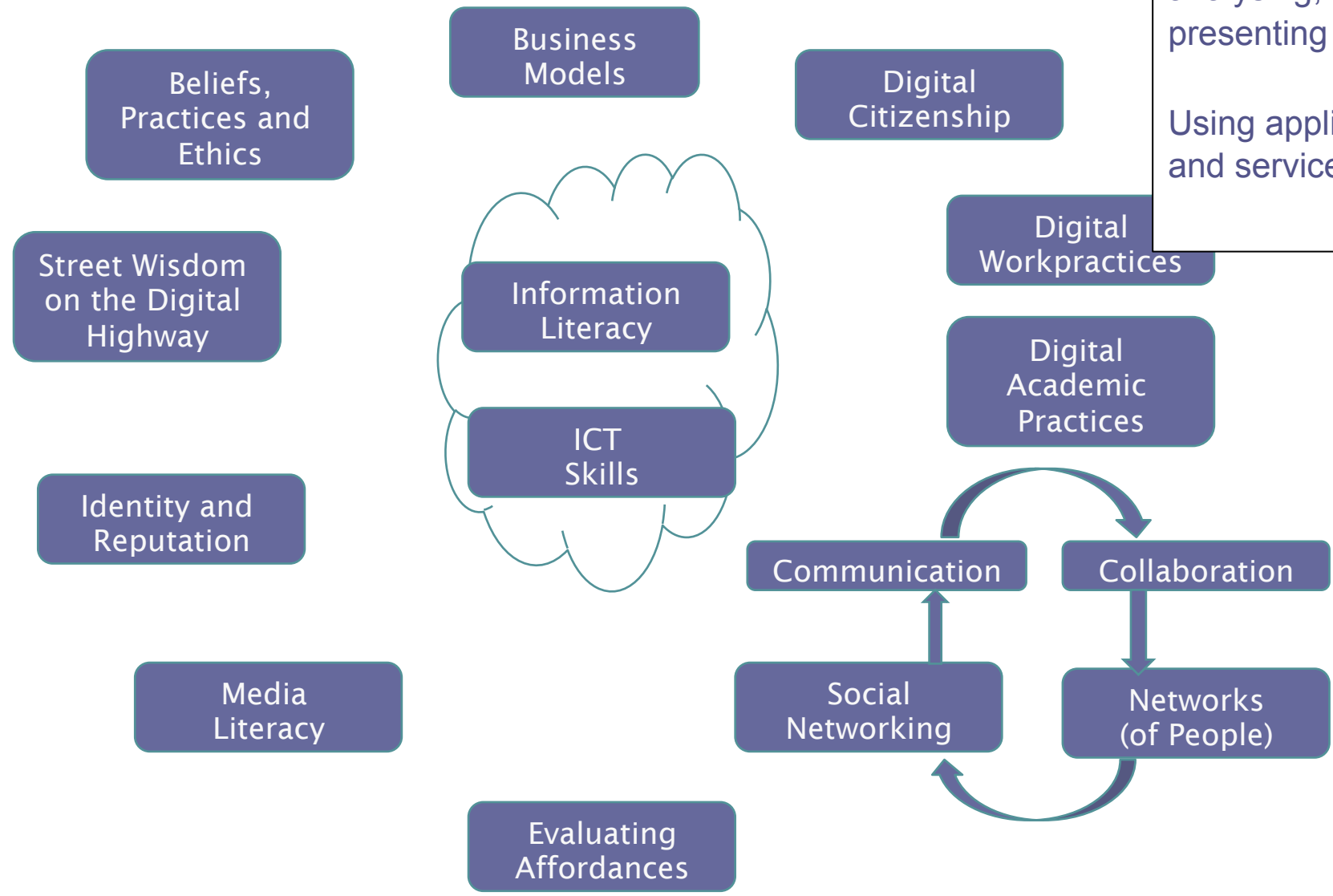
**“The quality or state of being literate; knowledge of letters; condition in respect to education, esp. ability to read and write.”**

*- 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,  
Practices and  
Ethics

Street Wisdom  
on the Digital  
Highway

Identity and  
Reputation

Media  
Literacy

Information  
Literacy

ICT  
Skills

Digital  
Workpractices

Digital  
Academic  
Practices

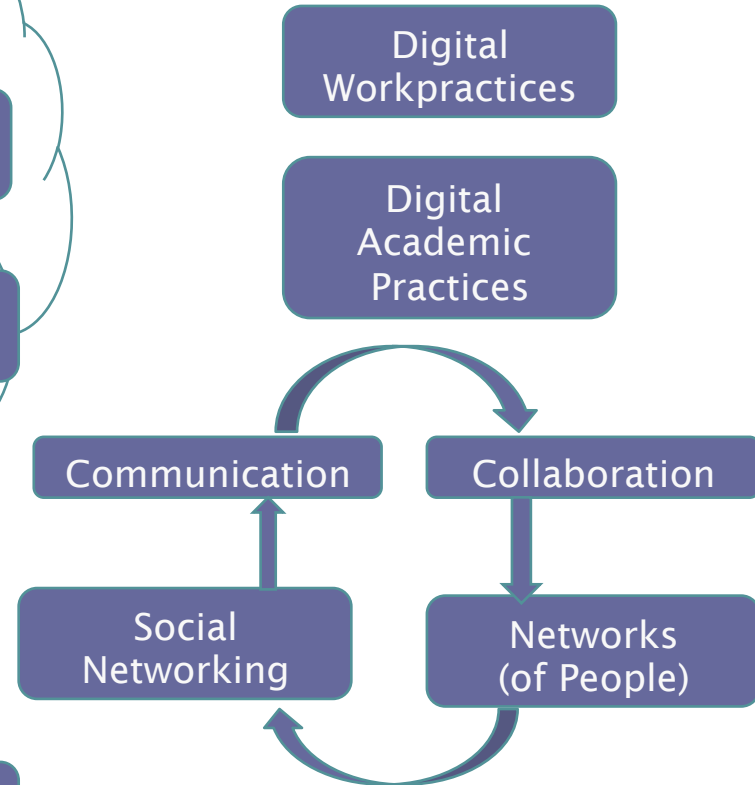
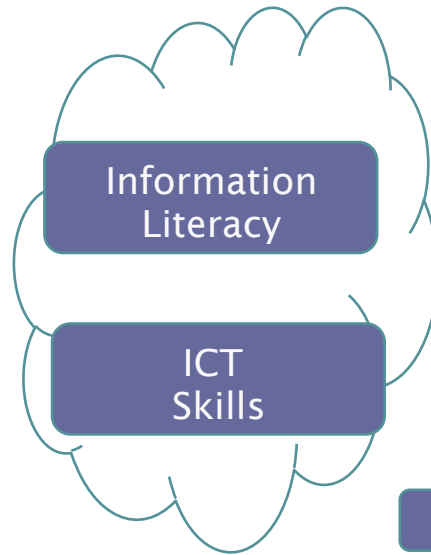
Communication

Collaboration

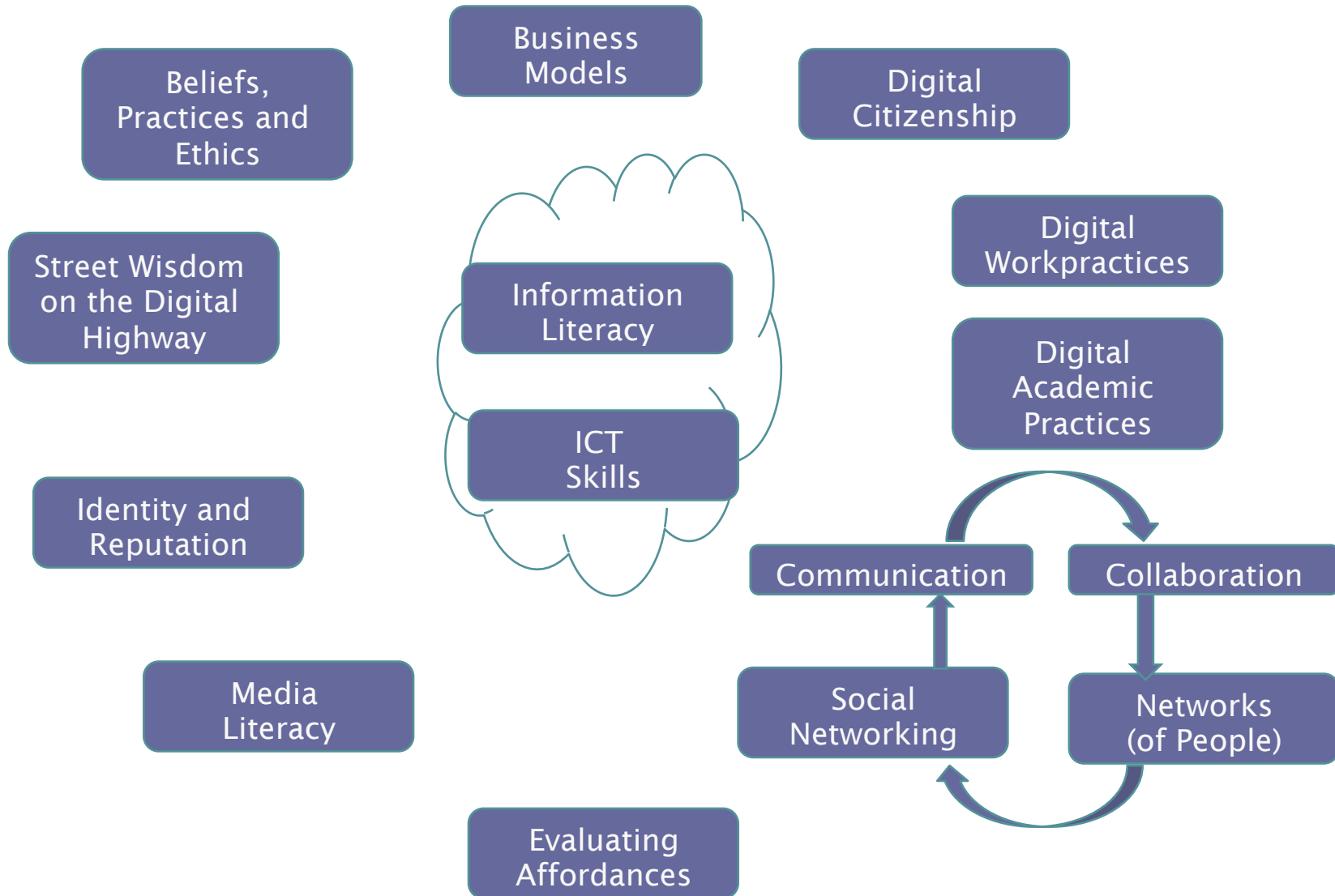
Social  
Networking

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



# By the end of the Practical Session

- Log in to SUSSED, Blackboard
- Use digital tools for research
- Use digital tools to collaborate