

# AS/A Level Applied Information and Communication Technology 9713

## Unit 6: Impact of ICT on Society – Part 2

### Recommended Prior Knowledge

Candidates need the knowledge and understanding from Unit 5 and the AS units before starting this module.

### Context

It is expected that this unit will follow on from Unit 5, how organisations use ICT. The expectation is that students would gain knowledge and understanding of how the use of ICT has had an impact on them and society. This section covers the impact on society of how organisations use ICT. The suggested areas are for guidance and are not an exclusive set.

### Outline

This unit covers:

- Home entertainment
- Auctions
- Booking
- Information services
- All levels of government
- Use of ICT in teaching
- The digital divide/information literacy
- Catering for disabilities
- Legal system
- Computer fraud
- Antisocial use of ICT

Hardware and software requirements need to be known for each topic up to and including 6f Use of ICT in Teaching and Learning

AO	Learning outcomes	Suggested Teaching activities	Learning resources
6a	Home entertainment	<p>This topic is one that should be of interest to the students. They need to be aware of the impact of these ICT systems. The subjects can be taught as a presentation or by setting students the tasks as a group activity.</p> <p>Students will be expected to know all the hardware and software requirements for each system.</p> <p><b>Television:</b>  Satellite  Terrestrial  <b>Television programmes</b>  <b>Films</b></p> <p>Music centres –  Music:  Plays  Radio programmes  Audio books  Interactive games consoles</p> <p>These started as solo devices but now offer sophisticated graphics requiring powerful processors and graphics engines. Students should be aware of the impact of these upon the target user group- 25 male with disposable incomes -not younger people.</p> <p>Now it is possible to play with other users all over the world, provided the console has the necessary link to the Internet.</p>	<p>These sites provide distraction but can be used in demonstrations to discuss how ICT is impacting on Society:</p> <p><a href="http://www.sky.com">www.sky.com</a></p> <p><a href="http://www.xbox.com">www.xbox.com</a></p> <p><a href="http://www.sony.com">www.sony.com</a></p> <p><a href="http://news.bbc.co.uk/1/hi/technology/4318318.stm">http://news.bbc.co.uk/1/hi/technology/4318318.stm</a></p> <p><a href="http://news.bbc.co.uk/1/hi/technology/5191678.stm">http://news.bbc.co.uk/1/hi/technology/5191678.stm</a></p>
6b	Auctions	<p>Students are probably familiar with using these auction sites but need to be aware of the wider</p>	<p>SP3 q 8) offers one example of the knowledge and understanding required.</p>

AO	Learning outcomes	Suggested Teaching activities	Learning resources
6c	Booking	<p>impact of these facilities. A question and answer session could be set to discuss the impact on Society of these facilities. Alternatively students could prepare reports or presentations to share ideas. The secure transfer of funds alone can form a topic for group activity.</p> <p>Internet auctions</p> <p><b>Buying goods</b> <b>Selling goods</b> <b>Online transaction services</b></p> <p>Again this is a group discussion activity or a series of presentations by students or teacher.</p> <p>Travel agents</p> <p><b>Booking holidays</b> <b>Booking plane tickets</b></p> <p>Rail companies</p> <p><b>Booking train tickets</b></p> <p>Airlines</p> <p><b>Booking plane tickets</b></p> <p>Cinemas</p> <p>Theatres</p>	<p>EBay and news stories will provide source material for this topic. Below is a list of thought provoking articles</p> <p><a href="http://news.bbc.co.uk/1/hi/business/4340427.stm">http://news.bbc.co.uk/1/hi/business/4340427.stm</a></p> <p><a href="http://news.zdnet.co.uk/internet/0,39020369,2118550,00.htm">http://news.zdnet.co.uk/internet/0,39020369,2118550,00.htm</a></p> <p><a href="http://www.citizensadvice.org.uk/index/pressoffice/press_index/press-050311.htm">http://www.citizensadvice.org.uk/index/pressoffice/press_index/press-050311.htm</a></p> <p>SP3 q 1b) offers an example of the type of question that could be asked.</p> <p>This is a world wide site for exploration of the facilities offered to Society <a href="http://www.expedia.com">www.expedia.com</a> or local equivalent.</p> <p>A site providing the opportunity to explore trains in Europe:</p> <p><a href="http://www.bahn.de/">http://www.bahn.de/</a></p> <p>and in India:</p> <p><a href="http://www.irctc.co.in/">http://www.irctc.co.in/</a></p> <p>Any airline home page can be used and prices compared with alternative sites. <a href="http://www.virginairways.com">http://www.virginairways.com</a> is one of the better sites to explore.</p> <p>Two sites to show the level of detail that can be presented to a user, the first is Classical appealing to an older audience, the second to younger people:</p> <p><a href="http://www.arena.it">www.arena.it</a></p> <p><a href="http://www.seetickets.com/see/index.asp">http://www.seetickets.com/see/index.asp</a></p>

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		<p>Students could be divided into groups and each group invited to look at one of the articles opposite. They make a list of issues and then a spokesperson talks to the whole class about the issues they found. Students could then write notes collaboratively.</p>	<p>These sites provide a further insight into online booking systems</p> <p><a href="http://news.bbc.co.uk/1/hi/business/4371577.stm">http://news.bbc.co.uk/1/hi/business/4371577.stm</a></p> <p><a href="http://news.bbc.co.uk/1/hi/business/3699637.stm">http://news.bbc.co.uk/1/hi/business/3699637.stm</a></p> <p><a href="http://news.bbc.co.uk/1/low/technology/3939035.stm">http://news.bbc.co.uk/1/low/technology/3939035.stm</a></p> <p><a href="http://news.bbc.co.uk/1/hi/in_depth/sci_tech/2000/dot_life/1755298.stm">http://news.bbc.co.uk/1/hi/in_depth/sci_tech/2000/dot_life/1755298.stm</a></p>
6d	Information services	<p>If the centre has Internet connectivity then students could be set the task of finding a local site for each of the following topics. Possible tasks could be:</p> <ul style="list-style-type: none"> <li>• Selling a product locally</li> <li>• Registering to vote locally</li> <li>• Finding a University for their further education</li> <li>• Finding the share price of a local company over the past few months / years</li> <li>• Finding local news stories</li> <li>• Discussing how they have used the Internet and various search engines to help them in a homework set in another subject area</li> </ul>	<p>SP3 q 4b) .and 9b) offer guidance on the requirement that could be expected from students</p> <p>A good example of a Government site: <a href="http://www.egypt.gov.eg/english/">http://www.egypt.gov.eg/english/</a></p> <p>Further examples of Government but on a local level: <a href="http://www.qld.gov.au/">http://www.qld.gov.au/</a></p> <p>and <a href="http://www.cambridgeshire.gov.uk/council/modernisation/projects/Cambridgeshire+Community+Portal.htm">http://www.cambridgeshire.gov.uk/council/modernisation/projects/Cambridgeshire+Community+Portal.htm</a></p> <p>Three sites about higher education but there are others that can be used and compared:</p> <p><a href="http://www.state.gov/m/a/os/1292.htm">http://www.state.gov/m/a/os/1292.htm</a></p> <p><a href="http://www.aiou.edu.pk/">http://www.aiou.edu.pk/</a></p> <p><a href="http://www.scit.wlv.ac.uk/ukinfo/">http://www.scit.wlv.ac.uk/ukinfo/</a></p> <p><a href="http://www.pir.org/">http://www.pir.org/</a> explains the origin of dot org sites</p>
		<p><b>Trading</b> <b>Governments</b> <b>Academic institutions</b> <b>Stocks and shares</b> <b>Public interest</b> <b>Education research</b></p>	

AO	Learning outcomes	Suggested Teaching activities	Learning resources
6e	Government (local, regional, central)	<p>A teacher could set students the task of finding out what is offered by local and National government agencies.</p> <p>Topics could be:</p> <ul style="list-style-type: none"> <li>• Registering a birth</li> <li>• Obtaining a driving licence</li> <li>• Finding out the results of national elections</li> </ul>	<p>An example of a 'Blog' on computer security:</p> <p><a href="http://www.schneier.com/blog/archives/2006/02/lessons_from_th.html">http://www.schneier.com/blog/archives/2006/02/lessons_from_th.html</a></p> <p>The site of various Non Government Organisations:</p> <p><a href="http://www.un.org/">http://www.un.org/</a> leads to many areas of public interest</p> <p><a href="http://www.prcs.org.pk/">http://www.prcs.org.pk/</a></p> <p><a href="http://www.icrc.org/">http://www.icrc.org/</a></p> <p>An alternative to using a search engine:</p> <p><a href="http://www.britannica.com/">http://www.britannica.com/</a></p> <p>These sites highlight issues to do with information services.</p> <p><a href="http://news.bbc.co.uk/1/hi/technology/2956906.stm">http://news.bbc.co.uk/1/hi/technology/2956906.stm</a></p> <p><a href="http://news.bbc.co.uk/1/hi/technology/4455306.stm">http://news.bbc.co.uk/1/hi/technology/4455306.stm</a></p> <p><a href="http://news.bbc.co.uk/1/hi/technology/3955569.stm">http://news.bbc.co.uk/1/hi/technology/3955569.stm</a></p> <p><a href="http://news.bbc.co.uk/1/hi/programmes/click_online/4398243.stm">http://news.bbc.co.uk/1/hi/programmes/click_online/4398243.stm</a></p> <p>This is a list of some government sites:</p> <p><a href="http://www.direct.gov.uk/Homepage/fs/en">http://www.direct.gov.uk/Homepage/fs/en</a></p>

**AO Learning outcomes**

**Suggested Teaching activities**

- Obtaining funds for higher education (if applicable)

Some examples are given below for group discussion and teaching.

Inland Revenue -

**Income tax records**

**Tax collection**

**Tax payment**

Local government –

**Electoral register**

**Local tax records**

Budget calculations

Issuing of:

**Passports**

**Identity cards,**

**Driving licences**

**Learning resources**

SP3 q 9b) can be used for class discussion.

This is the home page for the UK and provides users with information  
<http://www.hmrc.gov.uk/>

this is the login page for a tax payer - note the security features:  
<https://online.inlandrevenue.gov.uk/>

or for the USA:  
<http://www.irs.gov/>

or for St Lucia as a comparison:  
<http://www.irdstlucia.gov.lc/1.htm>

or India:  
<http://incometaxindia.gov.in/>

This is a UK site for information from the National Government:  
<http://www.aboutmyvote.co.uk/>

and an American site:  
<http://www.princegeorgeva.org/registrar.htm>

This site allows users to enter information:  
[https://www.passport-application.gov.uk/\(owcljbg20tsdbe550hnmng55\)/index.aspx](https://www.passport-application.gov.uk/(owcljbg20tsdbe550hnmng55)/index.aspx)

and in USA:  
[http://travel.state.gov/passport/passport\\_1738.html](http://travel.state.gov/passport/passport_1738.html)

or Australia for comparison:

AO	Learning outcomes	Suggested Teaching activities	Learning resources
6f	Use of ICT in Teaching and learning	<p>ICT systems are being used more and more for teaching in higher education, in business and elsewhere; students need to have knowledge and understanding of CAL and CBL.</p> <p>As part of learning testing is also being based on ICT systems. Scenarios in both schools and Universities need to be taught in discussions by groups or individual students.</p> <p>Schools, Universities, Colleges –</p> <p><b>CAL</b> <b>CBL</b> <b>Computer aided assessment</b> <b>Record keeping</b></p> <p>Examination boards</p> <p><b>Computer aided assessment</b></p>	<p><a href="https://www.passports.gov.au/Web/Forms/EntryPoint.aspx">https://www.passports.gov.au/Web/Forms/EntryPoint.aspx</a></p> <p>Two sites for driving licence application: <a href="http://oasis.gov.ie/transport/motoring/full_driving_licence.html">http://oasis.gov.ie/transport/motoring/full_driving_licence.html</a></p> <p><a href="http://www.iadc-club.com/">http://www.iadc-club.com/</a></p> <p>SP3 q 6c) is a useful reference point.</p> <p>This might provide a useful introduction to the topic if required: <a href="http://tier.cs.berkeley.edu/docs/retreat_oct_05/joyojeet-children.ppt">http://tier.cs.berkeley.edu/docs/retreat_oct_05/joyojeet-children.ppt</a></p> <p><a href="http://www.azimpremjifoundation.org/downloads/ImpactofCALonLearningAchievements.pdf">www.azimpremjifoundation.org/downloads/ImpactofCALonLearningAchievements.pdf</a></p> <p>A newspaper article to start a lesson. <a href="http://www.hinduonnet.com/2005/08/10/stories/2005081005790300.htm">http://www.hinduonnet.com/2005/08/10/stories/2005081005790300.htm</a></p> <p>This is the home page of the International Computer based Learning organisation. There will be a range of source materials that can be downloaded and used as part of lessons or by groups for later presentation. <a href="http://www.icbl.hw.ac.uk/publications.html">http://www.icbl.hw.ac.uk/publications.html</a></p> <p>This might form a useful introduction to the topic for a class discussion. <a href="http://www.herts.ac.uk/ltdu/learning/caa_procon.htm">http://www.herts.ac.uk/ltdu/learning/caa_procon.htm</a></p> <p>A list of reasons why ICT is used in teaching and learning can be found here <a href="http://www.teachernet.gov.uk/wholeschool/ictis_old/ict_teaching/primary_strategyict/primaryict/">http://www.teachernet.gov.uk/wholeschool/ictis_old/ict_teaching/primary_strategyict/primaryict/</a></p> <p><a href="http://www.languages-ict.org.uk/gs/gs_why_use_ict.htm">http://www.languages-ict.org.uk/gs/gs_why_use_ict.htm</a></p>

AO	Learning outcomes	Suggested Teaching activities	Learning resources
6g	The digital divide/information literacy	<p>Students need to be able to <b>discuss</b> these topics by showing good understanding and knowledge. Examples could be provided of local news stories or situations.</p> <p>The teacher can lead class discussions on this topic. Students can select a situation and explore it then report back.</p> <p>They need to convey the impact on people affected by the divide. Individuals – <b>Restricted access to: educational services health services employment opportunities</b></p> <p>Nations: <b>Restricted access to Worldwide marketing opportunities</b></p>	<p>Resources available: <a href="http://www.spartacus.schoolnet.co.uk/REVict.htm">http://www.spartacus.schoolnet.co.uk/REVict.htm</a></p> <p>SP3 q9a) raises this topic and offers the level of knowledge and understanding that could be required in future.</p> <p>These two sites are a start:  <a href="http://www.digitaldivide.net/">http://www.digitaldivide.net/</a> <a href="http://www.digitaldivide.org/">http://www.digitaldivide.org/</a></p> <p>SP3 q4 raises this topic and offers the level of knowledge and understanding that could be required in future.</p> <p>News articles: <a href="http://news.bbc.co.uk/1/hi/technology/5146222.stm">http://news.bbc.co.uk/1/hi/technology/5146222.stm</a> <a href="http://news.bbc.co.uk/1/hi/technology/4540595.stm">http://news.bbc.co.uk/1/hi/technology/4540595.stm</a></p>
6h	Catering for disabilities	<p>Teachers and students can consider students and workers they know for this topic. They can be given each of these topic areas and set the task of presenting their findings.</p> <p>They could develop a quiz based on a scenario for a disabled person and asking what ICT can do to provide a solution. Students need to be able to discuss how ICT hardware and software can offer</p>	<p><a href="http://www.leonard-cheshire.org/">http://www.leonard-cheshire.org/</a> is a site which provides information in the UK SP3 q9b) raises this topic and offers the level of knowledge and understanding that could be required in future.</p> <p>An article on disabilities- <a href="http://news.bbc.co.uk/1/hi/technology/3626533.stm">http://news.bbc.co.uk/1/hi/technology/3626533.stm</a></p>

AO	Learning outcomes	Suggested Teaching activities	Learning resources
6i	Legal system	<p>them.</p> <p>Increased access for disabled people to:</p> <p><b>Shopping</b>  <b>Banking</b>  <b>Booking Systems</b>  <b>Health services</b>  <b>Employment</b></p> <p>Students can show understanding and knowledge of how ICT, mainly through the WWW, provides useful information and services to users.</p> <p>They can find local information on a range of problems of a legal nature. Again this topic could lead to presentation or a quiz.</p> <p><b>Increased access to legal information</b>  <b>Increased involvement in focus groups</b>  <b>More able to influence political representatives</b></p>	<p>SP3 9b) provides an opportunity to answer a question on this topic.</p> <p>A typical site is:</p> <p><a href="http://www.legalservices.gov.uk/public/help/index.asp#Finding">http://www.legalservices.gov.uk/public/help/index.asp#Finding</a></p>
6j	Computer fraud	<p>This topic is a concern for many users of the Internet. It is a problem that the service providers have had to address with secure web sites.</p> <p>Teachers and students could collect local examples of each topic in this section. Student need to discuss the implications of computer fraud and how it can be tackled using ICT systems.</p> <p><b>Personal identities can be stolen</b> ( for example government records)</p>	<p>SP3 q8.</p> <p>Ref (1) provides some AS material in Chapter 6.</p> <p>Local newspapers, Computer Magazines or web sites.</p> <p>Some articles related to computer fraud are:</p> <p><a href="http://news.bbc.co.uk/1/hi/world/africa/3241710.stm">http://news.bbc.co.uk/1/hi/world/africa/3241710.stm</a>  <a href="http://news.bbc.co.uk/1/hi/world/americas/2456403.stm">http://news.bbc.co.uk/1/hi/world/americas/2456403.stm</a>  <a href="http://news.bbc.co.uk/hi/english/static/in_depth/uk/2001/life_of_crime/cybercrime.stm">http://news.bbc.co.uk/hi/english/static/in_depth/uk/2001/life_of_crime/cybercrime.stm</a></p>

AO	Learning outcomes	Suggested Teaching activities	Learning resources
6k	Antisocial use of ICT	<p><b>Money taken from personal accounts</b> (for example interception of bank details whilst using online booking)</p> <p><b>Tickets intercepted</b> from on-line booking details</p> <p><b>Goods intercepted</b> from on-line auction details</p> <p>Teachers could discuss how the open nature of the WWW and Internet provides some people with unlimited opportunities to create havoc.</p> <p>Spam is a major waste on time in some businesses. Students should be aware of these topics and should be capable of providing a report for group discussion or a written report.</p> <p>A local example of this should be found in newspapers or web sites as an introduction to the topic.</p> <p>Students can then explore their own stories for presentation to the class.</p> <p><b>Deleting/Amending/distributing personal data</b> gained from Auction, booking and government records</p> <p><b>Spreading of viruses</b> by email using the above sources of information.</p> <p>This topic concerns the deliberate design and spreading of a virus or Trojan.</p>	<p>SP3 q8.</p> <p>There will be news stories that could be brought into the lessons to start class discussion.</p> <p>The computer misuse act:  <a href="http://www.opsi.gov.uk/acts/acts1990/Ukpga_19900018_en_1.htm">http://www.opsi.gov.uk/acts/acts1990/Ukpga_19900018_en_1.htm</a></p> <p>Articles include:  <a href="http://news.bbc.co.uk/1/hi/technology/3131252.stm">http://news.bbc.co.uk/1/hi/technology/3131252.stm</a>  <a href="http://personneltoday.com/Articles/2006/06/01/35619/Foreign+Office+to+ps+Whitehall+list+for+staff+disciplined+for+computer.htm">http://personneltoday.com/Articles/2006/06/01/35619/Foreign+Office+to+ps+Whitehall+list+for+staff+disciplined+for+computer.htm</a></p>