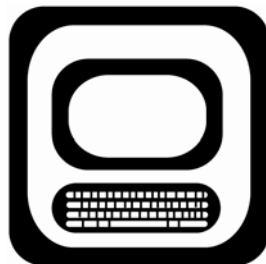


Queensland Business Education and Mathematics

Module 11 Impact of technology



Financial Literacy
Curriculum Resource
2008 Revised Edition

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Introduction

The Commonwealth Bank has been supporting education for more than 70 years, since the introduction of school banking in 1931. In 2003, we strengthened our commitment to education through the establishment of the Commonwealth Bank Foundation.

The Foundation seeks to encourage developments in education, particularly the financial literacy skills of young Australians, and aims to create awareness, skill and understanding of the benefits of a more financially literate community.

By helping our young people understand money management, we will empower them to take effective decisions to achieve their financial goals.

With this in mind, we are pleased to announce the availability of a national financial literacy curriculum resource which has been developed to support the teaching of financial literacy in the classroom.

Developed by a National Steering Committee comprising representatives across a broad range of state and territory education departments, sectors and professional teachers' associations, the curriculum materials have been designed to support the teaching of financial literacy in Years 7 to 10.

This practical and relevant curriculum resource has been designed to be easily incorporated into a number of subject areas and has been mapped to the curriculum in each state and territory.

There are twelve modules covering:

- Earning an income
- Spending and saving
- Consumer decisions
- Consumer protection
- Buying a car
- Financial services
- Managing finances
- Consumer awareness
- Personal investment
- Planning and running a business
- Impact of technology
- Economics of everyday finance

The resource materials can be easily downloaded via the Commonwealth Bank Foundation's website www.commbank.com.au/foundation

We hope you find this resource a valuable tool to use in your classroom.

The Commonwealth Bank Foundation Team



Module 11: Impact of technology

Background scenario

The case studies are developed around two families: the Drivers and their relatives the Fullbricks; as well as their friends and workmates. The Drivers, Ilse and Laurie, have two teenagers: Elizabeth, aged 15, and Nathan, aged 17. Both work part-time. Ilse has ongoing medical problems and Laurie works for a small trucking company. Grandmother Josefina lives with the family. The second family is the Fullbrick family, to whom they are related through Uncle Frank, Ilse's wealthy brother. Frank Fullbrick runs a construction company, and his partner Sella is a marketing manager. Mark is their teenage son.

Teacher notes

This topic will examine the following:

- e-business operations;
- advantages and disadvantages of shopping online;
- safety issues related to Internet banking;
- how e-business has opened up global markets; and
- using personal finance computer programs to manage finances.

Stimulus material provided:

- H.11.1 Price comparisons for MP3 players
- H.11.2 Outsourcing skilled work to India.

There are also general teacher notes available at the beginning of the units.

Key terms and definitions

| | |
|--------------------------------------|--|
| B2C (business to customer) | Electronic communication between businesses and consumers using the Internet. |
| Electronic commerce | Often referred to simply as "e-commerce". It is business that is conducted online using any of the applications that rely on the Internet, such as e-mail, instant messaging carts, web services, UDDI, FTP and EDI, among others. Electronic commerce can be between two businesses transmitting funds, goods, services and/or data as well as between a business and a customer. |
| Electronic money (e-money) | A method of payment that is handled electronically. |
| Electronic publishing (e-publishing) | Documents that are published to be viewed only on the web. |
| Electronic ticket (e-ticket) | A way of buying tickets over the Internet. |
| Encryption | The process by which data is encoded for safety reasons. Data that has been encoded must be decoded to be used. |
| E-tailing | Shopping online. |

Task 1: E-commerce

Teacher notes

Students will need to be provided with sheets of butchers paper (or equivalent) for Task 1A. Most students will have either used eBay (<http://www.ebay.com> or <http://www.ebay.com.au>) or will know of its existence. This could be used as a starting point for the discussion. Ask if students have purchased CDs online or booked seats to a concert. Some possible answers for Task 1A, 1.b. could include: "How do I pay?"; "Is my credit card safe?"; "Can I send the goods back and get a refund?"

Scenario

The Drivers have some relatives living in Tasmania. The younger brother in that family, Dennis, moved to a small rural community 15 years ago. There are three children who all still live at home with the eldest, Cilla, working at the local supermarket.

Cilla and Susan are friends who work for the same supermarket chain. In their free time they enjoy doing craft projects and have attended many classes together to learn new skills. They have produced many items that they are trying to sell. A friend suggested that e-commerce may help them reach their goal. Both girls know little about computers as all the free time is spent sewing.

Student activities

Task 1A. Exploring e-business

1. Form groups of four and discuss the following questions:
 - a. What do we know about e-commerce?
 - b. What do we need to find out about e-commerce?
 - c. Where can we find the answers?
2. Report your group's responses to the class and discuss the information gathered.
3. Look at the services provided by <http://www.mysimon.com> and <http://www.pricegrabber.com>. You are interested in purchasing a new MP3 player. Pick four different models or locations from which to purchase and use *H. 11. 1 Price comparisons for MP3 players* to make a list of the features offered with each brand and compare prices between the two e-commerce sites. You may also like to include an option of buying one second hand through a site like eBay. Don't forget shipping and handling costs in the comparisons. Look at the reviews posted on each website. Would these influence your purchase choice? What is your choice and why did you choose this one?

Task 1B. Shopping online

1. Some of the big e-commerce companies are listed below. In groups of six select one company each. Review the website. Include in your review: accessibility of information and navigability of the site (e.g. can I find relevant information quickly and easily?); credibility (e.g. how do I know the site is trustworthy?); technical functions (e.g. are there text alternatives to pages with a lot of graphics?). What can you say about the method of paying for purchases?

Learning outcomes, *central/core content*

Business Education

- BE 5.4** Students devise strategies to act in informed and responsible ways to obtain products and services in a range of business and economic contexts.
- *consumer legislation - consumer rights and responsibilities*
 - *strategies to operate effectively in business and economic contexts*
 - *stakeholders involved in business and economic activities (owners, managers, developers, customers, environmentalists, government organisations regulating activity, financial institutions)*
 - *steps taken when acquiring goods and services (buying a motor vehicle, renting accommodation)*

Mathematics

Number

- N 6.1** Students compare and order rational numbers, interpret and use scientific notation and analyse options

- a. Books: <http://www.amazon.com>
 - b. Travel: <http://www.travelocity.com>
 - c. Toys: <http://www.etoys.com>
 - d. CDs: <http://www.sanity.com.au>
 - e. Computers: <http://www.dell.com>
2. Blundstone Pty Ltd is the largest manufacturer in Australia of work and safety boots. They sell their goods in Australia, New Zealand, the South Pacific region, Asia, Europe and North America. The company is Tasmanian-owned and aims to be one of the most advanced in terms of technology in the world. The company has 300 employees and have a website containing a catalogue of all its products and a list of all distributors. They provide a secure online ordering and account paying system and have a library of internal documents used by staff.
Go to <http://www.blundstone.com.au> After viewing the site and taking into account the information gathered in the previous tasks, come up with a list of the pros and cons of shopping online.
3. Are you looking to buy a new computer? Find a site that gives comparison information on personal computers. Provide the following information for similar systems from two companies.
- Manufacturer
 - Model
 - Speed
 - Hard drive capacity
 - RAM
 - Price

Task 1C. Easy and hard aspects of e-commerce

(Taken from <http://www.howstuffworks.com/ecommerce.htm>)

The things that are hard about e-commerce include:

- getting traffic to come to your website;
 - getting traffic to return to your website;
 - differentiating yourself from the competition;
 - getting people to buy something from your website (Having people look at your site is one thing. Getting them to actually type in their credit card numbers is another.); and
 - integrating an e-commerce website with existing business data (if applicable).
1. Given these difficulties, make a recommendation to Cilla and Susan about the cost of websites and e-commerce for their business. Use the Internet to answer the following questions.
 - a. They need a reliable computer system. Give costs of two systems.
 - b. They need a web page designer to set up the site and organise methods of payment. Give costs of two designers.
 - c. They need a service provider to host their page and provide speedy access. Give costs of two service providers.
 2. Tally all the costs from the questions above and write a report for Cilla and Susan. Advise them whether to go ahead or not (giving reasons), considering that last financial year they earned only \$1,865 from the venture.

to make informed personal budgeting and other financial decisions

- *financial decisions and budgeting*
- *income (gross, net)*
- *expenditure*

Business Education Enterprise and Ventures

EV 6.1 Students use enterprising behaviour to devise strategies for solving business- or community-based problems.

- *nature of enterprising activity*
- *regulations and innovations*
- *balancing profit motive with responsible behaviour*

Task 2: Using technology to manage personal finances

Scenario

Nathan has been keeping in touch with the relatives in Tasmania by email. He thinks he has saved a lot in telephone costs and he likes the quick replies. He has decided to arrange with the bank to have Internet access to his account so that he can save time and money on his banking too. He is just getting used to it when a strange website with writing in a language he doesn't understand keeps coming up whenever he goes online. He thinks that it is best to ignore the site and just bring up a new site out of his "favourites" but he can't understand why this other site keeps coming up every time he opens a new browser window.

| Student activities | Learning outcomes, <i>central/core content</i> |
|--|--|
| <p>Task 2A. Internet banking</p> <ol style="list-style-type: none"> In your class notes put the heading "Why use Internet banking" and list the reasons why Nathan and other family members might use it. Write down what you consider to be the three main advantages of Internet banking. List the things that can be done through Internet banking in relation to your bank accounts and making payments to others. (You might like to use an Internet search engine and find the website for one of Australia's banks and see what they say about Internet banking.) Pair up with another student and consider what you would tell Nathan about the website that keeps appearing on his computer. What do you think might be happening with his computer? Is it related to his Internet banking? A friend tells Nathan about software called <i>Spyware</i> that can enter computers through the Internet and read personal details and transmit them to someone else. Given the risk that this website might be trying to do this to Nathan's computer, what can he do to assure himself that his banking details are not at risk of being obtained by someone else? If you were Nathan, what actions would you take? <p>Task 2B. Personal finance programs</p> <p>There are many home finances software packages available to budget for personal finances and to keep records of income and expenditure over time.</p> <p>The <i>Excel</i> document "Personal Finances Module 11.xls" supplied with this module (online document) allows you to prepare a weekly and monthly budget of income and expenditure and to keep an actual record of income and expenditure over a one month period. The built-in calculations show you how your balance of income and expenditure is going at any time during the month.</p> | <p>Business Education Business and economic systems BE 5.4 Students devise strategies to act in informed and responsible ways to obtain products and services in a range of business and economic contexts.</p> <ul style="list-style-type: none"> <i>consumer legislation - consumer rights and responsibilities</i> <i>strategies to operate effectively in business and economic contexts</i> <p>Mathematics Number N 6.1 Students compare and order rational numbers, interpret and use scientific notation and analyse options to make informed personal budgeting and other financial decisions</p> <ul style="list-style-type: none"> <i>financial decisions and budgeting</i> <i>income (gross, net)</i> <i>expenditure</i> <i>saving for a purpose</i> <i>cashless transactions (eg internet and phone banking)</i> <p>Business Education Information Procedures IP 5.3 Students apply accounting principles to record transactions and prepare simple financial reports.</p> <ul style="list-style-type: none"> <i>nature of accounts</i> <i>accounting principles (single entry, double entry, cash only)</i> |

-
- | | |
|---|--|
| <ol style="list-style-type: none">1. Load the program onto your school computer or home computer.2. Rename the file so that you can recognise and use it over the next month.3. Enter the data in the budget for your expected weekly income and expenditure.4. Each week carefully record the actual income and expenditure. You will notice that the figure at the end of the month keeps changing with each of your entries.5. At the end of the month consider the following questions:<ol style="list-style-type: none">a. How realistic were your budget estimates of income and expenditure?b. Did you succeed in achieving your predicted savings or deficit?c. Was there any unexpected expenditure or income?d. Could you do a new weekly budget that would better reflect your intended income and expenditure?e. Can this record keeping help you to save and to monitor your spending? | <ul style="list-style-type: none">• <i>manual and electronic record keeping</i>• <i>financial reports for specific audiences and purposes</i>• <i>simple control procedures (bank reconciliation, stocktaking and stock cards)</i> |
|---|--|

Task 3: Wider impacts of technology

Teacher notes

This activity provides opportunities to discuss social and economic issues related to outsourcing of work to other countries. A focus on how technology has enabled these changes in labour market organisation can be expanded to include discussion other social and economic impacts of technology. Some points for the class discussion could include:

- impacts such as bearing the economic and social costs of unemployment;
- comparisons with unskilled labour that has been “outsourced” in such a way for some time, and the state of the unskilled labour market in Australia today;
- issues around balancing economic efficiency with social responsibility; and
- balancing local and international social responsibilities.

| Student activities | Learning outcomes, <i>central/core content</i> |
|--|--|
| <p>Task 3A. Business evolution (globalisation, networking and outsourcing)</p> <p>Read the newspaper articles on <i>H. 11.2 Outsourcing skilled work to India</i> to discuss the following questions.</p> <ol style="list-style-type: none"> 1. What are some advantages and disadvantages of outsourcing skilled work to countries like India and China? 2. What might be some of the short-term impacts of outsourcing in Australia and in the other country? 3. What might be some of the long-term impacts of outsourcing in Australia and in the other country? 4. Do you think the outsourcing of skilled labour to countries like India and China is a good thing? Give reasons. | <p><u>Business Education</u> Business and Economic Systems BE 6.3 Students describe the impacts of production and marketing on a global scale and propose strategies to manage these impacts.</p> <ul style="list-style-type: none"> • <i>resource scarcity and resource allocation</i> • <i>unlimited needs and wants</i> • <i>markets</i> • <i>supply and demand</i> • <i>buyers and sellers</i> • <i>production, distribution and consumption</i> • <i>productivity</i> • <i>competition</i> • <i>impact of production, distribution and marketing of goods and services</i> <p><u>Mathematics</u> Number N 5.1 Students compare and order integers, use and interpret index notation, rates and ratios, and analyse options to make informed financial decisions about saving, credit and debit</p> <ul style="list-style-type: none"> • <i>financial decisions</i> - <i>short-term benefits and/or long-term consequences</i> |

H.11.1 Price comparison for MP3 players

Complete the following table for four different MP3 players.

| Feature | 1 | 2 | 3 | 4 |
|----------------------------|---|---|---|---|
| Brand/model | | | | |
| Weight | | | | |
| Memory | | | | |
| Warranty | | | | |
| Battery | | | | |
| Price | | | | |
| Postage and handling costs | | | | |
| Additional features | | | | |
| Rating as per website | | | | |
| Your ratings | | | | |

H.11.2 Outsourcing skilled work to India

“Outsourcing of high-skill jobs to India on rise”, *India Daily*, 13 December 2004, http://www.indiadaily.com/breaking_news/16317.asp (Ph: +91 (732) 549 7015 or email: advertise@indiadaily.com)

India and China, known for their low labour cost advantage, are increasingly landing jobs outsourced from the West that are skilled and high-paying due to the increasing educational and skill levels in these countries, says the International Labour Organisation’s World Employment Report 2004-05.

The report states, “Whereas the outsourcing of lower-skilled, less-paid jobs is not a new phenomenon, increasing educational and skill levels in developing countries enjoying labour cost advantages, India and China predominant among them, may be attracting jobs once thought relatively immune to relocation.” The report also says that while such a “qualitative” change in the “international division of labour has a certain logical appeal”, the data on the matter seems to be incomplete. It states that there could be other benefits of outsourcing besides reduced costs, like new markets for the home-country goods and services.

“According to one study, for every dollar spent on outsourcing, the US domestic economy gains \$1.12-1.14, while the foreign host country receives \$0.33.” The report says that as a policy, there should be renovation of labour market institutions so that they are equipped to keep pace with the rate of loss of high-paying jobs in the world. “This underscores the need for a focus on ‘supply-side preparedness’, with a particular emphasis on providing access to skills relevant to the future demand for labour.” It emphasises that “where the people really work is as important as a focus on emerging, dynamic sectors”.

“Indian workers discuss outsourcing with Americans”, *Onlypunjab.com*, downloaded 15 February 2005, <http://www.onlypunjab.com/fullstory0105-insight-Indian+workers+discuss+outsourcing-status-10-newsID-4368.html>

[World news]: Washington, Dec 9 : Indian labour leaders visiting the US found American workers angry over losing jobs overseas but willing to listen to issues relating to job outsourcing to India.

Union members representing the New Trade Union Initiative, an Indian organization of independent unions, along with Washington-based Jobs with Justice, are trying to convince disgruntled American workers why their jobs were leaving the country. “We got a much better idea of how outsourcing is dislocating families and employees here,” said Ashim Roy, president of several unions representing General Electric workers in Gujarat, India. The Indian labour leaders are on a 15-day tour of nine cities seeking dialogue with US workers about mutual interests.

“We have tried to convey to our working brothers here that there are also issues beyond just jobs going from here. When jobs go from here to India, China, or the Philippines, they go to places where there are no labour standards, where workers don’t have the capacity to raise wages, because they don’t have the ability to organise,” Roy said.

He also noted the differing working conditions in the two countries.” An average worker here may work 40 hours while in India he or she works 60 hours. An Indian worker is given only one minute to answer a call, as opposed to five minutes to an American call centre worker. And the fact is this can’t be changed. This is the very important component of why jobs are going to India,” Roy emphasised.

“The process is not that the Indian worker is taking away a job, but rather a classic example of a job being lost. For every two jobs that go out of America, one job goes to India and one is lost - so three workers are fighting for one job. Jobs in general are going down,” Roy contended.