



General Certificate of Secondary Education  
June 2011

## General Studies

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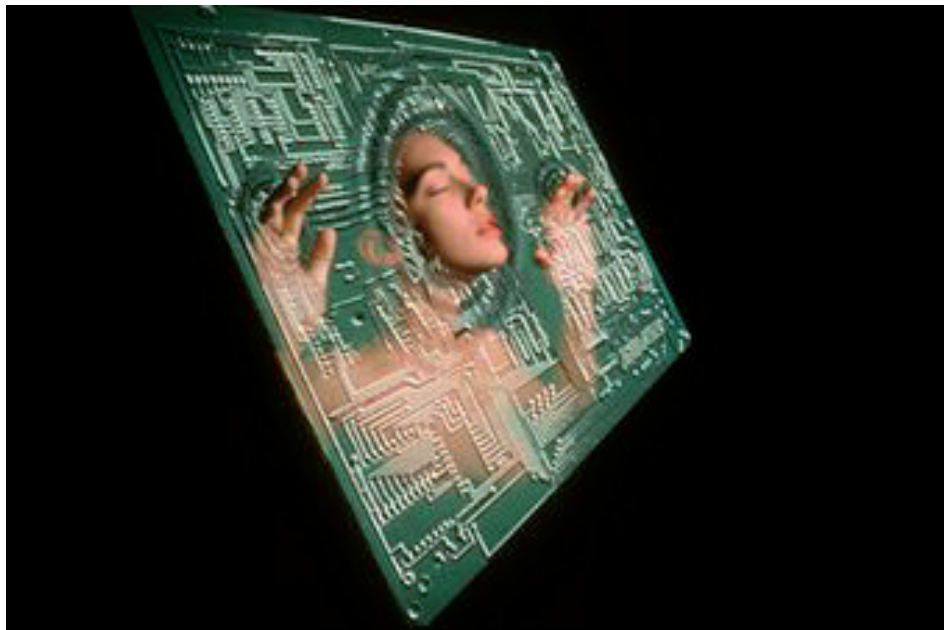
Unit 1 (Case Study)

### Case Study Material

Case Study material on '*Virtual worlds – living your life online.*'

#### Instructions

- To be issued to candidates on or after **1 March 2011**.
- You may write notes in this copy of the Case Study, but you will **not** be allowed to bring this copy, or any notes you may have made, into the examination.
- You will be given a clean copy of this material at the start of the examination on Tuesday 17 May 2011.



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Study **all** the information in this booklet.

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## Virtual worlds – Living your life online.

The information in this booklet comprises the following:

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## Source 1

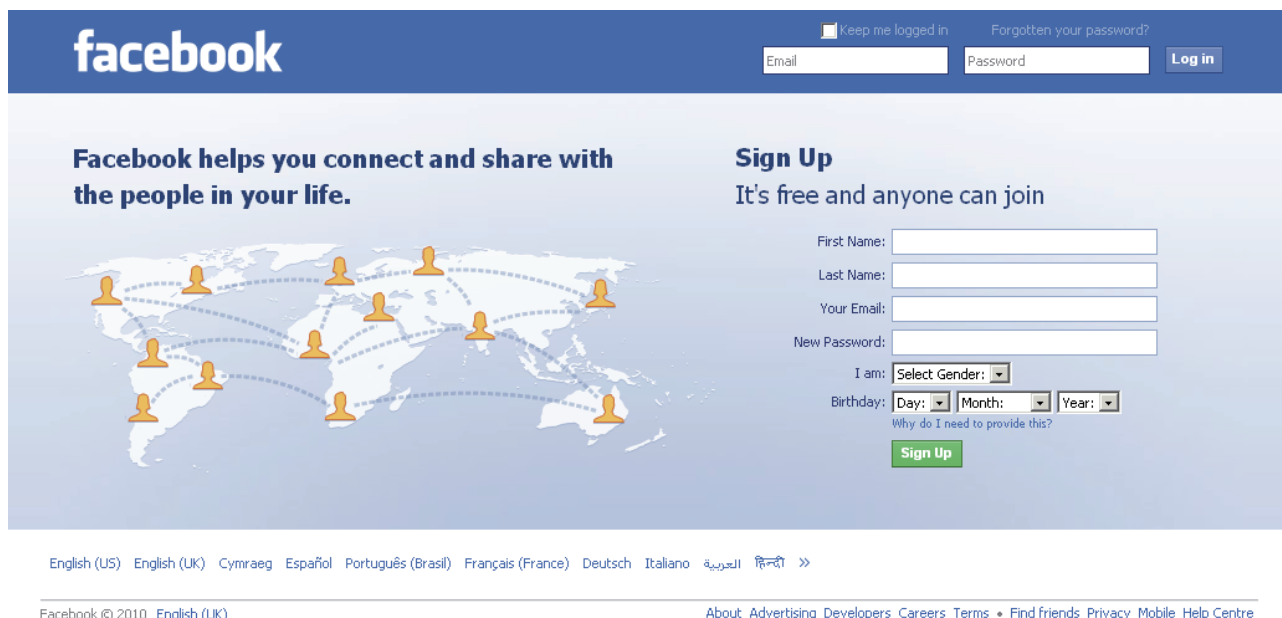
## Online criminals target Facebook and virtual worlds

### Social networking sites and other online communities are being mined for personal information, a report warns.

Organised criminals are increasingly targeting online communities such as social networking sites and multi-player computer games, a security report has warned.

The vast amount of personal information stored on sites such as Facebook has made them a rich source for fraudsters, who use the details to create highly specific threats, according to Symantec, the security firm.

Information which may not typically be considered confidential – such as an employer, hobbies, and details of weekend activities – is now being incorporated into malicious e-mails as a way of launching more focused attacks, and encouraging recipients to take unsolicited messages more seriously, Symantec said.



The image shows a screenshot of the Facebook homepage. At the top, the Facebook logo is on the left, and the login section is on the right, featuring a 'Keep me logged in' checkbox, a 'Forgotten your password?' link, and input fields for 'Email' and 'Password' with a 'Log in' button. Below the login section, the main content area is split into two columns. The left column has the headline 'Facebook helps you connect and share with the people in your life.' and a world map with several orange person icons connected by dotted lines. The right column is titled 'Sign Up' with the subtext 'It's free and anyone can join'. It contains a sign-up form with fields for 'First Name', 'Last Name', 'Your Email', and 'New Password'. Below these are dropdown menus for 'I am:' (with a 'Select Gender' label), 'Birthday:' (with 'Day', 'Month', and 'Year' dropdowns), and a link 'Why do I need to provide this?'. A green 'Sign Up' button is at the bottom of the form. At the very bottom of the page, there is a footer with language options (English (US), English (UK), Cymraeg, Español, Português (Brasil), Français (France), Deutsch, Italiano, العربية, हिन्दी) and a copyright notice 'Facebook © 2010 English (UK)'. On the right side of the footer, there are links for 'About', 'Advertising', 'Developers', 'Careers', 'Terms', 'Find friends', 'Privacy', 'Mobile', and 'Help Centre'.

Source: © digitallife/Alamy

According to Symantec, there was in general:

- an “increasing professionalisation and commercialisation” of internet crime
- the use of sophisticated “toolkits” which allowed fraudsters to build multiple ‘phishing’ websites simultaneously (phishing involves tricking people into revealing passwords, usernames etc)
- the use of accounts within ‘virtual worlds’, such as the computer game *World of Warcraft*, to launder money.

“There is an increasing trend towards attacks on social environments like Facebook, where the quality and quantity of private information is such that attacks can be more focused.”

Having read a Facebook profile, a fraudster sending a subsequent e-mail could, for instance, address the recipient as a lawyer, and make reference to events they have attended, giving the message an air of authenticity.

Criminal groups were now also setting up accounts in virtual worlds – where the total trade is estimated to exceed £7 billion annually – as a way of laundering money, an issue which has already been raised by the Fraud Advisory Panel in Britain.

“Since thousands of accounts may engage in millions of transactions, each with small profits or losses, it would be difficult to trace the true source of the funds when they are withdrawn,” the report said.

The 217 million people who play ‘massively multi-player online games’, were also at risk from programs which purported to give them an advantage within the game but in fact installed ‘keyloggers’ – software which records every stroke of a keyboard, and other malicious code, on their machines.

Credit card details were still the most common type of personal information advertised on illicit websites, the report found, the overwhelming majority – 85 per cent – having been issued by US banks which do not always make use of chip and PIN security technology.

Source: adapted from an article by JONATHAN RICHARDS, *Times Online*, 17 September 2007  
Copyright 2010 Times Newspapers Ltd.

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**Source 2**

## You only live twice

**'Second Life' is fast becoming the hottest thing on the web. Stuart Jeffries discovers why.**

I am pole dancing for \$18 in a sleazy club and I've never felt so alive! When I arrived at Orientation Island, which is where new users or "residents" of the website Second Life arrive, I clicked on the "randomise" button. This decided what kind of face, build, clothes and hat (if any) I should wear in my virtual guise. But it was I who chose the pseudonym Beau Beauchamp.

Who would guess that I'm really a paunchy, undercover journalist trying to find out why Second Life has more than 800 000 registered users, is growing at the extraordinary rate of 20% a month, and is developing an economy larger than those of some real countries?

Not Persephone Gray. Within minutes of creating my avatar (or virtual self), I tried to hit on Persephone. Using the arrow buttons on my keyboard, I made Beau stroll across the floor of a virtual temple with the clunking gait of Buzz Lightyear, clicked the "chat" button and broke the ice by typing: "So, Persephone. Cool name." "I'm new," she replied coyly. Our exchange appeared at the bottom of the screen, as in a subtitled movie. "Me too," I added.

But then I began to have doubts. Could the real person who created Persephone be like the lithe dreamboat in front of me? Or was Persephone an avatar created by a 12-year-old adolescent boy in Des Moines? If the latter, that would explain her low-cut jeans, exposed thong and revealing top.

So I added: "Are you really a dude?"

"Are you?" she retorted and then stalked off across the virtual landscape. Ouch! Even in cyberspace I can't pull.

There is much more to Second Life than the values of American capitalism revolving around sex and money. Universities are staking out places on Second Life to offer virtual courses. Politicians have started doing interviews in Second Life: earlier this year, the former Virginia governor Mark Warner, a possible Democratic presidential candidate in 2008, flew into a virtual town hall on Second Life (or rather, his avatar did) to be questioned by a virtual journalist and a crowd of avatars about such real-world issues as Iraq.

Music is already big business in Second Life. On Monday, the Hedrons will become the first British band to do a virtual concert in Second Life. This follows the BBC, which has rented an island on the site for music festivals.

The journalist Kate Bevan says she is "completely addicted" to this hyperreal simulation. "One of the great things about the whole online thing is you can be whatever you want to be," she says. And indeed this is the lure of the 3D online digital world – the notion that you can be whoever you want to be. Your first life may be disappointing, but your second life need not be. You can change gender, be more talkative, or less, you can visit Mars (or, rather, a detailed simulation of the red planet).

Second Life was inspired by Neal Stephenson's 1992 novel *Snow Crash*, in which he described an online environment called the Metaverse where users interacted using the real world as a metaphor "outside the bounds of real flesh and the actual world." It sounds like a cyberparadise, but my tour of Second Life was not an entirely joyful experience. If anything, much of it seemed like a virtual reality shopping mall.

Shortly after I made my avatar fly from Orientation Island to Second Life proper, a character called Morgana Bartz appeared before me (or rather Beau) and said hello. A dialogue box popped up, saying Morgana wanted to be my friend. I accepted and she invited me to go to a club where Beau would learn to dance. Soon Beau was dancing for money. And, in so doing, he had started to become a useful economic citizen of Second Life. Like others before me, I can now use Beau's earnings to buy him virtual gear designed by real-life clothes designers.

I suspect she was working for Linden Lab, which encourages users to buy and sell goods using so-called Linden dollars. Clothing comprises 40% of all you can buy, most of it branded goods familiar from the real world. Residents also buy and sell software they use online. One created a monorail to get around Second Life and then charged passengers for tickets.

What is most extraordinary about Second Life is that its Linden dollars are convertible into real US dollars or UK pounds at various online currency exchanges (one US dollar is currently worth \$259L). This enables some people to make a real living from Second Life.

Consider Anshe Chung, Second Life's richest avatar. She owns a property empire on the site worth US\$250 000 and staffs her firm with 17 real-life people.

Soon, it may not be a case of "get a life" any more, but get a Second Life.

Source: adapted from an article by STUART JEFFRIES, *The Guardian*, 7 October 2006  
guardian.co.uk © Guardian News and Media Limited 2009

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## Source 3

## How South West News got its divorce scoop in 'Second Life'

**Second Life was the setting for a Cornish romance and divorce – and also for the unlikely journalistic scoop that followed.**



It was a story that unfolded in two very different venues. Half of it took place on the streets of a drizzly seaside resort in Cornwall – a good old-fashioned media scramble for a decent story.

But the other half was played out in cyberspace as virtual reporters picked their way through imagined streets, clubs and homes to try to get the story of how an indiscretion in computerland had led to a real life marriage break-up.

The story of how Newquay couple Amy Taylor and David Pollard broke up after she caught his alter-ego cheating on her in the virtual world Second Life has already made headlines across both the real globe and its cyber equivalent.

Taylor and Pollard are divorcing and Pollard is engaged to his new online partner's real life counterpart, a woman from Arkansas called Linda Brinkley – even though they have not met.

But the story behind the story is almost as bizarre and will no doubt make reporters everywhere sit up and try to work out how they can hunt for equally odd tales that unfold in computer-generated worlds.

To recap. Taylor and Pollard got together after meeting in an internet chatroom. They began to play Second Life, the interactive computer game in which enthusiasts adopt alter egos – or avatars – and lead fantastical lives.

Taylor, who in reality is unemployed, became club DJ Laura Skye, often to be found sporting tight-fitting cowgirl outfits. Pollard, also unemployed, was hunky nightclub owner Dave Barmy who lives in a church and travels around in a Cobra helicopter gunship.

In cyberspace Barmy cheated on Skye. Back in real life, Taylor was upset but gave him a second chance. However when she found Barmy with yet another cyber woman, Modesty McDonnell, it was too much. She left him and the couple – in real life – are to be divorced.



<b>Real World Name</b>	<b>Second Life Name</b>
Amy Taylor	<i>DJ Laura Skye</i>
David Pollard	<i>Dave Barmy</i>
Linda Brinkley	<i>Modesty McDonnell</i>
Reporters	<i>Jashley Gothley</i>
	<i>Meggy Paulse</i>

The chase for the couple began after the story broke on a satellite news channel. Reporters were despatched to Newquay to interview Taylor and Pollard. The pair, living in separate digs in Newquay, were understandably taken aback by the attention and reluctant to speak to journalists.

Fortunately for the pack, their avatars were less coy. While flesh and blood reporters and photographers banged on the door of the couple's homes, virtual ones were trying to doorstep Laura Skye and Dave Barmy in Second Life.

The two virtual reporters that found them were Jashley Gothley, all snug-fitting T-shirts and tight black trousers and Meggy Paulse, who wears a red mini-skirt and a black slip top. Not sure where her notebook is kept.

Both were alter egos of journalists for the press agency South West News, which supplies national and international media organisations with stories.

So while Amy Taylor was refusing to answer her door to reporters in Newquay, her avatar, Laura Skye, was being won over by Meggy Paulse. Jo Pickering, one of the South West staff who "controlled" Meggy, said: "In real life she had rejected everything – knocks on the door, letters, phone calls. But our characters started chatting and it was different. She began to trust us. Amy's character was much more confident in the game than she was in real life."

Meanwhile Jashley Gothley was hot-tailing it after Dave Barmy. Real reporter Paul Adcock said: "It was difficult sometimes because there was a blurring between reality and Second Life." Barmy also turned out to be more confident than Taylor. "We spoke later on the phone and he was much more awkward than in the game. There are fewer inhibitions in Second Life," said Adcock.

Barmy was eventually even persuaded to bring his new girlfriend, Modesty, to meet reporter Gothley. The two avatars – now very much in love – posed together for photos.

After much bargaining the South West reporters – and their avatars – hatched a buy-up in real life with Taylor and Pollard. They gave some quotes but they also agreed to tell their stories in detail to a tabloid newspaper for money – real cash rather than virtual currency.

All's well that end's well: Taylor says she is better off without Pollard. Pollard is hoping to use the money he makes from the tabloid deal to fly out to see his American fiancée for the first time.

Source: adapted from an article by STEVEN MORRIS, 14 November 2008  
guardian.co.uk © Guardian News and Media Limited 2009

## Source 4

## Virtual West End for cyber shoppers

### Retailers to offer 3-D replicas of top stores

The imaginary worlds of Sim City, Second Life and other digital utopias are about to be joined by a very different online experience – shopping in London’s West End.

An ambitious new scheme to duplicate online the real-life experience of a shopping expedition in central London is promising to transform the way Britain’s leading retailers do business.

Stung by the growing popularity of internet shopping – online sales in November were up 16% on last year – the body representing West End traders is creating a unique internet world where shoppers will be able to wander down computer simulations of London streets, click their way into exact replicas of well-known stores, and thumb through goods stacked on virtual shelves.



The aim is to combine the speed and efficiency of internet shopping with the sense of exploration and discovery that real high-street browsing entails. By turning the London shopping experience into an elaborate online haven filled with spectacular graphics and clever animations, more than 600 West End traders from Bond Street, Oxford Street and Regent Street could sell more goods online, and lure more shoppers away from their keyboards for a taste of real shopping.

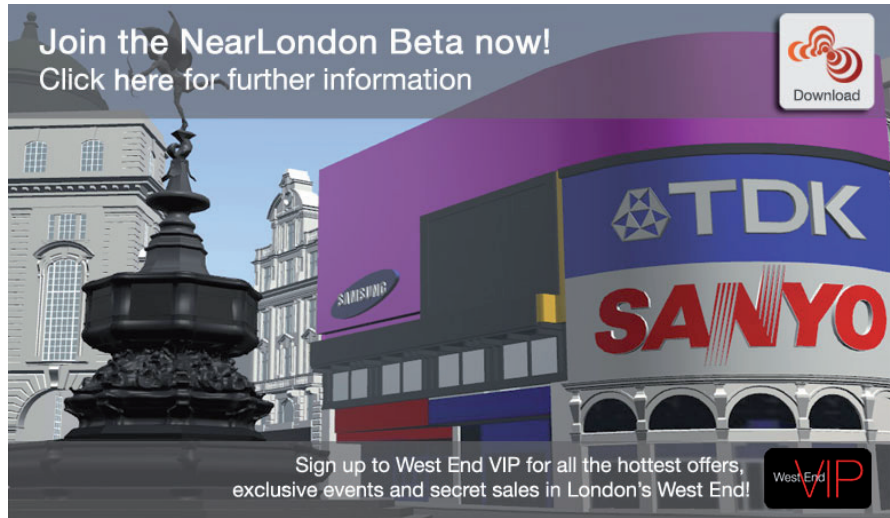
The £8m scheme is the brain-child of Alex Wrottesley, a budding media entrepreneur. “This is the first time that someone has tried to recreate a city just as you’d find it in real life,” Wrottesley said last week. His company used laser measuring devices mounted on the roofs of vans to draw up 3-D maps of the streets in the project. Employing the sort of imagery used by Hollywood special effects designers, Wrottesley created a highly realistic 3-D computer model to be known as Near London.



The model will allow mouse-wielding users of Near London software to click their way down mostly traffic-free streets, and to enter any shop they choose. There will be no beggars, pickpockets or graffiti soiling the pristine online landscape. Only an occasional Routemaster bus will disrupt the smooth flow of pedestrian traffic.

The project's designers also intend to change the weather according to live Met Office data – if it's raining on Oxford Street there will be simulated rain online – and newspaper billboards will show up-to-date headlines.

“Most people see virtual reality worlds like Second Life as a bit geeky and pointless, but this is completely different,” said Jace Tyrrell, marketing manager of the New West End Company, a trade body that appears to have concluded: if you can't bring the shoppers to Oxford Street, you need to bring Oxford Street to the shoppers.



The danger, of course, is that shoppers will find the online London so much cleaner and more appealing than the real thing, that they will stop going to Oxford Street altogether, putting Britain's best known high street out of business.



That thought has already occurred to Sir Philip Green, the billionaire retailer whose empire includes Topshop and Bhs. “It may work for people abroad,” he said. “But from a London perspective, where we employ thousands of staff, it doesn't sound like it's going to bring any more people to my stores where I'm paying rent.” Trinny Woodall, a fashion adviser said “I doubt that a virtual London, however popular, could replace the traditional shopping experience.”

Source: adapted from CHRIS GOURLAY, *The Sunday Times*, 28 December, 2008  
Copyright 2010 Times Newspapers Ltd.

Oxford Street image, Getty Images, 2009

Virtual London Images, © 2010 Nearworld Investments Limited

## Source 5

## Losing a grip on reality

Why do some people get so obsessed with video games?

**'Snowly', an online gaming fanatic, died recently in China after a three-day virtually uninterrupted stretch playing World of Warcraft, the latest Massively Multiplayer Online Role Play Game (MMORPG) craze. Strangely enough, it was not this that raised the tabloids' heads, but the subsequent online virtual funeral that her fellow gamers staged. This was a funeral involving real people and real emotions, but on a virtual scene.**

Snowly's was an extreme and tragic case, yet it signifies a trend. It points towards the increasingly confused lines between reality and the virtual reality of the video game world, for both gamers and the rest of us. The concept of 'real life' is so confused now that MMORPG players refer to it in internet shorthand as 'IRL' (in real life).

The MMORPG has been around for a while (in internet terms), but changes in technology have meant that it has rapidly become a mass-market product. It is a simulated life-game on the grandest of scales, albeit in a fantasy universe (usually medieval or futuristic).



Source: SEAN GALLUP/Staff, 2010 Getty Images

World of Warcraft, probably the most popular of all MMORPGs, offers a Tolkien-esque world of druids, paladins, orcs, dwarves and humans. It is a world in as much a sense as virtual reality can be; it is an alternative life, with virtual personality, family, employment, class system, economy and home. It is an arena where anyone can fight their own personally customised battles.

The game attempts to create a virtual Tolkien epic. This world is a conceivably eternal one. The game creators do not know, nor anticipate, the game's ending; there is no finishing goal. Thus, the game can go on and on. Even the death of a character is not final. Gamers are allowed more than one character, so if one character dies there is always another to concentrate on. Even the gamer's lifespan is no boundary, since characters are often sold between gamers and could therefore live forever.



Source: © Caro/Alamy

The instructions, never mind the game, are time-consuming. One gamer notes that the 'games are more involved than, say, watching movies or reading a book'. Many members spend 40 hours a week building and improving their character. 'Snowly' (her character name) spent three days without any significant breaks playing Warcraft, while a South Korean man died after playing for 50 hours in an internet café without breaks. The lack of breaks shows a desire to totally immerse oneself into this virtual world.

Real-life relationships sometimes take second stage. One estranged wife tells of her husband's addiction to Everquest (another popular MMORPG); he spends nearly 50 hours a weekend on the game.

Source: adapted from an article by DONALD WINCHESTER, 5 January 2006  
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