19.11 Chapter questions

1. Describe a situation where an A/B test would be more suited as a data-gathering method than a multivariate test.
2. What is a conversion rate, and why is it so important to marketers?
3. What can you test on an eCommerce product page? List three examples.

19.12 Further reading

www.grokdotcom.com – FutureNow's GrokDotCom offers commentary, case studies and conversion optimisation best practice.

www.whichtestwon.com – Anne Holland's *Which Test Won* shows case studies where you can guess the result, and compare your prowess to that of other visitors.

Always Be Testing: The Complete Guide to Google Website Optimizer by Bryan Eisenberg, John Quarto-von Tivadar and Lisa T. Davis

19.13 References

Makoma, S. L., 2012. *Google's New Content Experiments Tool: A Case Study* [Online]
Available at: http://www.gottaquirk.com/2012/08/29/googles-new-content-experiments-tool-a-case-study/
[Accessed 2 October 2013].

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Appendix: Understanding the Internet

There is no doubt about it: the Internet has changed the world we live in. Never before has it been so easy to access information, communicate with people all over the globe, and share articles, videos, photos and all manner of media.

The Internet has led to an increasingly connected communications environment, and the growth of Internet usage has resulted in declining distribution of traditional media such as television, radio, newspapers and magazines.

Digital marketing embraces a wide range of strategies, but what underpins its success is a user-centric and cohesive approach.

Over the past few decades, marketers have begun to wake up to the power of the Internet, both as a platform for communication and as a way of tracking conversations.

By its very nature, the Internet is a network of interlinking nodes. Marketers use these nodes to track conversations and behaviour patterns.

20.1 History of the Internet

1958	US ARPA (Advanced Research Projects Agency) established to lead science and military technological developments.
1961	MIT research paper on Packet Switching Theory.
1961-69	Ongoing research into inter-computer communications and networks.
1969	ARPANET, commissioned by US Defense Department, goes live. US universities connect up network facilities for the first time.
1971	Ray Tomlinson creates first network email application.
1973	Development of protocols to enable multi-network Internet opportunities. First international ARPANET connections made.
1976	HM Queen Elizabeth II sends an email.
1978	First spam email is recorded.
1980	Tim Berners-Lee develops rules for the World Wide Web and is credited as the Web Father. Alan Emtage develops the first search tool, known as 'ARCHIE'.
1982	Standard network protocols are established: Transmission Control Protocol (TCP) and Internet Protocol (IP), commonly referred to as TCP/IP.
1984	Joint Academic Network (JANET) is established, linking higher education institutions. Domain Name System (DNS) is introduced.

1985	A company named Symbolics becomes the first registered dot-com domain.
1987	National Science Foundation (US) is the catalyst for the surge in funded work into the Internet. Number of Internet hosts increases significantly in this period.
1988-90	28 countries sign up to hook up to the NSFNET, reinforcing international Internet potential.
1990	Senator Al Gore coins the term 'information superhighway'.
1991	Web Father Tim Berners-Lee releases World Wide Web (www) with scientists from CERN.
1992	America Online (AOL) is launched and raises $23m in floatation. The term 'surfing the net' is introduced by Jean Armour Polly. The World Bank goes online.
1993	Mainstream media attention increases awareness of the Internet. The first Internet publication, Wired, goes on sale. Mosaic introduces the first web browser with graphical interface and is the forerunner of Netscape Navigator. First online shopping malls and virtual banks emerge, as does evidence of spam. First clickable banner advert is sold by Global Network Navigator to a law firm.
1995	Amazon is launched by Jeff Bezos. Trial dial-up systems such as AOL and CompuServe launch. Charging is introduced for domain names. Search technology companies such as Alta Vista, Infoseek, Excite and Metacrawler rapidly appear.
1996	Yahoo! is launched on the stock exchange and shares are up nearly 300% on first day.
1997	MP3.com is founded. The term 'search engine optimisation' is used for the first time in a forum.
1998	XML is released to enable compatibility between different computer systems. Google founded by Larry Page and Sergey Brin.
1999	Peter Merholz coins the word 'blog'.
2000	AOL and Time-Warner announce that they are merging. Pay-per-click campaigns are introduced for top ten search rankings. Google AdWords launches, charging for adverts on a CPM basis.

2002	UK online monthly consumer shopping breaks through the £1 billion barrier. Google AdWords charges on a PPC basis instead of CPM.
2003	eBay topples Amazon as the most visited UK website.
2004	CD-WOW loses court case and rights to source cheaper CDs outside EU, undermining the global concept of the Internet. Facebook launches from the Harvard dorm room of Mark Zuckerberg, Dustin Moskovitz, Chris Hughes and Eduardo Saverin.
2005	Iceland leads the world with broadband penetration: 26.7 inhabitants per 100 have broadband compared with 15.9 per 100 in the UK. YouTube launches. Google buys Android Inc.
2006	Google buys YouTube for $1.6 billion. Facebook membership opens to everyone. Twitter launches. Technorati notes that a blog is created every second of every day. *TIME Magazine* names 'You' as person of the year, as a result of online activity.
2007	Facebook launches Facebook Ads. Apple launches the iPhone. The Google Phone, with the Android operating system, launches. Google launches Gmail.
2008	Firefox 3.0 launches with over 8 million downloads in 24 hours. Groupon launches, to become the fastest growing company of all time. Google Chrome, a browser, launches. Apple opens the App Store.
2009	Facebook adds the 'like' feature. Foursquare launches.
2010	Facebook reaches 500 million users. 24 hours of video are uploaded to YouTube every minute. Pinterest launches. Apple releases the first iPad. Google launches Nexus One. The number of Internet users tops 1.9 billion worldwide. Instagram launches. Astronaut TJ Creamer sends the first tweet from space.

2011	200 million tweets are sent daily on Twitter – about one billion a week. Social media is credited with a crucial role in political movements in Egypt, Tunisia and Libya. Apple's App Store downloads top 10 billion. Google+ launches. YouTube reaches 1 trillion views.
2012	Facebook tops 1 billion users. Apple releases the iPad Mini. The number of Internet users tops 2.4 billion worldwide. Online advertising spend surpasses print advertising spend for the first time. Facebook buys Instagram for $1 billion, as the service tops 100 million active users.
2013	Video-sharing service, Vine, launches. Smartphone sales overtake feature phone sales globally. 100 hours of video are uploaded to YouTube every minute. Over 45 billion apps have been downloaded from the Apple App Store.

NOTE

What new developments have happened recently? Keep an eye on the news for digital updates.

Figure 1. *Internet activity in one minute in 2012. (Go-Gulf, 2012)*

20.2 How the Internet works

In its simplest form, the Internet is a collection of documents connected by hyperlinks.

A hyperlink is a virtual link from one document on the World Wide Web to another. It includes the Uniform Resource Locator (URL) of the linked-to document, which describes where on the Internet a document is. It is what you enter in the address bar of the browser, because it is the address of that document on the Internet.

A URL provides information to both browsers and people. URLs include domain names that translate to Internet Protocol (IP) addresses. Every website corresponds to an IP address, which is a structured series of dots and numbers indicating where it is physically located. In fact, every device on the network has an IP address.

When you enter a URL into the address bar of a browser, the Domain Name System (DNS) record indicates where the document you are linking to is.

Confused? Look at the domain name and IP address for Quirk's website:

Domain name: www.quirk.biz

IP address: 212.100.243.204

A domain name looks something like this: www.domainname.com.

But a lot more information can be included in this. URLs can carry the following information: subdomain.domain.tld/directory

Domain – the registered domain name of the website.

Subdomain – a domain that is part of a larger domain.

TLD – the top level domain, uppermost in the hierarchy of domain names.

Directory – a folder to organise content.

The **TLD** can indicate the country in which a domain is registered, and can also give information about the nature of the domain.

.com – the most common TLD.

.co.za, .co.uk, .com.au – these TLDs give country information.

.org – used by non-profit organisations.

.gov – used by governments.

.ac – used by academic institutions.

Domain names must be registered, and there is a fee for doing so.

A website, or any content on the Internet, is **hosted** on a **server**. A web server is a machine that serves web content, and the term often refers to the software (applications) and the hardware (machine) that serve the content.

Very simplistically, it works a little something like this:

1. Someone enters a URL in a browser.
2. This is translated into an IP address, which indicates where the content is located, or where the server for the content is.
3. The server then returns the content requested.
4. The person sees the website that they requested.

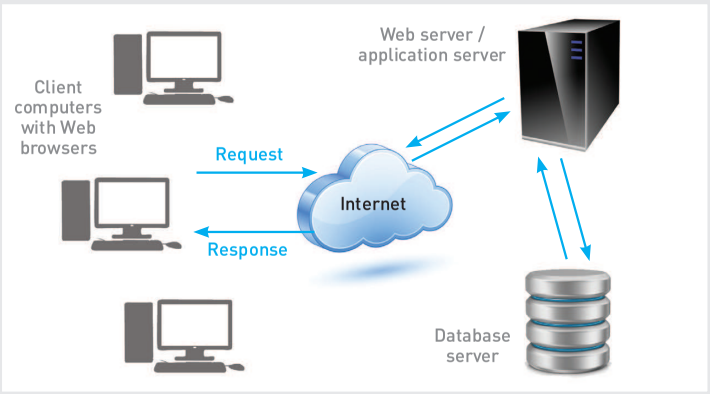

Figure 2. ***The process of serving a website.***

NOTE

All of this happens in a fraction of a second!

Sometimes, the server is not able to fulfil the request (it cannot return the content requested), and instead it returns a status code. Two common status codes you will encounter in this book include the below.

- **301:** This is used to indicate that the content requested has moved permanently, and the new version of the content is returned instead. These 301 redirects are often used in search engine optimisation (SEO) or when a new website is launched to make sure that old links are redirected to the correct, new content.
- **404:** This is returned when the content has not been found on the server, either because there was an error in the link, or because the content has been moved or deleted. Website owners can design a custom page for when a 404 error occurs, giving users useful information.

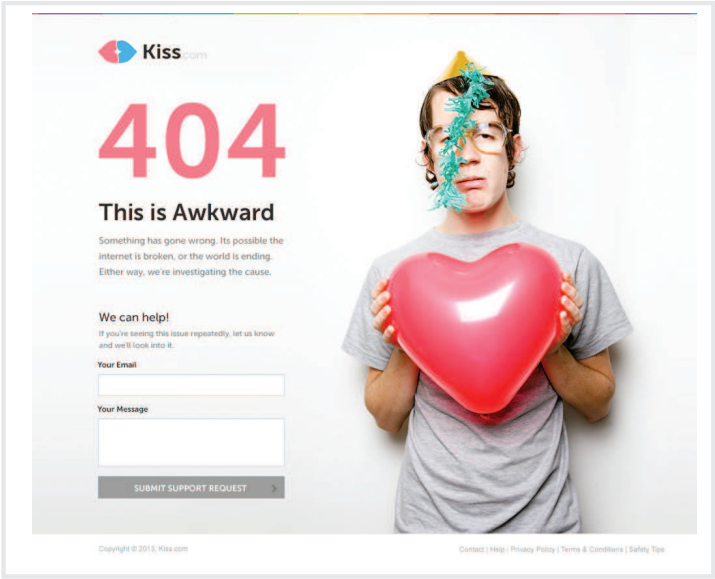

Figure 3. *A fun custom 404 page from Kiss.com.*

You can find a full list of status codes at www.w3.org/Protocols/rfc2616/rfc2616-sec10.html.

NOTE

How aware are you of security when browsing the web? Pay close attention to the sites that use secure protocols - what does this say about them?

This information can be sent via **Hypertext Transfer Protocol (HTTP)**, or **HTTPS**, which is a combination of HTTP with a secure way of transmitting information. HTTP makes it easy to request and transfer information. It's what makes our websites load, and allows us to connect with people on social networks. However, the information that is transferred is not transferred securely, meaning that it could be viewed by third parties. If this was the only way of sending information online, it would be a bad idea to bank online, or to purchase anything over the Internet. This is why we use HTTPS to encrypt information when it is sensitive. In order to make use of HTTPS, the relevant website needs to get a security certificate, which ensures that various details have been verified by a trusted third party.

If you're unsure, look in the browser address bar to check whether the site you are on is HTTP or HTTPS. Most browsers will indicate a secure site with a little padlock in the address bar, or somewhere else in the browser, to make sure that you know you are in a secure site.

Figure 4. *Indicators of a secure site.*

20.3 How people access the Internet

People connect to the Internet and access content in many different ways. When it comes to the physical connection to the Internet, the market presents a number of options:

- Dial-up
- 3G connection
- Wi-Fi and WiMAX
- Broadband
- ADSL

The list goes on. The devices people use vary from mobile phones and expensive tablets to personal notebooks and desktop computers. The environment that people are in when they access the Internet also differs:

- At home
- At the office or place of work
- At libraries and education centres
- In Internet cafes and coffee shops
- On the go

Not only do these environmental factors affect how people use the Internet, but their reasons for using the Internet also have an effect on how they interact online.

For some people, the Internet is primarily a communications channel, and their online activity is focused on their email inbox, while for others it may be a research channel, with search engines playing a large role in their online experience.

20.4 What does this have to do with marketing?

Marketing is about conversations, and the Internet facilitates these on a global scale. The rest of this book has covered the tools and tactics you need to understand and use the Internet to its full potential.

20.5 References

Go-Gulf.com, (2012), *Things That Happen On Internet Every Sixty Seconds*. [Image] Available at: http://www.go-gulf.com/blog/60-seconds/ [Accessed 23 September 2013].