

Computers, the internet and the World Wide Web: an introduction for the e-therapist

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1 Introduction to computers

Technology, in its various forms, has always impacted upon the practice of psychiatry and psychotherapy, and the recent rise to prominence of the computer has had particular impacts upon these professions. The advent of new technologies tends to follow a characteristic path in terms of its acceptance (or otherwise) by a profession, and a model for this is laid out, involving:

- technological innovation
- increase in polarisation
- decrease in polarisation
- solidification of positions.

The development of early computers by Charles Babbage is described, along with some of the basic terminology, such as 'bits' and 'bytes'. Bill Gates' contribution to the development of software is highlighted in the context of Moore's law for the development of processing capacity.

2 The internet and the World Wide Web

The development of the internet (by Robert Kahn and Vinton Cerf at the US Defense Advanced Research Projects Agency) and the World Wide Web (by Tim Berners-Lee) are described, along with Berners-Lee's innovation of HTML, and its importance in enabling communication between computers and networks. The development of email is discussed, along with its benefits and associated problems.

3 Where is the World Wide Web going?

With the growing sophistication of the World Wide Web, it is becoming more difficult for people to contribute to websites without specialist knowledge. This is a move away from the principles of the Web as imagined by Berners-Lee and others. There is thus a move towards what is known as 'Web 2.0' and the use of serverside applications to simplify the process of writing to a webpage, thereby allowing more and more people to interact with web-based software rather than simply to read webpages. A variety of alternatives to webpages and future directions are laid out.

4 The rise and rise of the search engine

With the proliferation of websites, the amount of information on the World Wide Web continues to rapidly increase. It is becoming more and more important to be able to search this vast repository in order to retrieve information. A number of

earlier methods of finding information are discussed, including portals, directories and indexes, and their relationship to the new generation of search engines is described.

(1.5) Reflection

With reference to the diagram, think of a new piece of technology introduced during your lifetime which impacted upon your personal or professional life. For example, pick one or more of:

- the desktop computer
- the mobile phone
- the laptop computer
- the digital audio recorder.

What was your position on this technology when it emerged? Did your position change over time or remain the same, and what are the reasons for this change, or lack of change?

(1.9) Reflection

Computers seem to be particularly of interest to certain types of people – the popular image of the ‘computer nerd’, a young man with obsessive interests in computers and poor social skills. Why do you think that this stereotype has arisen? What is it about computers that attracts such a stereotypical user? And why does the development of computers seem to be dominated by white middle-class men?

(2.9) Reflection

How has email changed your working life? What has it added, and what has it taken away? Write down five ways in which it has added, and five ways in which it has taken away. For each of these latter five, think of how you might use email differently to avoid some of its potentially negative aspects?

(3.5) Reflection

Imagine that you write a blog based on your clinical work. Choose one of the last seven days, and write an imaginary blog entry, detailing what you did, any reflections you might want to present to the readership of a blog on clinical work. Remember to be careful about confidentiality and anonymity – you should remove any identifying features in your writing, and keep the material securely. If you cannot guarantee its security, you should delete or destroy your work afterwards.

(4.3) Reflection

Type your own name into the search engine Google (available at <http://www.google.com/>). If needs be, refine your search by adding in other terms which are likely to lead to a page containing information about yourself. This is an activity sometimes referred to as 'egosurfing'. What do the search results tell someone about you (presuming you can find yourself)?

References

Boulos, M, Maramba, I & Wheeler, S. (2006) Wikis, blogs and podcasts: a new generation of Web-based tools for virtual collaborative clinical practice and education, *BMC Medical Education* 2006, 6, 41 [[Full](#)]

Davis, FD. (1989) Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13,3, 319–340. [[Abstract](#)]

Markoff, J. (2005) How many pages in Google? Take a guess. *The New York Times*, 27 September.

Moore, E. (1965) Cramming more components onto integrated circuits. *Electronics Magazine*, 19 April.

Netcraft (2006) [[Website](#)]

Spam filter review [[Website](#)]

Tantam, D. (2006a) The machine as therapist: impersonal communication with a machine. *Advances in Psychiatric Treatment*, 12, 416–426. [[Abstract](#)]

Tantam, D. (2006b) The machine as intermediary: communication with a therapist via a machine. *Advances in Psychiatric Treatment*, 12, 427–431. [[Abstract](#)]

Wyatt, JC. (1997) Commentary: measuring quality and impact of the World Wide Web. *BMJ*, 314, 1879.

Further reading

1. John Vincent Atanasoff and the birth of the Digital Computer <http://www.cs.iastate.edu/jva/jva-archive.shtml>
2. Charles Babbage: Excerpts describing his Work on Mechanical Computation and his Reflections on Human Behavior http://ed-thelen.org/bab/bab_philosopher.html
3. Charles Babbage <http://ei.cs.vt.edu/~history/Babbage.html>
4. Wikipedia: World Wide Web http://en.wikipedia.org/wiki/World_Wide_Web
5. About derrida http://www.chass.utoronto.ca/pcu/noesis/issue_vi/noesis_vi_6.html
6. Some examples of blogs by psychotherapists and counsellors <http://www.technorati.com/tags/psychotherapy>