The Economist

Schumpeter
Too much information
How to cope with data overload

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Correction to this article

GOOGLE "information overload" and you are immediately overloaded with information: more than 7m hits in 0.05 seconds. Some of this information is interesting: for example, that the phrase "information overload" was popularised by Alvin Toffler in 1970. Some of it is mere noise: obscure companies promoting their services and even more obscure bloggers sounding off. The overall impression is at once overwhelming and confusing.

Brett Ryder

"Information overload" is one of the biggest irritations in modern life. There are e-mails to answer, virtual friends to pester, YouTube videos to watch and, back in the physical world, meetings to attend, papers to shuffle and spouses to appease. A survey by Reuters once found that two-thirds of managers believe that the data deluge has made their jobs less satisfying or hurt their personal relationships. One-third think that it has damaged their health. Another survey suggests that most managers think most of the information they receive is useless.

Commentators have coined a profusion of phrases to describe the anxiety and anomie caused by too much information: "data asphyxiation" (William van Winkle), "data smog" (David Shenk), "information fatigue syndrome" (David Lewis), "cognitive overload" (Eric Schmidt) and "time famine" (Leslie Perlow). Johann Hari, a British journalist, notes that there is a good reason why "wired" means both "connected to the internet" and "high, frantic, unable to concentrate".

These worries are exaggerated. Stick-in-the-muds have always complained about new technologies: the Victorians fussed that the telegraph meant that "the businessman of the present day must be continually on the jump." And businesspeople have always had to deal with constant pressure and interruptions—hence the word "business". In his classic study of managerial work in 1973 Henry Mintzberg compared managers to jugglers: they keep 50 balls

in the air and periodically check on each one before sending it aloft once more.

Yet clearly there is a problem. It is not merely the dizzying increase in the volume of information (the amount of data being stored doubles every 18 months). It is also the combination of omnipresence and fragmentation. Many professionals are welded to their smartphones. They are also constantly bombarded with unrelated bits and pieces—a poke from a friend one moment, the latest Greek financial tragedy the next.

The data fog is thickening at a time when companies are trying to squeeze ever more out of their workers. A survey in America by Spherion Staffing discovered that 53% of workers had been compelled to take on extra tasks since the recession started. This dismal trend may well continue—many companies remain reluctant to hire new people even as business picks up. So there will be little respite from the dense data smog, which some researchers fear may be poisonous.

They raise three big worries. First, information overload can make people feel anxious and powerless: scientists have discovered that multitaskers produce more stress hormones. Second, overload can reduce creativity. Teresa Amabile of Harvard Business School has spent more than a decade studying the work habits of 238 people, collecting a total of 12,000 diary entries between them. She finds that focus and creativity are connected. People are more likely to be creative if they are allowed to focus on something for some time without interruptions. If constantly interrupted or forced to attend meetings, they are less likely to be creative. Third, overload can also make workers less productive. David Meyer, of the University of Michigan, has shown that people who complete certain tasks in parallel take much longer and make many more errors than people who complete the same tasks in sequence.

Curbing the cacophony

What can be done about information overload? One answer is technological: rely on the people who created the fog to invent filters that will clean it up. Xerox promises to restore "information sanity" by developing better filtering and managing devices. Google is trying to improve its online searches by taking into account more personal information. (Some people fret that this will breach their privacy, but it will probably deliver quicker, more accurate searches.) A popular computer program called "Freedom" disconnects you from the web at preset times.

A second answer involves willpower. Ration your intake. Turn off your mobile phone and internet from time to time.

But such ruses are not enough. Smarter filters cannot stop people from obsessively checking their BlackBerrys. Some do so because it makes them feel important; others because they may be addicted to the "dopamine squirt" they get from receiving messages, as Edward Hallowell and John Ratey, two academics, have argued. And self-discipline can be counter-productive if your company doesn't embrace it. Some bosses get shirty if their underlings are unreachable even for a few minutes.

Most companies are better at giving employees access to the information superhighway than at teaching them how to drive. This is starting to change. Management consultants have spotted an opportunity. Derek Dean and Caroline Webb of McKinsey urge businesses to embrace three principles to deal with data overload: find time to focus, filter out noise and

forget about work when you can. Business leaders are chipping in. David Novak of Yum! Brands urges people to ask themselves whether what they are doing is constructive or a mere "activity". John Doerr, a venture capitalist, urges people to focus on a narrow range of objectives and filter out everything else. Cristobal Conde of SunGard, an IT firm, preserves "thinking time" in his schedule when he cannot be disturbed. This might sound like common sense. But common sense is rare amid the cacophony of corporate life.

Economist.com/blogs/schumpeter (http://www.economist.com/blogs/schumpeter)

Correction: This article was amended on July 1st to correct the figures related to Teresa Amabile's study.

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