Is Google Making Us Stupid?

Dave, stop. Stop, will you? Stop, Dave. Will you stop, Dave?"

So the supercomputer HAL pleads with the implacable astronaut Dave Bowman in a famous and weirdly poignant scene toward the end of Stanley Kubrick's 2001: A Space Odyssey. Bowman, having nearly been sent to a deep space death by the malfunctioning machine, is calmly, coldly disconnecting the memory circuits that control its artificial" brain. "Dave, my mind is going," HAL says, forlornly. "I can feel it. I can feel it."

I can feel it, too. Over the past few years I've had an uncomfortable sense that someone, or something, has been tinkering with my brain, remapping the neural circuitry, reprogramming the memory. My mind isn't going so far as I can tell but it's changing. I'm not thinking the way I used to think. I can feel it most strongly when I'm reading. Immersing myself in a book or a lengthy article used to be easy. My mind would get caught up in the narrative or the turns of the argument, and I'd spend hours strolling through long stretches of prose. That's rarely the case anymore. Now my concentration often starts to drift after two or three pages. I get fidgety, lose the thread, begin looking for something else to do. I feel as if I'm always dragging my wayward brain back to the text. The deep reading that used to come naturally has become a struggle.

I think I know what's going on. For more than a decade now, I've been spending a lot of time online, searching and surfing and sometimes adding to the great databases of the Internet. The Web has been a godsend to me as a writer. Research that once required days in the stacks or periodical rooms of libraries can now be done in minutes. A few Google searches, some quick clicks on hyperlinks, and I've got the telltale fact or pithy quote I was after. Even when I'm not working, I'm as likely as not to be foraging in the Web's info thickets' reading and writing e mails, scanning headlines and blog posts, watching videos and listening to podcasts, or just tripping from link to link to link. (Unlike footnotes, to which they're sometimes likened, hyperlinks don't merely point to related works; they propel you toward them.)

For me, as for others, the Net is becoming a universal medium, the conduit for most of the information that flows through my eyes and ears and into my mind. The advantages of having immediate access to such an incredibly rich store of information are many, and they've been widely described and duly applauded. "The perfect recall of silicon memory," Wired's Clive Thompson has written, "can be an enormous boon to thinking." But that boon comes at a price.

As the media theorist Marshall McLuhan pointed out in the 1960s, media are not just passive channels of information. They supply the stuff of thought, but they also shape the process of thought.

And what the Net seems to be doing is chipping away my capacity for concentration and contemplation. My mind now expects to take in information the way the Net distributes it: in a swiftly moving stream of particles. Once I was a scuba diver in the sea of words. Now I zip along the surface like a guy on a Jet Ski.

I'm not the only one. When I mention my troubles with reading to friends and acquaintances – literary types, most of them, many say they're having similar experiences. The more they use the Web, the more they have to fight to stay focused on long pieces of writing. Some of the bloggers I follow have also begun mentioning the phenomenon. Scott Karp, who writes a blog about online media, recently confessed that he has stopped reading books altogether. "I was a lit major in college, and used to be [a] voracious book reader," he wrote. "What happened?" He speculates on the answer: "What if I do all my reading on the web not so much because the way I read has changed, i.e. I'm just seeking convenience, but because the way I THINK has changed?"

Bruce Friedman, who blogs regularly about the use of computers in medicine, also has described how the Internet has altered his mental habits. "I now have almost totally lost the ability to read and absorb a longish article on the web or in print," he wrote earlier this year. A pathologist who has long been on the faculty of the University of Michigan Medical School, Friedman elaborated on his comment in a telephone conversation with me. His thinking, he said, has taken on a "staccato" quality, reflecting the way he quickly scans short passages of text from many sources online. "I can't read War and Peace anymore," he admitted. "I've lost the ability to do that. Even a blog post of more than three or four paragraphs is too much to absorb. I skim it."

Anecdotes alone don't prove much. And we still await the long term neurological and psychological experiments that will provide a definitive picture of how Internet use affects cognition. But a recently published study of online research habits, conducted by scholars from University College London, suggests that we may well be in the midst of a sea change in the way we read and think.

2

As part of the five year research program, the scholars examined computer logs documenting the behavior of visitors to two popular research sites, one operated by the British Library and one by a U.K. educational consortium, that provide access to journal articles, e books, and other sources of written information. They found that people using the sites exhibited "a form of skimming activity," hopping from one source to another and rarely returning to any source they'd already visited.

They typically read no more than one or two pages of an article or book before they would "bounce" out to another site. Sometimes they'd save a long article, but there's no evidence that they ever went back and actually read it. The authors of the study report:

It is clear that users are not reading online in the traditional sense; indeed there are signs that new forms of "reading" are emerging as users "power browse" horizontally through titles, contents pages and abstracts going for quick wins. It almost seems that they go online to avoid reading in the traditional sense.

Thanks to the ubiquity of text on the Internet, not to mention the popularity of text-messaging on cell phones, we may well be reading more today than we did in the 19708 or 1980s, when television was our medium of choice. But it's a different kind of reading, and behind it lies a different kind of thinking perhaps even a new sense of the self. "We are not only what we read," says Maryanne Wolf, a developmental psychologist at Tufts University and the author of Proust and the Squid: The Story and Science of the Reading Brain. "We are how we read." Wolf worries that the style of reading promoted by the Net, a style that puts "efficiency" and "immediacy" above all else, may be weakening our capacity for the kind of deep reading that emerged when an earlier technology, the printing press, made long and complex works of prose commonplace. When we read online, she says, we tend to become "mere decoders of information." Our ability to interpret text, to make the rich mental connections that form when we read deeply and without distraction, remains largely disengaged.

Reading, explains Wolf, is not an instinctive skill for human beings. It's not etched into our genes the way speech is. We have to teach our minds how to translate the symbolic characters we see into the language we understand. And the media or other technologies we use in learning and practicing the craft of reading play an important part in shaping the neural circuits inside our brains.

Experiments demonstrate that readers of ideograms, such as the Chinese, develop a mental circuitry for reading that is very different from the circuitry found in those of us whose written language employs an alphabet. The variations extend across many regions of the brain, including those that govern such essential cognitive functions as memory and the interpretation of visual and auditory stimuli. We can expect as well that the circuits woven by our use of the Net will be different from those woven by our reading of books and other printed works.

Sometime in 1882, Friedrich Nietzsche bought a typewriter, a Malling Hansen Writing Ball, to be precise.

His vision was failing, and keeping his eyes focused on a page had become exhausting and painful, often bringing on crushing headaches. He had been forced to curtail his writing, and he feared that he would soon have to give it up. The typewriter rescued him, at least for a time. Once he had mastered touch typing, he was able to write with his eyes closed, using only the tips of his fingers. Words could once again flow from his mind to the page.

But the machine had a subtler effect on his work. One of Nietzsche's friends, a composer, noticed a change in the style of his writing. His already terse prose had become even tighter, more telegraphic. "Perhaps you will through this instrument even take to a new idiom," the friend wrote in a letter, noting that, in his own work, his "thoughts' in music and language often depend on the quality of pen and paper."

"You are right," Nietzsche replied, "our writing equipment takes part in the forming of our thoughts." Under the sway of the machine, writes the German media scholar Friedrich A. Kittler, Nietzsche's prose "changed from arguments to aphorisms, from thoughts to puns, from rhetoric to telegram style."

The human brain is almost infinitely malleable. People used to think that our mental meshwork, the dense connections formed among the 100 billion or so neurons inside our skulls, was largely fixed by the time we reached adulthood. But brain researchers have discovered that that's not the case. James Olds, a professor of neuroscience who directs the Krasnow Institute for Advanced Study at George Mason University, says that even the adult mind "is very plastic." Nerve cells routinely break old connections and form new ones. "The brain," according to Olds, "has the ability to reprogram itself on the fly, altering the way it functions."

3

As we use what the sociologist Daniel Bell has called our "intellectual technologies" the tools that extend our mental rather than our physical capacities we inevitably begin to take on the qualities of those technologies. The mechanical clock, which came into common use in the 14th century, provides a compelling example. In Technics and Civilization, the historian and cultural critic Lewis Mumford described how the clock "disassociated time from human events and helped create the belief in an independent world of mathematically measurable sequences." The "abstract framework of divided time" became "the point of reference for both action and thought."

The clock's methodical ticking helped bring into being the scientific mind and the scientific man. But it also took something away. As the late MIT computer scientist Joseph Weizenbaum observed in his 1976 book, Computer Power and Human Reason: From Judgment to Calculation, the conception of the world that emerged from the widespread use of timekeeping instruments "remains an impoverished version of the older one, for it rests on a rejection of those direct experiences that formed the basis for, and indeed constituted, the old reality." In deciding when to eat, to work, to sleep, to rise, we stopped listening to our senses and started obeying the clock.

The process of adapting to new intellectual technologies is reflected in the changing metaphors we use to explain ourselves to ourselves. When the mechanical clock arrived, people began thinking of their brains as operating "like clockwork." Today, in the age of software, we have come to think of them as operating "like computers." But the changes, neuroscience tells us, go much deeper than metaphor. Thanks to our brain's plasticity, the adaptation occurs also at a biological level.

The Internet promises to have particularly far reaching effects on cognition. In a paper published in 1936, the British mathematician Alan Turing proved that a digital computer, which at the time existed only as a theoretical machine, could be programmed to perform the function of any other information processing device. And that's what we're seeing today. The Internet, an immeasurably powerful computing system, is subsuming most of our other intellectual technologies. It's becoming our map and our clock, our printing press and our typewriter, our calculator and our telephone, and our radio and TV.

When the Net absorbs a medium, that medium is re created in the Net's image. It injects the medium's content with hyperlinks, blinking ads, and other digital gewgaws, and it surrounds the content with the content of all the other media it has absorbed. A new e mail message, for instance, may announce its arrival as we're glancing over the latest headlines at a newspaper's site. The result is to scatter our attention and diffuse our concentration.

The Net's influence doesn't end at the edges of a computer screen, either. As people's minds become attuned to the crazy quilt of Internet media, traditional media have to adapt to the audience's new expectations. Television programs add text crawls and pop up ads, and magazines and newspapers shorten their articles, introduce capsule summaries, and crowd their pages with easy to browse info snippets. When, in March of this year, The New York Times decided to devote the second and third pages of every edition to article abstracts , its design director, Tom Bodkin, explained that the "shortcuts" would give harried readers a quick "taste" of the day's news, sparing them the "less efficient" method of actually turning the pages and reading the articles. Old media have little choice but to play by the new media rules.

Never has a communications system played so many roles in our lives or exerted such broad influence over our thoughts as the Internet does today. Yet, for all that's been written about the Net, there's been little consideration of how, exactly, it's reprogramming us. The Net's intellectual ethic remains obscure.

About the same time that Nietzsche started using his typewriter, an earnest young man named Frederick Winslow Taylor carried a stopwatch into the Midvale Steel plant in Philadelphia and began a historic series of experiments aimed at improving the efficiency of the plant's machinists.

With the approval of Midvale's owners, he recruited a group of factory hands, set them to work on various metalworking machines, and recorded and timed their every movement as well as the operations of the machines. By breaking down every job into a sequence of small, discrete steps and then testing different ways of performing each one, Taylor created a set of precise instructions an "algorithm," we might say today for how each worker should work. Midvale's employees grumbled about the strict new regime, claiming that it turned them into little more than automatons, but the factory's productivity soared.

4

More than a hundred years after the invention of the steam engine, the Industrial Revolution had at last found its philosophy and its philosopher. Taylor's tight industrial choreography – his "system," as he liked to call it was embraced by manufacturers throughout the country and, in time, around the world. Seeking maximum speed, maximum efficiency, and maximum output, factory owners used time and motion studies to organize their work and configure the jobs of their workers.

 The goal, as Taylor defined it in his celebrated 1911 treatise, The Principles of Scientific Management, was to identify and adopt, for every job, the "one best method" of work and thereby to effect "the gradual substitution of science for rule of thumb throughout the mechanic arts." Once his system was applied to all acts of manual labor, Taylor assured his followers, it would bring about a restructuring not only of industry but of society, creating a utopia of perfect efficiency. "In the past the man has been first," he declared; "in the future the system must be first."

Taylor's system is still very much with us; it remains the ethic of industrial manufacturing. And now, thanks to the growing power that computer engineers and software coders wield over our intellectual lives, Taylor's ethic is beginning to govern the realm of the mind as well. The Internet is a machine designed for the efficient and automated collection, transmission, and manipulation of information, and its legions of programmers are intent on finding the "one best method" the perfect algorithm to carry out every mental movement of what we've come to describe as "knowledge work."

Google's headquarters, in Mountain View, California the Googleplex is the Internet's high church, and the religion practiced inside its walls is Taylorism.

Google, says its chief executive, Eric Schmidt, is "a company that's founded around the science of measurement," and it is striving to "systematize everything" it does. Drawing on the terabytes of behavioral data it collects through its search engine and other sites, it carries out thousands of experiments a day, according to the Harvard Business Review, and it uses the results to refine the algorithms that increasingly control how people find information and extract meaning from it. What Taylor did for the work of the hand, Google is doing for the work of the mind.

The company has declared that its mission is "to organize the world's information and make it universally accessible and useful." It seeks to develop "the perfect search engine," which it defines as something that "understands exactly what you mean and gives you back exactly what you want." In Google's view, information is a kind of commodity, a utilitarian resource that can be mined and processed with industrial efficiency. The more pieces of information we can "access" and the faster we can extract their gist, the more productive we become as thinkers.

Where does it end? Sergey Brin and Larry Page, the gifted young men who founded Google while pursuing doctoral degrees in computer science at Stanford, speak frequently of their desire to turn their search engine into an artificial intelligence, a HAL like machine that might be connected directly to our brains. "The ultimate search engine is something as smart as people or smarter," Page said in a speech a few years back. "For us, working on search is a way to work on artificial intelligence." In a 2004 interview with Newsweek, Brin said, "Certainly if you had all the world's information directly attached to your brain, or an artificial brain that was smarter than your brain, you'd be better off." Last year, Page told a convention of scientists that Google is "really trying to build artificial intelligence and to do it on a large scale."

Such an ambition is a natural one, even an admirable one, for a pair of math whizzes with vast quantities of cash at their disposal and a small army of computer scientists in their employ. A fundamentally scientific enterprise, Google is motivated by a desire to use technology, in Eric Schmidt's words, "to solve problems that have never been solved before," and artificial intelligence is the hardest problem out there. Why wouldn't Brin and Page want to be the ones to crack it?

Still, their easy assumption that we'd all "be better off' if our brains were supplemented, or even replaced, by an artificial intelligence is unsettling. It suggests a belief that intelligence is the output of a mechanical process, a series of discrete steps that can be isolated, measured, and optimized. In Google's world, the world we enter when we go online, there's little place for the fuzziness of contemplation. Ambiguity is not an opening for insight but a bug to be fixed. The human brain is just an outdated computer that needs a faster processor and a bigger hard drive.

5

The idea that our minds should operate as high speed data processing machines is not only built into the workings of the Internet, it is the network's reigning business model as well. The faster we surf across the Web the more links we click and pages we view the more opportunities Google and other companies gain to collect information about us and to feed us advertisements. Most of the proprietors of the commercial Internet have a financial stake in collecting the crumbs of data we leave behind as we flit from link to link the more crumbs, the better. The last thing these companies want is to encourage leisurely reading or slow, concentrated thought. It's in their economic interest to drive us to distraction.

Maybe I'm just a worrywart. Just as there's a tendency to glorify technological progress, there's a countertendency to expect the worst of every new tool or machine.

In Plato's Phaedrus, Socrates bemoaned the development of writing. He feared that, as people came to rely on the written word as a substitute for the knowledge they used to carry inside their heads, they would, in the words of one of the dialogue's characters, "cease to exercise their memory and become forgetful." And because they would be able to "receive a quantity of information without proper instruction," they would "be thought very knowledgeable when they are for the most part quite ignorant." They would be "filled with the conceit of wisdom instead of real wisdom." Socrates wasn't wrong the new technology did often have the effects he feared but he was shortsighted. He couldn't foresee the many ways that writing and reading would serve to spread information, spur fresh ideas, and expand human knowledge (if not wisdom).

The arrival of Gutenberg's printing press, in the 15th century, set off another round of teeth gnashing. The Italian humanist Hieronimo Squarciafico worried that the easy availability of books would lead to intellectual laziness, making men "less studious" and weakening their minds. Others argued that cheaply printed books and broadsheets would undermine religious authority, demean the work of scholars and scribes, and spread sedition and debauchery. As New York University professor Clay Shirky notes, "Most of the arguments made against the printing press were correct, even prescient." But, again, the doomsayers were unable to imagine the myriad blessings that the printed word would deliver.

So, yes, you should be skeptical of my skepticism. Perhaps those who dismiss critics of the Internet as Luddites or nostalgists will be proved correct, and from our hyperactive, data-stoked minds will spring a golden age of intellectual discovery and universal wisdom.

Then again, the Net isn't the alphabet, and although it may replace the printing press, it produces something altogether different. The kind of deep reading that a sequence of printed pages promotes is valuable not just for the knowledge we acquire from the author's words but for the intellectual vibrations those words set off within our own minds. In the quiet spaces opened up by the sustained, undistracted reading of a book, or by any other act of contemplation, for that matter, we make our own associations, draw our own inferences and analogies, foster our own ideas. Deep reading, as Maryanne Wolf argues, is indistinguishable from deep thinking.

If we lose those quiet spaces, or fill them up with "content," we will sacrifice something important not only in our selves but in our culture. In a recent essay, the playwright Richard Foreman eloquently described what's at stake:

I come from a tradition of Western culture, in which the ideal (my ideal) was the complex, dense and "cathedral like" structure of the highly educated and articulate personality a man or woman who carried inside themselves a personally constructed and unique version of the entire heritage of the West. [But now] I see within us all (myself included) the replacement of complex inner density with a new kind of self evolving under the pressure of information overload and the technology of the "instantly available."

As we are drained of our "inner repertory of dense cultural inheritance," Foreman concluded, we risk turning into "pancake people' spread wide and thin as we connect with that vast network of information accessed by the mere touch of a button."

I'm haunted by that scene in 2001. What makes it so poignant, and so weird, is the computer's emotional response to the disassembly of its mind: its despair as one circuit after another goes dark, its childlike pleading with the astronaut "I can feel it. I can feel it. I'm afraid" and its final reversion to what can only be called a state of innocence. HAL's outpouring of feeling contrasts with the emotionlessness that characterizes the human figures in the film, who go about their business with an almost robotic efficiency. Their thoughts and actions feel scripted, as if they're following the steps of an algorithm. In the world of 2001, people have become so machinelike that the most human character turns out to be a machine. That's the essence of Kubrick's dark prophecy: as we come to rely on computers to mediate our understanding of the world, it is our own intelligence that flattens into artificial intelligence.

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Key text

The Medium is the Massage

Marshall McLuhan

The electric light is pure information. It is a medium without a message, as it were, unless it is used to spell out some verbal ad or name. This fact, characteristic of all media, means that the "content" of any medium is always another medium. The content of writing is speech, just as the written word is the content of print, and print is the content of the telegraph. If it is asked, "What is the content of speech?," it is necessary to say, "It is an actual process of thought, which is in itself nonverbal." An abstract painting represents direct manifestation of creative thought processes as they might appear in computer designs. What we are considering here, however, are the psychic and social consequences of the designs or patterns as they amplify or accelerate existing processes For the "message" of any medium or technology is the change of scale or pace or pattern that it introduces into human affairs. The railway did not introduce movement or transportation or wheel or road into human society, but it accelerated and enlarged the scale of previous human functions, creating totally new kinds of cities and new kinds of work and leisure. This happened whether the railway functioned in a tropical or a northern environment, and is quite independent of the freight or content of the railway medium. The airplane, on the other hand, by accelerating the rate of transportation, tends to dissolve the railway form of city, politics, and association, quite independently of what the airplane is used for.

Let us return to the electric light. Whether the light is being used for brain surgery or night baseball is a matter of indifference.

It could be argued that these activities are in some way the "content" of the electric light, since they could not exist without the electric light. This fact merely underlines the point that "the medium is the message" because it is the medium that shapes and controls the scale and form of human association and action. The content or uses of such media are as diverse as they are ineffectual in shaping the form of human association. Indeed, it is only too typical that the "content" of any medium blinds us to the character of the medium. It is only today that industries have become aware of the various kinds of business in which they are engaged. When IBM discovered that it was not in the business of making office equipment or business machines, but that it was in the business of processing information, then it began to navigate with clear vision. The General Electric Company makes a considerable portion of its profits from electric light bulbs and lighting systems. It has not yet discovered that, quite as much as A.T.& T., it is in the business of moving information.

The electric light escapes attention as a communication medium just because it has no "content." And this makes it an invaluable instance of how people fail to study media at all. For it is not till the electric light is used to spell out some brand name that it is noticed as a medium. Then it is not the light but the "content" (or what is really another medium) that is noticed. The message of the electric light is like the message of electric power in industry, totally radical, pervasive, and decentralized. For electric light and power are separate from their uses, yet they eliminate time and space factors in human association exactly as do radio, telegraph, telephone, and TV, creating involvement in depth.

Post Cinema: Digital Theory and the New Media

Film Theory—
an Introduction

Robert Stam

The new technologies also have clear impact on production and aesthetics. The introduction of digital media has led to the use of computer animation in Toy Story and of CGI special effects in Jurassic Park. Morphing is used to interrogate essentialist racial differences (for example, in Michael Jackson's Black or White), in an aesthetic that emphasizes similarities across difference rather than the graphic conflicts of Eisensteinian montage (Sobchack, 1997). The seven minute Swiss film Rendezvous a Montreal (1987) offered an entirely computer generated film which stages a threshold romance between Marilyn Monroe and Humphrey Bogart. In mainstream film, computer generated sequences appeared in Star Trek II (1983), while computer generated characters appeared in Terminator II (1991). The cyber-fetishist journal Wired spoke in 1997 of "Hollywood 2.0," implicitly comparing the film industry's transformation to the frenzied production of obsolescence implicit in the recurrent upgradings of computer software.

At the same time, digital cameras and digital editing (AVID) not only open up montage possibilities but also facilitate low budget filmmaking. And in terms of distribution, the Internet makes it possible for a community of strangers to exchange texts, images, and video sequences, thus enabling a new kind of international communication, one, it is hoped, that is more reciprocal and multicentered than the old Hollywood-dominated international system. Thanks to fiberoptics we can look forward to "dialup cinema," the capacity to see, or download, a vast archive of films and audiovisual materials. The shift to the digital makes for infinite reproducibility without loss of quality, since the images are stored as pixels, with no "original." We are also promised computer generated actors, desktop computers that can produce feature films, and creative collaborations across geographically dispersed sites.

We also find an uncanny affinity between the new media and what used to be regarded as avantgarde practices. Contemporary video and computer technologies facilitate media jujitsu and the recycling of media detritus as "found objects." Rather than the 1960s "aesthetic of hunger," low budget videomakers can deploy, a kind of cybernetic minimalism, achieving maximum beauty and effect at minimum expense. Video switchers allow the screen to be split, divided horizontally or vertically, with wipes and inserts. Keys, chromakeys, mattes and fader bars, along with computer graphics, multiply audiovisual possibilities for fracture, rupture, polyphony. An electronic quilting can weave together sounds and images in ways that break with linear character centered narrative. All the conventional decorum of dominant cinema – eyeline matches, position matches, the 30 degree rule, cutaway shots – is superseded by proliferating polysemy. The centered perspective inherited from Renaissance humanism is relativized, the multiplicity of perspectives rendering identification with any one perspective difficult. Spectators have to decide what the images have in common, or how they conflict; they have to effect the syntheses latent in the audiovisual material.

The obvious fact that mainstream cinema has largely opted for a linear and homogenizing aesthetic where track reinforces track within a Wagnerian totality in no way effaces the equally salient truth that the cinema (and the new media) is infinitely rich in polyphonic possibilities. The cinema has always been able to stage temporalized contradictions between the diverse tracks, which can mutually shadow, jostle, undercut, haunt, and relativize one another. Jean Luc Godard anticipated these possibilities with his 1970s video research films like Numéro Deux and Ici et Ailleurs, and Peter Greenaway pushed them in new directions in films like Prospero's Books and The Pillow Book, where multiple images mold an achronological multiple entry "narrative." The new media can combine synthesized images with captured ones. The digitalized culture industry can now promote "threshold encounters" between Elton John and Louis Armstrong, or allow Natalie Cole to sing with her long departed father. They are capable of chameleonic blendings a la Zelig and digital insertions a la Forest Gump. The capacity for palimpsestic overlays of images and sounds facilitated by electronics and cybernetics opens the doors to a renovated, multichannel aesthetic. Meaning can be generated not through the drive and thrust of individual desire as encapsulated by a linear narrative, but rather through the interweaving of mutually relativizing layers of sound, image, and language. Less bound by canonical institutional and aesthetic traditions, the new media make possible what Arlindo Machado (1997) calls the "hybridization of alternatives."

Alfred Hitchcock's Psycho
(1960)

In 1993 (at the Kunstmuseum, Wolfsburg) Douglas Gordon exhibited an installation piece, 24 hour Psycho, which expanded Hitchcock's original by slowing it down electronically from its original 90 minutes to 24 hours. Naturally, these viewing corrections erode the tightly drawn, graphic structure of the original story line and its reference to traditional narrative genre. However, Hitchcock's filming practice has left its imprint in the formal, linear quality of the images, their stark contrasts of light and shade, reflecting the carefully designed images, always patiently storyboarded before filming and with a preference for back projection, especially in Psycho. This work creates a dialogue between the film and technology to discover something that is not there in the original as screened but can be revealed within it. The installation has a reverie-producing effect, especially in the light of changes that have taken place in film consumption since 1993. During the 20 years leading up to the cinema's centenary in 1995-6, video had transformed the ways in which film could watched, introducing the spectator to a new kind of control of the image and its flow. 24-Hour Psycho is, as much as anything, a celebration of the radical new possibilities offered by video viewing. Douglas Gordon had happened to reverse his Psycho tape to freeze frame the scene in which Norman watches Marion through the peephole, and then, it is said, accidentally discovered the beauty of the film when run at two frames per second.

As Amy Taubin has pointed out, 24-Hour Psycho opened up a Hollywood genre movie to the aesthetics of slow motion and thus to the traditions of the avantgarde film. She comments on the way that the work, beyond its slow motion, seems to take the cinema. paradoxically refracted through an electronic medium, back to its own materiality and yield up the stillness of the individual frame in the filmstrip:

By slowing the film down to a 13th of its normal speed, Gordon shows us not a 'motion picture' but a succession of stills, each projected for about half a second. We become await of the intermittency of the film image and the fragility of the illusion of real time in motion pictures.

Here the cinema can find a way back to its essential stillness and the double temporality to which Taubin refers. While the flow of the image at 24 frames a second tends to assert a 'nowness' to the picture, stillness allows access to the time of the film's registration, its 'then-ness'. This is the point, essentially located in the single frame, where the cinema meets the still photograph, both registering a moment of time frozen and thus fossilized.

But, inexorably, a reverie triggered by 24-Hour Psycho must be affected by the presence of death that pervades it, hovering somewhere between the stillness of the photograph and the movement of the cinema. In Douglas Gordon's reworking, in Psycho itself and in Hitchcock's films more generally, stories, images and themes of death accumulate on different levels, leading like threads back to the cinema, to reflect on its deathly connotations as a medium and ultimately its own mortality. Just as Psycho, in 1960, marked a final staging post in the history of the studio system as the basis for the Hollywood film industry, 24-Hour Psycho, like an elegy, marks a point of no return for the cinema itself.

In an art gallery, the spectator watches Gordon's reflection on the slowmotion effect, unable (as in the cinema) to intervene in the projection flow. But 24-Hour Psycho is also a significant, and a *public*, meditation on new forms of *private* spectatorship. Anyone who wants to is now able to play with the film image and perhaps, in the process, evolve voyeurism and investment in spectacle into something closer to fetishism and investment in repetition, detail and personal obsession. Gordon's own discovery of another dimension to the film image, as he slowed his machine to examine a highly self-reflexive moment of voyeurism, can stand symbolically for this shift in spectatorship. 24-Hour Psycho may represent an elegiac moment for the cinema, but it also marks a new dawn, the beginning of an 'expanded cinema', which will grow in possibility as electronic technologies are overtaken by digital ones. In this aesthetic juncture André Bazin's perception of the cinema takes on a new relevance as it is possible to watch the slow process of mutation as 'the image of things is also the image of their durations' and the process of 'change mummified' becomes a spectacle in its own right.

Andrew Keen online

Go to:

http://ajkeen.com/e.htm

(Chapters 1 / The Great Seduction, and 2 / The
Noble Amateur from *The Cult of the Amateur:
How today's Internet is Killing Our Culture and
Assaulting Our Economy)*.

**http://www.npr.org/templates/story/story.php?
storyId=11131872**

(A radio interview with Andrew Keen)

Thinking is so over

The web was going to be the great educator, but the cult of the amateur is now devaluing knowledge, says net entrepreneur Andrew Keen

Before the internet it seemed like a joke: if you provide an infinite number of monkeys with typewriters one of them will eventually come up with a masterpiece. But with the web now firmly established in its second evolutionary phase – in which users create the content on blogs, podcasts and streamed video – the infinite monkey theory doesn't seem so funny any more.

"Today's technology hooks all those monkeys up with all those typewriters," argues Andrew Keen, who believes that "web 2.0" is killing our culture, assaulting our economy and destroying time-honoured codes of conduct.

An Englishman who moved from north London to California in the 1990s and swapped university lecturing for internet entrepreneurship, Keen has turned against the thoughtless barbarism of his Silicon Valley peers. In an alarming new book The Cult of the Amateur he argues that many of the ideas promoted by champions of web 2.0 are gravely flawed. Instead of creating masterpieces, the millions of exuberant monkeys are creating an endless digital forest of mediocrity: uninformed political commentary, unseemly home videos, embarrassingly amateurish music, unreadable poems, essays and novels.

Worse still, the supposed "democratisation" of the web has been a sham. "Despite its lofty idealisation it's undermining truth, souring civic discourse, and belittling expertise, experience and talent," he says. Take the much vaunted "wisdom of crowds", which has led to the astonishing growth of the free online reference work Wikipedia. The English site alone boasts 1.8m articles freely contributed by ordinary web users and more are created every minute.

But as the sum of what we all know and agree, the wisdom of crowds has no greater value than Trivial Pursuit. Wikipedia is full of mistakes, half truths and misunderstandings. What happens if you try to do something about it? William Connolley, a climate modeller at the British Antarctic Survey in Cambridge and an expert on global warming, disagreed with a Wikipedia editor over a particular entry on the site. After trying to correct inaccuracies Connolley was accused of trying to remove "any point of view which does not match his own". Eventually he was limited to making just one edit a day.

Arbitrating on the dispute, Wikipedia gave no weight to his expertise, and treated him with the same credibility as his anonymous opponent. "The consequences of this dismissal of traditional, credentialed experts are both chilling and absurd," says Keen.

"What defines the best minds," Keen argues, "is their ability to go beyond the 'wisdom' of the crowd and mainstream opinion." Wikipedia is premised on a contrary theory of truth that would have seemed familiar to George Orwell: if the crowd says that two plus two equals five, then two plus two really does equal five.

At a working breakfast in 2004 Keen was alarmed to be told the new democratic internet would overthrow the "dictatorship of expertise". And that's happening already. Wikipedia, with its millions of amateur editors and unreliable content, is the 17th most trafficked site on the net. Britannica.com, a subscription-based service with 100 Nobel prize-winning contributors and more than 4,000 other experts is ranked 5,128. As a result, Britannica has had to make painful cuts in staffing and editorial.

These cutbacks don't only affect the individuals laid off. They affect us all – because if Britannica and publications like it should disappear we'll be obliged to rely on the unreliable patchwork of information parcelled out on Wikipedia by people who often don't even reveal their identity.

"Instead of a dictatorship of experts, we'll have a dictatorship of idiots," says Keen, who finds classic signs of totalitarianism in Silicon Valley. "Anyone who disagrees is wrong. These people manifest some of the symptoms of 19th century Russian idealists and utopians, who think that their vision of the world is going to change everything for the better."

This is not only about reference libraries. It's much more important. What Wikipedia has done to reference books, bloggers do to traditional news media. Papers and magazines close down while broadcasters sell off radio and television stations, as more people turn to podcasts and streamed videos.

But as Keen shows, many blogs and "news" sites are merely fronts for public relations machines. Others conceal their agendas. They're also unaccountable and rarely remove their mistakes. It was once said that: "A lie can make it halfway around the world before the truth has the chance to put its boots on." That has never been more true than in the freewheeling, unchecked blogosphere.

2

"Many bloggers flaunt their lack of training and formal qualifications as evidence of their calling, their passion," says Keen. But they also lack connections and access to information. A politician can avoid dealing with ordinary citizens but would be a fool to refuse calls from representatives of the press and TV news. If traditional news-gathering disappears, who will hold politicians to account?

Even if they had the talent and the connections, no blogs could afford to conduct investigations comparable to the great newspaper campaigns of the past. So the idea that content on the web is "free" is mistaken: the hidden cost may be the demise of old media and entire art forms on which the free content depends.

Already, Keen contends, illegal downloads have destroyed the music business. (He's not alone. The great singer-songwriter Paul Simon told Keen: "I'm personally against web 2.0 in the same way as I'm personally against my own death.") And with download speeds increasing and becoming more widespread it's only a matter of time before film and TV studios face the same demise.

Another web idea dismantled by Keen is the concept of the "long tail" – the slow but gradual accumulation of sales by niche products such as books that could never have commanded shelf space in shops but can wait for buyers to find them on Amazon. In other words, you may never get more than 10 buyers for your little book of poetry, but thanks to the net you can publish it anyway. Somehow those 10 readers will find you.

But talent is "the needle in today's digital haystack", says Keen. In a world without newspapers, publishing houses, film studios, radio and TV stations there'll be nobody to discover and – no less important – to nurture talent. The result could be no less catastrophic than Pol Pot's decision to eliminate talent and expertise in Cambodia by mass execution.

"Once dismantled, I fear that this professional media – with its rich ecosystem of writers, editors, agents, talent scouts, journalists, publishers, musicians, reporters and actors – can never again be put back together. We destroy it at our peril," says Keen.

He is not against technology: he just wants to see a bit more control. We must choose between sites such as Wikipedia, where the cult of the anonymous amateur prevails, and the newer alternative Citizendium, which aims to improve on Wikipedia's model by adding "gentle expert oversight" and requiring contributors to use their real names.

Where necessary, governments should intervene, as the Americans did last year by clamping down on gambling sites. "This is not about being herded into a gulag but the complete flattening of culture so that everything becomes a commercial break," says Keen. "'Free culture' is about giving it away so that you can advertise. I grew up wondering why there were no ads in novels. That was because I was prepared to spend money to buy the book."

Is today's internet killing our culture?

Andrew to Emily:

So is today's internet killing our culture? Let me begin this exchange with three simple questions:

1/ Is the internet good or bad for consumers of culture (the audience)?

2/ Is the internet good or bad for creators of culture (writers, film makers, musicians, journalists)?

3/ Is the internet good or bad for the cultural economy?

I think the internet is generally bad news for consumers and creators of culture as well as for our cultural economy. To make my argument, let me compare the age of modern mass media with today's postmodern internet age.

In the mass media age, the copy was the key commodity in terms of economic value. Intellectual property was defensible, a meritocracy of elites maintained gatekeeper status of the cultural economy and there was a clear hierarchy between the creators and consumers of culture.

Of course, the mass media age wasn't ideal for either the audience or for the author. Firstly, mass media produced a lot of trash (tabloid newspapers, television soap operas, bad Hollywood movies etc etc). Secondly, artists weren't always fairly rewarded for their labour. Thirdly, gatekeepers didn't always recognise real talent, so some legitimate artists never got recorded or published.

But the achievements of mass media radically outweigh its flaws. A significant part of the mass media meritocracy – BBC, Guardian, New York Times, National Public Radio, many publishers and record labels – were committed to the production of high-quality culture. This enabled many artists to earn a full-time living from the sale of their creative work. Most importantly, culture – in the form of paperback books, recorded music, movies and newspapers – became accessible and affordable for the masses.

Today's internet, quite literally, turns the mass media age on its head. Anyone with internet access can publish anything online, which results in the mob chaos of YouTube, the blogosphere and Wikipedia. As the traditional media gatekeepers lose their power, the very idea of cultural authority is undermined, meaning that everybody (ie: nobody) can legitimately determine aesthetic standards or truths.

The economic consequences of this anarchy are particularly corrosive. The digital revolution fatally undermines the value of the copy, thereby resulting in a cultural economy increasingly dependent either on advertising or a confusing and often deceitful confusion of independent and commercial content.

The end result is disastrous for both the creator and consumer of culture. The internet is producing the cult of the amateur, a dumbing-down of culture, in which innocence is replacing expertise as the determinant of value. Worse still, as the copy loses its economic exchange value, the only way artists will be able to make a living will be through the live performance of their work. So the end result of the so-called "democratised" culture will actually be a shrinkage in both the size of the cultural economy and in the number of professional artists. That means fewer professionally-produced books, movies and recorded music. Only the rich will be able to afford to physically access the artist in an economy where value will be increasingly determined by physical presence. Instead of more cultural democracy, therefore, the internet will create more cultural inequality and privilege.

Emily to Andrew:

Your views have, I think, a growing currency – I have read in the Guardian that Aimee Mann (musician) sees the copying of music as the greatest threat to her art form and criticises MySpace et al for being littered with would-be musicians who are just not very good. You are appalled that the internet is littered with would-be writers who equally are no good, and that in all areas we will see a diminution of the cultural economy. This is interesting and challenging stuff, but you seem to be muddling up an ability to make money from cultural activity with a diminution in the quality of the work itself.

Rembrandt died in poverty, so did Mozart, Vivaldi, Van Gogh, etc, etc. What has changed about the world is that it is possible now to be a professional artist in some fields without necessarily being much better than a number of amateurs – and this is where the internet is levelling the playing field and changing the economy. As Clay Shirky, the new media economist and thinker put it, it is the "fame versus fortune" model – when people will do what you do, sometimes just as well, for fame rather than fortune, then you are in an unsustainable business. Mediocrity will, however, no longer be economically viable – you are right about that.

2

Artists – good ones – in any field, do not think they have a choice over their profession. It is a driving obsession to create and perform. There is no way that the internet can possibly encroach on this most private impulse. It might even seed it. It is possible to access far more inspirational material for free than ever before, and the desire of children and younger adults to experiment with this is as keen as ever. As a "consumer of culture", I consume (buy) far more than I ever did pre-internet – books from Amazon, tracks, symphonies and audio books from iTunes, DVDs from Play.com. I admit that my behaviour is damaging to retail – not necessarily a good thing – but it is fantastic for artists.

The internet challenges us all to up our game – it exponentially increases our audience, but it exposes frailty. It creates noise of deafening volume and, yes, it threatens copyright. But as Larry Lessig says, there are now more layers of extended copyright on pieces of creativity than ever before – and the net result of this is to actually stifle creativity rather than preserve it. Why should Disney own The Hunchback of Notre Dame, and every future iteration? Wealth in the worlds of music, art, film, television, publishing, is greater than it ever has been, but it is not evenly distributed. This is not the problem of the web or the internet but the problem of those creative "industries".

Where we profoundly disagree, I think, is in our evaluation of "cultural gatekeepers". For the past 30 years, apart from pockets of public funding or eccentricity, these cultural gatekeepers have been driven by shareholders or private equity firms. They are profit-first, margin-centric businesses. Fewer professionally-produced books, movies and recorded music, would, it seems to me, not be the end of the world, but a long-overdue market correction. The internet – I can tell you now – is not going to snuff out the careers of any talented musicians, great authors, or aspiring artists – it will help them find a voice and a market far more quickly than most other "cultural gatekeepers". If the internet is so full of amateurish dross then it is no threat to the polished professional – but what you know Andrew, is that it is full of people who are potentially as good as, if not better than, those who have been fortunate enough to reside in a distribution bottleneck – and that is why you are scared.

Andrew to Emily:

Thanks for acknowledging that my views have a growing currency, particularly among professional artists like Amy Mann. But it's the unsung heroes of our mainstream media – professional editors, fact checkers, cameramen, recording engineers – who have responded most enthusiastically to my book, The Cult of the Amateur. And that's not simply because they are worried about losing their jobs. I trust their professional judgement on the mediocre writing, mediocre recordings, mediocre videos that litter today's internet. The irony of the digital revolution, I fear, is that we are dragging art back into that very pre-modern arrangement in which Rembrandt, Mozart, Vivaldi and Van Gogh "died in poverty". Take away the exchange value of the copy, and how are artists able to monetise their creative work? Increasingly, I suspect, they will be dependent on wealthy patrons who will invest in their creativity, invite them to perform to their friends or buy personalised versions of their creative work.

I'm delighted that you are spending more money online on books, DVDs and music. Unfortunately, however, you aren't typical. Take the dramatic decline in the sale of recorded music. Just in the first couple of months of this year, overall sales are down 20%. I don't see how this is "fantastic" for the music artist. Fewer bands are getting record contracts, fewer A&R people are employed by the labels, fewer recordings are being sold by fewer record stores. All this seems about as fantastic for music artists as the enclosure laws were fantastic for the peasantry.

Yes, we do disagree about cultural gatekeepers. Sure, editors, movie makers and record label executives have been driven to maximise profits by their shareholders and investors. But what do you want them to do – try to lose money? In The Cult of the Amateur, I write admiringly about what you've done at Guardian Unlimited, particularly in terms of combining high-quality professional journalism and economic profitability. Aren't you a gatekeeper (and a very talented one, in my opinion)? Why don't you let anyone write for the Guardian? I respect your faith in the digital revolution, but can you give me one example of a "great author" who has become successful through the internet? And how many "talented musicians" have found fame and fortune online (yes, I know about the Arctic Monkeys – but who else?).

3

You are right that I'm scared. But it's not of "distribution bottlenecks" (whatever they are). No, what I'm scared of is a culture in which we are all aspiring artists and nobody is making money. I'm scared of YouTube, MySpace and the blogosphere. I'm scared that the talented artist of the future will realise neither fame nor fortune.

Emily to Andrew:

Let's take this point by point. People are scared of change where the implication might be that their daily lives will change or their jobs will disappear. This is an historical truism – it has happened in manufacturing, mining, agriculture – the media is no different.

But to make the leap from this to the assertion that new industries and economies are bad for all parts of society and culture is patently nonsense. As for dragging art back to the "pre-modern arrangement" where the wealthy were the patrons of arts, visit the world's leading galleries of modern collections or tour the opera houses and – guess what – the patronage model is exactly the same as it always has been and I suspect always will be.

Your points entirely pertain to mass culture where the CD and the paperback book, the newspapers and the films are guarded by those most trustworthy of arbiters, Rupert Murdoch, Jeffrey Katzenberg, Sumner Redstone, David Geffen, formerly Conrad Black, etc. I'm not too worried about no longer having my cultural choices determined by this narrow elite.

Thank you for your praise for The Guardian and Guardian Unlimited, but without the internet we would not have reached a worldwide audience of more than 15 million a month. We have an exciting opportunity to invest in journalism for the future and build not just a national but international presence for liberal news and comment. Without the web, our particular future would look extremely different, and not in a good way.

As for concrete examples of where people have built music careers through the MySpace page and the download – Lily Allen, Sandy Thom (whatever one might think of her output), Kate Nash, Gnarls Barkley, The Klaxons – I could go on. Smart musicians, businesses and other creators are working out how to use the internet to promote their work – rather as you are now – not chanting "burn Steve Jobs – he's an iWitch!".

And what about those statistics? As you bizarrely cling to the notion that hard cash sales are an indicator of cultural value and rightly worry that A&R execs, lawyers, accountants, sales and marketing execs, will be in for a rough ride, what are the numbers actually saying? Nielsen's research says sales of digital music increased by 65% in 2006 over 2005. In 2005 only two tracks sold more than a million digital downloads – in 2006, 22 sold more than a million.

Illegal downloads are a problem and pricing for music is under pressure – but arguably $30 for a CD (which is what it was in the UK for many years) is too much. In books as I'm sure you know, Amazon has had a transformative effect on back catalogues as well as new releases. There are massive increases in the number of titles published each year, and overall sales growth – total book sales were up in the US and the UK by nearly 3% in 2006 (a Harry Potterless year).

I don't equate cultural value with sales but whichever way one looks at your argument there are substantial holes in the logic and the facts. Tell me which major cultural events of the 20th century would have been snuffed out by the internet. Which artists have turned their backs on their vocation because of the off-putting nature of internet economics? And tell me who, under the age of 25, agrees with your golden ageism arguments? Nobody who grew up with the internet feels your sense of deathly cultural foreboding. Many of them are creating new art forms online which you would shudder at. That's the point. This is their rock 'n roll, and maybe yours has run its course.

Andrew to Emily:

Point counterpoint. But first a short confession about technology and progress. I'm not a Luddite and I'm certainly not suggesting that all technological progress is a bad thing. I actually like the internet. I think it is a wonderfully useful communications and informational tool. I couldn't have written or marketed my book without email or Google. I love BBC and NPR podcasts, the Guardian, the Huffington Post and Politico.com, iTunes and eMusic, ComedyCentral.com and CharlieRose.com. And, believe it or not, I am actually enjoying this little online battle we are now engaged in.

4

But liking the internet doesn't mean that I like all of its cultural consequences. Particularly since many of these consequences – the demise of the record business, the undermining of newspaper's classified ads, ubiquitous intellectual piracy – are unintended. I think you are establishing a false dichotomy. You seem to be saying that either one is for all technology progress or one is a reactionary clinging to a romanticised status quo. But, just as the industrial revolution resulted in massive social dislocation and misery, so the digital revolution is also profoundly reshaping our economy and society. Media is the first industry to be made more "efficient" by the digital revolution. Expect the same redundancies and structural crises in sectors such as healthcare and financial as the digital revolution also "disintermediates" (ie: lays off) experts and supposedly hands power to the consumer. For more on the efficiencies on the new digital economy, read Simon Head's The Ruthless Economy.

Is there anything, anything at all about the digital revolution that worries you?

You are right about overall sales of books, wrong about overall sales of music. The reason why book sales are up and overall music sales are down is piracy. It's easy to steal music and hard to steal books online. This suggests that the impact of the internet on the music business isn't good (The Cult of the Amateur addresses the demise of the recorded music business in detail). Would you agree?

Then there is the all-important issue of the gatekeepers. Sure, I don't want my information tampered with by Conrad Black. But not all gatekeepers are quite as black and white as Conrad Black. Haven't the Sulzberger and Graham families been quite responsible managing the New York Times and the Washington Post? And are you saying that the work and artists that Katzenberg has developed at Disney (The Lion King, Who Framed Roger Rabbit, etc, etc) or Geffen at Asylum Records (Bob Dylan, Joni Mitchell, Tom Waits, etc, etc) are all bad? Who on MySpace is curating the next Tom Waits or Joni Mitchell? Where on YouTube can I watch the next Lion King?

Would we have had the opportunity to watch/listen/read the fruits of Hitchcock, Dylan and Martin Amis in a flattened, gatekeeper-free media economy? You say yes, I say no. It's hard to prove one way or the other. But I think that the culture and media businesses have done a pretty good job over the last 50 years serving up high-quality, affordable books, movies and music. Today, that economy is in structural crisis and I am pessimistic that the careers of the Hitchcocks, Dylans and Amises of the digital future will be as effectively discovered and nurtured.

You accuse me of "golden ageism" and suggest that nobody under 25 would agree with me. Interesting, and perhaps a fair point. But is that a compliment or a critique? Why should I trust people under 25 to determine the future of culture and information? I don't see a lot of under 25-year olds writing for the Guardian Online (which is why I read it). Today's under-25 generation should be more focused on the laborious work of learning about the world than in expressing their often inchoate and ill-informed opinions. What, exactly, have you learned from the under-25 generation about the war in Iraq or the media business that you didn't already know?

Emily to Andrew:

We seem to have reached an agreement that there is a cultural richness on the web, produced sustainably by the professional scribes you crave – so I'm not quite sure where the argument goes from here.

However I was snagged by your assertion that nobody under 25 had anything to contribute on issues of the new economy or, alarmingly, on Iraq. Or even on anything.

I believe Colby Buzzell was 26 when he was posted to Iraq – maybe that extra year gave him the edge – but his blog, and the book that it yielded, My War: Killing Time In Iraq, is certainly more insightful than anything you or I could have written about the conflict. This is the point – as Dan Gillmor would have it, "there's always someone closer to the story than you". When they can relate through a blog then their contribution is equally if not more valuable than anybody else's.

Amateur is not going to fully replace professional – it is idiotic and misleading to suggest it will. But it will supplement and expose mainstream media – in fact it already does.

I could write a diatribe about bookshops – how they are terrible places full of largely irrelevant, often erroneous and badly-written tomes which clog up and stifle the conduits for high-quality literature. I could say that the several hundred thousand new titles a year are unsustainable dross, environmentally damaging and culturally moribund in their form and content. But what would be the point? Like attacking the internet for its phantom menace, it is just tilting at windmills for effect. There's no heft to the argument.

5

For some people cultural depravity started at the renaissance and hasn't let up since. Your timescale is more compressed, but your pessimism is just as misplaced. Is there anything that worries me about the digital age? This is like asking me if anything worries me about living in London; there is abuse, theft, fraud, unpleasant and illegal activities made widespread. But this is the inevitable outcome of millions of individuals – good and bad – interacting on a daily basis. The body tents in the next road do not stop London from being a remarkable and wonderful place, just as pirated Robbie Williams albums do not negate the urgent excitement of a truly democratised medium.

You would have us all atomised, trusting a decreasing number of dubious gatekeepers who chase the mass market with increasing fervour, bleeding out the differentiated and the dangerously original.

If the mainstream media are as good as you say they are, then there is nothing to worry about. I think there are plenty of issues particularly around the investment in journalism, the quality of factual TV production, the challenging perspectives which no longer find their way into mainstream channels. But this is not the fault of the web, it is the collective failing of existing media.

Professionals, it seems to me, hold their own where they deserve to.

Andrew to Emily:

I can't believe that I really wrote that reactionary garbage about not trusting the views of anybody under 25 (a professional editor would have caught/censored such a patently stupid remark). You are of course right that Colby Buzzell's blog is of tremendous value for journalists and historians as well as any citizen who cares about what is happening in Iraq. And I'm sure there are other credible blogs by young people which have sociological and political significance.

But what I see on the web, particularly in America, is a cult of innocence, a cult of youth, in which self-expression – however ill-informed, narcissistic or irrelevant – has become the thing-in-itself. Interestingly, the carnage of war is one issue that the under-25 crowd know more about that the older generation. So yes, I applaud blogs by young troops. And I would also welcome blogs by young people about sex, gangs, education, family violence and all the other serious issues with which they are intimately familiar (in contrast with most of the indulgent marginalia infesting MySpace, Facebook, Twitter, etc). The question is how do I find these types of blogs? And how do I know that they are accurate?

Dan Gillmor might be right that "there's always somebody closer to the story than you", but isn't that even more reason to have professional journalists as filters for the news? Blogs – which are no more than electronic diaries – should indeed become the raw material for objective, professionally-trained journalists to learn more about young people's experiences in war, education and family life. Without the gatekeeping role of these journalists, the information is raw, like uncooked food. We have no proof of its origin or veracity; it is, by definition, untrustworthy.

Perhaps I coined the wrong question on what worries you about the internet. What I should have asked is what solutions would you suggest to the darker elements of internet culture. After all, however much you love living in London, I'm sure there are some things about the city that you would like to reform to make it a more civilised place. Your London metaphor is actually very apt. I suspect that the internet today is rather like the smoggy, slum-ridden London of the early industrial age. Yes, it's a revolutionary, vibrant and incredibly important medium – but to become genuinely habitable, it needs to be substantially reformed.

So, Emily, can you give me one realistic reform that would make the internet a more habitable place today?

Here's my magic bullet. I think we've got to fight anonymity. That's the real curse of today's internet. Sure, there are occasions (active military perhaps) when anonymity can be justified. But, we fortunately don't live in Iran or China where people are put in jail for their views. So this cult of anonymity – in which we often have no idea who is authoring a blog or a review or post – has little real justification.

The curse of anonymity is making the internet a smoggy, nasty place akin to darkest corners of early 19th century London. When we don't reveal who we are, we behave with less civility towards others. There's no accountability for what we say when we author anonymously. The Guardian's very own Timothy Garton-Ash called it a "cyberswamp". He's right. And its full of slithery libertarian creatures who won't reveal the truth of who they actually are.

6

So my challenge to you as Guardian Unlimited's generalissima is to challenge and undermine the culture of anonymity. That should be the price of entry on to the Guardian site, the social contract we make with one another to collectively make the community a better place. You could establish discussion groups in which anonymity is actively discouraged. Figure out ways to reward people who register with their real names, ages and professional identities. I'm sure you'll find that will provide higher-quality content, more genuine community and more civil conversation. And your advertisers will be happier, too, if they can associate their brands with this richer, more credible content. So everybody wins if internet anonymity is undermined. Agree?

Emily to Andrew:

See the wonder of the internet! We start off miles apart and end up in total agreement. Well perhaps that's an exaggeration. However, it's an interesting question: what would make the internet a better place?

I'm not sure about the anonymity argument – although I know it is favoured by a number of my colleagues. I don't think that anonymity is the worst thing about the web or even one of the worst things. It's perfectly possible that you and I, who are having an engaging debate about the pros and cons of democratised media, will be mocked or derided or insulted by people who are able to keep their own identities hidden. But this is just the same as the person in the crowd who shouts "Shut up, you moron!" at Speakers' Corner. It's rude and, if you have a very thin skin, it might be undermining, but anonymous people are – let's face it – just that.

And then you and I, who fall into the "professional" category, are not anonymous – we have biogs and accountability. But I bet few people really know who either of us are, or what our motivations and private thoughts might be. Are we candid and genuine? Are writers with bylines really "brands" and everything that term denotes – in other words, only a projection of what they really want the public to see?

On the one hand we might rail, quite rightly, against the tabloid mania for ripping away every last vestige of privacy and turning it into news. On the other hand we think full disclosure on the web will help to raise standards. I think the difference would be marginal. Anonymous bloggers who really have any influence are always surfaced, by volition or investigation, in any case. Let me draw a couple of analogies: peer reviewing academic papers is done anonymously, for good reason; voting is done under the cloak of anonymity. Better that than the nightmare of validation – how do you know someone is who they say they are?

There are plenty of valid and good reasons for wanting anonymity which I would not presume to question. But it means authenticity might be harder to establish. Or does it? I find myself turning up the authority on technorati searches – but it is not the authority of paid professionals, it is the authority of others who blog in the same area. Take, for instance, the blogroll on Jay Rosen's site: for someone interested in the development of the media it is a goldmine of interesting nuggets. I trust Jay not because he is a skilled academic but because he has blogged for years in an area which I am interested in and have some knowledge of. His posts are informed and attract informed opinion. If an anonymous blogger posts a damaging fallacy, how much resonance does it really acquire? More than a fallacy which is perpetrated by a trusted gatekeeper?

I remember in the 1980s, a series of articles in Britain's largest-selling quality Sunday newspaper, The Sunday Times, questioning the health information hysteria around HIV when the paper maintained it was contained within the population of gay men and intravenous drug users. Luckily for the population at large, this did not gather credibility as a view or influence health policy. Now, I imagine, it would be shot down by better-informed bloggers before it got out of the starting blocks.

Sorry, that was a lengthy diversion from what would make the internet a better place. Not a bar on anonymity then. Maybe some international standards for privacy and disclosure which stop the unjust yielding of private information to corporations or governments would be a start. So I suppose I am saying that more anonymity would be a good thing.

I suppose that leaves us as far apart as ever.