I am deeply touched and extremely grateful to the people who took the time to read, support and endorse *The Digitally Divided Self*. Being my first English book, and basically self-published, I didn't expect to receive many reviews, much less from such leading thinkers and writers nor such positive responses.

It was also a surprise to find common interests around eastern spirituality with so many people into technology and media. This makes me hopeful for an evolution of the information society - from chasing external stimulation to inner explorations and silence.

Praise for Digitally Divided Self

"Quartiroli's *The Digitally Divided Self* is a must read for anyone seeking to understand the ever-increasing hegemony of the digital world in the individual psyche. Drawing on diverse fields and traditions, the author analyzes numerous mechanisms by which IT separates us from ourselves. Readers stand to benefit from such an understanding that is a prerequisite for mounting a defense of one's individuality."

Len Bracken, author of several novels and the biography *Guy Debord—Revolutionary*

"With great insight, Ivo Quartiroli captures the subtle as well as the gross impact that media use has on our individual and collective psyches. The challenge before all of us is how to adapt to the new technology in a healthy way that allows us to retain our essential humanity. He offers us a solution born of his experience and confirmed by neuroscience. This is a must read."

Hilarie Cash, PhD, co-founder of reSTART: Internet Addiction Recovery Program

"It is difficult to offer a spiritually based critique of today's network culture without sounding like a nostalgic Luddite crank. Immersed in the tech, but also in various meditative traditions, Ivo Quartiroli is the perfect person to offer integral wisdom-tech with clarity and bite."

Erik Davis, author of *Techgnosis* and *Nomad Codes: Adventures in Modern Esoterica.*

"Aware of the profound and rapid psychological and social metamorphosis we are going through as we 'go digital' without paying attention, Ivo Quartiroli is telling us very precisely what we are gaining and what we are losing of the qualities and privileges that, glued as we are to one screen or another, we take for granted in our emotional, cognitive and spiritual life. This book is a wake-up call. Steve Jobs and Bill Gates should read it."

Derrick de Kerckhove, Professor, Facoltà di sociologia, Università Federico II, Naples, former Director of the McLuhan Program in Culture and Technology.

"*The Digitally Divided Self* alerts us about the insidious dangers of our growing dependence on Information Technology. Ivo Quartiroli warns us that Internet can easily develop into an addiction that undercuts our connections with nature, with other people, and with our deeper inner reality. The spiritual nourishment coming from genuine relationships is then replaced by the empty calories of fake relationships, with the resulting deterioration of our personal and social lives. Using an incisive style, Ivo Quartiroli can be provocative, iconoclastic, at times exaggerated, but never boring. Behind each observation there are pearls of wisdom that are guaranteed to make you think."

Federico Faggin, designer of the microprocessor.

"Global culture is not only the latest step in the human evolutionary journey. It is also, as Ivo Quartiroli shows in *The Digitally Divided Self*, a critical opportunity to apply non-Western techniques of awareness to ensure healthy survival in the 21st century."

Michael Heim, author of *The Metaphysics of Virtual Reality, Virtual Realism*, and *Electric Language.*

"Question the merits of technology in the past and you'd be called a Luddite. But now technologists are leading the way toward a new, more balanced view of our gadget-driven lives. Drawing from his fascinating expertise in computer science and spirituality, Ivo Quartiroli presents a compelling critique of the corrosive impact of the

Net on our humanity. It's a warning we must heed."

Maggie Jackson, author of *Distracted: The Erosion of Attention and the Coming Dark Age*.

"A profoundly premonitory vision of the future of the 21st century, *The Digitally Divided Self* unlocks the great codes of technological society, namely that the very same digital forces that effectively control the shape and direction of the human destiny are also the founding powers of a new revolution of the human spirit."

Arthur Kroker, author of *The Will to Technology* and Canada Research Chair in Technology, Culture and Theory.

"People today, especially young people, live more on the Internet than in the real world. This has subtle and not-so-subtle effects on their thinking and personality. It is high time to review these effects, to see whether they are a smooth highway to a bright interconnected future, or possibly a deviation that could endanger health and wellbeing for the individual as well as for society. Ivo Quartiroli undertakes to produce this review and does so with deep understanding and dedicated humanism. His book should be read by everyone, whether he or she is addicted to the Internet or has second thoughts about it."

Ervin Laszlo, President, the Club of Budapest, and Chancellor, the Giordano Bruno Globalshift University.

"The Mind-Body Split is a pervasive condition/affliction in the developed world, wholly un-recognized; yet fundamental to the great worldwide problems of health, environment, and economic inequity. Ivo Quartiroli's *Digitally Divided Self* masterfully examines the effects of the insulated digital experience on the mind and the body self: exacerbating illusions and the Mind-Body Split; and contrasts it to the processes of self-discovery, growth, and healing: true inter-connectedness with nature, each other, and our selves. If the digital age is to solve our real problems, rather than create them, it will be with the knowledge contained in *The Digitally Divided Self*. Well done!"

Frederic Lowen, son of Alexander Lowen, Executive Director, The Alexander Lowen Foundation

"Ivo Quartiroli here addresses one of the most pressing questions forced upon us by our latest technologies. In disturbing the deepest relations between the user's faculties and the surrounding world, our electric media, all of them without exception, create profound disorientation and subsequent discord, personal and cultural. Few subjects today demand greater scrutiny."

Dr. Eric McLuhan, Author and Lecturer

"The internet is an extension of our central nervous system. When you operate a computer, you are extending yourself, through its interface, potentially all over the world, instantaneously. Extending yourself in such a disembodied, discarnate fashion only further entrenches your separateness, your ego self. In contrast, the introspective freeing from the physical through meditation also has the effect of creating a discarnate, disembodied state. That state is one that is progressively less identified with the ego self. This is the dichotomy that Ivo Quartiroli explores in *The Digitally Divided Self*. This book is well worth investigating."

Michael McLuhan

"We should all be asking the questions Ivo Quartiroli asks in this bold and provocative book. Whatever you think right now about technology, *The Digitally Divided Self* will challenge you to think again."

William Powers, author of the *New York Times* bestseller *Hamlet's BlackBerry*

"It isn't easy to find an informed and critical look at the impact of digital media practices on human lives and minds. Ivo Quartiroli offers an informed critique based in both an understanding of technology and of human consciousness."

Howard Rheingold, author of *The Virtual Community* and *Smart Mobs*.

"Ivo Quartiroli is mining the rich liminal territory between humans and their networks. With the integrity of a scientist and the passion of artist, he forces us to reconsider where we end and technology begins. Or when."

Douglas Rushkoff, Media Theorist and author of *Cyberia*, *Media Virus*, *Life, Inc.* and *Program or Be Programmed*.

"You might find what he writes to be challenging, irritating, even blasphemous and sacrilegious. If so, he has proven his point. The Internet, Ivo suggests, might just be the new opium of the masses. Agree with him or not, no other book to date brings together the multitude of issues related to how the seductions of technology impinge upon and affect the development of the self and soul."

Michael Wesch, Associate Professor of Digital Ethnography, Kansas State University

"*The Digitally Divided Self* is a refreshing look at technology that goes beyond the standard, well-worn critiques. Ivo Quartiroli charts new territory with a series of profound reflections on the intersections of computer science, psychology and spirituality."

Micah White, Senior Editor at *Adbusters* magazine

It is nearly half a century since Marshall McLuhan pointed out that the medium is the message. In the interim, digital technologies have found an irresistible hook on our minds. With the soul's quest for the infinite usurped by the ego's desire for unlimited power, the Internet and social media have stepped in to fill our deepest needs for communication, knowledge and creativity even intimacy and sexuality. Without being grounded in those human qualities which are established through experience and inner exploration, we are vulnerable to being seduced into outsourcing our minds and our fragile identities.

Intersecting media studies, psychology and spirituality, *The Digitally Divided Self* exposes the nature of the malleable mind and explores the religious and philosophical influences which leave it obsessed with the incessant flow of information.

Ivo Quartiroli has been a software programmer, publisher of Italian technology and spirituality books, and computer science book author. Complementing his professional accomplishments in information processing, his interest in consciousness processing has led him to spiritual explorations. He shares his perspective on the intersection of media studies, psychology and spirituality on his blog indranet.org and writes for Italian magazines about technology and society. He sits on the Italian Club of Budapest's science committee. He can be reached at ivotoshan@yahoo.it

The Digitally Divided Self

Relinquishing our Awareness to the Internet

Ivo Quartiroli

silens
Milano www.silens.org

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To Angelo,
Carmen,
Christian,
Jiab,
Leo

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Introduction

Like many people nowadays, much of my personal and professional life is related to technology: I use the Internet for keeping the connection with my work projects and friends wherever I am in the world. I published the first book in Italy about the Internet. I run a blog and a Web magazine, do my investments online, shop on the Net, do interviews by email and Skype, and have even indulged in cybersex. Right now I'm in Asia developing this book — which is full of references to Web articles, blogs and material found only on the Internet — with online support: an editor and writing coach in California, copy editor in India, book designer in Italy, and a printing and distribution service with multiple locations in USA. My life is immersed in the digital loop.

I have been involved in IT since I was a student. As I learned meditation and explored spiritual paths, I developed an inner observer and discovered states beyond the mind. Thus, I found myself going back and forth between processing consciousness and information. Slowly my focus has shifted from what we can do with technology to what technology does to us. As a first-hand explorer, I've observed the subtle changes of our massive use of the Net.

Just as a spiritual researcher can go beyond the mind only after having observed and mastered it, it is necessary to enter the digital world to step beyond it. We can't become aware of its effects without being engaged in it. Since digital technology is unavoidable now, we need to master it without becoming lost in it, using its tools with our full awareness.

In this time, the intensification of mental inputs is a phenomenon that must be kept in balance. Our contemporary culture does not acknowledge anything beyond the mind, but in other traditions the mental world is just *one* of the aspects of our wholeness. In the West a sort of Cartesian "pure thinking" has been given priority. Although the mind is the best-known organ of thought, it is not the

only cognitive modality. Nervous systems have been discovered both in the heart and in the belly, and the global awareness that can be accessed by spiritual practitioners is pervasive and non-localized. Yet these modalities cannot be represented digitally, so they are relegated to the sidelines.

Our technological society militates against uninterrupted conscious attention. Several authors have documented the effects of IT on attention, literacy and intellectual skills. It also intrudes on the silent time needed to be aware of inner transformations. We don't realize we have become servomechanisms of IT — precisely because IT has weakened the inner skills of self-understanding. Shrinking of the rich range of human qualities to privilege only those which can be represented and operated digitally arises from the nature of the ego-mind and our particular Western history which has engendered — then valued — mental representations of reality. My focus here is to understand why the mind can be lured by the magic of the tools, while forgetting the person who is using them.

We believe we are empowered individually and politically as we post articles on our blogs and participate in social networks. In actuality, we feed the machine with our "user-generated content" which becomes candy for advertisers who then design ads based on what we say on Twitter, Facebook, and even our emails.

Jumping from information to self-understanding is necessary if we are to regain real freedom, a freedom from conditioning of our mind and the manipulation by information — whether self-created or from external sources. We mistake the transmission of gigabytes of data for freedom.

In our advanced technological society there is a reticence to acknowledge the inner, spiritual or metaphysical dimensions of life. What cannot be calculated — which is, thereby, "not objective" — is considered unworthy of investigation. Even more strongly denied is the relationship between technology and the impact on our psyche. Technophiles declare that it's only a tool, as if our psyche could remain untouched by continuous interaction with digital media, and as if we could control its impact on us. We can indeed be in control of digital media — but only after we become fluent in those cognitive modalities which can't be reached by such media.

To be unaffected by digital media, we need a Buddha-like awareness with sustained attention, mindfulness and introspection. Yet these very qualities which are needed to break out of the automated mind are especially difficult to access when we are drowning in information — information that is predominantly ephemeral and tran-

sient, and which lacks a broader narrative. Awareness is what gives meaning and depth to information, but for awareness to expand we need to empty our mind. A story will illustrate this. A university professor approached a master to learn about Zen. Tea was served, but when the cup was full, the master did not stop pouring. The cup, like the professor's mind with its concepts and positions, was full. It must first be emptied to understand Zen. So, too, for the digital world.

The world over, people using the Internet click on the same icons, use the same shortcuts in email and chats, connect with people through the same Facebook modalities. This is the globalization of minds. In the process of the digitization of reality, regardless of content, we use predominantly the same limited mental channels and interact with the same tools. We bring the same attitudes, gestures and procedures to working, dating, shopping, communicating with friends, sexual arousal, and scientific research. And most of these activities are impoverished by this phenomenon. Everything is seen as an information system, from the digitization of territory (like Google Earth and augmented realities software) to our biology.

Judeo-Christian culture places nature and the world of matter at man's disposal. Acting on them is a way to garner good deeds and regain the lost perfection of Eden. In this culture that has considered miracles as proof of the existence of God, we have developed technologies that resemble the miraculous and the divine. We are compelled to welcome the advent of new technological tools with the rhetoric of peace, progress, prosperity and mutual understanding.

The telegraph, telephone, radio, TV and other media have been regarded as tools for democracy, world peace, understanding and freedom of expression. The Internet is just the latest in a succession of promising messiahs. Yet we don't have more democracy in the world. In fact, big media and big powers are even stronger, while freedom of expression has ceded to control by corporations and governmental agencies. The Internet, like TV, will be entertaining, dumbing people in their own separate homes where they will be unable to question the system. The Internet might already be the new *soma* for a society experiencing economic and environmental degradation. But with the huge economic interests connected to it, criticizing its effect is akin to cursing God.

Many technological developments appeal to people because they answer psychological and even spiritual needs — like the quests for understanding and connection with others. Already digital technology has taken charge of truth and love — the drives which are

distinctly human. Those primordial needs have been addressed, on the mental level, with information. Reflected only at that level, our soul is left empty with craving for the real qualities, and our mind is left restless, craving more information and chasing after satisfaction in vain.

The need to extend our possibilities through technology derives from the need to recover parts of ourself that were lost during the development of our soul — the states of sharp perception, fulfillment, and peace. Information technology (IT) also satisfies our ancient drives for power and control, even giving us several options with a simple click or touch of a finger.

The endless multiplication of information can keep the ego-mind busy — and thus at the center of the show. IT is the most powerful mental "pusher" ever created, feeding the duality of the ego-mind (which is symbolically mirrored by binary technology). More than TV whose attractions are framed between the beginning and ending time of a show, the Internet, video games, and smartphones have no structural pauses or endings. Hooked on a "real-time" stream of information, they take us farther away from both the real and the appropriate time frames.

The computer charms us by reflecting our mind on the Net. Like Narcissus, we mistake the reflected image and enter a closed loop, charmed by our reflection. The Internet, since the beginning, has been considered a technology which could crumble central governments and organizations. Perhaps that forecast was an external projection of what can happen inside us: disturbance of the integration of our psyches.

Meditation helps us recognize that we construct reality and that the mind leads us astray. Meditation is a path back to reality, to truth, to knowing and mastering our minds — instead of mastering the computer as a way to outsource our mind's skills. It is a way to expand our awareness and join the other global "Net" — of awareness that permeates everything.

Though I am Italian, I am publishing this book for the English market because it is a post-digital book which can be better appreciated in countries where digital culture has spread throughout society. In Italy, one politically powerful tycoon owns most of the media, and uses it to demonize the Net. In that setting, being critical of the Net invokes the accusation of aligning with power to castrate freedom of expression, which is the polar opposite of my intention.

I welcome every medium which expands our chances of expressing ourselves, but I am aware that true self-expression can

happen only when there's a true self, which can hardly be shaped by screen media.

I am grateful to my spiritual teachers who opened new dimensions for my soul in my journey toward awareness, especially the intensity of Osho and the brilliant clarity of A. H. Almaas. I thank my copy editor Dhiren Bahl (www.WordsWay-Copyediting.com) for his painstaking corrections of my English text and my editor David Carr (www.MovingWords.us) for his clarifications and stylistic improvements. I'm grateful to my friends, too many to list here, for the numerous talks bringing together heart and mind in sharing our passion for truth.

Editor's note

I am not unaware that the reflexive form of the plural pronoun *we* is *ourselves*. But the immediacy of Ivo Quartiroli's writing in our collective lives needs to be absorbed by the reader in a personal way. Rather than employ the second person *you*, which to me always feels slightly accusatory, I have tried to emphasize the importance of each reader's self-reflection on what almost everyone around him or her (to be painfully correct) is likely doing. We are personally participating in a cultural phenomenon to which each of us must be alert. Therefore, I have chosen to follow Quartiroli's choice of *we* with my singular invention *ourself*. We all are active on the stage he describes, but responsibility for awareness lies with the individual.

David Carr

Chapter 1

From Awareness of Technology to Technologies of Awareness

Ever since I was a child the mysteries of numbers fascinated me. When I learned about prime numbers at school, I was captivated by those unique, solitary, unpredictable, indivisible odd numbers.

At 12, I desired nothing less than finding their law. A few years later I discovered long series of numbers which were possibly connected to prime numbers. I found the formulas of the first series, but the more complicated ones had many components in individual numbers reaching fifteen digits. Such numbers were beyond the capacity of pocket calculators, so I proceeded manually.

The slow pace of manual calculation allowed me to "feel" numbers, contemplating each one, sensing its relationship to other numbers in the series. At 15, I entered the *Philips Contest for Young Researchers and Inventors*. There were just a couple of months to prepare my presentation — impossible for me to progress through all the calculations. Yet under the puzzled gaze of my schoolmates, this wild boy turned into a would-be mathematician.

The computational effort took me to the university's computer center to ask for help. Grounded in comic books, I thought I could "feed" the computer with the numbers in the series and have the formulas delivered. At that time, computer laboratories in Italy looked like any other academic laboratories, with high-level technicians dressed formally. I tried to explain my problem to a few students, who mostly ignored me. A kind employee told me simply that computers couldn't find the formulas of my series — they could not even add or subtract such big numbers unless they were programmed to. "Oh really? Are computers *that* dumb?" I wondered.

I understood from her that what I needed was a piece of "software" suited to the problem. "Fine," I said, "can you make it for me?" She couldn't, since it had to be designed for the specific problem — and anyway, computer time was very limited, even for students. I returned to manual calculations.

In 1976 computers were as big and unapproachable as the people who worked with them. In time, computers became more user-friendly and much faster — but not less dumb. Concurrently, computer technicians changed from uniforms to casual or messy clothes, though their detached attitude did not noticeably change.

For my research on those series, I was a finalist in the Italian contest — which led to a personal conversation with the president of the Italian CNR (Consiglio Nazionale delle Ricerche, National Research Council). He discouraged me from searching for the law of prime numbers as "a waste of time, something which centuries of mathematicians had already tried to find, but nobody could." I might instead concentrate my energies on developing useful applications in the scientific arena. He introduced me to the reality that research was most welcomed by society when it could be translated into products and money.

What about the fun and enthusiasm I had doing that research? What about the almost mystical states I reached in diving into the mysteries of prime numbers? What about the development of my perseverance in pursuing such a task, even though (or maybe *because*) it was an impossible one? What about my capacity to tolerate frustration when my long calculations had been faulty from the beginning of the series?

I recognize now that some important inner qualities had been shaped as I chased those prime numbers. I had learned that the path is itself the goal.

Latin *putare* means "to prune," "to cut," "to clean." In the etymology of "computer" lies its implicit goal: something to accomplish, to complete, a clear-cut result to reach.

Computing, that increasingly-present activity in our lives, has created what I call the "digitization of reality." Computing wants answers — well-defined results cleansed of "noise" — and it wants them fast.

Descartes, in his *Discourse on the Method* which shaped Western science, sought a state of pure thinking, free from the body and from feelings — for in his opinion they would distort the scientific quest. He would be proud of contemporary technical developments which allow both scientists and ordinary people to interact with a machine through pure thinking. But if he could peek into this century, I feel he would miss the philosophical and spiritual attitude he had even as a scientist — which is left out of the technological race.

In our rush, everything which can possibly be automated and speeded up becomes digital. Everything which can be represented by bits and bytes is sucked into the digitizing mentality.

I too believed this, when it was time for university, so I went into computer science — partly to fulfill my need to write a program to find the law of my series. In time I stopped chasing prime numbers, but by then I was a programming enthusiast.

What did not change was my propensity for impossible tasks. Since I enjoyed playing the guitar, I wrote a program for creating chords and harmonies. Then, wanting to grab the secrets of guitarists like Jimi Hendrix or Carlos Santana, I translated their improvisations into digital form. After all, I figured, musical scales have a mathematical structure, so if I could decode and deconstruct their creations, then my software could produce amazing new melodies which I could then reproduce on my guitar.

There was still no affordable way to generate good quality sound from a computer, so as output (programming in C language for the UNIX operating system), I had a list of notes, their pitch, duration, and their attributes like sliding or bending — a sort of score I could perform on my guitar. Far from masterpieces, they were funny, like the caricature of a living person.

Meanwhile, I was working for the computer labs of the new computer science faculty in Milan, preferring to learn through practice rather than study for exams. There was a pioneering atmosphere in the very early 1980s — and many of the students later becoming entrepreneurs of the dotcom revolution in Italy.

The peak of impossibility lay in my plan to create an artificial intelligence system, written in the Prolog programming language, to explore people's psychological patterns in depth — according to various models, both psychological and spiritual. It never went beyond a very initial idea.

The Limits of Technology

In searching for the law of prime numbers, for the secrets of great guitarists' solos, or for the understanding of the human soul, 25 years ago, I reached what was — and still remains — the limits of computability.

Finding those limits is perhaps the unconscious secret goal of our drive toward technology. Whatever can be made digital is merely a model created by the mind, which the mind itself can reshape or destroy at any moment.

The mind is by nature dualistic, operating within the same binary logic as computers. The dualistic-binary attitude of looking at the world gives both people and computers a powerful discriminating tool — a tool to produce huge amount of data and to act on matter in powerful ways. Through this dualistic mind we can fulfill

our highest "mission" to be masters of nature, as assigned by the scriptures. But matters that are more than mental artistic creativity, brilliant intuition, feelings of compassion, love, joy, peace, as well as experiencing spiritual states like a no-mind state of deep meditation cannot be represented in digital form. Though information technology can point to or inform us about those states, more often than not it keeps us stuck looping at the informational level, actually distancing us from them.

As we reach the limits of technology, either it can stimulate our search for something further jumping from information to consciousness-processing as Peter Russell (1995) defined it or we can become hypnotized by the infinite forms information can be shaped into. Like a fascinating psychedelic vision, the digital realm can amaze us forever, but basically it goes no further than the mental level which originally created the technology.

My impossible tasks, seen in retrospect, were my self-inflicted koans. A koan is a question with no apparent answer given by a Zen master to a student. The very effort to find an answer is what transforms consciousness and eventually stops the mind. Staying in the unknown is not comfortable for the mind, but it is the best way to link the subject of the quest with our inner void. From this, greater awareness can arise. By contrast, much of the Web industry is designed to cut through, to deliver answers quickly not in itself a bad thing, but which can and does weaken the drive of our inner quest.

Since the impossible tasks didn't pay, I worked on more practical software and wrote about computer science. In 1982, with the UNIX internal architecture still a well-kept secret and without much documentation for the end user, two other students and I wrote a book about UNIX. We printed it with a low-quality dot matrix printer, and I felt like a technical Che Guevara fighting for the liberation of computer knowledge.

What's Not Computable Isn't Real

Writing for computer science magazines in the mid '80s, I alternated technical articles with interviews of philosophers and psychologists about the inner and social implications of the computer revolution, including a column called "Loops" for *Informatica Oggi* magazine, the leading computer Italian science magazine at the time. My heretical column was scrapped by the publisher after only a few months because some readers complained that those subjects had nothing to do with computer science, and that they'd rather read "real" and "useful" information.

Turning the view 180 degrees toward the inner side, from what we can do with technology to what technology does to us wasn't a very popular move. Anything that smells of the philosophical, the inner, or the metaphysical is still seen with suspicion by people into technology, who categorize those perspectives as "things which could even be interesting, but vague and non-scientific." For the most part, challenging technology has become almost taboo in our culture. As Neil Postman (1993) contended: "'The computer shows…' or 'The computer has determined…' is *Technopoly*'s equivalent of the sentence, 'It is God's will' and the effect is roughly the same."

Technology seems "inevitable." It is rarely considered that people who are sensitive to what technology does to us might embrace and use technology though they do it from 360 degrees instead of looking just at the bright front side.

In advanced technological societies there is a reticence to acknowledge the inner, the spiritual, or the metaphysical dimensions of life. The inner is seen pertinent only to religion, reinforcing the historical division of powers which gave science dominion over matter and religion dominion over the soul. What is non-calculable or non-objective is mostly ignored, as are the implications of technology for our psyche.

Sensitivity to the inner is easily branded new-ageism, fundamentalism, or plain weirdness. *Meditation* is misunderstood as thinking. The *body-mind connection* is something to decode by DNA sequences. Going *beyond* the mind is misunderstood as going below the functionality of mind, dulled rather than perceiving more deeply. *Understanding* is something which we infer only intellectually. The *inner void* is something we become aware of only when the computer hangs and we are left to stare blankly at the screen. *Mind* is seen mainly in terms of cognitive capacities and performance, a set of neurotransmitters which can eventually be "fixed" or "enhanced" by pharmacological molecules.

The Promises of the Early Internet

After publishing my own books, I became a publisher of computer science books. Around 1994, when the Internet was becoming popular in Italy, I welcomed the Net in enthusiastic terms. Like many early enthusiasts, I saw the Net as a way to produce and share information in a more democratic way that could threaten big powers and even nation-states, and having the potential of shaping global consciousness.

Through Apogeo, my former publishing house, I published the

first books in Italy about the Internet, convincing the traditional media that the Net wasn't just about terrorists, pedophiles and dangerous hackers. For many years there was an opposition between the Internet on one side, and TV and print media on the other. Hostility toward the Internet was about competing interests, as well as simple ignorance. Their distorted, inaccurate and false vision of the Internet continues to this day.

At the same time, it was difficult to find a balanced, critical view of the role of the Net in society and in people's minds. Anybody who criticized the Net risked being branded a close-minded conservative, a Luddite, an "old media" supporter wanting to limit the freedom of expression which the Net seemed to expand.

The fact is, though, that after twenty years of the Internet in our lives, most of the promises have not been fulfilled. We don't have more democracy in the world, big media and big powers are even stronger, no global consciousness has arisen — and even though everybody can upload anything onto the Web simply and cheaply, we know less about what is happening in Iraq and Afghanistan than what we knew about the Vietnam war which was heavily broadcast. Yes, there are sites through which information can leak, but the leakage is a drop in the ocean of information daily available — and on sites read by a small percentage of web users.

Even when alternative information is presented, it is likely to be found on less popular websites that are far down in Google's ranking. This merely deludes us into believing we have a tool for spreading information to the world — when in most cases it is more like a neighborly backyard chat. A chat, in fact, that can be traced and controlled. The big media have not disappeared — and their presence on the Net could make them even bigger.

Furthermore, privacy and control issues by governments and companies like Google and Facebook are, to say the least, worrying. What was once a place with no commercial interests is now full of advertisements, with some free services likely to become fee-based.

As soon as my company could afford it, I published a series on media studies, spirituality and Eastern culture, which reflected my personal life-path as a researcher of the truth. I switched from "updating" myself on the latest technical trends to attending workshops in different spiritual traditions and techniques. I went to ashrams in India and studied in psycho-spiritual schools in the US.

From Information Processing to Consciousness Processing

I moved back and forth between information processing and consciousness processing — from the awareness of technology to tech-

nologies of awareness. Information and my mind fed each other in a vicious cycle, making it difficult to stop and turn my gaze back toward inner silence. The mechanism of information incites us to stay within the feedback loop.

My subjective inner exploration was important not only for knowing my inner self, but also for clarity and a broader understanding of the outer world. Freeing my mind from conditioning and acquired beliefs proved effective both in my daily life and for a deeper understanding of reality. (Despite common misconceptions, spiritual paths *are* paths toward reality and clarity.) Beyond the conditioned mind we can see reality in a sharper way.

As every meditator quickly learns, many of our choices only seem to be "ours." They are, in most cases, the result of early-life messages — either explicit or unconscious — which structured our minds. Those knots can never be untied if we don't work on them with our attention and full presence.

Uninterrupted conscious attention along with silent time to look into our inner world are exactly what is rendered arduous by the technological society which, to use a term dear to Mauro Magatti (2009), sequesters our attention. The modality of the Internet, regardless of the actual content we are giving attention to, tends to split our attention — among websites, instant messaging, email, social networks, pictures, videos, software tools and more. With the growing speed of computers and the Net, everyone can keep several windows and websites open at once, jumping rapidly from one to the other.

Links themselves — the cement of the Internet — useful as they are, can be distracting. We approach even the best, most interesting and in-depth information with the same divided inner modality. Marshall McLuhan's awakening phrase "the medium is the message" is true also for the Net. Being more than just another medium, the Net can be considered the summation of all media, and its impact on our inner and outer lives is accordingly stronger than any preceding media.

But we can always be masters of our attention, right? True, but the efforts to direct our attention and maintain it becomes harder with the growing presence of the Internet in our lives.

All in the Digital Mincer

The digitization of reality started with number crunching, a process close to computer language. Computers were initially used for scientific and engineering calculations, later extending to reading, writing, studying, working, entertainment, travel planning, con-

necting with friends and family, dating, sexual arousal, shopping and banking. And these activities are happening *only* online for a growing number of people. The "Internet of things" promises to go even further, radio tagging any object on earth with an Internet address, sucking all matter into the Net like a vacuum cleaner. The Net's voracity doesn't stop anywhere — including Body Area Networks that will be monitoring people's physiological parameters.

The Net continually adds to the list of human activities which can be represented digitally — charming us with amazing applications, digitizing traditional needs and desires, and stimulating new ones. The transformation of desires into needs is one of the main activities of technological society, which in this regard shares the attitude with capitalistic society.

But we can just go offline, right? Again, true — but the Internet tends, like a gas, to expand in time and space. It follows us anywhere, through wireless connections and smartphones. With the immediacy of communication through the Net, there is a reciprocal pressure for answers to be fast. If we stay away from the Net for only a couple of days, we could miss an important job message, our friends' updates, a notification from our airline, a juicy invitation from a person we're attracted to, a nasty comment on our blog or social network page which we need to remove, a credit card transaction, the choices in door handles from our architect, library and credit card late notices, or a message from the insurance company.

With most of our colleagues, friends and family online, being offline will feel like living in a remote corner of the planet. Therefore, we are more than willing to transfer our lives to the Net, display them on social networks like Facebook, preserve our private documents in the "cloud," and embrace technologies which promise to amaze and empower us. We can happily disembody into the cloud like a "pure" angel.

Technology Can't be Challenged

When I started, computers were in transition from mainframes to PCs — a milestone in the empowerment of the individual, who could finally manage his own data, in his own time and place, and on his own computer. Floppy disks may have had very limited capacity, but we welcomed this freedom. Today PCs are more powerful than those mainframes, but we willingly give our data and computations back to Web services in the cloud.

Since the advent of computers, there has been concern about how they affect our minds. As computers spread, Sherry Turkle pointed out how they influence construction of the personal self,

and Joseph Weizenbaum explored the attitudes of people working with computers. In reality, however, there are not as many people interested in those subjects as there are people chasing after the latest technological gadgets.

There are on the Net itself articles critical of the information society. Some correctly emphasize the loss of concentration through multiple mental stimuli. "Is Google Making Us Stupid?" by Nicholas Carr (2008) created a wave of debates. Other commentators have written about the prominence which the Net gives to the latest news, and how small chunks of information force historical context and broader implications into the shadows.

Some people express concern about Internet addiction to online auctions like eBay, to porn and cybersex, and online gaming and chats. Parents and teachers are legitimately concerned about protecting minors from information inappropriate for their age, from cyberpredators to cyberbullying.

Even though critical voices are present, it is not easy to criticize technology. In 2009, neuroscientist Susan Greenfield spoke before the House of Lords about the risk of changes in children's brains from overuse of social networks. Bloggers and websites counterattacked with the allegation that she had no scientific proof for her "conjecture and opinions."

This looks like a reverse inquisition. As the Church would condemn anything which wasn't compatible with Holy Scripture, now it looks like nothing has value if it is not backed by hard scientific proof and plenty of data. With that premise, there can be no value in any inner, philosophical, or ethical quest. What's not calculable, statistically coherent or scientifically demonstrable is categorized as mere "opinion" and far from truth. Welcome to Technopoly, as Neil Postman defined it.

Saying that "it is not scientific" or "we don't have enough data" are typical defenses that technologically-oriented people use to counteract criticism or expressions of concern. They also take the position that the answer to any problem arising from technology lies in technology itself: more options, more speed, improved functionalities, a newer version.

We know the common slogans. "Technology and tools in themselves are neutral it's about how you choose to use them." Any tool, however, has wider reverberations in both the social and inner worlds, aside from the way we use it. The mere presence of cars, for instance, reshaped the landscape and changed our connection with it, relocated people, changed the air we breathe, made people more sedentary, revised geopolitical relationships, and built a huge econ-

omy based on the powering, production and maintenance of cars and roads. Being without a car is possible but hard to manage, especially in places where public transportation is not in much demand. Yes we have choices in how we use cars: we can kill people with them or transport food to a poor community, but we cannot avoid their effect on our lives. They extend the possibilities of our legs, which grow weak through disuse. And without use, we tend to detach our attention from them. Likewise, TV extends our vision of the world beyond our neighborhood — but the very act of watching isolates us from neighbors and family.

Computers and the Internet are influencing our lives in more and more powerful ways. If cars reshaped the landscape, computers are making it useless. We can do almost anything in front of our screen without going anywhere. And then when we're outdoors, we can experience the landscape filtered by the "augmented reality" tools of our smartphones. Computers and the Internet have also created a huge economy built on the growing desire for both gadgets and information. They influence our bodies, minds, and inner lives even more pervasively than cars.

Whether we are using the Internet for spreading racial hatred or for organizing support groups for people in trouble, we employ software tools within a certain body-mind setting in front of a screen, and we are communicating with people who share similar settings and tools. Inadvertently, we are feeding the huge Internet economy of software, telecommunication data lines, and hardware — equipment that is mostly produced in countries where labor is cheap and the environmental impact of their production is not debated. Countries that we will likely never visit.

Technology Uses Us

The process of digitization of reality translates our needs into the digital-mental arena, and creates new ones. The fairy tale that we are free to choose how we use technology hides the fact that using technology allows technology to use *us*. McLuhan said that, "by continuously embracing technologies, we relate ourselves to them as servomechanisms." We obliterate the awareness of being servomechanisms by believing that technology widens our choices, our freedom, and empowers us. Like car ads that emphasize freedom and power, showing shiny SUVs in mountains or desert — when in reality we spend hours trapped inside them, stuck in traffic.

Always busy clicking here and there, we pay no attention to how our outer and inner states are changed by technology and information. We are numbed to the loss of certain mental capacities and

inner qualities which have been walled off by technology that emphasizes only the Now and the Latest, till we no longer remember how we were. This is hardly the *here and now* inner state described by spiritual teachers like Eckhart Tolle, though that state is being simulated by instant gratification and release from the burden of the past and the future by following the endless stream of new information.

Technologically-oriented people themselves express legitimate concerns. On the social and political levels, many are sensitive to the implications of the digital divide, as well as privacy and the openness of software architectures yet most of them ignore the deeper implications

Feeding the Soul with Bytes

Traveling from information- to consciousness-processing through meditation and psycho-spiritual understanding, I became aware that many technological developments are appealing because they share deep psychological and even spiritual needs with fake ones. As those primordial needs are translated onto the mental level of information, the emptied soul craves the real qualities, even as the restless mind seeks more information which can never fulfill the authentic needs of the soul. This very restlessness doesn't allow the subtle inner qualities to penetrate our awareness.

On the psychological level, one of the appeals of the Net is that it fulfills the human need to be seen, listened to, and recognized as we are. Far from being narcissistic, recognition is essential to the development of our personality and should be acknowledged in childhood by parents, teachers, and other role models. We can only recognize and value our innate qualities initially through the eyes of others.

When parents don't give enough time and attention to their children (perhaps because of hard work or because they are caught in the technological loop) or when they lack the inner qualities themselves, their children's need for mirroring is unaddressed. Technology, then, offers a second opportunity to show ourself and relate to others through social networks. What we receive, however, reflects us only on the mental level, which cannot feed our soul with the essential human qualities we need to recognize in ourself and embody.

The spiritual teacher A. H. Almaas (1986) has discriminated many essential human qualities such as Love, Compassion, Joy, Strength, Passion, Steadfastness, Perseverance, Intuition, Curiosity, and Inner Peace. Being seen by Facebook friends is not the same as

assimilating the real qualities through connection with a real human being who embodies them. Since we feel an inner lack which can be filled from the outside only in a very temporary and illusory way, we become stuck in needing to be continually recognized. And the mind will try forever.

The use of technology can have direct impact on our neurophysiology as well. Research points to a stunting of the frontal lobe in teenagers who are heavily into computers and video games (Small, 2008). The frontal lobes are fundamental for developing reasoning and judging abilities, and for long-term planning. The instant gratification of computer use can weaken our capacities for broader vision and planning. Poorly-developed frontal lobes are also typical of schizophrenia.

The Immortal Mind

Through technology and the Net we crave divine as well as ordinary powers. So people like Raymond Kurzweil (2005) appeal to us with a future where technological advances will bring us nothing less than immortality through downloading our mind to the computer. In the history of Western science, he is not the first to apply messianic and religious terms to technology. After all, humanity has already been saved by the technology of Noah's Ark, so there will surely be a "hack" even for mortality.

What Kurzweil and others are suggesting to drive our evolution through computers and biotechnology is a reflection, confined to the biological and mental levels, of the spiritual quest to elevate awareness beyond our mind. But since the quest is activated through mind-created technology, we can only remain on the same plane as the mind, however expanded and sophisticated it becomes through external supports and enhancements.

Kurzweil claims that "eventually, we leap beyond the boundaries of our planet, and every bit of matter in the entire universe becomes intelligent.... This," he concludes, "is the destiny of the universe." Sure, but this is *already* what the universe is, with no need for any contribution of technology. Enlightened spiritual teachers know that the universe is permeated by a brilliant Consciousness which cannot be grasped by ordinary mind, but which can be experienced through advanced states of consciousness as a result of spiritual inquiry.

Since our culture associates human beings mainly with their minds' contents, then immortality means preserving that information. But if we jump to another level of identification, then the project of preserving our mind is seen as nothing more special than

keeping our kidneys functioning by machines in a laboratory. Awareness and the essential human qualities are not a Cartesian matter of a purely mental state. They are a part of the soul which we perceive through our capacity of inner observation. I use the term *soul* to designate the overall entity of the body-mind, the psyche, and spiritual states. As Almaas says about those essential qualities:

> Each of the different ways that Essence appears has recognizable properties and characteristics that differentiate it experientially from the other aspects. Because Essence is not a physical substance, we do not actually perceive its presence with our physical senses, but it can be clearly perceived and recognized through the functioning of subtle inner capacities that correspond to physical senses (2002, p. 250).

Those subtle inner capacities require our awareness of our whole body-mind. We can't transfer essential qualities to the Net and bring them with us on the techno-immortal journey.

Inner Prostheses and Amputations through Technology

Many technical advances are being made without asking the basic questions about what drives us into technology and what technology really does to us. The time spent talking about technology is concerned with how it *works*, not with its *ends*. The implicit belief is that any technological development which seems to expand our options is going to have a positive impact.

McLuhan wrote that "any invention or technology is an extension or self-amputation of our physical bodies, and such extension also demands new ratios or new equilibriums among the other organs and extensions of the body." We tend to look only at the extended parts, not at the shifting equilibriums they trigger. We prefer to look at our extensions rather than the amputations, because our mind has developed to be more comfortable looking outside than within.

We project externally on technologies, which in turn mirror our self-images. But the amputations hinder recognition. The more we transfer our own qualities to technology, the less we are aware of what's missing, having weakened the inner tools of self-awareness. We are, like drunks, in denial of our condition.

Translating reality into information is very attractive to the ego-mind. The ego can thus consider the world as a huge information system to be understood, catalogued, and controlled through software itself an extension of the mind. The mind becomes then a supreme king.

Minds and digital technologies have much in common. Both can

simulate almost anything, and both try to incorporate everything into their domains. The mind and the thinking process are the most cherished entities in our culture. But that is not the whole story.

Beyond the Mind

There are states beyond the mind which can be reached through awareness. There exists a condition of "spiritual enlightenment" which can elevate human beings to the divine and to global Consciousness. Spiritual teachers of every age have pointed to such a state, however difficult it is to communicate through words what is beyond mind.

Words, dual in themselves, are the tools at hand to describe the non-dual state of union with the whole, called *spiritual enlightenment*, *satchitananda* (the merging of existence, consciousness and bliss), *being a Buddha*, *God Realization*, and *Ultimate Understanding*." I have a faint echo of this from the glimpses of higher states my own journey has offered.

But the words of spiritual teachers are the map, not the territory and my experiences could be no more than delusions. Actually, some teachers say that any *experience* is not yet *that*, so a Zen master would probably hit my head with a stick. The truth is that neither I nor anyone has a way to prove the existence of such a state, since every "proof" would stay on the level of the mind itself. All in all, it's a matter of faith. And even science has its own axioms or postulates, truths which are taken for granted.

The word *faith* has been associated with the monotheistic religions, with fundamentalism and in opposition to an open quest for the truth. Much blood has been spilled in the name of faith. Faith has been used, as well, to mean not acknowledging scientific truths. I am not talking about that faith.

Where my faith comes from is a mystery. Maybe I was touched by reading, maybe I felt an echo of something larger than the mind or I recognized higher states of being in my spiritual teachers.

If I would add anything more than plain faith to the existence of spiritual enlightenment, then trouble would ensue. For instance, when instead of saying "God exists," we say "God is goodness," we are already in a dualistic perspective that can easily slip into "Who doesn't believe in God is evil." Also, if the postulate that spiritual enlightenment exists were extended into "I know the only way toward enlightenment," then we would fall into fundamentalism. The mind wants to pull into its purview even what can never be known by it.

Words are products of the conceptual/dual mind, and nobody can avoid the risk of building structures and dogmas when talking

about no-mind. But what's important is to keep an open-ended attitude at the root of any inquiry, whether scientific or self-inquiry.

The Fragility of Beliefs and Information Technology

Science cannot conceive anything beyond the ego and the mind not even in human sciences such as psychology (with the exception of transpersonal psychology). Thus, abandoning our mind's contents seems like total defeat. In the West, nihilism is often knocking at the door, since what the mind creates — by its ephemeral nature — the mind itself can destroy. Without acknowledging a spiritual dimension, one is tempted to say that there's nothing solid and ultimately that there's no sense in anything.

A culture which has been developed on the foundation of "I think, therefore I am" will cling to thinking and will produce tools to keep the mind busy all the time. But for the spiritually-oriented person there's a plan B. The abandonment of the ego-mind is equivalent to the metamorphosis of a caterpillar into a butterfly.

The ephemeral nature of the mind becomes clear when, in meditation, we try with titanic effort to *observe* our thoughts and sensations, instead of clinging to them as they carry our mind away. We can see then how weak our skills are to concentrate on a single object, how short-lived our thoughts are, and how little control we have over them. The mind has been compared by spiritual teachers to a drunken monkey. Yet we cherish our thinking process as the highest expression of being human.

Technology and information are also quite ephemeral. The chances of preserving their digital contents are dim compared to other media. Papyrus lasted thousands of years, books hundreds of years, CDs (the very best quality) dozens of years, and hard drives only a few years.

The software I wrote when I was at university was backed up on magnetic data tape. I don't know if there's any compatible tape reader still tucked away in some laboratory. Even if there were, most probably the tape would have been demagnetized by now. But even if not, the software will have been rewritten to work with current operating systems.

In recovering data which is just a few years old, there are both hardware and software format problems. Converting our data to ever-changing computer formats is a huge job — which most probably will never be done either by individuals or institutions. Even if it were, who could make sense of that huge amount of data?

Technology is fragile in other aspects too. As shown by *Low-Tech Magazine*, the energy consumption of hi-tech devices is skyrocket-

ing, especially the energy required to manufacture them. "The embodied energy of the memory chip of a computer alone already exceeds the energy consumption of the laptop during its life expectancy of 3 years" (deDecker, 2009). Digital technology then, like many other developments since we started to drill for oil, is a product of cheap energy. With the growing cost of energy and a lurking peak in oil production, we won't see as many hi-tech devices around as we are used to. Also, many hi-tech products depend on rare earth metals, more than 95 percent of which are found in China which plans to limit exports.

Hi-tech products are also very sensitive to the electromagnetic radiation of solar wind. The current 11-year solar cycle, which started in 2007 and will peak around 2013, should be significantly stronger than the previous one. Solar flares shoot energetic photons toward Earth, upsetting the geomagnetic field and potentially affecting power grids, communications, satellites, GPS signals and even electronic chips.

A strong solar storm in 1859 shorted telegraph wires, causing fires in North America and Europe. If such an electromagnetic storm occurred today, it would take four to ten years to recover electric power lines, according to a report of the National Academy of Science. Given the strong interdependence of every system, the effects could be devastating for the whole of society.

As with meditation techniques, in which we learn to observe and let go of arising thoughts, maybe we should begin to practice letting go of our attachments to the information loop.