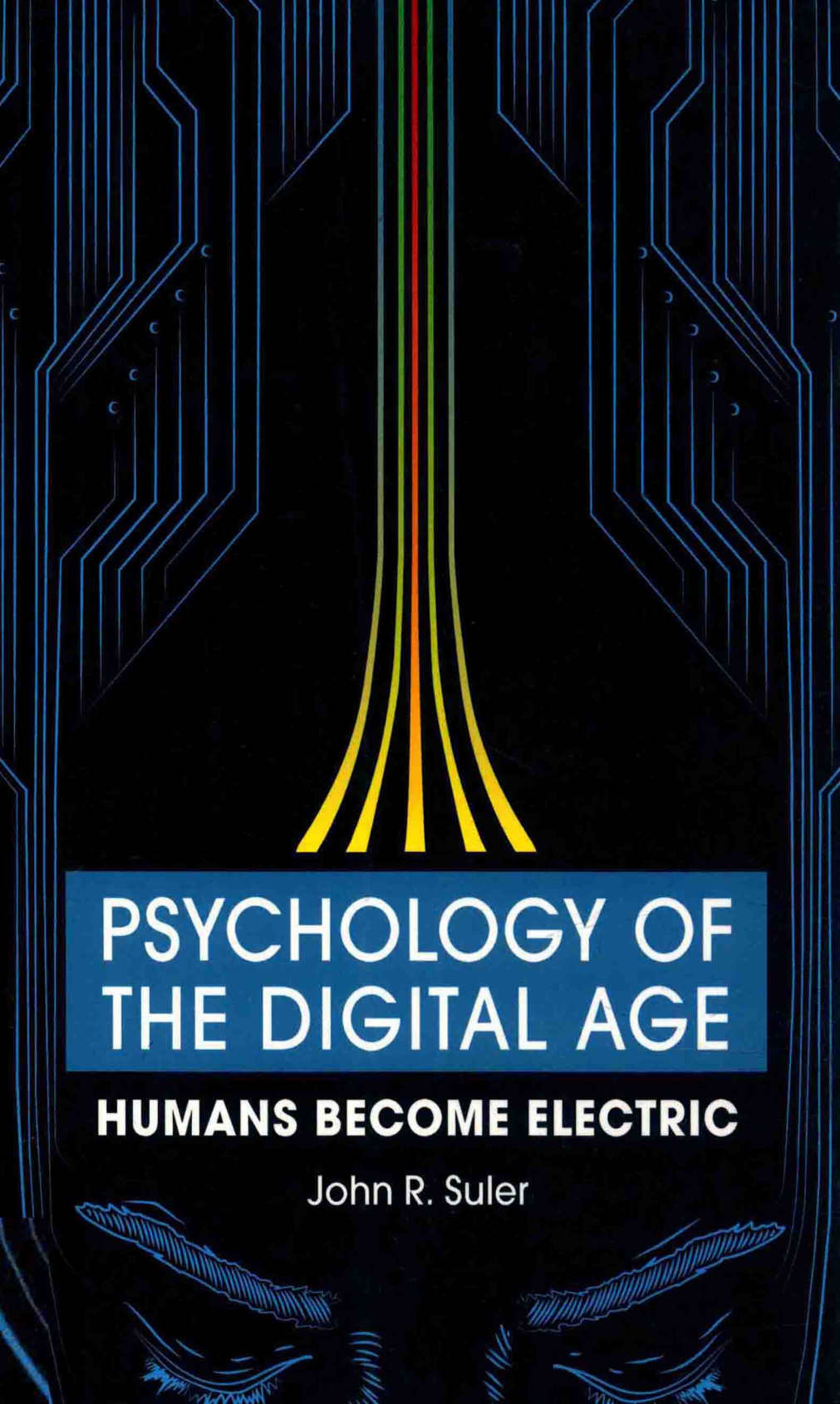

PSYCHOLOGY OF THE DIGITAL AGE

HUMANS BECOME ELECTRIC

John R. Suler

Psychology of the Digital Age

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John R. Suler
Rider University

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PSYCHOLOGY OF THE DIGITAL AGE

Based on two decades of participant-observation field research in diverse online environments, this engaging book offers insights for improving lifestyles and enhancing well-being in the digital age. John R. Suler, a founder of the field of cyberpsychology, explains its fundamental principles across a wide variety of topics, including online identity management, disinhibition, communication via text and photographs, intimacy and misunderstandings in online relationships, conflicting attitudes toward social media, addiction, deviant behavior, virtual reality, artificial intelligence, and media overload. He provides a new framework, the "eight dimensions of cyberpsychology architecture," which researchers, students, and general readers interested in cyberpsychology can apply as a valuable tool for creating and understanding different digital realms. *Psychology of the Digital Age* focuses on the individual, shedding new light on our conscious as well as subconscious reactions to online experiences and our intrinsic human need to self-actualize.

John R. Suler is Professor of Psychology at Rider University's Science and Technology Center and Honorary Professor at the Royal College of Surgeons in Ireland. He has published widely on cyberpsychology, Eastern philosophy, photographic psychology, psychotherapy, and creativity, including the book *Contemporary Psychoanalysis and Eastern Thought.*

To Debra

FOREWORD

Professor John R. Suler is acknowledged as the world's leading expert in cyberpsychology and the founder of the discipline. As a cyberpsychologist, I am honored to be invited to introduce readers to this text.

Psychology of the Digital Age: Humans Become Electric presents an engaging overview of the field of cyberpsychology as a unique discipline, and will appeal to anyone who is immersed in or fascinated by the experience of online environments. The book you are about to enjoy is a wide-ranging exploration of the profound impact of technology on human beings, and the significance of cyberspace as a new environment humans have created for ourselves.

Cyberpsychology has been considered by some to be a subdiscipline within applied psychology; however, Professor Suler's treatment creates a powerful argument for the consideration of cyberpsychology as a unique and valuable discipline in its own right, and is groundbreaking in this regard. Suler draws on a vast range of theoretical constructs in psychology, including psychodynamic theory, operant theory, group dynamics theory, and theories of human motivation, which not only ground the cyberpsychological arguments in established science, but also showcase his vast knowledge of the psychology of human behavior mediated by technology.

Many current debates and trends concerning the impact of technology on human behavior are explored. I found the section that discusses the psychoanalytic typology of Nancy McWilliams particularly insightful. Professor Suler points out that this typology has explanatory value regarding the full spectrum of human personality, from normal to pathological. This premise is then wonderfully illuminated in an applied context, whereby personality is considered in online environments – for example, psychopathic personality types and the impact of online anonymity, or narcissistic personalities and the forums they select to display themselves.

In an important chapter on the disinhibited self, Professor Suler explores the *online disinhibition effect*. This effect, one of the principal and best-known constructs in the discipline of cyberpsychology, was conceptualized and first proposed by the author over a decade ago. His publications on this phenomenon have been cited thousands of times. As an active researcher in this field, I am perhaps most excited about the new theoretical model that Professor Suler has created. The *eight dimensions of cyberpsychology architecture* provide a unique, comprehensive framework for exploring experiences in cyberspace and have applications in a wide range of fields (consumer psychology, digital marketing, user interface, interactive design, online community development). Suler also explores many important areas such as ethics in cyberspace and Big Data, issues that will only continue to grow in importance and relevance over time.

Suler has a unique style, a philosophical approach grounded in psychology and delivered as cyberpsychology. His transdisciplinary vision is reflective of the discipline itself, and therefore the content will likely resonate with those of us who are immersed in this subject and those who are interested in discovering it. John's elegant writing style, especially the narrative and historical aspects of the book, should delight anyone with an interest in technology and psychology while providing professors and students in all the fields that interface with the digital world a coherent and informed overview of cyberpsychology.

This is cyberpsychology by the ultimate expert, my good friend and colleague Professor John R. Suler. A most enjoyable and engaging read.

Professor Mary Aiken
Director, Royal College of Surgeons in Ireland
CyberPsychology Research Center

PREFACE

My relationship with computers began in the late 1970s as a graduate student in Ed Katkin's psychophysiology lab at the State University of New York (SUNY) Buffalo. Back then, they were called "microprocessors" that we used for real-time control of experimental procedures and data collection. My journey since those days feels like a long one, filled with the many ups and downs that all of us experience in our love/hate relationship with this digital age. I remember angrily smashing my desk chair into the ceiling when I accidentally deleted an almost completed manuscript on my IBM personal computer, learning the hard way the lesson to always back up. I remember my delight the very first time I saw a photograph on my Mac Quadra. In the 1980s, when my students undertook an assignment to analyze the pros and cons of Eliza, the early psychotherapy simulation program, I asked them one day how many of them used this thing called "email." No one raised a hand. Now they all come to class with phones that guarantee their constant connection to social media, while thinking that email is something their parents use.

This book is an account of my journey as a cyberpsychologist through the decades of this digital age – an account of my insights as a researcher, but also as a citizen of what I still like to call "cyberspace." By highlighting the basic cyberpsychological principles of our highs and lows in this new digital land, of our love/hate relationship with technology, I hope that this book can serve as a useful resource for anyone who seeks to maximize well-being and compassion in cyberspace, and for my fellow cyberpsychologists who wish to understand the concepts and methods that guided me in my work.

With the rise of the Internet, we have entered a new era in human evolution, and with it the need for a psychology of this digital age. But as the

subtitle of this book suggests, our voyage into this new era revives many of the basic triumphs and strife depicted in the classic Eugene O'Neill play *Mourning Becomes Electra*, which is itself a retelling of the ancient stories of the *Oresteia* by Aeschylus – archetypal tales of love, aggression, loyalty, betrayal, revenge, and family relationships. Our new electric selves in the digital era transcend the old boundaries of human experience while echoing back to us all the emotional complexities inherent in the ancient depths of our human condition.

ACKNOWLEDGMENTS

The journey that led me to the completion of this book would not have been possible without the many people who guided and supported me along the way. I would like offer my sincere gratitude to Ed Katkin and Steve Goldband, who during my graduate school days taught me about computers, while patiently tolerating my anxieties when the program I had written for my dissertation research kept crashing; to Nancy McWilliams, who raised my understanding and appreciation of psychoanalytic theory to new heights; to Azy Barak, Michael Fenichel, John Grohol, Robert Hsiung, Storm King, Gary Stofle, and Kimberly Young, with whom I joined forces in the earliest days of cyberpsychology; to Lloyd Silverman and Dick Zakia, who encouraged my explorations into understanding images; to Rick Larson, Vince Potenza, the wizards at the Palace, and my friends in Flickr, especially Michael Titus, who so generously shared their ideas and experiences; to my students who appreciated what I had to teach them while teaching me some important things as well; to Mary Aiken, whose dedication to cyberpsychology inspired me; to Dave Repetto and Cambridge University Press, who recognized the potential of this book; to Kira for her wonderful design insights; to Asia for her inspiration; to my loving mother and father; and to my wife Debra, whose unending encouragement, insights, and love sustained my entire career.

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Newborns in Evolution

We're still in the first minutes of the first day of the Internet revolution.
– Scott Cook

It's 10:30 P.M. and the day seems almost over. The kids finally fell asleep. My wife is reading in the living room. At last, the house is quiet. Doing a bit of reading myself is a possibility, or perhaps a round of channel surfing on TV. But I decide against it. Something more intriguing waits for me beyond the walls of my home, something that uniquely mixes work with play. Having just published my book on contemporary psychoanalysis and Eastern philosophy, which I considered a swan song for that stage of my career, I found something new and exciting to study, another realm to explore as a psychologist who loves to apply his discipline to something seemingly far afield of the mainstream. I settle into the swivel chair at my desk, fire up my brand new and very own computer – for I am the first in my neighborhood to have one – and I head into that wonderfully mysterious new world that I had discovered only a few months before, a world only geeks like me appreciated or even knew existed. Even though we are an oddball collection of people, we all suspect that this new space is leading us onto a path that could empower all people, as long as we avoid the pitfalls along the way.

THE BIRTH OF CYBERSPACE

Just yesterday, comparatively speaking in the many millennia of our evolution, we humans did something quite remarkable. We created an entirely new environment for ourselves, one that intersects but also transcends the physical world as we have known it for all these hundreds of thousands of years. People called this new digital realm "cyberspace."

The coining of that term is attributed to William Gibson, who popularized it in his 1984 debut novel *Neuromancer*, which tells the story of a down-and-out computer hacker hired by a mysterious employer to carry out the ultimate hack. We now associate the term "cyberspace" with any activity or experience that occurs online and via the many devices that connect us to that ubiquitous space. A variety of other expressions have been used to refer to this digital realm, such as the Internet, the net, the web, social networks, social media, or "being online." These terms are often used interchangeably, even though in a strict technical sense they do not mean the same thing. The fact that our terms continually change even when they refer to similar environments reflects our preoccupation with "new and better" as well as our coming to grips with this seemingly ever-changing, elusive world of technology. Whatever terms we do use, and I will use them all throughout this book, the essential idea is that this digital realm is a unique environment for humanity, a special kind of space created by computers – a "cyberspace."

Even though the word "cyber" is usually associated with digital networks and the computers that comprise them, another science fiction writer, Sterling (1992), claimed that we can trace the origin of cyberspace a bit further back in time – maybe the day before yesterday – to the very beginnings of the electronic frontier, when telegraph, radio, television, and especially the telephone enabled humans to communicate with each other in an imaginary space "out there," an ethereal space somewhere between you and me. Although the exact time cyberspace was born might be a matter of debate or definition, its history after the broadcast age of telephones and television, very succinctly outlined, goes something like this:

In the 1960s, wide geographic networks were developed to enable distant computers to communicate with each other. Academics and government researchers used these networks to share information, one of the most successful being the Advanced Research Projects Agency Network (ARPANET). The U.S. Defense Department supported research into these widespread networks, as it was hoping for a flexible communication system that could survive a nuclear attack because it did not rely on a single

center of control. Licklider (1960), an American psychologist and computer scientist at the Massachusetts Institute of Technology (MIT), envisioned – some say in a tongue-in-cheek fashion – a "Galactic Network" of globally interconnected computers through which everyone could quickly access information and programs. Other prominent scientists made similar predictions.

By the early 1980s, such visions began to materialize. The invention of the Transmission Control Protocol/Internet Protocol (TCP/IP) communication protocol enabled all the once separate networks to talk with each other. The system of interconnected computers grew larger and larger, culminating in what people called the Internet. Mostly computer experts, engineers, scientists, and librarians used it, but soon nontechnical people joined them in this new realm.

At that time, it was all text communication. There were no pictures or sounds – just lines of letters and numbers.

In the early 1990s, hypertext was invented. It overcame the limiting way cyberspace operated: when people on a personal computer connected to a site somewhere on the Internet, they had to disconnect from that location then return back to their personal computer before going anywhere else. Instead, thanks to hypertext, by clicking on links embedded within text, people could move more freely from one location to another, within an expanding interlaced network of connections, somewhat similar to how the human brain works. Very aptly, it was called the World Wide Web. People used "browsers" such as Lynx to travel through the "pages" of this web. As the term "hypertext" suggests, it was still all text communication.

That would soon change in a way that would dramatically transform the psychological experience of cyberspace. In 1993, with the introduction of the popular graphical browser Mosaic, the web became visual. In addition to reading and writing, people could now see images, including graphics and photographs. Sound files and videos followed. Webpages grew more sophisticated in visual, conceptual, and functional design. Due to the enhanced sensory qualities of this fascinating web, more people began going online, forming many different kinds of relationships, groups, and communities, a movement that boomed when the Internet became commercialized with the relaxing of government restrictions on its use.

The space "out there" first created by radio, telephones, and TVs had blossomed into a complex global environment, far beyond a simple broadcast empire, with levels of participation, interactivity, and media sophistication that surpassed anything previously known in human history. Rooted in

the real physical world, cyberspace grew into a complex ethereal world unto itself, with some traditions carried over from the old world and some new ones invented. Eventually every type of communication device linked to cyberspace, including all varieties of institutional and personal computers, as well as phones, TVs, cameras, radios, navigation devices, tablets, glasses, and appliances – to the point where it became hard to define where this cyberspace began and where it ended. Thanks to our creation of these interconnected electronic devices, we humans developed the ability to manifest our ideas, customs, personal identities, and relationships with others in a space filled with buzzing electrons that we controlled.

Humans had become electric.

THE BIRTH OF CYBERPSYCHOLOGY

It was not long after the appearance of the Internet that cyberspace caught the attention of social scientists. They realized that a very unique dimension for human behavior was opening up right in front their eyes, one that enabled versatile communication between individuals as well as the creation of groups of many sizes and configurations. Unlike the mass media of TV and radio, cyberspace offered powerful opportunities for social interactions among many people, among different types of people, from many geographic locations, for all types of purposes. It was a social psychological environment with a magnitude of complexity, subtlety, and adaptability no less sophisticated than the physical world. With the 1985 appearance of such virtual communities as The WELL (Whole Earth 'Lectronic Link), visionary nonfiction writers began recounting tales and offering theories about online human interactions, including Howard Rheingold's groundbreaking 1993 book *The Virtual Community*.

Some of the first psychologists to study online behavior, including myself, proposed a new discipline within our field that we called *cyberpsychology*. Along with colleagues that included Azy Barak, Michael Fenichel, John Grohol, Robert Hsiung, Storm King, Gary Stofle, and Kimberly Young, we advocated the need for psychological investigations into what people were doing on the Internet, including the potential benefits and hazards of cyberspace. Our voices echoed those of other psychologists from around the world, such as Tikhomirov, Babaeva and Voiskounsky (1986) in Russia, who anticipated a "psychology of computerization." When my colleagues and I joined together with clinicians of other mental health disciplines from around the world, we explored the possibilities for conducting psychotherapeutic interventions via email and chat, the use of the Internet for

widespread education about mental health, and the psychologically healthy as well as pathological uses of cyberspace.

Many psychologists at the time focused on mental health issues in cyberspace, particularly the prospects for online psychotherapy and controversies about the now widely recognized existence of Internet addiction. Other researchers, including myself, also pointed to the need for expanding our psychological research into other areas of online behavior. After having completed my book that integrated contemporary psychoanalysis with eastern Thought (Suler, 1993) – the same year that the World Wide Web went visual – I saw cyberspace as fertile territory for the kind of qualitative, experiential, and immersive research that I loved. It was also an extension of my interest in computers since my graduate school days, especially the use of "Eliza," an artificial intelligence psychotherapy program that I used in teaching my students about clinical psychology. Relying on such methods as participant observation, case studies, interviews, focus groups, and field research, I began writing about my experiences with computer-mediated communication. In 1996, I launched my online hypertext book *The Psychology of Cyberspace*, the first book about this topic that was widely cited. I continued to revise and expand it over the following decade, with journal articles and book chapters as spinoff publications. In this online book, I explored a broad range of topics that reflected the fundamental questions that have always been important within the diverse discipline that is psychology and that now carried over into this new environment called cyberspace:

- How do individual people react to cyberspace?
- How do people interact with each other online?
- How do people behave in online groups and communities?
- What is normal and abnormal behavior?
- How can cyberspace promote mental health?

The topics I addressed in *The Psychology of Cyberspace* reflected some of the many different types of studies that began to appear in the field of cyberpsychology. As more psychologists and other social scientists joined the research efforts, areas of expertise emerged. New journals devoted specifically to cyberspace appeared, such as *CyberPsychology, Behavior, and Social Networking; Cyberpsychology: The Journal of Psychosocial Research*; and the *International Journal of Cyberbehavior*. In 2007 and 2008, the Institute of Art, Design, and Technology in Dun Laoghaire, Ireland, and Nottingham Trent University in the United