

## Cybertherapy

Internet and Virtual Reality as Assessment and Rehabilitation Tools  
for Clinical Psychology and Neuroscience

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# PREFACE

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*A Japanese warrior was captured by his enemies and thrown into prison. That night he was unable to sleep because he feared that the next day he would be interrogated, tortured, and executed. Then the words of his Zen master came to him, "Tomorrow is not real. It is an illusion. The only reality is now." Heeding these words, the warrior became peaceful and fell asleep.*

*Suler, 1997,*

*<http://www.rider.edu/suler/zenstory/present.html>*

The “Psychology of Cyberspace” [1, 2] and related fields, such as the “Psychology of the Internet” [3] and the “Psychology of Internet Behavior” [4], are new areas of study that have attracted psychologists in various specializations—clinical, counseling, educational, organizational, cognitive, social, and more—as well as researchers in other disciplines, among them communication, medicine, sociology, education, psychiatry, social work, and nursing.

The new areas have developed rapidly, accumulating knowledge and making innovative assertions and propositions that can generally be divided into two major directions: understanding the influence and impact of human experience with computers in cyberspace, on the one hand, and applying psychological procedures through (or with the help of) computers and the Net, on the other [5]. A vast majority of the psychological applications have been clinical and clinical-related and are considered a significant advancement in this field [6].

In being an extremely interdisciplinary field of study, psychology of cyberspace exemplifies unique cooperation among various distinctive professions: software programmers, computer and Web designers, and computer engineers at one end, and psychologists of different specialties at the other. The results of this collaboration have created exemplary works, represented by the VEPSY Updated (<http://www.cybertherapy.info>) project collaborators in the present collection of chapters.

The combination of ergonomics (human engineering), software engineering and programming, and computer design and graphics, on the one hand, and psychological and medical interventions, on the other, brings about innovative perspectives and effective implementations, whose aim is to serve humanity by offering better vehicles with which to heal physical and emotional deficiencies and injuries.

Although the projects presented in this volume represent significant breakthroughs, in the sense of creatively exploiting new technologies to attend to human miseries, further work is still required to fill the gap existing between the conceptualization of the cybertherapy experience and the actual implementations. As conceptualized and well presented by Mantovani [7] and Riva [8],

interpersonal communication in virtual environments, though problematic and often erroneous, constitutes an efficient basis for interpersonal relationship. In Riva's [9] words, "Communication is as the outcome of a complex coordinated activity, an event that generates conversational space within the weave of personal and social relationships. Thus, communication is not only—or not so much—a transfer of information, but also the activation of a psychosocial relationship, the process by which interlocutors co-construct an area of reality. In CMC this happens inside a rather special kind of container – cyberspace - that tends to rarefy the structural and process features of communication" (pp. 595-596).

This interpersonal relational basis - so central to human existence and functioning - seems to be missing from some of the actual cybertherapy applications, thus potentially limiting the implementation of more effective interventions. As criticized by Jacobson [10] in the context of the concept of "presence", human experience consists qualitatively of more than a physical environment, information received by the senses, and information processed by the brain; it includes, too, psychologically based dynamics, as evident in textual communications in virtual environments. In other words, as a clear touching point between body and mind, it seems that the "mind" aspect has been downplayed, compared with the "bodily" aspects. Thus, a further development of the current cybertherapy position will be an increased focus on the *relational factor* between therapists and patients as a significant therapeutic element of the clinical process. A better focus on this issue, as advocated by Riva and Galimberti [11, 12] in relation to conceptualizing cyberspace in general, will probably produce more targeted interventions.

Another point, related somewhat to the previous one, refers to the nature of the clinical interventions presented in this collection. Not surprisingly, three out of four of the therapeutic techniques discussed here are based on, or related to, the Cognitive-Behavioral Model (CBM). In fact, this approach has not only been found to be effective in treating numerous behavioral problems [13], but also can be translated relatively easily into computerized intervention programs. Notwithstanding the relevancy, effectiveness, and legitimacy of CBM to treat psychological problems, the understanding and exploiting of the client's personal dynamics - consisting of needs, desires, frustrations, conflicts, daydreams, emotions, and so on – are critical issues for an effective therapy. Thus, a more flexible, open, comprehensive, and eclectic approach might produce more effective cybertherapy tools. Some processes that are typical of and unique to human experience in synthetic environments, such as the powerful impact of the online disinhibition effect [14] and the process of transference in cyberspace [15], actually call for differently oriented therapeutic procedures to complement cognitive-behavioral interventions.

All in all, the current volume contributes significantly to the cumulative knowledge of emerging psychotherapy and the psychology of virtual environments. The writings in this book are evidence of apparent science fiction just two decades ago becoming scientific reality today. Specifically, what many psychologists once considered futuristic therapy is now a clinical actuality. Though paradoxical, and perhaps clichéd, the future is present, at least in the human mind. Like the Japanese warrior, we might profit tremendously from the gifts of the future by concentrating on and experiencing the state-of-the-art present—and thereby avert professional avoidance caused by fear of the unknown future.

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