CyberTherapy

Issue 2 / 2012

The Official Voice of iACToR

& Rehabilitation

COVER STORY:

Positive Technology Improves Health and Well-Being

and much more...

ACROSS THE POND: Benefits of Positive Technology

▶ **By Ashfaq M. Ishaq**

In his remarkable book, *A History of Knowledge*, Charles Van Doren used a dew drop on a leaf to explain the discovery of the telescope and the microscope. Since a dew drop magnifies the leaf's surface, this simple discovery is reflected in the invention of the magnifying glass. When similar convex lenses are placed on each end of a tube, distant objects appear nearer and larger—the telescope is born. When a telescope is turned around to observe a microbe, the organism appears far larger—microscope is invented. These two instruments made it possible to observe what unaided eyes never could before. The enhanced capacity to understand the world and oneself sparked the scientific revolution. At that time, one would have assumed that modern medicine and the discovery of space would develop in tandem. Yet, we reached the moon much earlier than discovering our own DNA and microbes.

The idea of positive technology implies that innovations can bear negative consequences. Nikola Tesla, inventor of radio and electricity transmission and generation, stated that, "science is but a perversion of itself unless it has as its ultimate goal the betterment of humanity." Any innovation can be used for purposes other than what the inventor envisioned. A latest imaging technology that detects cancer in an unborn could also monitor our every move like a Big Brother in a world that we gingerly cohabit with 19,000 nuclear warheads.

Although technology alone may not guarantee a brighter future, it can still help equip the next generation to build a better world. Consider the example of a small school in Wichita, Kansas, which was founded in 1912 for about 300 mostly African-American pupils and named after the famous French Negro General of Haiti, Roussaint L'Ouverture. Following desegregation in the early 1970s, the school grew in size and diversity. In 1992, it became L'Ouverture Computer Technology Magnet Elementary School, with a computer network television station and telecommunication connections. Technology was upgraded in 2007 to provide a 2:1 student-to-computer ratio, a laptop for every teacher and a projector and SMARTboard for every classroom as well as digital and video cameras. Students began participating in global collaboration projects through the use of a video conferencing Polycom Unit. Third-graders began designing and publishing their own websites. They also began teaching web skills to about sixty adults and seniors every year.

Digital technologies can indeed provide opportunities that foster children's creativity and broaden young people's horizons. Therapeutic innovations become necessary when students suffer from maladies such as cyberbullying, which arises from interconnectedness. Cybertherapy can be a student-friendly intervention that lifts psychological burdens by making restructuring possible. This positive innovation is effective because virtual reality enchants the mind. Neuroscientists Leo Chalupa and John Werner have found that eighteen different areas of human brain process vision, far more than what is devoted to language. Screens and vivid optics now continuously remake young people's landscapes, exposing them to panoramas unseen before. Images, 3D and virtual reality have become a part of their visual vocabulary. The future of positive technologies like cybertherapy has never been brighter or more colorful.

VCP for Children

The Internet, the Web, and the related computer and communication systems have indeed profoundly changed the way we now live and work. Meanwhile, our understanding of discovery and innovation has been deepened by research on creativity—a quintessential human attribute, which along with our ability to grow and apply accumulated knowledge makes us the highest-order species. These two tsunamis of change engulf the young, resulting in a reinvention of childhood at the hands of positive technology and recognition of

"The International Child Art Foundation is developing a Virtual Creativity Platform (VCP) to leverage the Internet to foster children's creative development. Because the full promise of the digital revolution lies in a worldwide creativity revolution, the VCP can become a good example of positive technology."

childhood creativity as prevenient to invention, innovation, and discovery.

Consequently, the International Child Art Foundation is developing a Virtual Creativity Platform (VCP) to leverage the Internet to foster children's creative development. Because the full promise of the digital rev-

exchange is great: it opens totally new scenarios in which technological development is directly linked to the expression of the human potential. In this view technologies may become not only useful tools but also tools that are able to activate and sustain the personal change and improvement.

2) A general understanding of how interactive technology can be used to transform our personal experience in a tool for building new and enduring personal resources. In particular, a critical goal will be to identify a series of guidelines - describing how it is possible to use technologies to influence three specific features of our experience - affective quality, actualization, and connectedness - that serve to promote adaptive behaviors and positive functioning (Technology Engagement).

3) Improved links and interaction between patients and doctors facilitating more active participation of patients in care processes. The project realizes a "continuum of care" where the interaction between the patient and his doctor is not limited to the short ambulatory visits or to the therapeutic sessions periodically done in a clinical setting. Moreover, Positive Technology will motivate the patient to adapt his habits, how to manage daily situations at home, at work, interrelations with the other people; above all, the system will empower the patient to manage his own health..
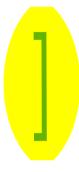
4) Better quality of life. Positive Technologies may improve the quality of life of millions of people through:

- The improvement of their treatment and the prevention through accurate and engaging real time activities and feedbacks;

- The increase of their reassurance and motivation to a more active participation in illness prevention and care processes.

[**Giuseppe Riva, Ph.D.**
Istituto Auxlogico Italiano
Italy

giuseppe.riva@unicatt.it
auxo.psylab@auxologico.it]

"Digital technologies can indeed provide opportunities that foster children's creativity and broaden young people's horizons. Therapeutic innovations become necessary when students suffer from maladies such as cyberbullying, which arises from interconnectedness. Cybertherapy can be a student-friendly intervention that lifts psychological burdens by making restructuring possible."

olution lies in a worldwide creativity revolution, the VCP can become a good example of positive technology. While the measurement of creativity has its own complexities, what's crystal clear is that creativity is not a zero-sum game, where the winner takes all; instead any spark of creativity can produce a virtuous cycle of ideation, invention, and collaborative innovation. Enhancing creative capacities is the defining challenge of the 21st century for individuals, organizations, communities, and governments. A creative cluster can grow into a creative community, even a creative state or nation, and perhaps a creative global community. Joy Paul Guilford (1897-1987), a pioneer in creativity research, was among the first to envision a worldwide creativity revolution and the global community it would create. "A world population of creative solvers should be more productive and happy as well as more self-confident and more tolerant and, therefore, more peaceful," he argued. Fostering a global creative community is what the VCP aims towards.

World Children's Festival

Positive technologies like the Internet and the Web offset the constraints imposed by time and space. Any festival takes place in a bounded physical location, like the World Children's Festival (WCF) on the National Mall in Washington, DC. Through the VCP this festival could become virtual as well, spawning co-creation activities between festival participants and VCP users. Held every four years as the Olympics of children's imagination and co-creation, the festival honors the winners of the Arts Olympiad—the world's largest and most prestigious art and sport program for 8- to 12-year-olds. While the Arts Olympiad introduces children to the Artist-Athlete Ideal℠ of the creative mind and healthy body—mens sana in corpore sano, the World Children's Festival has become a global showcase for STEAMS Education℠ which integrates the Arts (and culture) and Sport (and play) with STEM disciplines for children's holistic development. Promotion of STEAMS Education℠ through the VCP could become another good example of positive technology.

[**Ashfaq M. Ishaq, Ph.D.**
Executive Chairman, International
Child Art Foundation
Washington, DC

ishaq@icaf.org]