**2ND INTERNATIONAL CONFERENCE IN CONTEMPORARY SOCIAL SCIENCES**

**ICCONSS**

**PUBLIC POLICY AT THE CROSSROADS: SOCIAL SCIENCES LEADING THE WAY?**

**Rethymno, Crete, 14-16 June, 2018**

*For the Panel:*
Mental Health Policies and Professional Networks
Chair: Tzanakis Manolis and Sofia Triliva

*Abstract for submission*

# What is happening behind your Black Mirror? The technological future of Mental Health

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## How is the future portrayed in cinematography?

The human mind has always occupied an important place in sci-fi artworks. From Spielberg's ‘`´A.I Artificial Intelligence" movie almost two decades ago, to today's popular "Black Mirror" series, the idea of empowering and understanding the human brain via technology is prevalent everywhere.

Thereby, it is now common to see plots about robots both smarter and stronger than humans (i.e. "Terminator", "I Robot", "Ex Machina"), the digitalization of consciousness (i.e. "The Matrix", "Chappie") or access to dream or subconscious (i.e. "Inception", "Total Recall", "Lucy"). Indeed, those mental health related topics appear to be subjects of fascination and a popular theme for Sci-Fi scenarios.

But how does cinematography introduce the future of technology in relation to Mental Health?

## What direction are today's technologies taking?

Today's facial recognition's latest algorithms allow phones to be unlocked in less than 0.4 seconds by simply looking at them. The Internet of Things (IoT) is connecting every device together with a projection from 20 to 50 billion connected "Things" in 2020; depending on the forecast. Virtual reality is offering never seen before immersions and reducing latency, which results in tricking the brain more effectively every day – now eliminating the dizziness once experienced in the virtual immersion. 5G networks offering wireless internet access at the speed of today's private optic fibers are on the horizon. Talking to a robot on your favorite chat solution allows you to order your next dinner's delivery. The latest generation of Blockchains are dematerializing new services and outstanding the traditional method in exchanging and storing information. Artificial Intelligences (AI) are dominating humans on new fields, never expected before. On October 25 2017, Sophia became the first robot to get official citizenship in Saudi Arabia.

How close are we from what we see in movies? And more importantly, what is the upcoming technological revolution about to offer for the Mental Health field?

## What innovative projects are currently being utilized in the Mental Health field?

Although not as sophisticated as what we see in movies, such technology is already being used, such as the French award-winning start-up HealthyMind, a service that provides a calming and satisfying immersion in a safe and beautiful 3D environment via virtual reality or PARO, a therapeutic robot developed by the Japanese National Institute of Advanced Industrial Science and Technology (AIST) certified by the Guiness World Records as the world's most therapeutic robot.

The first 3D printed drug products are offering on-demand fully personalized treatments for accurate dosage and a complexity of drug-release never obtained before and has been approved by the U.S Food and Drug Administration (FDA) in August 2015.

What effects can we expect from those initiatives? Does it brings new ethical questions to the Mental Health field?


## Key words:

Mental Health, New technologies, Computer science, Future, Virtual reality, Sci-Fi.