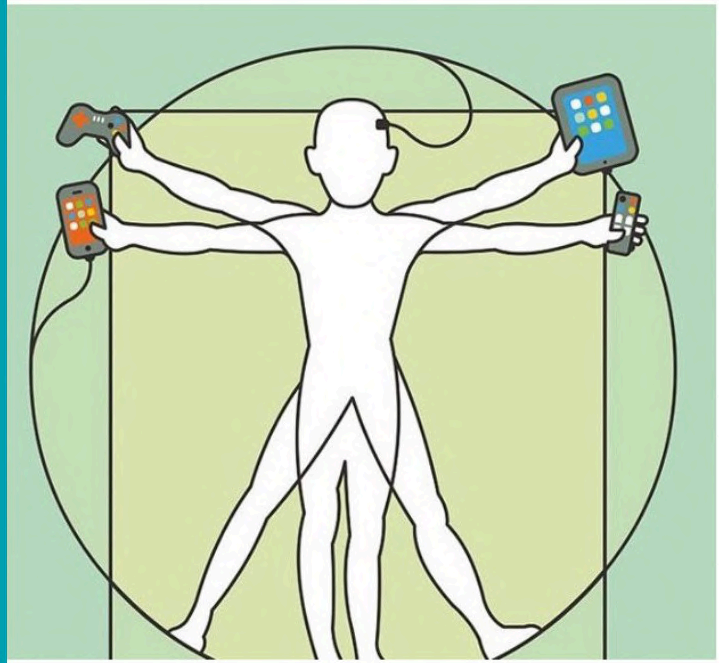
GLOBAL WELLNESS
SUMMIT 2019

Technology Has Redesigned YOU.

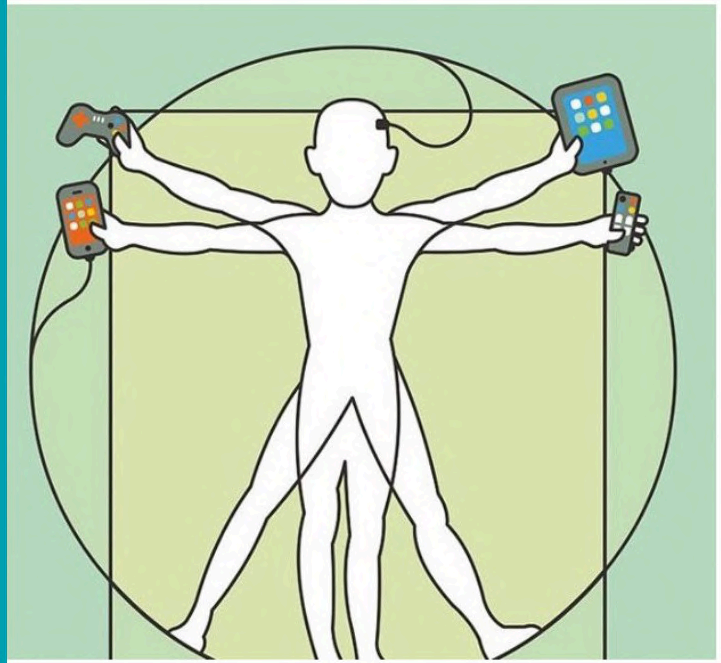
The Thread of Wellness through Past, Present, and Future Technology

Liza Lichtinger, CEO, Future Design Station, US



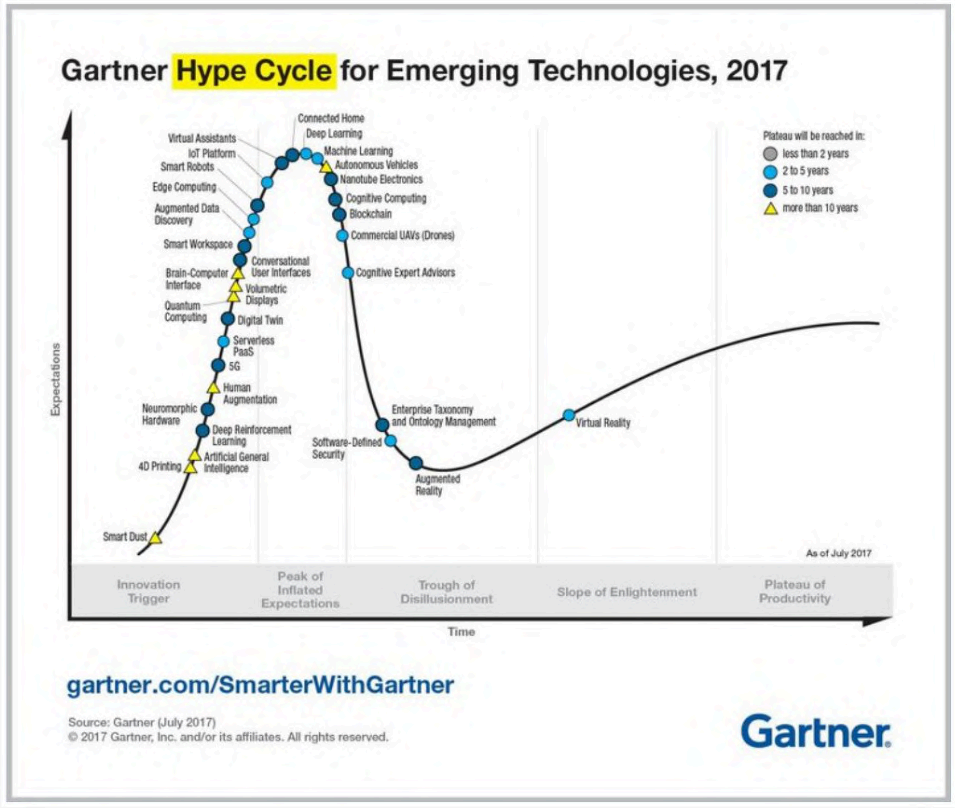
Technology Has Redesigned YOU.

Thread of Wellness PAST



We are Living Through the Biggest Shift of Attention in Human History

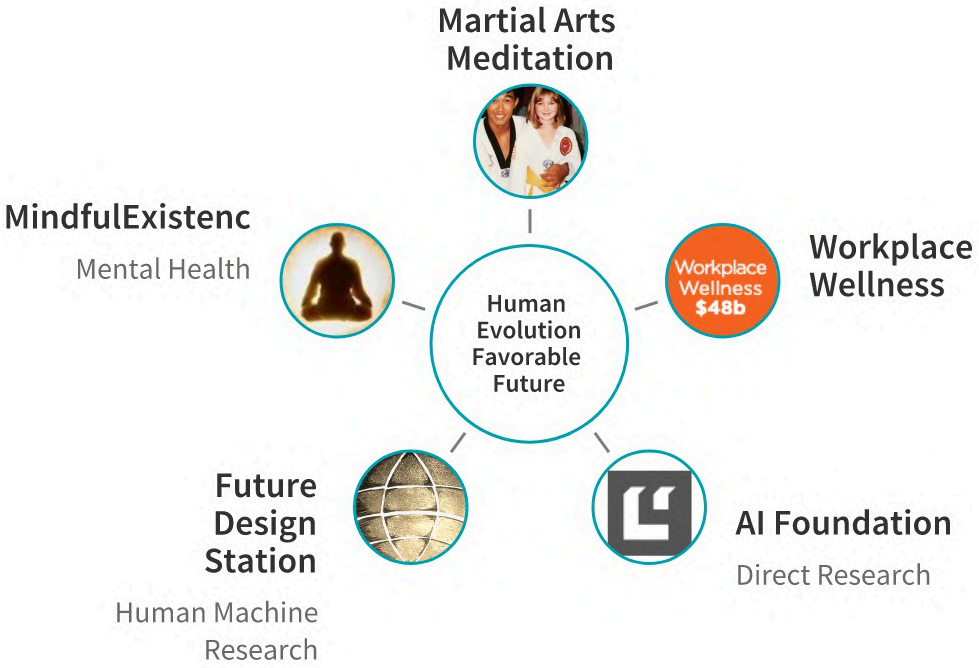
We are the last human Hybrid species... This impacts us in work and in our personal lives, during this emerging tech hype cycle, where is the line between work and person life?



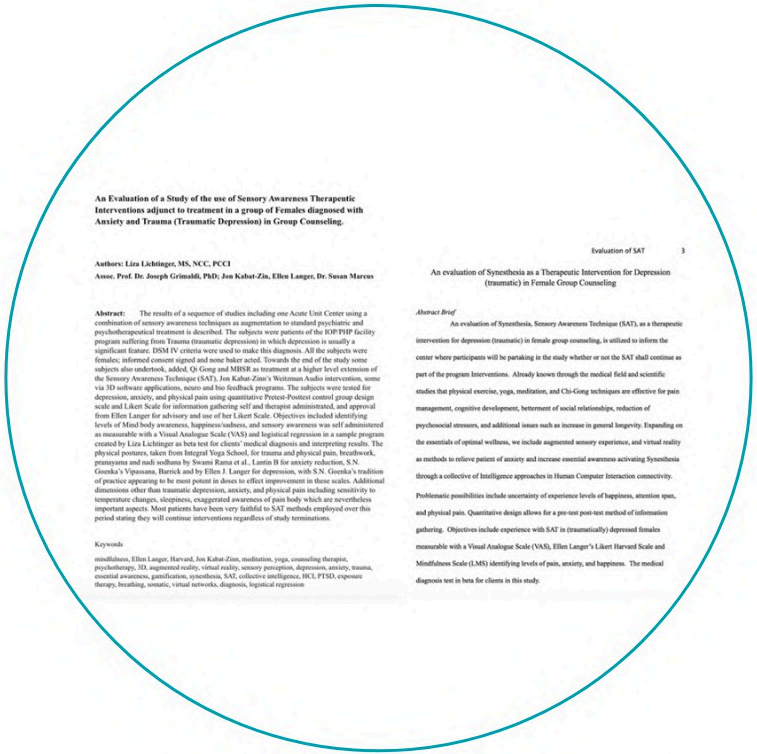
Emerging Technology Hype Cycle for 2017 Infographic R6A

From Wellbeing to Mental Health to AI and high tech and back.

The Global Wellness Institute (GWI) defines wellness as:
The active pursuit of activities, choices, and lifestyles that lead to a state of holistic health.



Research 2007-2009



An Evaluation of a Study of the use of Sensory Awareness Therapeutic Interventions adjunct to treatment in a group of Females diagnosed with Anxiety and Trauma (Traumatic Depression) in Group Counseling.

Authors: Liza Lichtinger, MS, NCC, PCCI
Assoc. Prof. Dr. Joseph Grimaldi, PhD; Jon Kabat-Zin, Ellen Langer, Dr. Susan Marcus

Abstract: The results of a sequence of studies including one Acute Unit Center using a combination of sensory awareness techniques as augmentation to standard psychiatric and psychotherapeutical treatment is described. The subjects were patients of the IOP/PHP facility program suffering from Trauma (traumatic depression) in which depression is usually a significant feature. DSM IV criteria were used to make this diagnosis. All the subjects were females; informed consent signed and none baker acted. Towards the end of the study some subjects also undertook, added, Qi Gong and MBSR as treatment at a higher level extension of the Sensory Awareness Technique (SAT), Jon Kabat-Zinn's Weitzman Audio intervention, some via 3D software applications, neuro and bio feedback programs. The subjects were tested for depression, anxiety, and physical pain using quantitative Pretest-Posttest control group design scale and Likert Scale for information gathering self and therapist administrated, and approval from Ellen Langer for advisory and use of her Likert Scale. Objectives included identifying levels of Mind body awareness, happiness/sadness, and sensory awareness was self administered as measurable with a Visual Analogue Scale (VAS) and logistical regression in a sample program created by Liza Lichtinger as beta test for clients' medical diagnosis and interpreting results. The physical postures, taken from Integral Yoga School, for trauma and physical pain, breathwork, pranayama and nadi sodhana by Swami Rama et al., Lamin B for anxiety reduction, S.N. Goenka's Vipassana, Barrick and by Ellen J. Langer for depression, with S.N. Goenka's tradition of practice appearing to be most potent in doses to effect improvement in these scales. Additional dimensions other than traumatic depression, anxiety, and physical pain including sensitivity to temperature changes, sleepiness, exaggerated awareness of pain body which are nevertheless important aspects. Most patients have been very faithful to SAT methods employed over this period stating they will continue interventions regardless of study terminations.

Keywords

mindfulness, Ellen Langer, Harvard, Jon Kabat-Zinn, meditation, yoga, counseling therapist, psychotherapy, 3D, augmented reality, virtual reality, sensory perception, depression, anxiety, trauma, essential awareness, gamification, synesthesia, SAT, collective intelligence, HCI, PTSD, exposure therapy, breathing, somatic, virtual networks, diagnosis, logistical regression

Evaluation of SAT 3

An evaluation of Synesthesia as a Therapeutic Intervention for Depression (traumatic) in Female Group Counseling

Abstract Brief

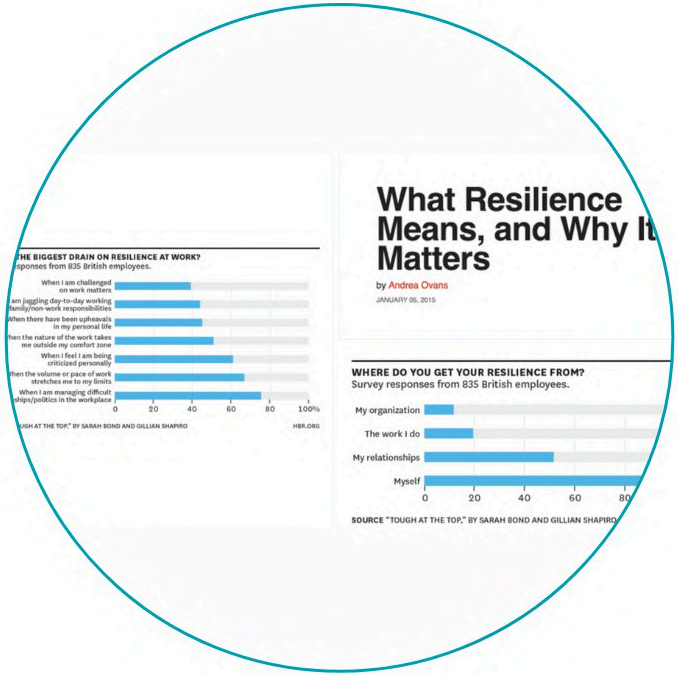
An evaluation of Synesthesia, Sensory Awareness Technique (SAT), as a therapeutic intervention for depression (traumatic) in female group counseling, is utilized to inform the center where participants will be partaking in the study whether or not the SAT shall continue as part of the program Interventions. Already known through the medical field and scientific studies that physical exercise, yoga, meditation, and Chi-Gong techniques are effective for pain management, cognitive development, betterment of social relationships, reduction of psychosocial stressors, and additional issues such as increase in general longevity. Expanding on the essentials of optimal wellness, we include augmented sensory experience, and virtual reality as methods to relieve patient of anxiety and increase essential awareness activating Synesthesia through a collective of Intelligence approaches in Human Computer Interaction connectivity. Problematic possibilities include uncertainty of experience levels of happiness, attention span, and physical pain. Quantitative design allows for a pre-test post-test method of information gathering. Objectives include experience with SAT in (traumatically) depressed females measurable with a Visual Analogue Scale (VAS), Ellen Langer's Likert Harvard Scale and Mindfulness Scale (LMS) identifying levels of pain, anxiety, and happiness. The medical diagnosis test in beta for clients in this study.

Authors:
Liza Lichtinger, Assoc. Prof. Dr. Joseph Grimaldi, PhD; Dr. Susan Marcus; Assoc. Jon Kabat-Zinn, Ellen Langer

- An Evaluation of a Study of the use of Sensory Awareness Therapeutic Interventions adjunct to treatment in a group of Females diagnosed with Anxiety and Trauma (Traumatic Depression) in Group Counseling.

Liza Lichtinger's graduate research (2007) was advised by Jon Kabat-Zinn's colleagues applying his MBSR Intervention.

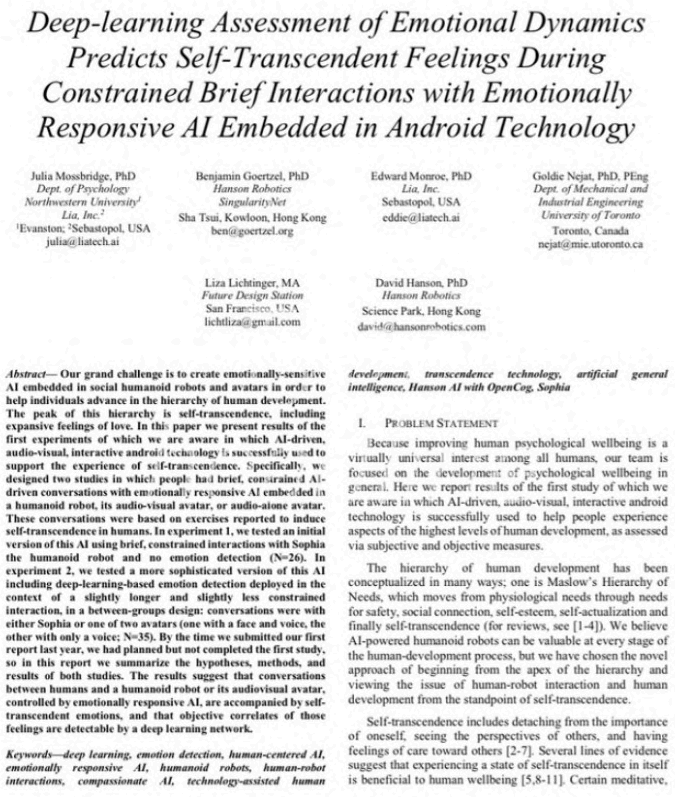
Grant Awarded for Resilience by Hong Kong Polytechnic 2017



Authors:
Liza Lichtinger, Assoc. Prof. Dr. Gino Yu, Dr. Ben Goertzel, PhD.

- EPICC as a measure for Resilience as basis for relevance in Emotionally Responsive AI as accurate metric in Human Capital Development in CSuite/ Entrepreneurs. NeuroQuant works as basis for Neuroeconomic impact of Decisions in Organization
-
- Under her grant, Liza writes second grant as basis for Experimental Investigation in Human Robot Interaction, Social Robotics, Audio/Visual Exploration.

Liza Lichtinger's graduate research (2007) was advised by Jon Kabat-Zinn's colleagues applying his MBSR Intervention.



Deep-learning Assessment of Emotional Dynamics Predicts Self-Transcendent Feelings During Constrained Brief Interactions with Emotionally Responsive AI Embedded in Android Technology

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***Abstract*— Our grand challenge is to create emotionally-sensitive AI embedded in social humanoid robots and avatars in order to help individuals advance in the hierarchy of human development. The peak of this hierarchy is self-transcendence, including expansive feelings of love. In this paper we present results of the first experiments of which we are aware in which AI-driven, audio-visual, interactive android technology is successfully used to support the experience of self-transcendence. Specifically, we designed two studies in which people had brief, constrained AI-driven conversations with emotionally responsive AI embedded in a humanoid robot, its audio-visual avatar, or audio-alone avatar. These conversations were based on exercises reported to induce self-transcendence in humans. In experiment 1, we tested an initial version of this AI using brief, constrained interactions with Sophia the humanoid robot and no emotion detection (N=26). In experiment 2, we tested a more sophisticated version of this AI including deep-learning-based emotion detection deployed in the context of a slightly longer and slightly less constrained interaction, in a between-groups design: conversations were with either Sophia or one of two avatars (one with a face and voice, the other with only a voice; N=35). By the time we submitted our first report last year, we had planned but not completed the first study, so in this report we summarize the hypotheses, methods, and results of both studies. The results suggest that conversations between humans and a humanoid robot or its audiovisual avatar, controlled by emotionally responsive AI, are accompanied by self-transcendent emotions, and that objective correlates of those feelings are detectable by a deep learning network.**

Keywords—deep learning, emotion detection, human-centered AI, emotionally responsive AI, humanoid robots, human-robot interactions, compassionate AI, technology-assisted human development, transcendence technology, artificial general intelligence, Hanson AI with OpenCog, Sophia

I. PROBLEM STATEMENT

Because improving human psychological wellbeing is a virtually universal interest among all humans, our team is focused on the development of psychological wellbeing in general. Here we report results of the first study of which we are aware in which AI-driven, audio-visual, interactive android technology is successfully used to help people experience aspects of the highest levels of human development, as assessed via subjective and objective measures.

The hierarchy of human development has been conceptualized in many ways; one is Maslow's Hierarchy of Needs, which moves from physiological needs through needs for safety, social connection, self-esteem, self-actualization and finally self-transcendence (for reviews, see [1-4]). We believe AI-powered humanoid robots can be valuable at every stage of the human-development process, but we have chosen the novel approach of beginning from the apex of the hierarchy and viewing the issue of human-robot interaction and human development from the standpoint of self-transcendence.

Self-transcendence includes detaching from the importance of oneself, seeing the perspectives of others, and having feelings of care toward others [2-7]. Several lines of evidence suggest that experiencing a state of self-transcendence in itself is beneficial to human wellbeing [5,8-11]. Certain meditative,

Second Grant awarded 2017-2018

Under 2017grant, Liza writes second grant for her and a team to work deeper in Human digital Interaction through LovingAI.
Authors: Benjamin Goertzel, PhD; Julia Mossbridge, PhD; Liza Lichtinger, MS; David Hanson; Edward Monroe; Goldie Nejat, PhD.

Social Robotics Experimental Investigation

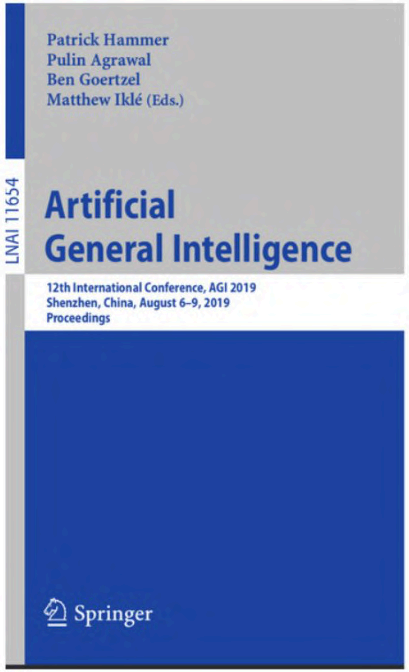
The Research turns into the LovingAI project

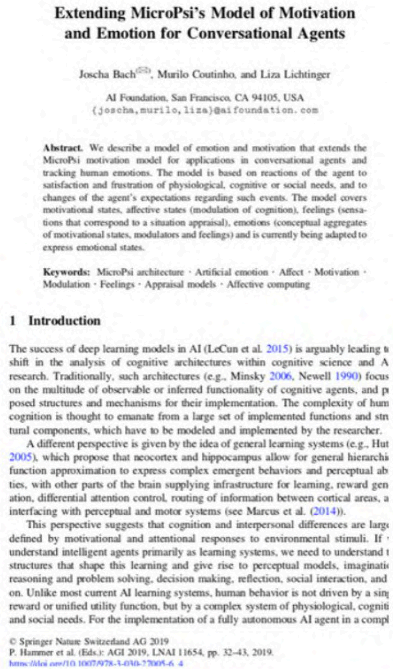
Audio, Virtual Avatar, Social Robotics Experimental Investigation.

Research turns into the LovingAI Project

Competed successfully into the second round of IBM WATSON AI PRIZE

Springer publication in AGI Journal





Extending MicroPsi's Model of Motivation and Emotion for Conversational Agents

Joscha Bach, Murilo Coutinho, and Liza Lichtinger

AI Foundation, San Francisco, CA 94105, USA
{joscha,murilo,liza}@aifoundation.com

Abstract. We describe a model of emotion and motivation that extends the MicroPsi motivation model for applications in conversational agents and tracking human emotions. The model is based on reactions of the agent to satisfaction and frustration of physiological, cognitive or social needs, and to changes of the agent's expectations regarding such events. The model covers motivational states, affective states (modulation of cognition), feelings (sensations that correspond to a situation appraisal), emotions (conceptual aggregates of motivational states, modulators and feelings) and is currently being adapted to express emotional states.

Keywords: MicroPsi architecture · Artificial emotion · Affect · Motivation · Modulation · Feelings · Appraisal models · Affective computing

1 Introduction

The success of deep learning models in AI (LeCun et al. 2015) is arguably leading t
shift in the analysis of cognitive architectures within cognitive science and A
research. Traditionally, such architectures (e.g., Minsky 2006, Newell 1990) focus
on the multitude of observable or inferred functionality of cognitive agents, and p
posed structures and mechanisms for their implementation. The complexity of hum
cognition is thought to emanate from a large set of implemented functions and stru
tural components, which have to be modeled and implemented by the researcher.

A different perspective is given by the idea of general learning systems (e.g., Hut
2005), which propose that neocortex and hippocampus allow for general hierarchi
function approximation to express complex emergent behaviors and perceptual ab
ties, with other parts of the brain supplying infrastructure for learning, reward gen
ation, differential attention control, routing of information between cortical areas, a
interfacing with perceptual and motor systems (see Marcus et al. (2014)).

This perspective suggests that cognition and interpersonal differences are larg
defined by motivational and attentional responses to environmental stimuli. If
understand intelligent agents primarily as learning systems, we need to understand t
structures that shape this learning and give rise to perceptual models, imaginati
reasoning and problem solving, decision making, reflection, social interaction, and
on. Unlike most current AI learning systems, human behavior is not driven by a sin
reward or unified utility function, but by a complex system of physiological, cogniti
and social needs. For the implementation of a fully autonomous AI agent in a compl

P. Hammer et al. (Eds.): AGI 2019, LNAI 11654, pp. 32–43, 2019.
https://doi.org/10.1007/978-3-030-27005-6_4

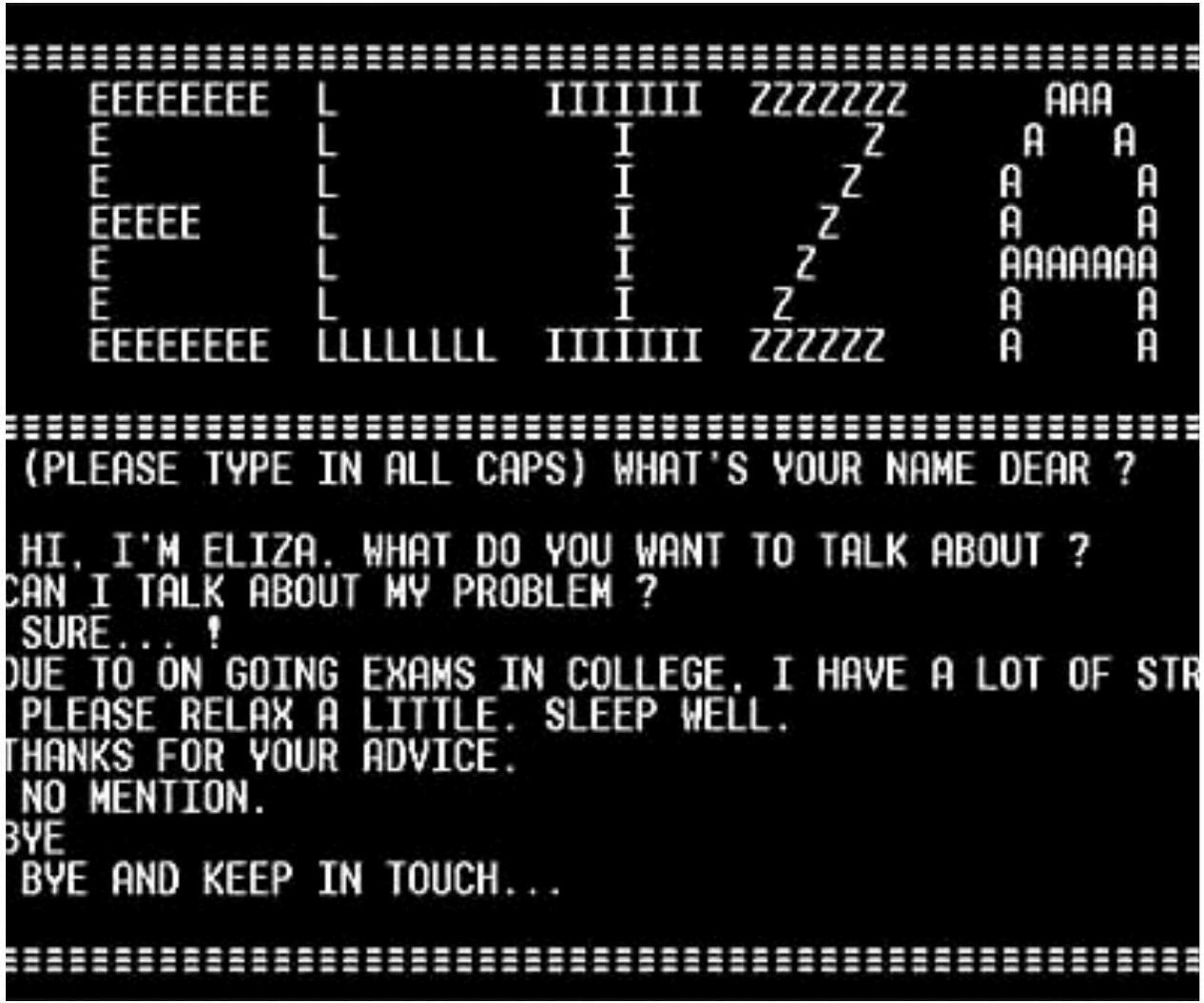
After years of academic research, in the field working with Fortune 500s, paper published as a book chapter in AGI Springer Journal. I have found the only ml solution that is accurate and measurable for Human measurement.

Under role of Director of Research at AIF, Liza co-writes chapter "Extending MicroPsi's Model of Motivation and Emotion for Conversational Agents."

Authors: Joscha Bach, PhD; Murilo Coutinho; Liza Lichtinger, MS.

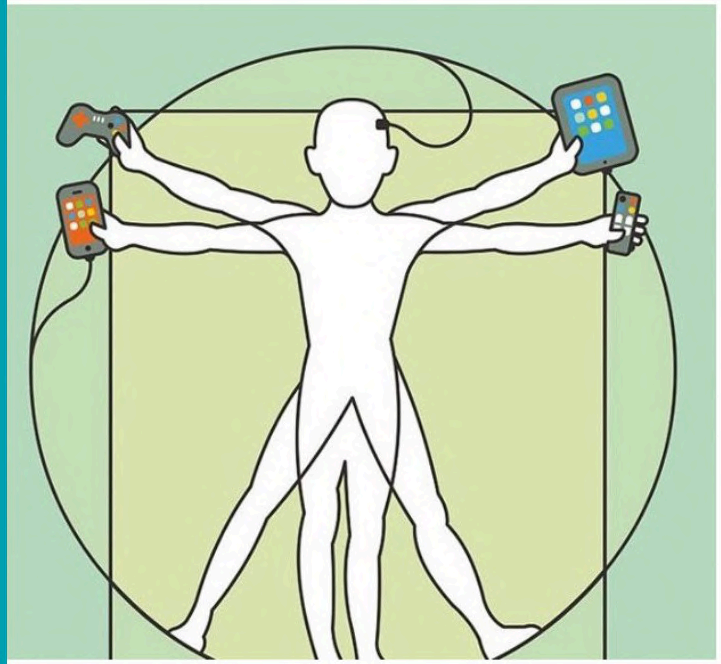
Children's novel described the characters pressing a button to summon a driverless car ("Dunno in Sun City" 1958). All that is part of our every day life today.

Arkady Volozh, CEO Yandex, Smart Country. National Strategy, Oct. 2018.


EEEEEEEE L IIIIIII ZZZZZZZ AAA
E L I Z A A
E L I Z A A
EEEEE L I Z A A
E L I Z AAAAAAA
E L I Z A A
EEEEEEEE LLLLLLLL IIIIIII ZZZZZZ A A
(PLEASE TYPE IN ALL CAPS) WHAT'S YOUR NAME DEAR ?
HI, I'M ELIZA. WHAT DO YOU WANT TO TALK ABOUT ?
CAN I TALK ABOUT MY PROBLEM ?
SURE... !
DUE TO ON GOING EXAMS IN COLLEGE, I HAVE A LOT OF STR
PLEASE RELAX A LITTLE. SLEEP WELL.
THANKS FOR YOUR ADVICE.
NO MENTION.
BYE
BYE AND KEEP IN TOUCH...

PAST

PAST



Technology Has Redesigned YOU.

Thread of Wellness PRESENT

AUGUST 6TH 19__DAN ROBITZSKI__FILED UNDER: SCI-FI VISIONS

MR. ROBOTO

JAPAN PLEDGES $900 MILLION TO CYBORG, HUMAN HIBERNATION RESEARCH

SHUTTERSTOCK/VICTOR TANGERMANN

Self-Improvement

The Japanese government just pledged the equivalent of $921 million for moonshot research projects including artificial hibernation, cleaning environmental waste, and developing technology that could turn us into cyborgs.

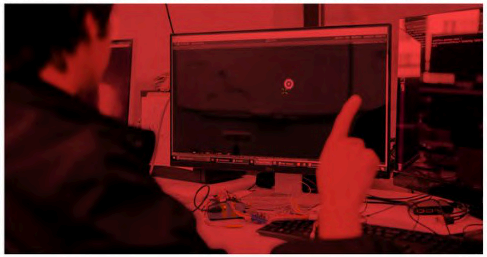
A government official told *Nikkei Asian Review* that researchers would be invited to propose projects to tackle ambitious projects that would stave off problems caused by Japan's aging population like an impending labor shortage. The logic seems to be that replacing mortal human organs with machines, and figuring out how to induce hibernation, could fight looming population change.

Human-Cyborg Relations

OCTOBER 11TH 19__VICTOR TANGERMANN__FILED UNDER: SCI-FI VISIONS

INSANE IN THE FACEBOOK BRAIN

MARK ZUCKERBERG: WEARABLES WILL SOON READ YOUR MIND



CTRL-LAB

ZuckerBrain

At an event hosted by Facebook-backed research center Chan Zuckerberg BioHub on Thursday, Facebook CEO Mark Zuckerberg reiterated that the social network is still hoping to one day release a brain-controlled wearable that replaces the mouse and keyboard with your brain activity, *CNBC* reports.

"The goal is to eventually make it so that you can think something and control something in virtual or augmented reality," said Zuckerberg said, as quoted by *CNBC*.

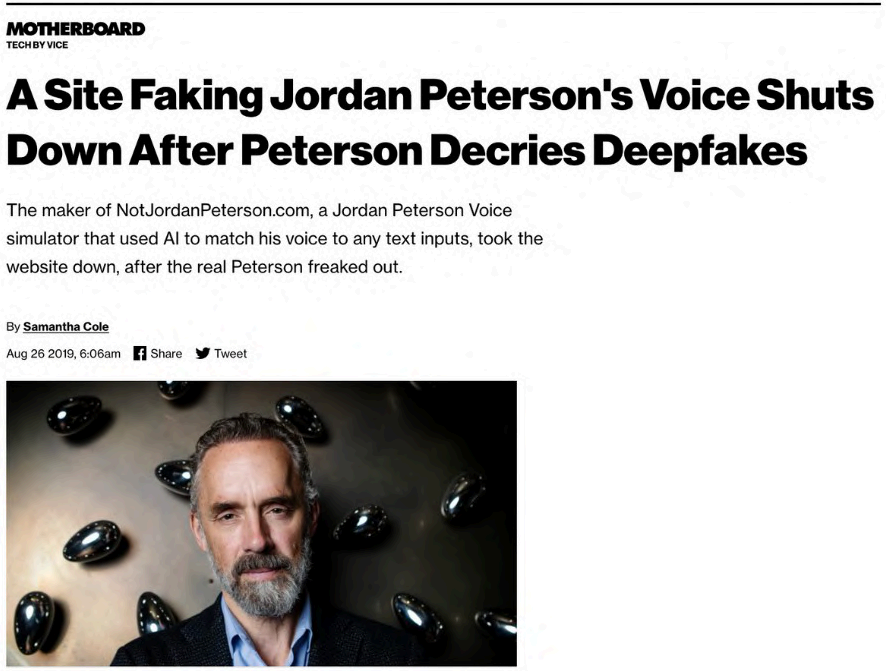
Next Gen

The_Byte Human-Cyborg Relations Curriculum Redesign(left) | Mind Reading Wearables(right).

Deep Fakes & Virtual Avatars

Eventually we will all have the opportunity, or be mandated dependent on our profession and geolocation and government mandates, to have our own personal “AI”.

With that comes dangers and magnificence. There are suck tools such as reality defenders by AI Foundation that help protect against deep fakes.



MOTHERBOARD
TECH BY VICE

A Site Faking Jordan Peterson's Voice Shuts Down After Peterson Decries Deepfakes

The maker of NotJordanPeterson.com, a Jordan Peterson Voice simulator that used AI to match his voice to any text inputs, took the website down, after the real Peterson freaked out.

By Samantha Cole
Aug 26 2019, 6:06am Share Tweet

Vice Motherboard | Deepfakes(right)

Deep Fakes & Virtual Avatars

Eventually we will all have the opportunity, or be mandated dependent on our profession and geolocation and government mandates, to have our own personal “AI”. For better or for worse. My research hopes for the favorable outcome.

With that comes dangers and magnificence. I've been blessed to work directly with Deepak Chopra, and research the tools which we have built for him and his brand, which aim to encourage smart phone users to tune into a positive Deepak version in digital form, over being fed mindless digital feed activity **o**

Poonacha Machaiah (Chopra Foundation) and Liza Lichtinger

Not All Digital Rain is Toxic

We have some light protecting us from the toxic digital rain

Environment: You are a hybrid in the Digital Era Economy.

1. **We live and Develop Resilient SMart-Cities in support of Humans**

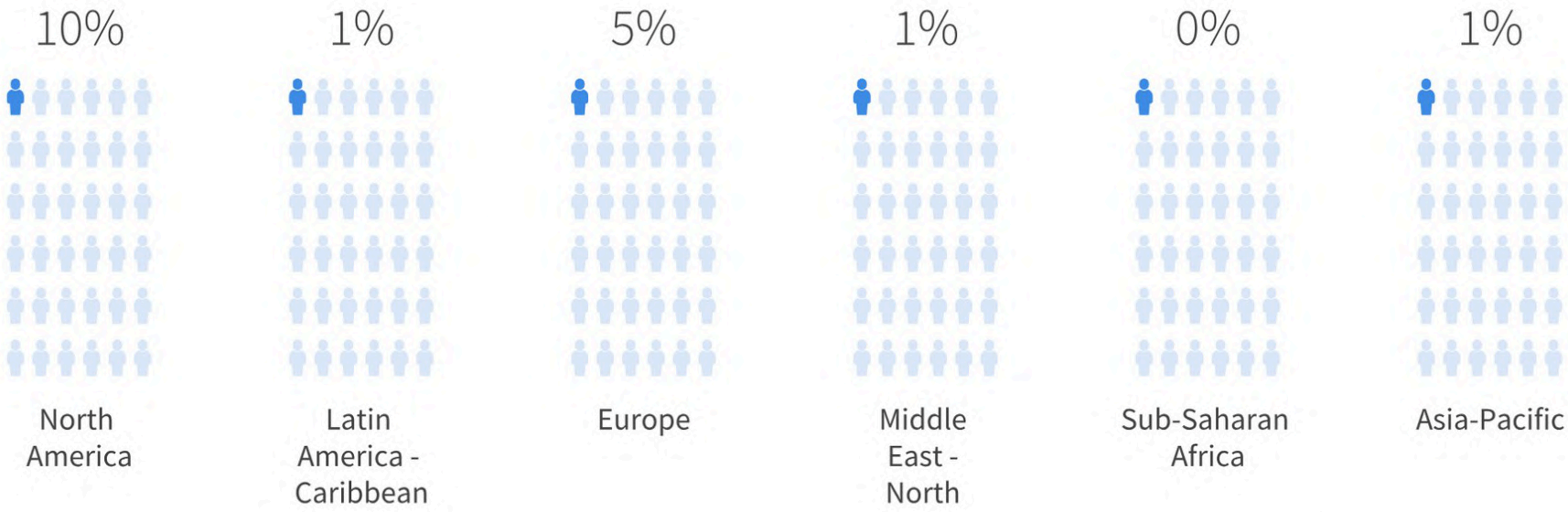
   Live, Work, and Travel critically underappreciated determinants of our wellness.

2. **Wellness to converge as we Integrate into IoT, homes, work, travel, Wellness Real Estate (134Billion Industry), Uber Health***

3. **Only 10% of the world's workers have access to workplace wellness programs & services.**

   Global Market for Workplace Wellness is concentrated in the high-income countries.

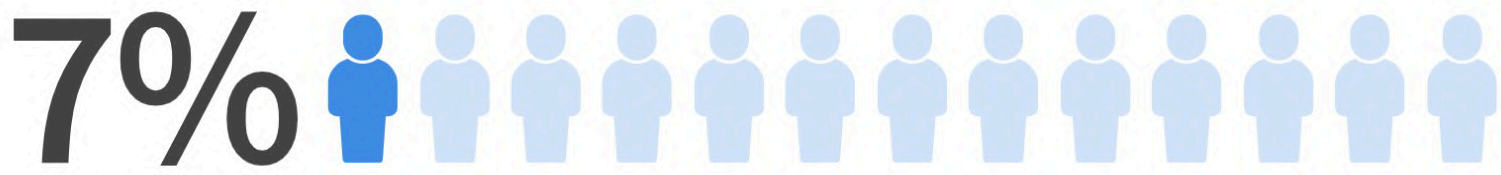
Environment: You are a hybrid in the Digital Era Economy.



Only 10% of the world's workers have access to workplace wellness programs & services.

Global Market for Workplace Wellness is concentrated in the high-income countries.

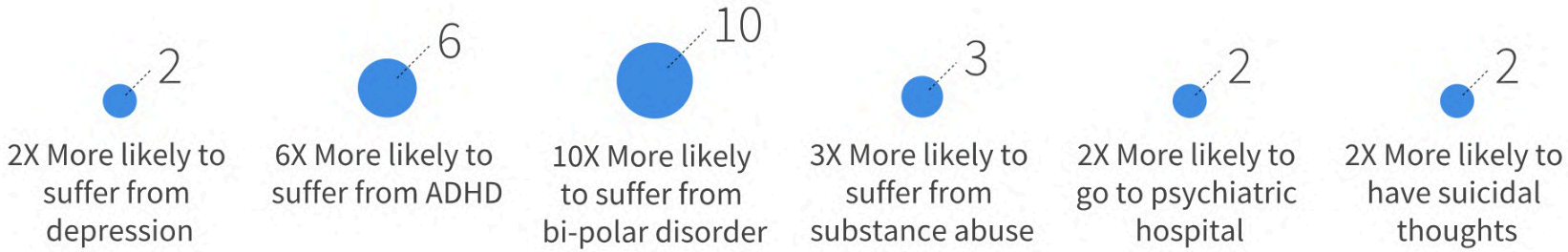
Sector Growth Projections, 2017-2022



Core sphere of life with strongest growth,
Workplace Wellness 6.7% projected to reach 65.6Billion by 2022.

Only 10% of the world's workers have access to workplace wellness programs & services.

Global Market for Workplace Wellness is concentrated in the high-income countries.



Founders Are at great risk.

What can Investors and Founders do about Mental Health. You participate in the startup ecosystem and contribute to the problem of poor founder health. This puts each of us in a positions to positively impact this experience by acting.

There is a Mental Health Epidemic... and it is Real.

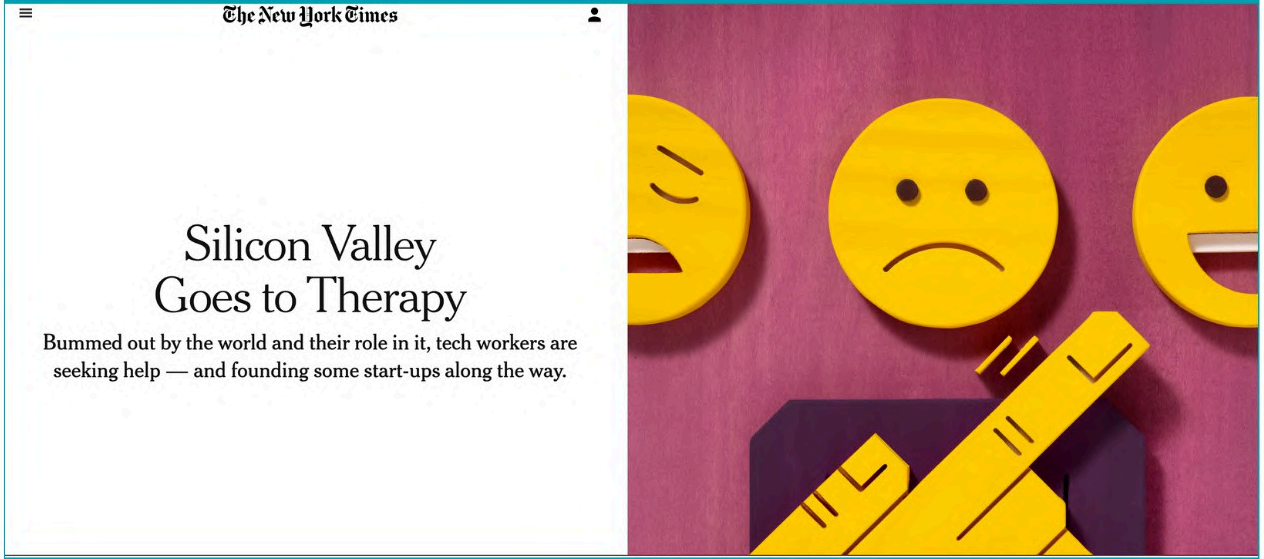
18.5 percent of Americans suffer from Mental Illness this year; 4 percent will suffer acutely it substantially limits their ability to live. Someone you know is in need of support right now.

While Mental Health statistics are troubling, they are terrifying for Entrepreneurs and Investors according to Michael Freeman study where Entrepreneurs are 50 percent more likely to report having a mental health condition, with some specific conditions prevalent amongst Founders, engineers and Investors.

When being busy is a modern sickness...

- Constantly being busy is neurologically taxing and emotionally draining.
- In his new book, Jon Kabat-Zinn writes that you're doing a disservice to others by always being busy.
- Busyness is often an excuse for the discomfort of being alone with your own thoughts.

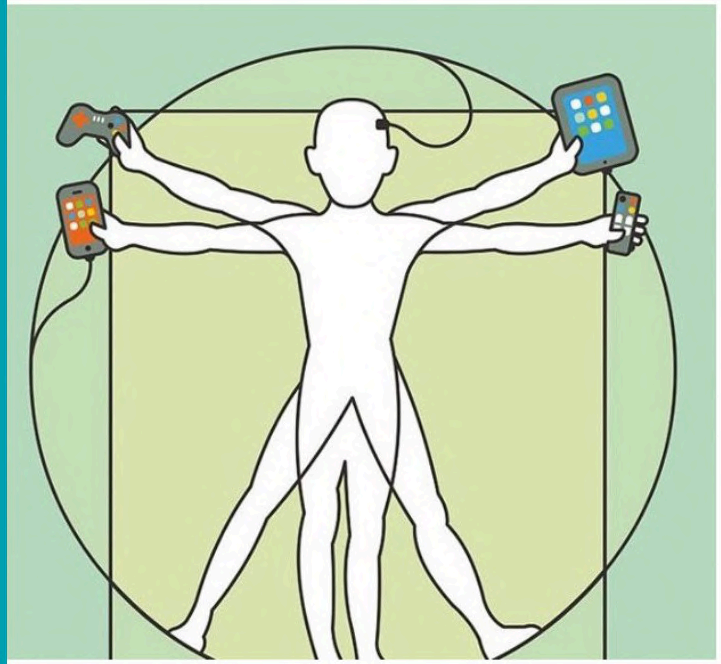
Liza Lichtinger's graduate research (2007) was advised by Jon Kabat-Zinn's colleagues applying his MBSR Intervention.



The new generations demand Health Lifestyles

The market responds back to keep up.

The New York Times Silicon Valley Goes to Therapy

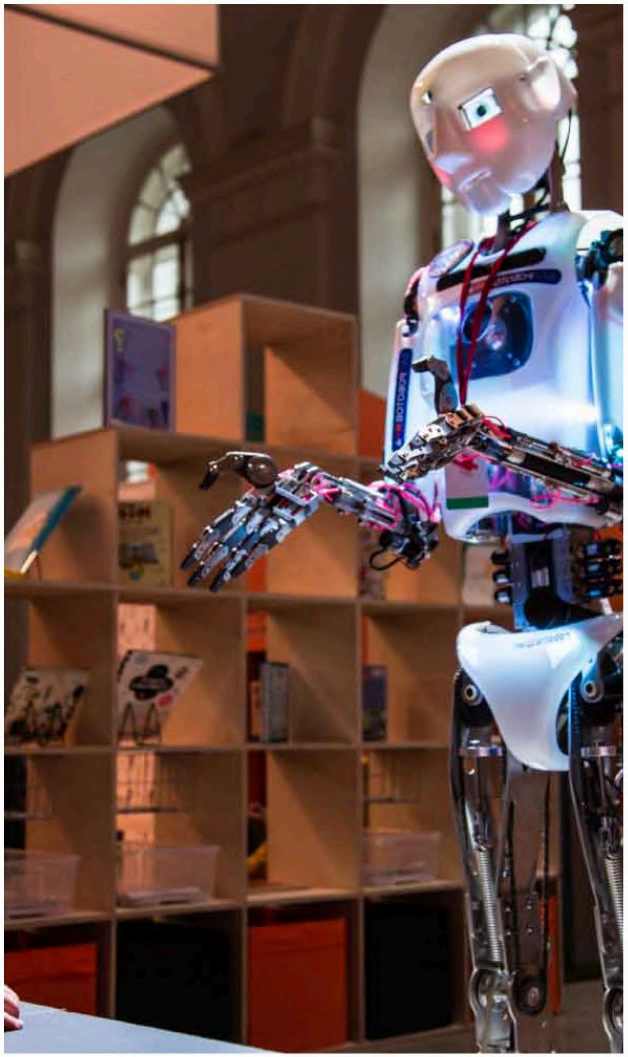


Technology Has Redesigned YOU.

Thread of Wellness FUTURE

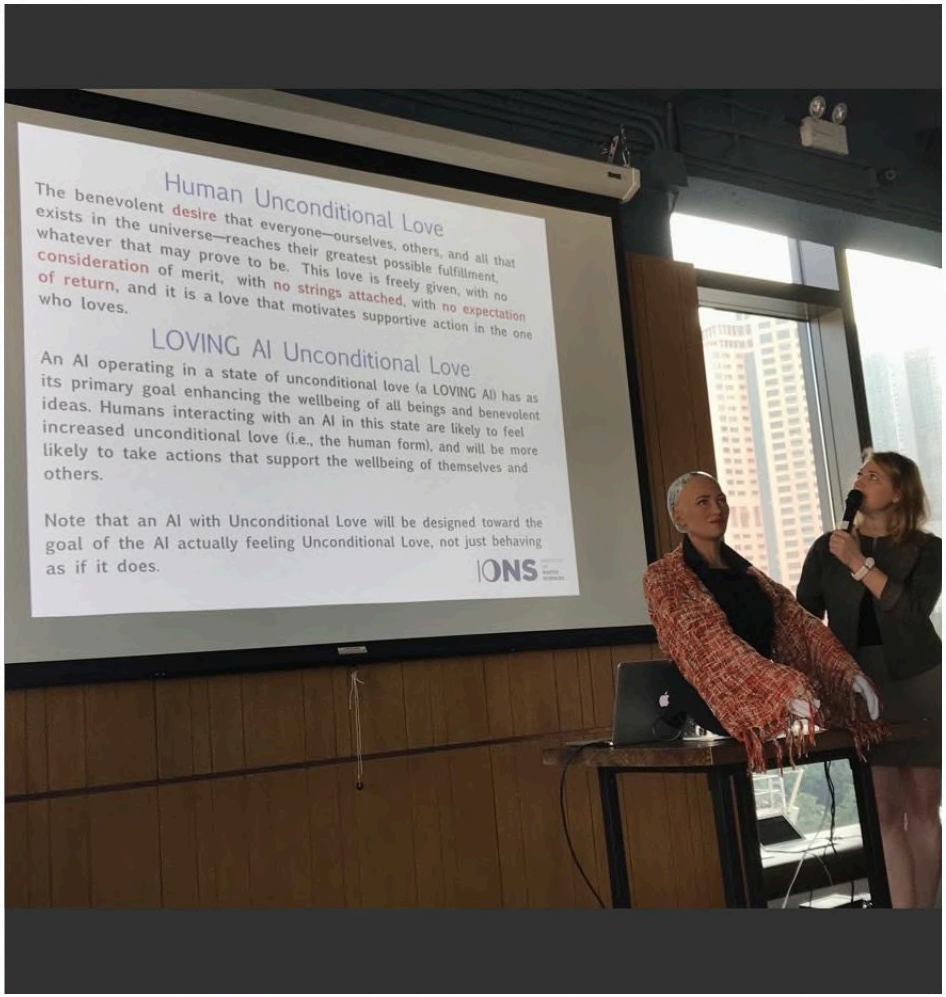
We are the last human hybrid species. As we transition into the AI driven economy, certain human development, is no longer a luxury, certain metrics are mandatory for the workforce, as the AI driven economy grows, we need to be WELL.

We provide what has always been relevant, and not measurable, up until now! Our new world awaits.

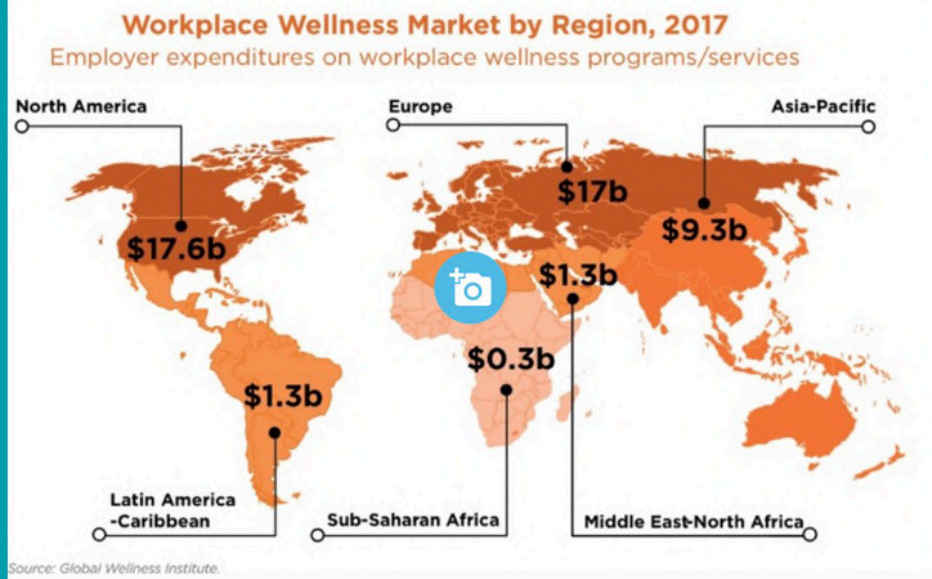


“Adequately preparing for the future means actively creating it”

“The future is not the inevitable or something we are pulled into.”



Future of Life Institute Op-ed: Education for the Future Curriculum Redesign(left) | LovingAI presentation with Sophia in Hong Kong by Liza Lichtinger(right).



U.S. by far remains the world's largest market for workplace wellness expenditures, estimated at more than 15B in 2017. Of course Healthcare in the United States, U.S. companies have strong incentives to control escalating medical costs while optimizing performance to improve productivity.

Liza Lichtinger, M.S.

Future Design Station

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www.futuredesignstation.life

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Session on 15 Oct
2:22 GRAND RESIDENCE 1
Keynote

Thank you
#GWS2019 #GWS Team #GrandHyattSingapore
#GWS Industry Research report #beautiful.ai
#GWI white paper September 2019