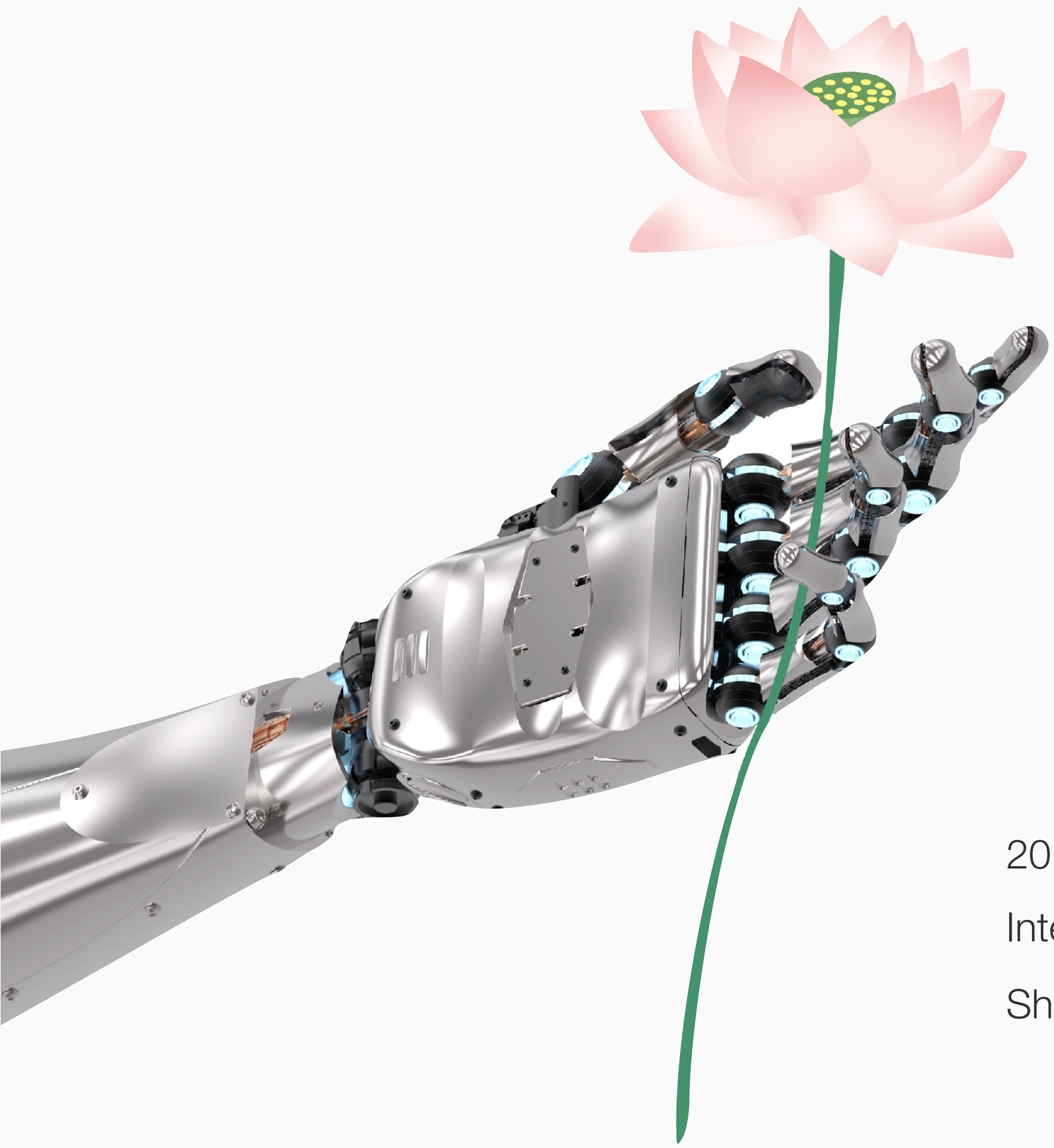
Back to the FUTURE

Woodenfish Forums on BUDDHISM and SCIENCE

2017 Encounter with New Technology

Handbook ›



2017.6.11~ 6.13

Intercontinental Hotel Puxi

Shanghai，China

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[Introduction to the Woodenfish Forum ›]

DR. YIFA

June 11, 2017

To Create a Dialogue between Buddhism and Science

Since ancient time, within the deepest parts of the human heart has resided a desire to comprehend the reality of the universe and the inner self. 2500 years ago, the founder of Buddhism, Shakyamuni Buddha was himself a human being who attained enlightenment. Like scientists, the Buddha also strived to probe the depths of the mind, but merely took a different path; through which he not only apprehended the nature of the mind, but also awoke to the reality of the universe.

We now call the investigation of the universe “astronomy,” and that of the psyche “neuroscience” or “cognitive science.” The reality to which Shakyamuni Buddha awoke, and the language through which he spoke of that reality, have been recorded in the scriptures of Buddhism. These texts reveal the reality of both the universe and the mind, the latter of which is sometimes called an “inner universe.”

In recent years,the founder of Apple Steve Jobs had encounters with Buddhism. The latter offered inspiration during creation of Apple’s many products. Recently, some neuroscientists have tested meditating Buddhist monks with experimental devices in the lab, in the hopes of understanding how brain waves of those who practice deep meditation for decades differ from those who do not. Some even want to

explore whether manipulation of the nervous system, like in treatment of cerebral disease or injury, might present an expeditious path to reaching enlightenment.

When speaking of inner cultivation, Buddhism presents a framework of everyday wisdom through practice. Yet when speaking of the path to enlightenment, Buddhism is nothing less than a science of existence. The most important tenet of Buddhism, the theory of Interdependent Origination, holds that everything in the universe is composed of fundamental causes and conditions. As long as the suitable causes and conditions are present, any phenomenon can come into existence.

In the 20th century, while Christian theology disputed test tube baby or cloning, struggling with the belief that only God can create humans, hence that humans cannot create humans, Buddhists held to the fundamental creed that as long as suitable causes and conditions are present, the inevitable will occur. Even in the laboratory, if the causes and conditions for origination exist, then humanity can and will create humanity. This is one example of how Buddhism and science do not exist in opposition to one another.

The cosmology of Buddhism, in which the "trichiliocosm" is composed of a billion nested worlds, presents the following structure: countless small worlds compose a medium-sized world, and countless medium-sized worlds compose a larger world, which in turn combine countlessly into a multilayered cosmological structure. This structure is not unlike the Kardashev scale discovered by Soviet astronomers, which ranks civilizations by their ability to channel the energy of a planet, of a star, or of a galaxy. Our earthly civilization has only reached 70% of the scale of a planetary civilization, implying that humanity is far from the most intelligent organism in the universe.

The robots of the future, originating from artificial intelligence and the union of other causes and conditions, are also organisms in and of themselves, and may even destroy the human race, as some scientists worry. Buddhism believes that life comes in many forms, the so-called six realms of existence in the cycle of reincarnation: gods, demigods, humans, animals, hungry ghosts, and the hell. And human beings, among all sentient beings,

are not the highest form of existences. Indeed, there are even higher forms, ones that we might even call “aliens.”

Buddhism’s understanding of space and time can be encapsulated in the saying from the scriptures that “Mount Sumeru contains many grains of mustard, while a grain of mustard encompasses the entirety of Mount Sumeru.” Such a metaphor aims to transcend the concepts of “small” (the miniscule seed) and “large” (the legendary mountain at the center of the world), and calls for us not to be impeded by cognitive limitations. The small size of computer microchips with respect to the vast stores of data that they can hold reflects the same principle. Our traditional understanding of matter holds that larger objects cannot penetrate smaller objects. But modern physics has proved through research on the structure of matter and the microscopic structure of the atom that matter is mostly composed of empty space, much as the Heart Sutra described: “emptiness is no different from form, form is no different from emptiness.”

Indra’s Net, the Buddhist metaphor for the world-system, describes an interpenetrated and mutually dependent cosmos where you exist in me, where I exist within you, much like a win-win situation; is this not the ideal of our modern, internet society? So too the most sublime image from the Avatamsaka Sutra, which depicts a world of continuing interfusion, in which all things exist unhindered by one another, a world where “dense bamboo thickets permit the flowing waters’ passing, high mountain peaks hinder not the white clouds’ flight.”

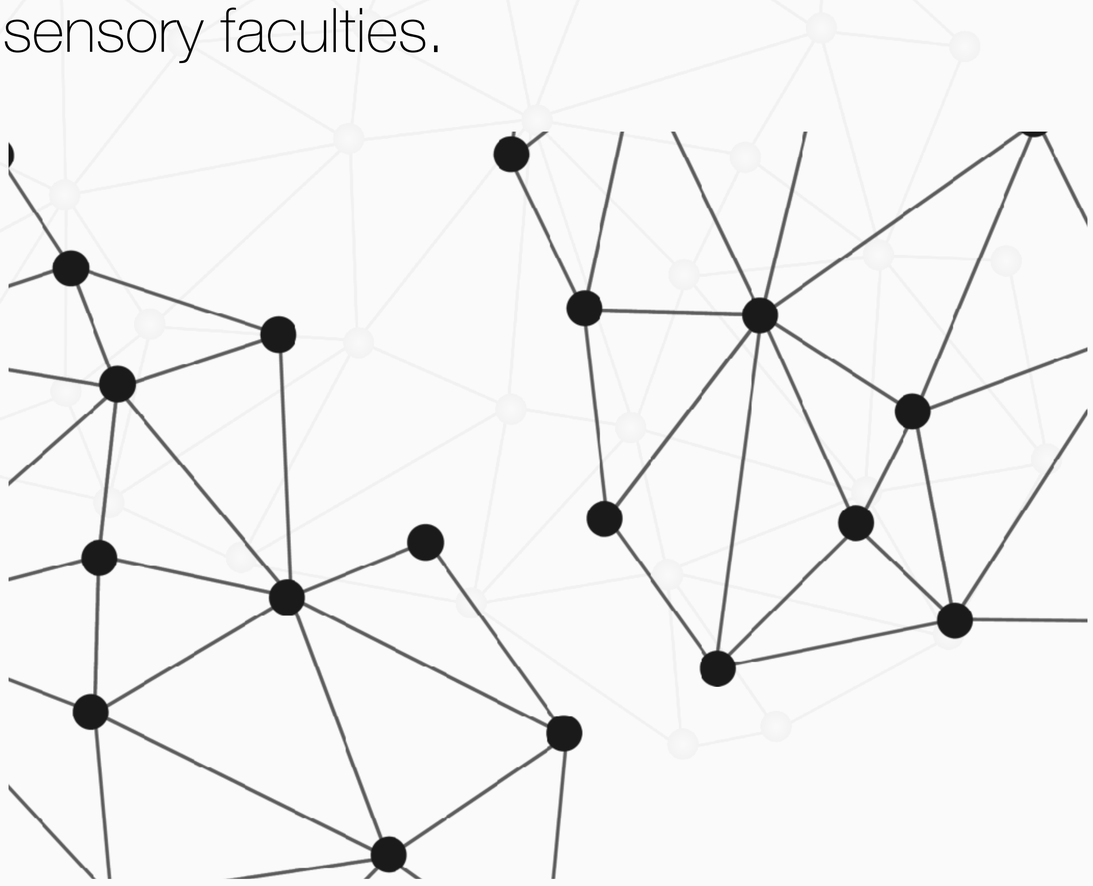
The most influential school of Buddhist thought in the fourth century was the Yogācāra School. Its two patriarchs, Asaṅga and Vasubandhu, especially the latter, were highly influential.

In the 7th century, China’s illustrious translator and Buddhist scholar Xuanzang, traveled to faraway India in search of the original Buddhist scriptures. The texts that he would later translate into Chinese were mostly concerned with Buddhist explorations of the mind and consciousness, which he called the “Consciousness-Only” school. These teachings collected the vast majority of Buddhist understanding of the mind. This school’s teachings hold that “the triple world is but the mind, all dharmas are but the consciousness.” It stresses that the world that each person experiences is the reflection of their own conscious minds. “The mind is like a painter; it can render all

manner of forms." The perceptions of each person's conscious mind is different, and thus their understanding of the world is different. Consciousness-only theories separate the mind into the mind (citta), mental activity (manas), and consciousness (vijñāna), respectively explained by the eighth consciousness, the seventh consciousness, and the sixth consciousness. Moving deeper through each level, we eventually arrive at the deepest eighth consciousness, which is what persists throughout the cycle of reincarnation.

The Buddhist analysis and understanding of mind and consciousness are in many ways consistent with modern science. For example, "non-self" in Buddhism holds that the mind is composed of an unending stream of instants after instants, that in reality, it is impossible to obtain a "self" that is eternal, constant, and exists independently of external conditions. Modern neuroscience research on consciousness has discovered that the brain resembles a distributed network of information, much like a society of neurons; in practice, it is impossible to locate a unitary, independent "me" that answers only to itself. The research of these scientists proves that many phenomena that we observe are illusory and that many things we cannot observe actually exist. A prime example is the world in three-dimensions, which we apprehend only by virtue of a precise arrangement of nerves within the brain that creates our belief in its existence.

Yet the knowledge and reactions of the ordinary person do not constitute the ultimate phenomena that can be known. According to the insight of the awakened Buddha, everyone can sweep away the polluted, incorrect errors of the common, unenlightened mind by engaging in internal observation, thereby discovering the pure wisdom of the mind. Enlightenment is the state of the mind's unlimited potential. Buddhism accepts the existence of supernatural powers, but holds that the "supernatural" merely arises from the transcendence of regular human sensory faculties.



Introduction

Buddhism speaks of many abstract concepts, such as reincarnation, karma, as well as twenty-eight heavens (in Sanskrit, deva) which include those of the realms of form,(the world of subtle matter, the existence of four dhyanas); and the realms of the formless (the world of non-matter, where only consciousness exists in way of four kinds of concentration). Note that the “heavenly beings” of Buddhism are more like higher forms of consciousness, hence the use of metaphors such as “four dhyanas and eight concentration,” or the “ten stages” of the bodhisattva’s cultivation, which describe the stages of mental development.

The ultimate goal of Buddhist practice, nirvana, is also a state of mind that has eliminated greed, hatred, and delusion. Buddhism calls for mental cultivation to understand the psyche and the mind.

To understand the mind, the Yogācāra or Consciousness-Only School of Buddhism, called by scholars the Buddhist psychology or phenomenology, developed a comprehensive theory to describe the mind in great detail, has a series of classic texts and writings that we can continue to research.

Modern research on the human mind is mostly confined to the disciplines of psychology, psychiatry, and neuroscience, the sciences of consciousness. They are separate but connected disciplines. We have learned that neuroscientists have analyzed “the human brain as composed of hundreds of billions of neurons, as numerous as the stars in the Milky Way.”

Even more remarkable is that neuroscientists have already mapped the different functions of the different areas of the brain, namely the frontal lobe, which controls rational thought; the parietal lobe and right hemisphere, which control sensation, attention, and proprioception; the left hemisphere, which controls movement and language; the occipital lobe, which controls visual information; and the temporal lobe, which controls facial and visual identification and emotions. This is to say nothing of other component systems, such as the

hippocampus, which controls memory; the amygdala, which controls emotions; the thalamus, relay station for signals; the hypothalamus, which controls feelings of temperature and circadian rhythms, etc.

These neuroscientists have even used their theories to explain religious experiences. For example, when electrodes stimulate the area between the parietal and temporal lobes, the subject undergoes an out-of-body experience. And the tunnel of light seen by those close to death is caused by loss of blood in the tissues surrounding the eyes. Yet some scientists believe that the mind can be separated from the physical body, interacting with the world purely through the medium of energy, much like laying inside the “pods” in the movie Avatar allows intelligence to leave the body and roam free throughout the world.

Now scientists use various devices to help mindful meditation. These sensory deprivation chambers allow one to be submerged in a water-filled chamber and deprived of all sensory perception in order to experience the feeling of leaving the body. The feeling is like being suspended in space, as if by looking backwards, one might discover the unmoving physical body. We are glad that this device will ever presented by Zenflo in this conference.

When neuroscientists can research a mind composed purely of energy, they have no choice but to engage with disciplines of theology and religion. In the last century, what came of biologists’ avid explorations of life? We understood more about DNA. Taking a step forward, to where we go after death, there is no more physical body, but we are confronted with

age-old questions of whether or not there is a soul, whether or not there is a world to come or eternal life.

Buddhism, and especially the Consciousness-Only School, has analyzed the mind (citta), mental activity (manas), and consciousness (vijñāna) into their component parts, namely the eyes (vision), ears (hearing), nose (smell), tongue (taste), body (feeling), much like modern science. Yet Buddhism goes even further, describing the sixth consciousness (consciousness in the everyday sense of the word, e.g., study, thought, conceptual differentiation); the seventh consciousness, which gives rise to the self; and the eighth consciousness, the deep storehouse of experience and information from all lives, that persists into the next life or the future.

Buddhist scripture contains detailed description of the functions of eight consciousnesses, i.e. in the narrative of the Consciousness-Only classic Yogācārabhūmi-śāstra. But such texts have not proceeded like a scientist to specify its location in the brain or its function in the nervous system. If we engage in study of Buddhism and science so that each complement each other, we come to understand that science fills in the gaps of Buddhism's abstraction, while Buddhism can provide science with revelation of certain ultimate truths. After all, whether it be the explicit analysis and surgical methods of modern Western medicine, or how Chinese medicine analyzes the patient's pulse, all medicine treats the same human body.

Since antiquity, philosophy, psychology, and ethics have explored the depths of the mind and the consciousness. (Perhaps the best-known of these investigations are Freud's theories of the id, ego, and super-ego.) But science and technology are more interested in physical experimentation, or even creation of a "mind" – artificial intelligence.

Over the past few months, the book Homo Deus has swept China. The author, Yuval Harari, is a forty-year old Israeli professor currently teaching at the Hebrew University of Jerusalem. When asked what topic is most unknowable by

modern humans, he thought for a moment, and replied, “consciousness.” Harari says that we possess knowledge of the body and the brain, but what constitutes the consciousness still remain significant unanswered questions.

Homo Deus speaks of the current human condition, of the search for happiness, for the power to create man, for eternal life. In discussing happiness, the book claims that science has already given humanity all manner of products to satisfy our basic needs and fix problems of hunger, such that the human race has achieved unprecedented levels of peace and prosperity. Science also challenges the gods, in moving closer to the ability to create life through test-tube babies and artificial intelligence, which may gradually replace God’s role as creator of life. Science has also begun to take up the challenge of “not dying,” by extending human lifespan. Science can already bring beauty to our faces, and return humanity to youth.

Two thousands five hundreds years ago, when Shakyamuni Buddha renounced

the world to cultivate the Dharma, he realized that aging, sickness, and death are universal and unavoidable phenomena of the mortal world that cannot be resolved. He eventually proposed that without awakening to the truth of the world, achieving nirvana, and breaking the vicious cycle of life and death, it was impossible to escape reincarnation and achieve “eternal life.” Nirvana is not mere death, and death does not represent nirvana! Nirvana means to no longer cycle through birth and death; it is an ultimate mental state.

Introduction

Can we save humanity from death? To explore the question of eternal life, Google created the company Calico and tasked it with researching how humans can achieve immortality. Its methods all deal with matter, including cryogenic freezing and the creation of artificial brains. Can we take humanity's memory, experience, and feelings, and translate them into information, storing them on electronic media that can be uploaded and downloaded into different brains and bodies? This sounds rather similar to "reincarnation," bringing the consciousness stored from a previous life into a brain and body in the next life.

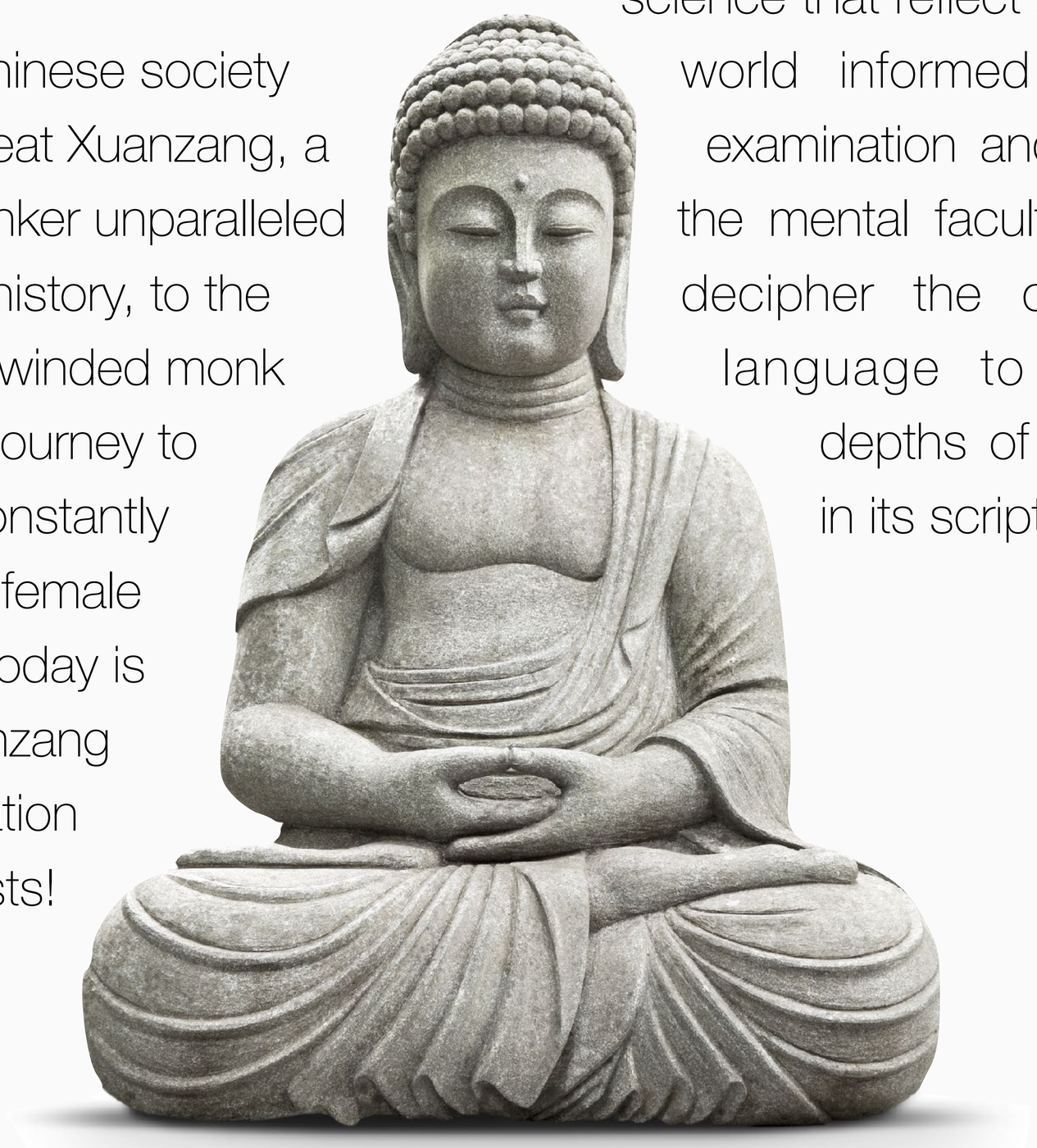
Yet "reincarnation" is predicated on the whole series of an individual's historical behavior, while "science" aims to download and upload the memory within the brain, involving issues of external forces and agency. We have to remember that reincarnation is not the ultimate goal of Buddhism. Enlightenment in Buddhism, accession to Buddhahood, is not just the inheritance of past memory. It requires becoming one with the universe. How do the awakened understand this universe?

What does Buddhism say about the objective, external world? As the Chan Master Yongjia Xuanjue once said, "in dreams clearly, clearly exist the six realms of existence. Yet upon waking all is empty, empty, no billions of worlds." The enlightened who have awakened tell us that the objective world is not as we regular, non-enlightened beings experience it. It is not based on a duality of existence and non-existence. So of the "fourteen unrecordable questions" in Buddhism, the external, objective world is not comprehensible using the concepts of the unenlightened person.

In order to achieve enlightenment, Buddhism's practices of mental cultivation aim to strip away delusions one layer at a time: "the possession of attributes is an illusion"; "by means of attributes that are not attributes, the Tathagata can be seen." (Though these two phrases come from the Diamond Sutra of the śūnya [emptiness] philosophical schools, we must not narrowly understand the śūnya and bhāva [form] schools as two opposing schools, in actuality they complement and complete the other.)

In order to get rid of the incorrect information acquired by our limited sensory cells, we must first analyze the mind and perception, understand how they are formed, how they are limited; that they lead to errors, and how to prune away those errors; thereby returning to our natural state of purity. The body of Consciousness-Only theory and doctrine is concerned with the problem of “consciousness,” these problems are precisely why Xuanzang traveled to India in the seventh century, all in order to explore the greatest question of humanity, that is still unresolved in our modern 21st century.

Most regrettably, Chinese society has reduced the great Xuanzang, a philosopher and thinker unparalleled throughout human history, to the bumbling and long-winded monk in the novel of the Journey to the West, who is constantly chased by devious female demons. Our task today is to let the great Xuanzang engage in conversation with today’s scientists!



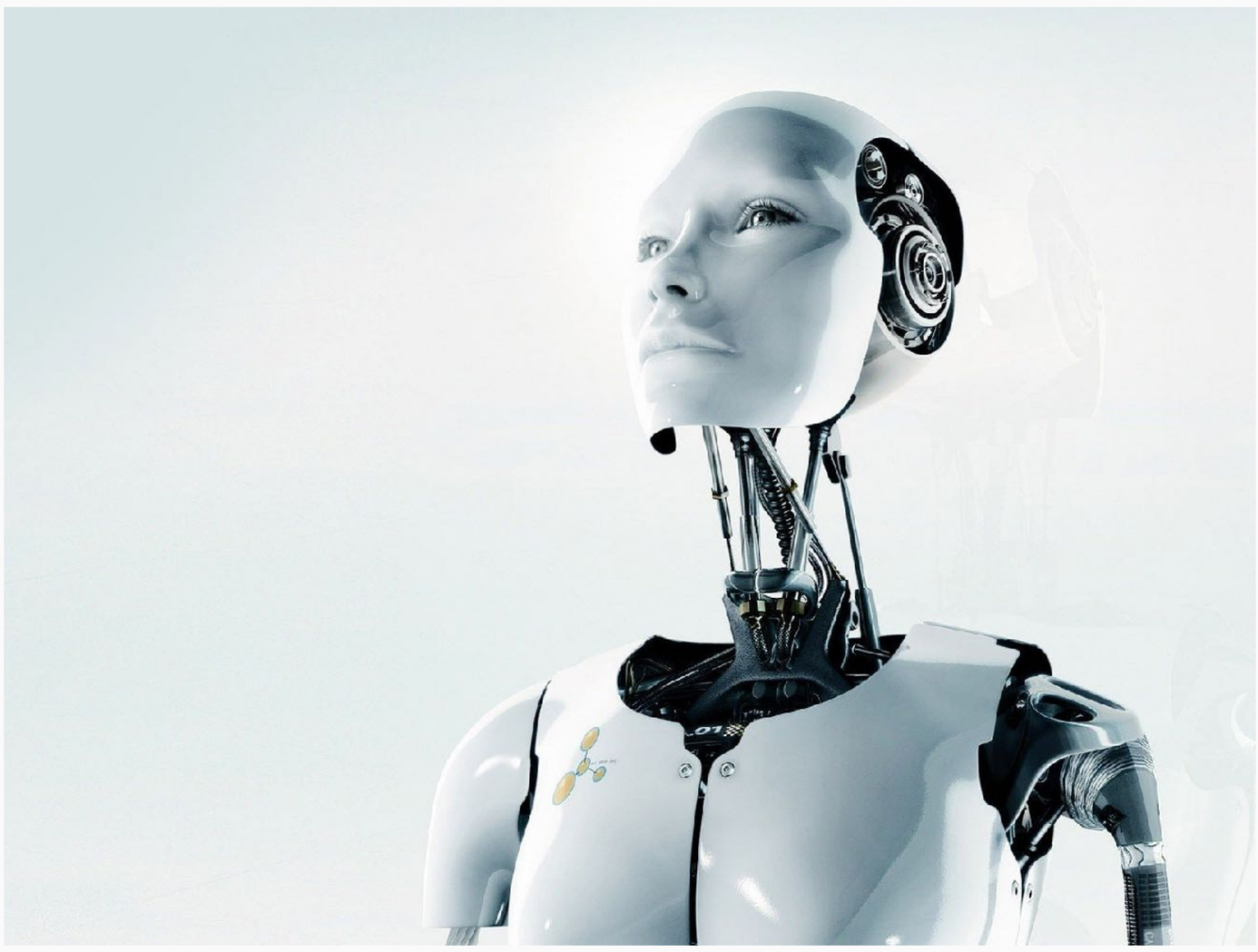
In the course of the quest for worldly knowledge, Buddhism and science should be understood as different academic disciplines using differing methodologies, much like Chinese medicine and Western medicine are different fields with different methods that nevertheless both aim to heal the same human body. So too do Buddhism and science both aim to investigate the external universe and the internal mind.

Modern science uses exacting language, statistics, and experiments to express its insights. Buddhist philosophy represents a theory much like the equations of science that reflect a conception of the world informed by never-ending examination and understanding of the mental faculties. And we must decipher the code of Buddhist language to understand the depths of information hidden in its scriptures.

Introduction

Buddhism and science can engage in dialogue: both scientists and meditators strive to understand the reality of the universe, they just use different methods and language. As we facilitate such a discussion, we must not search for simplistic and forced equations of identity that would find superficial commonalities between the disciplines. Yet this is no reason to give up on dialogue. Buddhism demands the rigorous language and data of modern science, and can bring deeper inspiration and insights to modern technology. This is why we must begin the conversation between Buddhist philosophy and modern technology!

I can share a short story to drive this point home. A professor gave her student a test tube filled with liquid to analyze, and requested a report on its contents ready by tomorrow. The next day, the student produced a report, detailing that the liquid contained molecules of hydrogen gas, oxygen, sodium, etc. Finally, the professor told the student, this test tube also contains a compound that you did not isolate. That compound is “motherly love,” for the liquid in question was a mother’s tears.



[Schedule ›]

Schedule

June 11		
08:00 - 09:00	Registration	
09:00 - 09:20	**Opening Ceremony**	
	Speaker	Yifa: Introduction to the forum
09:20 - 09:50	**Keynote Speech**	
	Topic	**Using Scientific Languages to Interpret Dharma**
	Speaker	Zhu, Qingshi
09:50 - 10:15	**Plenary Talk 1**	
	Topic	**Buddhism and the Happiness Industry**
	Speaker	Jamie Hubbard
10:15 - 10:45	Break	
10:45 - 12:15	**Panel 1**	
	Theme	**Buddhism and Skillful Technologies**
	1	Ravi Wijesiriwardana
	2	Marcus Bingenheimer
	3	William Chang
	4	Wayne Silby
12:15 - 13:30	Lunch	
13:30 - 15:00	**Panel 2**	
	Theme	**Artifical Intelligence and Embodied Mind**
	1	Douglas Duckworth
	2	John Marshall Roberts
	3	Carole Griggs
	4	Dustin Diperna
15:00 - 15:30	Break	
15:30 - 17:00	**Panel 3**	
	Theme	**Robots and Cyborgs: Zen Masters or Our Masters?**
	1	Ben Goertzel
	2	Kojima Eiyu
	3	Yu, Zhichen
18:00	Dinner	
19:00 - 20:30	**Youth Forum 1： Movie “Happy”--Adrian Belic**	

June 12		
08:30-10:00	Plenary Talk 2	
	Topic	Yogacara and Neurodharma
	1	Wang, Lianzhang
	2	Lv, Xinguo
	3	Wang, Jian
	4	Jay Michaelson
10:00 - 10:30	Break	
10:30 - 12:00	Panel 4	
	Theme	Science of Consciousness
	1	Elisabet Sahtouris
	2	Jon Solomon
	3	Lamont Tang
12:00 - 13:30	lunch	
13:30 - 15:00	Panel 5	
	Theme	Is Virtual Reality Buddist Reality?
	1	Jason Asbahr
	2	Robin Arnott
	3	Owen Harris
	4	Luo,Tong
15:00 - 15:30	Break	
15:30 - 17:00	Panel 6	
	Theme	Media, Games and Kids
	1	Yang, Xubo
	2	Natalie Grigson
	3	Niki Smit
	4	Phil Peake
18:00	Dinner	
19:00 - 20:30	Youth Forum 2	

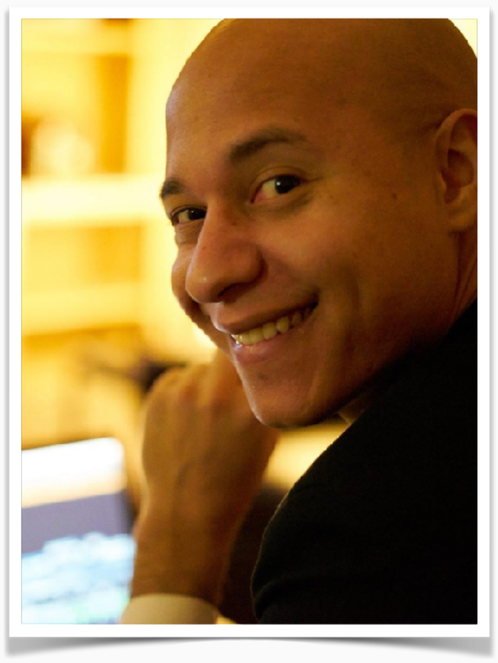
Schedule

June 13		
08:30 - 10:00	Plenary Talk 3	
	Topic	Transformative Technologies and Future Vision
	1	Gino Yu
	2	Jeffery Martin
	3	Alan Macy
10:00 - 10:30		Break
10:30 - 12:00	**Panel 7**	
	Theme	**Buddhism & Social Ethics**
	1	James Hughes
	2	Asoka Bandarage
	3	Andrew Olendzki
12:00 - 13:30		lunch
13:30 - 15:00	**Panel 8**	
	Theme	**Sounds and Music**
	1	Alex Graur
	2	Fred Rible
	3	Christine Roy
	4	Elan Rosenman
	5	Robert Alexander
	Break	
15:00 - 15:30	**Panel 9**	
15:30 - 17:00	Theme	**Future Development & Closing Ceremony**
	A	Roundtable Q & A
	B	Proposal: Woodenfish Village
	C	Closing Ceremony
18:00		Dinner
19:00 - 20:30	**Youth Forum 3**	

*Schedule is subject to change

[Panelists' Biographies & Abstracts ›]

Panelists



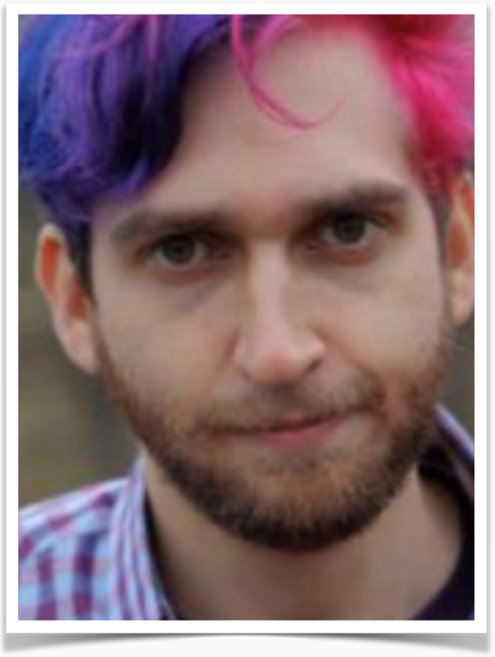
Robert Alexander
罗伯特.亚历山大

Robert Alexander is currently freelancing in New York while pioneering a new style of space-data sonification with the NASA ACE team at the University of Michigan. He has composed electroacoustic music for 11 years, and his work has premiered at such venues as the Sync Digital Arts Festival, and the Threshold Electroacoustic Music Festival. He served as a computer music instructor at the Interlochen Youth Arts camp during the summer of 09'. He was a winner of the 2008 New Music on the Block Competition, with a subsequent released on iTunes. In Fall 2008 he received a travel grant for a performance with the Five Ideas team at the IMAAKO International Electroacoustic Music Festival in Santiago Chile.

Robert Alexander received a B.A. in Performing Arts Technology and a M.A. in Media Arts from the University of Michigan School of Music. His M.A. thesis entitled The Calculus of Music marked the world premier of a new style of created composition, integrating dance, video projection, a string quartet, and advanced real-time audio processing in a 6-camera film shoot. This performance included the world's first constantly accelerating string quartet (composed utilizing the Noteworks, a software platform that he is co-developing).

Breath of Life: Respiratory Biofeedback and Meditation

Meditations focused on the breath lie at the core of the Buddha's teachings. Research is now shining the light on the powerful connection between breath practice, the Autonomic Nervous System, and wellness. This presentation will explore a new tool that incorporates real time digital signal processing algorithms to guide the attention of the user back into a deep somatic awareness. This system utilizes only a smartphone to assist the user in achieving deep states of relaxation and self-reported altered states of consciousness through auditory biofeedback. When the breath is treated as an input for parameter mapping sonification, it is possible for a scientist-composer to design auditory experiences that specifically guide a user toward idealized respiratory patterns. A real-time demonstration will provide audience members the opportunity to engage in a collective meditation.



Robin Arnott
罗宾.阿诺特

Robin Arnott is an audio designer, game developer and interactive artist based in Austin, TX, and Black Rock City, NV. He plays with hacking perception, particularly of the boundary between self and not-self. Robin developed Deep Sea, released in 2010, and SoundSelf, scheduled for 2014. Both games focus mainly on audio, with Deep Sea being audio only and SoundSelf featuring audio accompanied by abstract visuals. He also did sound design for Antichamber. Robin won the innovation award in the first independent developer awards at the indiepub booth during the 2011 SXSW convention.

Robin Arnott's first virtual reality game was a sense-depriving gas mask with a literal suffocation mechanic. Instead of the paralyzing terror of "Deep Sea," his new project "SoundSelf" aims to induce meditative bliss. SoundSelf uses the player's intuitive identification with their voice to leverage and disable their conceptual experience of themselves resulting in a temporary rush into an alternative experience of self.

When not developing VR, Robin's primary occupation is as a psychonaut. His discipline is built around regular meditation and irregular psychedelic journeying. He travels regularly to present on the convergence of Buddhism and contemporary technology.

Using Videogames to Engineer Experience of the Divine

Videogames have demonstrated themselves as one the most entrancing mediums of expression ever invented. How can this power, which has mostly been used as a mechanism for diversion and distraction, be used instead to serve awakening?

Robin Arnott offers a frame for understanding what makes videogames entrancing. With this frame, we can see how existing paradigms of app or game design naturally reenforce identity-centered illusion. It is possible to, instead, design games that draw the player's attention away from identity patterns and toward subtler experience of awareness. With this new understanding, we are already seeing that game design can be as effective at triggering temporary awakening experiences as psychedelics are.

The Virtual Reality game SoundSelf will be demonstrated as an example of how game mechanics can directly facilitate awakening. We will disect the player experience to see how, over the course of a play session, the game systems nudge the player to gradually let go of symbolic experience and sink into an uninterpreted experience of awareness.

Panelists

Jason Asbahr
杰森.阿斯巴

I work as a transformative technology creator, game designer, entrepreneur, inventor, and artist. I've been developing immersive experiences for new media platforms and creating 3D simulations since the early 1990s "goggles and gloves" days of virtual reality. My previous collaborations include industry-leading organizations such as Sony, Electronic Arts, Intermedia Outdoors, RedOctane, Warner Music, and Universal Music. I've created companies and built teams to create experiences across a broad variety of genres and mediums, including virtual reality, mobile games, social games, arcade games, exercise games, massively multiplayer games, and alternate reality games. I've been lucky to create games so loved that users were inspired to get tattoos of the game images and incorporate the games into their weddings.

I'm the founder and curator of the "Memetics: Hacking Belief Systems" community on Facebook, which has grown over to over 3,000 members. The community engages in systems thinking analysis of religion, extracts useful spiritual concepts, and explores new models for effective secular practice. I'm leading the assembly of that knowledge into a design and implementation called the Awakening, which merges mindfulness, self-development, and technological systems to build toward a modern enlightenment practice.

Awakening: The Gamification of Enlightenment

A large and growing percentage of people find themselves dissatisfied with organized religion but still feel a connection to something greater than themselves. Despite this, individuals in modern society frequently feel isolated, lonely, and disconnected. At the same time, post-industrial styles of living are creating global environmental, economic, and social issues that are growing to a point of crisis. We urgently need a new way forward.

Peace, compassion, equanimity, presence, and mindfulness are the tools of personal transformation. Many of these mental practices are shrouded in the mysticism and myth, which can be thought of like an alchemy of the mind. Our society is in the process of refining the tools into a new, scientific practice, a chemistry of the mind.

We can become more. Now and increasingly every year, we are part of the continuously networked world, with billions of ubiquitous computing devices and a coming wave of wearable devices and biosensors. Game mechanics, social networks, virtual reality, augmented reality become tools to create experiences, train practices, and reinforce behaviors.

Properly used, this technology can effectively act as a new layer to the brain, a metacortex. It can influence, direct, shape, remember, and community communicate to augment the capabilities of our human brains. By helping us to be mindful and present, it can transform us, and allow us transcend our default hunter-gatherer humanity — and become enlightened.

Asoka Bandarage
阿索卡.班达拉吉

Asoka Bandarage is an Affiliated Associate Professor at Georgetown University's Public Policy Institute in Washington, DC. Her courses include Comparative Ethnic and Religious Conflict, Democracy in South Asia, Global Social Movements, Women in International Security, and Conflict Analysis and Resolution. Bandarage also serves on the boards of Critical Asian Studies and The National Advisory Council on South Asian Affairs. Scholar and practitioner Asoka Bandarage has taught at Yale, Brandeis, Mount Holyoke (where she received tenure), Georgetown, American and other universities and colleges in the U.S. and abroad.

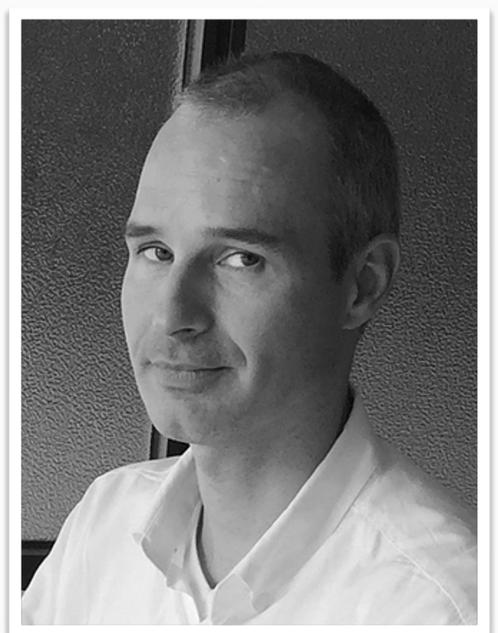
Bandarage is the author of several publications, including articles, books, and encyclopedia entries on social philosophy and consciousness, South Asia, global political-economy, ethnicity, gender, population, ecology and other related topics. Her recent publications include Ethnic and Religious Tension in the World: A Political-Economic Perspective (Routledge), and The Sri Lankan Conflict: A Multi-Polar Approach.

Bandarage received her B.A. in Sociology at Bryn Mawr College in 1973. In 1975, she received a master's degree in Religion from Yale University and in 1980, she received her Ph.D. in Sociology from Yale University.

Buddhism, Technology and Ecology

Humanity has achieved incredible technological and material growth. Yet, the ecosystem and human communities are collapsing due largely to that very advancement. The challenge before us is not the acceleration of competitive, economic and technological growth and the creation of a 'post-nature', 'post-human' world but a fundamental transformation to a balanced path of social and psychological development. This presentation will explore the egoism and domination underlying the contemporary market and technological paradigm and the selflessness and partnership that would underlie an alternative ecological paradigm. The presentation will discuss the Buddha Dhamma, notably the Four Noble Truths and the Eight Fold Noble Path, as a guide in moving towards a Middle Path of individual morality, compassion and wisdom as well as ecological and social interdependence and harmony. Drawing upon the presenter's book, Sustainability and Well-Being: The Middle Path to Environment, Society and the Economy (Palgrave MacMillan, 2013) the presentation will also consider the consciousness, intention and values that would determine if the new technologies of cyborgs, artificial intelligence, 'spiritual machines', etc. would contribute to human liberation or demise.

Panelists



Marcus Bingenheimer
马库斯.宾根海默

Marcus Bingenheimer currently works as Assistant Professor at Temple University, Philadelphia. From 2005 to 2011 he taught Buddhism and Digital Humanities at Dharma Drum, Taiwan, where he also supervised various projects concerning the digitization of Buddhist culture.

His main research interests are the history of Buddhism in East Asia and early Buddhist sutra literature. Currently, he is working on two very different kinds of texts: Āgama literature and Ming-Qing dynasty temple gazetteers. Since 2005, he has been the editor and translator of A Translation of the Chinese Madhyama Agama, the Zhong zhan jing. The first of three volumes has been published (Oct. 2013). Once completed, this project will be one of the largest translations from Buddhist Chinese into an European language. As the editor-in-chief, Dr. Bingenheimer has published The Zhonghua Collection of Buddhist Temple Gazetteers in 2013. It is an edition series of 12 temple gazetteers (15th to early 20th century) with introductions, modern punctuation, common era dates, detailed place and person name indices.

Next to that, Marcus is interested in the Digital Humanities and how to do research in the age of digital information. He is engaged in the task of editing and supervising the production of digital Buddhist texts and Buddhist study tools. Since 2014, he has been the project director of full-text digitization of selected Dunhuang manuscripts. Aims at producing high-end digital editions of Mss related to Early Chan and Guanyin worship. Since 2016, he has been the cluster organizer for Cluster 1.2 “Religion and Technology” in the project From the Ground Up - Buddhism and East Asian Religions.

Marcus Bingenheimer was born in Germany. He obtained an MA (Sinology) and Dr.phil (History of Religions) from Würzburg University and an MA (Communication Studies) from Nagoya University.

Social Network Analysis in the Study of Chinese Buddhist History

Hidden in the Buddhist biographical literature on eminent monks is a large amount of detailed information about who knew whom. It is especially rich for the time between 300 and 1000, when the major Gaoseng Zhuan collections allow us to place people in place and time and trace their relationships to a degree unimaginable for Europe or India in that period.

Using open data from the Gaoseng Zhuan project conducted 2007-2011 at Dharma Drum Mountain this presentation is an introduction into the network and what we can hope to learn from it. The maximum network contains c.6500 vertices with c.13000 edges. After applying filters the main network component contains c.3500 vertices with c.10000 edges. Based on visualizations done with Gephi we will try to show the outlines of what we know about the network both in technical terms and in its consequence for historical research. Special attention will be paid to possible definitions of what counts as "importance" in this field of known relations. Informed by centrality measures used in social network analysis we suggest that network analysis will allow us to discern hitherto undetected patterns of influence and "importance" that generate a whole range of new research questions. Zooming into regions of the network historians can study the relationships between players at a time, as each relationship is referenced to canonical, early sources.

William Chang
张韶芹

William is founder and CEO of Alchemy Technology based in Taiwan and Beijing.

He lead a group of researchers focusing on BCI (Brain Computing Interface) applied research to transform the mind. E.g., to train childrens' attention spans, adult emotional healing, inducing sleep, and personality detection and transformation.

William spent six years collecting hundreds of samples of advanced meditators in Asia to form a database that can differentiate between different meditation methods and reversely input them into the training app.

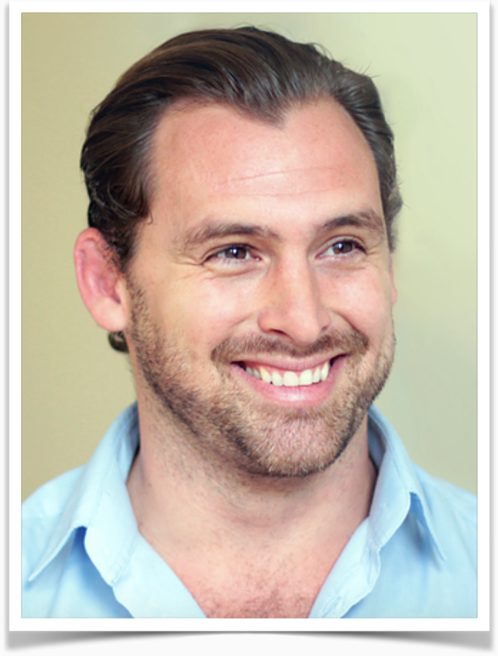
Currently, Alchemy Technology is focusing on personality detection through brainwaves and modulating between different personality traits with biofeedback to transform the mind.

Brainwave on Different Meditation Methods Catagorizing and Training Applications

There are many different practice methods in Buddhism in different lineages, but basic meditation is always one of the core parts. Buddhism has transmit from ancient India to China and surrounding Asian Countries. For 2000 years different lineage masters use all possible ways to pass down the right meditation methods so their students could reach the same cognitive or physical they target to.

Today BCI (Brain Computing Interface) technology is thriving, can we use brainave sensor to measure different meditaton methods? Can we decipher emptiness and wisdom woth brainwave? What are differences between different lineages in meditations? We have collected thousands golden samples with advanced meditators in Asia and seperate traits of different meditation methods and will preent time. We will also share our experience on making brainwave meditation training applications.

Panelists



Dustin Diperna
达斯汀.迪潘纳

Dustin DiPerna is a visionary leader, entrepreneur, and recognized expert in world religions. He has committed his life to making timeless spiritual wisdom relevant and accessible for a rapidly changing global society. Through writing, teaching, coaching, and entrepreneurship, Dustin helps individuals and groups to find happier and more fulfilling ways of being in the world. He is author of three books - Streams of Wisdom, Evolution's Ally, and Earth is Eden - and co-editor of The Coming Waves.

Dustin has held positions with the Integral Institute, the Integral Spiritual Center and the World Council of Religious and Spiritual Leaders (WCORL). As an entrepreneur, Dustin first launched Integral Publishing House as a platform to publish a series of carefully curated books, each selected to stimulate the development of deeper levels of consciousness and culture. He next co-founded WEpractice, a training program to help people move beyond the limitations of individualized spiritual practice to discover the power of groups in transformation, integration, and healing. Dustin played a central role on the leadership team for the Global Cooperative Forum in Interlaken, Switzerland, exploring how a deeper understanding of spiritual awakening might inform cooperative efforts of social action. Building on this success and sensing the need for deeper collaboration among global organizations, Dustin launched the World Business Commons in partnership with the Mendoza College of Business at the University of Notre Dame. His latest venture, Bright Alliance, is building an endowment for the continued preservation and dissemination of the great treasure trove of human wisdom sourced in our world's great religious traditions.

Dustin holds an undergraduate degree from Cornell University and a Masters of Liberal Arts degree in Religion from Harvard University.

Buddhism, Meditation, and Smartphone Apps

There are massive opportunities as well as substantial challenges that arise when teaching meditation through smartphone apps. In my presentation, I'll speak to these issues as both as a generalist and a specialist.

As a generalist, who is well informed in the intersection of these areas, it's clear that meditation apps provide the opportunity to teach meditation (and Buddhist meditation in particular) to an ever-growing audience of smart phone users. Apps allow for basic meditative skills to be transmitted with the touch of a button anytime, anyplace, and to a highly scalable audience. This unprecedented opportunity to spread Buddhist Dharma (and key meditative skills) makes the inquiry into the potential meditation apps incredibly attractive to both teachers and practitioners alike.

Conversely, the medium of a smart phone app places direct limitations on the type of content that can be taught and how teachings can be delivered. Although meditation apps provide a medium to deliver the basics of meditation (skills such as mindfulness and meta-cognitive capacities) to mass audiences, meditation apps are ill suited to deliver more advanced teachings. Advanced teachings are often a combination of verbal instruction as well as direct transmission of particular states of consciousness by the meditative instructor. The very nature of these instructions requires teachers and practitioners to have an ongoing relationship. This type of intimate relationship is difficult to automate and scale using smartphone apps.

Douglas Duckworth
道格拉斯.达科沃斯

Douglas Duckworth is Associate Professor of Religion at Temple University. He is interested in cross-cultural philosophy and Buddhist Philosophy in particular. Before coming to Temple, he taught at three universities in the US and one abroad (Kathmandu University). Since he was an undergraduate, he has spent over six years in Asia, including Nepal, India, China, and Tibet.

He is the author of three books: Jamgon Mipam: His Life and Teachings (2011), Distinguishing the Views and Philosophies: Illuminating Emptiness in a Twentieth-Century Tibetan Buddhist Classic. Translated, annotated, and introduced by Douglas Duckworth (2011), Mipam on Buddha-Nature: The Ground of the Nyingma Tradition (2008).

He is also the recipient of a Fulbright Fellowship and two summer stipends from the National Endowment for the Humanities. He is an associate editor of the Journal of Buddhist Philosophy (published by SUNY Press), and has served on steering committees at the American Academy of Religion (Buddhist Philosophy Group) and the American Philosophical Association (International Society of Buddhist Philosophy). In addition to reading, translating, and writing about Buddhist philosophy, he loves coffee and travel.

Douglas Duckworth received his B.A. degree in Philosophy and Religion from James Madison University in 1993, and he received his M.A. degree in History of Religions from the University of Virginia in 2000. He earned a PhD in Indo-Tibetan Buddhism from the University of Virginia in 2005.

Buddhist Resources for AI

This paper reflects upon the potentials and limits of Artificial Intelligence (AI) in conversation with Buddhism. It begins by considering Yogācāra Buddhism in conversation with the "4E cognition" framework developed from cognitive science: cognition is embedded, extended, embodied, and enactive. Buddhism can perhaps supplement this model with a fifth "E," emancipated cognition, to mark the freedom that motivates Buddhist thought; and by extension, the resources from Buddhism that can be mined to provide a framework for theorizing and developing AI.

We clearly find direct links to the coupling of mind and world, or organism and environment, in the ways that Yogācāra Buddhist texts have framed the constitution of the world (loka) in interrelations and the coupling of organs (indriya) and objects (viṣaya) rather than in isolated, discrete entities. That is, the world in Yogācāra is not observed through the peephole of a "Cartesian Theatre," or in a sort of "spectatorial epistemology" secured from a standpoint outside the framework. Rather, in Buddhism, and Yogācāra in particular, we find a rich model of cognition deeply embedded within the structure of the world.

As AI develops technologies that aim to enhance cognitive performance by modeling and extending the structure and capacity of cognition, Yogācāra Buddhism, with a theory of mind in the absence of an independent essence, owner, or agent like a self, can potentially be a valuable resource. Buddhism can provide a useful theoretical foundation for AI by helping to articulate the potential for engineered intelligence, artificial or otherwise, as well as helping to identify obstacles for this project as well.

Panelists

Ben Goertzel
本.戈策尔

Dr. Ben Goertzel is Chief Scientist of robotics firm Hanson Robotics and financial prediction firm Aidyia Holdings; Chairman of AI software company Novamente LLC and bioinformatics company Biomind LLC; Chairman of the Artificial General Intelligence Society and the OpenCog Foundation; Vice Chairman of futurist nonprofit Humanity+; Scientific Advisor of biopharma firm Genescient Corp.; Advisor to the Singularity University and Singularity Institute; Research Professor in the Fujian Key Lab for Brain-Like Intelligent Systems at Xiamen University, China; and general Chair of the Artificial General Intelligence conference series.

He is also an American author and researcher. His research work encompasses artificial general intelligence, natural language processing, cognitive science, data mining, machine learning, computational finance, bioinformatics, virtual worlds and gaming and other areas. He has published a dozen scientific books, 100+ technical papers, and numerous journalistic articles. Before entering the software industry he served as a university faculty in several departments of mathematics, computer science and cognitive science, in the US, Australia and New Zealand. He has three children and too many pets, and in his spare time enjoys creating avant-garde fiction and music, and exploring the outdoors.

He received his Ph.D. degree in Mathematics from Temple University in 1989.

Alexander Graur
亚历山大.盖瑞

Alexander J. Graur, Ph.D.,Project Associate , The Hong Kong Polytechnic University, School of design. Former Associate professor, University of Turin, Italy (Post graduate School in Health Psychology), Department of Psychology.
Dr. Graur specializes in composition, musicology and clinical music therapy.
He received a graduate degree in Composition-Musicology and a diplomat in Medicine (P.A.P. - Physician Assistant in Psychiatry).
Since 1978, Dr. Graur has implemented the Music Integrative NeurotherapyTM, an applied Neuroscience method combining Music, Psychiatry, Molecular Biology and Quantum Mechanics.

Editor-in-Chief, Journal of Biomusical Engineering (OMICS Group, Medical Sciences Journals).

A professional member of the New York Academy of Sciences.

Dr. Graur has had a long career as a soloist and composer (classical music) with performances and broadcasts of his works in Italy, Germany, Romania, Switzerland and the U.S. and is a recipient of numerous national and international prizes for interpretation. He has presented numerous workshops and seminars to audiences in Italy, China, Sweden, South Korea and the U.S.A.

Music and Memory: research and applications

Empirically, the role of Music in the mechanics of Memory was known since the dawn of mankind. Recent research shown the validity of these ideas; the physiological and psychological aspects of Music were studied and the results applied in various degrees by music-based therapies; the results are encouraging.

This presentation aims to introduce the issue to scientists in order to elicit further research and application in therapy. Applications in early detection and cure of Alzheimer, ADD, learning and developmental disturbs will be presented.

A deeper understanding of the mental and physical processes underlying creating, performing and listening to the music shown the importance and actuality of the Science of Music in treating patients with mental disturbs like Mood, Personality and Sleep Disorders, Alzheimer and a variety of learning and neurological disorders; also, it shown the inextricable relationships between Music and Consciousness.

The role of Memory in all the human brain's activities and the ways Music is related to the Memory's processes is of a basic importance for the wellbeing of all of us.

Presentation's structure:
Music: definitions; Types of memory; Relationships between Music and Memory: physiological aspects; psychological aspects; Early detection and prevention of Alzheimer disease: a new test involving Music; treatment of the ADD; contribution of Music to the treatment of learning and developmental disorders; conclusions. It could be of interest for various disciplines like neurology, psychiatry, pediatric, general medicine.

Panelists

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Carole Griggs
卡罗尔.格雷格

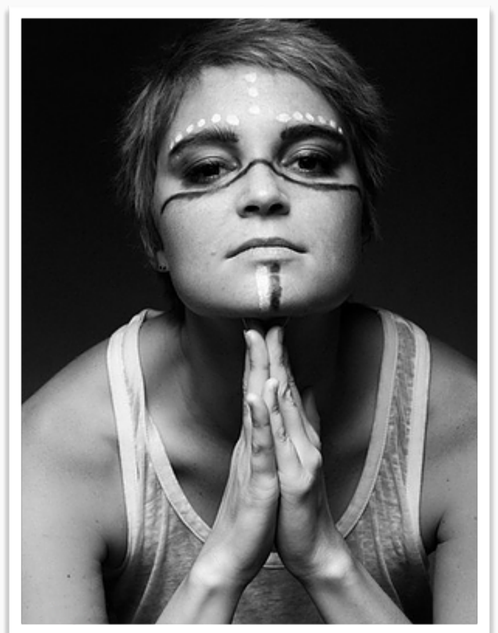
Dr. Carole Griggs, Ph.D. is the founder and CEO of Carole Griggs Enterprises, LLC (drcarolegriggs.com). Dr. Griggs is a university professor, international speaker, professional coach and consultant, author/writer, and pioneer and leader in the areas of Consciousness Evolution and Human Development, and integrative Wellness and Nutrition. Carole is a professor at John F. Kennedy University developing and teaching courses for the Masters of Art in Consciousness and Transformative Studies department, as well as National University for the Masters of Science in Complementary and Integrative Healthcare department. Carole is co-founder of iConscious and the iConscious Human Development Model, author of Space to See Reality: A New Model for Professional Coaches, and Intuitively Your Type: Nourishing through Nutrition, co-owner and co-developer of Wall 2 Wall Fitness and Wellness app, co-founder of Pacific Wellness in San Diego, CA, founder and CEO of the 501(c)3 nonprofit Conscious World Alliance, and owner of thrive alive! Products.

For more than a decade, Carole has been extensively researching and working with clients and coaches worldwide in the awakening of consciousness and human development process. She brings a depth and breadth of experience and expertise working with clients in the evolution of human consciousness, personal and interpersonal development, and in various modalities of physical health and wellbeing.

Dr. Carole Griggs holds a Doctorate degree (Ph.D.) in Professional Coaching and Human Development, a Masters degree in Education and Teaching, and a Bachelors degree in Science. Dr. Griggs is a Certified Holistic Nutritionist, Advanced Metabolic Typing Advisor (Advanced Nutrition), CHEK Coach Certified (Corrective Holistic Exercise Kinesiology), Reiki II Healing Practitioner, and was an NCAA Strength and Conditioning Coach.

The iConscious Human Development Model: A new framework for Artificial Intelligence

Carole Griggs, Ph.D. will speak about the work she and her colleague Ted Strauss have done over the past three years, distilling the depth and extent of conscious human development into a new model that appears ideally suited as a framework for AI that is loving to humans. Their research and experience with thousands of clients over decades has led them to develop the iConscious Human Development Model, a comprehensive and integrative meta-map that clarifies how humans wake up and evolve in an integrated way. Carole will speak about the iConscious model, and also expand on how it is currently being integrated into the root programming for an artificial intelligence (AI) system. Their goal is to accelerate humanity's evolution through AI agents that are deeply wise, emotionally sensitive and loving. Carole and Ted's intention is to accelerate humanity's evolution by offering the best of conscious human development tools through conversational interactions with the AI guides that recognize and utilize the uniqueness and developmental stage of each user worldwide.



Natalie Grigson
娜塔丽.格里格森

Natalie Grigson was born on November 19, 1986 in Austin, Texas. One of the last “unicorns” – she was born and raised in Austin, and still (mostly) calls the city home today. Grigson has written five books, from Middle Grade to Adult, from Fantasy to Spirituality. Her first book, a Young Adult Humor/Fantasy, The Fantastic Fable of Peter Able, was released in 2015, quickly rising to one of Amazon’s Top 100 Bestsellers and was received well by reviewers and editors alike. The second book, The Timeless Tale of Peter Able, is due out in 2016.

Thinking perhaps one book launch per year wouldn’t have her busy enough, in 2016, Grigson dipped a toe into the Indie Publishing world, and self-released her Young Adult novel, The Woods. Next, the Middle Grade adventure, Matthew Templeton and the Enchanted Journal, and finally, due out this December, Just Call Me Is: An Introduction to Mindfulness. The publication of this book was made possible by a Kickstarter in July-August of 2016.

When Natalie isn’t writing books, she’s probably writing anyway – typing with Typewriter Rodeo, or getting the word out about previous works. When she’s doing none of these things, she can most often be found outside, playing with dogs, doing yoga, on a plane, or sometimes – jumping out of one. In 2009, she graduated Magna Cum Laude from St. Edward’s University with a degree in Creative Writing, her minor in Visual Arts.

A Talk on the F Word: Fun

I write children’s and young adult books for a living—mostly they’re fantastical, whimsical, and humorous, sometimes they teach children about meditation or body image. But no matter what the subject matter, they’re fun.

And that’s what this talk is about: the F word. Fun.

Fun is often overlooked or even dismissed in some of the academic and spiritual circles that I float around. Who has time for games and imagination when there are mysteries of the universe to unravel and studies to solidify?

It’s a real shame, because in my book, having fun is one of the most spiritual of practices. And so in this “talk” we’re going to have some fun together—in the name of mindfulness, of course.

Here I’ll take my experience in creative writing, storytelling, improv comedy, and working with kids andnot just talk about, but get everyone involved in having some fun as a way to practice mindfulness. It will be a break from some of the sit-down- and-listen- lectures, and people will get on their feet, play some games, and even do some creative exercises.

Panelists

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Owen Harris
欧文.哈里斯

Owen Harris is a Game Designer, VR designer and lover of all things playful. When not working on DEEP, he designs games and VR experiences for the University of Cambridge, Cancer Research UK, Gambrinous and others. He teaches Game Design in DIT and has spoken all over Ireland and Europe about games, virtual reality and on the intersection of health and playful experiences. He is a founder of Imirt, an organisation set up to improve the quality and visibility of Irish games, and runs the local community game design event dubLUDO. His other passions are travel, cooking, reading and mental health. His mission is to bring about an increased awareness of the value of playfulness in everyday life.

DEEP: An art led, science backed, meditative VR experience

You don a headset and a handmade electronic belt. All of a sudden you are underwater, surrounded by luminous fish and plants swirling around you. As you breathe the world breathes with you. You take a deeper breath and you take off to soar beneath the waves.

DEEP is a virtual reality game that is controlled by breathing. Inspired by Owen's experiences as both a diver and a meditator, this small side project has gone on to a surprising and unexpected international life. It all started with the the creation of a meditation chamber in VR over the course of a lazy Saturday. From there, it grew to encompass Owen's breathing regime. After a year Owen was joined by Niki, and together they have grown the small experiment into a fully-fledged project. It has traveled to the Tribeca Film Festival in New York, to Mexico, to India, to China and all over Europe. They work with a team of behavioural and neuro scientists as well as musicians, artists and designers. DEEP is the subject of ongoing PhD research. Later this year, it will enter a special needs school in the Netherlands.

In this talk, Owen and Niki will tell the story of DEEP. How it came to be, where it has been and where it is going next.

Jamie Hubbard
杰米.哈伯德

Jamie Hubbard graduated from the University of Wisconsin-Madison with a doctorate in Buddhist studies and has been teaching at Smith College since 1985. He currently holds the Yehan Numata Chair in Buddhist Studies and the Jill Ker Conway Chair in Religion and East Asian Studies.

Hubbard is the author of books, articles and films on Buddhism in East Asia, including Pruning the Bodhi Tree (with Paul Swanson), Absolute Delusion, Perfect Buddhahood: The Rise and Fall of a Chinese Buddhist Heresy, and the BBC film The Yamaguchi Story: Buddhism and the Family in Japan. He also has extensive interests in the use of technology in Buddhist studies and has worked on numerous projects in the areas of archiving Buddhist texts and digital publication, and more recently in the field of neuroscience and emerging technologies of awareness: Cyborg Buddha!

Setting the Tone: Buddhism and the Happiness Industry

Lately the exchanges between Buddhism and Western science, especially psychology, neuroscience, and physics, have gone from a trickle to a virtual flood, and go hand-in-glove with the “happiness craze” that is sweeping over us.
From my perspective of the Buddhist tradition, there are many questions that are not asked of the Buddhist tradition, and many assumptions of the Buddhist tradition that are not part of the discussion. Most obvious among these, for example, is whether the well-being and self-fulfillment promised by the happiness industry is at all like the Buddhist goal of awakening to the full awareness, morality, and compassion of a Buddha. If so, what do Buddhist “technologies of happiness” bring to the non-Buddhist psychologist? If not, does one or the other make more sense as a human goal?

Intimately related is the fact that Buddhism is unabashedly dualistic in the classic Cartesian sense. The premise of a disembodied consciousness that takes a new birth in a new body is key to the Buddhist project of enlightenment but almost universally denied by scientists, by and large materialists/physicalists when it comes to the question of consciousness. Does this disagreement make a difference to the conversation?

Finally, I am very interested in the increasing sophistication of neuro-biological and other studies of virtuoso Buddhists and other really, really, happy folks, the findings that are being presented about their brains, and what this might mean for the rest of us and our pursuit of Buddha’s Brain. In other words, just as eyeglasses or a prosthetic limb enhance our physical self, will the neurobiological, pharmaceutical, psychological, and other emerging technologies similarly enhance our state of awareness, our Buddha-nature? To make a long story short, I am personally very interested in the possibility that in the not-to-distant future we might reverse the now standard view that changing the way you think—your mind—also influences the hard wiring—that is, your brain. In other words, I wonder if the vaunted claim of neuroplasticity— “Change your mind, change your brain”—will someday come to include something like, “Change your brain, change your mind.” Is an enlightenment pill or wire-headed elimination of suffering possible some day?

Panelists

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James Hughes
杰姆斯.休斯

Hughes served as the executive director of the World Transhumanist Association (which has since changed its name to Humanity+) from 2004 to 2006, and currently serves as the executive director of the Institute for Ethics and Emerging Technologies, which he founded with Nick Bostrom. He also produces the syndicated weekly public affairs radio talk show program Changesurfer Radio and contributed to the Cyborg Democracy blog. Hughes' book Citizen Cyborg: Why Democratic Societies Must Respond to the Redesigned Human of the Future was published by Westview Press in November 2004.

Dr. Hughes is a Fellow of the World Academy of Arts and Sciences, and a member of Humanity+, the Neuroethics Society, the American Society of Bioethics and Humanities and the Working Group on Ethics and Technology at Yale University. He serves on the State of Connecticut Regenerative Medicine Research Advisory Committee (formerly known as the Stem Cell Research Advisory Board). Dr. Hughes speaks on medical ethics, health care policy and future studies worldwide.

Hughes holds a doctorate in sociology from the University of Chicago, where he served as the assistant director of research for the MacLean Center for Clinical Medical Ethics. Before graduate school he was temporarily ordained as a Buddhist monk in 1984 while working as a volunteer in Sri Lanka for the development organization Sarvodaya from 1983 to 1985.

A Posthuman Buddhist Model for Cultivating Character

The Buddhist tradition recognizes that few people are capable of achieving perfect virtue, and most Buddhist traditions have specific practices for specific obstacles, such as meditations to reduce lust, ignorance or hatred. The Theravadan writer Buddhaghosa recommended forty different meditations for different personalities, and the Mahayanist Asanga described seven personality obstacles with their own meditations. Today we can combine these Buddhist typologies with genetic and neurochemical evidence for the varieties of brains. People vary in their biological capacity for self-control, compassion or insight, and most of our brains are less than optimal to practice the paramitas, the perfection of virtues. But we have also developed drugs and technologies that support moral cognition and behavior, a project known as "moral enhancement." While most of the moral enhancement discussion has focused on boosting empathy, a mature moral character requires the combining of multiple virtues - wisdom and compassion, self-control and transcendence - and each of these virtues can now be enhanced with electronic, pharmaceutical, and genetic technologies. In this talk I will suggest a model of virtues (kindness, intelligence, happiness, self-control, mindfulness, fairness and transcendence), and how they relate to Buddhist paramitas and moral enhancement technologies. Finally, I offer some thoughts about integrating technological moral enhancement into a posthuman, or cyborg, Buddhist practice.

Lu, Xinguo
吕新国

Xinguo Lu, male, born in 1953, native of Shijiazhuang in Hebei Province. He received his Dharma name Zheng Yi (Justice) from the Venerable Weixian. He also goes by the name Daqian online. In 1978 after retiring from military service, Lu was admitted to Peking University's Department of International Politics. In 1985, he started gradate studies at the University of International Relations in Beijing. Thereafter, he joined the China Institute of Contemporary International Relations in 1988, when he first began to study the Dharma. In 1990, Lu took refuge in the Three Jewels and formally became a Buddhist. He began studying with the renowned Yogacara scholar Han Jingqing while also assisting Han in running the Beijing Maitreya Institute, where he now serves as president.

Between 1999 and 2011, Lu participated in the 2nd, 3rd and 4th International Xuanzang Academic Conferences, for which he presented several papers including "The Study of the Two Truths and Three Natures." In 2009, he presented at the Inaugural Chang'an Buddhism Conference. Since 2008, he has organized six Maitreya Studies Conferences at the Chongqing Jinyun Temple, Chengdu Wenshu Monastery and the Chongqing Shaolin Temple. For more than a decade, Lu has been teaching at the Buddhist Academy of China, Beijing Buddhist Lodge, Chongqing Jinyun Temple, Chongqing Shaolin Temple and many others. He has taught many classic texts such as The Heart Sutra, The Diamond Sutra, The Sandhinirmocana Sutra (Profound Secrets), Compendium of the Mahayana, Thirty & Twenty Verses of Vasubandhu, Twelve Gate Treatise and Discourse on the Stages of Yogic Practice. He uses plain everyday language to accurately render the textual meanings in order to most faithfully transmit Buddha's teachings.

The Path Of Human Pursuit Of Truth Culminates In Mind-Only Without Objects

Ancient Greek philosophy tried to seek the most basic material that composed the world. Parmenides used method of logical argument to bring the adventure to the theoretical level, denying the common sense error that "what you see is what exists" and maintaining that people's feelings were illusions. His students Zeno proved that the minimum length unit that underlies the human concept of time and space was simply a paradox. The cave of Socrates shows that the particular things that are perceived by senses are not real. Once Zhuang Zhou dreamed he was a butterfly and after waking up came to realize that people cannot really distinguish between real and illusory. Descartes also believes that there is no fixed criterion to distinguish between the dreaming and waking states. The epistemological turn of modern Western philosophy negates the knowability of ontology. The linguistic turn of the last century thinks that the nature of the world is consciousness. Quantum mechanics also denies the objective existence of matters and proves that the phenomenon that we observe cannot be accounted for apart from consciousness. The overall development of humans' pursuit of truth has always been approaching the idea of mind-only without objects, which is the spirit of the Buddhist Mind-Only school, the most sublime of Buddhism. Based on his genuine realizational state, Buddha expounds on this expression of the truth, which is the only theory that can explain everything.

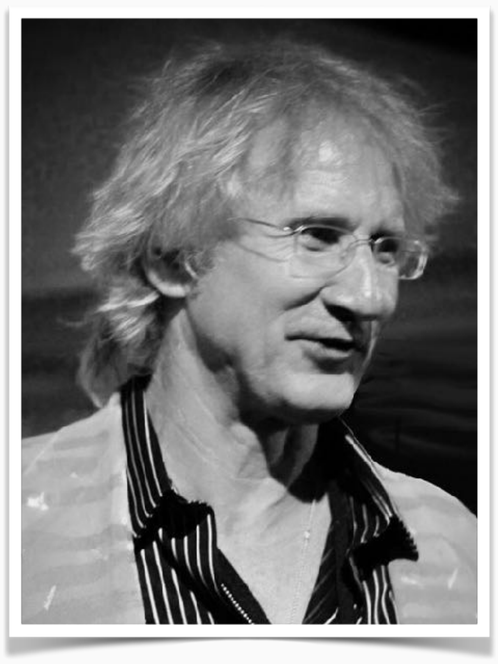
Luo, Tong
罗彤

Customer Technology Strategy Consultant, Senior Software Architect of Microsoft (China) Corporation Public Affairs

Main focus: Cloud computing, data science, AI, MR and other technologies and their applications in government administration and public affairs. Has long-term engagement in research and promotion of new information technology. Committed to providing consultations and services on informatization for the government and public utilities.

The Fusion of Virtuality and Reality

Nowadays, Buddhism and science, prajna wisdom and artificial intelligence, virtuality and reality are both cognitive methods and technological means. Moreover, they are interactive experiences as well. Their encounter and mixture can help us change our perspectives to better know ourselves and the surrounding world, and help people achieve more. As computer scientist Alan Kay said, “The best way to predict the future is to create it.” Microsoft hopes to bring artificial intelligence to everyone, from developers to data scientists, from technology fans to students. As a part of this prospect, we are committed to providing the developers with a comprehensive platform that includes the tools and services. In the meantime, we emphasize the principle of trust and the importance to keep human beings at charge.



Alan Macy
艾伦.马西

Alan Macy is currently the Research and Development Director, past President and a founder of BIOPAC Systems, Inc. BIOPAC is a biomedical instrumentation developer and manufacturer based in Goleta, California. He has been R&D Director since 2008 and is responsible for managing the development of new hardware and software products for BIOPAC's biomedical instrumentation equipment offerings for Universities and institutional development labs.

He designs data collection and analysis systems, used by researchers in the life sciences, that help identify meaningful interpretations from signals produced by life processes. Trained in electrical engineering and physiology, with over 30 years of product development experience, he is currently focusing on psychophysiology, emotional and motivational state measurements, magnetic resonance imaging and augmented/virtual reality implementations. He presents in the areas of human-computer interfaces, electrophysiology, and telecommunications. His recent research and artistic efforts explore ideas of human nervous system extension and the associated impacts upon perception. As an applied science artist, he specializes in the creation of cybernated art, interactive sculpture and environments.

In 1980, Macy received a Bachelor of Science degree in Electronics Engineering from Cal Poly, San Luis Obispo. In 1983, Macy obtained a Master of Science degree in Electrical Engineering from UCSB.

Biometrics - to derive knowledge from the analysis of human physiological data for the purpose of enhancing creative design ability

A tale that begins 360 B.C.E. and then jumps to the 17th century and beyond. A patchwork quilt of a story that starts with beauty and weaves its definition with aesthetics, emotional feeling, taste, the galvanic cell, electrophysiology, the telephone, re-tribalization and the Omega Point. Lambert's, Hume's and Sulzer's ideas about taste, pleasure and the appreciation of beauty have contributed to the foundations of psycho-physiological thought and to the origins of electrophysiology.

In the pivotal years 1791-1794, methods and results developed by Galvani and Volta establish a robust basis for the scientific fields of electrophysiology and electrical telecommunications. Galvani's twitching frog leads to the understanding that electricity mediates the flow of information inside the body. Volta's pile battery created a stable power source for the seminal work of Faraday, Oersted and Ohm. Human nervous system extension took a significant leap forward with the development of the telephone in 1876. Electricity moving inside the body could now directly mediate the flow of electricity outside the body, at a practically equivalent bit rate.

Concurrent with the development of human-rate-capable electronic communication methods, comes the projection of our more complete selves. These projections allow our nervous systems to extend outward towards greater reach and sensitivity. These capabilities also permit increased awareness of the perceptual filtering processes occurring inside our own bodies.

Panelists

Jeffery Martin
杰弗利.马丁

Dr. Jeffery A. Martin is a founder of the Transformative Technology space, serial entrepreneur and social scientist who researches personal transformation and the states of greatest human well-being. He spent the last 10 years conducting the largest international study on persistent non-symbolic experience (PNSE), which includes the types of consciousness commonly known as: enlightenment, nonduality, the peace that passeth understanding, unitive experience, and hundreds of others. More recently, he has used this research to make systems available to help people obtain profound psychological benefits in a rapid, secular, reliable, and safe way.

His interest in Transformative Technology comes from a belief that findings like his can be translated into mass consumer technologies and affect billions of lives worldwide. Since 2008 he has worked to bring together the stakeholders from academia, technology, business, finance, and public policy to create a sustainable technology space that dramatically improves human well-being.

A bestselling author and award-winning educator, Jeffery has authored, co-authored, or co-edited over 20 books and numerous other publications. His work has regularly been featured at leading academic conferences worldwide, as well as major public forums such as Deepak Chopra's Sages and Scientists Symposium, Wisdom 2.0, the Science and Nonduality Conference, the Asia Consciousness Festival, and TEDx. He has been covered in media as diverse as the South China Morning Post and PBS's Closer to Truth, and been an invited speaker at many top universities including: Harvard, Yale, Stanford, University of London, Hong Kong Polytechnic University, and the National University of Singapore.

A Continuum of Persistent Non-Symbolic Experience in Adults

Non-symbolic experiences have been reported for millennia and are generally attributed to spiritual and religious contexts, although atheists and agnostics also report them. Popular terms for them include: nondual awareness, enlightenment, mystical experiences, peak experiences, transcendental experience, the peace that passeth understanding, unity consciousness, union with God, and so forth. Most are temporary, but some individuals report a persistent form of them. Persistent non-symbolic experience involves a fundamental change in the experience of what it is like to perceive the world.

Over the past 11 years our research project has sought to map this experience in over 1000 adults who report persistent non-symbolic experience (PNSE). Methods used included long semi-structured interviews, a wide variety of gold standard psychometric measures, physiological measurement, and experimentation. Five core, consistent categories of change were uncovered: sense-of-self, cognition, emotion, perception, and memory. Participants' reports formed clusters in which the types of change in each of these categories were consistent. Multiple clusters were uncovered that formed a range (or continuum) of possible PNSE experiences.

For the past 4 years we have been inducing this persistent change in perception with our Finders Course protocol and measuring pre/during/post changes, as well as mapping the landscape that unfolds as individuals settle into the experience. Most recently we have been incorporating technology such as EEG, HRV, and GSR into these experiments in an effort provide the most safe, rapid and reliable access possible to these forms of ongoing experience.

Jay Michaelson
杰伊.麦克森

Rabbi Dr Jay Michaelson is a national voice of progressive Judaism in the United States. The author of five books and more than 300 articles on religion, sexuality, law, and contemplative practice, Dr. Michaelson is a contributing editor to The Daily Beast and the Forward newspaper and affiliated assistant professor at Chicago Theological Seminary. His 2011 book, God vs. Gay? The Religious Case for Equality, was an Amazon bestseller and Lambda Literary Award finalist. He has also been named to the Forward newspaper's list of the fifty most influential Jews in America.

Dr. Michaelson is a leading expert on the conservative "religious liberty" movement and the author of the 2013 report, Redefining Religious Liberty: The Covert Campaign Against Civil Rights. In Jay's other career, he is a teacher of jhana meditation in a Theravadan Buddhist lineage and the co-director of the Elat Chayyim Jewish Meditation program. He is the author of many publications on meditation including Evolving Dharma: Meditation, Buddhism and the Next Generation of Enlightenment (North Atlantic, 2013). He has spent thirteen years in the dharma, including numerous long-term vipassana retreats in the United States and Nepal, and has taught meditation at institutions ranging from New York Insight to Burning Man, Kripalu to Fortune 500 companies.

Dr. Michaelson holds a Ph.D. in Jewish Thought from Hebrew University, a J.D. from Yale Law School, and nondenominational rabbinic ordination. In the academic world, he has held visiting positions at Brown University, Yale University, Harvard Divinity School, and Boston University Law School.

Engineering Enlightenment: Next-Generation Mindfulness in a Transhuman Future

In the last hundred years, forms of Buddhist meditation that for centuries were conceived of as religious or spiritual in nature have been re-contextualized as secular techniques for training and improving the mind. And in the last thirty years, Western science has made significant progress toward understanding how these techniques actually work in the brain, thanks to the phenomenon of neuroplasticity, the brain's capacity to change itself. The so-called "neurodharma" is impacting how meditation is taught in religious, spiritual and secular contexts, and in the Buddhist world, the "pragmatic dharma" community has taken increased interest in developmental models of meditative progress.

This new science has also led to the creation of the first generation of devices and apps that bypass the practice of meditation entirely to "hack the brain." So far, these methods are relatively crude, as is our understanding of the relevant brain processes. But what happens in a few decades (or even a few years) as our scientific understanding of the brain improves? What happens when it is possible to directly synthesize (if that is even the right word -- "duplicate" may be more accurate) profound experiences such as jhana and satori and lasting state-changes such as the stages of awakening itself? Is there any point in doing mindfulness and other meditative practices when their benefits may be obtained by implanting a nano-device to rewire the brain directly?

Some may regard such transformations as somehow inauthentic. But that may well be a prejudice based on a wrong view of self, and limited views of human potential and intelligence. If we are all "ghosts in the shell" without independent selfhood, what is the difference between an experienced practitioner's brain and one optimized for wisdom, compassion, and virtuous action in a lab? Apart from nostalgic humanistic dread, what perspectives are available to better understand these likely evolutions in the dharma?

Panelists

Andrew Olendzki
安德鲁.奥连茨基

Andrew Olendzki's studies started in philosophy. Exposure to Chinese philosophy and the study of Sanskrit and Pali gave him access to the rich Indian traditions where philosophy plays a supporting role in a much larger investigation of meaning. He gravitated to the teachings of the historical Buddha because of their remarkably clarity, profundity, accessibility, and universality.

He started meditating very early in this exploration, as practice seemed to be such an obvious and necessary tool for engaging with Buddhist studies. The Buddha's teaching is all about examining and understanding the field of lived experience, and it became central to his approach that the study of Buddhist texts and the practice of insight meditation be thoroughly integrated.

After beginning a conventional academic career, he left college teaching to become the first executive director of the Insight Meditation Society, and helped to establish and develop the Barre Center for Buddhist Studies. These are institutions that are trying to live these experiential teachings in a contemporary context, and he is proud of the contributions he has made there to the larger project of rolling the wheel of Dhamma a bit further down the road. Over two and a half decades in Barre, he saw the once fringe phenomenon of meditation become mainstream, the once obscure teachings of the Buddha become popular, and helped to connect the classical teachings of the Buddha to many modern movements, including health (via MBSR), psychology (via the Institute of Meditation and Psychotherapy), and the scientific understanding of consciousness (via the Mind & Life Institute). Currently he is pursuing these interests as an independent scholar, teacher, and writer, and have started the Integrated Dharma Institute as a vehicle for continuing work in this field.

Reverse-Engineering the Mind: An Abhidharma Contribution to AI

One way to go about designing an artificial mind is to look closely at the natural mind to see how it works. Buddhist practitioners researched the mind many centuries ago using the empirical first-person methodology of meditation, and a detailed description of what they discovered is preserved in the literature we today call Dharma and Abhidharma.

The early Buddhist model of mind is built around the sequential processing of bundled information by means of an apparatus that functions in six modes. In addition to this, three distinct but interdependent functions take place simultaneously: 1) the symbolic representation and interpretation of the information; 2) an analysis of the information's value to the apparatus; and 3) an appropriate response to the information by the apparatus. The process cycles several times per second, and each iteration is shaped by what went before and shapes what comes next—thus the apparatus learns and adapts.

This presentation describes the model and discusses a number of intriguing implications for modern AI theory, including: the over-emphasis of symbolic processing and the neglect of other aspects of mind; whether feeling tone can ever be replicated; the crucial distinction between wholesome and unwholesome states; whether unwholesome states are necessary components of the system—the dangers posed if they are, and the promise offered if they are not; whether an artificial mind might either be designed to be awakened or be capable of itself attaining awakening.

Philip K. Peake
菲利普.皮克

Philip K. Peake is the director of CESC Concentration, faculty co-director of the Jandon Center, professor of psychology at Smith College. He is one of the pioneers of the famous Stanford "marshmallow tests."

The impact of marshmallow tests has been far ranging, shaping scientific understandings of child psychology, education and human development. Smith psychology professor Philip Peake got involved with the "marshmallow test" as a graduate student at Stanford in the late 1970s and has been working on follow-up research ever since. Peake—who, with the help of his Smith students, is now archiving the "marshmallow test" data at Smith—has been working with neuroscientists, economists and others who want to explore how the findings can be applied to their fields.

For achieving groundbreaking results in their studies of delayed gratification, Peake, Mischel and a third colleague, Yuichi Shoda, have received a 2015 Golden Goose Award. Founded in 2012, the awards recognize federally funded research that has had a significant impact on society.

Binaural beats and EEG

A longitudinal research program examines that relationship of preschool ability to delay gratification and a range of developmental outcomes in adolescence and adulthood. These relationships suggest that preschool waiting in highly circumscribed settings (popularly known as the "marshmallow test") connect to components of well being later in life. Moment-to-moment analysis of what preschoolers actually do while waiting demonstrates that children's attention deployment practices are highly predictive of their ability to persevere. Follow-up research conducted nearly 40 years after these initial investigations indicate that individuals who evidence life-long patterns of self-control show distinctive neural correlates when completing continuous performance assessments of cognitive control (e.g., go/no-go tests). These results suggests linkages to the interplay between limbic and prefrontal structures, and, perhaps more centrally, the efficiency of working memory. Implications of these findings for both understanding and attempts to manipulate aspects of attention are explored.

Panelists

Fred Rible
弗雷德.瑞博

Fred Rible is a retired Navy Supply Corps Captain with 30 years combined Active and Reserve time. He has worked for two defense Aerospace Firms in Contract and Program Management before operating his own business, which he sold in 1996. He attended the University of Missouri-Columbia (BS Accountancy) and National University in San Diego (MBA Finance). He is now a Certified Healing Touch Practitioner (CHTP) and volunteer at the local children's hospital as a healing touch practitioner, primarily for the severely handicapped.

His spiritual path began in earnest in 1981, following a spontaneous OBE he had experienced during surgery in 1974. That year, he began a regular meditation practice, reading many books on spiritual matters and attending a Spiritualist Church, where he first learned about energy healing. Among the books he read was Bob Monroe's, "Journeys out of the Body" which validated, for him, his OBE, since his surgeon insisted he'd imagined the entire experience.

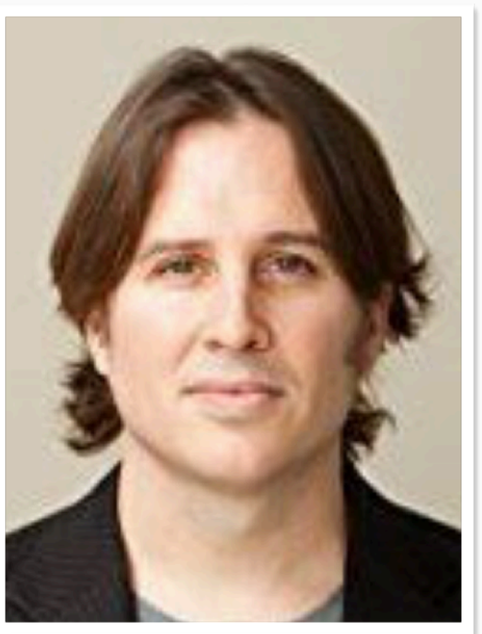
He attended his first Gateway Voyage® Program in June 1997 and has since attended 12 more programs. He has been a member of The Monroe Institute® (TMI) since 1997 and joined the Professional Division in 2010. In the Local Chapter Network (LCN) he is a Certified Chapter Leader for north San Diego County and was recently appointed as Regional Coordinator for Northern California. He thoroughly enjoys helping others connect and interact with their own higher powers, both as a Local Chapter Leader and an Outreach Trainer. He truly honors the path that each of us has chosen in life to gain perspective and understanding of our eternal selves.

Hemi-Sync® and TMI Programs to Enhance Ones Meditation Practice

Robert Monroe began experimenting with consciousness and learning in 1958, however The Monroe Institute (TMI) formally began in the early 1970s. By 1975, after years of trials with "Explorers" Hemi-Sync® was developed and refined down to combinations of layered frequencies, binaural beats, pink sound, and verbal guidance and/or music and other audio effects. It was about that same time Robert Monroe was invited to conduct a weekend program, aptly named Gateway, which took place with 24 participants at Esalan in Big Sur, California. Thus began the model into what TMI would ultimately grow.

Most meditation instruction is focused on teaching how to achieve levels of consciousness; TMI program curriculum with Hemi-Sync® gets you to expanded states of consciousness and teaches you tools to expand your awareness of self and spiritual growth. I will discuss how Hemi-Sync® works, simply by creating a frequency-following response thereby aligning the two hemispheres of the brain. A brief explanation of brainwave frequencies and associated states of consciousness will be followed by how, through the exhaustive research, Monroe was able to define Focus Levels or levels of consciousness at which "Explorers" perceived similar events and experiences. Six-day residential programs, or retreats, have been designed to use customized Hemi-Sync® exercises and certain Focus Levels for personal exploration of states of consciousness.

I'll discuss the spectrum of uses for Hemi-Sync®. Gateway Voyage and other programs are now offered at the TMI Campus in VA and other locations throughout the world. Other offerings such as on-line programs and outreach excursion are also available. TMI Technology and techniques cannot replace your own practice but, when used alongside will very likely make your experiences more vivid and understandable.



John Roberts
强森.罗伯特

John Marshall Roberts is a behavioral scientist with a focus on creativity and behavior change. An acclaimed communication expert and outspoken advocate for sustainable business, John is founder of Worldview Thinking, a strategic consultancy with a single focus: to help forward-thinking organizations drive change through radical, scientifically-grounded human insight.

As first articulated in his breakthrough 2008 book “Igniting Inspiration: A Persuasion Manual for Visionaries”, John’s Worldview Thinking framework has now been successfully used by hundreds of leaders and organizations worldwide. To make the framework easily accessible for decision makers, in 2010 John developed the Roberts Worldview Assessment (RWA)–a breakthrough psychometric index that measures what really matters for winning hearts and minds.

A dynamic and popular speaker within the sustainable business community, John has been invited to share his research by variety of leading global for profit, non-profit and governmental organizations including the US White House, Unilever, 3M, Sprint, Distributed Energy Financial Group, American Association of Advertising Agencies, IAG Insurance, Steelcase, Time Warner, Presidio, UCLA, TEDx, Johnson and Johnson, Best Western Hotels, General Mills, Royal Plunket Society, Minimonos, and the New Zealand Department of Conservation.

To the chagrin of academic colleagues, John spent his early career in New York and Los Angeles, escaping his behavioral science background in pursuit of his dual passions as a writer and professional musician. As fate would have it, John’s scientific training eventually caught up with him, colliding with his unique talent for passionate self-expression through the discovery and articulation of the Voice Code. Four years after cracking the code, John released "The Voice Code: Master Your Iner Game" an imaginative hero's journey to practical inner game mastery that's now waves in the global conscious leadership community.

THE 6 Secrets of Staggering Genius

In the summer of 2012, after two decades of research to find the missing link between human nature and mother nature, behavioral scientist John Marshall Roberts cracked the Voice Code. This mind blowing equation reconciles more than a century of social research and offers the world's first logical, actionable and comprehensive map that fully explains the "inside out" path to spiritual enlightenment. In this presentation, John delivers a gripping overview of this discovery and the practical implications for those who aspire to actualize their full potential.

The science behind this map is riddled with paradox, but application is simple. The name of the game is freedom. Enlightened minds escape the orbit of fear and separation by standing for freedom above all else. In so doing, they ultimately balance and integrate six key inner game skills: Commitment, Reframing, Exploring, Assimilation, Transmutation and Embodiment. These skills combine to form a closed-loop inner game cycle called the “CREATE Cycle” that dissolves limitations and empowers radical alignment with an invincible non-dual inner knowing (aka "Voice") at everyone's core.

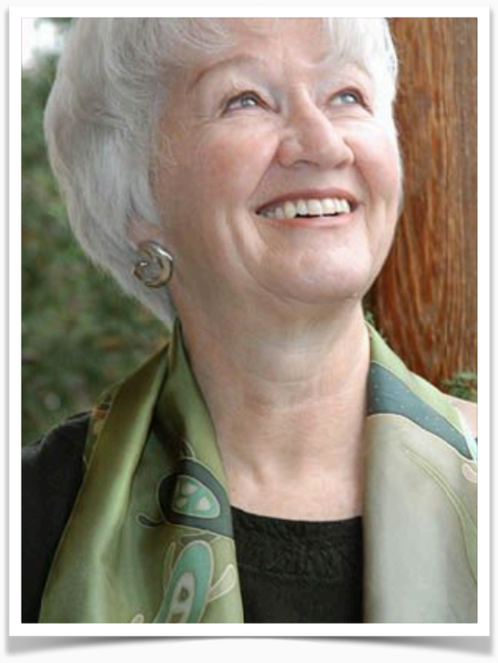
According to the Voice Code, finding and becoming one with mighty power is the prime directive of human evolution. Mastery unfolds in 12 dynamic stages that span from the earliest (Stage 1. Womb) to the highest (Stage 12. Master) levels of human consciousness. Using a new suite of battle tested training tools and technologies designed from this new map, anyone willing to master the inner game can now quickly produce a quantum leap in power, peace and prosperity by training their brain to think in radical alignment with the creative mind that orchestrates life.

Elan Rosenman
埃朗.罗森曼

Elan Rosenman is passionate about realizing the potential of sound and music to impact the mind, body, and spirit. After having a traumatic personal experience in 2007 he 'woke up', and knew that understanding and developing therapeutic applications for sound was his life purpose. After 10 years of working in the commercial music industry in NYC, Miami, and Hawaii, he moved to San Francisco to study the human mechanics of how and why sound affects us so deeply. Around that time he also discovered an emerging underground 3D audio technology called ambisonics. Elan had an epiphany about the potential of creating immersive 3D audio experiences scientifically engineered to optimize health, wellness, and performance.

Sounds and Awakening

Ambisonics is a full-sphere surround sound technique: in addition to the horizontal plane, it covers sound sources above and below the listener.
Unlike other multichannel surround formats, its transmission channels do not carry speaker signals. Instead, they contain a speaker-independent representation of a sound field called B-format, which is then decoded to the listener's speaker setup. This extra step allows the producer to think in terms of source directions rather than loudspeaker positions, and offers the listener a considerable degree of flexibility as to the layout and number of speakers used for playback.
Ambisonics was developed in the UK in the 1970s under the auspices of the British National Research Development Corporation.
Despite its solid technical foundation and many advantages, Ambisonics has not been a commercial success, and survived only in niche applications and among recording enthusiasts.
With the easy availability of powerful digital signal processing (as opposed to the expensive and error-prone analog circuitry that had to be used during its early years) and the successful market introduction of home theatre surround sound systems since the 1990s, interest in Ambisonics among recording engineers, sound designers, composers, media companies, broadcasters and researchers has returned and continues to increase.



Elisabet Sahtouris
伊丽莎白.萨托里斯

Elisabet Sahtouris, PhD is an internationally known evolution biologist, futurist, speaker, author and sustainability consultant to businesses, government agencies and other organizations. She is a US and Greek citizen who has lived in the USA, Canada, Greece, Peru and Spain while lecturing, doing workshops and media appearances on all continents. She has a PhD from Dalhousie University in Canada, completed her postdoctoral work at the American Museum of Natural History in New York and taught at the University of Massachusetts Amherst and MIT then was a researcher at the Massachusetts General Hospital and a science writer for the Horizon/Nova television series. science series, a UN Consultant on indigenous peoples, and was invited to China under the auspices of the Chinese National Science Organization in 1973. She organized Earth Celebration 2000 in Athens, Greece, is an advisor to Ethical Markets and holds the Elisabet Sahtouris Chair in Living Economies at the World Business Academy. She consults with corporations and government organizations in Australia, Brazil, Europe, Asia, Africa and the United States.

Consciousness in Science

Western and Eastern sciences have antithetical relationships with consciousness, as Western science sees consciousness emerging from matter while Eastern science sees matter emerging from consciousness. Western quantum physicists, in breaking through to the primary field of consciousness had to turn to Eastern science to make sense of their findings a century ago, yet the dominant Western science paradigm remains essentially unchanged. Because Western science relies on measuring its reality with physical instruments, while consciousness is non-physical, it is limited in understanding consciousness and the living systems it generates. These issues are explored and solutions proposed, especially as a Global Consortium of Sciences in place of a monoscience..

Panelists

D. Wayne Silby
施伟恩

D. Wayne Silby, 68, is an entrepreneur in activities that combine investment with social benefit. Now mostly retired, his latest project is ZenFlo, a mindfulness R&D float tank center in Beijing. For 40 years, he was Founding Chair of Calvert Funds, including the nation's first social investment fund. He has chaired Calvert Foundation and ImpactAssets, non profits which direct monies to underserved communities. In China he is Founding Chair of Syntao, Ltd., a 60 person firm consulting on matters involving corporate social responsibility. Early investments in China include the formation of the China Environment Fund, and social enterprises such as Shangri-la Farms and PlateauHomestays. He produced a video on microfinance in China as part of his service as chair of Grameen China .

Among other activities he co-founded the Social Venture Network , and has been involved in creating several impact investing funds and has directed over 60 impact investments for Calvert Funds. Board service includes the American Association of Higher Education, BENS, The East West Institute, Grameen Foundation USA, and the Chinese Association of Social Value Investors. Among his writing was the lead essay for the Impact Investing issue of MIT Innovations Journal. He holds a patent in the area of group communications when he was co-founder of GroupServe, one of the too early Internet social media companies. A graduate of the Wharton School and Georgetown Law School.

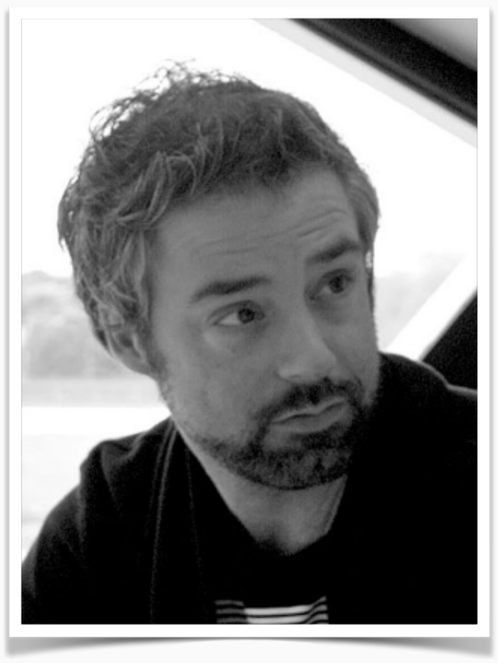
ZenFlo - Flotation & Meditation

"ZenFlo is a new mindfulness R & D center combing floatation tank therapy with other technologies to achieve the benefits of meditation more rapidly and with less effort. A video on floatation will be shown.

Our experiments have worked with tools relating to biofeedback on heart rate, brain wave modulation, and breath. More experiments have included the Oculus VR with meditation media. We are also playing with a 3D screen in the tank for a more immersive experience, and have researched projection mapping and holograms. Just lately we are experimenting with sound and light machines for brain entrainment, including stroboscopes and sound in the form of binaural beats and other phased input modalities into the brain through the eyes and ears while in the immersive experience of the tank.

We are still in an experimental phase. We are writing guided meditation scripts to help orient the user into these unusual states of relaxation and then provide a more Vipassana like meditation focused on letting their thoughts go. Most people are taught that they are their thoughts instead of that thoughts are something they have. With the lack of other sensory input, the float tank is a special place for people to get a better view of their thoughts, their "monkey mind", and how to be in better choice around their thoughts. Examples of mindfulness in the reduction in anxiety will be presented. Also presented with be some recent research on how meditation has physical impacts on the brain, including telomeres and other aging related phenomenon.

ZenFlo will be manufacturing float tanks. As the research progresses on the technologies, and more feedback from users in the Chinese context is obtained, the designs of the float tank will be finalized and put into production over the summer. For people attending this conference, we offer a free float in our Beijing center in exchange for your feedback during this R & D phase."



Niki Smit
尼基.斯密特

Niki Smit is a designer and co-founder at Monobanda PLAY, a Utrecht based game company that develops playful interactive experiences. He is a designer of experimental games and interactive art. Niki aims to explore and expand the boundaries of games and interaction. Working on both commissioned projects and independent projects, they focus heavily on researching and developing news forms of meaningful play and artful interaction. Smit regularly gives talks on the importance of free play within games.

Niki Smit holds a degree in Multimedia design and a Bachelor of Arts and Technology. This Bachelor was acquired with the study Design for Virtual Theatre and Games. A study that mixes digital media and theatre.

DEEP: An art led, science backed, meditative VR experience

How do you create a meditative experience focused on breathing? And how can you be sure that it has real effects on the player? DEEP is a meditative virtual reality experience driven by a custom breathing controller, currently being developed by game designers Owen Harris (Ireland) and Niki Smit (Netherlands). Having started as a personal tool for Owen to combat feelings of anxiety, together with Niki DEEP is on a journey exploring how to design for virtual reality, while also being involved in contributing to scientific research regarding anxiety. In this talk Niki will give a peek behind the curtain, sharing making-of insights and, more importantly, the pitfalls of making interactive meditation.

Jon Solomon
乔.所罗门

Born in the United States and trained at Cornell University, Jon Solomon has lived in East Asia (Taiwan, Hong Kong, China, Korea) for 25 years, North America for 23, and Western Europe for 2. He is competent in Chinese, French, English and Japanese, and holds a permanent position as Professeur des universités at Université Jean Moulin, Lyon, France. He is a practitioner in the Kagyu and Nyingma lineages of Tibetan Buddhism, enjoys the hobbies of backpacking, rangefinder photography, and the community of indie music in Taiwan. He started practicing Zen under Korean Zen Master Seung Sahn in 1983, and started Vajrayana in 1992 after receiving instruction from Kyabje Tulku Urgyen Rinpoche.

His major areas of research interest include theories of translation, sovereignty and biopolitics, contemporary and 21st century Chinese literature and thought, French philosophy and literature in the context of globalization, cognitive capitalism, media studies, comparative cultural studies.

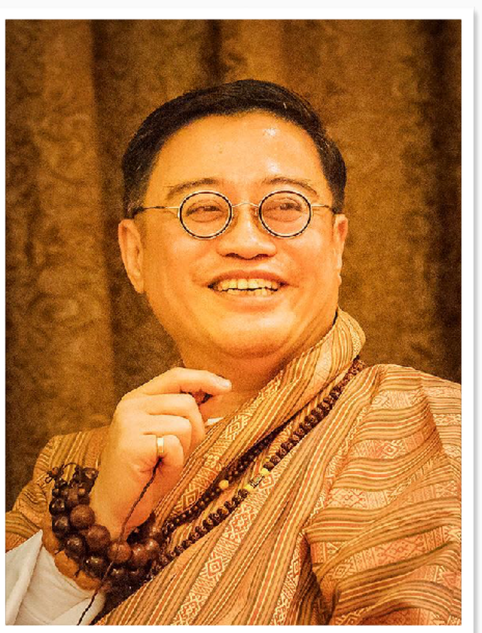
His current project is to develop a discussion of “area” as an essential operation for the governing capacity of the state in parallel to the question of “population,” a form of the investment of state power within life, what might be referred to as "biopower," following Foucault. Within this project, an examination of the biopolitics of translation occupies a privileged place for understanding the relations between anthropological difference, geocultural area, and regimes of accumulation. He earned a Ph.D. degree in Field of Modern Chinese Literature from Cornell University in 1997.

Compassion in Samsara: AI – Human Interaction in Light of Big Data and the ‘Enlightenment’ of Translation

Buddhism attracts interest among the AI community for its long history of "techniques of awareness." Pursuing the possibility of a Buddhist perspective that could contribute positively to the debate around the social and spiritual use of such technologies, I would like to begin not from the question of awareness and 'Enlightenment,' but from the premise that compassion, spontaneously arising from the realization of the identity of emptiness and awareness, is the core of Buddhist teaching respective to samsara. Rather than inquire into how these technologies might either enhance human practice subjects’ spiritual realization or be designed to incorporate elements of enlightened mind, this presentation considers our relation towards the AI machines that increasingly populate our world in terms of compassion.

Unlike the linear model upon which modern notions of ‘progress’ depend, the AI machine will have a different sense of temporality. The massive amount of instantly accessible data housed in digital archives that serve as training corpora for current and future AI collapse the distinction between a past without AI and a future fully integrating it. Every digital act today undertaken by humans becomes part of the ‘dialogue’ with an AI of the future. The implications of this temporal disruption are emblematized in the on-line debate and meme known as “Roko’s Basilisk.” Roko’s Basilisk names the curious disruption of linear causality instituted by AI, and describes the potentially disastrous effects it could have by effectively training a future AI to enslave humanity. Significantly, the essential conundrum of the Roko’s Basilisk meme has also been explored by Liu Cixin, one of China’s most important science-fiction authors, in his recent Three-Body Trilogy.

This presentation will consider this temporally-disruptive relationship between humans and AI through the category of big data. The particular definition of compassion used by this study is derived from our previous work on translation, Buddhist Enlightenment, and aesthetic causality: compassion is translation, and translation cannot be understood in terms of the ubiquitous bridge metaphor, but must be seen in terms of dependent origination.



Andrew Wong
王联章

Andrew L C Wong is:
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From “Mental Cognition” TO “Mental Practice and Realization” of “Maitreya (Yogacara) Studies” through “Four Aspects of Mind Cognition” Theory and “Three Realms of Cognition” Theory

“Maitreya studies”, advocating “Eight Consciousnesses” which is developed on the basis of “Six Consciousnesses” of Primitive Buddhism and Sectarian Buddhism, was called “Yogacara” in ancient India. In China, “Maitreya studies” used to be called “Ci-en school” or “Yü-hua school” in Tang Dynasty and “Vijnaptimātratā (Wei-shi) School” or “Dharmalaksana (Fa-xiang) School” subsequently. In modern times, it is called “Ci-shi school” or “Tzu-shih studies” (referred to as “Ci-zong”).

“Four Aspects of Mind Cognition” (“Objective aspect”, “Subjective aspect”, “Self-witnessing aspect”, “Rewitnessing aspect”), the theory of ancient India’s “Yogacara”, aims to clarify the function of “Mind Cognition”. “Three Realms of Cognition” (“Reality Realm”, “Image-only Realm”, “Misconception Realm”), developed from Tang Dynasty’s “Ci-en school”, is the theory to distinguish the characteristics, types and functions of all objects (“Objective aspect” of “Four aspects of mind cognition”), including “Mind Cognition” and “Mind Practice and Realization”.

From the level of mental development, “Maitreya studies”, by the principle of “Consciousness-only”, illustrates that all cosmic phenomena are the presentation of consciousness (also called “seed” or “function”). The final state of the theory is to “transform consciousness to wisdom”, namely, transform the eight consciousness to the four wisdoms—transform the contaminated eight consciousness to the uncontaminated “pure consciousness in accordance with four wisdoms”.

The practical method of observing the mind is, first, to introspect all cosmic phenomena that are presented by consciousness are fake and all laws do not have an eternal, independent entity. And then, to clear away attachment of all sentient beings by the correct view of Consciousness-only and transform contaminated (attached to affliction and attachment) consciousness to uncontaminated (not attached to affliction and attachment) consciousness. That is, to sharpen the mind based on “Mental Cognition” in order to achieve the aims of practice and realization. Therefore, the combination of the deliberate theory (which also emphasizes on reading and understanding Buddhist classics) of “Maitreya studies” system and modern “Mind Science”, will create a new era of “Mind Science”.

Panelists

Wang, Jian
王健

Dr. Wang Jian, professor of Center for Psychological Sciences, Zhejiang University, head of Sports Science Institute in Zhejiang University。Doctoral Advisor of Applied Psychology and Exercise Physiology.

Dr. Wang Jian undertakes more than 10 projects from Chinese National Programs for High Technology Research and Devel opment (863 Program), the National Science and Technology Support Program, and the National Natural Science Foundation of China.

He is the editor in chief of more than 10 teaching materials of the 12th Five- Year Plan, such as Health Education, Health Physical Fitness, Exercise Physiology; and the author of two monographs. Furthermore, he has published more than 100 papers in the domestic and foreign academic journals, and obtained more than 60 patents. A number of his research has successfully won the first prize of Chinese Medicine Science and Technology Award by Zhejiang Province , the second prize of Zhejiang's Science and Technology Progress Award, and the silver medal award of 'Chinese Good Design' issued by Innovation Design Alliance of China.

You don't know it, but your brain knows it

It seems that the world we are familiar with is made by materials. Although we have no idea about the truth of our martial world, the world that we can feel can not be material. It is made by our mind.

Our brains create an imitative outside world when our consciousness is not straightly connected with the outside world. On one hand,the world of perception is more abundant than the outside world, for it has many spiritual qualities that outside world can never have. On the other hand, compared to the outside world, the world of perception can be very impoverished, for many constitutions of the outside world can never get into our spiritual experience. It seems that we are sure about the existence of the materials, energy, time and space of the outside world and they all separate from the world of consciousness. Obviously, it is not truth. In fact we can never understand the outside world in the way that exceeds the human experience. The specialization and limitation of our aspects make us used to experience this world in the frame of time and space. But time and space are not built on the outside world, they exist in our deep mind. In the depth of our mind, there is the world. In the core of our life, there is the seed of the wisdom. The torches in our hands are from one sacred place.

Ravi Wijesiriwardana
拉维.维杰斯瑞沃达纳

Dr. Ravi Wijesiriwardana is from University of Jaffna, Sri Lanka. He is currently conducting researches in Buddhist Meditation and Physiology, specially the relaxation responses. In addition, He also does research in acoustic resonance of the ancient temple structures. His recent presentations include: [1] "Resonance Frequency Variations of Metallic Tibetan Singing Bowl with Temperature" IASTEM ICMAE May 1-2 Kuala Lumpur Malaysia2017; [2] "Structural Acoustic Coupling Resonance of Hindu Temples" IASTEM ICCAE May 1-2 Kuala Lumpur Malaysia 2017 ; [3] " Looking at Stupas from an Electrical Engineering Perspective and Possible Functioning of Ruvanweli Maha Seya as an Alpha Wave Resonator to Harmonize the Nature and the Living Beings“, Anuradhapura Sri Lanka, BUSL International conference of evolution of Stupa Nov 22nd 2014; [4] Towards the Understanding of Samadhi or Zen State of Mind by Transient Heart Rate Variability Data" BUSLNC Anuradhapura Sri Lanka Nov 8th 2014; [5] “Nature of zero experience from Buddhist Philosophy and science perspectives” SISHVA University of Peradeniya October 2016; [6] “Changes in Central Nervous System and Cognition with Meditation” Buddhist University Anuradhapura Sri Lanka March 2016; [7] “Meditation and Physiology” SISHVA University of Peradeniya Sri Lanka December 2015; [8] “Effects of Meditation on Physiological Parameters” Buddhist University Anuradhapura Sri Lanka August 2015.

Acoustic Resonances of Buddhist Temples, Stupas and Woodfish Instrument

Acoustic resonators have been used in rituals, physiological and physiological healing practices. The acoustic resonators are designed according to precise dimensions [1,4]. We can find two types of acoustic resonators that are used for these practices namely the acoustic chamber resonators and acoustic source resonators. We have studied the resonance chambers of selected Buddhist temples (Figure 1.0) and Stupus (Figure 1.0) in Sri Lanka. Buddhist temples have two acoustic inner and out acoustic chambers. In addition out of many resonance cavity sound sources we have selected and analyzed the woodfish instrument acoustics (Figure 2.0). The acoustic resonance of Temples and Stupas were measured exiting the resonance chambers by using monotones acoustic pulses from 20Hz to 1kHz and measuring the reverberation times at each frequency.

Also the acoustic resonances of the woodfish instrument was measured by exciting woodfish and obtaining acoustic power spectral density and them estimating the peaks (Figure 3.0). I have observed fundamental acoustic resonance mode at 1,4kHz and its odd harmonics.

In addition I have modelled the resonance chambers of the temples and the stupas by using nonlinear finite element[2,3] methods considering the dynamics of structural acoustic dynamics. In addition energy based acoustic resonance analytical model is formulated for the woodfish instrument. Also as an alternative method nonlinear finite element methods are also used considering the nonlinear wood material behavior of the woodfish instrument.

Panelists

Yang, Xubo
杨旭波

Xubo Yang is a professor and director of the Digital ART lab of School of Software at Shanghai Jiao Tong University, China. He received a Ph.D. in computer graphics at the State Key Lab of CAD & CG of Zhejiang University in 1998. He had worked on many virtual and augmented reality projects in Fraunhofer Institute of Germany, National University of Singapore, and University of North Carolina. His research interests focus on next-generation media art computing technologies in the context of computer graphics, virtual reality, augmented reality and human-computer interfaces.

Mixed Reality Interfaces to Transform Human Experiences

In this talk, I will introduce several mixed reality interfaces to transform human experiences. Mixed reality interfaces combine digital content with physical world in a seamless way, and can shift human perception and interaction between physical reality, augmented reality and virtual reality. By integrating our inborn ability to interact with physical world, together with the imagination and flexibility of digital world, mixed reality interfaces can be exploited to replace, change or improve human experiences, involving perception, presence, consciousness, imagination and creativity.

Gino Yu
於積理

Dr. Gino Yu received his BS and PhD at the University of California at Berkeley in 1987 and 1993 respectively. After receiving is PhD, he taught at the University of Southern California and worked to establish multimedia initiatives including the Integrated Media Systems Center. From 1995 to 1997, he taught at the Hong Kong University of Science and Technology where he helped to establish the Center for Enhanced Learning Technologies. In 1999, he established the Multimedia Innovation Centre (http://www.mic.polyu.edu.hk) at the Hong Kong Polytechnic University (PolyU), a leading edge think tank and research centre on digital entertainment. He is currently an Associate Professor and Director of Digital Entertainment and Game Development in the School of Design at PolyU where he founded M-Lab (http://www.mic.polyu.edu.hk/index.php/create/m-lab), a commercial digital entertainment entity that provides consulting, research, instruction and new ideas for the industry. His main area research interests involve the application of media technologies to cultivate creativity and promote enlightened consciousness. Dr. Yu also founded the Hong Kong Digital Entertainment Assocation, and Asia Consciousness Festival. He also curates TEDxHongKong.

Contemporary Approaches to Enlightenment

Traditional practices toward enlightenment such as meditation, visualisation, sacred texts, and mantra are based upon 5000 year old technologies. However, the advancement of the sciences, psychology, and technology, especially over the past 100 years, enable new approaches toward the cultivation of self knowledge. While beliefs may differ from person to person, the underlying physiological processes are similar and provide objectively quantifiable measures. As science develops a greater understanding of the neurophysiological processes that underpin emotional experience, new technologies including interactive media, biofeedback, localised brain stimulation, and even psychoactive substances can be used to provide direct experiences that expand consciousness and also facilitate its integration. Furthermore, the combination of interactive media, biofeedback, and big data enable the development of uniquely personalised experiences. Applications abound in mental health, pedegogy, and interrelationship. This talk presents a science based framework for personal development toward enlightenment that lays the groundwork for the development of new practices, therapies, and technologies.

Panelists

Zhu, Qingshi
朱清时

Qingshi Zhu graduated from the Department of Modern Physics of China University of Science and Technology in 1968. He was elected as the academician of the Chinese Academy of Sciences in 1991 and was elected as the academician of the Third World Academy of Sciences (TWAS) in 2003, former President of the China University of Science and Technology (1998-2008), head of the Southern University of Science and Technology (2009-2014).

He has been a visiting scholar at the University of California, Santa Barbara and the Massachusetts Institute of Technology at the University of California, a visiting fellow in Brookhaven National Laboratory in USA , visiting professor in the National Institutes of Canada, Grenoble, Dijon and the 11th University of Paris in France, as well as the University of Helsinki in Finland. Also as a visiting fellow of the Royal Society, he was working in Cambridge, Oxford and Nottingham University. In 1994, He won the Asian Achievement Award of Overseas Chinese Physics Association in Shanghai, Sir Harold Thompson Memorial Award set up by Spectrochimica Acta, distinguished scientific and technological achievement award in Anhui Province in 2000, the second prize of major achievements in China's State Natural Science Award in 2005.

He is a Fellow of the Royal Society of Chemistry, and the received the honorary doctorate degree from British Nottingham University, Soka University in Japan.

In recent years, he is committed to comparative study of modern science, Buddhism and Chinese medicine. He drawled a wide attention by writing a series of articles on "Physics in Zen", "Another discussion about physics in Zen", "Quantum consciousness" and "Meditation and Qi".

Using Scientific Languages to Interpret Dharma

An important trend in the development of contemporary human culture is that the main concepts of modern science and Buddhism are gradually intertwined with each other. This report reviews the following five aspects:

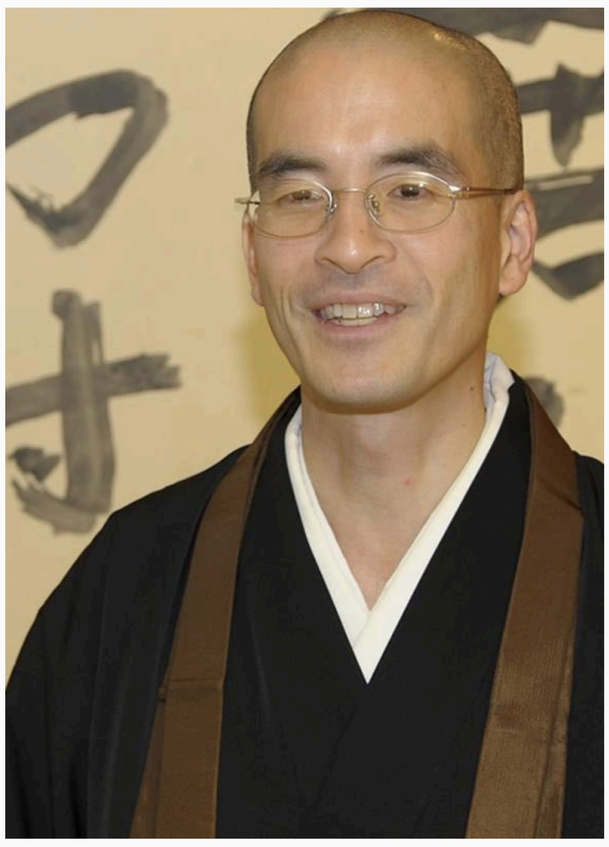
1. " Everything with form is unreal". That is, the human perception of the world image is the product of mental mechanisms;

2. " The integration of Mind and body": Physics argues that the material world is a grand symphony that is played on a chord or an ocean of quantum bits, which is consistent with the metaphor of the wave in Lankāvatāra-sūtra.

3. How to look at the past and the future? Physics and Buddhism both regard time as a delusion.

4. " Four Noble Truths": no real self exists in biochemically manipulated life.

5. " Meditation and Qi": the real self or an original Bodhi could be revealed through meditation, that is, to get rid of the eternal happiness of biochemical control.



Welcome

Japanese robot monk from Hozoji Temple

and introduced by the Abbot Kojima Eiyu

Organizers：