

# FUTUURI 2015

SPECIAL CONFERENCE EDITION OF THE FINLAND FUTURES RESEARCH CENTRE'S NEWSLETTER

## Futures Studies Tackling Wicked Problems

11–12 June 2015, Turku, Finland

“Futures Studies Tackling Wicked Problems” was an international forum for the philosophies, methods, ideas and concrete examples to find out what is going on in the field of futures research, education and action.

The aim of the conference was to harness the views of preferable futures and methods for reaching them. The participants worked collaboratively discussing research, initiatives and projects to gather various views and compose ideas to face future challenges.

### Distinguished group of futures specialists

The conference was honoured with welcoming words from the University of Turku Rector, Professor **Kalervo Väänänen**. During the two days the audience heard a group of high level keynote speakers, who all focused on futures

from different viewpoints. The keynote speakers were Dr. **Thomas Lombardo** (US), Dr. **Kerstin Cuhls** (Germany), Co-President **Anders Wijkman** (Sweden), Professor **Sirkka Heinonen** (Finland) and Professor **Ugo Bardi** (Italy).

This Futuuri special issue includes articles giving insight to the keynote speakers on the basis of their speeches. Slides of the presentations are available at the conference website.

### Research meets education and action

This 17<sup>th</sup> Finland Futures Research Centre's (FFRC) international futures conference gathered together 260 participants from 33 different countries. During the two days, altogether 119 presentations were held in 15 thematic sessions dealing with topics such as e.g. futures research methodology, different case studies, issues of futures education and learning, philosophy of futures studies, sustainable development and artistic futures work.

Slides of the session presentations are also available at the conference website. The peer-reviewed conference issues of the Futures Journal as well of the European Journal of Futures Studies will be published in their due course.

### Power of co-operation

The conference was a successful joint effort between the organising bodies: the FFRC, World Futures Studies Federation (WFSF), Finland Futures Academy, Otava Folk High School Co-Operative Society, Finnish Society for Futures Studies and Turku University of Applied Sciences.

One of the highlights of the co-operation was a pre-conference seminar on “Women and Futures” that took place on 10 June on board M/S Viking Grace sailing the Baltic Sea. A summary report from the seminar is also included in this special issue.

In addition we had a great privilege to host a meeting of Foresight Europe Network (FEN) bringing a group of distinguished European futurists to Turku.

Organisers of the conference want warmly to thank all the people organising and participating these events. You all made this a futures event to be remembered! ●



*Turku School of Economics offers an excellent venue to organise an international conference.*



*Professor Markku Wilenius and Dr. Wendy Schultz welcomed the conference audience to Turku.*



*During the two days, altogether 260 participants from 33 different countries gathered to Turku.*



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# Wisdom, Virtues and Future Consciousness

## – Do Not Lose Hope



In our world, global problems and dooms day scenarios dominate discussion. It clearly appears that various world wide environmental conditions (climate change, resource reserves, pollution, environmental degradation, and the accelerative extinction of species) are all moving in a negative direction. Common belief is that our way of life is not sustainable, and is heading toward disaster, and we need to drastically modify, how we live.

**Tom Lombardo** is not one of the pessimists. In his presentation with the title "The Psychology of the Future: Flourishing in the Flow of Evolution" Dr. Lombardo concentrated on the positive evolution of human beings in an evolutionary universe. The basic question he wants to find an answer to is: What is a good future and how do we create it?

### Evolution everywhere

Tom Lombardo proposes that humans are evolutionary beings living in an evolutionary universe, and our sense of happiness and personal and collective fulfillment is only fully realised when we are experiencing transformation and growth in our lives. We are happy when we flourish and become unhappy and dissatisfied when we are stagnant. Evolution is not only a characteristic of nature but of all our reality. The evolution itself is also evolutionary (evolution of evolution).

The human mind is transformative by nature. We might head for cosmic consciousness and become even more cyborg-like creatures when mind, body and technology merge further. Creatures are self-aware and self-reflective. The world and consciousness are reciprocity and effect each other's evolutionary process.

### Holistic future consciousness

Future consciousness is truly essential for normal human psychological functioning. Without future consciousness we would be lost, passive, and reactive. We would not seem intelligent or even human. We all are futurist and we are future conscious, but the level and nature of consciousness varies. We can be rational, mystical or intuitive. Different views collide time to time. All humans possess future consciousness as integral to their overall psychological functioning. Just imagine if you would not have it. We can differentiate degrees of Holistic Future Consciousness (FC) and it is possible to strengthen it. The Heightened FC is holistic which means that all factors impact engagement and creation of the (Good) Future.

### What is good then?

Virtues can guide us in order to pursue the good. Virtues are values internalised and lived in everyday life. They are good merges with desire and habit. Virtues are holistic and character traits and accomplishments that are based on the belief, aspiration and practice toward excellence. Further, virtues defined as character strengths can be defined, measured and enhanced. Virtues are also the foundation for defining excellence in heightened future consciousness.

The evolving character virtues of heightened future consciousness are numerous. Lombardo introduced a long list of virtues like Self-Awareness, Self-Control and Self-Responsibility, Realistic Idealism, Self-Growth, Skill and Love of Learning etc.

### Be an optimist!

Psychological research seems to indicate, optimism and pessimism create self-fulfilling prophecies, and in this case, self-validating positions, in some sense regardless of "what actually happens."

Moreover, optimism is the preferable state of mind regarding the future. It is both more empowering and realistic than pessimism. We are smarter, more creative, and better able to realistically assess problems and solve them when in hopeful and emotionally positive states. Optimism toward further growth and development does not involve ignoring challenges and problems; optimism though does not emotionally and motivationally collapse in the face of the difficulties in life. Optimism is being able to see the opportunities for improvement and not just the roadblocks and looming disasters.

### Wisdom

Wisdom is the synthesis of the character virtues of heightened future consciousness. Wis-

dom is the personally internalised, continually evolving understanding of and fascination with both the big picture and personal dimensions of life. It deals with what is ethical and the desire and creative capacity to apply this understanding to enhance the well being of life, both for oneself and others.

Our preferable future of flourishing will be best realised through the exercise and development of wisdom. As a multi-faceted capacity or virtue, wisdom integrates intellect, creative imagination, emotion, motivational attitude, ethics, and behavior. Wisdom is not just number crunching; the selection of data that supports our mindsets reflects various psychological dispositions and commitments. Moreover, wisdom is a psychologically internalised virtue; the futurist part of us cannot and should not be divorced from the totality of our personality and character.

At the end of his presentation Dr. Lombardo proposed that the philosopher and science fiction writer, **Olaf Stapledon**, not only integrated and synthesised in his writings both science fiction and futures studies, but he was a great exemplar of the wise futurist. The personal and the intellectual came together within him. His visions of the future took the form of "wisdom narratives," chronicling with a sense of deep purpose in his writings, the psychological and social evolution of mind and society.

To answer the question asked in the beginning: "We create a good future, defined as flourishing in the flow of evolution, through the heightening of future consciousness, which is achieved by developing a core set of character virtues, most notably and centrally wisdom. Flourishing in the flow of evolution is the good future and wisdom is the means to realize it." ●

Text: Juha Kaskinen

### Ph.D. Thomas Lombardo

Director of the Center for Future Consciousness and The Wisdom Page, US.

Professor Emeritus and retired Faculty Chair of Psychology, Philosophy, and the Future at Rio Salado College.

Editorial Board Member of the Journal of Futures Studies and the World Future Review.

Professional member of the World Future Society and World Futures Studies Federation.

He has published six books and over fifty articles, and given numerous national and international presentations.





# Optimistic Warning "about the Potential and Limits of Foresight"



In her keynote lecture, **Kerstin Cuhls** discussed the potential and limits of foresight. The starting point was a situation that is familiar to foresight practitioners: there are high and increasing expectations concerning foresight and a proliferation of methods and terms. The aim of the lecture was to inject realism into this context and to provide an "optimistic warning" on the potential and limits of foresight.

Dr. Cuhls defines foresight as structured debate about complex futures. This debate involves interaction among (sometimes numerous) actors and it concerns a complex world with systemic interdependencies. When debating complex futures, we must be honest: we cannot know or control the future with certainty, but we may outline probable, possible and desirable futures as well as visions.

For Dr. Cuhls, the foresight process is a spiral with five phases: stocktaking, outlook, judgment, making choices and outcomes/action. Each stage produces results which feed into the next stages and at the end of one iteration, another cycle begins at a higher level. Crucially, foresight is a practical activity, and the question of translating knowledge into action needs to be considered from the beginning of the process.

## Potential of foresight

What can we do with foresight? Firstly, foresight gives a chance to prepare for foreseeable developments and to identify new developments, particularly slow ones which are difficult to perceive. Secondly, foresight enables organisations to clarify their objectives and to derive forward-looking strategies. Dr.

Cuhls emphasised that foresight should come before strategy, unlike in the expression 'strategic foresight'.

Foresight also teaches organisations to be systematic on the one hand but creative on the other, and to break the rules and leave mainstream thinking in search of new opportunities or problem solutions. Another key potential is the possibility of joining forces: bringing people with different roles, aims and visions together in foresight workshops to ask the right questions and formulate what might be lying ahead.

In addition, foresight helps to assess whether identified developments are genuinely new or whether they have simply not been on the organisation's radar.

## Limits of foresight

In addition to positive potential, Dr. Cuhls outlined several limits of foresight work. To begin with, there is a prediction limit: we may identify a trend curve, but we do not know when the curve may break. Mathematical models produce working material but they should not be blindly trusted. In addition, shaping the future is possible only to a limited extent, and societal development is much more difficult to identify and to shape than technological applications.

In terms of participation, everyone cannot be involved in foresight, and the most valuable participants may be too busy to participate. Furthermore, participation is often used only for legitimisation after decisions have been made.

As we all know, resources such as time, money, competences and capacities are scarce, and this is exacerbated if the foresight exercise suffers from too many or unclear objectives. On top of this, the complexity of systems is frequently neglected and experts tend to overestimate their ability to foresee developments. In reality, human cognitive capacity is

limited. Individuals have perception filters that bias their observations, and we are also constantly bombarded with information overload.

Combinations of foresight methods provide a broad variety of data, but at the same time multi-method research requires transfers and interfaces between methods. Even in a comprehensive foresight process, some 'unknown unknowns' or black swans are likely to remain, which brings us back to the notion that we cannot know or control the future in its entirety.

## Foresight as education and asking the right questions

Despite highlighting the very real limits of foresight, Dr. Cuhls ended the lecture on a high note by stressing the potential of foresight in educating, raising awareness and inducing action.

Dr. Cuhls conceptualised foresight as stepping out of daily business to dream and imagine possibilities. In many cases, our beliefs about limits are erroneous and many limits that we face today are not set in stone. Therefore often the best way to test limits is to change something and learn – first by thought experiments or even mental time travelling, then by trial and error – which perceived limits can be broken and which cannot. Mistakes become valuable learning opportunities.

The keynote lecture made it clear that foresight is no panacea for wicked problems. For Dr. Cuhls, one of the key benefits of foresight is learning to ask the right questions in the right way. The bottom line of the lecture was that foresight is not for couch potatoes. Our preferred future does not come looking for us. Instead we have to go out there and make the future real. ●

Text: Matti Minkinen

## Dr. Phil. Kerstin Cuhls

Scientific Manager at the Fraunhofer Institute for Systems and Innovation Research ISI, Germany (1992–).

Built up the Business Unit "Foresight and Futures Research" in the Competence Center "Innovation and Technology Management and Foresight", now called "Foresight" (2008–2010).

Interim Professor for Japanology at the Centre for East Asian Studies, University of Heidelberg (2011–2012).

Lectures on e.g. foresight, priority-setting and the combination of methods, innovations in Japan, implications of demographic change, time concepts etc.



# The Need for a New Economic Logic



In his keynote speech, **Anders Wijkman** concentrated on the urgent demand for a new economic logic through specifying the dilemma between the conventional growth and the nature, stating the social challenges initiated by the development of disruptive technologies, calling for a re-thinking of the economics, and advocating a circular or performance economy.

Anders Wijkman opened his speech by stating the challenges resided within the current economic logic, that is the infinite extraction of energy and materials from the Earth, decreasing job opportunities induced by digitation and IT revolution, and the growing disparities in wealth and income. Such are the critical phenomena that posed the threat to the nature and the sustainable growth of the economy.

## Conventional growth on collision course with the Nature

Mr. Wijkman presented that from 2010 to 2012, China consumed as much cement as the United States did during the 20<sup>th</sup> century to lift around 200 to 300 million people out of poverty. He pointed out that the conventional growth was positive for poverty reduction, but the question was whether it was sustainable. Since the advent of the industrial revolution in the 18<sup>th</sup> century, a huge amount of natural resource has been extracted and depleted, resulting in the decline of the ecosystem, and the exacerbation of the global climate. As early as the 1970s, the collapse scenarios under the business as usual was seriously discussed and

reflected in the book 'The Limits to Growth'. According to the 5<sup>th</sup> annual report of the Intergovernmental Panel on Climate Change (IPCC), the global climate is on track for 3–4°C of warming, and the extreme weather conditions will become stronger. In the report, it is stated that in order to control the global warming speed within 2°C, the global greenhouse gas emission should be reduced by 5% per year.

## Social challenges

Meanwhile, Mr. Wijkman put forward that in addition to the natural challenges, social challenges were equally important and serious under the current economic logic. Disruptive technologies, in particular, offer endless new services at lower or no cost, and meanwhile drive the significant improvement in productivity. However, with the digitation of the economy, despite new jobs being created, a vast number of jobs are disappearing. The net loss is substantial. In the current economic circumstances, the youth unemployment rate has reached 15% in two thirds of the developed countries, and the disparity in wealth is widening. It is reported that in the United States, there were approximated 20% of income that fell into the pocket of the 1% of the richest in 1981–2012.

## To rethink the economics

In the presentation, Mr. Wijkman stated that the purpose of the economy should be reconsidered. He emphasized that social sustainability should be the goal by respecting the planetary boundaries, while in the current economic logic, the growth of the economy had been centered on disregarding the distinction between the quantity and the quality

of the wealth created. He furthered that the economic theory by itself would not lead to a transition to a sustainable economy, but a robust political discourse based on the principles of sustainability, that is to say, the principles of intra- and inter-generational equity and the planetary boundaries.

Mr. Wijkman ended his presentation by stressing that we should be aiming to transform our economic system into a circular or performance economy. The products should be manufactured to last longer. The components and materials applied can be reused, recycled and reconditioned so as to increase resource efficiency. More jobs should be created through embracing service economy in terms of the maintenance and repair industry. Furthermore, a systematic tax reform should be carried out. The levy should be lowered on labor, but increased on the use of the nature. Meanwhile, heavy tax should be imposed on the waste incineration, and value added tax should not be levied on recycled materials. ●

Text: Yuan Qi

Keynote presentations:  
[www.futuresconference.fi/2015](http://www.futuresconference.fi/2015)



## Co-President Anders Wijkman

Co-President of the Club of Rome.

Chairman of the Swedish Association of Recycling Industries.

Senior Advisor to the Stockholm Environment Institute.

Chair of the Swedish Cross-Party Committee on Environmental Objectives.

Member of the European Parliament (1999–2009).

Assistant Secretary-General of the United Nations and Policy Director of UNDP (1995–1997).

Secretary General of the Swedish Red Cross (1979–1988).

Wijkman is a member of the Swedish Royal Academy of Sciences, the World Future Council and the International Resources Panel. He is honorary doctor at Linköping University (2011). His most recent book "Bankrupting Nature" (co-author Johan Rockström) was published in 2012.





# Massive Transition Necessary to Fight the Seneca Cliff – Counting the Human Factor



An Italian physicist now in the University of Florence in Italy, **Ugo Bardi** explains: “I try to see the motion of the economic system as a physical system”, and the audience carefully listens. Trained as a physicist, today Bardi is especially interested in resource depletion, system dynamics modeling, climate science and renewable energy.

## Witnessing consumption-driven environmental change in Italy

Ugo Bardi recalls how in Sardinia in the 1950s people used to make a living from fishing. Now, when he visits the village of Stintino, people are asking where the fish are. Commercial harvesting is conducted with trawlers and fishing lines that scrape the bottom of the sea – to collect also fish of no commercial value. “It is like bulldozing the countryside to harvest squirrels”, Bardi cynically quotes **Sylvia Earle**, the famous American marine biologist.

In many seas, increased demand leads to overfishing. Unsurprisingly, Mediterranean marine fish now feature regularly in the IUCN Red List of threatened species. “Give man a fish, and he will eat for one day. Teach a man how to fish, and he will deplete the ocean”, he describes the impact of the market failure.

Based on scientific findings about the health of aquatic ecosystems, conservationist organisations today regularly educate consumers about the sustainability of fish species.

When buying fish from the supermarket, customers can increasingly often find labels such as MSC (Marine Stewardship Council) and ASC (Aquaculture Stewardship Council), also in Finland, to ensure that their fish have at least been caught in a manner that causes minimal harm to other sea life.

## Dangerous trends and possible tipping points of climate change

Bardi is equally keen to discuss the massive task to mitigate climate change. Limiting global warming to 2°C degrees is a challenge. Energy-intensive lifestyles and economic growth are continuously increasing the global demand of primary energy.

For achieving “a great transition”, Bardi suggests the scaling up of renewable energy, which includes new energy plants and systems. At this early stage of the transition, fossil fuels would still have to be used. At the same time while the renewables sector would be let to grow planning to phase out fossil fuels needs to begin.

Time is a major constraint for achieving this: “We should cut emissions 10% per year, each year, and the economic system wants to grow the GDP”.

Bardi’s argument follows the thinking of environmental economists, who are well aware of the urge of decoupling economic growth from the increase of CO<sub>2</sub> emissions. Like **Lord Nicholas Stern** suggested already a decade ago in his landmark report – acting sooner is far less costly, than repairing the damage afterwards, if it is at all possible.

In ecology, Ugo Bardi calls ecological tipping points Seneca cliffs. The Ancient Roman philosopher **Seneca** argued that gradual increase or continuous growth is a trend that may be followed by an unexpected downturn.

Analogically, a stark reminder of a shock in a globally interconnected system are the dire economic times in Europe whose origins can be traced to the U.S. sub-prime crisis, which took place already in 2007.

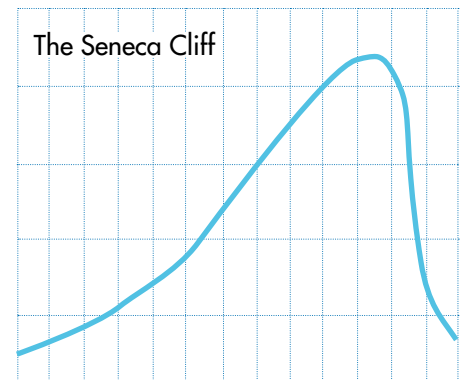
## Human mind to envision new investments and new infrastructure

While these remarks could be interpreted as extremely pessimistic, one could also find joy in discovering new interconnected logics. Tackling climate change is a major opportunity that addresses all human and economic activity.

“We are talking about increases in the rate of investment to renewables that are 10 or 20 times higher than now”, Bardi suggests.

With growing awareness, one could imagine investment patterns well changing in the coming years to better internalize the risk of investing in fossil fuels.

Large amounts of new infrastructure will be constructed around the world in the coming decades to serve future citizens. This includes energy generation, buildings, roads and new services. Entire value chains and economic



Time

*Named after the ancient Roman philosopher, Seneca Cliff suggests that the path of growth is typically slow, but the road to ruin is rapid.*

structures will be put under scrutiny in finding new ways of operating.

Achieving such a transition is not merely a technical or economic challenge, but also “one for the human mind”. Values and behavioural change can identify needs and articulate wants that our system currently does not address.

In the era of Anthropocene, the human factor is both the cause and the solution. ●

*Text: Joni Karjalainen*

## Professor Ugo Bardi

Professor at the Department of Earth Sciences at the University of Firenze, Italy.  
Member of the Club of Rome.

Member of the Scientific Committee of the Association for the Study of Peak Oil (ASPO).

Bardi’s research interests include mineral resources, renewable energy, and system dynamics applied to economics. His articles have appeared on The Oil Drum, Resilience (formerly The Energy Bulletin), Financial Sense, and Cassandra’s Legacy. His previous books include e.g. a report to the Club of Rome: “Extracted – How the Quest for Mineral Wealth Is Plundering the Planet” (Chelsea Green, 2014) and “The Limits to Growth Revisited” (Springer, 2011).



# Deeply Transformational Futures – “New Consciousness” with 100% Renewable Energy in 2050



**Sirkka Heinonen**, Research Director at the Finland Futures Research Centre, highlighted futures research she's leading as part of the “NEO-CARBON ENERGY” project, seeking technological pathways toward global 100% renewable energy futures.

The attempted “grand theory of futures” is concerned with change and transformation said Sirkka Heinonen in her keynote speech. She presented the foresight work her research team at FFRC Helsinki Office is conducting for the ambitious Tekes “Neo-Carbon Energy” project. Transformational scenarios are constructed through participatory and experimental methods, including the FFRC's own Futures Clinique. Heinonen discussed the Neo-Carbon Energy Scenario “New Consciousness”, the most radical of the project's four transformational futures.

## Making the transformational even more transformational

In Futures Studies, we are realizing that deep transformations are needed to address wicked problems. Futurists are concerned with the whole system, not just its parts. This is especially true in our relationships to each other and nature.

Building from **Jim Dator's** “four generic futures”– Growth (business as usual), Discipline, Collapse and Transformational – the NEO-CARBON futures research features four scenarios, classified as transformational. They all start with the goal of a 100% renewable world energy system in 2050. The scenario, deepest in such transformation, is “New Consciousness,” a future where ecological wisdom is deeply internalized culturally.

## The Rhizomes of knowledge

Heinonen is utilizing novel combinations of methods and forms of knowledge creation to develop the NEO-CARBON scenarios. She pointed to how the **Gilles Deleuze** and **Félix Guattari's** rhizomatic model of knowledge creation based on non-hierarchical sharing and creation can be useful in explaining and anticipating unexpected outcomes. If the world could be understood as a rhizomatic system, we might capture complexity better.

## Can anything grow without limits?

Does change always need to imply growth? Heinonen asks. Conventional growth wastes energy and resources, endangering the species of Earth. But de-growth is also a trap. Heinonen advocates Professor **Pentti Malaska's** concept of Neo-Growth in which progress should be adjusted to the limits of growth, but

not opposed as such. She also points out that there are no limits to learning or to increasing our futures consciousness. At the societal level, Neo-Growth could help us reestablish a holistic vision of growth. We can merge economy with social, cultural and spiritual growth. Neo-Growth serves as a sustainable basis for the Neo-Carbon scenarios, all based on renewable energy and storage via absorbing carbon into synthetic natural gas.

## Transforming futures research methods

Heinonen combines developing futures consciousness to experimenting with new futures research methods. She told the audience it is important to renew methodology and try approaches not typically used. She gave the example of the experimental Causal Layered Analysis (CLA) Game session held the previous day with **Sohail Inayatullah** where groups immersed themselves in the Neo-Carbon scenarios in order to find the scenario's metaphor from the perspective of a new character.

## Collapse before transformation

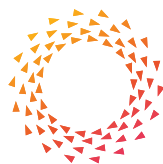
In the “New Consciousness” scenario, people have deep and meaningful relationships

to nature and each other while technology, and especially technology convergence, is in harmony with the global ecosystem. However, the pathway to this scenario includes many small conflicts which accumulate into geopolitical energy WWII, causing broad systemic collapse. Sometimes we need to be forced to learn through an existential threat, Heinonen observes. She asked if this scenario really requires a catastrophe? Or could it be achieved through consciousness transformation?

## BAU as the most dangerous thing

In concluding her talk, Heinonen reminded the audience that business as usual is the most dangerous thing. Deep futures consciousness, bold desirable vision with a concrete strategy is needed to make transformation happen. To conclude she quoted **Buckminster Fuller**: “You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete.” ●

Text: Nick Balcom Raleigh



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## NEO-CARBON ENERGY project

appeared in eight instances at Futures Conference 2015, including Heinonen's keynote speech and the CLA Game, as well as her presentations with **Jerome Glenn** and Professor **Christian Breyer**.

As part of the project, this video on a Neo-Carbon Energy Futures Clinique was released on-line:

<https://youtu.be/wcRuTnNYMqI>



## Professor Sirkka Heinonen

Sirkka Heinonen is Professor and Research Director at Finland Futures Research Centre. She is also president of the Finland Society for Futures Studies, co-chair of the Helsinki Node of the Millennium Project, and Member of the Club of Rome.

Her most recent publication is “Future of the Internet as a Rhizomatic Revolution toward a Digital Meanings Society”, a chapter in the forthcoming book *The Future Internet – Alternative Visions* edited by **Jenifer Winter** and **Ryota Ono** (Springer 2015).



# Futures Research, Education and Action Encountered in Several Different Conference Sessions



The call was open in this conference to traditional scientific presentations and posters, but organisers also encouraged authors to send proposals for more innovative, participatory and performative ways of presenting.

The conference program consisted of several different kinds of interactive sessions. Researchers, students, artists, entrepreneurs and decision-makers shared and elaborated ideas on how to construct the future together, discover opportunities and solve wicked problems.

During the two day conference, altogether 119 presentations were held in the 15 thematic sessions. There were 260 participants from 33 countries, covering all the continents of the world.

The main themes of the sessions were:

1. Philosophy of Futures Studies
2. Methodology
3. Futures Education and Learning
4. Studies on Futures Research
5. Evolving Identity of Futures Research
6. Futures Movement and New Creative Cultures

## Pre-session on future consciousness

A round table discussion was organised prior to the conference on the 10<sup>th</sup> of June. It gathered together 15 participants interested in future consciousness and its implications. The aim was to explore the issue from multiple perspectives in an informal and interacting atmosphere.

The round table was facilitated by **Leena Jokinen** and **Johanna Ollila** (FFRC). The ethics and the purpose of futures consciousness and research were the topics that gained a lot of discussion. Also, recognizing and paying attention to the role of emotions and power relations within decision making was highlighted. Or, as one of the participants put it: "In most of the academia, you do not dare to say your opinion but as a futurist we should make statements and say our opinions."

## Significant efforts made on methodological issues of futures research

The largest session during the conference was undoubtedly the one dealing with methodological issues. It was jointly organised and chaired by Dr. **Osmo Kuusi** (Finland), Dr. **Kerstin Cuhls** (Germany) and Dr. **Karlheinz Steinmüller** (Germany).

The motivation behind the session was the debate among the futures researchers to set standards and quality criteria to evaluate scientific futures research, different from practically oriented or consultative futures work.

On the other hand futures research uses and further-develops methods from other sciences. There is a need to improve evaluation and scientific relevance of the methodology adopted to and developed in futures research.

The theme of Methodology was divided into six sub sessions: Introduction, Critical assessments of the futures research methodology, Methodological challenges of participatory futures research, Methods for security focused futures research, Methodological challenges in business foresight and Methodological challenges of regional differences.

There were 20 presented papers in these sub sessions. One of the challenges was to discuss and compare quality criteria used in each presented case. A collection of articles from the methodology session will be published in the European Journal of Futures Research (EJFR) to enlighten the debate around quality criteria and standard issues.

## Arts as means to shape futures

The Arts session consisted of four different workshops where art based methods were explored as means of knowledge production and shaping futures. The first workshop 'Scenario gaming: An interactive workshop', led by **Cornelia Daheim** (Future Impacts Consulting, Germany) and **Hazel Salminen** (Finnish Society for Futures Studies, Finland), explored how scenario gaming and improvisation theatre could be used to increase the "experience factor" in foresight.

The three other workshops were tutored by students of University of the Arts Helsinki, Finland. Students used for example movement, observing, painting and discussing for broadening the mindset of the participants in order to gain new answers to the old questions. Arts based methods are very useful for opening up people's mind to the new ways of thinking. These methods are especially applicable when hierarchical structures, that many times can repress innovative thinking have to be broken down. A short compilation of the video documentation is available on the FFRC's Youtube channel: [www.youtube.com/user/finlandfutures](http://www.youtube.com/user/finlandfutures).

## The Causal Layer Analysis Game probes scenarios from multiple viewpoints

An exceptional and experimental CLA Game was developed and presented in one of the sessions by Professor **Sirkka Heinonen** (FFRC) and Professor **Sohail Inayatullah** (Taiwan/Australia). The game investigated causal layers of four transformational scenarios, which are part of the NEO-CARBON ENERGY project, a Tekes strategic research opening.

The game's 41 participants were split into five groups, each exploring a scenario via tasks connected to the CLA layers of litany, system, worldview, and myth/metaphor. Par-

Session presentations:  
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ticipants selected a predefined role (e.g. synthetic biologist, transhumanist, or CEO of a multinational corporation) or created a new role they wanted to play. The participants ultimately came up with a metaphor or myth for their roles in each scenario. Groups dynamically presented their scenarios in character, each participant describing the scenario from their role's perspective.

FFRC plans to continue developing the CLA Game. Contact **Juho Ruotsalainen** ([juho.ruotsalainen@utu.fi](mailto:juho.ruotsalainen@utu.fi)) if you would like to participate in the development. ●



# Summer School 2015: Futures Studies Tackling Wicked Problems with Creativity and Wisdom



This year's summer school "Futures Studies Tackling Wicked Problems with Creativity and Wisdom" was already the 14<sup>th</sup> Finland Futures Academy's annual summer school in a row.

Our summer school is a concept where futures oriented students meet the futures research community in a scientific conference and participate in lessons and exercises tailored just for them during one summery week somewhere in Finland, and have a memorable time. At least so they always report back when they return their reflective learning diaries, says Education Coordinator and the mastermind of the concept **Hanna-Kaisa Aalto** from Finland Futures Academy. – It is still rare to invite students as full members to the community instead of using them as trainees.

## Different complementary perspectives

This year we had an interesting combination of science fiction and academic quality criteria in futures studies. Dr. **Thomas Lombardo** from Center for Future Consciousness (US) lead students through the fascinating history of science fiction under title "Science Fiction: The Evolutionary Mythology of the Future". His day was thought provoking in many ways and one has to admit how the media, movies and literature play a large part in shaping the future – consciously or subconsciously.

The second day of summer school was almost opposite to the eloquent world of scifi. Students had a chance to spend a day with Dr. **Kerstin Cuhls**, CC Foresight, The Fraunhofer Institute for Systems and Innovation Research ISI (Germany), one of the leading experts on foresight in Europe. She told students about quality criteria in futures research and how to apply quality criteria. Summer school participants analysed a large number of foresight reports with a fine-tooth comb and were surprised how beauty can be only skin-deep. The new polished lenses gave students a good start to actively follow the futures conference and be constructively critical.

The summer school is a common effort from scholars to students

The summer school topics, themes and exercises have varied according to the theme of the annual conference. Students have tested e.g. in futures simulations, role playing, participated in futures workshops, tested modelling and tried quantitative methods in practice.

The futurist community has always been happy to give lectures and carry out exercises with FFA's bright students for free. Now is a good chance to thank them warmly. The students and the network of the FFA appreciate it sincerely! ●

See a list of summer school topics below. More information can be found at

[www.futuresconference.fi](http://www.futuresconference.fi)

- 2015 Futures Studies Tackling Wicked Problems with creativity and wisdom
- 2014 Sustainable Futures in a Changing Climate
- 2013 Basic Human Needs in Futures Studies?
- 2012 Utopias and Dystopias in Futures Studies
- 2011 Trends and Future of Sustainable Development
- 2010 Security in Futures – Security in Change
- 2009 Future of the Consumer Society
- 2008 Grasping the Future – a Challenge for Learning and Innovation
- 2007 Culture as Innovation – the Search for Creative Power in Economies and Societies
- 2006 Changing Foresight Practices in Regional Development – Global Pressures and Regional Possibilities
- 2005 Foresight Management in Corporations and Public Organisations – New Visions for Sustainability
- 2004 Towards sustainable futures – Tools and strategies
- 2003 Environmental Scanning and International Futures simulation
- 2002 Envisioning and Soft Systems Methodology



**Finland Futures Academy (FFA)** is a network of ten Finnish universities. It was established in 1998 to promote and coordinate academic futures education in Finland. The network is coordinated by the Finland Futures Research Centre at the University of Turku. Some of the courses are offered in co-operation with foreign universities and other research partners. FFA is an example of successfully implemented network project. It has had over 8 000 students participating its courses.

The FFA's futures studies courses are available for undergraduate and postgraduate students at Finnish member universities, including exchange students. Courses can be taken as individual study modules or as a tailored study programme of 25 ECTS credits, and can be included in a master's degree or postgraduate studies. Futures studies courses are based on a blended learning model, consisting of learning methods such as collaborative and independent studying, distance education with virtual learning tools, and traditional lectures.

[www.tvanet.fi/en](http://www.tvanet.fi/en)

ffa



Finland Futures Academy



# Confluence of Technologies Redefining Work – Previewing Millennium Project’s **Future of Work and Technology 2050** Study at Foresight Friday



**Jerome C. Glenn**, director of the Millennium Project, presented early findings from the think tank’s latest Delphi study on the future of technology and work 2050 describing the coming, never-before seen unleashing of human creativity.

The Finland Prime Minister’s Office held Foresight Friday as a special session at the conference featuring Jerome C. Glenn who presented early findings from a Millennium Project study on the future of technology and work in 2050. Chief Senior Specialist **Ulla Rosenström** from the Prime Minister’s Office chaired the session. This special Foresight Friday was organized through the cooperation of the Prime Minister’s Office, the Helsinki Node of the Millennium Project, and the Finnish Society for Futures Studies.

Glenn described a future of never-before seen levels of human creativity. The study picked the brains of 400 participants selected by the 56 Millennium Project nodes through a Real-Time Delphi. Finland had the 2<sup>nd</sup> most participants per population. The web-streamed presentation was followed by online and in-real-life audience questions (see video at [www.youtube.com/watch?v=\\_ILjIM\\_arXc](http://www.youtube.com/watch?v=_ILjIM_arXc)).

## Technology will replace jobs

RT Delphi respondents generally agreed that technology will put humans out of the job – 24 percent of the world population will be unemployed in 2050. It’s enough for world insta-

bility. And, study respondents generally agree that the concept of work, jobs, employment will change.

Glenn points out that if long-term structural unemployment is inevitable, we will need new concepts of work and possibly even a guaranteed income for all – a concept generally supported by study participants. Glenn suggests that in 2050, assuming a guaranteed income is in place, our value in life will no longer be defined by working for others – the new “work” will become self-actualization and following our curiosities.

## Billions of augmented super geniuses will unleash great human creativity

The confluence of General or Super Artificial Intelligence, AI that can respond to a network of feedback from around the world, with other technologies will lead to the ability to augment our own minds. Glenn makes an analogy with wearing glasses – today it’s common to wear glasses to correct your vision, in 2050 it could be just as common to use technology to make yourself into a genius.

The analogy Glenn draws is to the “leisurely priestly caste of Egypt”, except for in 2050 there could be 9.6 billion augmented super geniuses networked together. These super geniuses may take on new megaprojects together such as saving the human species or solve other important problems.

## But, wait...

Glenn’s presentation provoked many questions in the audience of approximately 70. Ques-

tions included: What kind of governance will general AI need to protect humans from this new species? If work is tied to virtue now, what happens in a world where we don’t work? How open is this future? What will be the cost of products? What are the limits to this technology? What can it not do? What are the biggest challenges facing us regarding big data? And how will big data affect ordinary citizenship?

## What’s next?

Five steps remain in this study, including opportunities for nations to host workshops about the first draft of the report and another round of RT Delphi. Foresight Europe Network (FEN), the new network of Millennium Project European Nodes, convened right after the conference to discuss this effort among other initiatives. ●

Text: Nick Balcom Raleigh

## Jerome C. Glenn

The co-founder and director of the Millennium Project ([www.millennium-project.org](http://www.millennium-project.org)). Glenn has over 35 years of futures research experience working for governments, international organizations, and private industry. He was the Washington, DC representative for the United Nations University as executive director of the American Council for the UNU 1988–2007.

He has co-authored the State of the Future report, tracking 15 global challenges, for last 12 years and published 100s of papers in

*Professor Sirkka Heinonen (Finland Futures Research Centre), Ulla Rosenström (The Finland Prime Minister’s Office) and Jerome C. Glenn (The Millennium Project).*



**Foresight Friday** is a series of foresight presentations, discussions, and training opportunities intended to help connect foresight practitioners in Finland and around the world.

Visit Foresight Friday on the web at [foresightfriday.fi](http://foresightfriday.fi) or search social media for hashtag [#foresightfriday](https://twitter.com/foresightfriday).



# The First Eleonora Barbieri Masini Seminar Celebrated the Outstanding 'Mother of Futures Studies'



*"I was seeking the reasons and dynamics of change."*

— A Future with Dignity by Eleonora Barbieri Masini in *Futures*, 1996.

Since October 1970 when the conference on 'Challenges from the Future' was held in Kyoto, Japan, Professor **Eleonora Barbieri Masini** (Italy), has been an active explorer, world traveller, researcher, teacher, leading reviewer, advocate and organizer of futures studies nationally, regionally and internationally. Working on multiple tasks and responsibilities, Professor Masini was elected President of World Futures Studies Federation (WFSF) in 1981 and she held this position until 1990 when Professor **Pentti Malaska** (Finland) succeeded her.

As the first female president of the WFSF, she was able to work on many important issues creatively, and she has had a particular interest on women and the next generations worldwide. She has been honoured by her research colleagues and peers to be *the Mother of Futures Studies* and later in Spanish also *Alma de los Estudios de los Futuros*.

## Highlighting a distinguished career

"The relationship that women have with children and the young is undoubtedly a very important role for women in and for the future. In examining the role of women in building the future, we can describe women as a) contributors to the economic structures; b) carriers of a specific mode of participation in politics; c) builders of an alternative future, and d) as having an indirect influence on the future through the new generations." (Masini in *Futures*, Feb. 1989)

These Professor Masini's words were an inspiration in organizing a seminar in June 2015. During the previous FFRC futures conference in 2014, Professor **Ivana Milojevic** (WFSF), Dr. **Maya van Leemput** (WFSF), Dr. **Åsa Svenfelt** (KTH Royal Institute of Technology) and Ms. **Leena-Maija Laurén** (FFRC) were considering the opportunities to take up issues on women and futures in the next conference. With nine months of content planning in co-operation with Professor Masini, the seminar was created.

*Professor Eleonora Barbieri Masini's lecture "Women and Futures" and her interview with Ms. Francesca Allievi were recorded in April 2015 in Rome. The recordings can be viewed on the FFRC's Youtube channel: [www.youtube.com/user/finlandfutures](http://www.youtube.com/user/finlandfutures).*



## Venue on the waves of the Baltic Sea

"Women and Futures" was the title of the 1<sup>st</sup> International Eleonora Masini Seminar to invite participants to discuss issues from the writings and teachings of Masini as well as their own research work. The pre-conference event took place on the Baltic Sea on board M/S Viking Grace on June 10, 2015.

Dr. **Wendy L. Schultz** as the Acting President for the WFSF had the opening address followed by the introductions by Ms. **Natalie Dian** of the WFSF team (Sweden/USA) and a lecture on the life story and perspective of Eleonora Barbieri Masini.

Special greetings to the seminar were presented in the recorded message of Professor Masini, an interview with doctoral futures student, Ms. **Francesca Allievi**.

Sustainable conference travel and the afternoon programme started with the Viking Line Expert Speaker, Mr. **Kari Granberg** on sustainable solutions on the first in the world NLG-driven passenger ship, followed by a round table and open source technology discussions.

## Intercultural seminar with lively discussions on women and futures

The 25 participants represented 18 countries; there were also ten men attending the event. The round table presentations by Dr. **Mei-Mei Song** (Taiwan), Dr. **Jens Schütze** (Germany), Dr. **Tatiana Bernal Sánchez** (Colombia) and

Dr. **Guillermina Baena Paz** together with Ms. **Alethia Montero** (Mexico) touched the following topical issues areas: Women in STEM in Asia and Europe; Building a FuturesLab in Latin America; and the UNESCO funded LEA-LA project with a special method "Forward Theater" which offers training for women in a Mexican prison.

The four topics chosen in the open source technologies session group were presented by Dr. **Patrick Corsi** (Belgium), Mr. **Norbert Kolos** (Poland) and Ms. **Marta Botta** (Australia/Slovenia). Finally, the two afternoon session groups met to "cross the waves on the Baltic Sea" for final results, and to crystallize interests for the common futures.

International and special greetings from the Baltic Sea seminar to Rome, Italy were performed by a singer-songwriter, Mr. **Mikael Jokila** (Finland) who dedicated his song *Niño del Mundo* to Professor Eleonora Barbieri Masini.

Dr. Wendy L. Schultz chaired the truly interactive and intercultural seminar, and together with the participants she concluded the discussions and learnings from the contributions. It was agreed that the FFRC and the WFSF organizing teams collect ideas for future forward-looking seminars on Women and Futures. ●

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# Anita Rubin – a Futures Visionary, Educational Enthusiast and an Inspiring Spirit



Adjunct Professor, Dr. **Anita Rubin** was truly a pioneer of futures studies, both in Finland and in the world. Her work was highly significant for both futures studies as a discipline and as a work community. She was one of the original visionaries who brought the discipline of futures studies to Finland.

Anita Rubin's contribution to the discipline extended beyond research and teaching: she was active in many of the central institutions of the futures community, such as Finland Futures Research Centre and the Finnish Society for Futures Studies. She joined the World Futures Studies Federation (WFSF) during the year 1987 and acted as a Member of the Executive Board and in various practical activities of the Federation.

During her visit to Finland this June Vice-President of the WFSF, Dr. **Wendy Schultz** remembered Anita and her character: "First of all, her scientific contributions: she was an amazing researcher, working with her on projects was always a privilege because she had a fantastic sense of humour, amazing, insightful mind and certainly she was one of the people again in the futures community globally who had this particular focus on women, children and people who quite frequently get ignored in some of the grand visions about the future. So I value her for that. But the other thing is that essentially she was one of the kindest, sweetest, funniest people – such a pleasure to have spend time with her."

## Constantly fighting for better futures

Anita's contribution to futures education in Finland was irreplaceable. She worked tirelessly in teaching courses, giving lectures and exams as well as supervising Master's and Doctoral theses at the University of Turku and other universities around Finland. Being an excellent teacher she was also demanding in expecting a scientific approach from her students. Hundreds of students, tens of graduates and post-graduates and a number of colleagues were affected and inspired by her enthusiasm and wisdom.

Anita had the ability and courage to look at institutions also with a critical eye: learning, education and research shouldn't be confined within the walls of educational institutions or universities but open for all. She was passionate about learning and dedicated to explore and promote new ways of learning and teaching.

Besides her scientific approach, Anita was active in promoting futures thinking in the society at large. Active citizenship and participation in society both in small and large scale was

## Dr. Anita Rubin (1952–2015)

Doctor of Social Sciences in 2000 from University of Turku (Sociology)

*Doctoral dissertation: Rubin, Anita (2000) Growing up in Social Transition: In Search of a Late-modern Identity. Annales Universitatis Turkuensis, Series B, Tom. 234, Humaniora. University of Turku, Turku, 204 p.*

Adjunct Professor in Futures Education; University of Turku, 2002–

Researcher, Senior Researcher, Project Manager, Advisor; Finland Futures Research Centre, 1992–

Senior Researcher; Otava Folk High School Co-Operative Society, 2013–

Co-ordinated over 100 futures workshops on various issues. Published over 50 research reports and articles in scientific books and journals; author of five books; co-author of two books; co-editor of three books. Over 30 papers in scientific conferences and seminars.



*"Anita was the first person I met in Dubrovnik and she put her heart into futures. I was invited to be Secretary General (of the WFSF) and she was of course assisting Pentti Malaska and she just facilitated a smooth transition. Anita melts your heart, that's what I remember of her."*

**Cesar Villanueva**

Director – Futures Course Development of the WFSF, The Philippines

*"I'll always carry a little of her with me, especially when it's raining. When I was here (in Turku) in I think about 2001–2002 on a Fulbright, there was one point when my raincoat had caught on something and it tore on the back. I came in the office looking very sad and she instantly said 'I can fix that'. So I gave her my raincoat and said that I was so grateful. When I came back from my visit home during the Christmas time, she came to me and said: 'Here's your raincoat'. And it was all stitched up. I still have that raincoat and every time I wear it I think: Thank you*

*Anita: stitching up great thoughts, great futures – and my raincoat!"*

**Wendy L. Schultz**

Vice-President of the WFSF, United Kingdom

*"How sad – Anita always stood to defend the weaker people", was the first remark which I got back after I sent the sad news for co-workers and our partners. It was so true, that it stopped me completely in that moment."*

**Jere Rinne**

Managing Director, Otava Folk High School Co-Operative Society, Finland

*"She was a unique individual, but also polyphonic just like the many futures, which she enthusiastically talked about. She was an uncompromising scientist, participating citizen, contemplative Orthodox and, above all – a good neighbor and a friend."*

**Hannu Linturi**

Director, Metodix Ltd, Finland

something she encouraged people into: where all contributions in better futures matter. She was worried about the signs of inequality in society and used her futures expertise in changing this development.

## Empowering those who are underprivileged

The will to help and empower the weak was also a big reason why Anita worked her last years in Otava Folk High School Co-Operative Society, in a small co-operative instead of a university or a big corporation.

Managing Director for the Co-Operative Society, Mr. **Jere Rinne** says that Anita experienced that with a less administrative work, she can better use her future research expertise e.g. with NGO's and civil movements, and in such a way she was able to help more people and the society.

– For her colleagues in the Otava Folk High School Co-Operative Society and Otava Folk High School her choice was a clear message that the work done there is meaningful and important since everyone knew Anita's wisdom and her scientific merits, Jere Rinne continues.

The last weeks in the hospital were not gentle for her. But instead of bewailing she decided to use her time to co-write and collaborate on yet another big project application. And yes, the project was about giving voice and empowering those who are underprivileged.

She passed away in Turku on Maundy Thursday, April 2, 2015 after a long battle with illness. Anita Rubin was – and still is – a big motivator for her friends and colleagues in Finland and around the world. ●

*Text: Johanna Ollila*

#### The Conference organisers would like to thank the following supporters:

- Foundation for Economic Education, [www.lsr.fi/en](http://www.lsr.fi/en)
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## Turku and Taipei Deepen Co-operation in Futures Studies

Turku School of Economics at the University of Turku and Tamkang University in Taipei, Taiwan are deepening their co-operation in futures studies. The universities signed a Memorandum of Understanding (MOU) during the futures conference in June. The agreement will strengthen student and teacher exchanges between the two universities. The collaboration in futures studies between the universities has been longstanding. For example, for four years now the 'How Can we Explore the Future?' course has been jointly planned and implemented. Read more at [www.tvanet.fi](http://www.tvanet.fi).

*The MOU was signed during our futures conference. Rector **Kalervo Väänänen** (University of Turku), Associate Professor and Director **Kuo-Hua Chen** (Tamkang University) and Professor **Sirkka Heinonen**.*



## World Futures Studies Federation (WFSF)

WFSF is a UNESCO and UN consultative partner and global NGO with members in over 60 countries. It brings together academics, researchers, practitioners, students and futures-focused institutions. WFSF offers a forum for stimulation, exploration and exchange of ideas, visions, and plans for alternative futures, through long-term, big-picture thinking and radical change.

WFSF invites you to join them in the organisations efforts to promote futures thinking as a way to anticipate and respond to the complexity and scale of global challenges. Read more about the WFSF at [www.wfsf.org](http://www.wfsf.org).

*The WFSF power duo behind organising the conference in co-operation with the Finland Futures Research Centre: **Natalie Dian** (Sweden) and **Annie Ferguson** (New Zealand).*



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### The Finland Futures Research Centre

is a department at the Turku School of Economics, University of Turku.

The FFRC specialises in futures research and foresight. It refines visionary knowledge regarding alternative futures and the challenges and possibilities included in them.

The FFRC has offices in Turku, Helsinki and Tampere, and employs around 50 experts.

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