



Futures thinking and strategy transformation
CAUSAL LAYERED ANALYSIS

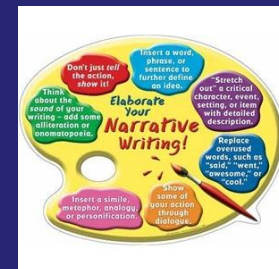
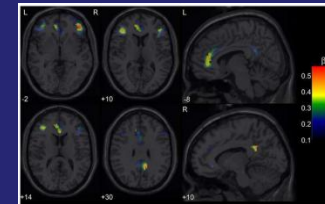
Sohail Inayatullah

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Executive Education, Macquarie
University, Sunshine Coast University

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Learning and the Future

- Zero Loop – overwhelmed
- Single Loop – take away
- Double Loop – outside of paradigm learning, entering the unknown
- Narrative learning, finding and creating your story and archetype



Structure of Presentation

- Futures thinking
- The genealogical context of CLA
- Conceptual framework
- Case studies
- Linked to scenarios
- The narrative transformation
- CLA applied to the self



- The future is not an empty space but like the past an active aspect of the present

- Professor Ivana Milojevic

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- The future is an asset, a resource and a narrative to be employed.



See the world differently



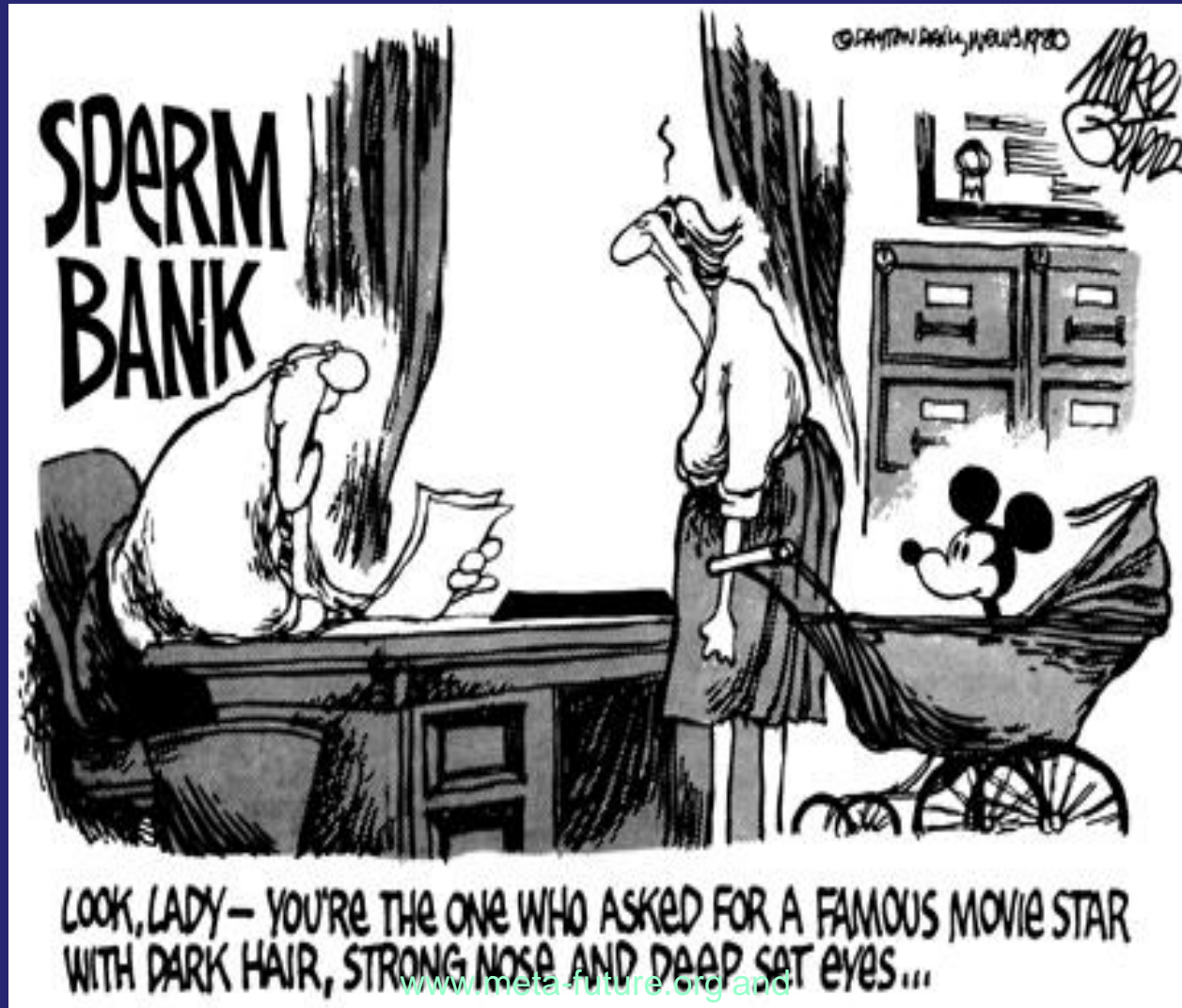
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See both worlds



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Critical assumptions



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Joan of Arc and Noah

getting space and time wrong

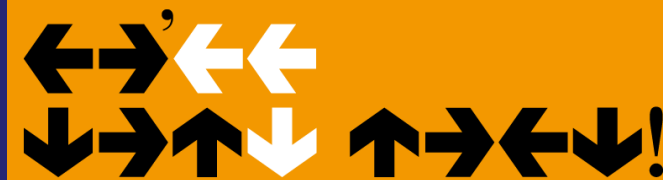
12% of Americans believe Joan of Arc was Noah's wife



44% believe that the earth was created in a week somewhere between 6000 and 10000 years ago.



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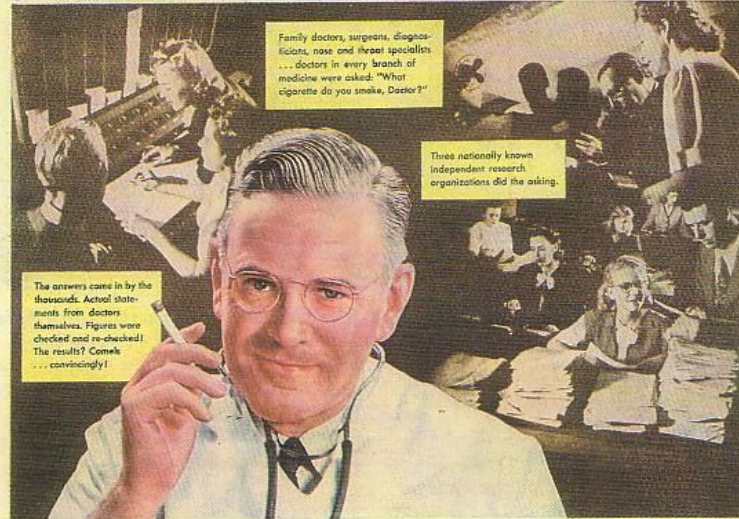


MAPPING THE FUTURE CHANGING IMAGES OF THE FUTURE

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Changing futures

113,597 DOCTORS FROM COAST TO COAST WERE ASKED!



Family doctors, surgeons, diagnosticians, nose and throat specialists ... doctors in every branch of medicine were asked: "What cigarette do you smoke, Doctor?"

Three nationally known independent research organizations did the asking.

The answers came in by the thousands. Actual statements from doctors themselves. Figures were checked and re-checked! The results? Camels ... convincingly!

According to this recent Nationwide survey:

MORE DOCTORS SMOKE CAMELS THAN ANY OTHER CIGARETTE!

This is no casual claim. It's an actual fact. Based on the statements of doctors themselves to three nationally known independent research organizations.

THE QUESTION was very simple. One that you...any smoker... might ask a doctor: "What cigarette do you smoke, Doctor?"

After all, doctors are human too. Like you, they smoke for pleasure. Their taste, like yours, enjoys the pleasing flavor of costlier tobaccos. Their throats too appreciate a cool mildness.

And more doctors named Camels than any other cigarette! If you are a Camel smoker, this preference for Camels among physicians and surgeons will not surprise you. But if you are not now smoking Camels, by all means try them. Compare them critically in your "T-Zone" (see right).

CAMEL-COSTLIER TOBACCO

THE "T-ZONE" TEST WILL TELL YOU

The "T-Zone" - T for taste and T for throat - is your own private proof for any cigarette. Only your taste and throat can decide which cigarette tastes best to you... how it affects your throat. On the basis of the experience of many, many millions of smokers, we believe Camels will win your "T-Zone" as a "T".



takes about double the time it took to smoke it off the end of their lives.

People who sue tobacco companies find themselves the focus of wider public discourses about the intertwined themes

Trust me, I'm a tobacco industry stooge: a 1956 US magazine ad sends a reassuring message to Camel smokers.

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Changing images, changing demographics



Thirty-four percent of Victoria GPs have trained in meditation and seventy-seven believe it should be federally funded. Eighty percent of Australian gps have referred patients to complementary medicine.

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Geomedicine and health

- Do you live near fast food restaurants
- Chances of strokes go up (association)
- Rise of geo-medicine





PHOTO COURTESY OF THE NATIONAL GLACIER SOCIETY. THE PHOTOGRAPH ABOVE WAS TAKEN AT THE PERITOCHI-GARABALDI GLACIER, PERITOCHI GLECH, MOUNT ST. HELMS, ALASKA.

EACH DAY HUMBLE SUPPLIES ENOUGH **ENERGY** TO MELT 7 MILLION TONS OF GLACIER!

This giant glacier has remained unmelted for centuries. Yet, the petroleum energy Humble supplies—it converted into heat—could melt it at the rate of 80 tons each second! To meet the nation's growing need for energy, Humble has applied science to nature's resources to become America's Leading Energy Company. Working wonders with oil through research, Humble provides energy in many forms—to help heat our homes, power our transportation, and to furnish industry with a great variety of versatile chemicals. Stop at a Humble station for new Enco Extra gasoline, and see why the "Happy Motoring" Sign is the World's Most Famous.

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HUMBLE
OIL & REFINING COMPANY
America's Leading Energy Company



Give animal property rights and protect biodiversity



Should animals have property rights?

No, that's absurd.

Animals are things and can't have rights. 46%

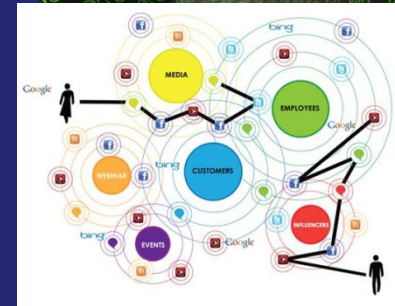
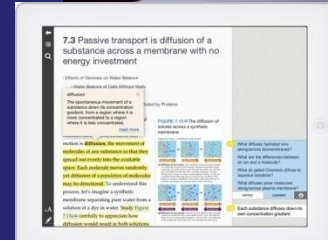
Yes, It's about time we treated animals as sentient beings. 54%

Whanganui river granted personhood by Government of New Zealand



Waves of change

1. Climate change and in-vitro meat
2. The Intelligent text book
3. Big data and predictive policing and preventive health – the bots
4. The challenge to the vertical, and peer to peer networks – citizen everything
5. Meditation, bliss and enhanced economic productivity



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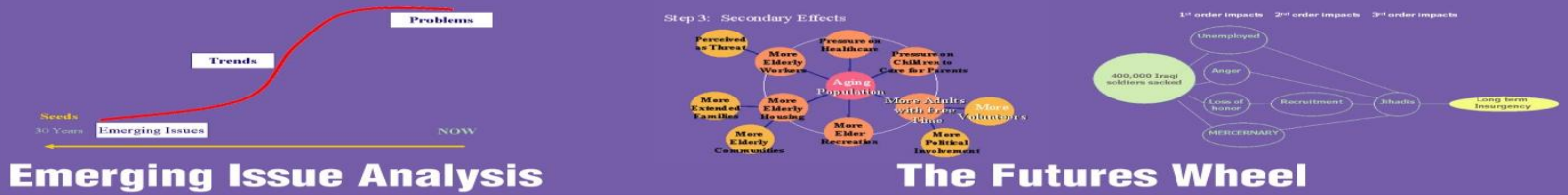
FUTURES STUDIES

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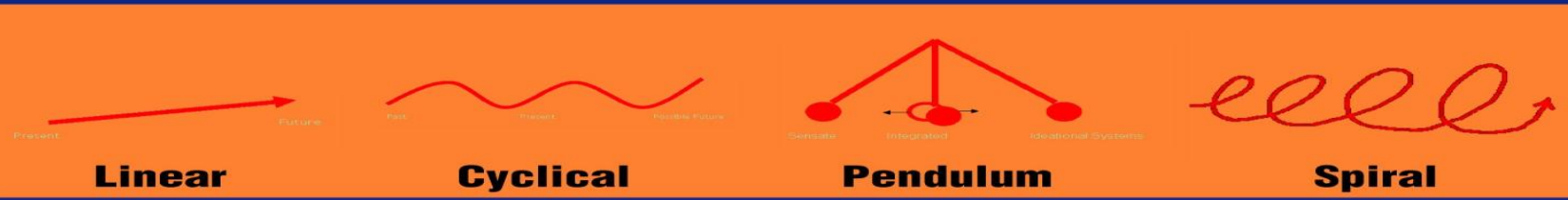
MAPPING



ANTICIPATING



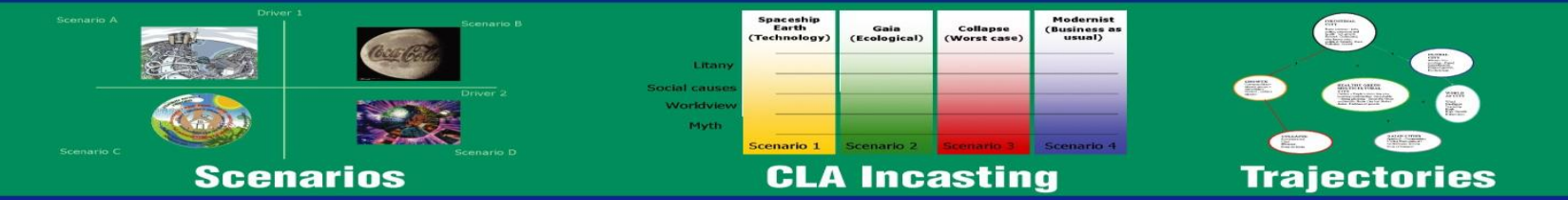
TIMING



DEEPENING



CREATING ALTERNATIVES



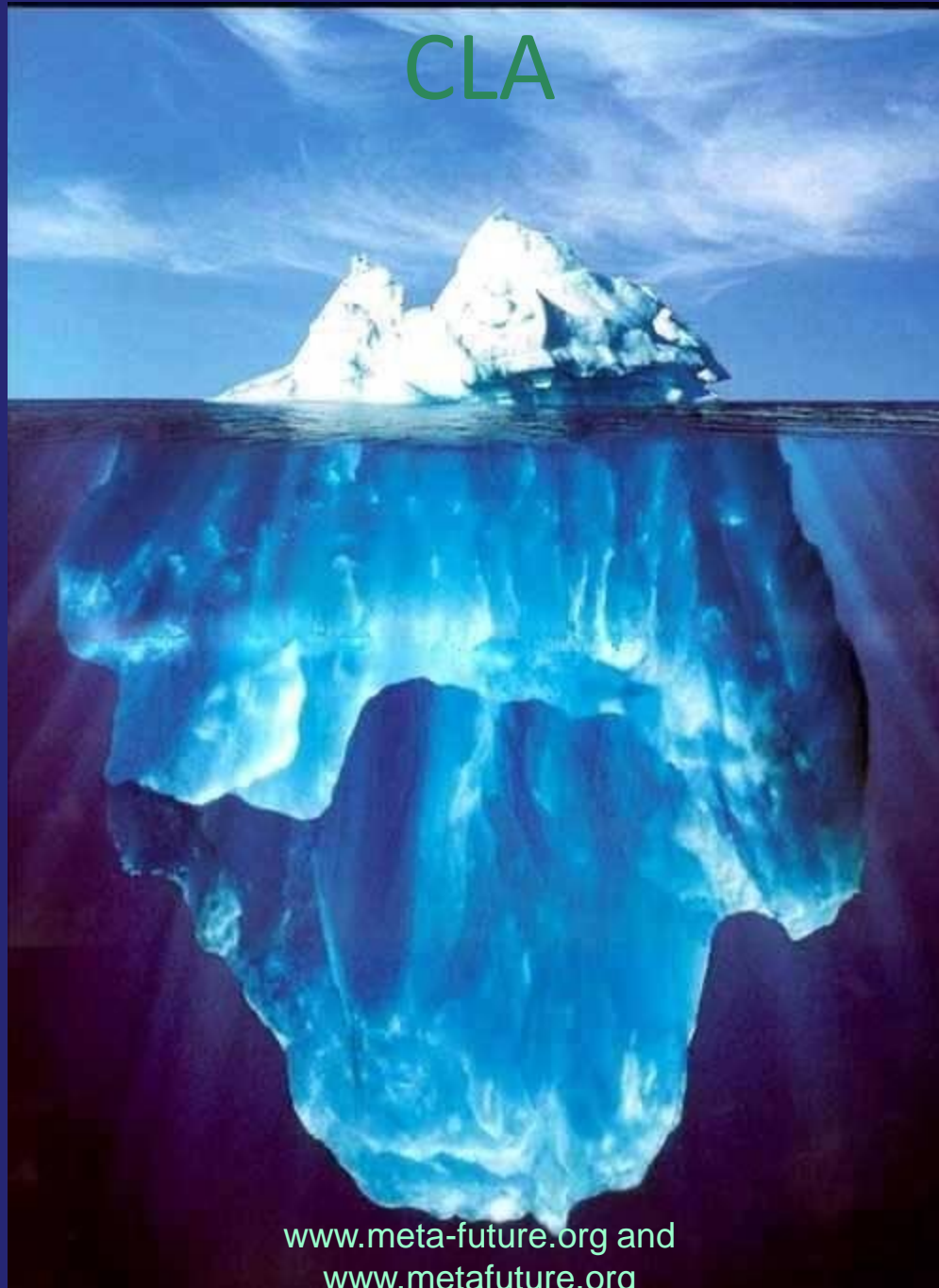
TRANSFORMING



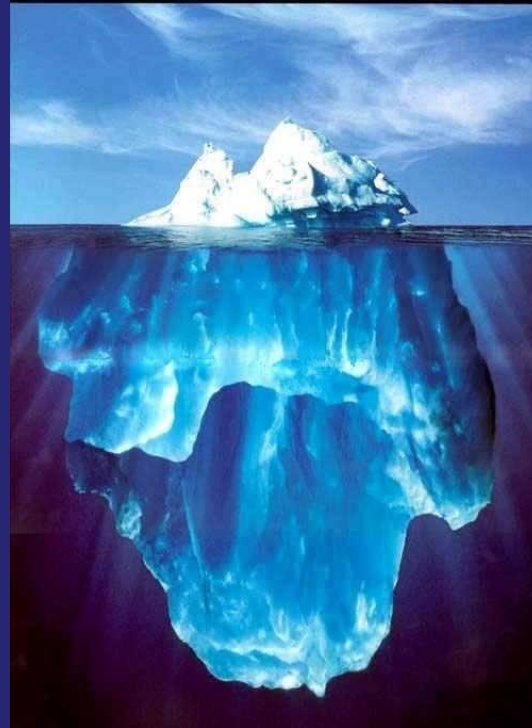
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CLA



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GENEALOGICAL CONTEXT

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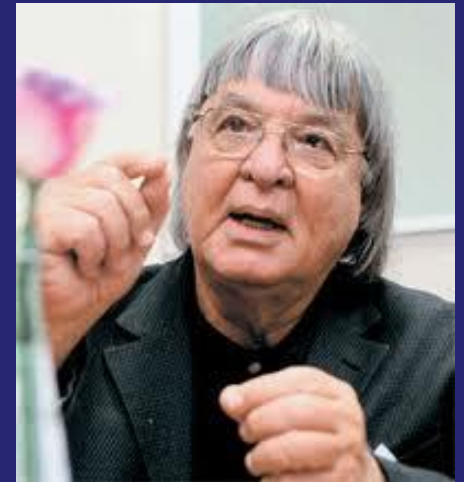
Genealogical context

- From PR. Sarkar and the Indian episteme – the notion of depth, instead of focusing on truth or falsehood, on shallow and depth.
- Satya, that which benefit, not just rta, the facts



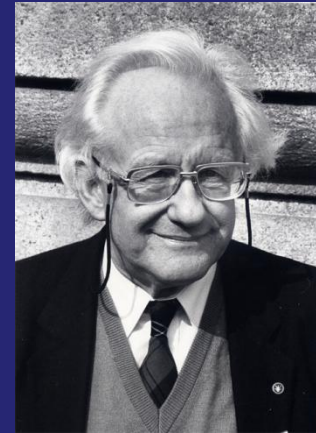
Context

- From James Dator, methodology is an experiment, a hypothesis.
- Futures research is to explore alternative futures
- Go with what works - pragmatism



Context

- From Johan Galtung, structure is deeper than persons. Structure is person-invariant.
- Deeper are civilizations and their epistemological codes



Violence

Structural
Violence

Civilizational and
Epistemological
Violence



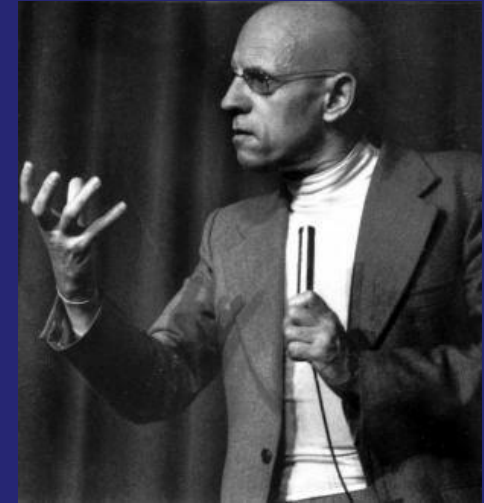
Context

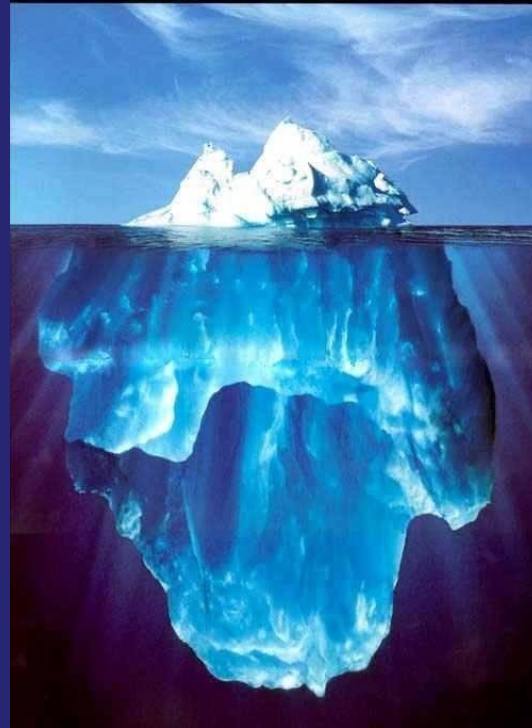
- William Irwin Thompson and Joseph Campbell
- Deeper than rational selves are mythologies.
- Myths story us us.



Context

- From Michel Foucault and Michael Shapiro
- Locates the study of the future within critical theory
- The present is the victory of a particular discourse over other possibilities
- Scenarios distance us from the present, making the present remarkable
- Futures studies intends then to challenge conventional assumptions about time and power, creating spaces for agency

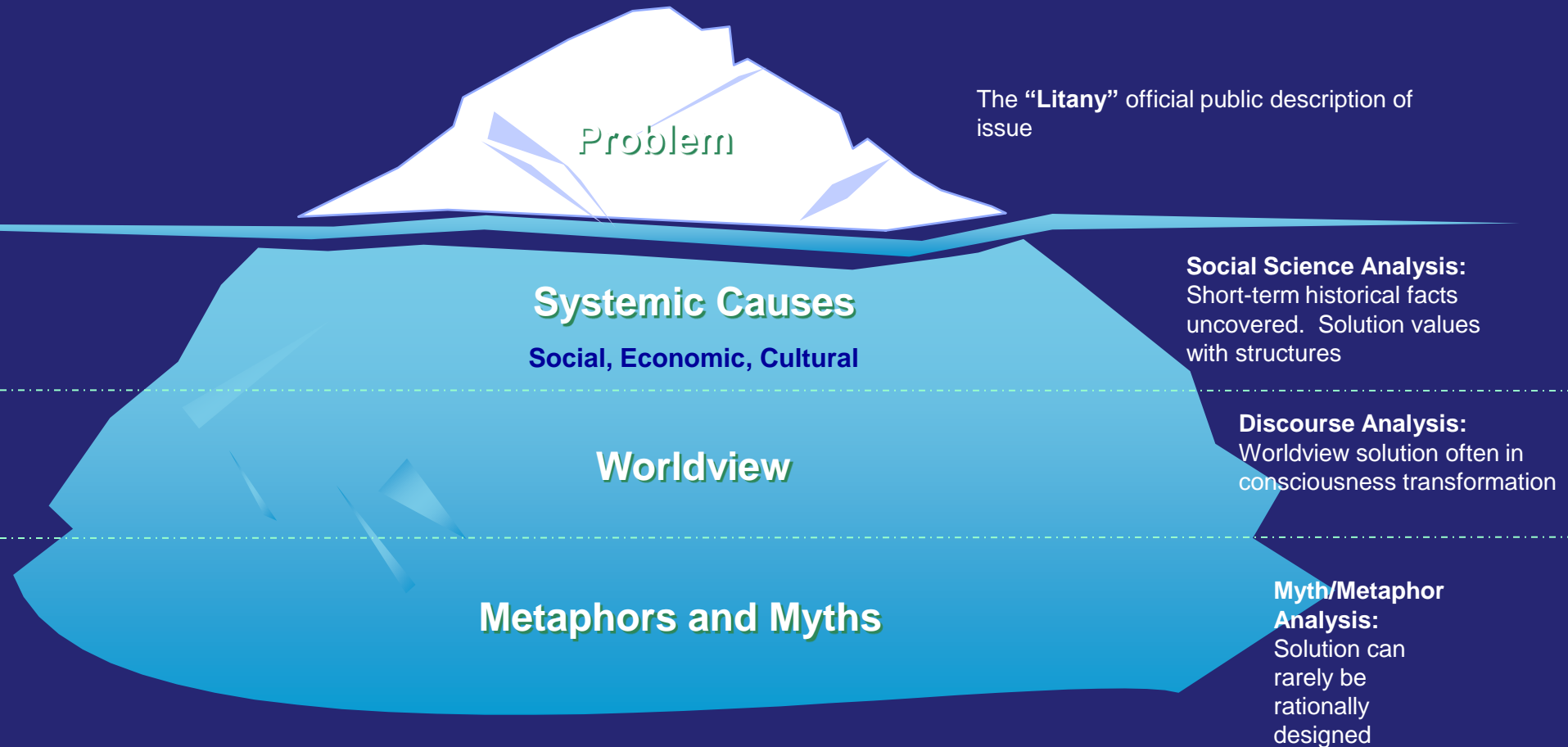




CONCEPTUAL FRAMEWORK

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Causal Layered Analysis



- **Litany:**
 - visible
 - disconnected news events
- **Systemic:**
 - social, technological, economic, environmental and political causes
- **Discourses:**
 - stakeholders
 - ideologies
 - worldviews
- **Myths-metaphors:**
 - stories
 - legends
 - myths of trauma and transcendence

Causal Layered Analysis

Level	Issue / Problem	Solution	Who is responsible to fix it	Source
Litany (Visible)	Problem seems too difficult to solve	Short term approaches	Governments / I cant do anything about it	Television/ Newspapers
Systemic (Causes)	Problem because of short term historical factors or it is a process or system issue	Integrated approaches – systemic solutions	Partnerships between sectors of society – Government plus industries	Policy Journals, editorials
Worldview	Constituted by frame of analysis, deep structures of belief & assumption	Transform, rethink self and others, change paradigm	Writers, philosophers, those outside the dominant language	Peripheral journals,
Myth / Metaphor	Constituted core myths / stories	Alternative stories	Collective unconscious often guided by visions	Work of artists, visionaries,

Systemic risks

- However, “the failure was to see how collectively this added up to a series of interconnected imbalances over which no single authority had jurisdiction”.
- “In summary, your majesty”, the authors conclude, “the failure to foresee the timing, extent and severity of the crisis and to head it off ... was principally a failure of the collective imagination of many bright people, both in this country and internationally, to understand the risks to the system as a whole.”



- Letter to the Queen of England by leading economists and constitutional experts why no one saw the GFC coming.

The metaphorical transformation

- Narrative not linked to strategy or vision
- Culture eats strategy for breakfast
- Transform inner story and link it to vision-strategy



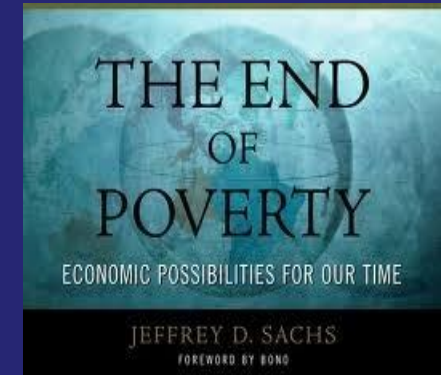
Metaphors and crime

CRIME DATA PRESENTED REMAINS THE SAME WITH EACH METAPHOR

Catching and jailing criminals



Education and ending poverty



Crime as a beast



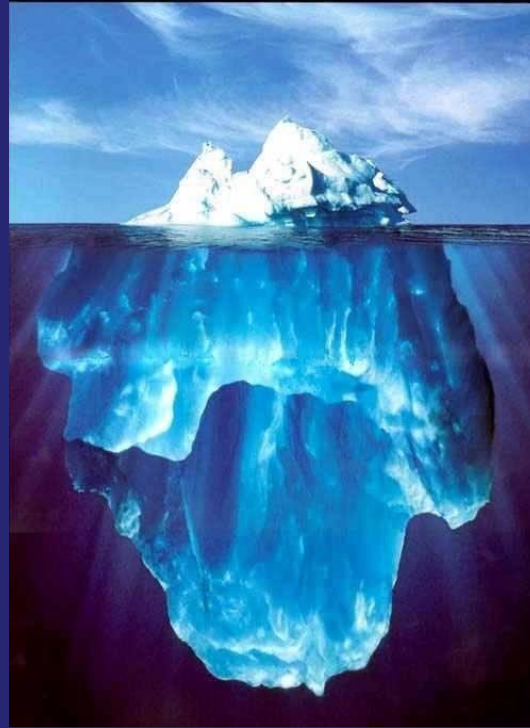
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Crime as a virus



Advantages and uses of cla

- Analyses from multiple perspectives – creates a map of positions at all four layers. Helps move away from worldview blindness
- Deconstructs the dominant or business and usual understanding and then allows for a reconstruction of alternative futures
- Deconstructs the present and then reconstructs the preferred future
- Ensures that new narrative has accompanying new measures (litanies) as well as required system changes – can be used to ensure robustness of implementation strategy
- Identifies where are the resistors and resistances to change and what and where are the possibilities of transformation



CASE STUDIES

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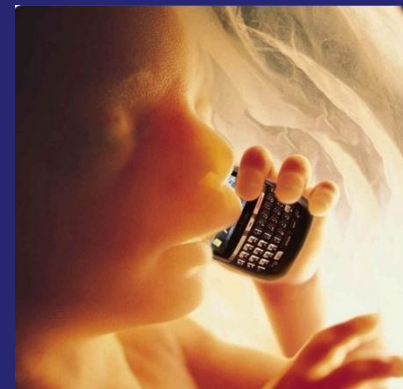
Old behavior dies hard – the used future



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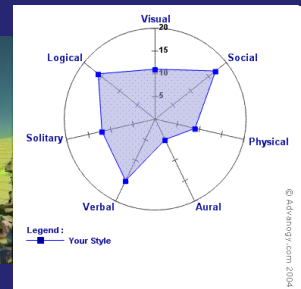
Challenge the “factory”

- Creating digital pedagogies with students as stakeholders instead only principal “in charge”
- Using gaming wisely
- Mobile phones/ipads in classrooms



Classroom to knowledge revolution

- **Computer in each school/Laptop for each child**
- **Systemic support**
 - 1 drop the pc off and run
 - 2 funding, servicing, cost, institutional support - keep them connected
 - 3 update, evolve
- **Pedagogy**
 - 1 Industrial bureaucratic learning
 - 2 Digital pedagogy
 - 3 markets
- **Myth and metaphor**
 - 1 technology as the silver bullet
 - 2 teachers make the difference
 - 3 we create technology, technology creates us
 4. We are all learners



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E-health Bangladesh –challenge the used future

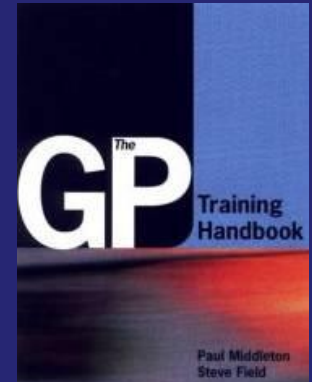
- Moving the data not the patient
- Using local technologies, community health workers
- Fly over and the leap-frog



CLA APPLIED

LITANY

Safety and quality



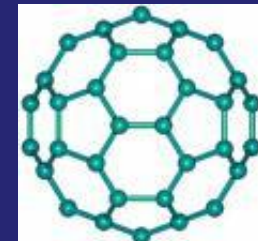
SYSTEMIC

Funding supports existing models and measurements



WORLDVIEWS

Paternalistic, hierarchical, science and evidence-based



MYTH AND METAPHOR

Minister knows best, doctor knows best, empower nurses, the patient will see you now.

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Medical errors in australia

- Up to 18% of medical errors occur as a result of inadequate availability of patient information.
- Almost two million Australians experience an adverse drug event each year and approximately 138,000 of these end up in hospital.
- 53% of medication mistakes are considered „definitely preventable“ and 30% of unplanned hospital admissions in those over 75 years have been associated with medication mistakes.
- Healthcare providers spend around 25% of their time collecting information rather than treating patients.
- It is estimated 8% of medical errors in Australia are due to inadequate patient information. Between 2% and 3% of hospital admissions in Australia are linked to medication errors. This equates to about 190,000 admissions a year, costing the health system \$660 million.
- According to an analysis by Booz and Company, the benefits of a comprehensive e-health system could save between 5000 and 10,000 lives by 2020 by reducing medical errors.

The Checklist

- In December, 2006, the Keystone Initiative published its findings in a landmark article in *The New England Journal of Medicine*. Within the first three months of the project, the infection rate in Michigan's I.C.U.s decreased by sixty-six per cent. The typical I.C.U.—including the ones at Sinai-Grace Hospital—cut its quarterly infection rate to zero.
- In the Keystone Initiative's first eighteen months, the hospitals saved an **estimated hundred and seventy-five million dollars** in costs and more than **fifteen hundred lives**. The successes have been sustained for almost four years—all because of a stupid little checklist.






CLA applied to health policy

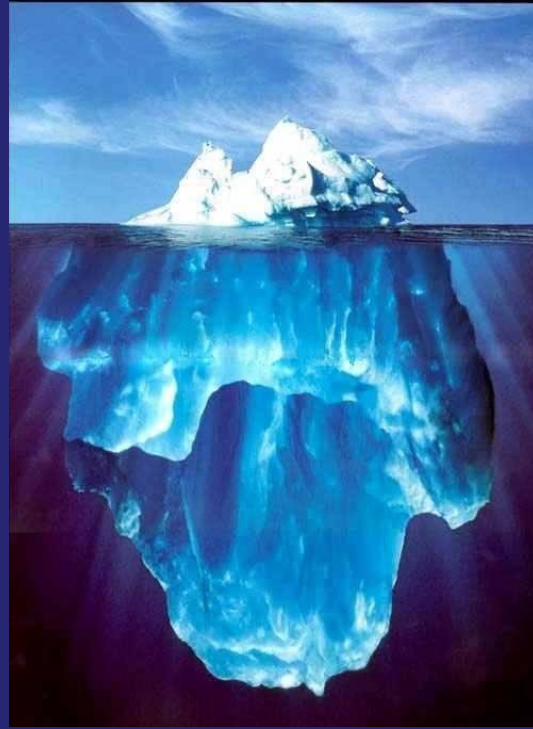
Health futures	I	II	III	IV
Litany (Visible)	Medical mistakes – so enhance gp training	All responsible for mistakes – No particular blame	No harm but generally blame western medicine and big pharma	
Systemic (Causes)	Problem is inefficiency and fragmentation Use smart cards to enhance efficiency in hospitals. Increase communication	Listening to all the actors in the system – dialogue and communication skills	Move to naturapathic, homeopathic and non-western system	
Worldview	Modern medicine Hierarchy Reductionist Evidence based	Change the structure of power –patient advocacy	Alternative medicine – energies, inner worlds	
Myth / Metaphor	Doctor is always right	Patient knows best	Listen to my body	

Cyber Crime	Government	Police	Corporations	General Public User	Privacy Advocates
Political Agenda (visible)	Political Agenda item, increasing threat to constituents, everyone wants to be a recognized player	Overwhelming increase in complaints, stretches resources	Threat to IP, police and government should do more	Youth do not care, general users do not feel all consequences at this time. Regaining identity is a time consumer	Corporations are collecting and government are seeking too much information
Systemic causes)	No net norms, no credible authentication, lack of cooperation in LEAs	Public and Corp are not using good security measures and too much info is on the internet	Poorly designed software and infrastructure. Weak government response to current threat	Government should do more to protect us, recover our lost money and software should be more secure but not inconvenient	Regardless of what government and corps do we believe you are collecting and want to collect too much information. Be more transparent
World View	Need to protect economic and state interests.	International collaboration on the threat.	It is past critical point of loss, need to catch up	I should be able to go anywhere I want and do whatever I want on the internet	Corporations are collecting and government are seeking too much information
Myth/Metaphor	New Terrorism, threat to our way of life	Journey to moon, do we have ten years?	We can not protect this new ecosystem alone www.meta-future.org and www.metaspore.org	See no evil, hear no evil, use the internet	Cyber crime is a fairy tale

Deconstructed From the view of public	Landcare declared story	Reconstructed The synthesis
Science isn't necessary	Our science is critical to make NZ 100% pure	Science is a key partner in the 100% journey
Communities often solve problems without direct application of science	Our science targets the most important questions and challenges	Partnership with with communities will lead to powerful change
Science is a self-serving luxury says the public	Science as an arbiter of what is and is not possible, say the scientists	Science as a community service. As a new synthesis
The self-obsessed professor	Build it and they will come www.meta-future.org and www.metafuture.org	The community library

From Regiment to Orchestra

	Deconstructed	Current Reality	Reconstructed
Litany	Student centered learning	Traditional teaching and learning is the best.	Holistic teaching and learning
Systemic	Learning outcome should not be predetermined Flexible learning	Rigid – one-way learning, lectures know best	Quality issues Assessment (self assessment and benchmarking) Recognition
Worldview	Democratic teaching and learning	Lecturers dominate teaching and learning	Creative partnerships between independent human beings
Metaphor	Tug-of-war between teaching and learning and other stakeholders 	One man shows Lecturer knows best 	The orchestra - in sync and in harmony 







LINKED TO SCENARIOS

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CLA Matrix with Scenarios

	Spaceship Earth (Technology)	Gaia (Ecological)	Collapse (Worst case)	Modernist (Business as usual)
Litany				
Systemic				
Worldview				
Myth				
	Scenario 1	Scenario 2	Scenario 3	Scenario 4



Ehealth scenarios Bangladesh	Leap frog	E-health car	Health Cloud	Sustainable public payment
Headline	Smart use of technology	Cost-effective digitalization	Every birth in Bangladesh is registered	Paying people to stay health
System	Integrated and interoperable universal ehealth	Total data capture, interoperable	Shared public utility cloud	Data collection and management for public disbursement
Worldview	Decentralized systemic governance	Individualized decentralized and personalized car	Universal right to health and information	Welfare-based model of public funds transfer
Metaphor	Flyover	E-health bus driving to a new future	Connectivity cloud	Raise the price of vice, lower the price of virtue
Image		 <p>www.metafuture.org and www.metafuture.org</p>		

MALAYSIA TEACHING AND LEARNING 2025

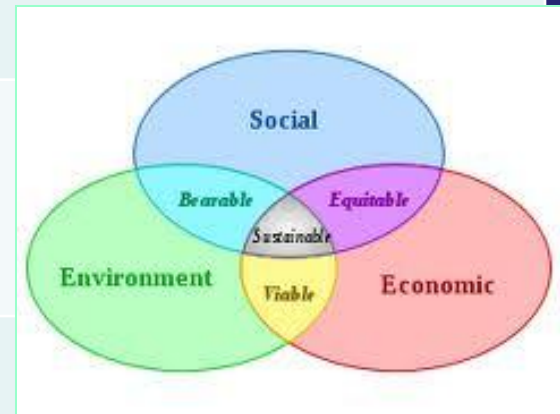
Clasificación

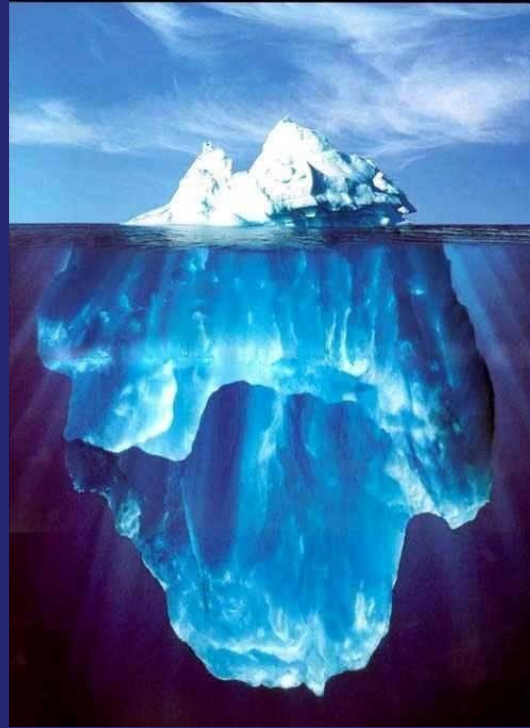
LECTURE	LEARNING FROM EVERYWHERE	SMART PEDAGOGY	WISDOM OF CHOICE
EXAM BASED	SELF-DIRECTED	PARTNERSHIPS	DIRECTED PARTNERSHIPS
CONFORMANCE AND CERTIFICATION	DEMOCRATIZATION	BLENDED LEARNING	WHOLESOME
FORCE FEED	EAT ALL YOU CAN (Ala Carte)	OMNIVORE	NUTRITIOUS BUFFET



Razak School of Government

Integrated	CSR UNIVERSITY
Data	Profit university donated to victims of Bangkok Flood
System	People, profit and planet
World view	Sustainable development
Metaphor	3 “A” Knowledge - Accessible Affordable Appropriate





THE NARRATIVE TRANSFORMATION

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The transformation: Link story to strategy

- Narrative not linked to strategy or vision
- Culture eats strategy for breakfast
- Transform inner story and link it to vision-strategy



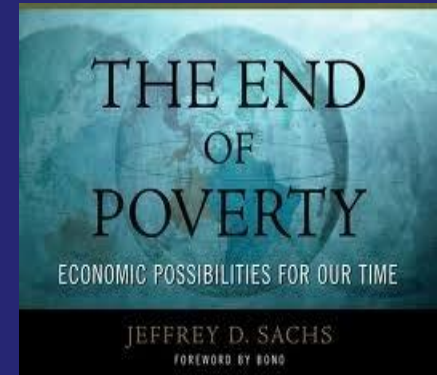
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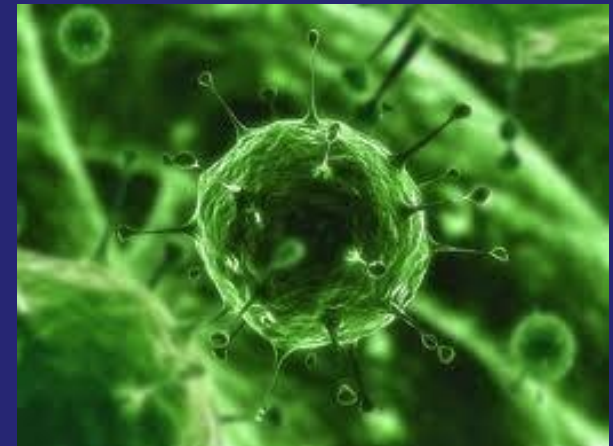


Crime as a beast



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Crime as a virus



The power of narrative - Welfare queen

“She has eighty names, thirty addresses, twelve Social Security cards and is collecting veteran's benefits on four non-existing deceased husbands. And she is collecting Social Security on her cards. She's got Medicaid, getting food stamps, and she is collecting welfare under each of her names. Her tax-free cash income is over \$150,000.”



Children overboard



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Castle surrounded by hungry wolves



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Re-script



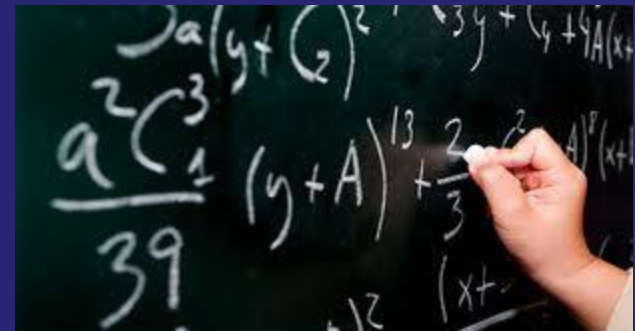
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STATISTICS NEW ZEALAND



Scorekeeper

Neutral – trusted by all
Reactive
Well-budgeted



Trusted expert

Advises all stakeholders
Shapes the future
Attentive to weak signals
of change
Re-measures the future

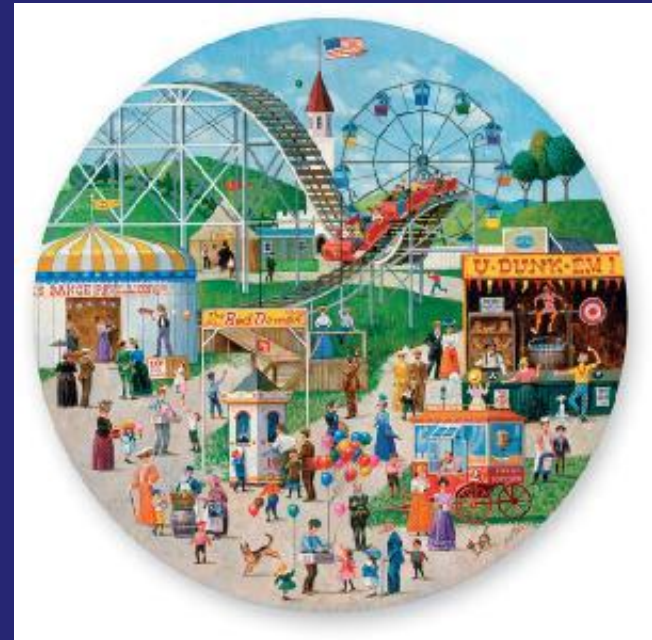
Create the narrative

From the merry go around to the fair ground

Same view – need for innovation



More choices



New Zealand animal health business



Big fish in small pond



Small fish in big pond



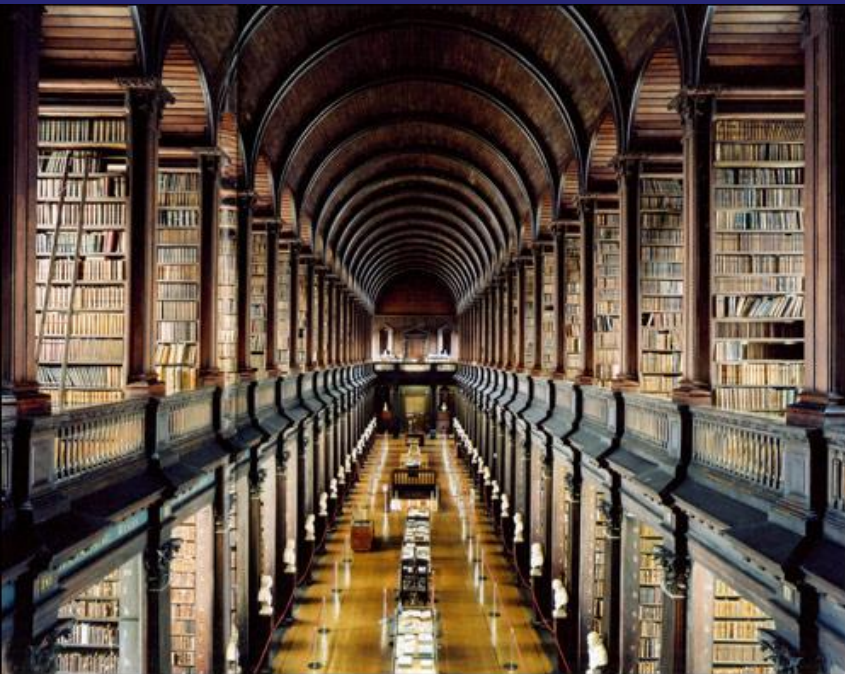
Swim in a school - alliances

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Super industry experts to educators



From the “collection” to the ecosystem of alternatives





Keeper of the collection



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Innovator of the gardens

Libraries in transition

- The book - one model
- Hierarchy 
- Physical
- equity 
- Multiple forms of knowledge
- Curation to co-curation
- Physical plus digital plus holograms plus 3d printing
- Equity and public space

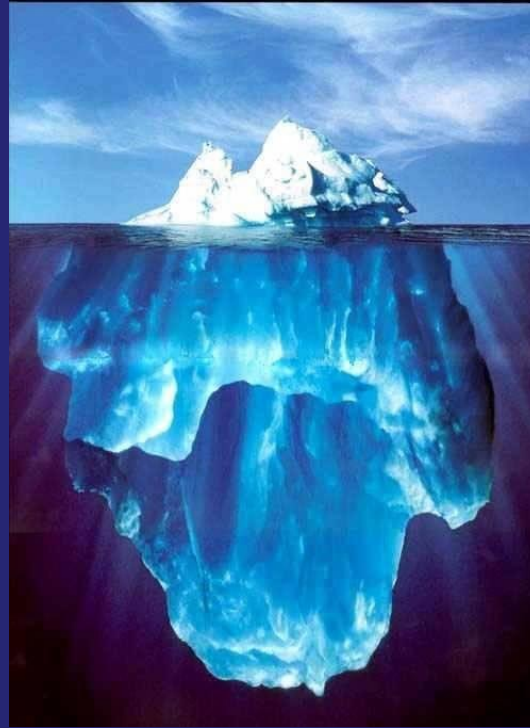
Rewriting the story



Mocneprice - www.mocneprice.com

– Who is afraid of the big bad wolf? Dr. Ivana Milojevic

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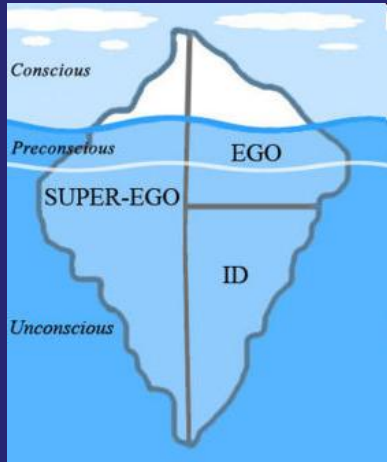
CLA APPLIED TO THE SELF

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CLA on the self

- How do I represent my self to others? which is the dominant voice in my mind?
- How do I organize my identities?
- Which worldviews do I use to map my personality: Freudian (ego, id, superego), Jung (conscious, unconscious and collective unconscious), Maslow (Hierarchy of needs and selves), Stones (community of selves), Sarkar (layers of self from physical to infinite)
- What are the stories I tell myself, the dominant metaphor I use to describe my identity (ies?)

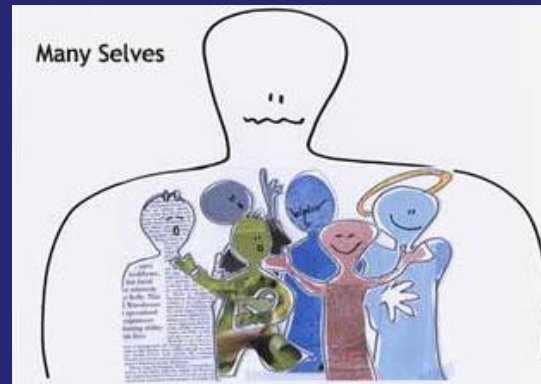
Maps of the self



Freud



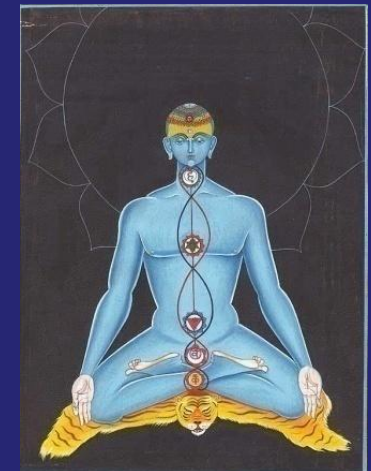
Maslow



Stone's



Jung



Sarkar

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Metaphors of the mind



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www.metafuture.org

Excellence, tennis player, in
one form – life transition –



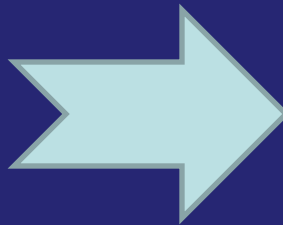
Excellence in multiple forms of
the game – grass, clay, hard
New skill sets needed



Keep the rally going
Fun of the game
Reintegrate the child
self

Becoming the
coach – next
horizon

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Taking care of everyone

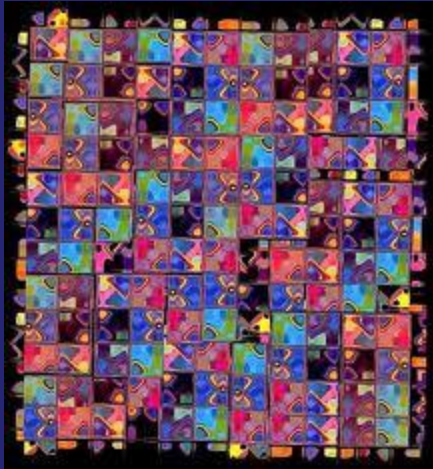
Angels with an attitude

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Superwoman to ordinary woman to special woman



- Making a tapestry and having it stolen



Becoming the tapestry



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