

Postformal Education

for Complex Futures of Uncertainty & Volatility

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Panel: Thinking about Higher Education in Times of Uncertainty & Change
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Higher Education in a **VUCA** World

1. 21st Century VUCA Challenges
2. Evolving Consciousness & Education
3. Postformal Education for Complex Futures

Higher Education in a VUCA World

Part 1. 21st Century VUCA Challenges

Higher Education in a VUCA World

WHAT IS VUCA?

Term coined by the US Defense Department in 1990.
Then taken up by Business world in leadership programs.

Volatile
Uncertain
Complex
Ambiguous

But how is Higher Education addressing VUCA?

Higher Education in a VUCA World

VUCA Challenges of the 21st Century

Volatile – Climate Emergency

Uncertain – Growing Inequality

Complex – Exponential Technology

Ambiguous – Living in a 'Post-Truth' World

Higher Education in a VUCA World

VUCA Challenges for 21st Century Higher Education

Volatile - **Climate Emergency** – How do we educate for this?

Uncertain - **Growing Inequality** – How do we counter this?

Complex - **Exponential Technology** – How to keep it human?

Ambiguous - **Post-Truth World** – How to educate for discernment?

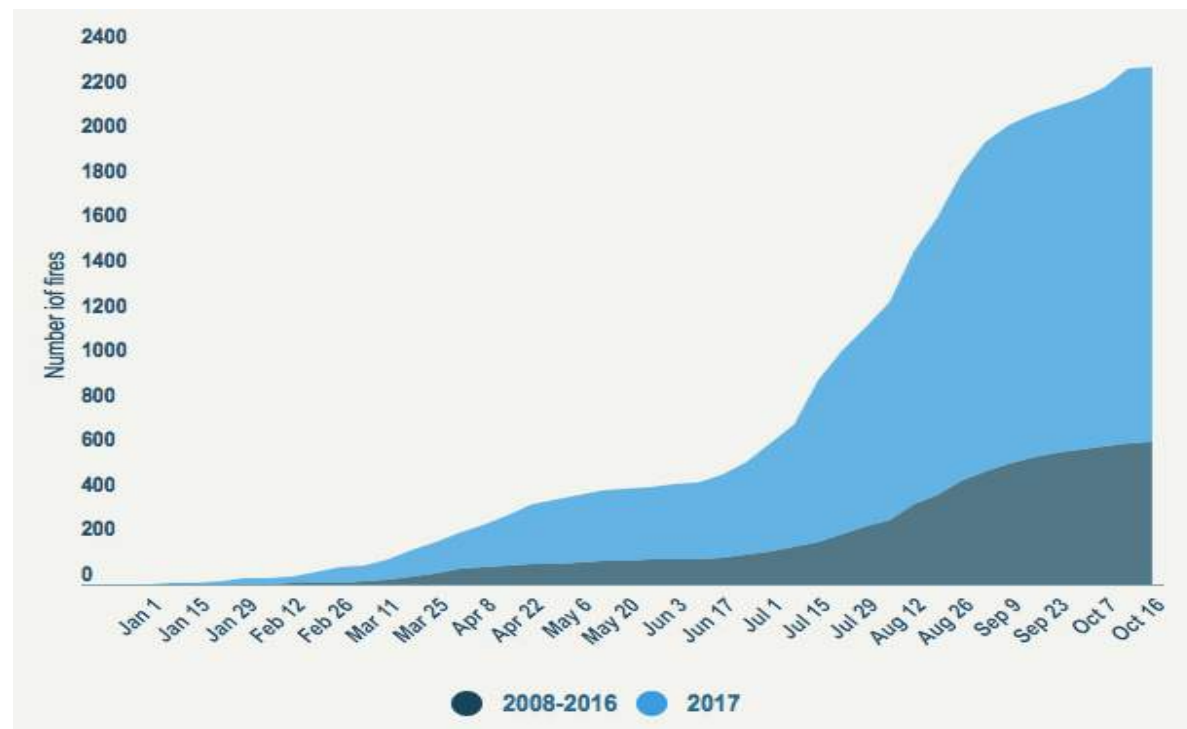
VUCA Challenge 1: Climate Emergency

Volatile – Changes related to Climate Emergency
How do we educate for this?



VUCA Challenge 1: Climate Emergency

“Climate change blamed as EU’s forest fires more than double”



- European Forest Fires Information System (EFFIS).

VUCA Challenge 1: **Climate Emergency**

Wildfires, Super storms, Sea level rise



Over 3 billion people at risk
of rising sea levels.
7 million people displaced:
1st half of 2019.



Climate Crisis is leading us to the
brink of Ecosystem collapse.

VUCA Challenge 1: Climate Emergency

Climate Emergency – What values have caused this?

We have forgotten to value life, the environment, and our collective future.

What kind of education can turn climate crisis around?

VUCA Challenge 2: Growing Inequality

Uncertainty – Growing Inequality
How do we counter this?



Jeff Bezos, one of the world's richest men and his \$165 million Beverley Hills Mansion.

BUT... Many of his Amazon staff are on food stamps.

VUCA Challenge 2: Growing Inequality

Apple, Google, Amazon, Facebook, Microsoft
Combined net worth exceeds US\$3 TRILLION.
Apple's 5 billion 'largest office block on earth'



VUCA Challenge 2: Growing Inequality

Wealth disparity, racial prejudice, homelessness



Oxfam 2020 Report:

The world's richest 1% have more than twice the wealth of the rest of humanity combined.



VUCA Challenge 2: Growing Inequality

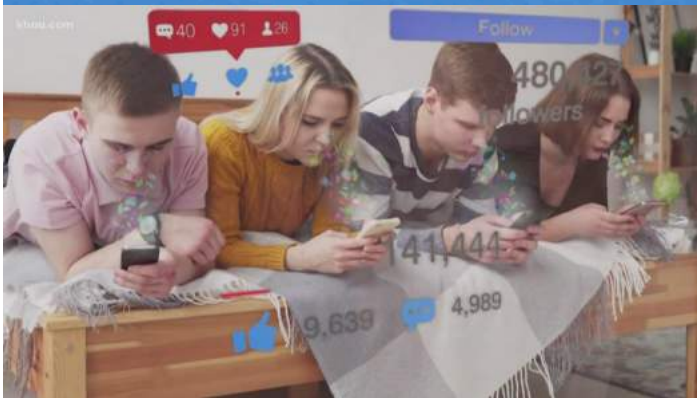
Growing Inequality – What values underlie this?

We have forgotten how to value each other. Greed seems to dominate and a lack of care for our fellow humans.

What kind of education could counter inequality?

VUCA Challenge 3: Exponential Technology

Complexity: Exponential Technologies
How do we keep it Human?



Digital addiction is very common among young people.

Amongst 'voice'-mail, 'chat'-rooms, and 'talking' toys, the least valued of evolutionary forces is the human voice.

Without it, little children cannot even learn to speak.

VUCA Challenge 3: Exponential Technology

Exponential Technologies: AI and the Singularity

“The Singularity is when our intelligence becomes trillions of times more powerful than it is today and increasingly non-biological.”



BUT ... many Tech-Savvie researchers now claim “AI is not intelligent”

VUCA Challenge 3: Exponential Technology

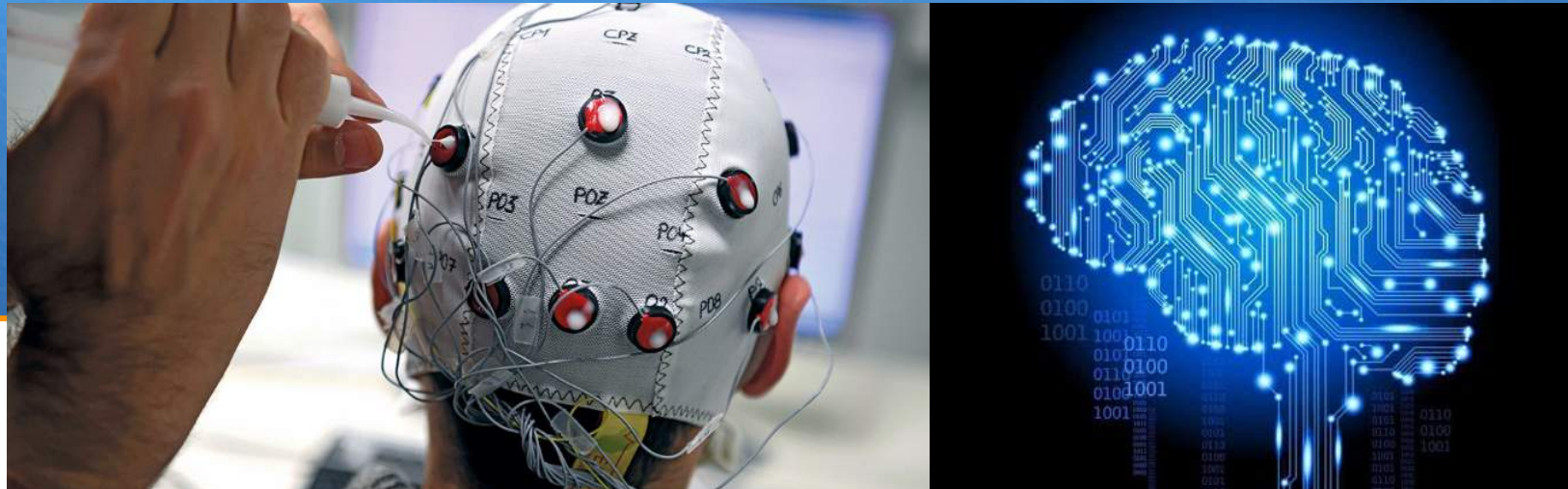


“Ai is neither artificial, nor intelligent.”

Co-Founder of AI Now Institute with Meredith Whittaker

VUCA Challenge 3: Exponential Technology

Exponential Technologies: Brain Computer Interface



Very Big Research \$\$ being spent on Brain -Computer Interface.
Elon Musk's Neural Lace (right) a "digital layer above the cortex."

VUCA Challenge 3: Exponential Technology

Exponential Technologies: Brain Computer Interface



In an age where human intelligence and computer processing may cohabit in unexpected ways – **how do we keep it human?**

VUCA Challenge 3: Exponential Technology

Exponential Technology – What is valued here?

The exponential development of technology is about greed – AND under-valuing of human qualities.

What kind of education can help to keep it human?

VUCA Challenge 4: Post-Truth World

Ambiguous – Educating in a Post-Truth World:

How do we educate for discernment to see through media monopolies?



When Media monopolies are able to manipulate State and National Elections...

VUCA Challenge 4: Post-Truth World

Educating in a Post-Truth World:

How do we educate for discernment to navigate echo chambers?



When many children and young people spend more hours per day in Social Media Echo-Chambers than with their families...

VUCA Challenge 4: Post-Truth World

Educating in a Post-Truth World:

How do we educate for discernment to recognize fake news?



When our politicians, who are supposed to be society's leaders are caught out lying, manipulating and spinning the Truth...

VUCA Challenge 4: Post-Truth World

Post-Truth World – What values are lacking here?

What I see is a lack of discernment.

A proliferation of information through the Mass Media.

But we don't know how to make sense of it.

What kind of education can develop discernment?

Higher Education in a VUCA World

Part 2. Evolving Consciousness & Education

Evolution of Consciousness: Two Streams

Cultural Evolution →

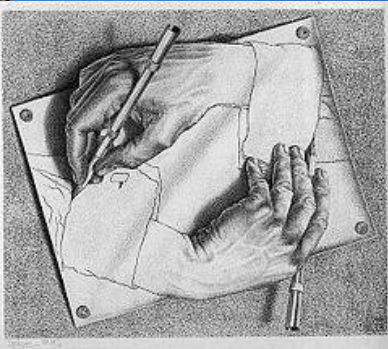
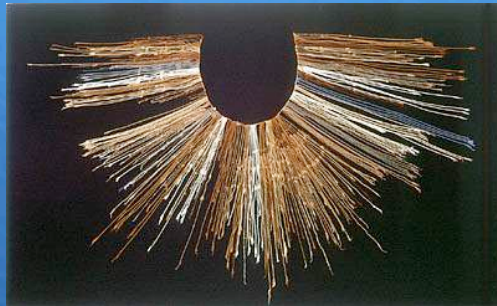
Emerging Integral Culture

&

Psychological Development →

Postformal Adult Reasoning

Evolving Consciousness: Cultural Evolution



Humans have evolved culturally over millennia

Evolving Consciousness: Cultural Evolution

18th to mid-20th Centuries



- 18th Century Europe: German idealists Goethe & Schelling
- 19th Century Europe: Evolution hijacked by Darwin
- 20th Century Europe: Steiner from 1904, Sri Aurobindo from 1914
- Mid-20th Century: Pierre Teilhard de Chardin & Jean Gebser

Evolving Consciousness: Cultural Evolution

Jean Gebser



Jean Gebser (1905-1973) Polish/Swiss: *"The Ever-Present Origin"*
One of the most important cultural historians of the 20th Century.

- Archaic: Pre-history
- Magic Consciousness: Ice Age to Agrarian
- Mythical Consciousness: Agrarian - 800BCE
- Mental/Rational Mode: 800BCE – 1,500CE
- Integral Consciousness: 1,500CE > the future

Evolving Consciousness: Psychological Development

Jean Piaget



Jean Piaget (1896-1980) Swiss: *'The Child's Construction of Reality'*
One of the most important psychologists of the 20th Century

- Sensori-Motor (Infant)
- Pre-operational (2-6years)
- Concrete Operations (7-12years)
- Formal Operations (12-18 years)



BUT Adult developmental psychologists recognise higher stages:

- Postformal Reasoning (Mature Adult)

Evolving Consciousness: Psychological Development

Jan D Sinnott



Jan D. Sinnott, Towson University, USA:

'The Development of Logic in Adulthood: Postformal Thought and its Applications'
An important Adult Developmental psychologist of the 20th -21st Century

BUT Adult developmental psychologists recognize higher stages:

- Postformal Reasoning (Mature Adult)
- Includes qualities such as: “complexity, creativity, paradox, reflexivity, relativism, spirituality, and wisdom.”

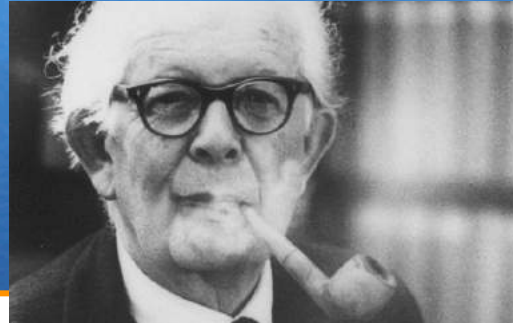
Evolving Culture & Psychology: Gebser, Piaget & Sinnott

Jean Gebser



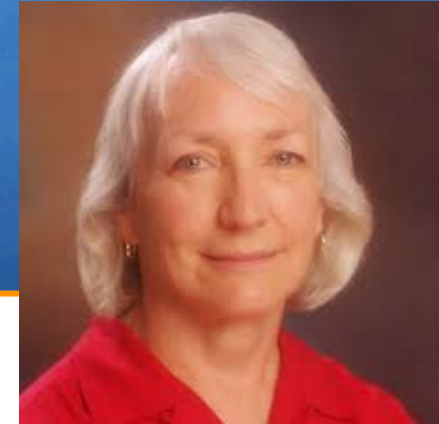
- Archaic
- Magic
- Mythical
- Mental/Rational
- Integral

Jean Piaget



- Sensor-Motor
- Pre-operational
- Concrete Operations
- Formal Operations
- MATURE ADULT PSYCHOLOGY**
- Postformal Operations

& Jan Sinnott



Evolving Consciousness

Late 20th to 21st Centuries



- Integral theorists: e.g. Ken Wilber
- Adult developmental psychologists: e.g. Jan D. Sinnott
- Transdisciplinary theorists, e.g. Ervin László
- Futures researchers, e.g. Jennifer Gidley



Evolving Consciousness

Important thing to know about the 21st Century

In our current cultural era, advanced individuals are in transition:

From the dominance of formal thinking
(formal binary logic)

To the emergence of more complex, creative, integrative
(postformal logics).

We need to educate young people for this transition

Evolving Education

To understand how to **Evolve Education...**

Let's take a closer look at **Postformal Reasoning**

Evolving Education: What is Postformal Reasoning?

Postformal reasoning: most widely used term to denote higher developmental stages beyond Piaget's *formal operations*.

Postformal Reasoning Qualities (Gidley, 2016)	
Complexity	Imagination
Creativity	Integration
Dialogical Reasoning	Intuitive Wisdom
Ecological Reasoning	Language Reflexivity
Futures Reasoning	Pluralism
Higher Purpose	Reflexivity

Evolving Education: What is Postformal Education?

Postformal Education aims to develop higher reasoning in adults.

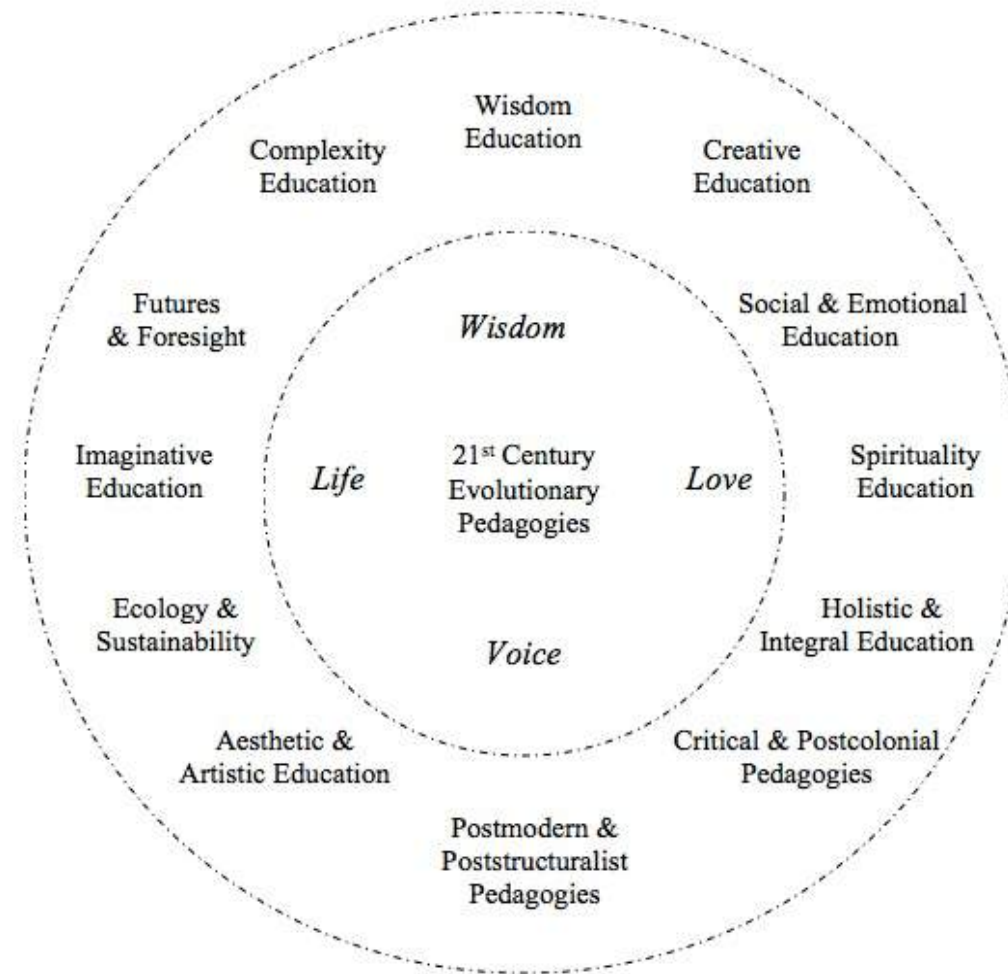
Postformal Educational Approaches	
Complexity in Education	Imaginative Education
Creativity in Education	Integral & Holistic Education
Social & Emotional Education	Wisdom Education
Ecological, Environmental	Aesthetic, Artistic, Poetic
Futures & Foresight Education	Critical, Postcolonial, Global,
Spiritual, Transformative	Postmodern & Poststructuralist

Evolving Education:

Parallels: Postformal Reasoning & Postformal Education

Complexity	Complexity in Education
Creativity	Creativity in Education
Dialogical Reasoning	Social and Emotional Education
Ecological Reasoning	Ecological, Environmental & Sustainability Ed.
Futures Reasoning	Futures & Foresight Education
Higher Purpose	Spiritual, Transformative & Contemplative Ed.
Imagination	Imaginative Education
Integration	Integral & Holistic Education
Intuitive Wisdom	Wisdom Education
Language Reflexivity	Aesthetic, Artistic & Poetic Education
Pluralism	Critical, Postcolonial, Global & Planetary Ed.
Reflexivity	Postmodern & Postructuralist Education

Evolving Education: Four Core Evolutionary Themes



Evolving Education in a VUCA World

Part 3.

Postformal Education: Life, Love, Wisdom & Voice

Pedagogical Life

1. What is Pedagogical Life?

Revitalizing Education through
Imaginal, Organic Thinking

Pedagogical Life: Educational Approaches

Enlivening approaches that *revitalize* education

LIFE: Imagination, Ecology, Foresight

Imaginative Education

Ecological, Environmental, Sustainable

Futures & Foresight Education

Pedagogical Life

Practical ways to bring Teaching to Life

Teacher Imagination

- Stretch yourselves

Story-Telling

- Make it up BUT make it relevant

Image and the Media

- Countering negatives

Pedagogical Life

Practical ways to **Enliven the Curriculum**

Creative handwork

'Out of the Box' architecture

Rhyme & Rhythm

Practice nature care>

Gardens and animals

Pedagogical Life & Postformal Reasoning

Educating with **Pedagogical Life** cultivates “**mobile, life-enhancing thinking**” and these Postformal Reasoning qualities:

- **Imagination**
- Ecological Reasoning
- **Futures Reasoning**

Pedagogical Life & VUCA Challenges

Climate Emergency

How do we educate for this?

Pedagogical Life & Climate Crisis

Pedagogies of Life:

Imagination, Ecological & Futures Education



->> Ecological Sensibility

Pedagogical Love

2. What is Pedagogical Love?

Contemplative Love
Critical Reverence

Pedagogical Love: Educational Approaches

Caring approaches that *warm* education

LOVE: Reverence, Care, Integrating Head and Heart

Spiritual, Transformative, Contemplative

Social & Emotional Education

Integral & Holistic Education

Pedagogical Love

Practical things that *warm* the students' hearts:

- *Acknowledge each individual student*
- *Connect authentically*
- *Nurture them with beauty*
- *Develop community*
- *Encourage cooperation and collaboration*

Pedagogical Love

Take Care of yourselves as Educators:

- *Grow your own wisdom &*
- *Your own aesthetic development*
- *Model “practical love” & respect*
- *Intangibles such as meditation*
- *Inspire a love of learning*

Pedagogical Love & Postformal Reasoning

Educating with Pedagogical Love enhances
“conscious, compassionate spiritual development”
and these Postformal Reasoning qualities:

- Higher Purpose
- Dialogical Reasoning
- Integrative Reasoning

Pedagogical Love & VUCA Challenges

Growing Inequality

How do we counter this?

Pedagogical Love & Growing Inequality

Pedagogies of Love: Spiritual, Social & Emotional and Holistic Education



->> Compassion

Pedagogical Wisdom

3. What is Pedagogical Wisdom?

Creative Wisdom is about
Waking up to Multiplicity

Pedagogical Wisdom: Educational Approaches

Multi-modal approaches that *create discernment*

WISDOM: Creative, Multi-Modal, Layered

Creativity in Education

Complexity in Education

Wisdom Education

Pedagogical Wisdom

How to be **Multi-modal** – the bedrock of wisdom

I continually danced between 'subject' & 'context'

Conceptually: through imaginative vitality

Visually: through a picture or diagram

Imaginatively: story, poem, song, dance, role-play

Experientially: handwork, gardening, or excursions.

Pedagogical Wisdom

Cultivating Broad Creativities to create discernment

Value of free and creative play

What about Games?

- *Altruistic Digital Games*
- *Board Games*

Happiness, Humour and Laughter

Pedagogical Wisdom & Postformal Reasoning

Educating with Pedagogical Wisdom enhances the “complexification of thinking and culture” and these Postformal Reasoning qualities:

- Creativity
- Complex Thinking
- Intuitive Wisdom

Pedagogical Wisdom & VUCA Challenges

In a Post-Truth World

How do we educate for discernment?

Pedagogical Wisdom & A Post-Truth World

Pedagogies of Wisdom: Multi-Modal Education, Creativity, Complexity



- >> Wise Discernment

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Pedagogical Voice

4. What is Pedagogical Voice?

Finding your Voice and
Language Self-Awareness

Pedagogical Voice: Educational Approaches

Multi-vocal approaches nurture *empowerment*

VOICE: Self-Reflection, Silence, Multi-Cultural

Postmodern & Poststructuralist

Aesthetic, Artistic & Poetic Education

Critical, Postcolonial, Global, Planetary

Pedagogical Voice

Why is the **Human Voice** important in education?

Today the human voice is mediated by technology.

Reliance on technology limits language development.

Many kindergarten children have delayed language.

Children overexposed to screen-mediated forms of communication become increasingly disconnected

Pedagogical Voice

How do we strengthen **Human Voice** to empower?

Listen to birds sing, wind whistle, or waves break

Joyful educator starting a class with a song

Poems, singing, drama and natural conversation

Chanting, re-telling stories, tongue twisters, word play

Learning a second or third language

Pedagogical Voice & Postformal Reasoning

Educating with **Pedagogical Voice** enhances
“**linguistic and paradigmatic boundary-crossing**”
and these Postformal Reasoning qualities:

- Reflexivity
- **Language Awareness**
- Pluralistic Perspectives

Pedagogical Voice & VUCA Challenges

Exponential Technology

How do we keep it human?

Pedagogical Voice - Keeping it Human

Pedagogies of Voice:

Postmodern, Aesthetic, Critical & Planetary Education
& lots of human voice!



- >> Empowerment

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Summary

1. 21st Century VUCA Challenges

- Volatile - Climate
- Uncertain - Inequality
- Complex - Exponential Technology
- Ambiguity - Post-Truth World

2. Evolving Consciousness & Education

- Cultural Evolution
- Psychological Development

3. Postformal Education for Complex Futures:

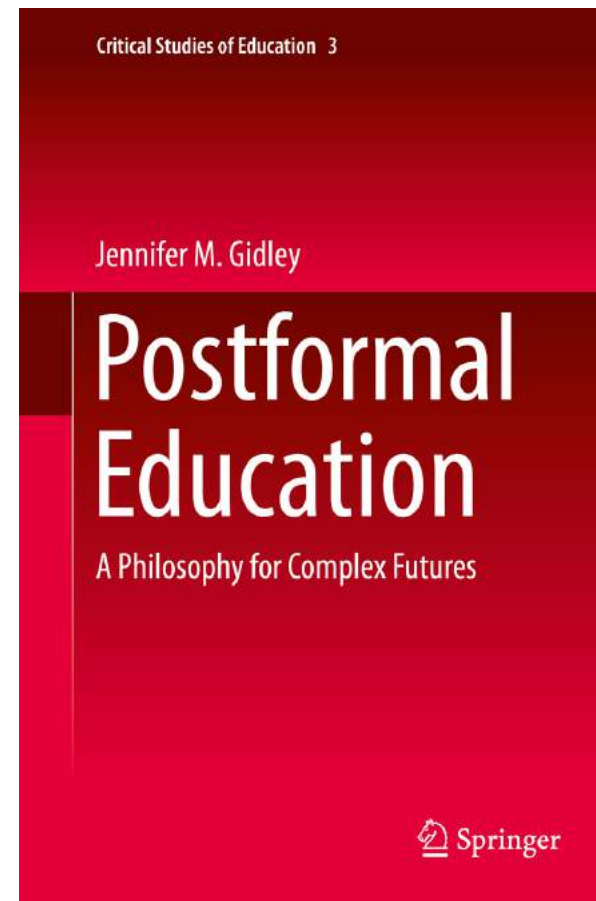
- Pedagogical Life – Sustains & Regenerates
- Pedagogical Love – Grows Compassion
- Pedagogical Wisdom – Develops Discernment
- Pedagogical Voice – Empowers & Humanizes

Further Reading:



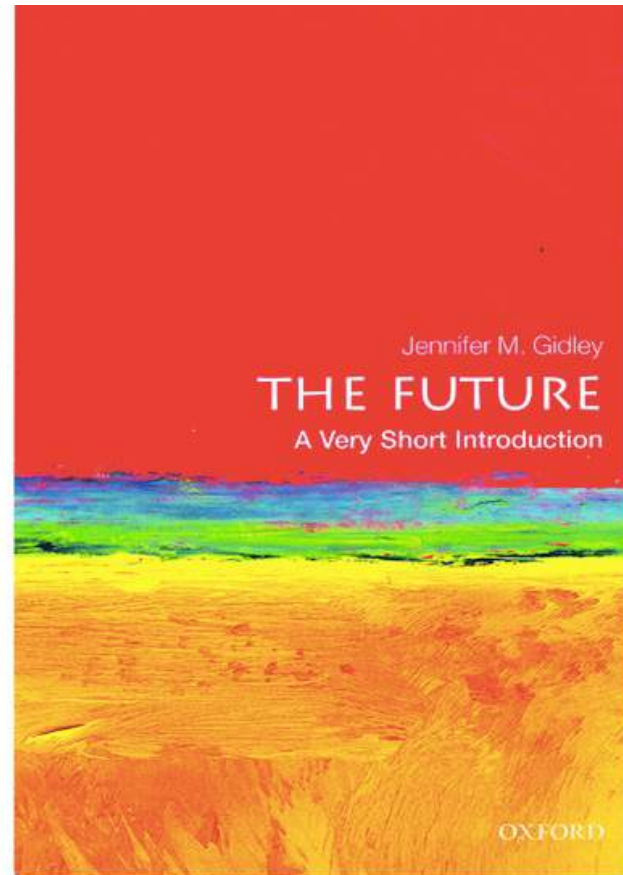
Books by Jennifer Gidley:

Postformal Education:
A Philosophy
for Complex Futures
(Springer, 2016)



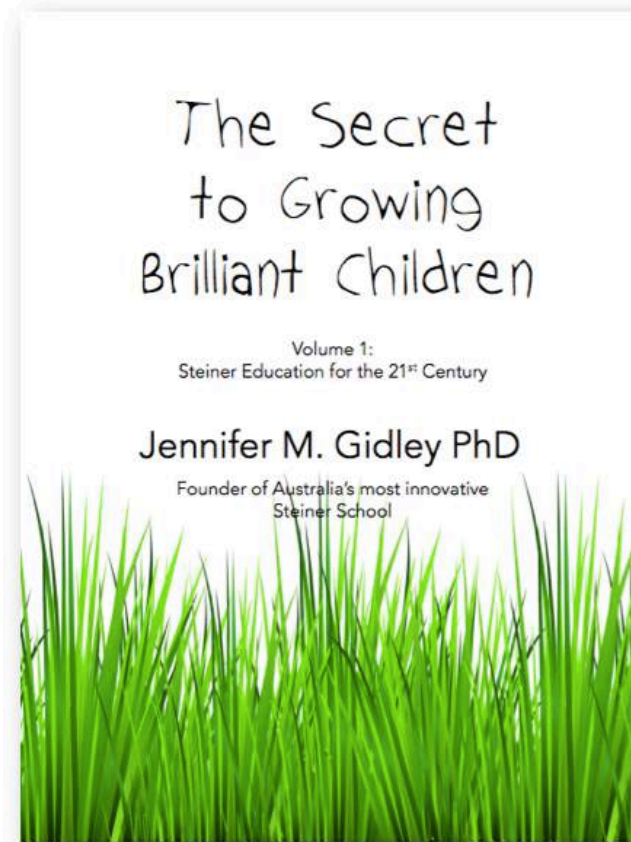
Books by Jennifer Gidley:

The Future:
A Very Short
Introduction
(OUP, 2017)



Books by Jennifer Gidley:

The Secret to Growing
Brilliant Children:
Steiner Education for
The 21st Century:
Volume 1 (2020)



Thank You

Jennifer M. Gidley, PhD

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