Thinking and Learning in the Postnormal Era

How might we respond to a curriculum that embraced diverse perspectives and contested issues?

Nigel Coutts - Sydney, Australia - @ncoutts

Change

For educators the question becomes how do we manage learning and teaching in a context that has moved beyond the certainties of normality?

M. Jefferson & M. Anderson - Transforming Schools: Creativity, Critical Reflection, Communication, Collaboration

Change

We live in a time of chaos, complexity and contradiction.

Sardar (2010)

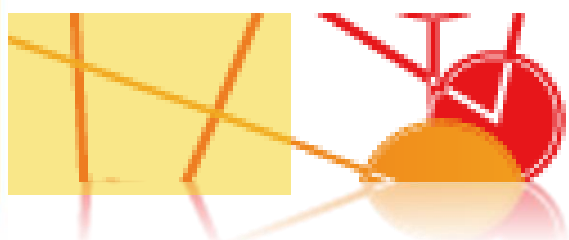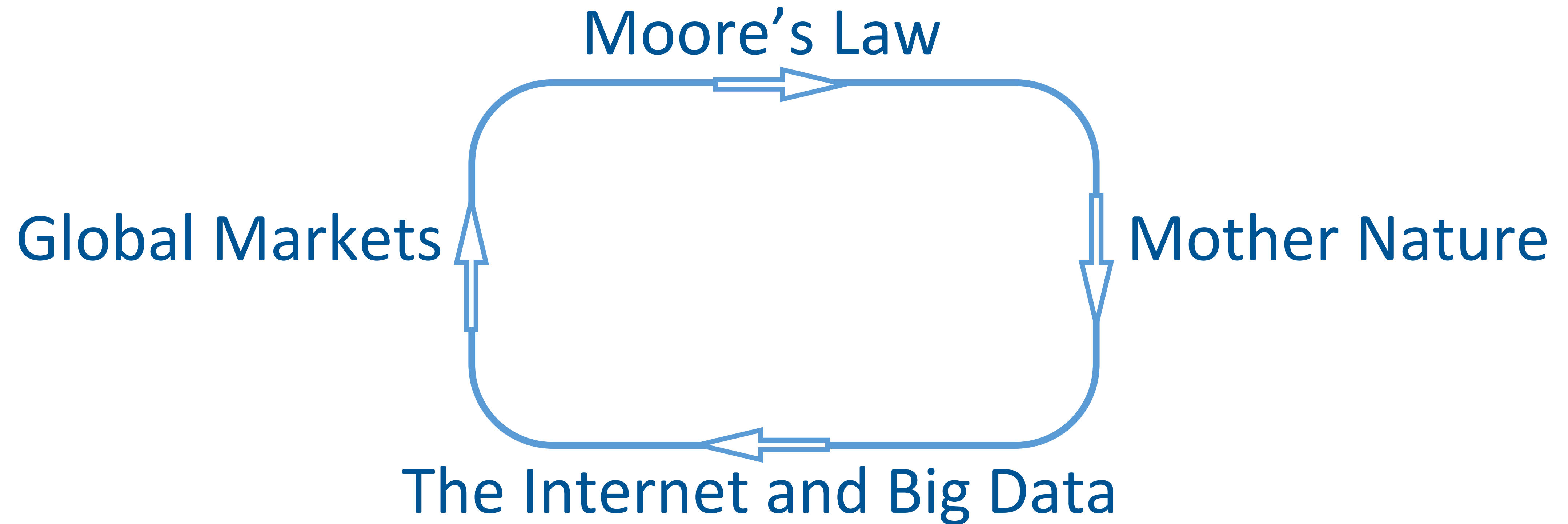The age of accelerations

Friedman (2016)

Change

All that was 'normal' has now evaporated; we have entered postnormal times . . .
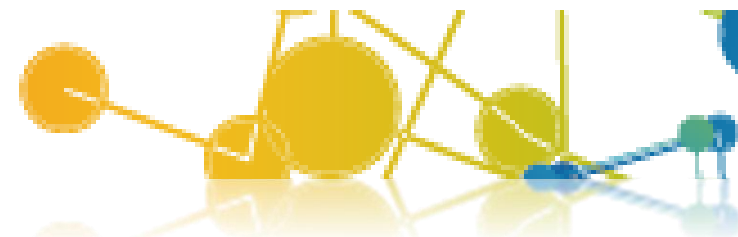
Sardar (2010)

The Age of Accelerations

Moore's Law

Global Markets

Mother Nature

The Internet and Big Data

Friedman, Thomas L.. Thank You for Being Late: An Optimist's Guide to Thriving in the Age of Accelerations

International Conference
The Future of Education

The Age of Accelerations - Moore's Law - 1965

"The number of transistors and resistors on a chip doubles every 24 months"
-Gordon Moore

TECHNOLOGY AND MANUFACTURING DAY

Humans don't 'get' exponential growth

18,000,000,000,000,000,000

Three examples

IBM's Watson vs Jeopardy

AlphaZero Learns Chess

AI Gets EQ

Post Truth

Oxford Dictionary's word of the year in 2016 'Post-Truth'

'circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief'.

Matthew d'Ancona - Post-Truth: The New War on Truth and How to Fight Back.

Post Truth

It should be a core task of primary – not secondary – education to teach children how to select and discriminate from the digital torrent.

Matthew d'Ancona - Post-Truth: The New War on Truth and How to Fight Back.

What will our children need?

Teachers want . . .

Parents want . . .

What will our children need?

Enterprise skills

are **transferable skills** required in many jobs. They include:

- Problem solving
- Creativity
- Communications
- Teamwork
- Financial literacy
- Digital literacy
- Critical thinking
- Presentation skills

fya | FOUNDATION FOR Young Australians

What will our children need?
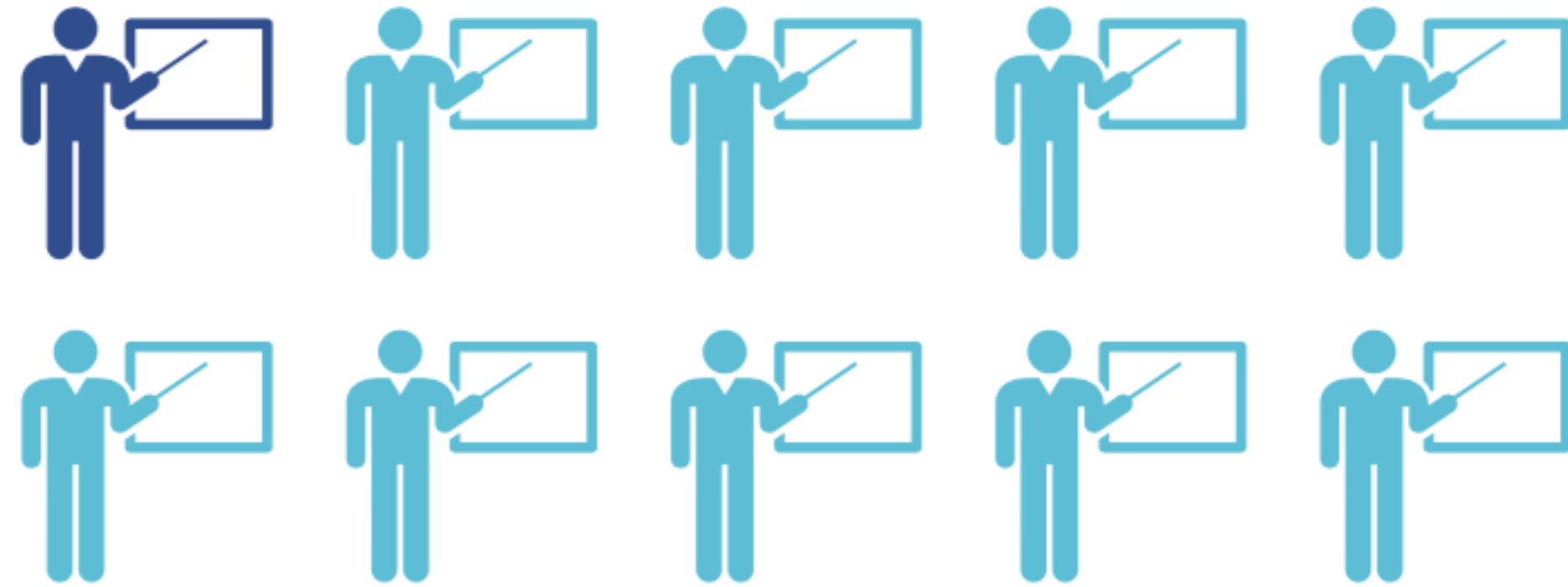
Only 1 in 10 teachers have recently participated in professional development to help students develop **generic, transferable skills for future work**

FOUNDATION FOR **Young Australians**
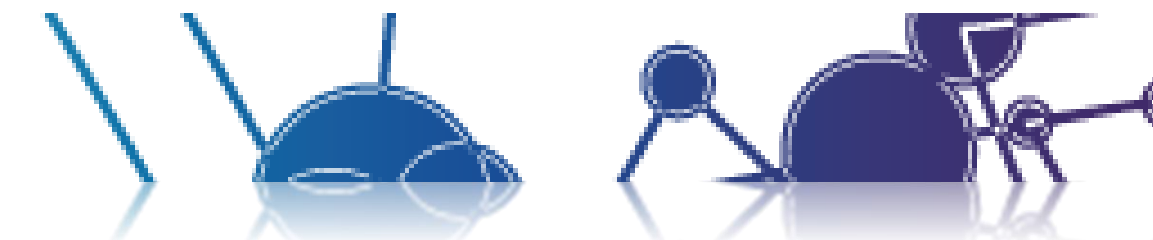
What might our students be . . .
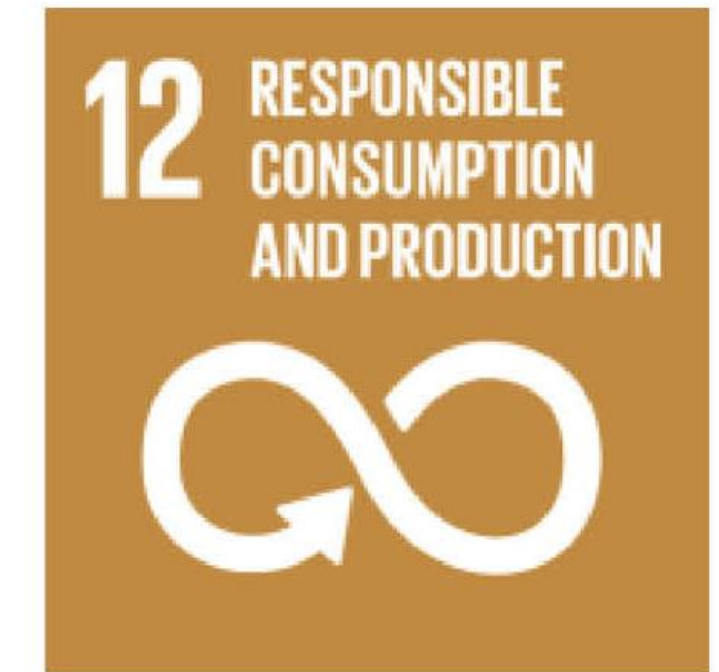
Empathetic & Agentic

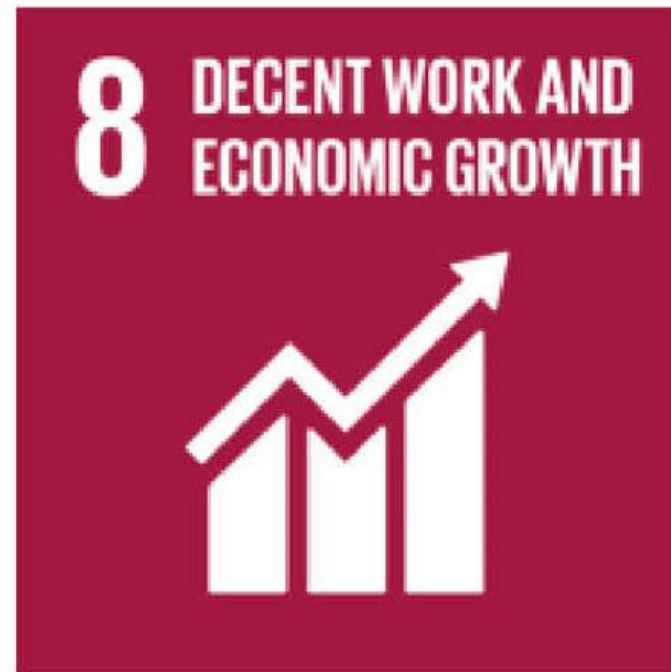# Contested Issues

Life-worthy Learning

Learning that matters in the lives or learners are likely to live.

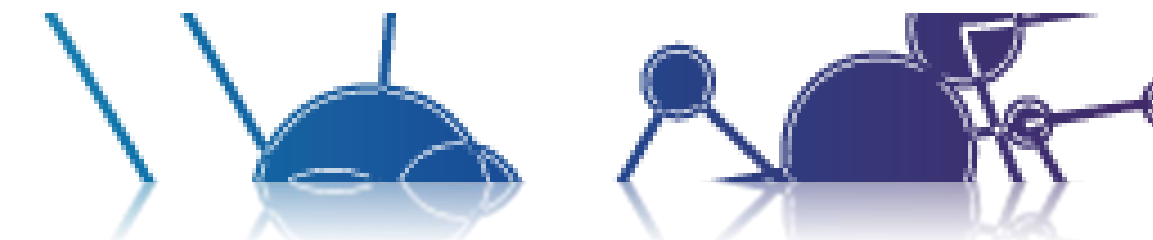Future Wise: Educating our children for a changing world - David Perkins
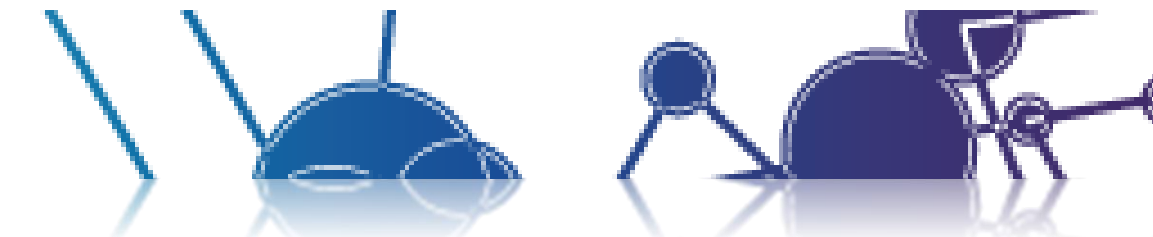
Contested Issues

Agency

This entails thinking about the world not as something that unfolds separate and apart from us but as a field of action that we can potentially direct and influence.

Creating Cultures of Thinking - Ron Ritchhart

Problem Finders

It is easy when you have a problem to work on.
The hard part is finding your problem.

Freeman Dyson

The creative process starts with a sense that there is a puzzle somewhere or a task to be accomplished, perhaps something is not right, somewhere there is a conflict a tension, a need to be satisfied.
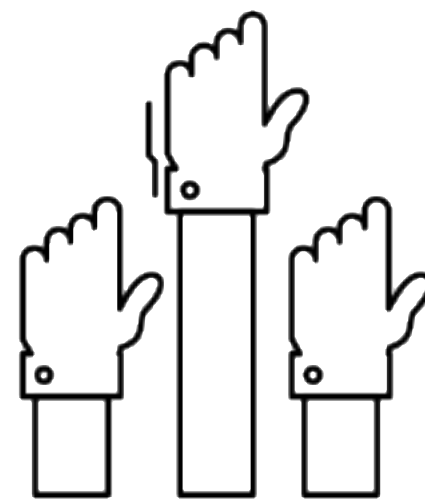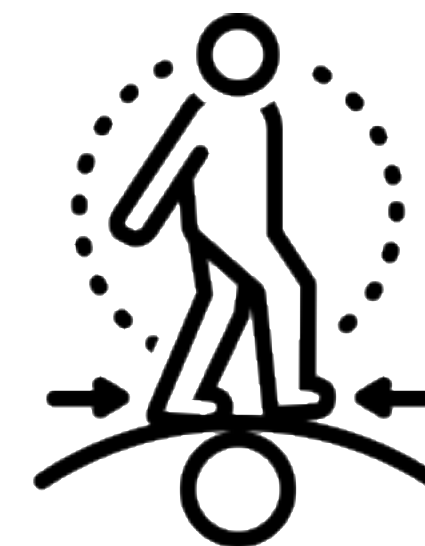
Mihaly Csikszenthihalyi
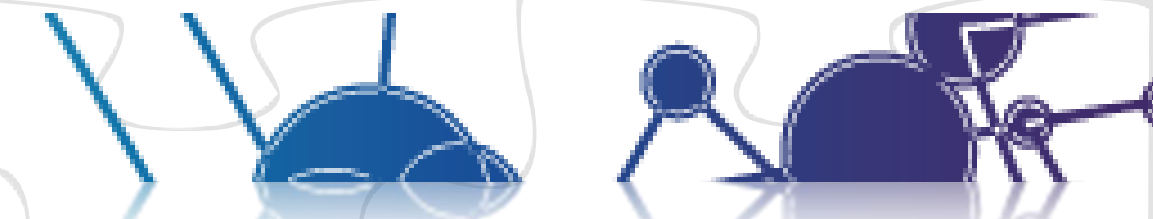
Empowered Makers

Maker empowerment: A **sensitivity** to the designed dimension of objects and systems, along with the **inclination** and **capacity** to shape one's world through building, tinkering, re/designing, or hacking.
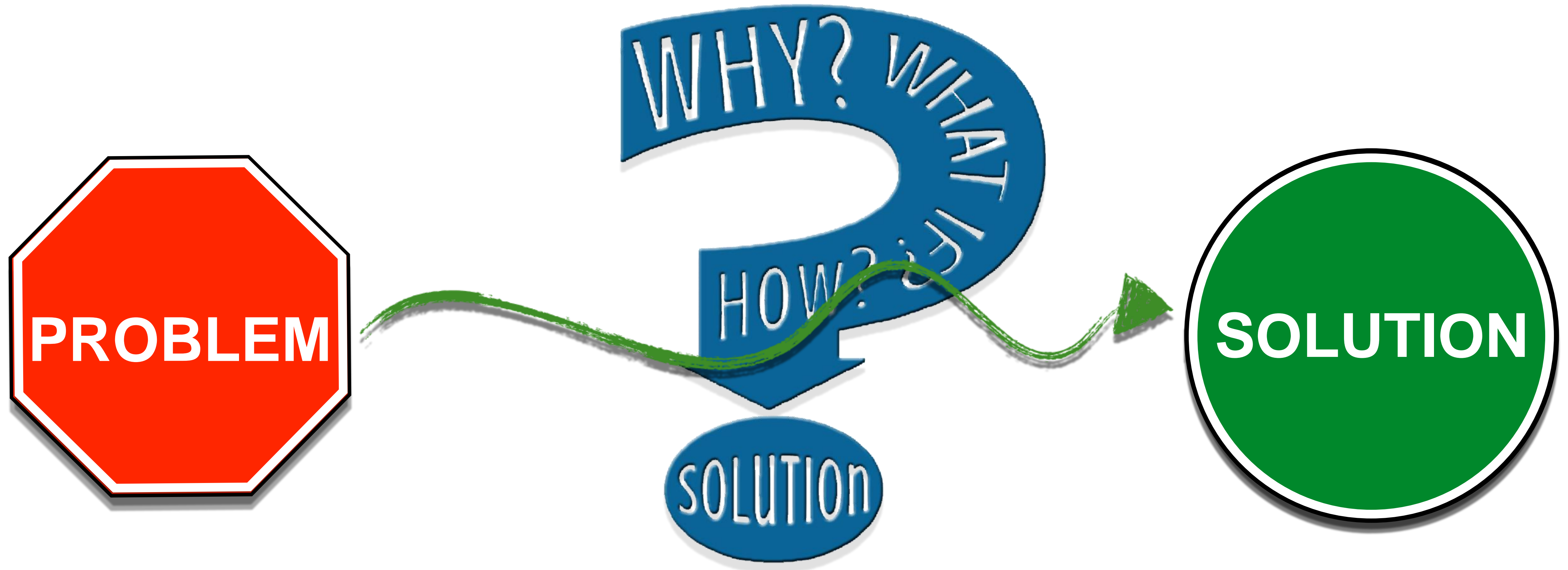
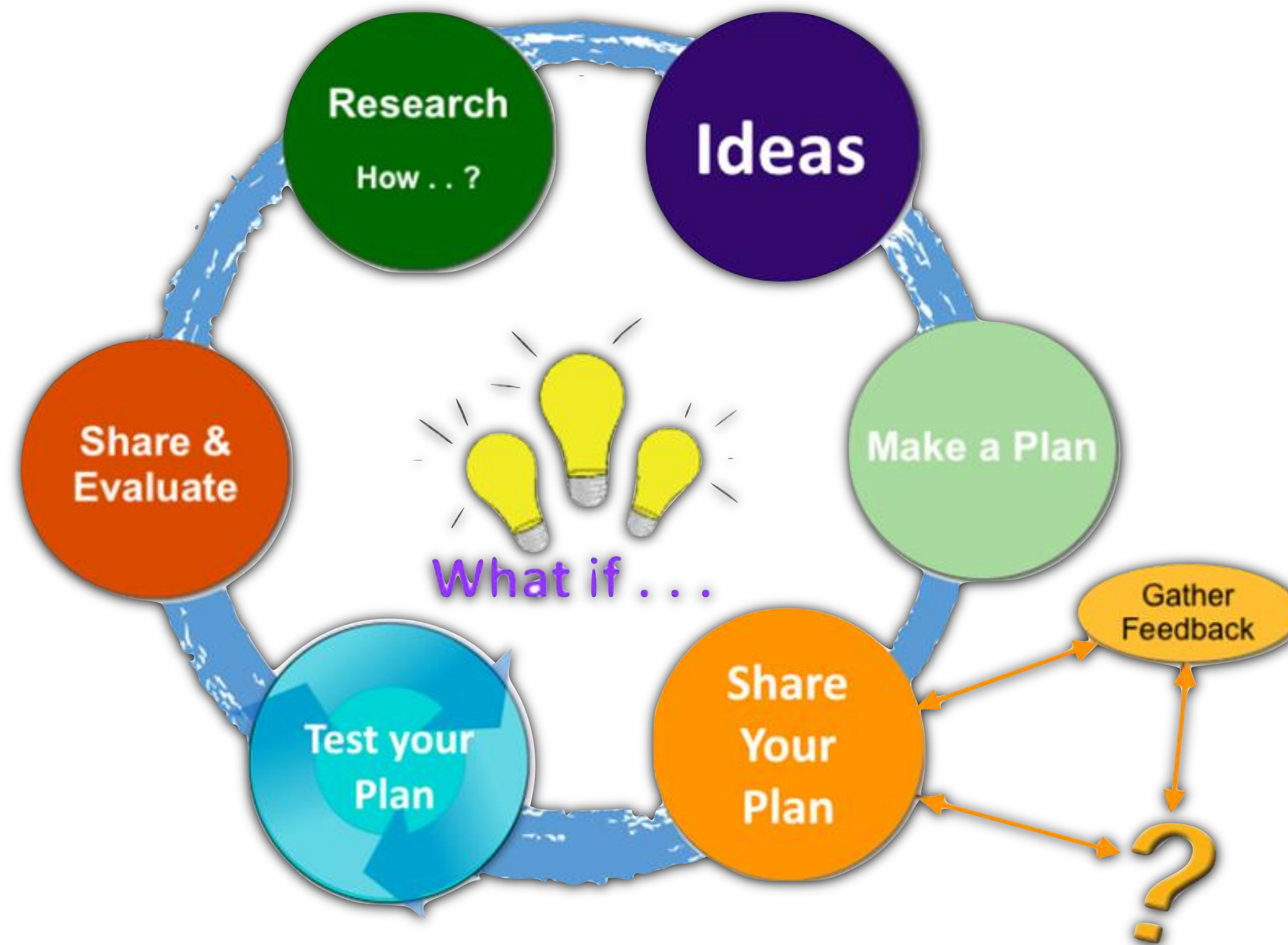**Sensitivity**   **Inclination**   **Capacity**

Problem Finders

Adding structure to problem solving

Pedagogy & Culture

PZ

PROJECT ZERO

TEACHING FOR UNDERSTANDING
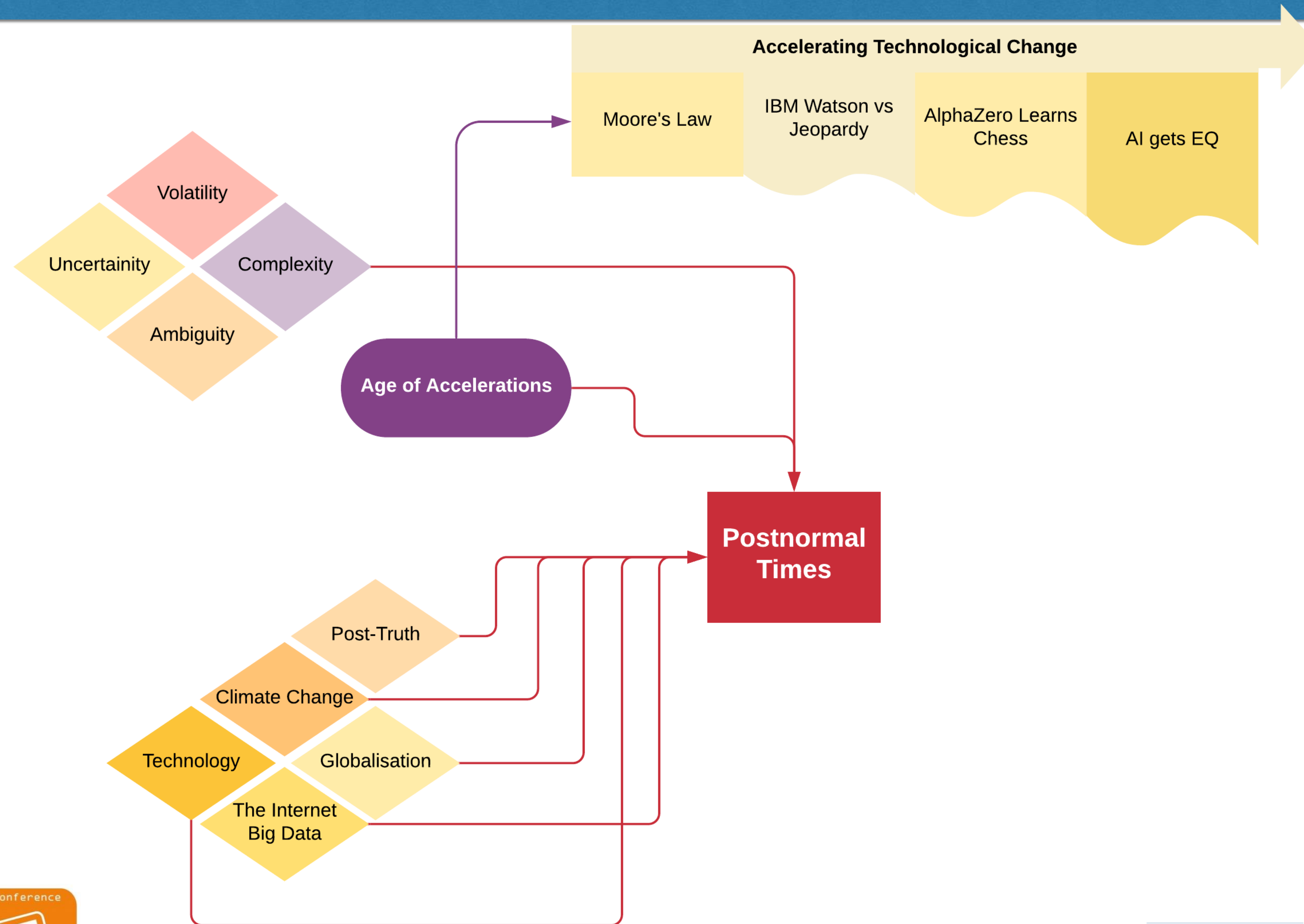
CREATING CULTURES OF THINKING

VISIBLE THINKING

HARVARD
GRADUATE SCHOOL OF EDUCATION

In summary . . .

Accelerating Technological Change

Moore's Law | IBM Watson vs Jeopardy | AlphaZero Learns Chess | AI gets EQ

Volatility
Uncertainity
Complexity
Ambiguity

Age of Accelerations

Postnormal Times

Post-Truth
Climate Change
Technology
Globalisation
The Internet
Big Data

http://thelearnersway.net/

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https://www.redlands.nsw.edu.au/

https://www.pzsyd.net/