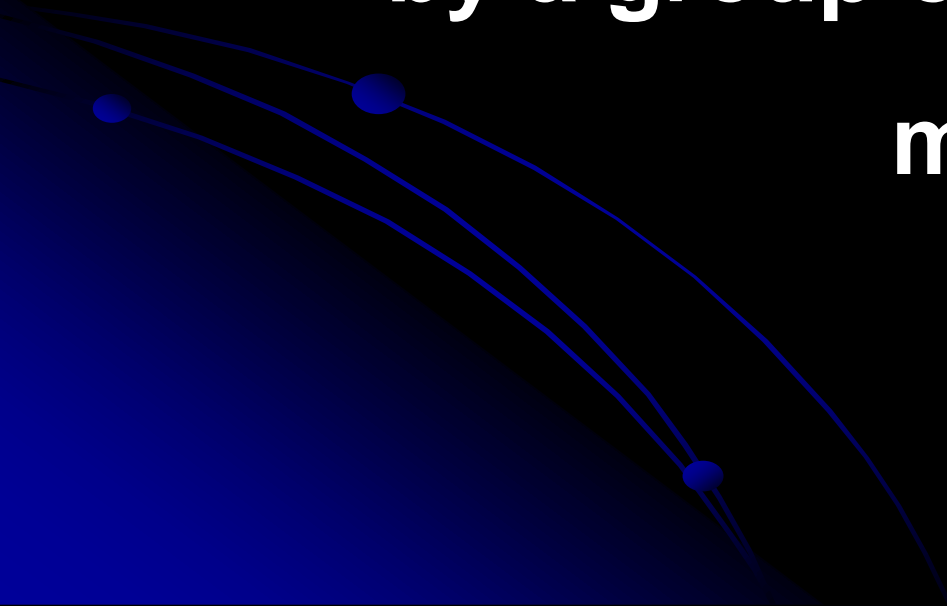# Global 'Harwell'

Should it be our ultimate educational goal worldwide?

Tak-Wai Chan

National Central University

slight expansion of ICCE2023's keynote
on 2023-12-06, Japan

This talk is based on

a series of thoughts still in their nascent stages

by a group of international researchers,

mainly from Asia.

A remark

- Most of us are researchers in our field, not experts in philosophy, politics, or religion

- However, we can still propose candidates for the global educational goal
  - based on our knowledge and life experiences
  - unneccessary to deliberately consider religious doctrines or ideological beliefs, at least at this moment

Outline of this talk

PART 1: Why harmony, wellbeing, and global?

- What do most people aspire to throughout their lives?
- A journey of exploring the Global Educational Goal Problem
- What is harmony?
- 'from local to global' VS 'from global to local'

PART 2: Global Harwell Goal and Education

PART 3: Seamless AI World

- Ai supported education and artificial learning companions
- Seamless Learning
- Seamlessly AI-empowered world

PART 4: Seamless Interest-Driven Co-Creator Theory (SIDC Theory)

- Extending IDC Theory by taking into account that learning occurs in the Seamless AI World in order to achieve the Global Harwell Goal
- A framework of Global Harwell Education

PART 5: MSSR: A probable Global Harwell Reading with design informed by SIDC THEORY

PART 6: Should Global Harwell be our ultimate educational goal worldwide?

PART 1

Why harmony, wellbeing, and global?

PART 1: Why harmony, wellbeing, and global?

- **What do most people aspire to throughout their lives?**

- **A journey of exploring the Global Educational Goal Problem**

- **What is harmony?**

- **'from local to global' VS 'from global to local'**

PART 1: Why harmony, wellbeing, and global?

- **What do most people aspire to throughout their lives?**

- **A journey of exploring the Global Educational Goal Problem**

- **What is harmony?**

- **'from local to global' VS 'from global to local'**

Have you ever thought about:

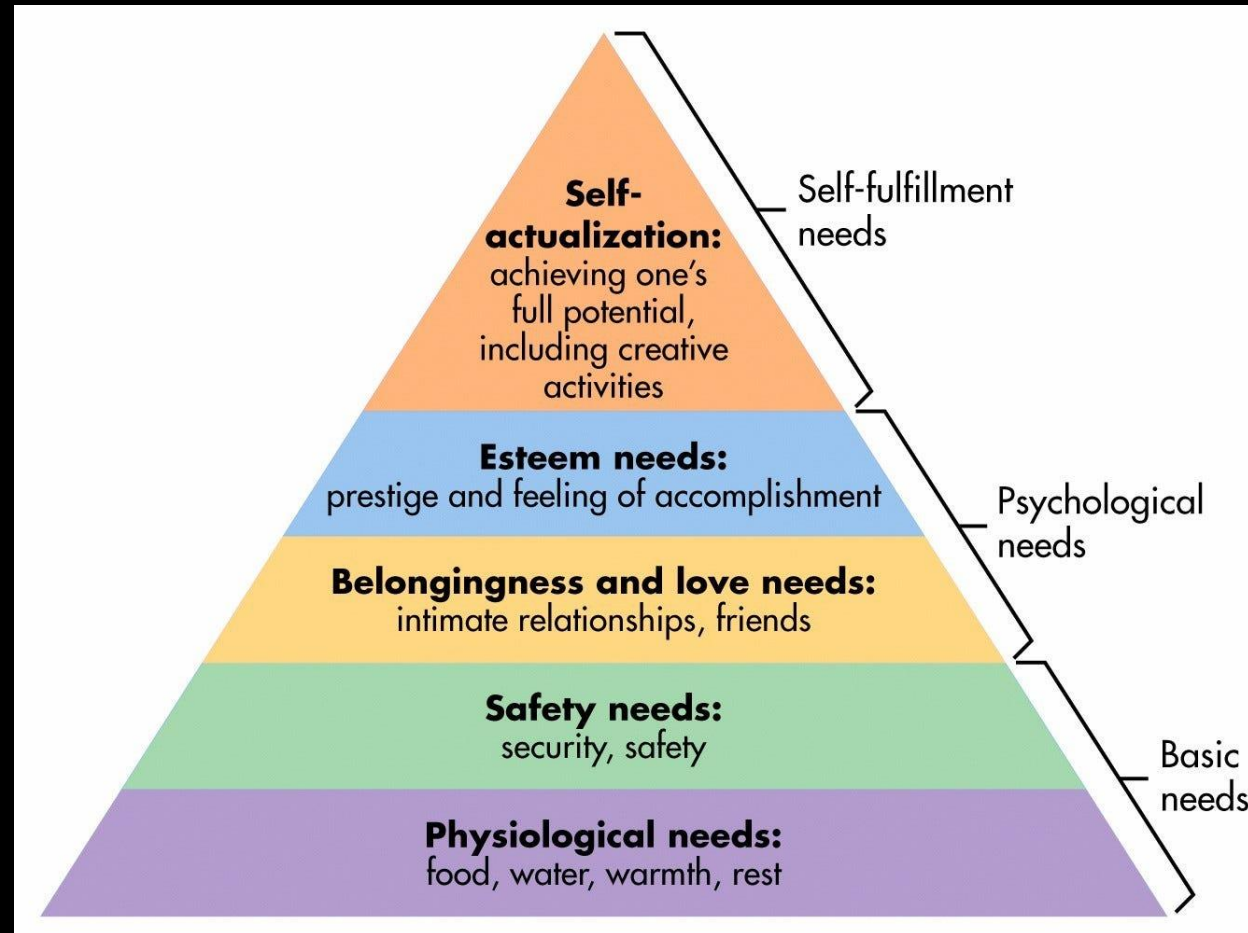## What do you aspire to in your lifetime?

Please think about it for 10 seonds!

happiness, wealth, health……?

Most of us are ordinary people, perhaps we can ask

What do most people aspire to throughout their lives?

The same answer: happiness, wealth, health.....?

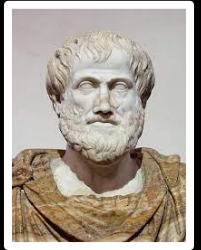# Perhaps we can associate the question to: Maslow's hierarchy of needs

The question also leads us to the concepts:

- **Happiness**

  - the absence of pain and the pursuit of pleasure...

- **Eudaimonia (Aristotle)**

  - living a virtuous life, reaching one's full potential, and doing what is worth doing...
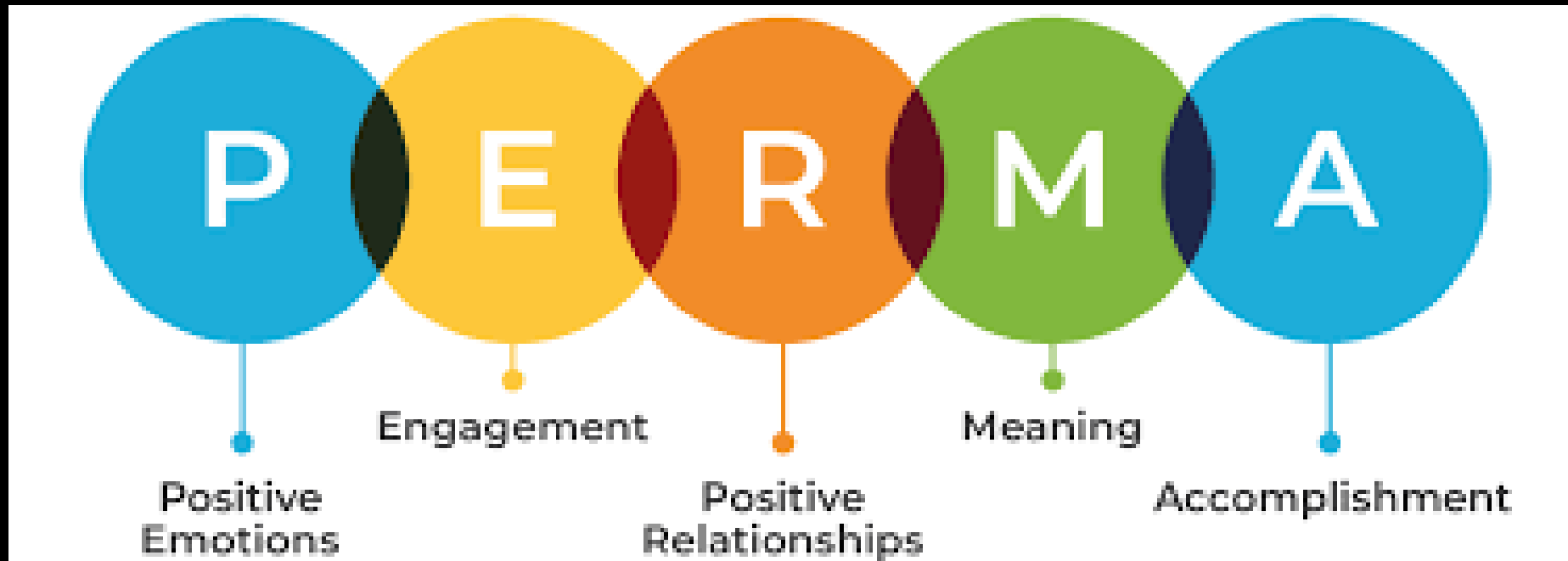
- **Wellbeing**

  - modern name for eudaimonia

  - experience of various aspects of a good life

- **Flourishing (Seligman, etc.)**

  - modern name for eudaimonia, mostly adopted by positive psychologists

  - experience of positive emotions, positive psychological functioning, and positive social functioning

  - fulfillment of one's potentials and capabilities

# Seligman's PERMA Model

P E R M A

Positive Emotions — Engagement — Positive Relationships — Meaning — Accomplishment

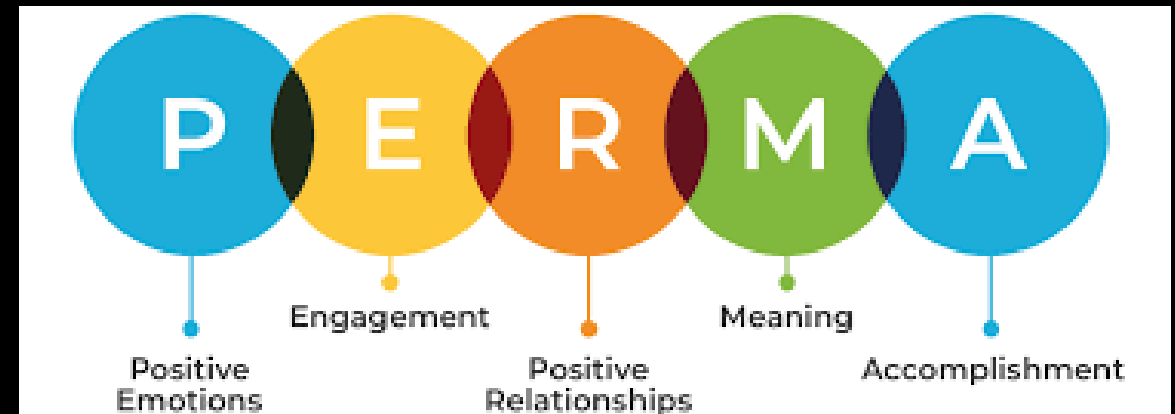**Seligman argues that these 5 elements are both *measurable and teachable*, making the PERMA Model a practical framework.**

Let us adopt **'wellbeing'** in our discussion because it is a broad term encompassing various aspects of a good life.

Furthmore, let's take 'wellbeing' as

+
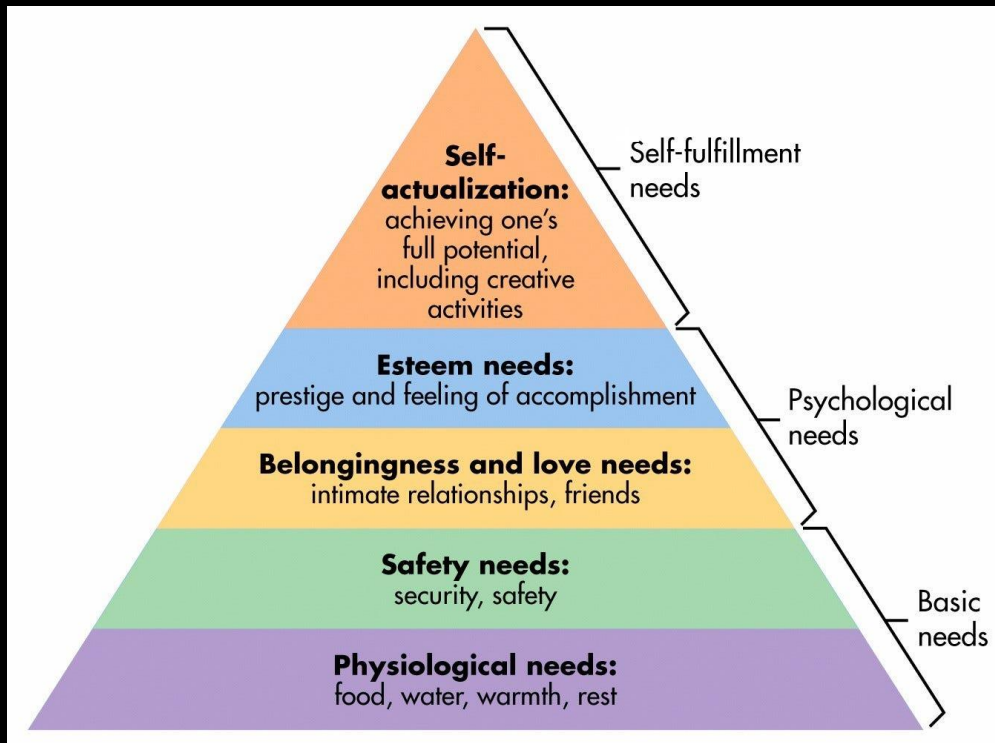
What do **most people** aspire in their whole life?

The answer: wellbeing

# Now, two concerns with education:

Wellbeing in Education?
Can we attain wellbeing through education?

Education for Wellbeing?
Is education for the purpose of achieving wellbeing?

UNESCO's documents on wellbeing
especially during Covid-19

- **UNESCO Strategy on Education for Health and Well-Being: Contributing to the Sustainable Development Goals (2023)**

- **Education for Health and Well-Being Thematic Paper (2022)**

- **Supporting Learning Recovery One Year into COVID-19 - The Global Education Coalition in Action (2021)**

- **Prioritizing Health and Well-Being Now and When Schools Reopen (2020)**

- **Nurturing the Social and Emotional Wellbeing of Children and Young People During Crises (2020)**

- **Global Education Monitoring (GEM) Report 2020**

- **UNESCO Strategy on Education for Health and Well-Being (2016)**
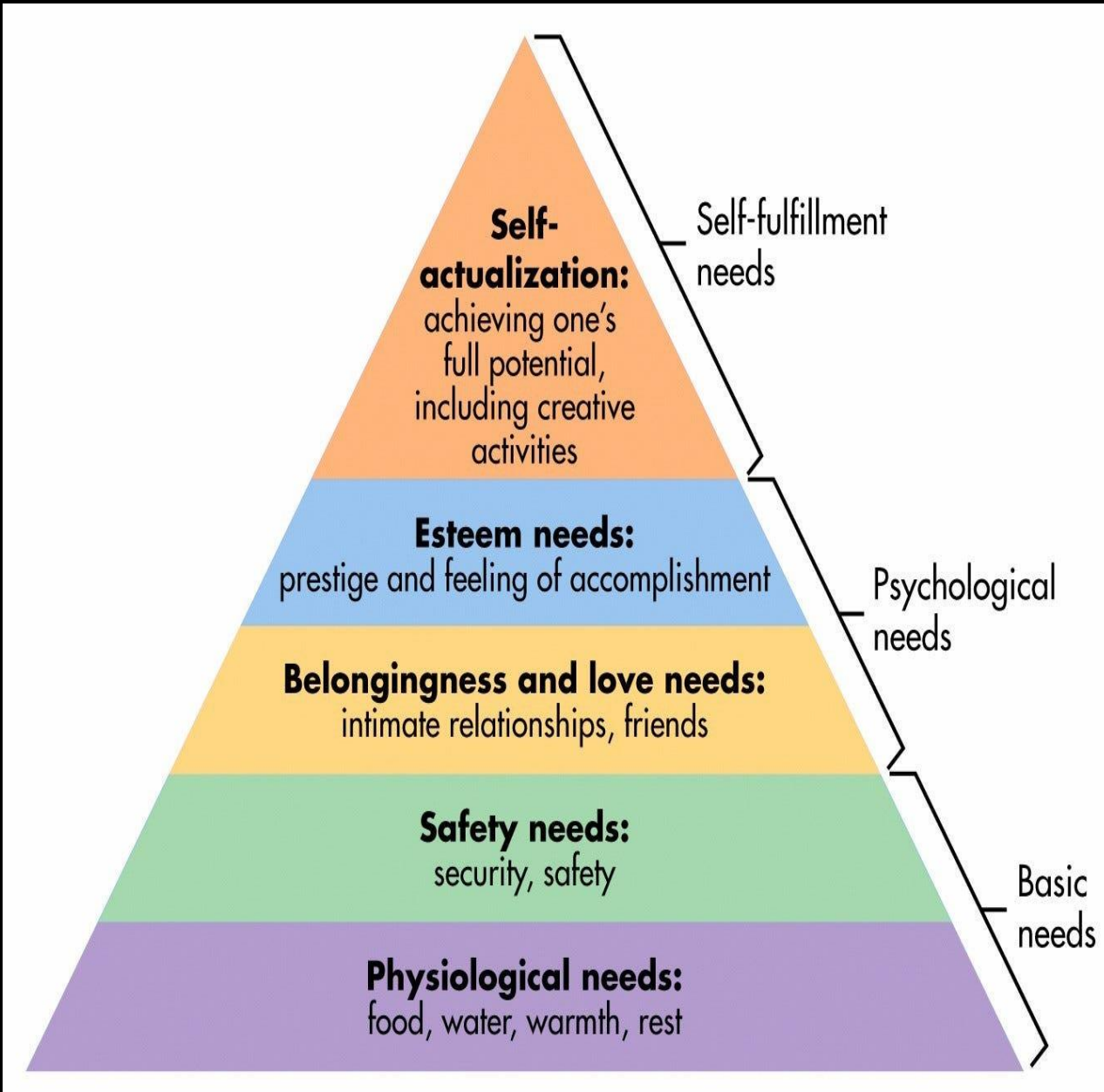
**We need a
Global Educational Goal
to lead our global endeavor!**

**Can education help
resolve these problems?**

GLOBAL SCALE

*pandemic, climate change,
wars, food, etc.*

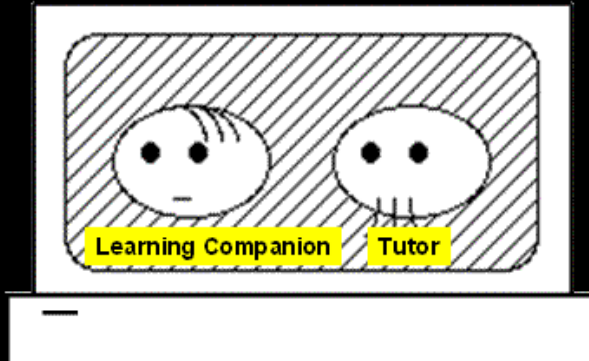Unfortunately,
human <u>basic needs</u> are at stake!

PART 1: Why harmony, wellbeing, and global?

- **What do most people aspire to throughout their lives?**

- **A journey of exploring the Global Educational Goal Problem**

- **What is harmony?**

- **'from local to global' VS 'from global to local'**
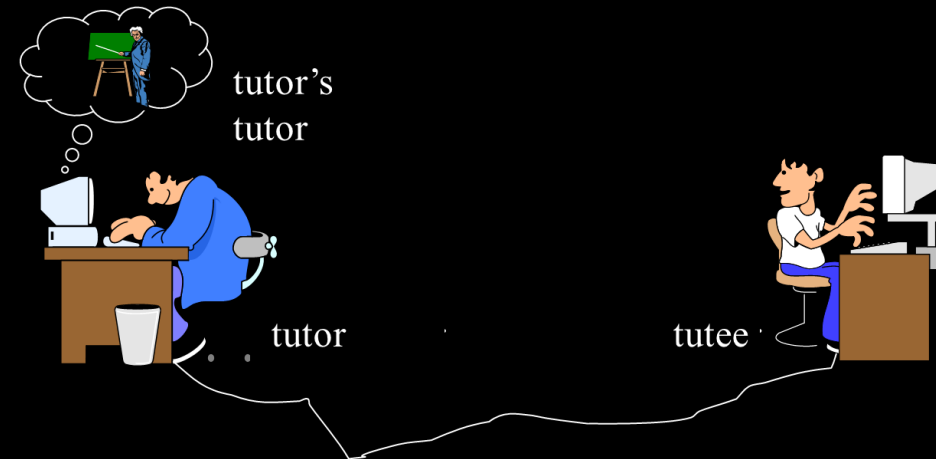
ITS'88 & ITS'92

Studying with the Prince

Learning Companion System
(Chan & Baskin, 1988)

Probably the first dedicated network learning system in the world

tutor's tutor

tutor   tutee

A social learning system to support human learning companions for collaborative and competitive learning with virtual tutor support (Chan, et al., 1992)

1995: Keynote at AIED'95

"Learning Companion Systems, Social Learning Systems, and the Global Social Learning Club" (Chan, 1996)

Social Learning System
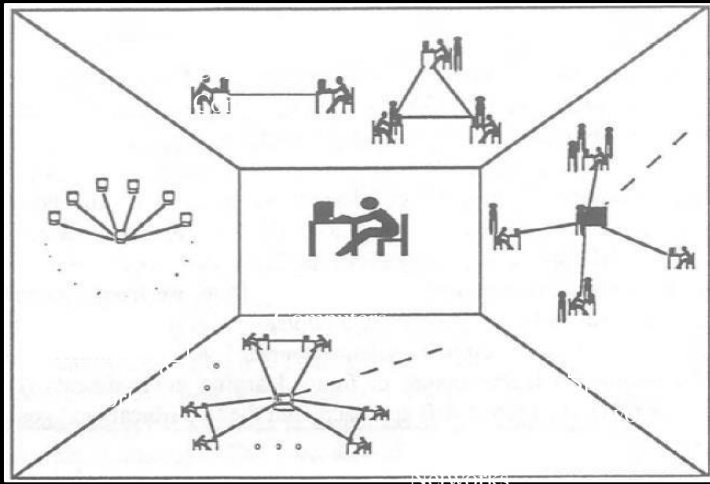
Networked Social Learning Environment
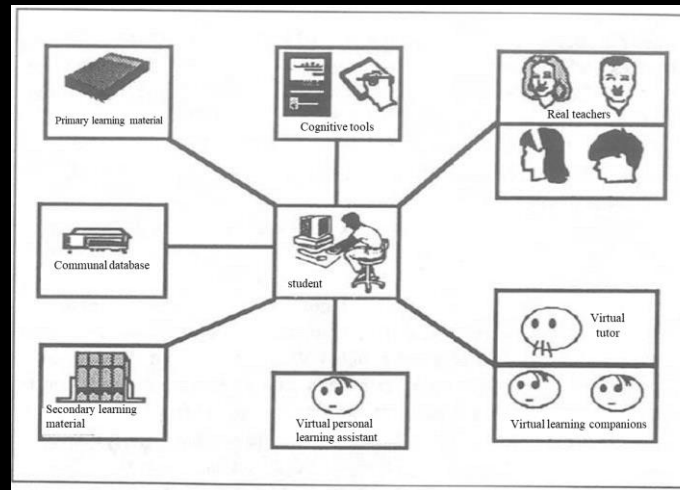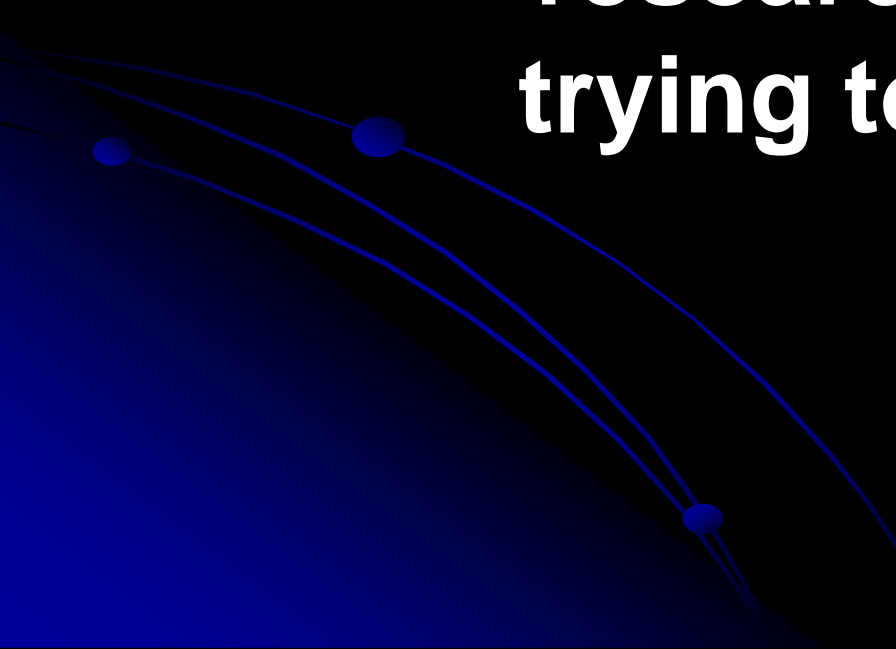
Learning Beyond Cognition

Five Educational Goals

Networks
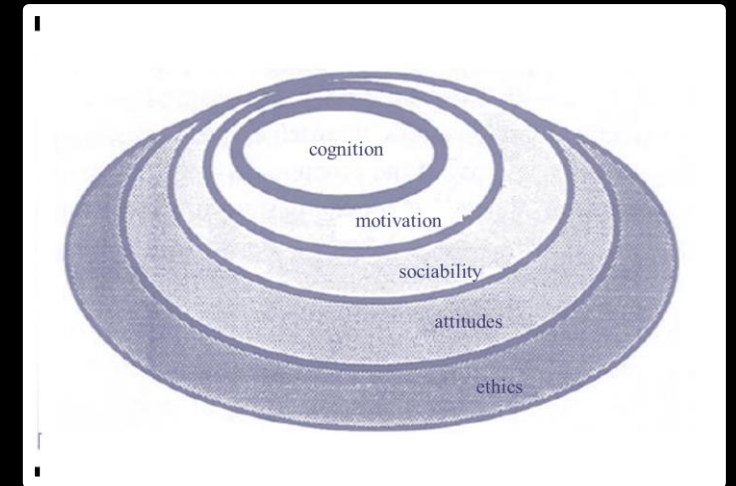
cognition, motivation, sociability, attitude, ethics

To some extent, this talk responds

to the problems I raised in

my AIED2007 keynote.

To elicit 4 problems that researchers seem to have been trying to resolve in this century!

The *future* is found from the *past* and the *present*, especially from the current research communities
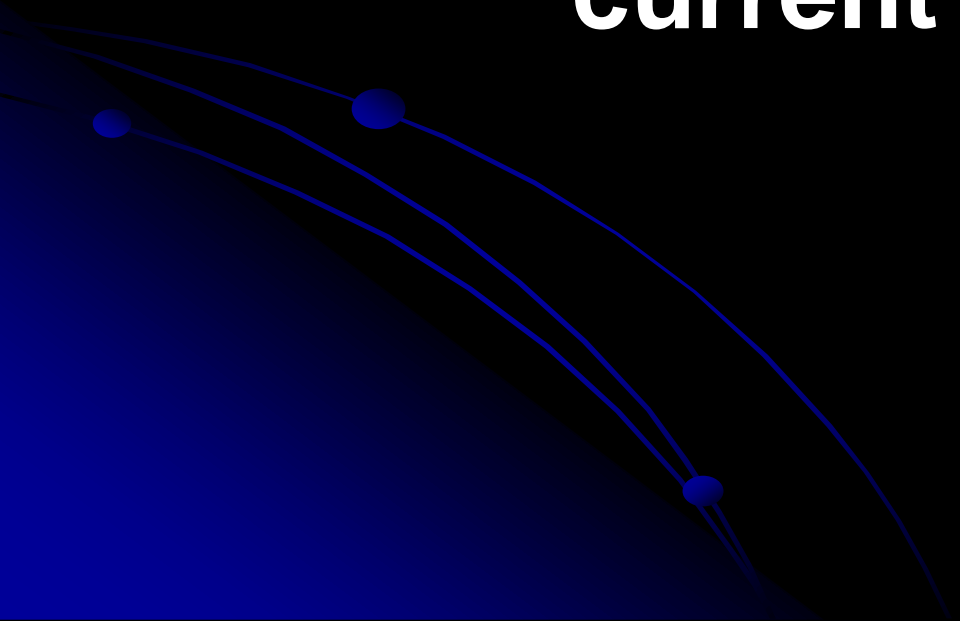
- **I notice that the current research communities are working towards 3 orientations; two existed already and one is emerging**

- **These 3 orientations are leading to resolving the 4 problems**

Three orientations of research
(Chan, et. al. 2006; Chan, 2006)

- **Dream-based research**
  - exploring the potential implications of some emerging technologies

- **Adoption-based research**
  - proving the feasibility of spreading our work in the real world practice

- **Humanity-based research**
  - developing an individual's capacity *almost* entirely from that individual's perspective
  - cultivating well being of the globe as learners' value
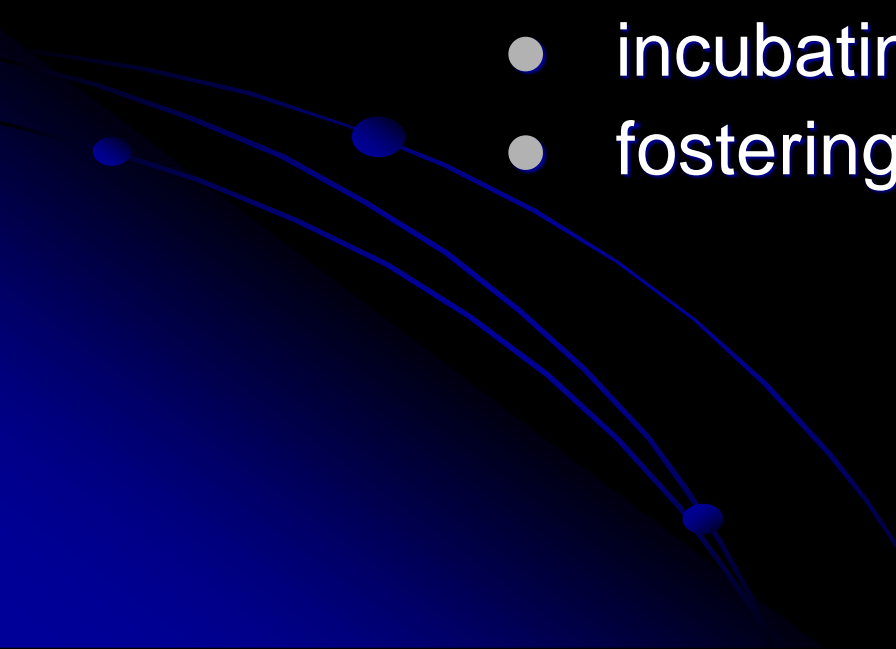
Beyond knowledge acquisition

inner freedom

creativity   passion   leadership   perseverance

critical thinking   interest   caring   effort

(cognitive)   *(affective)*   *(social)*   *(attitudinal)*

confidence
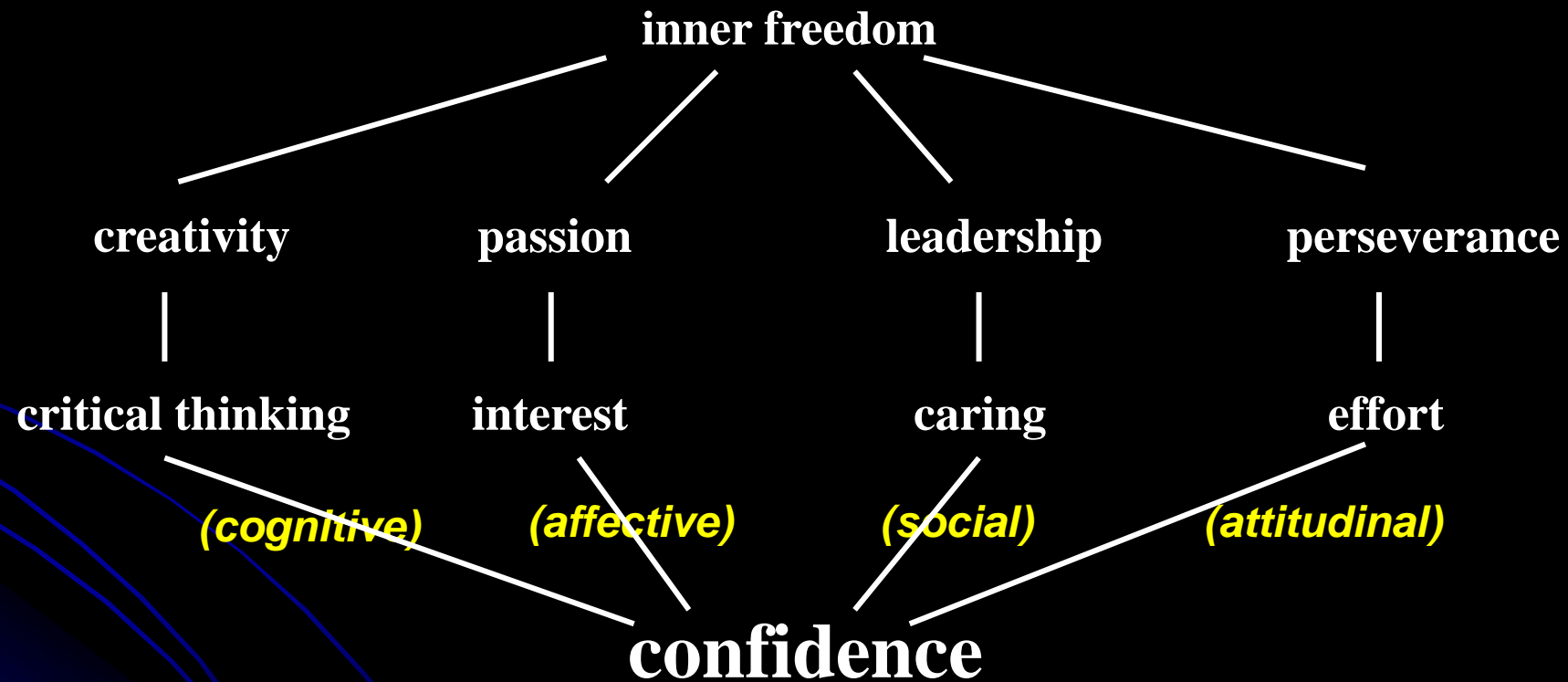
Humanity?

Building foundations for the better globe

- bettering yourself
- nurturing a caring family
- incubating a humane society
- fostering the peaceful and collaborative globe

The four problems

1. The *productivity* problem
   - the performance or output/input problem

2. The *school restructuring* problem
   - the problem how school is being transformed

3. The *lifelong, personalized curriculum* problem
   - the extension of the Holy Grail problem of ITSs

4. The *global educational goal* problem
   - rethinking the educational goal from the global perspective

Wellbeing of the humankind

The globe is at stake!

- "Until our own generation, no one had grounds to worry whether the next human generation would survive or enjoy a planet worth living on." (Jared Diamond, 1992)

- Nuclear holocaust; earth resource exhaustion; mass-extinction of species; polarization of the society, etc.

- Should we just pursue Gross National Product?
  - Or Bhutan's Gross National Happiness: economy, culture, environment, and governance?

What constitutes human nature?

- **Heredity, Development, Aggression, Sex, Altruism, Religion (Edward Wilson, 1978)**

- **Many Massive Multiplayer Online Games (MMOGs) design address wealth, fame, and power in the process of building identity**

- **MMOG for learning must affect extensively learners' value system**

**We researchers are the designers of the education
and hence the future society**

We are very powerful, sometimes too powerful!

Good Citizens?

Gangsters?

What is this global educational goal?

**What should we do for the
global educational goal problem?**

A global, collective endeavor!

The four problems

(Switch the order, considering its pressing need)

1. The *global educational goal* problem
   - rethinking the educational goal from the global perspective

2. The *productivity* problem
   - the performance or output/input problem

3. The *school restructuring* problem
   - the problem how school is being transformed

4. The *lifelong, personalized curriculum* problem
   - the extension of the ITS's Holy Grail problem

Why these problems?

- **May tell us *unequivocally* where we are heading to, both in the near or the farther future, say, tens or 100 years**

- **the 3 research orientations are indeed leading towards to these goals**

- **nurturing collective, global endeavor to resolve the problems**

PART 1: Why harmony, wellbeing, and global?

- What do most people aspire to throughout their lives?

- A journey of exploring the Global Educational Goal Problem

- **What is harmony?**

- 'from local to global' VS 'from global to local'

We are now in 20**23**

The world is at stake!

More than 160 years ago, Dickens wrote in the first sentence of his "A Tale of Two Cities":

"It was the best of times, it was the worst of times,

it was the age of wisdom, it was the age of foolishness,

it was the epoch of belief, it was the epoch of incredulity,

it was the season of Light, it was the season of Darkness,

it was the spring of hope, it was the winter of despair..."

What've happened in last few years…..?

The world is on the brink of peril

- **The human lifespan is extended, but millions of people deceased in a short time before our eyes due to COVID-19**

- **Digitization enables all of us to connect and communicate, but we constantly quarrel over different beliefs**

- **Online games immerse players, but children's addiction may become a disaster**

The world is on the brink of peril (con't)

- **Artificial intelligence can improve human life, but it can also cause great harm to humanity**

- **The metaverse may represent a bright future world, but it may also signal a dark abyss to come**

- **We cheer for technological advancement, but worry about climate change, natural resource depletion, environmental pollution, wealth disparity and other problems**

43

More recently,

the rising frequency of global conflicts makes

such threats are even more ACUTE!

It is said that at the end of World War II,

a letter was found in a Nazi concentration camp.

Dear Teachers:

I am a survivor of a concentration camp.

My eyes saw what no man should witness:

gas chambers built by <u>learned engineers</u>,

children poisoned by <u>educated physicians</u>,

infants killed by <u>trained nurses</u>,

women and babies shot and burned by <u>high school and college graduates</u>.

So, I am suspicious of education.

My request is: help your students <u>become human</u>.

Your efforts must never produce

learned monsters, skilled psychopaths, educated Eichmanns.

<u>Reading, writing, arithmetic are important</u>

only if they serve to <u>make our children more human</u>.

So, what is education?

- What is the future of humankind?

- Can we live in harmony with the world around us?

- What role should education play in this turbulent world?

Remember

If there is no harmony,

there is no wellbeing!

What is education?

- Have we ever thought about our educational goal at a higher-level manner?

- If not, are we sure that we fully understand the position of our research's contribution to the future education?

- Or do we just let the ever-advancing technology guide our research?

Remember

Designing future education
is
designing the future world

We are powerful, but we must be responsible and careful!

Also remember

- The education we impart today will determine the destiny of all humans in the years to come.

- In 20 years or so, today's school students will be in their 30's or 40's and emerge as the pillars of our society.

Thus, if we ask again:

What do most people aspire

in their whole life?

a possible answer: Harmony & Wellbeing (Harwell)

This is also the essence of humanity!

Harmony

- **Oxford Dictionary (meaning):**
  - Agreement of feeling or sentiment; peaceableness, concord.
  - Combination or adaptation of parts, elements, or related things, so as to form a consistent and orderly whole; agreement, accord, congruity

- **Webster Dictionary (synonyms) :**
  - Balance, coherence, concinnity, consonancy, orchestration, proportion, symmetry, symphony, unity

Three types of harmony

- **Individual harmony (with self)**
  - a state of peace, balance, and contentment within oneself
  - involving the alignment of thoughts, emotions, and actions, hence leading to a sense of inner peace and stability
  - an essential part of living a fulfilled and meaningful life

- **Social harmony (with society)**
  - peaceful coexistence and mutual respect among individuals within a community or society
  - involving goodwill among people
  - building of supportive, cooperative relationships that promote understanding and belonging

- **Environmental harmony (with nature)**
  - the balanced and sustainable relationship between humans and the natural environment
  - involving living in a way that respects and preserves the natural world
  - ensuring natural resources available for future generations and helping prevent environmental crises
  - essence for the health of the planet and the survival of all its inhabitants

UNESCO's 17 SDGs
essentially about Equity & Environment

- **Social Harmony**
  - *Equity*

- **Environmental Harmony**
  - *Environment*
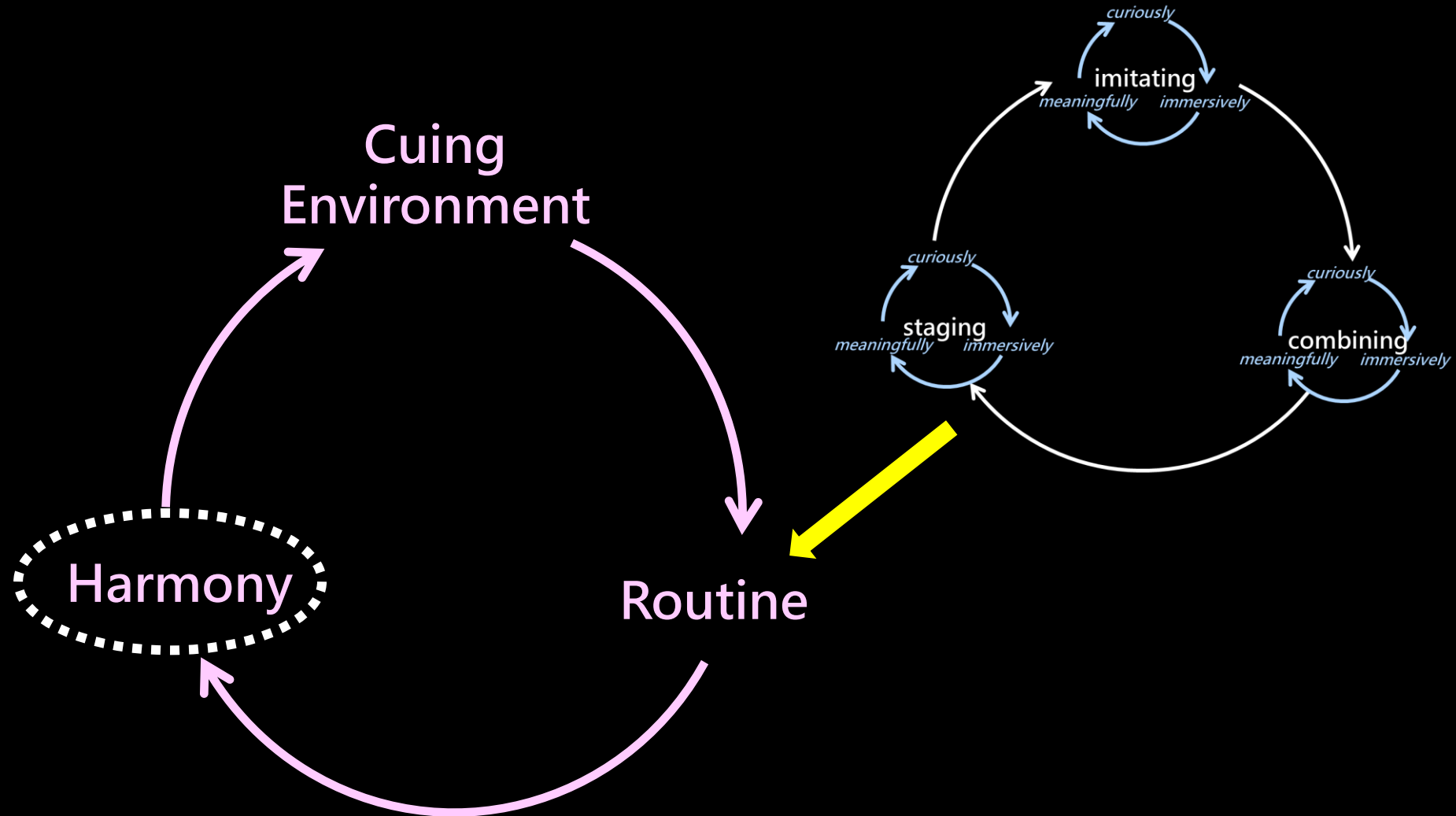
UNESCO's documents on harmony

- **Sustainable Tourism in Harmony with Nature, People, and Spirituality (2020)**

- **UNESCO and Biodiversity: Creating Harmony (2020)**

- **Ecohydrology: Engineering Harmony for a Sustainable World (2015)**

- **Recipes for Harmony (2015)**

- **For a World of Harmony (2011)**

- **Man and Nature: Living in Harmony (2009)**

- **etc.**

Harmony implies inclusiveness!

Harmony doesn't mean pursuit of conformity.

Just the opposite, pursuit of conformity leads to disharmony.

Harmony is also a component of IDC Theory

For Humanity Harmony

- **individual harmony**
  - *inner peace, satisfaction, balance, coherence, …*

- **Family Harmony**
  - *love, care, modeling, parental respect, …*

- **Societal Harmony**
  - *compassion, equity, inclusiveness, integrity, …*

- **Global Harmony**
  - *Intersocietal compassion, intersocietal equity, SDGs, global citizenship (UNESCO), global competence (OECD), …*

Harmony

Humanity Harmony

- *Individual Harmony*
  - *inner peace, balance, coherence, satisfaction, ...*

- *Family Harmony*
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- *Societal Harmony*
  - *compassion, equity, inclusiveness, collaboration, integrity, ...*

- *Global Harmony*
  - *intersocietal compassion, intersocietal equity, SDGs, global citizenship (UNESCO), global competence (OECD), ...*

Environmental Harmony

- *Global Warming*
- *Natural Disasters*
- *Earth Resource Exhaustion*
- *Starvation*
- *Extinction of Species*
- *......*

PART 1: Why harmony, wellbeing, and global?

- **What do most people aspire to throughout their lives?**

- **A journey of exploring the Global Educational Goal Problem**

- **What is harmony?**

- **'from local to global' VS 'from global to local'**

from Local to Global

Traditionally, our concern is

personal harmony, followed by family harmony, societal harmony, and then global harmony

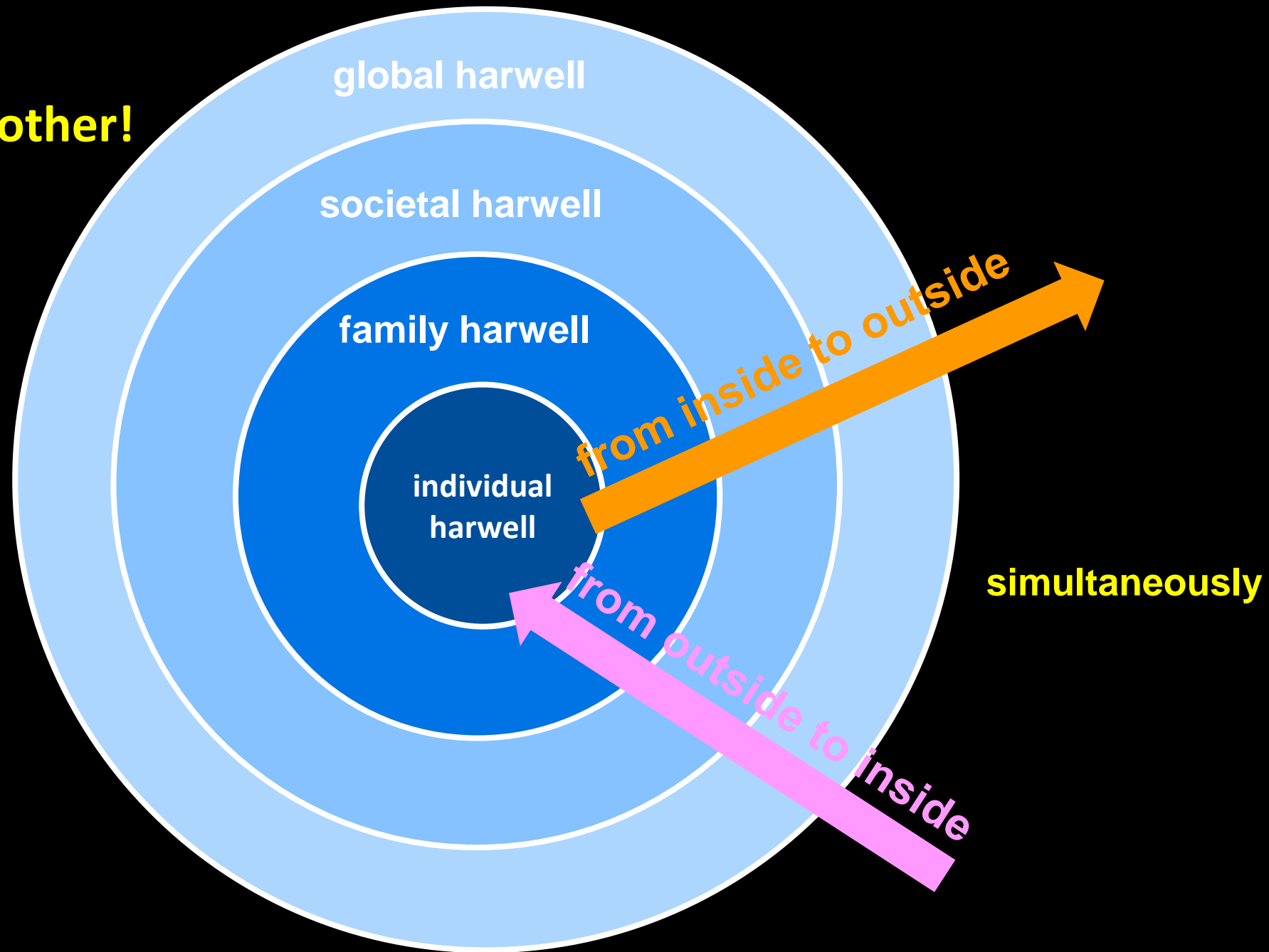## Same for wellbeing, our concern is

personal wellbeing, followed by family wellbeing, societal wellbeing, then global wellbeing

from Global to Local

Because the world is getting smaller and smaller (due to the internet) and for many other reasons, our concern should also be

global harwell, followed by societal harwell, family harwell, then individual harwell

Global, Global, Global

Global Thinking, Global Concerns, and Global Value

will form a Global Mission

uniting our Global Educational Effort

'Global Compassion' as an example

- **'Compassion' (or empathy) is an important element of harmony.**

- **It is a sentiment mainly directed towards others, defined as "a strong feeling of sympathy and sadness for the suffering or bad luck of others and a wish to help them" (Cambridge Dictionary).**

- **We are well-aware and have 'compassion' for individuals, but not many of us realize that from a global perspective, we also need to extend compassion to other societies or cultures.**

'Global Compassion' as an example (con't)

- **In the future, 'inter-family compassion' and 'inter-society compassion' should be well-defined and promoted, not only for the general public but also for leaders or statesmen from different societies or states.**

- **Thus, 'global compassion' should encompass interpersonal, inter-family, and inter-society compassion.**

- **By the same reason, we should extend the definition of wellbeing to global wellbeing.**

Why 'from Global to Local' is important?

- **Edward Wilson (1978) put forward: human nature constitutes Heredity, Development, Aggression, Sex, Altruism, and Religion**

- **We inherit *aggression* from our ancient ancestors possibly because they robbed resources from others for survival, and more resources for even better survival**

- **Individual aggression aims for individual survival; tribal aggression for tribal survival**

- **Human selfishness may originate from our inherited aggression, which may lead to conflicts among individuals and societies**

Why 'from Global to Local' is important? (con't)

While the progress of technology improves human wellbeing,

the reduction of aggression and the increase in altruism represent

the most significant advancements of human civilization.

This may also explain why

Global Harwell should be our global educational goal!

Thus, Global Harwell refers to harmony and wellbeing from both global and local perspectives.

From here on, 'Global Harwell' and 'Harwell' will be used interchangeably.