Theory U perspective and levers of transformation shaping the future of universities

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Euskampus Fundazioa

WE LOVE TRANSDISCIPLINARITY MAITE DUGU - Shaping the future of universities
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Introduction to Theory U

Towards a University 4.0

Coda
This lecture is organised in two blocks.

The first one is an overview of Theory U, a short summary with some key concepts and ideas that can help us move towards and shape the 21st century university, which is the subject of the second block, or, in other words, the 4.0 operating mode of the university.

We will end up with a CODA.
CONTENTS

Introduction to Theory U

Towards a University 4.0

Coda
Let’s start with a brief introduction to Theory U.

All the concepts presented in what follows are taken from three sources:
• Theory U – second edition, by Otto Scharmer.
• Leading from the emerging future, by Otto Scharmer and Katrinn Kaufer.
• And above all, from the new book, which I recommend to read, ‘The essentials of theory U, by Otto Scharmer.
• Presence, by Peter Senge, Otto Scharmer, Joseph Jaworski, Betty Sue Flowers

At the end of this block, some applications of Theory U to several scenarios are my sole responsibility.
10% VISIBLE

90% INVISIBLE

EVENTS

PATTERNS OF BEHAVIOR

STRUCTURE

MENTAL MODELS

VISION

Image by Kelvy Bird, courtesy of Presencing Institute
Theory U main hypothesis is that “Form follows consciousness”.

The quality of the results achieved by any system is a function of the quality of the awareness that people in these systems operate from.

Theory U draws our attention to the interior conditions, to the blind spot, the sources from which we operate both individually and collectively.

It daws our attention to the invisible source dimension of what it is called the social field.

This social field is the quality of the relationships that we have to ourselves, to each other, and to the system, and that give rise to patterns of thinking, conversing, and organising, which in turn produce collective behaviour and practical results.

And Theory U’s main aim is to provide the grammar, methods and narrative to orient our attention to these sources of thought and action.
EGO SILO ME

ECO SYSTEMS WE

Images by Kelvy Bird, courtesy of Presencing Institute
Theory U is about change and transformation, about a journey across an abyss from our current reality that is driven by the past to an emerging future that is inspired by our highest future potential.

In essence, Theory U helps us crossing the abyss by providing, as we have just mentioned:

**1.** A grammar, a conceptual framework for understanding leadership and systems change.

**2.** A social technology, tools, process, principles and methods, for implementing awareness-based change.

**3.** A new narrative for evolutionary societal change that should lead to updating our mental and institutional operating systems in all society’s sectors, including, of course, higher education and universities.

Theory U relinks the parts and the whole by making it possible for the system to sense and see itself.

** When that happens, the collective consciousness begins to shift from ego-system awareness to eco-system awareness, from a silo view to a systems view, from me to we.
Theory U is built by the wise and original integration of different methods and lineages for effective change:

**1.-** Action research organizational learning and systems thinking in the tradition of Peter Senge, Ed Schein, Donald Schön, Chris Argyris, and Kurt Lewin.

**2.-** Mindfulness, cognition science and phenomenology in the tradition of Francisco Varela, Jon Kabat-Zinn and Arthur Zajonc, among others.

**3.-** Design thinking methodologies and practices in the tradition of Tim Brown and Dave Kelly (IDEO).

**4.-** Civil society movements in the tradition of Nelson Mandela, Mahatma Gandhi, Martin Luther King and millions of others who are mobilizing change in their local environments.

Let’s focus on Theory U as a narrative and as a grammar, as a conceptual framework, because this is what we will use afterwards for our application to higher education and universities.
Image by Kelvy Bird, courtesy of Presencing Institute
As a narrative of evolutionary societal change...

If we look into the abyss, Theory U starts from the realization that we can see three major divides:
Ecological divide (separation / disconnection between our being and nature),
Social divide (separation / disconnection of our individual being and others),
and Cultural-Spiritual divide (separation / disconnection between our (ordinary) being/self and our Being/Self (in the sense of our maximum possibility)).

Three numbers characterize these three divides:
**1.5 for the ecological divide: Currently our economy consumes the resources of 1.5 planets. We use 1.5 times the regeneration capacity of planet Earth.
**8 for the social divide: Eight billionaires own as much as half mankind combined.
**1,000,000 for the cultural-spiritual divide: Around 1 million people per year commit suicide – a number that is greater than the sum of people which are killed by war, murder, and natural disasters.

They are essentially three different faces of one and the same root issue:
They are the visible parts (tips) of icebergs in which the non-visible part (90%) hides mental structures and models, as well as patterns of behaviour both individual and collective, which are responsible for creating different crises and unwanted results.
Reset
Do you want to start over?

No
Yes
Everyone understands that we will not overcome the challenges that we face today—the loss of our environment (to the ecological divide), of our society (to the social divide), and of our humanity (to the cultural-spiritual divide)—by adding one more initiative or idea to the mix.

In fact, we have to reset and upgrade our entire ‘operating system’.

Without entering political philias and phobias, the recent resignation by French Minister for environmental issue, Mr. Hulot, is related to this idea. When asked about whether small steps are sufficient to tackle the pressing environmental issues, he said. ‘the answer is NOT’, ‘I do not understand that we attend with indifference to a tragedy announced’
Matrix of Economic Transformation

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Reframe: From Ego to Eco

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Theory U rethinks seriously about economics and prosperity in the light of the social, cultural-spiritual, and ecological challenges of our time. It looks at many key variables and concludes that, if they were leveraged simultaneously, the result would be an update of the entire economic operating system that could provoke a shift from ego- to eco-system awareness. These variables are called “acupuncture points” because they function like pressure points do on our bodies: When activated, they can have a regenerative impact on the whole system.

These seven acupuncture points are summarized in the Matrix of Economic Transformation.

For example:

Let’s take the 1.5 planet footprint. It is the result of the objective of infinite growth in a world of limited resources. The task is to reframe nature as an eco-system rather than a resource, the natural world is not a commodity, but a circular ecology that we need to co-evolve with. A leverage point can be the activation of a real circular economy.

Let’s take the cultural-spiritual divide which manifests as burnout, depression, anxiety, and consumerism without well-being. The task is to reframe labour and consumption: instead of thinking of labour as a job that we perform to earn money, we must reinvent work and treat it as a creative act that allows us to realise our highest potential. Without further analysis here, universal basic income for all, and free Access to education can be leverage points for shifting the future of work to a more interpersonal and creative realm.
DOWNLOADING
PAST PATTERNS

suspending

SEEING
with FRESH EYES

redrecting

SENSING
from the FIELD

letting go

PERFORMING
by OPERATING from the WHOLE

embodying

PROTOTYPING
by LINKING HEAD, HEART, HAND

enacting

CRystALLIZING
VISION and INTENTION

letting become

OPEN MIND

OPEN HEART

OPEN WILL

PREsENCING
CONNECTING to SOURCE
Let's move to Theory as a grammar. Well, as a grammar to understand and
induce change... The 'U' refers to or, rather, depicts, from a given point and
time, the core process of transformation in which:

**Going down the left side of the U, we unlearn and liberate ourselves from
premises, beliefs, prejudices and past behaviours (suspension, letting go),

**At the very bottom, we take our attention inwards and towards the
deepest part of the being, to find and connect with the source from which
the best possible future can emerge (connection with the whole, 'presencing'), and

**Then, going up the right side of the U, we begin to "act in an instant" and
collectively create that future, experimenting and testing the new ways of
being that we have intuited through a joint learning (crystallization and
prototyping),

**until we consolidate the process and co-evolve towards a new and better
collective reality (institutionalization and operation from the whole).

In short, the image of the 'U' portrays the form of a 'journey' that is both
linear (in the sense of having a directionality) and re-evolutionary (in the
sense of transcending the habitual patterns of thought and action).
Matrix of Social Evolution

**Field 1: Habitual**
- **Micro:** Attending
- **Meso:** Talking nice
- **Macro:** Centralized top-down
- **Mundo:** 1.0 Hierarchy

**Field 2: Eco-System**
- **Micro:** Open minded
- **Meso:** Talking tough
- **Macro:** Decentralized divisions
- **Mundo:** 2.0 Competition

**Field 3: Empathic-Relational**
- **Micro:** Open hearted
- **Meso:** Inquiry
- **Macro:** Networked stakeholders
- **Mundo:** 3.0 Stakeholder dialogues

**Field 4: Generative Eco-Systems**
- **Micro:** Open presence
- **Meso:** Collective creativity flow
- **Macro:** Eco-system co-creating
- **Mundo:** 4.0 ABC Awareness-based collective action

The Essentials of Theory U - www.ottoscharmer.com
However, Theory U is more than a process. It is a framework that adopts a systemic perspective working as a matrix, the so-called matrix of social evolution.

**The horizontal axis represents four different levels of aggregation of social systems that are classified as **micro (individual), **meso (groups), **macro (organizations and institutions) and **mundo (global systems). At the same time the social fields are enacted on all these levels of aggregation through four primary forms of action: **attending (micro), **conversing (meso), **organizing (macro) and **coordinating (mundo). It is through these four activities that we as humans collectively create the reality we live in.

In turn, **the vertical axis considers each of these levels from different fields of attention: **1.0 (habitual-traditional awareness, the universe as my mental projection, always operating from the past), **2.0 (ego-systemic awareness, subject-object consciousness, the world as a set of things separated from me), **3.0 (empathic-relational awareness, the universe as a set of relationships with which I can connect, I can now sense reality from the viewpoint of other stakeholders), and **4.0 (generative eco-systemic awareness, the universe as a field that sees itself, and flows through me).
These are the four sources of attention and awareness: **from inside, from the periphery, from outside, or from the surrounding sphere of a system.

When we look at the social reality around us, **most of the time we see that individuals, groups and organizations operate from the first two stages or states.

However, great leaders, inspiring performers, high-performance teams and organisations tend to operate from the entire spectrum, moving across all four of them as needed by the situation they face.
LEVEL of AWARENESS → INSTITUTIONAL INVERSION

1.0
- I-in-me
- Centralized coordination based organizations

2.0
- I-in-it
- Decentralized coordination based organizations

3.0
- I-in-you
- Networked organization, stakeholder relationship

4.0
- I-in-now
- Organizations based on “Commons”
Let’s pay attention to the ‘Organizing system level’, or macro level, in order to introduce a last and very important concept in Theory U: Inversion.

Organizations are essentially geometries of power, the collective embodiment for decision making and action operating in a field of awareness. When we look at the evolution of organizations, we see four different stages: centralized, decentralized, networked, and ecosystem, which reflect different stages or qualities of how organizations operate.

According to Theory U, organizations must follow an institutional inversion, that is turning inside out and outside in. Institutional inversion is a profound opening process that shifts the source of power from the top/center to the surrounding sphere. It is a way to invert top-down silo-like structures to distributed organizing. It is a real change in the geometry of power that allows for ecosystem coordination.
INVERSION

Adapted from The Essentials of Theory U - www.ottoscharmer.com, and Kelvy Bird
In fact, institutional inversion, or just inversion, because this can be also applied to any system level, also for micro, meso and mundo, **it is a process of moving down the field of attention by two movements: opening and deepening.**

**Opening, that is, taking what is inside of our microcosm and make it part of the larger macrocosm around us.**

Deepening, that is, internalizing what is outside, thinking, feeling, and acting from the whole.
‘Myself’ in relation to others

1.0

Egocentrism

2.0

Tolerance

3.0

Empathy

4.0

Compassion
Let's apply this framework provided by Theory U to different scenarios.

I, myself, in relation to others

**Level 1.0 is I in me, in myself, self-centred.

**In Level 2.0 I recognize you. There are others outside myself, others whom I must respect and whose viewpoints I can tolerate.

**In Level 3.0 I can see now reality from the viewpoints of others, I can empathise with you.

**In Level 4.0 I have the openness and I sense myself as a vehicle of the whole, and act consistently helping others to shift the whole system. This is compassion, the inversion of egoism.
Cooperation between different partners

1.0
I win – you lose

2.0
I win – You win

3.0
We win

4.0
We (as) whole win
When establishing cooperation between partners we can identify several levels of awareness from which we operate:

**In Level 1.0** For me to win you must lose, no cooperation at all. My objective is to publish as many papers as possible at the expense of the others, i.e. I do not care about the growth of my colleagues or of my department.

**In Level 2.0** We recognise that collaboration with others help me meet my particular objectives. The others are levers for my own interest, and they can also benefit from me. This is nothing more than a TRANSACTION!

**In Level 3.0** We start asking about the objectives of other collectives, of our stakeholders and how to maximise the impact of the cooperation not only for you and me, but also for our interest groups and other stakeholders that frame our partnership.

**Finally in Level 4.0** we ask ourselves about the objectives that transcend our particular objectives, and those of our stakeholders. We think and operate from the challenges of the whole system, of our territory, of humankind.
Cooperation: relational models

1.0  Competition

2.0  Collaboration/Client-provider

3.0  Collaboration/Co-leadership

4.0  Community

Cooperation: relational models
These four different fields of awareness for cooperation between partners lead to different relational models between them:

**In Level 1.0 I win, you lose, that is fierce competition.**

**In Level 2.0 I collaborate with you and vice versa in a transactional way, we are in a client-provider relationship.**

**In Level 3.0 we collaborate together as co-leaders in a our system of common stakeholders.**

**In Level 4.0 we do not collaborate, we are really part of a community with which we co-evolve. We share to generate abundance for the whole system.**
Disciplinary cooperation

1.0 MONO

2.0 MULTI

3.0 INTER

4.0 TRANS
How can we apply this approach to the disciplinary collaboration? We can distinguish four levels of awareness and organisation from which we operate in disciplinary cooperation:

**1.0 is Mono - Collaboration within the disciplines. For example between experimental and theoretical particle physicists.**

**2.0 is Multi - Each discipline provides its knowledge to build a linear value chain. For example between neuroscientists and clinical neurologists in a translational approach, from the laboratory to the patient.**

**3.0 is Inter - Collaboration involves synthesis of common approaches, languages, and challenges but each discipline maintains its own methodologies. For example among computer scientists, engineers, physicists and mathematicians in a Particle Laboratory such as CERN.**

**4.0 Trans - Collaborations begin in the definition of the challenge to be addressed, there is cross fertilization between disciplines and out-of-academy institutions and social collectives. This is the necessary collaboration to face great social and global challenges such as climate change or the aging of the population. Trans- is the highest awareness level, Trans- is the inversion of Mono-.**

I recommend Reading the papers by Prof. Roderick Lawrence about the evolution of Inter- and Trans- disciplinarity concepts. And, of course, tomorrow we will enjoy a lecture by Prof. Pierre Do Santos that will deepen in the disciplinary collaboration.
Responsibility in production of knowledge and innovation

- **Mode 1 knowledge production**
  Science AND Society

- **Translational Responsibility**
  Science FOR Society

- **Challenge and user centred.**
  Science FOR and WITH Society

- **Maximum inclusiveness approach.**
  Science-Society System
Finally, let’s examine the awareness shift in the production of knowledge and in the innovation process.

**Level 1.0 is so-called mode 1 for knowledge production. There is science and society, and I live just in the realm of science, and I do not want my research to be polluted with societal issues at all. They will be dealt with by others.**

**Level 2.0 is Ego-system Responsibility based on interests created by diverse groups, characterized by translational collaboration. In this level, we, researchers, do science for society so that we, as science system, gain as much as possible from society: this is ego-systemic perspective.**

**Level 3.0 becomes Responsibility in terms of social and global challenges with a focus on users and several stakeholders. INVESTIGATORS COMMITTED TO SOCIETY, SCIENCE COMMITTED TO SOCIETY. Science is carried out for and with society.**

**In Level 4.0 There is a Science-Society system by the creation of spaces of maximum inclusiveness for problems identification, and accountability, involving the participation of social agents not necessarily users or interest groups. IN ADDITION, THE SOCIETY COMMITTED TO SCIENCE**
KEY MESSAGES TO TAKE AWAY
As a summary of what have been presented so far, I would like to highlight that:

**Theory U is the grammar, methods and narrative to orient our attention to the sources of thought and action, and thus explaining and inducing change and transformation of individuals, organizations and society at large.**

**As a narrative of change departs from 3 major divides of our time. It proposes key variables to upgrade of the entire economic operating system moving from ego- to eco-system awareness and functioning.**

As a grammar:
**Depicts the process of change identifying key moments and directions for that change.**
**Shows how the whole system operates. It proposes an inversion from self-centrism to sensing and thinking from the whole.**
CONTENTS

Introduction to Theory U

Towards a University 4.0

Coda
In this section I will present some ideas about the necessary shift in universities based upon what we have learned so far.

Apart from Theory U, many ideas in what follows are taken and adapted mainly from the book by Prof. John Goddard from Newcastle University: The Civic University, the policy and leadership challenges. Mainly Part I.
What is UNIVERSITY

Universitas magistorum et scholarum
School of universal learning
First of all, what is a university?

The origin of the university as institution traces back to the medieval age. Since then universities have evolved throughout centuries adopting several forms in different places. Analysing the historical evolution of universities is out of the scope and focus of this lecture.

What we can say is that the University has been around for about a thousand years, and its job throughout this period has been, in various ways, to do with knowledge transmission, production, transfer and application.

And we can depict the traditional university representation, operating today, as follows...
WHAT is UNIVERSITY...

1st mission

Teaching

Education relevant to the workplace

Academic Education

2nd mission

Research

Translation of knowledge into innovation

Generation of new knowledge

3rd mission

Society

Adapted from DR M Wedgwood, Manchester Metropolitan University
Universities are traditionally focused mainly in two different missions, teaching, i.e. the transmission of knowledge educating new generations of people, and research, the production of new knowledge.

This two missions can be oriented to two worlds: the academic world and society at large. Research can be more or less oriented to relevant societal problems, or more focused on its own sake. Education can be oriented to produce professionals, a highly qualified workforce for companies, social entities, public administrations and society at large, or can be oriented to give birth to new offspring of researchers.

Knowledge transfer and innovation related activities (technology transfer, dissemination of knowledge, cultural activities, social interventions, etc.) that create economic and social value are also considered in what it is usually called the third mission of universities.
The university of today is usually part of national systems of “higher education”. We have the UK universities, French universities, German universities, the Finnish Universities, and so on.

We even share a European Higher Education Area, composed of many type of institutions subject to contradictory tendencies. One tendency encourages global competition and rankings. And because higher education is one of the most internationalised sectors of society, global factors are increasingly paramount. The other tendency promotes greater cooperation between colleges and universities, and between them and other actors in knowledge and innovation ecosystems.
We are now under the pressure of the so-called ‘European University’, a controversial concept still to be defined and that will establish competition between different universities and countries under a forthcoming call for proposals launched by the EC. How will this ‘European University’ concept evolve? Will this be the next ‘initiative to the mix’ or will it re-shape the entire ‘University Operating System’ in Europe? What do you think?

Let’s see what happens, but we all have a responsibility in building this new type of networks and alliances.
“We shape the world by the questions we ask”

John A. Wheeler

What are universities good AT?

What are universities good FOR?
Following this line of thought, I want to recall what physicist John Wheeler once said. **We shape the world by the questions we ask**.

There are two key questions each university should be able to answer about its academic work. The first is: ‘what are we good AT?’, and the second is ‘what are we good FOR?’.

The first one is the most common one. Almost every university in the world responds to it, typically by enumerating some disciplines or fields of study in which they believe they distinguish themselves, through knowledge creation or application. And this is very easy to measure (publications, citations, patents, conferences, impact factors…).

The second one is a less often asked question. WE begin to respond to this question when knowledge creation, application and dissemination become responsive to societal needs.
“Wherever you put your attention as a leader, as an innovator, as a changer maker, or as a parent, that is where the energy of the system will go, including your own energy.”

*Otto Scharmer*
One of the key principles within THEORY U is that ‘Energy follows attention’. Therefore, depending where we pay our attention, all of our individual or institutional energy will flow to. The questions we ask are the triggers of our attention. And, remember, the attention is an expression of our field of awareness...

In doing so, we can identify three different university modes of operation.
'Ivory tower’ mode

Temple of knowledge
Clear boundaries
Discipline silos
“Mode 1”
Elitism
Push

Image from: https://www.vnews.com/Sunday-Perspectives-Balmer-6209232
The IVORY TOWER Mode

This is the isolated university, it erects as a **temple of knowledge for elites (either economic or intelectual), with clear and impermeable boundaries between campus and society.

In this university research is understood as the pursuit of understanding of fundamental principles focused around ‘pure disciplines’ and arising solely from curiosity with no direct or immediate commercial benefits. It is conducted by a limited number of research actors in a secluded/ semi-secluded environment. Achieves accountability via peer-review process, Mode 1 production of knowledge.

Access to this university is a privilege, either of birth or talent or both. Teaching shapes mind and character of ruling class; it is the preparation for elite roles. The ivory tower represents the ideal of the liberal education, and it fosters competition. It is also the ideal of the PUSH approach to innovation, unengaged with the transfer of it.

They are good at league tables and in global rankings, but are they really good for something else?
'Entrepreneurial’ mode

Transaction collaboration:
- Tech transfer
- Commercialisation
- NTBEs

University as a ‘firm’

Push-Pull

Industry-driven research

The ENTREPRENURIAL Mode

There is another ‘Operating System Mode’ in universities. In this university there is the recognition of a world out there, which is an opportunity, and with which interaction can be established in a transactional way. There is single-minded focus on intellectual property and innovation, technology transfer, and entrepreneurial and commercialisation activities. There is a strong emphasis on entrepreneurship, as it applies to promoting business start-ups by student and academic staff. It is a form of mutual engagement between university and society: by the valorisation of knowledge and investors’ involvement.

This orientation to bridge the gap between research and the market can have profound implications for the structure of the university. Some authors claim that this university has been transformed into a ‘firm’, flexibly responding to the market (both the labour markets and the market demands).

It is within PUSH approach to innovation, crystallizing engagement by the transfer of knowledge, and the creation of business opportunities. It also participates of a PULL approach to innovation, promoting industry-driven research. They are really good for economic growth, but are they really good for society at large?
'Engaged’ mode

- Socially responsive
- Challenge-driven approach
- Locally engaged
- “Mode 2”
- Inter/Trans-disciplinarity

Image: https://www.cardiff.ac.uk/news/view/392190-re-inventing-the-civic-university
The ENGAGED Mode

In this Operating System Mode the university is able to articulate, clearly and accurately, how it puts academic excellence to work in responding to the needs and demands of society. In this university academics position themselves not only on the supply side but also on the demand side of the knowledge economy, by addressing issues and problems that require knowledge generation for grand challenges facing global society (climate change, pandemics, poverty, etc.) or for their local communities (unemployment, loss of an industrial base, urban regeneration, etc.).

Such questions require knowledge; not just the application of existing knowledge trapped within disciplinary silos, but the creation of new knowledge in response to a particular societal issue.

In this mode, collaboration with external stakeholders is promoted, interdisciplinarity is fostered, and faculty, students and staff are engaged with interests outside the university. Overall, the institution seeks to maximize the benefits that the university generates for the public.
University Operating Systems

1.0: Ivory Tower

2.0: Entrepreneurial

3.0: Engaged
It is clear that we have identified 3 modes of operation for the university. These three modes correspond to three fields of awareness/attention of the university as institution that fit very well with which we have learned so far about Theory U.

Level or Mode 1.0 the Ivory tower – I in me

Level or Mode 2.0 Entrepreneurial – I in it

Level or Mode 3.0 Engaged – I in you

Is there a 4.0 field of awareness for the university? How can ‘inversion’ be done when dealing with the university as institution?

Absolutely, we can establish a 4.0 field of awareness for the university.

**Keep in mind that most world class universities operate in the low levels of institutional awareness. AND this is what must be inverted.

Well, Let’s start from what must be inverted…
Or, also using Theory U terminology, what is dying....
Adapted from John Goddard et al. ‘The civic university’ (Fig. 1.1)
It is a university whose management and leadership view the three mission areas as separate and distinct. The central core is concerned primarily with maximising success in canonical excellence (RESEARCH), student outcomes (teaching) and engagement with enterprise and society (3rd mission). Non-research and non-teaching activities are side-lined as this 3rd mission that is pushed to the periphery. Rankings focus predominantly on research and global positioning, which have helped to drive a wedge between these different roles and responsibilities. Therefore there is a HARD boundary created between the core, where activities are supported and enabled, and the periphery, where activities happen in spite of and because of central support.

This is a mix between field 1 and field 2 of awareness.

**Let’s start inversion to a new operating system that will give rise to a new university.**

How will this university be?
Community involvement

Practical experience

Academic disciplinary learning

Consumers vs. **Prosumers**
It is a university that provides deep disciplinary teaching to and learning by students, but that promotes inter- and trans-disciplinary competence training as well as skills for collaboration with groups outside the academy.

This is done with a curriculum combining strong disciplinary education with other novel approaches such as problem-solving learning, service-learning, research-based learning, and so on, in which students work in complex problems and challenges with social collectives and companies.

In this university students are no longer consumers of education, but they become active education prosumers, someone who receives education but at the same time produces knowledge helping to solve local challenges.

In this university distinction between learning and life breaks down.
The students of this university become ‘T-shaped professionals’ and ‘T-shaped researchers’. Remember, the vertical bar or column represents in-depth knowledge and skills related to a single discipline which usually define conceptual style and thinking style. For example, I am physicists and I think as a physicist, I use physical metaphors to explain my ideas... And the horizontal bar or beam represents the set of capacities, skills, habits and attitudes that allow for collaboration with other disciplines and non-academic people.

In this way, the graduates will not only be excellent professionals, but they will also be able to act as change agents, and will be responsive to needs and challenges of their local communities and society at large.

In Workshop 1 we will work together the personal and interpersonal aptitudes and attitudes that can foster these new people.
It is a university that incorporates large aggregates of people enrolled but not always on campus. In fact boundaries between campus and society are fuzzy and permeable. Furthermore, it has a strong and well designed digital identity and on-line presence. Such university blends ubication and ubiquity, providing relational, physical context, and any-time, any-where, any-device open Access to contents, plus digital platforms for co-creation.
It is a university whose research planning is focused on solving complex problems through networks not bound by disciplines, type of entities, sectors and regional/national borders. Emphasis is on participatory co-production of knowledge and ‘engaged scholarship’, promoting and enrolling in missions in the sense recently defined and proposed by Mariana Mazuccato.
First, this implies that top management of the university permits an apparent looseness of control that empowers individual researchers, professors, and even students, to establish strategic frameworks identifying challenges and to set up agendas of cross-disciplinary and cross-departmental actions connected with external parties.
Secondly, it will involve a focus on co-creation, meaning less calls for proposals, less bureaucracy, less application forms, and more methodologies for researchers’ involvement together with many actors outside the academy, such as design-thinking dynamics or tailor-made interventions.

In Workshop 2 we will learn and experiment with co-creation methodologies.
As a result, the generation of internal networks cross-linked with external actors will blur the boundaries between inside and outside (promotion of the inversion: inside out and outside in). **This inversion can be summarised as moving “from the lab is my world” to “the world is my lab”**
As a consequence of all this, accountability is not only and mainly subjected to canonical research assessments and metrics. Accountability actively engages public endorsement and principles of reciprocity.

Maybe we have to question the idea of an internal ‘top management’ versus a ‘directed self-assembly concerted with many actors’.
Entangled

hUbNIVERSITY
This inversion process leads to a university as a flexible, liquid institution in which traditional organisational architectures live together with the emergence of knowledge and innovation hUbs, open to the necessary concurrence with external entities and actors. **These hUbs are not new permanent structures, but changing and dynamic attractors for professors, researchers, students, industry practitioners, public administrators, and qualified citizens that switch on and off resources and projects underpinning shared missions to collectively face societal and global challenges.

In this university there is no perception of a core or a periphery, it is a piece of an **entangled system, that is to say, this university can no longer be fully described without considering the larger system in which is embedded, i-e. the other actors with which is entangled.

This 4.0 university is what I call the **hUbeNIVERSITY, entangled knowledge and innovation co-producers and co-recipients as an evolving system for the sustainable advancement of mankind.

Of course, this new University concept derived from application of Theory U is in tune and consistent with so-called TEAL organisations as proposed in 2014 by Frederic Laloux. Establishing connections between Theory U and TEAL organizations can be fascinating endeavour, but the topic for a different lecture.
Awareness shift in Universities

1.0  World-class, research intensive universities

2.0  Entrepreneurial University

3.0  Engaged University

4.0  Entangled hUbNIVERSITY
Summing up, we have the four awareness operating fields when dealing with universities:

**1.0 Ivory tower – I in me**

**2.0 Entrepreneurial University – I in it**

**Most world-class, research intensive universities operate in a combination of these two modes.**

**3.0 Engaged University – I in society**

**And there is a 4.0 field of awareness for the university, I in now, what we have called the Entangled mode that conforms the hUbNIVERSITY.**

**The civic university, as defined by Prof. John Goddard and colleagues, moves between mode 3 and 4.**
CONTENTS

Introduction to Theory U

Towards a University 4.0

Coda
Let me finish with a CODA.
Education is the kindling of a flame: How to reinvent the 21st-century university
In January this year, Otto Scharmer, who is a regular collaborator of Hufftinton Post, published a column in which he outlined some ideas that could reshape our universities.

There, he made use of Theory U, and particularly of the ‘Matrix of Social Evolution, to propose ten principles for the new university, plus five building blocks that could enable such 21st century university, as well as 5 particular initiatives to be developed over next years that are being led by the Presencing Institute.
The purpose of the 21st-century education and university is to help us develop what matters most: **vertical literacy**. The capacity for individuals to move through the 4 fields of awareness, to sense and actualize our highest future possibility, and to recognize that the issues outside are a mirror of the issues inside.
I will not enter into the details, but I will just summarise in a single sentence his message: The purpose of the 21st-century education and university is to help us develop what matters most: vertical literacy. By vertical literacy he understands the capacity for individuals to move through the 4 fields of awareness in such a way that we develop the capacity to sense and actualize our highest future possibility, and to recognise that the issues outside are a mirror of the issues inside.

PS - At the entrance to the Academy of Athens there was an inscription that said: *Let no one enter here who does not know math and geometry.* What should the inscription be at the entrance to the new university that we aspire to create today, 2,400 years later? *Let no one enter here who does not know that the issues outside are a mirror of the issues inside;* i.e., *let no one enter here who is vertically illiterate.*
no matter the vocation and passion of each individual

... life-long holding and enabling space for learning and research to bridge the gap between:

self and Self
self and others
self and Nature
What could be the university in the 21st century, according to what Otto Scharmer proposes?

**no matter the vocation and passion of each individual

**The University should be the life-long holding and enabling space for learning and research:
**to bridge the gap between self and Self, i.e. to develop one’s highest potential;
**to bridge the gap between self and others, i.e. to build a better society based on awareness based collective governance and action;
**and to bridge the gap between self and nature, i.e. to understand and respect nature, harmonising human activity with whole Earth’s being.
THANK YOU VERY MUCH FOR YOUR ATTENTION

ESKERRIK ASKO