The Alternative Futures Perspective of Higher Education

Jim Dator
Hawaii Research Center for Futures Studies
Department of Political Science
University of Hawaii at Manoa

dator@hawaii.edu
www.futures.hawaii.edu
The purpose of my talk today is to help you design the futures of education by using an Alternative Futures Perspective.
I have been involved in futures studies for a very long time.
I became interested in futures studies while I was teaching for six years in the College of Law and Politics of Rikkyo University in Tokyo, Japan in the early 1960s.
I taught the first officially-recognized futures course while I was at Virginia Tech in the late 1960s.
I went to the University of Hawaii in 1970, just as something called "Hawaii 2000" was being formed by the governor, legislature, business community and university.
One of the many outcomes of that process was the creation, by the Hawaii State Legislature, of the Hawaii Research Center for Futures Studies, placed at the University of Hawaii, in 1972.

I have been Director of that Center since then.
In the mid 1970s, the Department of Political Science, of which I am a member, created a two-year academic and internship MA program in Alternative Futures,
and since then has produced a stream of people who have earned very good livings as consulting futurists
Many also stayed on for a PhD in political science with a focus on alternative futures.
During the 1980s and 90s, I was President of the World Futures Studies Federation.
As such I got to see what "the future" looks like in over forty countries of the world.
During the 1970s and 80s, I also taught futures courses every spring in the InterUniversity Center for Postgraduate Studies in Dubrovnik, Yugoslavia.
Most importantly, during the 1980s and early 90s I went to almost every Communist nation and talked with people who were interested in a different future from the one then ahead of them.
I can assure you that the future is very different when seen from different cultures and places.
So it is out of more than forty years of work around the world that I bring you this introduction to what futures studies is, and is not;
and how the theories and methods of futures studies as we know it at the “Manoa School”
can help you envision, design, and implement systems of education

fit for the 21st Century in your country and region.
Futures Studies, Planning & Policy-Making, and Administration

Futures Studies is related to but different from Planning and Policy-Making

Just as Planning and Policy-making are related to but different from day-to-day Administration.
Just as day-to-day administration is to be guided by planning and policies, so also should planning and policies be guided by prior futures foresight activities.

Policy-making and planning without prior futures foresight is at best worthless and most likely harmful.
DEGREE OF PARTICIPATION

futures research

planning

administration

MAGNITUDE OF INTENDED ACTIONS

TIMELINE & DEGREE OF FLUX

hrcf

S
Futures Studies:

Some fundamental principles
Futurists can not

*predict*

THE Future

(No one can)
A prediction

is intended to be
a true statement

an accurate statement

about the futures.

Once we lived in communities
where prediction was possible.

Not now!
But futurists can and do *forecast*

**Alternative Futures**

(and so should you)
A forecast
is intended to be
a logical statement
a useful statement
about the futures.
Futures are plural, alternative, diverse, possible: futuribles

Not THE Future but Alternative Futures
Most importantly, futures studies helps institutions and individuals envision, design, and move towards preferred futures, rather than passively accepting whatever “will be”.

Envisioned and invented futures are not Utopias.

*Utopia* means *No Place*—an impossibly perfect place.
And we do not prefer Dystopias

*Dystopia means Bad Place*

(Most fictional images of the futures are Dystopias)
Futurists help people envision and move towards Eutopias

_Eutopia_ means *Good Place*

The best possible real world we can imagine but not an impossible Utopia
But to be effective
the process of forecasting and envisioning
must be done
continuously
and not be a
one-shot activity
To repeat:

**THE Future** cannot "predicted"
(accurately foretold), but
**Alternative Futures** can be "forecasted"
(logically constructed), and
**Preferred Futures** "envisioned" and "invented"
(on the basis of values and political action),
on a continual basis
(constantly scanning the horizon for new things).
In order to anticipate the futures as defined, futurists need to understand the existence and operation of three overarching processes:

the **push** from the past,

the **pull** from the futures,

and the **friction** of the present.
Factors from the past that push society into the futures include:

- deep cultural myths, beliefs, and practices;
- old images of the futures;
- and deeply-ingrained, ongoing, long-running trends (such as population growth (or decline), environmental pollution, climate change, resource utilization, etc.—what futurists call “the drivers” from the past).
Factors from the futures that seem to lure, entice, or pull society forward include 

emerging issues (such as possible technologies, lifestyle-preferences, resource and environmental challenges, etc. that are just beginning to be seen and felt, and are not yet established trends or problem/opportunities); 

new generations of humans who express new behaviors and values; and 

new images of the futures resulting from the emerging issues and behaviors.
Factors of friction in the present include the major entrenched institutions (such as of government, commerce, military, education, religion, etc., and all the people whose daily lives depend on them, most of whom either deny or try to prevent substantial change in the institutions, while some of them try to cause the institutions to change, or to create new institutions (sometimes successfully, other times not).
These three factors
—push, pull, and friction—
are always in contest
against one another,
so that some social and environmental change
is always ongoing.
However, when the forces pushing from the past and pulling from the futures become too strong for the frictional forces of the present to resist, substantial social and environmental change occurs, and a new normal may be established as the overall process continues.
A “New Normal” usually happens when new age-cohorts using new technologies come into power,

and/or major disruptions occur,

such as war, profound disasters, or similar wrenching processes.
We live in a world where the drivers from the past and the pull of the futures are especially strong.

**Novelties**—
new things never experienced before by humans—are rapidly emerging.
If a large part of "the futures" may be novel, then there are several important implications we need to keep in mind:
1. We must understand what the major novel, cyclical, and continuing forces are, and how to utilize them to create and move towards preferred futures.
In other words, we need to identify and strive "to surf the tsunamis of change" rushing towards us from the futures.
If much of the futures may be novel, then there is a second implication we need to understand:
ANY USEFUL IDEA ABOUT
THE FUTURES
SHOULD APPEAR TO BE
RIDICULOUS

Dator's "Second Law of the Futures"
WHAT’S NEXT??
The answer to the question:  

*What's next?*  

is **always:**  

*There are four generic alternative futures.*
The typology was **empirically** derived by collecting and evaluating as many **images of the future** as could be found in national and corporate plans for the future in scholarly studies of the future in movies and science fiction in songs, prayers, liturgies--in short, wherever images of the future appear.
From this empirical base, the Manoa School concluded that all of the millions (if not billions) images of the future existing in the minds of people can be categorized as specific examples of one of four generic images of the futures.
Four Generic Images of the Futures

Grow

Collapse

Discipline

Transform
WHAT’S NEXT??
WHAT'S NEXT?

GROW
WHAT'S NEXT?

COLLAPSE
WHAT’S NEXT?

DISCIPLINE
WHAT’S NEXT?

TRANSFORM
Four Generic Images of the Futures

Grow

Collapse

Discipline

Transform
The overwhelming majority of all images of the futures, including the images of educational futures, are variations of Grow, especially Continued Economic Growth.
Continued economic growth is the "official" future of all advanced nations and hence of all components of nations, including universities.
Since the 19th Century the fundamental purpose of all modern educational systems has been to enable the nation-state it serves to grow and prosper economically and militarily compared to other nation-states, by the research and development it undertakes, and by the human resources it produces.
It is very difficult for funders and administrators of modern school systems to imagine any other purpose for school systems for the futures.
And yet *nothing is forever.*

Everything that now exists at one time did not exist and at one time will not exist.

Societies, and their components, constantly

*emerge, rise, mature, decline and die.*
Currently, collapse images of the futures are gaining some popularity as more people than usual worry about the *unsustainable environment and economy.*
In part to avoid collapse, and in part in recognition of the impossibility and undesirability of continued economic growth, many more people now share some kind of a disciplined image of the future, often currently expressed as “sustainability.”
It is necessary to *adopt certain values* (other than "growth") and to *discipline our life* and actions around them if we are to survive and thrive, many people believe.
Finally, many futurists agree that continued economic growth is unsustainable, but insist that many technologies are *converging* rapidly in such a way as to *transform* society as profoundly and unpredictably as a caterpillar is transformed into a butterfly, or as liquid water is transformed into steam (or ice).
A world of abundance and leisure with humans, transhumans, and artilects on Earth and the inner solar system is potentially imminent.

The timid views and actions of sustainability are unimaginative and uninspiring, they argue.
(There also are versions of Transform that are based on spiritual and not technological factors).
Please note that these four futures are not simply variations on a common theme such as "high, medium, and low", or "optimistic or pessimistic".

Each future makes very different assumptions about a number of common driving forces discussed earlier.
So whenever you think about and plan for the futures, always think about and plan for all four equally seriously and fully.

Don’t privilege one over the others.
Each has “good” and “bad” features.

None is a “worse case scenario” or a “best case scenario”.

Even “collapse” offers opportunities for “new beginnings”.

None is more or less likely than any other.
Very importantly, you must always seriously evaluate each of the four futures before you envision a preferred future.
To envision preferred futures or create scenarios without first considering alternative futures, almost certainly means trying to correct some current faults, while failing to embrace the challenges and opportunities of the futures.
I would now like to give you an example of how these principles were used in developing four futures of higher education.
CAMPUSES 2060

Four Versions
of a University
within
Four Alternative Futures

developed by
students and faculty members of
School of Architecture
College of Education
Hawaii Research Center for Futures Studies
Department of Political Science
University of Hawaii at Manoa, Honolulu
Professor Ray Yeh is the architect in the School of Architecture University of Hawaii at Manoa (UHM)

I am the futurist in the Hawaii Research Center for Futures Studies Department of Political Science UHM.
While there have been many studies of the futures of education on pedagogy, administration, or technology, and others on future classrooms and campuses, we believe this is the first time that specialists in education, architecture, and futures studies have worked jointly within an alternative futures perspective.
Considerable time was spent in our project first on understanding the historical co-evolution of society, education, technologies, and the environment across many cultures.
Historical lessons learned were combined with theories and methods of futures studies to develop four fundamentally different alternative futures of society.
These futures contained a set of common driving forces that varied in each of the four futures.
The driving forces are population, energy, economy, environment, culture, technology, and governance.
It was the differences of each of those forces that created the differences between each of the four futures of society.
For one example
In one future, we assumed continued global population growth.

In another future, we assumed a major reduction in total population.

In another future, we assumed stable, no-growth population.

In the fourth future, we assumed the rise of robots, artilects, and posthumans.
And so on for each of the seven driving forces.
<table>
<thead>
<tr>
<th>Futures:</th>
<th>Grow</th>
<th>Collapse</th>
<th>Discipline</th>
<th>Transform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forces:</td>
<td></td>
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<tr>
<td>Population</td>
<td>Increasing</td>
<td>Declining</td>
<td>Diminished</td>
<td>Posthuman</td>
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<tr>
<td>Energy</td>
<td>Sufficient</td>
<td>Scarce</td>
<td>Limited</td>
<td>Abundant</td>
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<tr>
<td>Economics</td>
<td>Dominant</td>
<td>Survival</td>
<td>Regulated</td>
<td>Trivial</td>
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<tr>
<td>Environment</td>
<td>Conquered</td>
<td>Overshot</td>
<td><strong>Sustainable</strong></td>
<td>Artificial</td>
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<tr>
<td>Culture</td>
<td>Dynamic</td>
<td><strong>Central</strong></td>
<td>Focused</td>
<td>Complex</td>
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<tr>
<td>Technology</td>
<td>Accelerating</td>
<td>Minimal</td>
<td>Restricted</td>
<td><strong>Transformative</strong></td>
</tr>
<tr>
<td>Governance</td>
<td>Corporate</td>
<td>Local</td>
<td>Strict</td>
<td>Direct</td>
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We then used the internal logic of each of the four futures to deduce plausible educational futures suitable for each of the four societal futures, across a set of common dimensions.
The six **dimensions**
for each of the four educational futures are:

assumptions, mission, participants, resources, pedagogy, and physical campus.
For example
The mission of higher education in one future is to produce high-tech creators and entrepreneurs.

For another future, the mission is to learn and teach self-sufficient survival skills.

The mission in a third future is to research and teach energy and material efficiency.

The mission in the fourth future is to expand consciousness and mind-control.
The missions of education differ because each of the four futures requires different knowledge and skills for different environments (social and natural), with different kinds of available technologies.
In order to base our research on a specific place with a specific history, we focused on the University of Hawaii at Manoa.

But our intention was to develop a model that can be used anywhere, for any university—or for any educational system at any “level”.
We began our inquiry by considering the history of higher education from its earliest origins in Asia and Europe, though its creation and growth of universities in the United States and at the University of Hawaii at Manoa.
Next, we engaged in a review of theories and methods of futures studies, including age-cohort analysis, trend analysis, emerging issue analysis, and alternative futures creation.
We then formed four teams.

Each team had three broad tasks:

(1) flesh out the details of their assigned alternative future for Hawaii in 2060 according to the seven "driving forces";
(2) devise one possible "University of Hawaii at Manoa" in response to that future

according to the first five of the six "dimensions" of universities;
and (3) develop the sixth "dimension" by designing and constructing three-dimensional models of the relevant "campus" of the University of Hawaii at Manoa in 2060, as well as one "prototype" building for that campus.
Each team researched the seven *driving forces* pushing and pulling higher education for their particular future and developed a written description of *Hawaii within the world of 2060* for their specific future.
Hawaii Grow 2060: Grow and Succeed!
Hawaii is a thriving, growing community within a prosperous and growing world.

Hawaii Begin 2060: Survival +
Hawaii is a thriving, self-sufficient, post-collapse community of new beginnings.

Hawaii Sustain 2060: Slow... but Steady!
Hawaii is struggling towards environmental, energy, and food sustainability.

Hawaii Transform 2060: Beyond Singularity to Dynamic Cosmic Diversity!
Hawaii is a dynamic part of a changing, diverse inner solar system.
With the futures and forces concretely specified, the teams then developed written descriptions of "the University of Hawaii" appropriate for their societal future.
The four images of the futures of the University of Hawaii at Manoa are:

al-Mahdi University Corporation in Hawaii, Inc.  
(UHM 2060 Growth)

New Beginnings Center in Manoa  
(UHM 2060 Begin)

The Global Green University of the Pacific  
(UHM 2060 Sustain)

Transform You in Manoa Valley  
(UHM 2060 Transform)
al-Mahdi University

is one of a chain of universities
run by a global entrepreneurial conglomerate.

Its purpose is to train entrepreneurs

who can endlessly
produce and sell new products.
New Beginnings

is a self-sufficient center of higher learning in a self-sufficient Hawaii thirty years after an economic, environmental, governance, and energy collapse left Hawaii and the rest of the world isolated and self-reliant.
Global Green University

was established by the G-20
as one of several research and training institutes

focused on global and local sustainability.
Transform You

is a dynamic "place"/"no place"

where humans, posthumans, and artilects

on Earth and Mars

join for enhancement and fun.
Then they engaged in architectural planning and decision-making leading to a design of three-dimensional models for their "University of Hawaii".
The teams created *parti*, or visual representations, for each of the campuses, using them to guide their construction of plastic three-dimensional models for each of the alternative campuses, and a prototype building for each.
AL-MAHDI
NEW BEGINNINGS
FOUR CAMPUSES OF THE UNIVERSITY OF HAWAII IN 2060
November 2009

Grow

Collapse

Sustain

Transform
The resulting information has been displayed in written documents, posters, and three-dimensional models of a **campus** and prototype buildings for each educational system in each future.
“Campuses 2060:
Four Futures of Higher Education
in Four Alternative Futures of Society,”

by Jim Dator, Ray Yeh and Seongwon Park,

in Munir Shuib, Aida Suraya Md. Yunus,
and Shukran Abd. Rahman (Eds.).

Developments in Higher Education: National Strategies and Global Perspectives,

Universiti Sains Malaysia Press and National Higher Education Research Institute,
Penang, Malaysia, 2013.
CAMPUSES 2030

Prepared for
KAUAI PACIFIC SCHOOL

Futures Studies, Architecture & Education
Campuses Project: Series III,

University of Hawaii at Manoa
It is very important to understand that none of the four alternative futures is intended to be a preferred future of society.
None of the four universities is offered as a preferred future of higher education.
Rather, each of the four universities is intended to make the point that thinking about and planning for the futures of universities must always be done within the context of a prior assessment of social and environmental futures.
Regrettably, this is seldom if ever done.

Typically, a future that is more or less a continuation of what is thought to be happening now is assumed, and improved processes of higher education are planned for it.
Our extensive experience in the field of futures studies has made it crystal clear that

consideration of plausible alternative futures

is an absolutely necessary step that must be undertaken prior to trying to imagine and move towards preferred societal futures, or preferred educational processes.
Without a careful consideration of alternative futures, one's naive preferred future will most likely be a response to current or past problems and may have little to do with actual problems and opportunities yet to come.
The fundamental perspectives of what is called “the Manoa School of Futures Studies" state that

THE future cannot be predicted,
but that several
alternative futures
can be forecasted
and their implications considered,

and then that
preferred futures
can be envisioned and invented,
all the while continuing to **scan the horizon for**
new opportunities and problems
that might suggest
new visions of preferred futures,
or reinforce existing visions.
But as you do your visioning and designing, please remember
Dator’s Second Law of the futures:
ANY USEFUL IDEA ABOUT
THE FUTURES
SHOULD APPEAR TO BE
RIDICULOUS

Dator's "Second Law of the Futures"
You can be conventional

and so look sensible

and boring

in the eyes of present generations.
Or you can be ridiculous

and so look visionary
and wise

in the eyes of future generations.
I urge you to be wise
and seem ridiculous.
"The Alternative Futures Perspective of Higher Education

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