

Teaching about the Future

PRESIDENT'S Speaker Series:

THE BIG QUESTIONS

Conversations to shape our collective future



TEACHTM
THE
FUTURE



*Peter Bishop
Sacramento CA
30 October 2030*

We teach the future as we do the past.

Our *ASPIRATION* is that every student is prepared to navigate an uncertain world and has the agency to imagine and create their preferred future.

Our *MISSION* is to teach futures-thinking skills to students and educators around the world and to inspire them to influence their futures.



Today's Purpose



Enroll you
in the campaign
to accomplish
something of significance

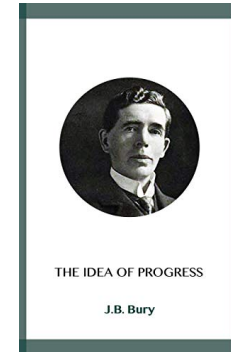
**“My name is Harvey Milk...
And I am here to recruit you.”**

-- *Milk*, the movie, 2008



The Invention of “the Future”

- **Ancient** techniques, Delphic Oracle
- **Eschatology**, End times
- **Enlightenment** (Industrial revolution)
 - Sebastien Mercier, *L'Ann 2440* (1770)
 - Marquis de Condorcet, *Sketch for a Historical Picture of the Progress of the Human Mind* (1778)
 - Thomas Malthus, *An Essay on the Principle of Population* (1798)
- **Science fiction** – Jules Verne (1865), H.G. Wells (1898)
- **Trends** – William Ogburn (1933), H.G. Wells (1901)
- **Theory** (1950s)
 - Herman Kahn, RAND Corp
 - Fred Polak, Bertrand de Jouvenel, Gaston Berger

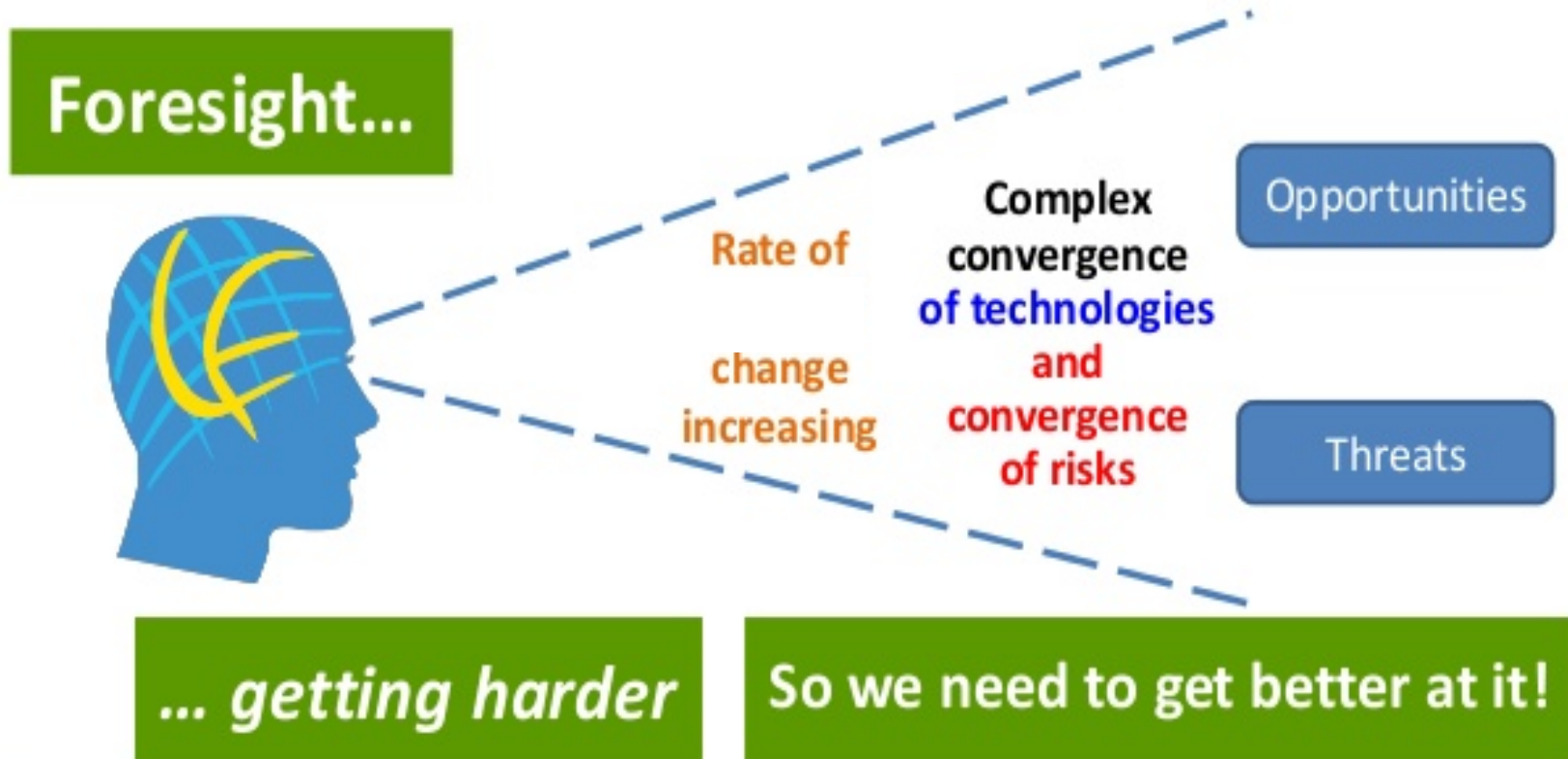


The Professionalization of the Future

- **Forecasting** – from the Delphic Oracle to...
 - Trend extrapolation: William Ogburn, *Recent Social Trends*, 1933
 - Econometrics: Lawrence Klein, *Wharton Econometric Model*, 1969
- **Planning** – from L'Enfant, Wash DC to...
 - Budget planning: Programming, Planning, Budgeting Systems (PPBS), 1961
 - Urban planning: American Planning Assoc, 1978
 - Strategic planning: Michael Porter, *Competitive Strategy*, 1980

The Changing Conditions of Change

Page 4



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M.S. Studies of the Future, 1975



Alfred Neumann, Chancellor
Cal Cannon, Dean, HSH

Jib Fowles, Human Sciences
Chris Dede, Education

We teach the future as well as the past.

The Field of Futures Studies

- **Founders (1950-1975)**
 - Europe: Robert Jungk, Fred Polak, Bertrand de Jouvenel, Gaston Berger
 - North America: Herman Kahn, Rachel Carson, Marshall McLuhan, Paul Ehrlich, Alvin Toffler, Donella Meadows, et. al.
- **Education:** Jim Dator (VA Tech), Wendell Bell (Yale), Hawaii Res Center for Futures Studies (1971), M.S. UHCL Studies of the Future (1975), now between 6 and 10 grad programs world-wide, more than a dozen seminars
- **Organizations** – World Future Society (1967-2014), World Futures Studies Federation (1971), Millennium Project (1995), Assoc of Prof Futurists (2002)
- **Journals** – *Futures* (Elsevier), *Technological Forecasting and Social Change* (Elsevier), *Foresight* (Emerald), *World Futures Review* (Sage), *On the Horizon* (Emerald), *Journal of Futures Studies* (Tamkang Univ.)
- **Consultancies** – RAND, Institute for the Future, *Futuribles* (France), Futures Company (UK), Copenhagen Institute for Futures Studies, Future Management Group (Germany)



How are students learning about the future today?



We teach the future as well as the past.



The Predictable Future

Science Class



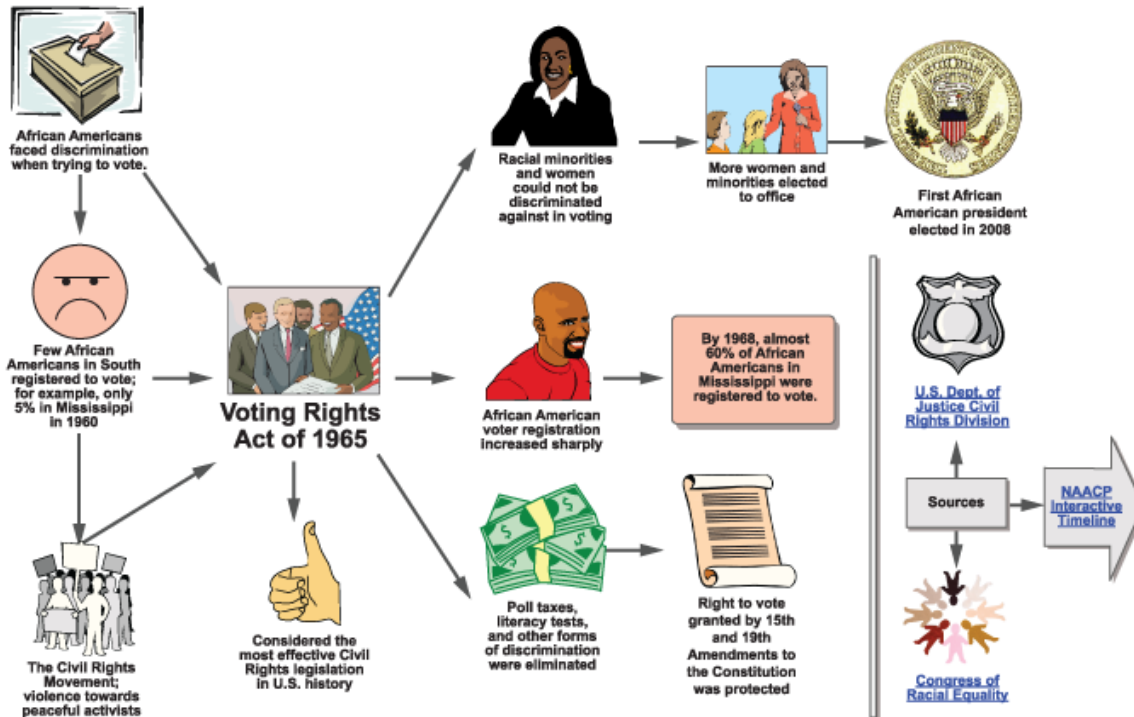
The future as a **river** or a **road** or even a **roller coaster**,
following one path and leading to a specific point



We teach the future as well as the past.

The Inevitable Future

History



The future as a
sequence
of unchanging
causes and
effects

We teach the future as well as the past.

The Contingent Future

Anthropology
Sociology
Economics
Political Science



The future as a **foggy road**,
largely unknowable and unpredictable.



We teach the future as well as the past.



The Random Future

Statistics Class



The future as a **game of chance**,
completely unknowable and unpredictable.



We teach the future as well as the past.

The Chosen Future



The future as a **plan** or a **blueprint**, the result of our own choices and efforts



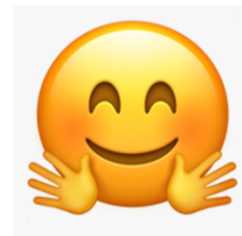


Confused?

- Is the future predictable and inevitable or unpredictable or even random?
- Is the future determined or chosen?
- Is the future understandable?
- Is the future open to our influence?



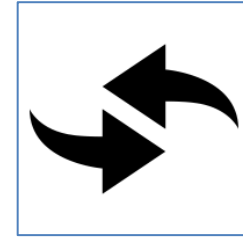
Guess what?
It's All of them!



We teach the future as well as the past.

Futures in Three Units

Change in general



Change from the world

Change we create ourselves



1. Change in General



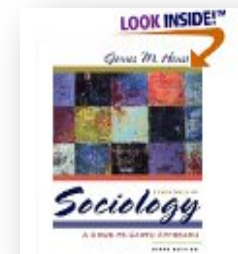
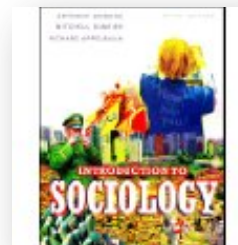
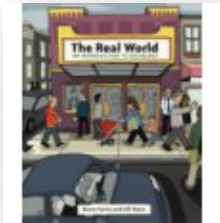


Sociology & Social Change

Tables of content from Amazon.com's
10 highest ranked sociology textbooks
(*except McGraw-Hill*)

Median of 16 sections per book
(16 weeks in a semester)

- Usually just one chapter
- Only 9% of pages
- And always the last chapter



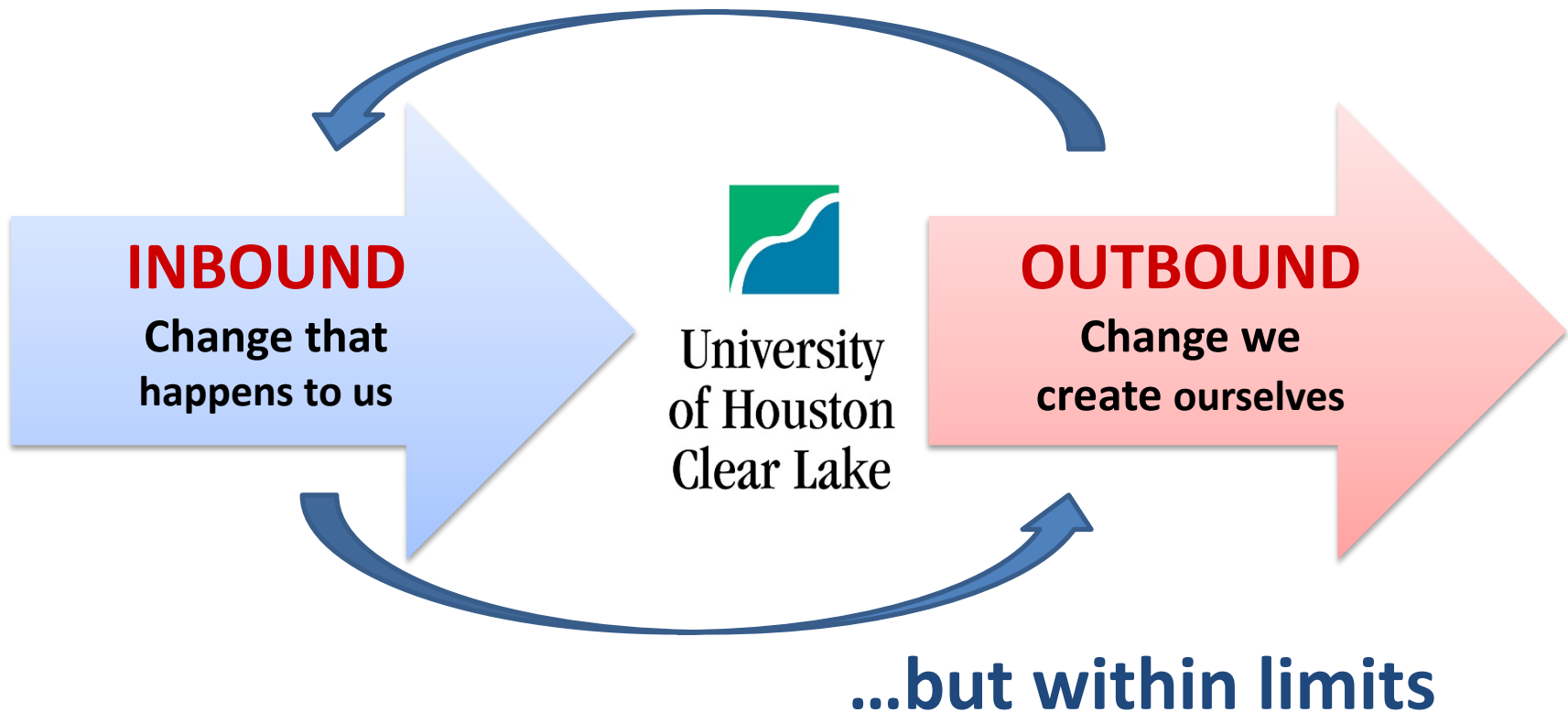
**No social change textbook
in print for years**

We teach the future as well as the past.

Sources of Change

Anticipate

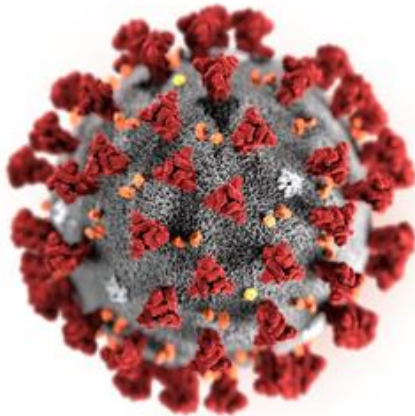
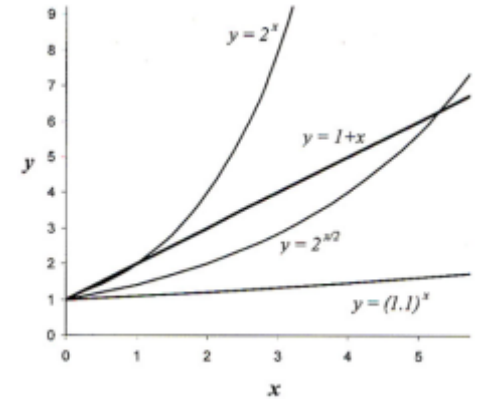
Influence



Rates of Change

Continuous Change

- Gradual improvement over long periods
- Usually preserves the framework/context

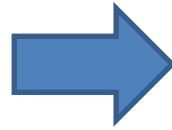


Discontinuous Change

- Sudden change to new levels
- Usually destroys the framework
- Always involves short-term loss

Disruptions since the '70s

Disruptions



Industry

Life

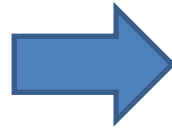
- ▣ Energy crisis
- ▣ PC
- ▣ Soviet collapse
- ▣ First Gulf War
- ▣ World Wide Web
- ▣ Y2K, Tech Bubble
- ▣ 9-11
- ▣ Invasion of Iraq
- ▣ Great Recession
- ▣ ISIS
- ▣ Recent US election

- ▣ Airlines
- ▣ Automobiles
- ▣ Telephones
- ▣ Television
- ▣ Health care
- ▣ Retail
- ▣ Newspapers
- ▣ Military
- ▣ Elections
- ▣ Schools?

- ❖ Civic participation
- ❖ Communication
- ❖ Crime
- ❖ Entertainment
- ❖ Family
- ❖ Learning
- ❖ Recreation
- ❖ Relationships
- ❖ Sports
- ❖ Work

Disruptions after 2020?

Disruptions



Industry

Life

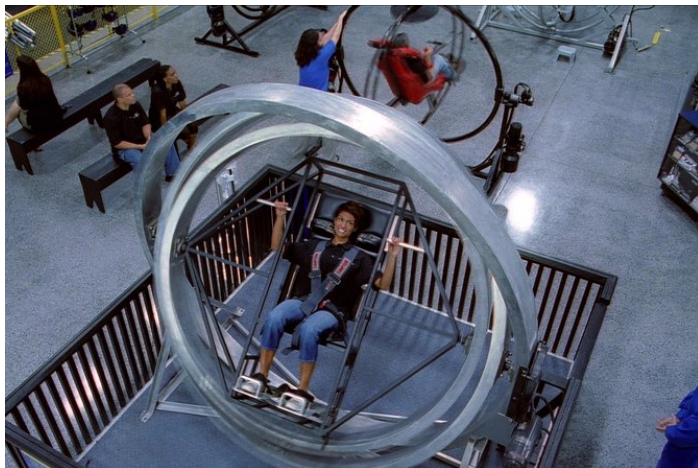
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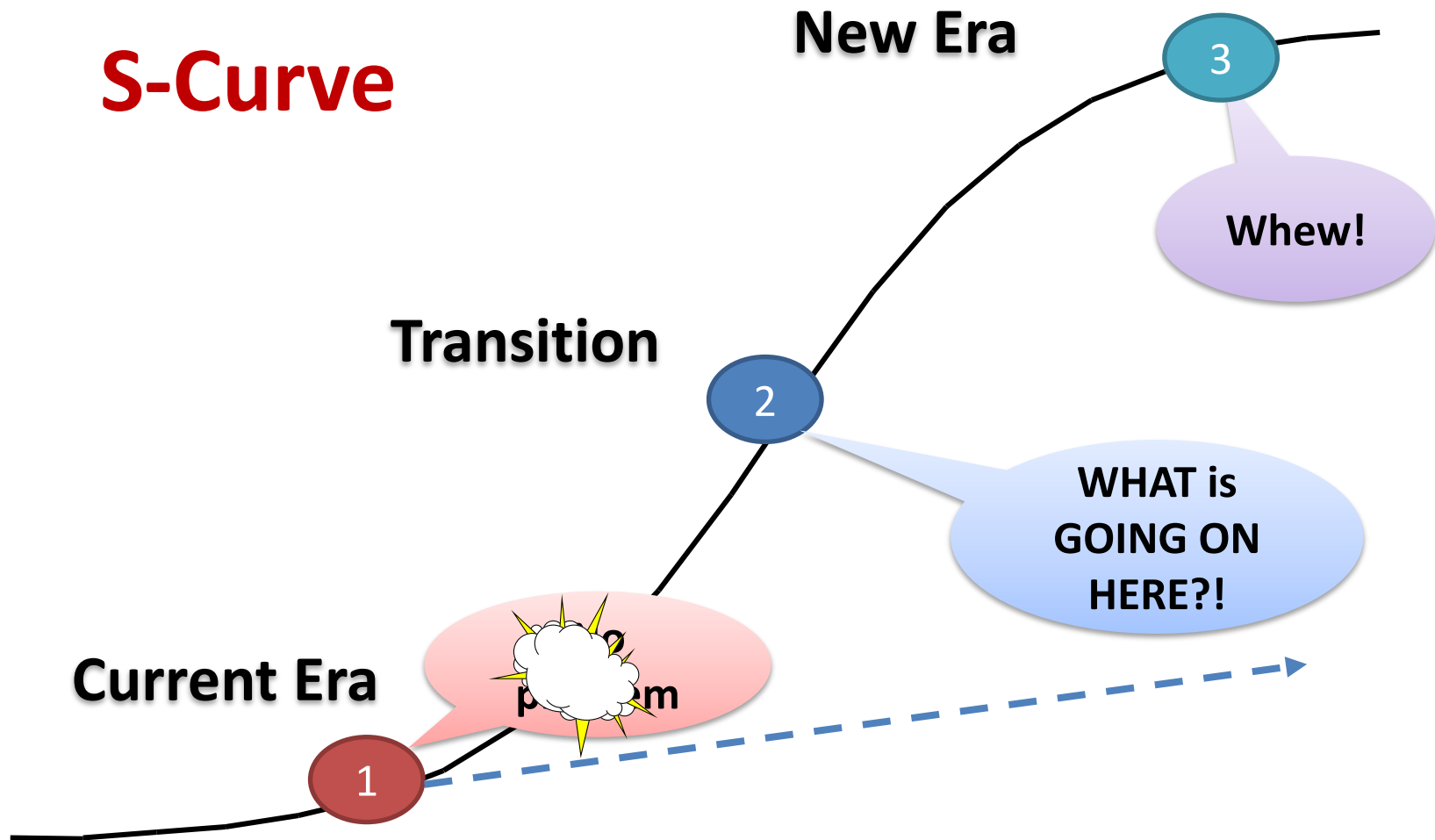


How do Astronauts Prepare for Disruption?



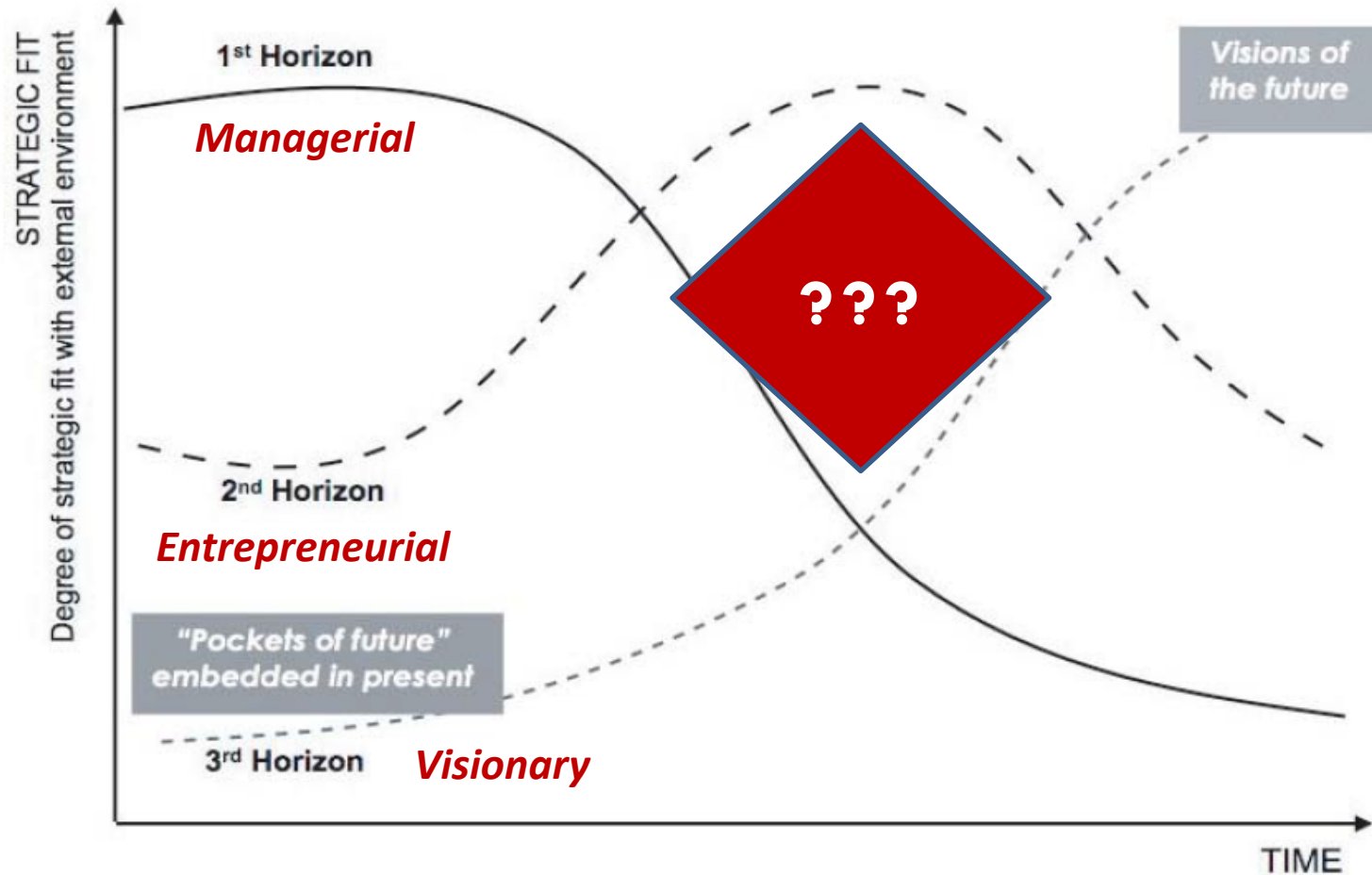
We teach the future as well as the past.

Process of Disruptive Change





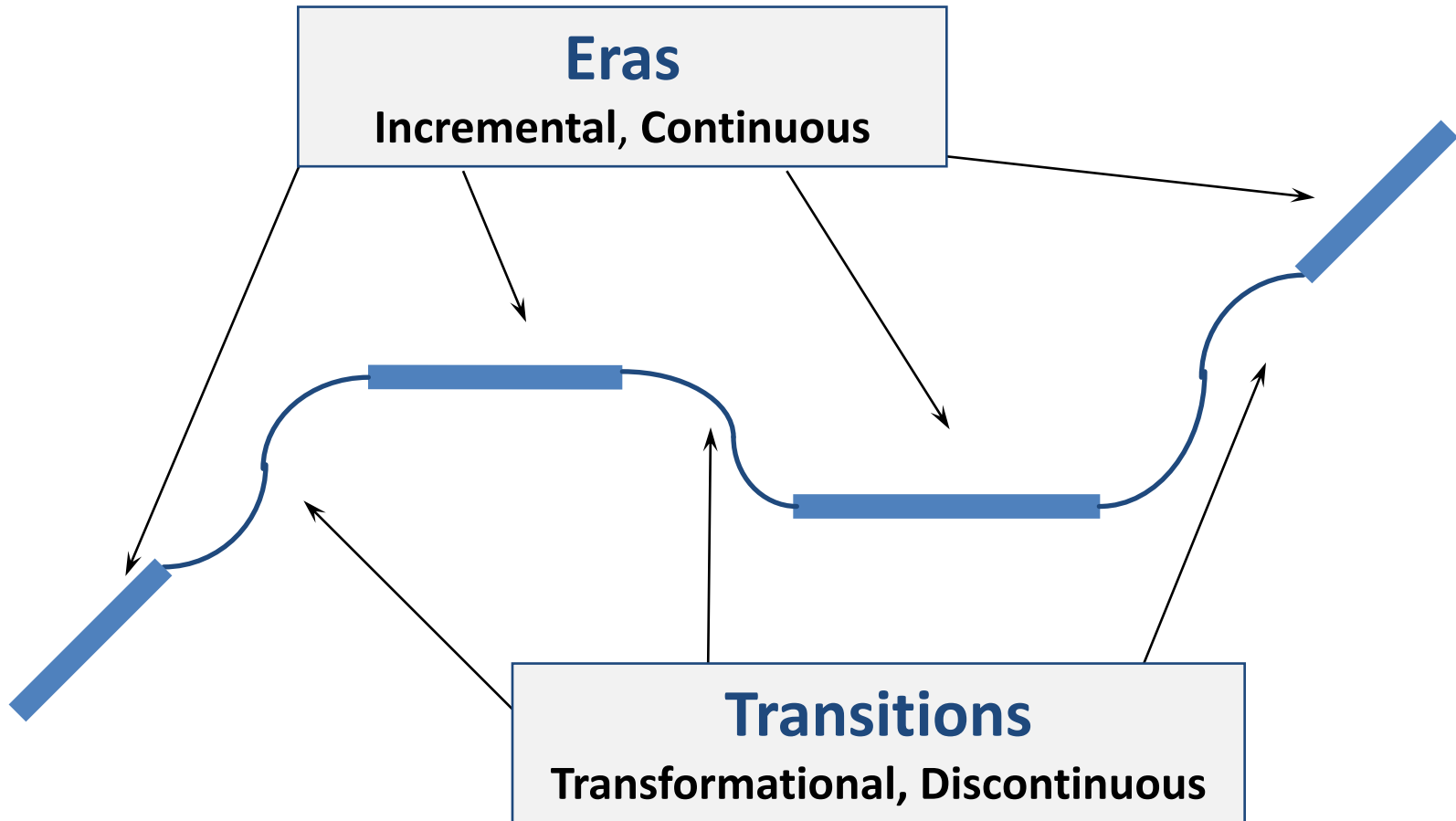
Three Horizons



Source: Curry & Hodgson, *Journal of Futures Studies*, 13(1): 1 - 20

We teach the future as well as the past.

Punctuated Equilibrium



Eldredge, N., and S. J. Gould. 1972. Punctuated equilibria: an alternative to phyletic gradualism, pp. 82-155. In T. J. Schopf (ed.), *Models in Paleobiology*. Freeman, Cooper and Co., San Francisco.

We teach the future as well as the past.



Change and Stability



Nothing changes everything

We teach the future as well as the past.

2. Change from the World

BIG CHANGES
COMING SOON



SOCIALIMPLICATIONS.COM



The Future Is Many, Not One

Is the future predictable or not?

It's both!



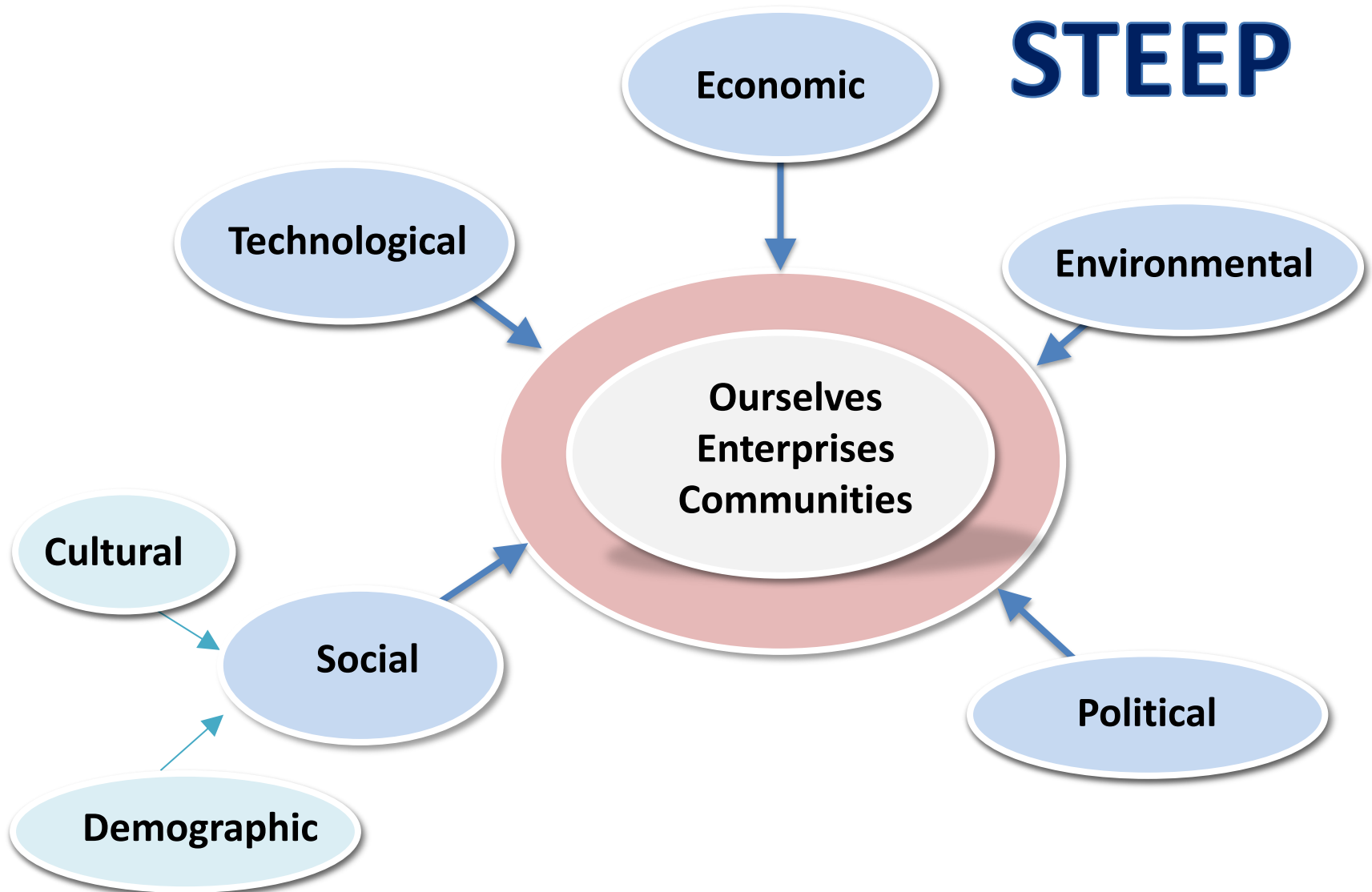
The Expected Future

- Where we are headed
- The future if everything continues as it has
- The result of conditions and trends (momentum)

The Alternative Futures

- What might happen instead
- The set of plausible futures if something less likely or unexpected happens
- The result of events and issues (contingencies)

Sources of Change from the World



A System of Sources

People

- Number, place, sex, age, ethnic

Use Technology

- Farming, energy, construction, manufacturing, transportation, information, military, biology

To transform Resources

- Water, food, materials, energy

Into Economic goods

- Global, national, industrial, occupational, organizational

And Waste products

- Air, water, solid, hazardous

Under Government regulation

- International, financial, social, infrastructure

In a Cultural context

- Traditions, beliefs, values, socialization

Two Ways of Thinking

Futures

Forces

Thinking

Techniques

Expected
(baseline)

Trends
Plans

Logical
Scientific

Historical analogy
Extrapolation

Plausible
(alternative)

Discontinuities
Surprises

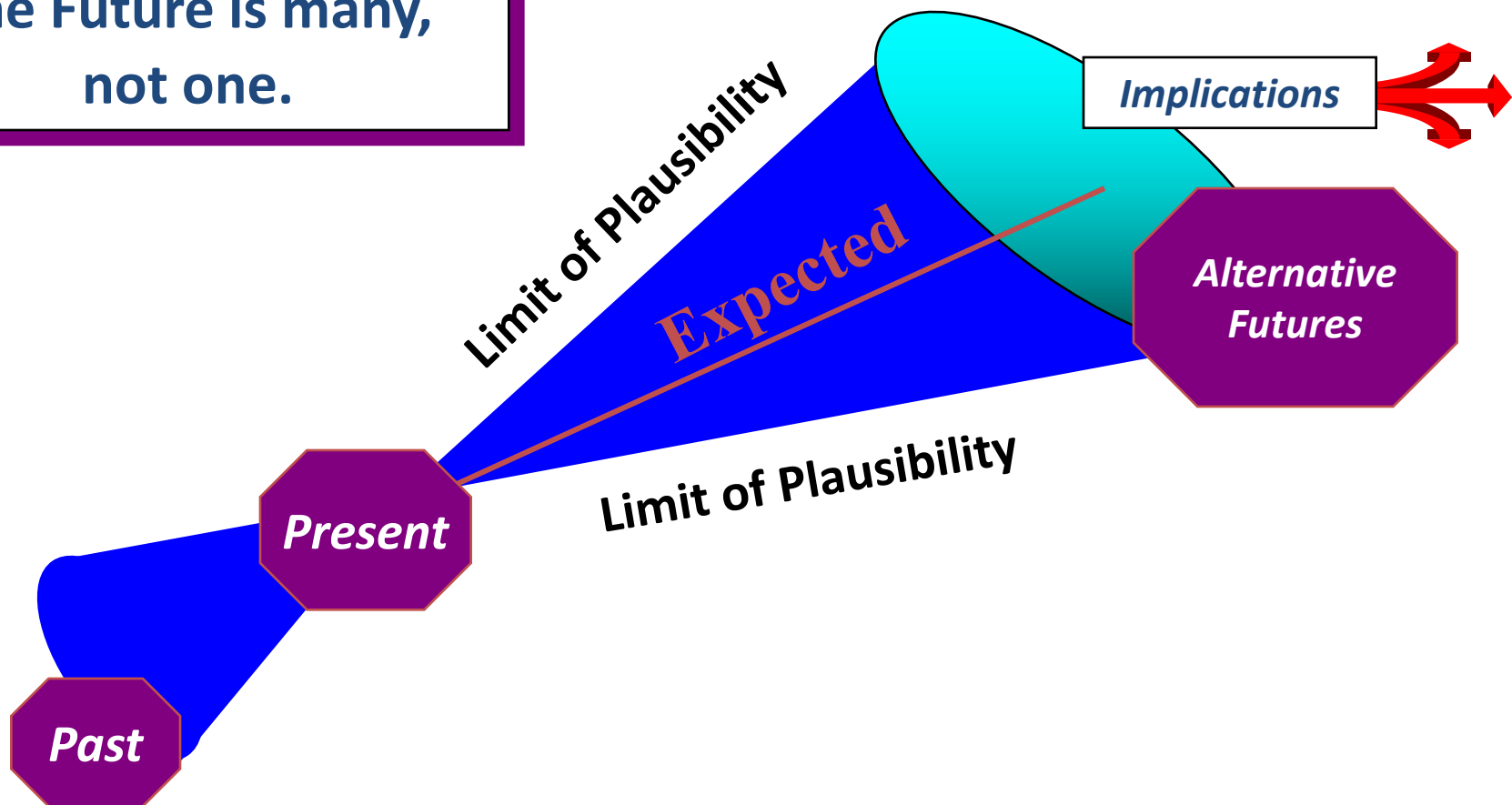
Speculative
Imaginative

Scenarios
Simulation



The Cone of Plausibility

The Future is many,
not one.



Source: Charles Taylor, Army War College

We teach the future as well as the past.



Role of Assumptions

Good news

Assumptions resolve uncertainty by assuming it does not exist



Bad news

Resolving uncertainty may not be the right thing to do



We teach the future as well as the past.

Making the Call

Assumptions resolve uncertainty...
....but resolving uncertainty
may not be the right thing to do.

So resolve as much uncertainty as you can, but no more.



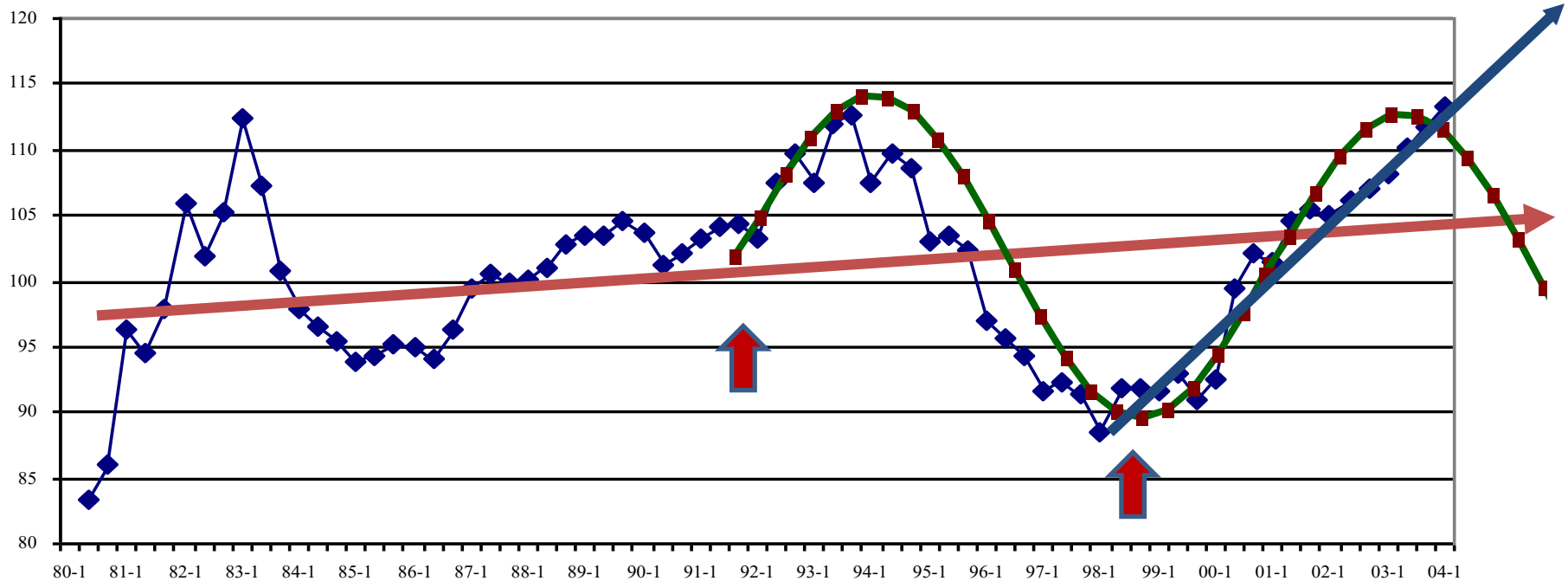
Katrina

Rita



Assumptions in Trend Extrapolation

Business School Enrollment, UH-Clear Lake
Deseasonalized



3. Change from Ourselves



The Future Is Many, Not One

Is the future determined or chosen?

It's both!



The Expected Future

The Alternative Futures

The Preferred Future(s)

- What we want to happen
- Either the expected or any of the alternative futures that is preferable
- The result of our vision, goals, plans and actions (agency)

Three Ways of Thinking

Futures Forces Thinking Techniques

Expected
(baseline)

Constants
Trends

Definite
Scientific

Historical analogy
Extrapolation

Plausible
(alternative)

Discontinuities
Surprises

Speculative
Imaginative

Scenarios
Simulation

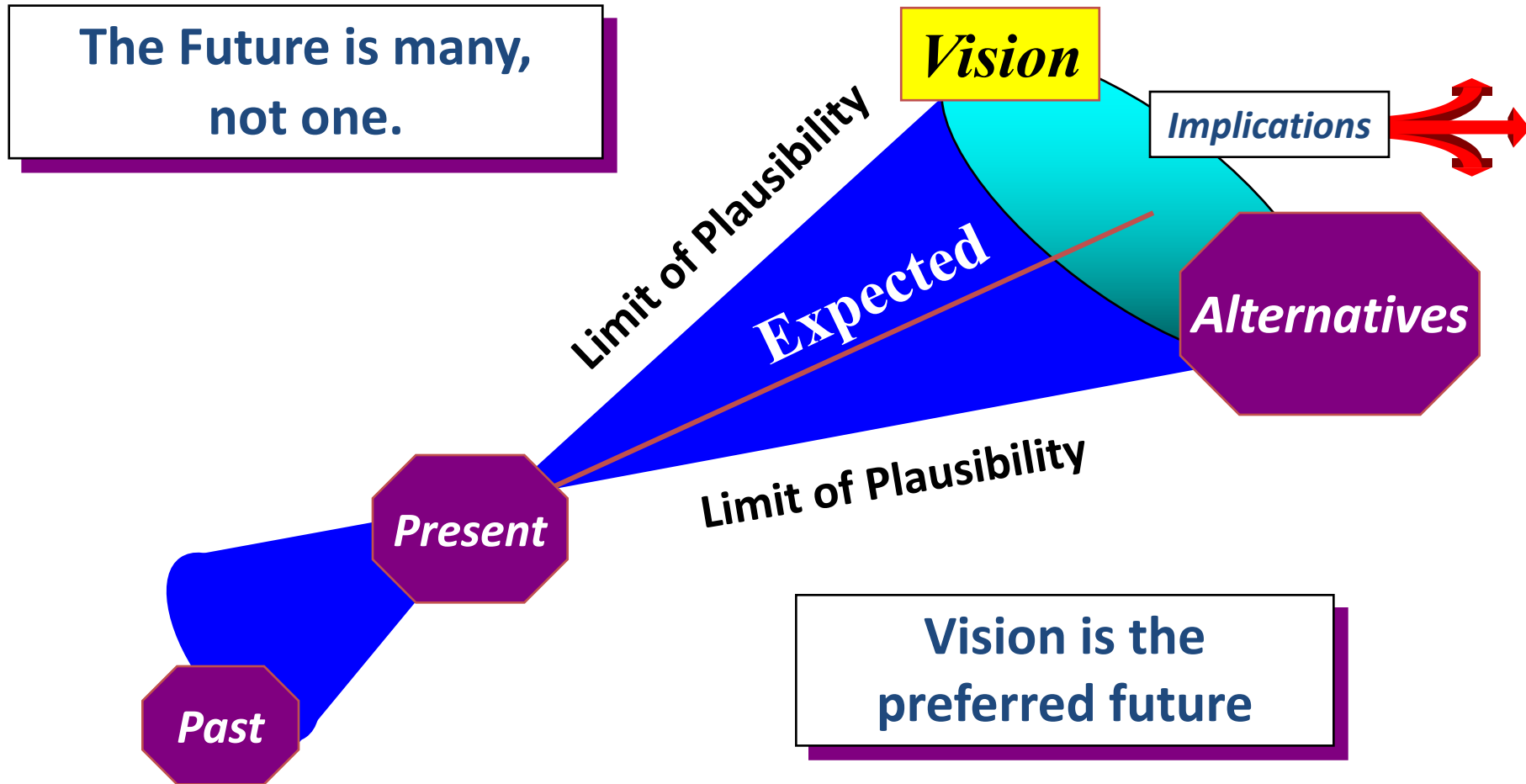
Preferable
(visionary)

Choices
Images

Aspirational
Empowered

Visioning
Planning

The Cone of Plausibility



Source: Charles Taylor, Army War College

We teach the future as well as the past.



Ingredients of Outbound Change

Leadership



Vision, Goals



Planning



Action



Authorities decide

Make binding decisions

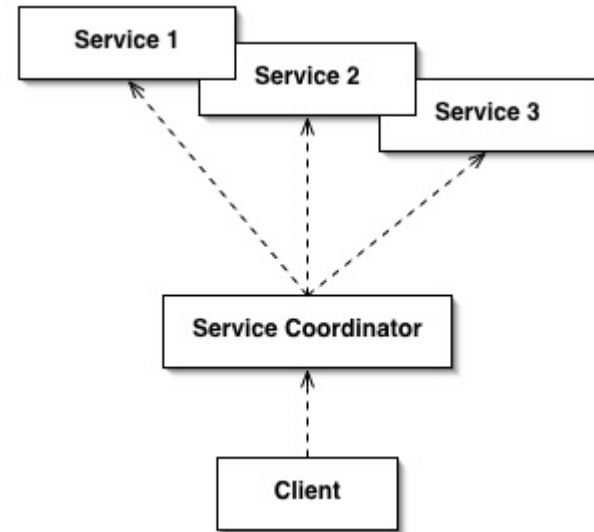
Leaders are NOT always authorities





Managers coordinate

- Known conditions
- Existing assumptions
- Stability seeking
- Rules-oriented
- Routine decisions
- Incremental change



Leaders transform



- Unknown conditions
- Novel assumptions
- Change seeking
- Vision-oriented
- Creative decisions
- Transformational change



Leader



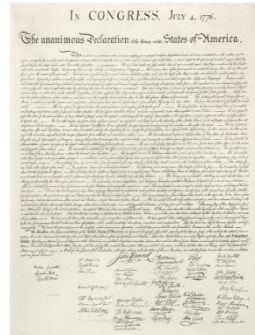
Someone who **enrolls** others
in the **campaign**
to **accomplish**
something of **significance**

**My name is Harvey Milk... And
I am here to recruit you.**



“Where there is no vision, the people perish.”

- **Moses** “...land of milk and honey”
- **Jesus** “...the kingdom of heaven”
- **Marx** “...from each according to his ability; to each according to his need”
- **Jefferson** “...life, liberty and the pursuit of happiness”
- **Kennedy** “...land a man on the moon safely before the end of the decade “
- **King** “...I have a dream”



More Visions

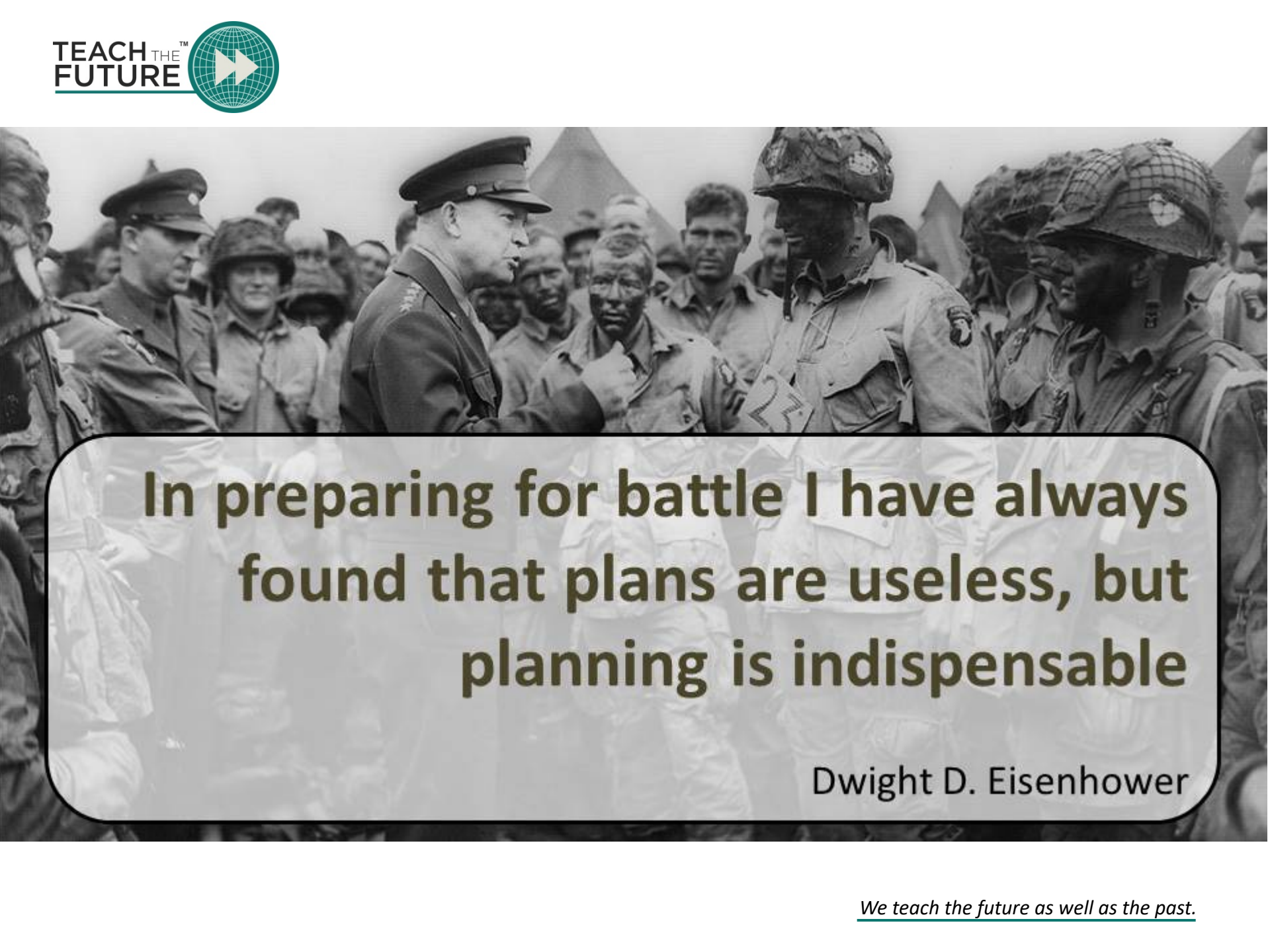
- **Cray:** “Go fast computers”
- **Republican Party:** “Contract with America”
- **Disney:** “Using our imagination to delight millions”
- **Ikea:** “Our vision is to create a better everyday life for many people.”
- **Nike:** “Bring inspiration and innovation to every athlete in the world”
- **McDonalds:** “To be the best quick service restaurant experience...so that we make every customer in every restaurant smile.”
- **Patagonia:** “Build the best product, cause no unnecessary harm, use business to inspire and implement solutions to the environmental crisis.”
- **Oxfam:** “A world without poverty”



Every student is prepared
to navigate
an uncertain world
with the agency
to imagine and create
their preferred future.



We teach the future as well as the past.

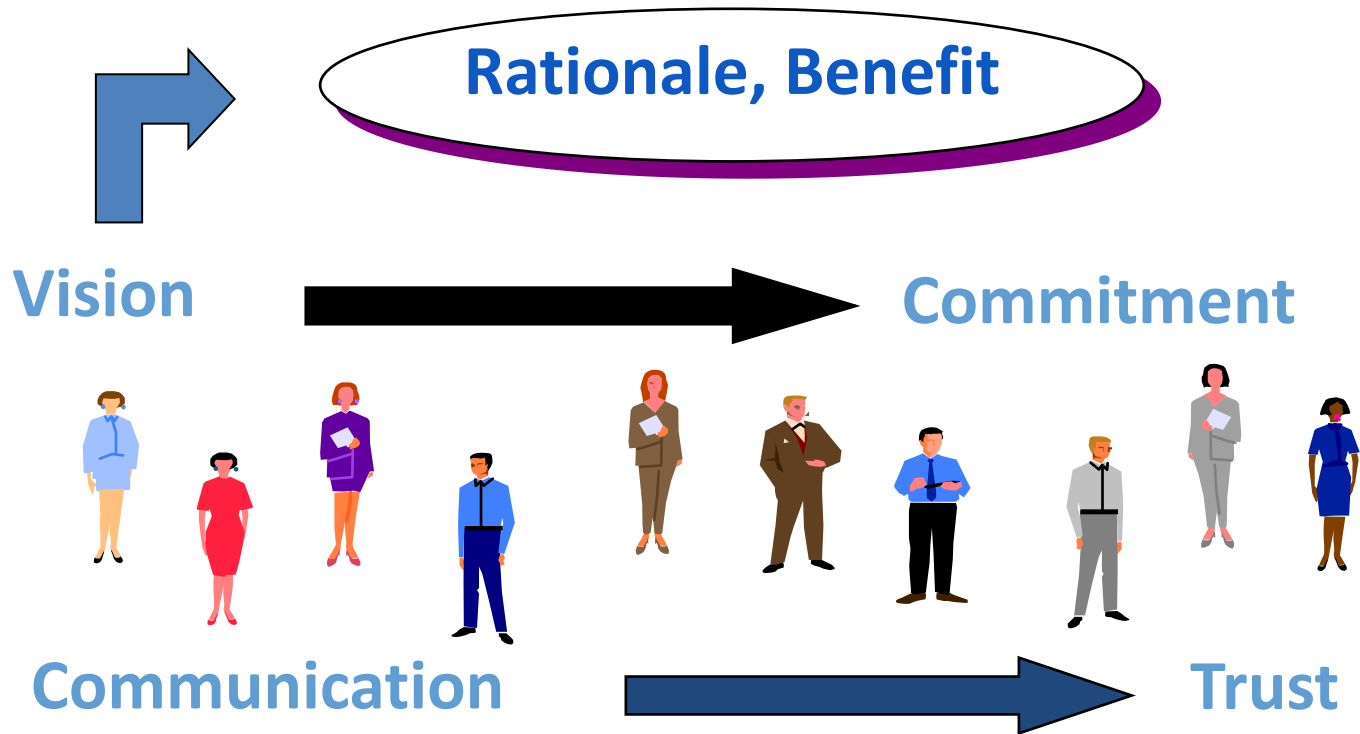


**In preparing for battle I have always
found that plans are useless, but
planning is indispensable**

Dwight D. Eisenhower

Guidelines for Change

LEADER, CHAMPION



Keywords:

Types:

- ☐ Activity
- ☐ Course
- ☐ Lesson
- ☐ Lesson Set
- ☐ Unit

Levels:

- ☐ Elementary
- ☐ Secondary
- ☐ College

Subjects:

- ☐ All
- ☐ Advisory
- ☐ Arts, Design
- ☐ English / Language Arts
- ☐ Foresight
- ☐ History
- ☐ Mathematics

A Framework for Brainstorming Products



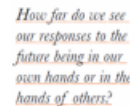
Brainstorming artifacts from the future is meant to be both imaginative and useful. To help students thoughtfully consider what objects might fill in their future scenarios, teachers can use this structured framework for brainstorming product ideas. ...

Type: Activity

Level: College, Secondary

Subject: Arts, Design

An Educator's Guide: Realistic and creative tools for thinking about the future



How far do we see our responses to the future being in our own hands or in the hands of others? Students' beliefs about the future often dictate their actions, mindsets, and sense of agency in the world. This activity allows educators and students to explore how they see the future, why they see it that way, and what it might be like to adopt a ...

Type: Activity

Level: College, Secondary

Subject: All

Big History Project: The Future



The Big History Project is not your average History course: it begins 13.7 billion years ago and ends in the future. Designed by scholars and educational experts, this free course takes a multi-disciplinary approach and highlights the enormous amount ...

Type: Course, Lesson

Level: Secondary

Subject: History, Science, Social Studies

<https://library.teachthefuture.org>

We teach the future as well as the past.



Middle School

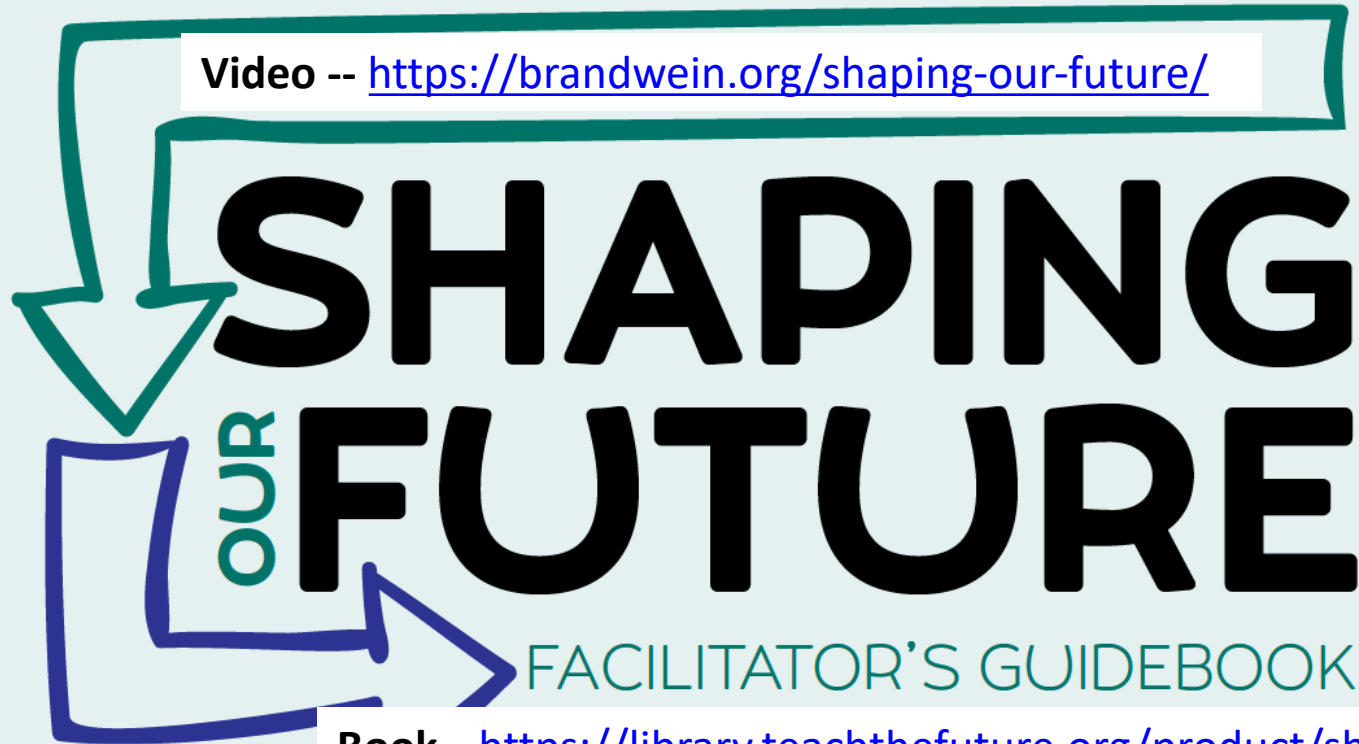


http://bit.ly/FTP_ISSU and on Amazon

We teach the future as well as the past.

High School

Video -- <https://brandwein.org/shaping-our-future/>

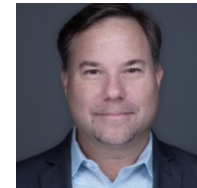


Book -- <https://library.teachthefuture.org/product/shaping-our-future-facilitators-guidebook/>



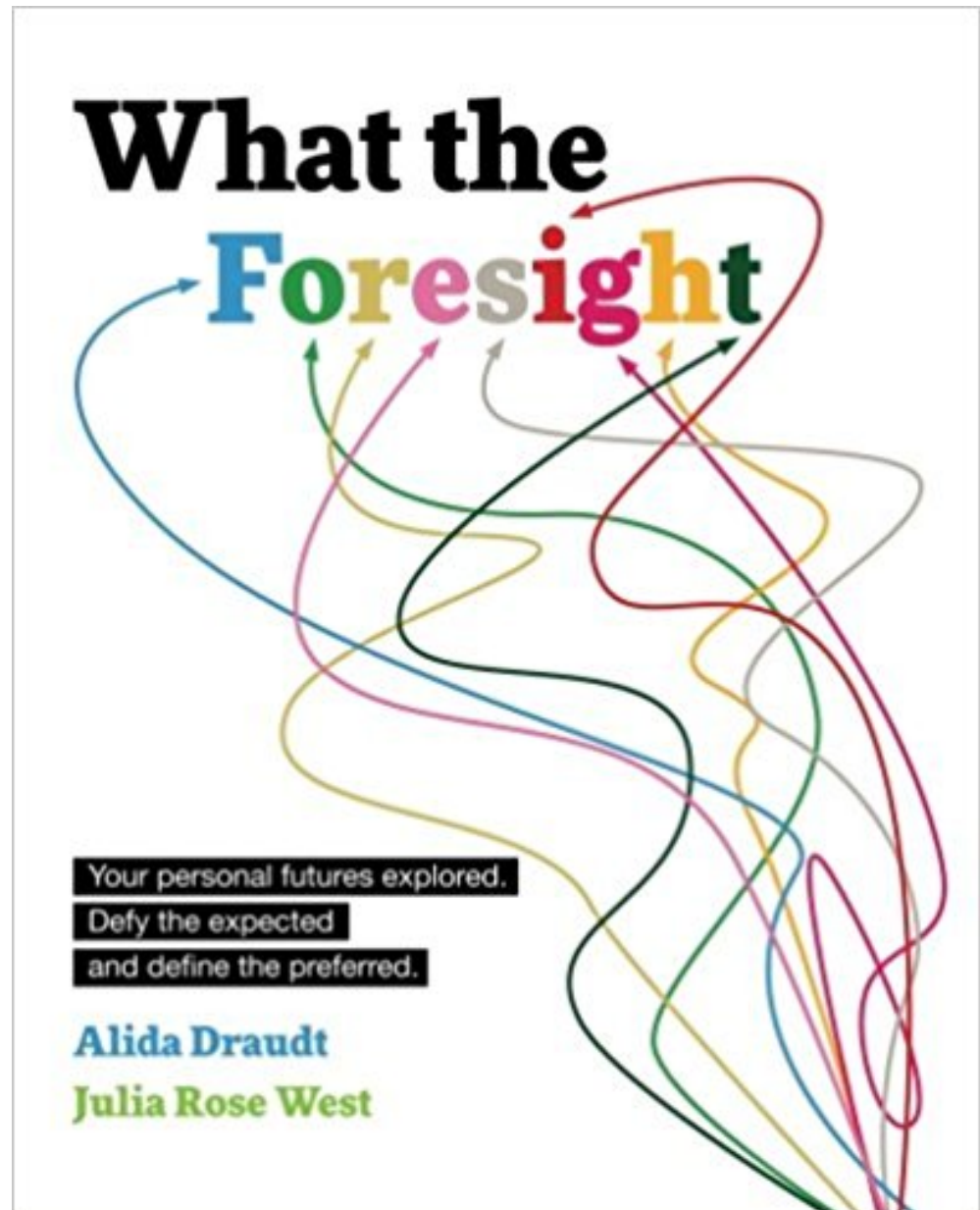
UHCL '98

by Sandra Burchsted & Jack Byrne



UHCL '98

Tools for Personal Futures





Teacher Development



Futures Thinking Playbook Shaping Our Future

- Build a team
- Select a topic
- Gather information
- Identify the Expected future
- Challenge assumptions
- Develop Alternative futures
- Write scenarios
- Present scenarios
- Reflect on the process



21st century skills

- Collaboration
- Decision-making
- Research
- Cause-effect reasoning
- Critical thinking
- Contingency thinking
- Creativity
- Communication
- Evaluation

Simple Foresight Questions

What is happening today? – **Present**

What happened to make it that way? – **Past**

What do you expect to happen? – **Expected future**

What might happen instead? – **Alternative futures**

What do we want to happen? – **Preferred future(s)**

What are we going to do about it? -- **Plans**

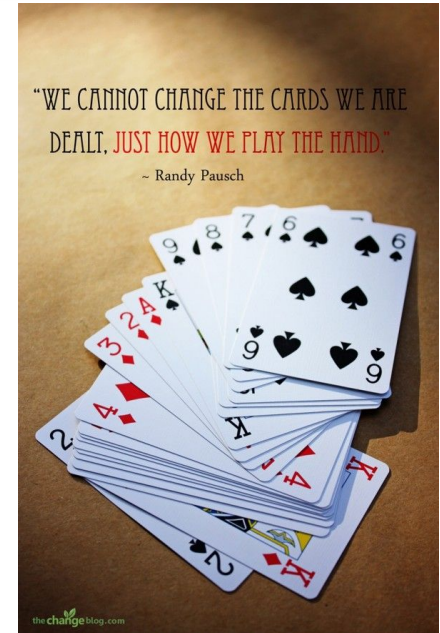


Inbound -- Anticipation

To understand and prepare
for change coming at us

Like forecasting, except that it...

1. is **longer-term**,
2. deals with change in the **whole system**, not just one industry or issue,
3. recognizes that **uncertainty** is dominant (and even more so today), and so
4. describes the future using multiple, plausible **scenarios** rather than single, most likely predictions.



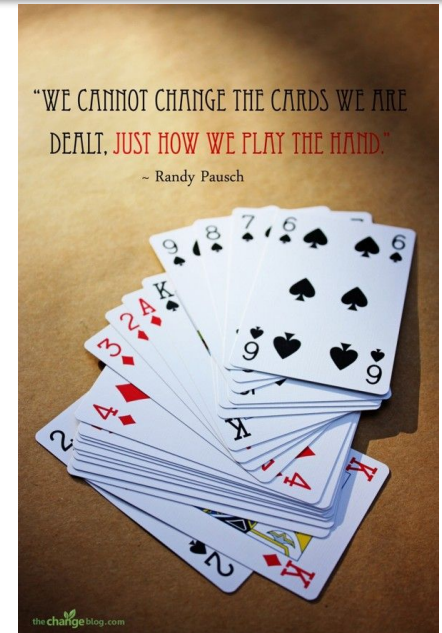


Outbound -- Influence

To act to increase the chances
of a more preferable future

Like strategic planning, except that it...

1. is also **long-term** (“No great thing is created suddenly.” – Epictetus),
2. is more ambitious, **visionary**, transformational,
3. recognizes that **complexity** is more common than mechanical cause-effect outcomes (“All we have to do is...”),
4. is more circumspect about what we think what the **implications** will be, and so
5. is more **cautious** and **prudent** in decisions and actions.



You could teach this!

- **History** – flow, change over time, time series, patterns, uncertainties, contingencies, alternative histories, historical images of the future, historical analogy
- **Literature**, language – future tense, subjunctive mood, science fiction, the questions for fictional conditions and characters
- **Mathematics** – time series, extrapolation, probability, preference ranking, criteria weighting
- **Physical science** – time series, extrapolation, technological applications, social consequences, public issues
- **Social science** – social change, trends, plans, time series, cultural concepts of time, national and global awareness

Skills of Futures Literacy

- Be aware of the **changes** going on today. Look out the window.
 - Accept that those changes are headed **somewhere** and identify the implications for you and your enterprise.
 - But challenge the **assumption** that those changes inevitably lead there.
 - Think **contingently**, Embrace **uncertainty**.
-
- Be **optimistic**, We can **influence** the future.
 - Set a **vision** and pursue that vision relentlessly throughout life. Build a **legacy**.
 - **Enroll** others in the vision, **Plan** and **Act** together.



**We teach the future
as well as the past.**

*Prepare students for tomorrow.
Teach the Future today.*

www.TeachTheFuture.org

peter@teachthefuture.org

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