

# Global Social Transformation

All of us, as a society, are witnessing an extraordinary historical transition between the Industrial Age and the Information -- or Digital Age.

When a society's fundamental technologies change and its economy begins to transform, the political and social institutions inevitably follow.

In this new era, nothing will be as important as **education**. The current educational systems of the developed world -- suited to the requirements of the masses of the Industrial Age -- is becoming **obsolete**. We, and our children, need to be prepared.

With multimedia personal computers, learning will become **interactive** and **individualized**.

The man-in-the-street and politicians alike are asking the same questions -- **where are we** and **where are we going?**

From a flyer of TELECOM Interactivity 97 of ITU

# Dawn of 21st Century

## 1. Digitalization

Analog to Digital

## 2. Globalization

Local to Global

## 3. New Economy

Obedience to Creativity



## Rainbow Bridge Across the Pacific 太平洋に架ける虹の橋

Book of John (1:1)

εν αρχη, ην ο λογος,  
(beginning) (Word)

In the beginning, there was Word,

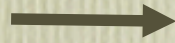
και ο λογος ην προς τον θεον,  
(and) (Word) (with) (God)  
and the Word was with God,

και θεος ην ο λογος.  
(and) (God) (was) (Word).  
and God was the Word.



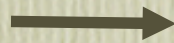
# Logos

1. Soul, God, Truth

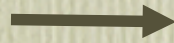


Religion

2. Greek origin of logic



zero (0) and one (1)

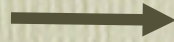


Computer

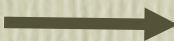
**God created the integers and the rest is the work of man.**

Famous mathematician, Kronecker  
The New York Times, October 23, 1988

3. Word



Communication



Internet



# Five Pillars of Information Age

- **Numbers are used to represent all information.**
- **These numbers are **1**s and **0**s.**
- **Computers transform information by doing arithmetic on these numbers.**
- **Communication systems move information around by moving these numbers.**
- **Computers and communication systems combine to form computer networks. Computer networks are tomorrow's information infrastructures, which in turn are the basis of the Information Marketplace.**

## Rainbow Bridge Across the Pacific 太平洋に架ける虹の橋

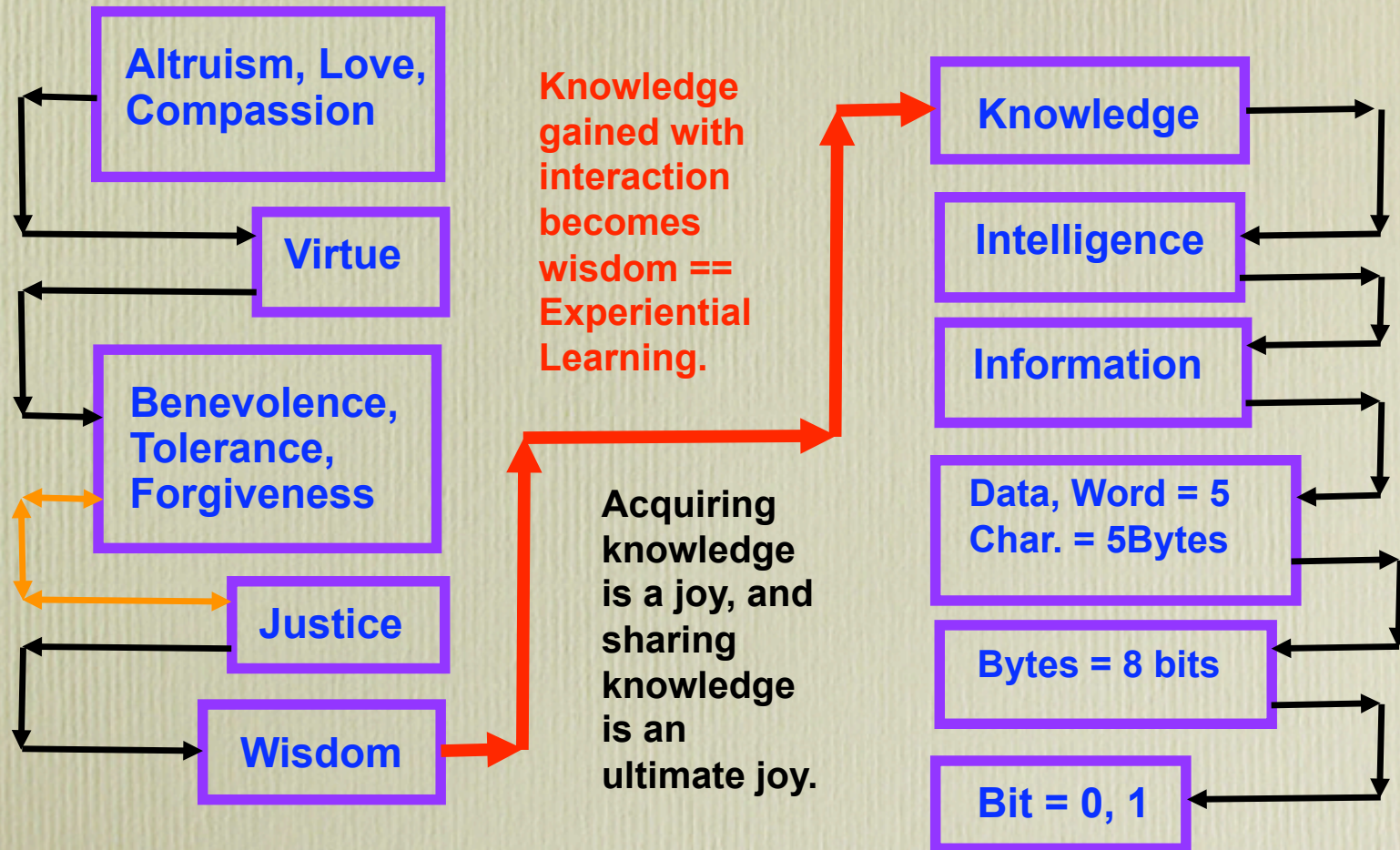
### Mathematical Expression of Religions and Cultures

$$\frac{\text{Judeo-Christianity}}{\text{Islam (Arabic numeral)}} = \infty \text{ Buddhism}$$

Peaceful  
coexistence  
of those  
three  
religions can  
bring **Infinite  
Possibilities**




# Hierarchy of Information and Ethics



# Knowledge and Wisdom


 **“Knowledge is power.”**

Francis Bacon

 **“Knowledge cuts up the world;  
Wisdom makes it whole.”**

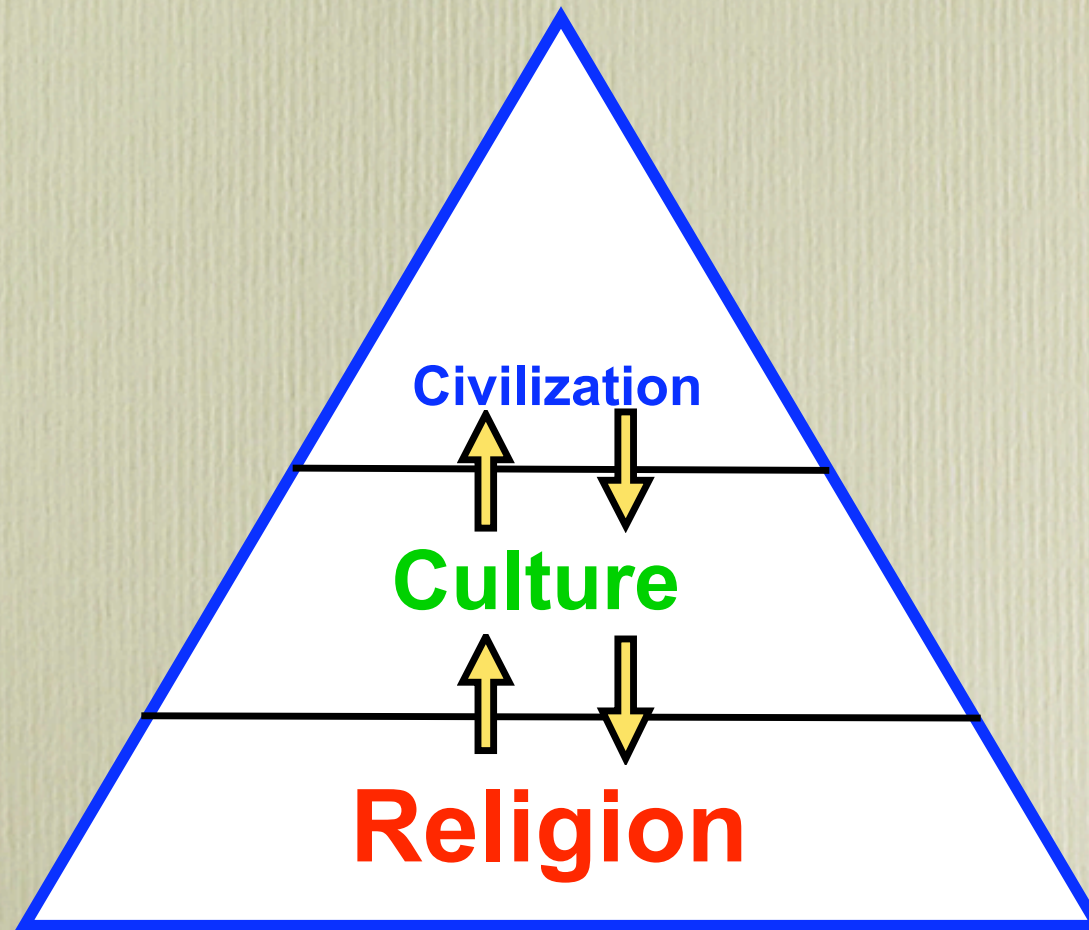
David Maybury-Lewis

The New York Times Book Review (Date Unknown)

 **Analysis and Synthesis**

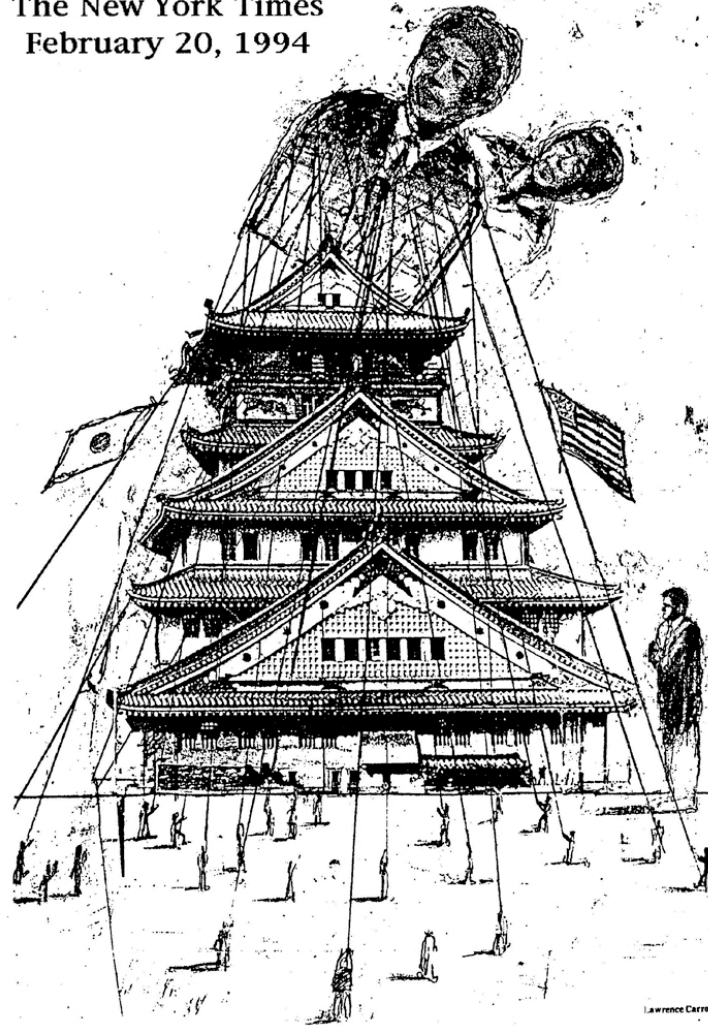


# Hierarchy of Civilization, Culture and Religion



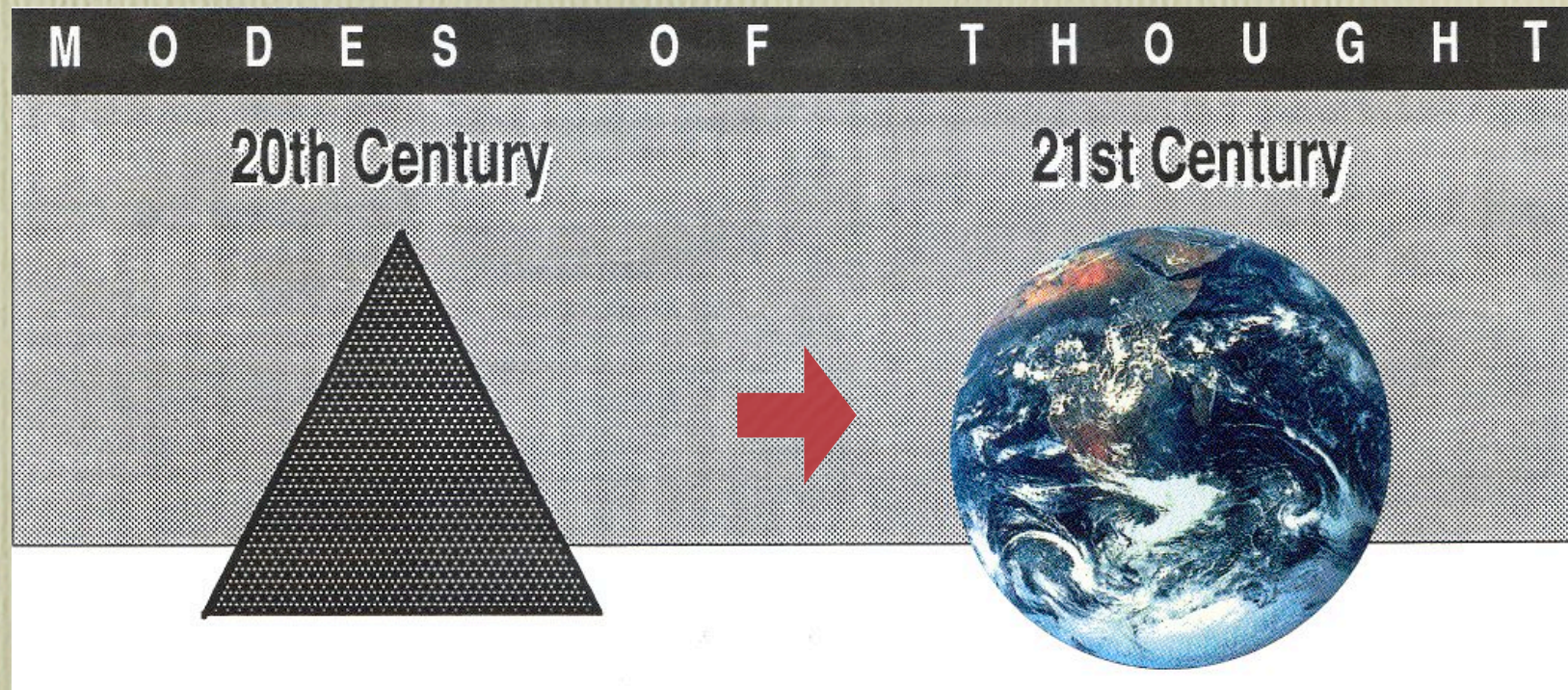
# Crumbling Feudalistic Hierarchy

The New York Times  
February 20, 1994





## Mind Change 20th Century to 21st Century



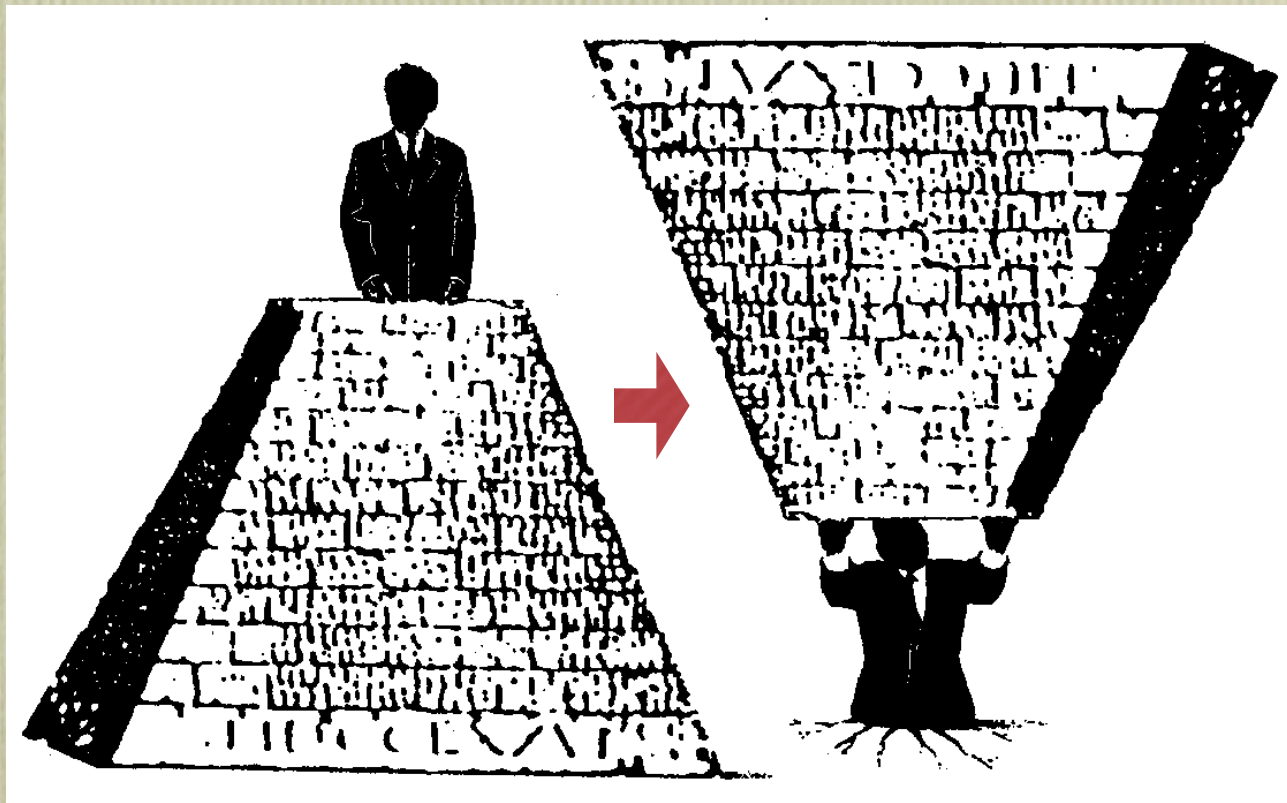
**Industrial Society**

**Global Society**

*"ABC's for the 21st CENTURY," Countdown 2001, 110 North Payne Str., Alexandria, VA 22314, USA*



# Private vs Public Service

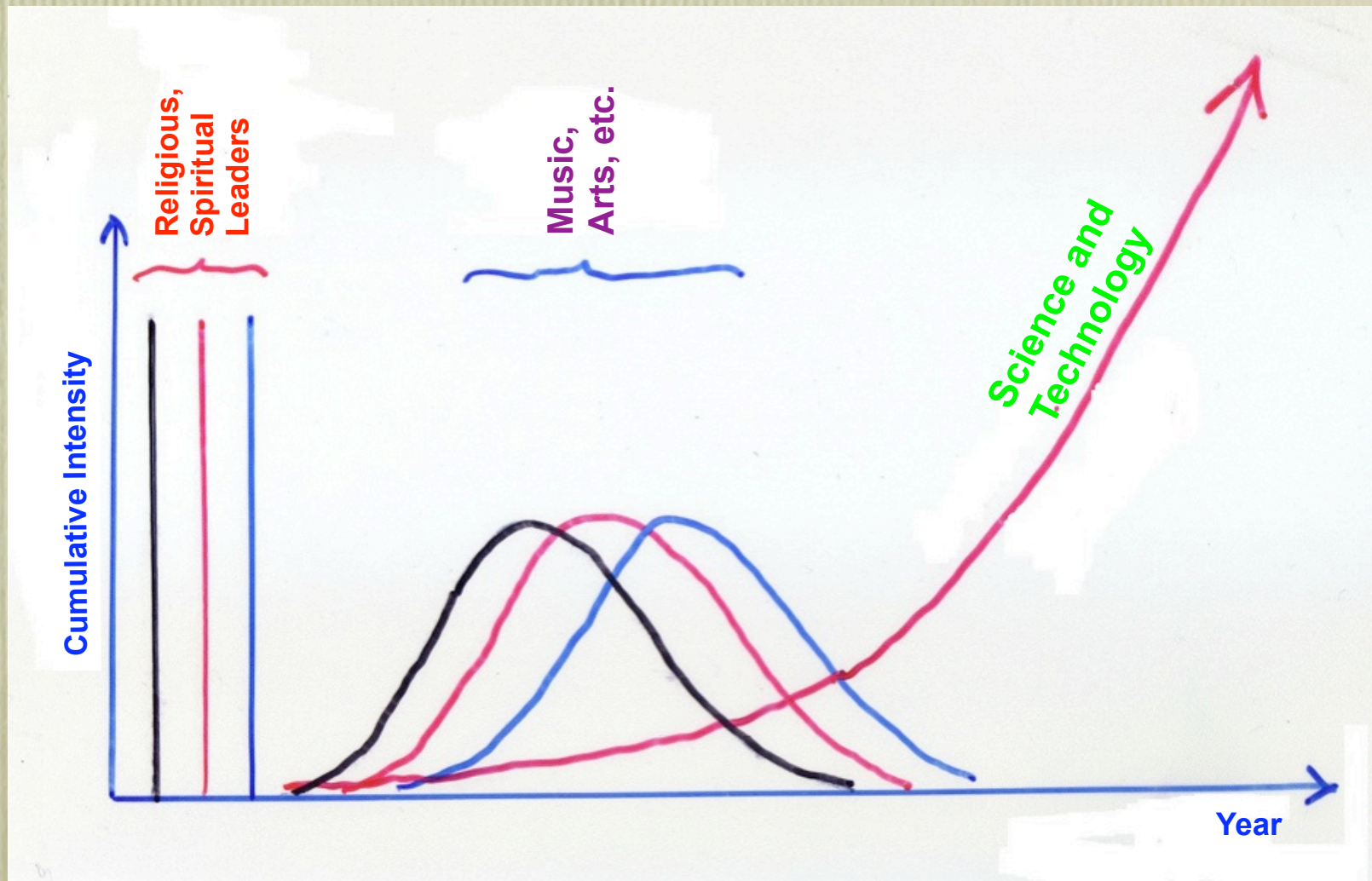


"Why Business Fail in Government," The New York Times, 1987

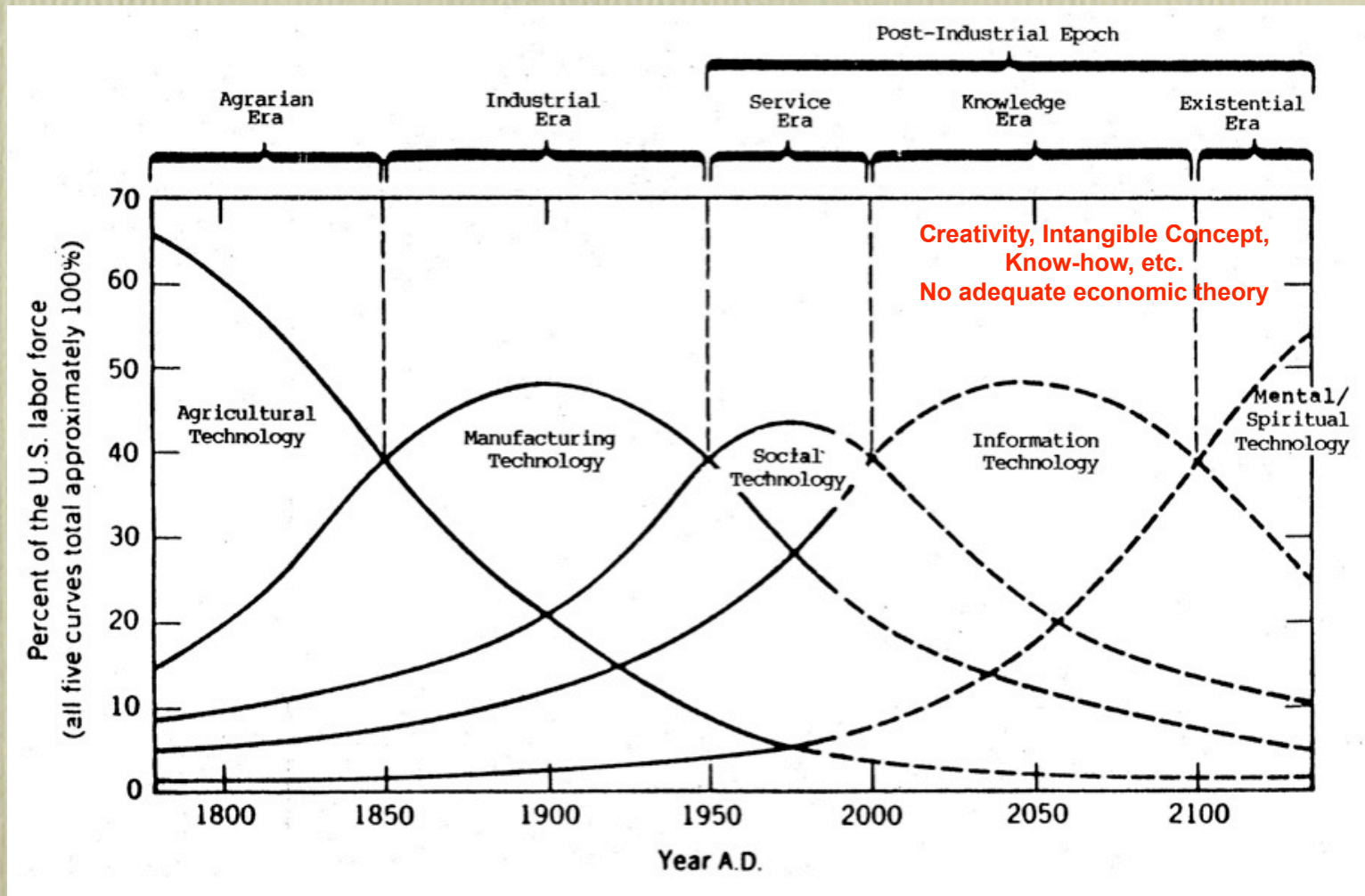


# Historical Diagram

Depicted from "Space Ship EARTH"  
by Barbara Ward



# Evolution of Technology



Halal, W. E., "The Life Cycle of Evolution," ICIS Forum 20:2, April, 1990, Page 32









# Logo of GLOSAS/USA



# **Culture of America**

**(Unique crucible for innovation)**

-  **Freedom of thought**
-  **Independent thinking**
-  **Immigration of new minds**
-  **Risk-taking**
-  **Non-corrupt bureaucracy**
-  **Financial market and venture capital**

**These institutions, which nurture innovation, are the real crown jewels of American culture.**

Friedman, T. L., “The Secret of Our Sauce,” The New York Times, March 7, 2004



# How to Fire Up The Innovation Machine

BusinessWeek, October 11, 2004, Page 240

**At a time of intense division, with deep political and religious fault lines splitting the world, innovation stands out as a powerful integrative force.**

**It ties countries, companies, and consumers together in creating value, solving problems, and generating wealth.**

**An innovation economy demands that society be **open**, **dynamic**, **educated**, **international**, and **risk-taking**. Given a chance, innovation can improve all our lives.**

**Financial risk-taking is the fuel that powers the process of change.**

**Worldwide innovation networks are the new keys to R&D vitality -- and competitiveness.**



# What is peace through culture?

The word “culture” is derived from the two words “cult” and “ur.” “Cult,” of course, means cultivation. “Ur” is an ancient Chaldean term meaning “light” -- the creative aspect of the universe. Hence, **culture** is literally the **cultivation of creativity**.

Peace is more than just the absence of war. Just as it takes acts of war to make war, it takes acts of peace to make peace. **Peace**, then, is **a structure of positive acts of creativeness that are carried out in a spirit of high idealism**.

“Genuine peace must be the product of many nations, the sum of many acts. It must be dynamic, not static, changing to meet the challenge of each new generation. For peace is a process -- **a way of solving problems**.”

John F. Kennedy



# On Peace

**Peace** is a never-ending process,  
the work of many decisions by  
many people in many countries.

It is an attitude, a way of life, a  
way of **solving problems and  
resolving conflicts...** It requires  
us to work and live together.

Oscar Arias Sanchez; Nobel acceptance speech, 1987

# Global Leader

**“The great leaders of tomorrow will be the ones who understand how to get everyone to **participate**.”**

FORTUNE, January 25, 1993, Page 69



# Principle of Global E-Learning

- **Collaborative Learning**
- **Experiential Learning**
- **Objective Learning**
- **Autonomous Learning**

# Chinese Proverb

**When I hear, I forget.**

**When I see, I remember.**

**When I do, I know.**

**Knowledge** applies with interaction  
becomes **wisdom**.



# **GLOSAS Projects**

(GLObal Systems Analysis and Simulation Association  
in the U.S.A.)

**Takeshi Utsumi, Ph.D., P.E.**

-  **Chairman, GLOSAS/USA**
-  **Laureate of Lord Perry Award for Excellence in  
Distance Education**
-  **Founder and V.P. for Technology and Coordination  
of Global University System (GUS)**
-  **<http://www.friends-partners.org/GLOSAS/>**

Click “**Current Reference Websites**” in the home page listed above.

# Muito Obrigado

## Arigato

(“Thank you” in Japanese)

(not alligator)