

## Uncertain Times: Changing Principles

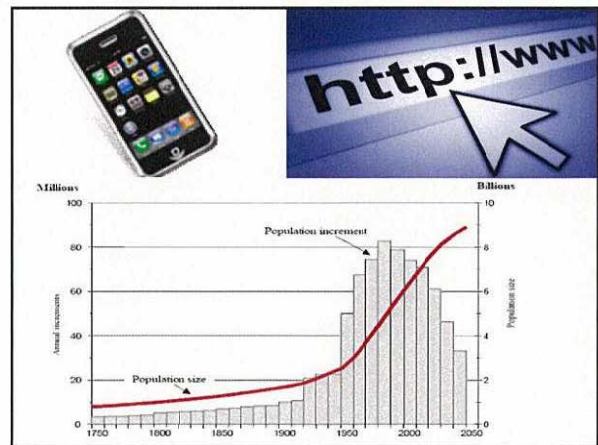
International Symposium on Sustainability

Role of Science and Technology in  
Disaster Recovery and Preparedness

Knowledge vs Wisdom

Kiyoshi Kurokawa, MD

Science Council of Japan; Tokyo, January 17, 2013



**web 1.0: 1991-2000**

End of Cold War  
world wide web  
Globalization  
*Financial crises: 90, 92, 97*  
*Rio de Janeiro*

**web 2.0: 2001-2010**

**web 3.0: 2011-**

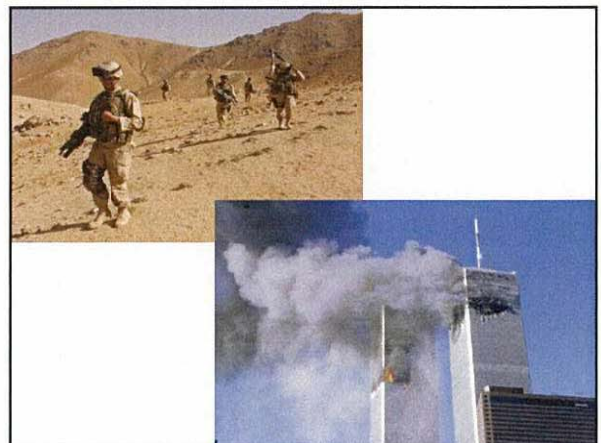


**web 1.0: 1991-2000**

**web 2.0: 2001-2010**

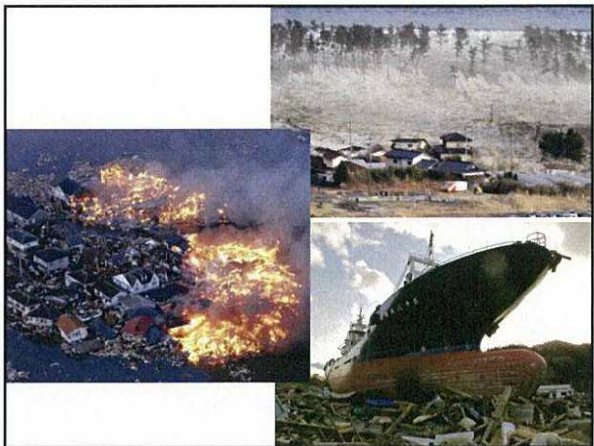
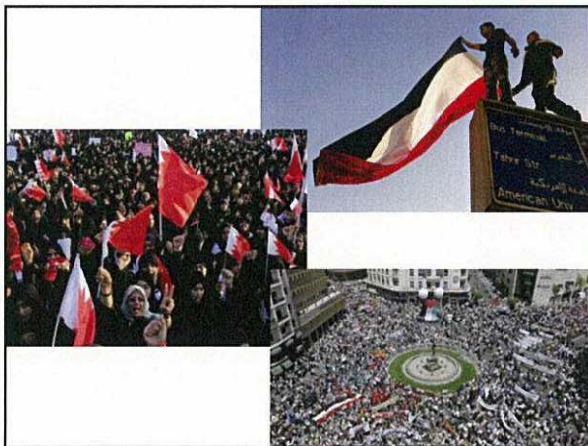
9.11  
digital age, wireless,  
touch panel  
emerging economies, BRICs  
global financial crisis, 2007  
Barak Obama

**web 3.0: 2011-**





web 1.0: 1991-2000  
web 2.0: 2001-2010  
web 3.0: 2011-  
Arab spring  
3.11





**National Diet of Japan  
Fukushima Nuclear Accident  
Independent Investigation Commission**

**Dec 8, 2011- July 5, 2012**

[www.naiic.go.jp/en/](http://www.naiic.go.jp/en/)

**'Black Swan event'**

**Accidents Occur  
Machines Break  
Human Err**

**Issues Unique to Japan?**

**"Regulatory Capture"**

**George Stigler (Nobel laureate, 1982)**

**Many examples in the world**

## Age of Uncertainty

Have we become wiser?

Knowledge is digitalizeable

Wisdom has to be earned

Richard Feynman (1986)

"For a successful technology, reality must take precedence over public relations, for nature cannot be fooled."

Kiyoshi Kurokawa (2012)

'For daring to tell a complacent country that groupthink can kill'; *Foreign Policy's* '100 Top Global Thinkers 2012'

AAAS Scientific Freedom and Responsibility Award, 2013

## The Principles

- RESILIENCE
- RISK
- SYSTEMS
- COMPASSES
- PULL
- PRACTICE
- DISOBEDIENCE
- CROWDS
- LEARNING

**Thank you**

**Google me!**

**[www.kiyoshikurokawa.com/en/](http://www.kiyoshikurokawa.com/en/)**