BIG HISTORY AND BIG HISTORY EDUCATION IN KOREA

2014. 10. 11

Seohyung KIM

Institute of World and Global History, Ewha Womans University

Contents

- What is Big History?
- II Big History Project
- Big History Education in Korea

What is Big History?

MAGAZINE

THE EDUCATION ISSUE



So Bill Gates Has This Idea for a History Class ...

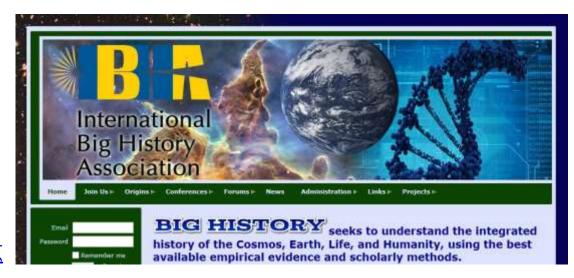
By ANDREW ROSS SORKIN SEPT. 5, 2014





Bill Gates, right, with David Christian, a professor from Australia with a new approach to teaching history. Mark Peterson/Redux, for The New York Times

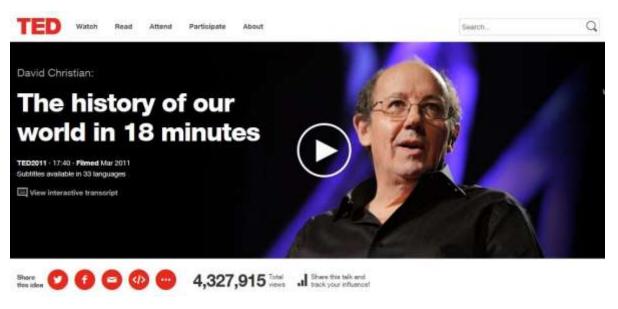
- From Big Bang to Present and Future
- Origin stories of everything with scientific knowledge
- Interrelationships with human beings and the nature
- Interdisciplinary research and education between the Natural Sciences

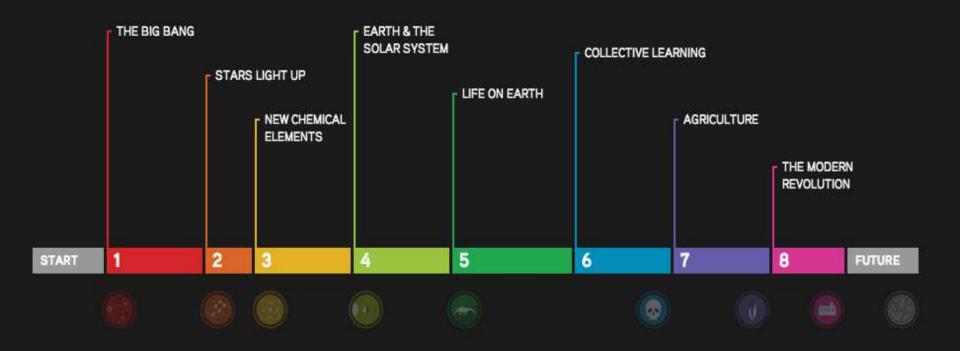


www.ibhanet.org

Big History Project

- Big History Project by bgC3 since March, 2011
- Co-founders: Bill Gates and David Christian
- 5 schools in the US, 2 schools in Australia in 2011
- 50 schools in the US, 25 schools in Australia,
 5 schools in Korea in 2012
- More than5,000 school teachersparticipation





Welcome to a journey through 13.7 billion years. Get started.

Explore the thresholds. Register to test your knowledge More info? Watch Video | About the course

OF INCREASING COMPLEXITY

INGREDIENTS

All new forms of complexity build upon previous forms. This section identifies the main components that had to exist at this particular threshold in order to create something entirely new.

GOLDILOCKS CONDITIONS

Having the right ingredients isn't enough to create new forms of complexity. Conditions also need to be 'just right' to trigger the change. This section identifies what those conditions were.

COMPLEXITY

Each threshold results in entirely new things that are more complex than anything before. This section identifies what those are. These will always have more diverse components that, when arranged in precise ways, have 'emergent' properties unlike anything else in existence.

THRESHOLD AGRICULTURE

INGREDIENTS

Increased extraction of resources from the environment

Increasingly dense human communities

GOLDILOCKS CONDITIONS

Overpopulation

Forced foragers to find new ways to increase production from their environments

Warmer climates from the end of the last ice age (~18,000 years ago)

Increased productivity of plants and animals in many regions

Artificial selection of plants & animals

Domestication boosted productivity (e.g. fatter sheep, larger grains of wheat)

COMPLEXITY

Villages, cities and agrarian civilizations

Larger, denser and more diverse human communities with new, more complex, social structures and organization

Rapid acceleration in collective learning and its power for innovation

Constant need to develop new technologies to increase available energy

- "I watched Big History which is taught by David Christian....The course is so broad that it synthesizes the history of everything including the sciences into one framework... we're starting some work now to offer a version of Big History for high school students free online It's something that I am incredibly excited about."
 - interview with Charlie Rose
- "It weaves together insights and evidence from so many disciplines into a single, understandable story insights from astronomy, physics, chemistry, biology, anthropology, history, economics, and more."
 - Bill Gates on Big History Project
- "I often hear that kids give up on science because they were intimidated by the math, or put off by dissections in biology. David got me thinking that big history could excite kids about science and learning in general."
 - Bill Gates on Big History Project

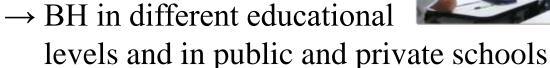
Big History Education in Korea

- Big History Course since 2010 at Ewha W. University
 "A Story of Everything after the Big Bang"
- BH Pilot Program for middle and high school students
 since fall semester, 2012
 - (1) to creative convergence understanding between the natural sciences and humanities
 - (2) to understand the nature of global society
 - (3) to solve global problems

- BH pilot program as an extracurricular education, 2012-
 - : ten units (two hours for one unit)

one hour lecture + one hour hands-on activity

- BH pilot schools in Korea
 - (1) Two middle schools
 - (2) Two high schools



- Team Teaching
 - → science teachers + humanities/social studies teachers



- Integrated center program at Ewha W. University
- : 30 students from 30 different high schools in Seoul
- ① Big History and Big History Project
- 2 The Big Bang, the Creation of the Universe
- 3 Stars and Elements
- 4 The Solar System
- (5) The Earth
- 6 Life and Evolution
- 7 Human Beings and Evolution
- **8** Agriculture and Global Networks
- 9 Anthropocene
- ① Future



- A regular BH course begins at Hana Academy Seoul
 : 2015 for 11th graders as a one-year course
- 20 volumes of BH series in Korean for teenagers





- Contents of the BH Series (20 Vols.)
 - 1) The Big Bang (2013)
 - 2) The Universe and Galaxies (2014)
 - 3) Life of Stars
 - 4) The Solar System and the Earth (2014)
 - 5) The Earth and the Moon (2014)
 - 6) Birth of Life
 - 7) Emergence and Evolution of Sex (2013)
 - 8) Evolution of Animals and Plants
 - 9) Emergence of Primates
 - 10) Appearance of Human Beings







- 11) Evolution of Human Beings
- 12) Origins of Agriculture (End of 2014)
- 13) Emergence and Development of Cities (and States)
- 14) Emergence and Falls of Empires
- 15) Global Networks (2013)
- 16) Climate Change and Human Culture
- 17) Population and Infectious Diseases
- 18) Development of Science and Technology
- 19) Anthropocene
- 20) Future





- Big history bridges different disciplines
 - → meaningful knowledge
- NOT pieces!Whole pattern and structure!





Sciences