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## Big History for Big Learning

### Contribution to GTI Forum [The Pedagogy of Transition](#)

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We are living through a momentous turning point in the history not just of humanity but of Planet Earth. But modern education is failing to help young people see the challenges they will face in their lifetime or prepare for those challenges. One compelling solution to these problems is to offer students the wide-angle vision of a modern, science-based origin story, the story of “Big History.”<sup>1</sup>

In recent decades, the scale of human activities and the power of human technologies have increased so rapidly that what we do in the next few decades will shape the history of the biosphere possibly for millions of years. Planet Earth is coming under the management of a single species, and the challenge is to learn how to manage a planet well for the sake of future generations. This is the pay-off to the burgeoning literature on the Anthropocene epoch. As Martin Rees, the Astronomer Royal, puts it, “Our Earth is 45 million centuries old. But this century is the first in which one species—ours—can determine the biosphere’s fate.”

Are we preparing the young to meet this momentous new challenge? I think not, mainly because we are teaching in ways that were appropriate for a very different world. In the world of my youth, we needed to learn how to become good citizens of our home nation and to prepare for a career. Discipline-based educational systems did these jobs moderately well by teaching particular skills and teaching a lot about the history and culture of a student’s home nation. But the challenge of managing a planet is utterly different. It will require, first, a sense of global rather than national citizenship. The fundamental challenges the young will face in coming decades can no longer be solved at the national level but will require a willingness to collaborate at a global level and a sense of commitment to a global community. Second, these challenges will require, in addition to specialized knowledge, an ability to see links and synergies between multiple disciplines. Managing

a planet will require some understanding of economics and politics and management as well as climate science, and the technologies needed to build a more sustainable world. Finally, these challenges will require a vision of society and history that is capacious enough to help students see their own times in the context of the history of an entire planet and even an entire Universe. Only then, will it be possible to grasp the scale and significance of the challenges that a younger generation is now facing. Preparing for that challenge will require a more inter-disciplinary education, the educational equivalent of a “view from the mountaintop” of modern knowledge.

The way to meet these challenges is to build into all educational curricula what I think of as a modern origin story. This is a large, unifying story that tells how everything came to be as it is, a story that can link knowledge from many different realms into a coherent understanding of today’s world. All cultures have taught origin stories. They have provided the intellectual frameworks young people need in order to understand their place in the scheme of things, and the challenges posed for their generation. In today’s global world, we need a global origin story, a story that works for all of humanity. That story must build on modern science, not just because of the power of modern science, but also because science is the one form of knowledge that is accepted and taught today in all countries in the world.

In recent decades, scholars from many disciplines, from history to cosmology, have begun to tease out the broad shape of a modern, science-based origin story. We can tell that story now because of the emergence of new paradigms in the late twentieth century in physics, cosmology, geology, genetics, and biology. All those paradigms turned out to be historical. They all told how things came to be as they are. When put together, they tell a story of the evolution of complex structures over time, from stars to complex chemicals, from planets to life, and eventually to our own strange species, which has had such a revolutionary impact on Planet Earth. That story looks like a history of the Universe. It can help us to understand our place in space and time, and to identify the challenges we face here and now.

The version of this story that I know best is known as “Big History.” The wide vision of Big History can help the young see how unique the moment we are living through is, as we become a planet-changing species. It can help them see the challenges they will face as adults, and it can help them see and explore the many links between all the disciplines that can help them as they take on the task of managing a planet.

Introducing Big History courses to existing educational curricula should not be hard. Big History courses are now being taught in many universities and thousands of schools in many different countries. There is a rapidly growing literature in the field, and the materials needed to teach Big History are readily available. Finally, a whole generation of teachers has shown that such courses are teachable and engaging and the responses of their students show how such courses can transform students' understanding by offering them the sort of framing stories that were present in traditional origin stories.

If this argument is on the right track, it suggests that teaching students some form of Big History can help them see the challenges they will face at a turning point in planetary history. And it will help prepare them for those challenges by giving them an overview of many different kinds of knowledge. The main difficulty will be to overcome the skepticism of most educators about forms of education that are not shaped by the disciplines that dominate modern education and research everywhere in the world. That's the tricky part!

## Endnotes

1. This piece is adapted from my recent talk "Equipping Our Children to Manage a Planet" for the Frontiers Forum, available at [https://www.youtube.com/watch?v=JhowXxz\\_uAs](https://www.youtube.com/watch?v=JhowXxz_uAs). For those new to Big History, recent introductions include David Christian, *Origin Story: A Big History of Everything* (New York: Little, Brown, & Co., 2018), and David Christian, "What is Big History?", *Journal of Big History* 1 (2017): 4-19, available at <https://joh.journals.villanova.edu/article/view/2241>. The Big History Project can be accessed at <https://www.oerproject.com/Big-History>. The International Big History Association website is at <https://bighistory.org/>.

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## About the Author



David Christian is Professor of History and Director of the Big History Institute at Macquarie University in Sydney. By training a historian of Russia and the Soviet Union, he has become interested in world history on very large scales, or “Big History,” since the 1980s. He taught at Macquarie University from 1975 to 2000, then at San Diego State University, before returning to Macquarie in 2009. He was founding President of the International Big History Association and co-founder, with Bill Gates, of the Big History Project. He is the author of *Maps of Time: An Introduction to Big History*, among many other books and articles. He holds a PhD from Oxford University.

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