

# ABHIMANYU.IO

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## FIVE GIANT LEAPS FOR MANKIND

It is a number, unanswerable by a quick Google search, of small steps taken by approximately 108 billion men, but five giant leaps for mankind.

I quite enjoyed reading the article “*Human Intelligence And Economic Growth From 50,000 B.C. To The Singularity*” ([wayback machine](#)) by BCA Research that includes (among other interesting data) in Chart III-9, estimates of GDP growth in the prehistoric era ([direct image link](#) if the image doesn’t load for you).

So what have been all the “quasi-singularities” (points of significant increase in frontier GDP growth rate) the economy has gone through? I compiled a list of what I guess were such revolutions – all values are for frontier:

- The **Industrial Revolution** (GDP”: 0.1% to 3.0%, GDP/cap”: 0.06% to 1.8%) (occurred across two phases – GDP/cap’ rose from 0.06% to 0.46% from 1650 to 1680 lead by the UK, 0.46% to 1.8% from 1820 to 1830 lead by the U.S.) (simultaneous political development: capitalism) – development of scalable mass production.
- The **Agricultural Revolution** (GDP”: 0.001% to 0.1%, GDP/cap”: 0.0006% to 0.06%) (10,000 BC – 6000 BC, Mesopotamia) (simultaneous political development: kingship) – development of manageable food production.

*(stupid terminology below is my own)*

- The **Instructional Revolution** (~60,000 BC) (simultaneous political development: behavioral modernity) – development of collective learning. Also saw cave painting, etc.
- The **Nutritional Revolution** (~600,000 BC) (simultaneous biological development: anatomical modernity) – development of fire and cooking.
- The **Technological Revolution** (~3,600,000 BC) (simultaneous biological development: bipedality) – development of tool use.

Some remarks:

- I tend to question the traditional conception of the Agricultural Revolution, where the economic change (the invention of agriculture) is thought to pre-date the political change (kingship and complex social structures). Such a sudden economic change is unlikely without political change causing it first (political change can be sudden, as you just need the majority to tip over the 50% mark, roughly speaking). In addition, the more documented Industrial Revolution shows exactly this – political change predating economic change.
- In Reference 2, historical U.S. GDP growth data is artificially deflated due to large-scale low-income immigration in the 1800s, which means estimating a moving target.

References:

1. “Human Intelligence and Economic Growth from 50,000 BC to the Singularity” (BCA Research, 2013): [blog.bcaresearch.com/human-intelligence-economic-growth-50000-bc-singularity](http://blog.bcaresearch.com/human-intelligence-economic-growth-50000-bc-singularity) (via: The Wayback Machine)
2. “Economic Growth” (Our World in Data): [ourworldindata.org/economic-growth](http://ourworldindata.org/economic-growth)
3. “World Population Growth” (Our World in Data): [ourworldindata.org/world-population-growth](http://ourworldindata.org/world-population-growth)
4. “Estimating World GDP, One Million B.C. to Present” (J. Bradford DeLong, 1998): [holtz.org/Library/Social%20Science/Economics/Estimating%20World%20GDP%20by%20DeLong/Estimating%20World%20GDP.htm](http://holtz.org/Library/Social%20Science/Economics/Estimating%20World%20GDP%20by%20DeLong/Estimating%20World%20GDP.htm)

**TAGS** – economics, history, GDP, prehistory, agricultural revolution, industrial revolution