In the video *How Did Change Accelerate*, David Christian argues that there are three major factors that contributed to the rate of acceleration in the twentieth century.
And those factors are as follows:

1. the vast expansion of global trade networks
2. the emergence of competitive markets
3. the increasing use of fossil fuels

Each of these factors contributed to the turbulent decades of the early twentieth century; a period of time in which humans waged global, catastrophic war, experienced worldwide economic depression, and greatly expanded the gap between rich and poor. Exactly how did these events come to be? How did each of the three factors listed above cause these devastating events to unfold in the first five decades of the twentieth century? To understand how each factor affected life during this time, I’m going to look at some data I’ve gathered about this period in history. What can the data we have tell us about how life was transformed in the early twentieth century? Let’s take a look.

Population Growth from 1850 to 1950
(in millions)

<table>
<thead>
<tr>
<th>Region</th>
<th>1850</th>
<th>1900</th>
<th>1950</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>111</td>
<td>133</td>
<td>224</td>
</tr>
<tr>
<td>Asia</td>
<td>809</td>
<td>947</td>
<td>1,402</td>
</tr>
<tr>
<td>Europe</td>
<td>276</td>
<td>408</td>
<td>547</td>
</tr>
<tr>
<td>Latin America and the Caribbean Islands</td>
<td>38</td>
<td>74</td>
<td>166</td>
</tr>
</tbody>
</table>


If we think about the three factors above and how they might have affected this growth in population from 1850 to 1950, the first thing that comes to mind is the rapid increase in connection and exchange among the four world zones. I’ve learned that through the development of sophisticated agricultural innovations and the Columbian Exchange of plants and animals, the production of food began to far outpace the population. By the late nineteenth century, humans were well fed around the globe, which contributed to population growth and debunked Thomas Malthus’ theory about the rise and fall of populations. In addition, medical advances in immunology at the turn of the twentieth century, plus the development of global antibodies through increased contact between large groups of people, helped create longer life expectancy. So I can deduce that readily available food, better medical care, and longer life expectancy all worked together to create this population boom.

This chart also tells me that the populations of Africa, Asia, and Europe essentially doubled over these 100 years, while the population of North America quadrupled, and the populations of Latin America, the Caribbean, Australia, and the Pacific Islands grew by six times. To understand why European population growth was slower than other parts of the world at this time, I need to find other sources of information.

THE IMPACT OF WAR
These maps show the number of deaths from wars between 1900 and 1950.

Overall, this chart tells me that the world’s population doubled in the span of just 100 years. This is the fastest growth in population the world had ever experienced. Let’s try to put this in perspective. Imagine you lived to be 100 years old and when you were born, the world’s population was 7 billion, which is the current figure; by the time of your death, the population would be a staggering 14 billion. How would that sharp increase in population, which would occur over a relatively short amount of time, affect the ways in which we live?
By using the map’s key, I can see that Europe (not including Russia) lost approximately 15 million people in World War I and 36 million people in World War II. This population loss was catastrophic to the region, which explains the slowed population growth in Europe compared to the rest of the world. During the First World War and the Russian Revolution, Russia lost approximately 6 million people. While the population growth during this same period was unprecedented, the huge numbers of deaths from local, regional, and world wars was also something completely new. Why and how was so much killing possible? In order to understand why and how this happened, we have to look back to the Age of Imperialism. I know that by 1900, the world had essentially divided into two regions. The first region was comprised of the industrial, wealthy, colonial powers and the second region was made up of larger, weaker, less industrialized countries. The industrialized nations conquered the larger, weaker countries in order to take their raw materials and increase their own global markets. Therefore, the first region benefited at the expense of the second. It was this scramble for more resources and power that eventually led to two world wars, with the industrialized nations dragging their colonies into all-out global conflicts. I also know that industrialization led to innovation in all sorts of areas, including the development of weapons of mass destruction such as deadly gases, machine guns, bombs dropped by airplanes, and of course the atomic bomb.

The 15 large skulls over Japan on the second map represent 15 million lives lost due to World War II, including the deaths of those killed in the atomic bomb attacks on Hiroshima and Nagasaki at the end of the war. Note that 15 million is an estimate of the total lives lost in the Pacific, not just Japanese losses. No one knows the exact number and estimates vary quite a lot.

The 36 large skulls over Europe on the same map represent, in part, the extermination of much of the Jewish population of Europe by the Nazis during the Holocaust. The death toll has been estimated at 6 million.

What surprises me on these maps is the skulls on the Congo Free State. Six million people died over 20 years. I also noticed 1.5 million people died in Mexico over 10 years. Each, I think, is the result of revolts against and repression by unpopular governments. In the Congo those deaths came as the result of an unjust colonial regime’s rule of the territory. The deaths in Mexico were due to popular revolts against an unpopular and repressive regime that led to a revolution. I also notice that during the first 20 years of the twentieth century, there were five different wars in Africa. These wars killed hundreds of thousands. This was when many African nations began to fight for independence from colonial rule, a fight that would continue in some cases for many decades into the twentieth century. Considering that fact, I know that these deaths were mainly caused by colonial armies using advanced weapons.”

These maps represent the dark side of acceleration. Technology that harnessed the power of fossil fuels was used to wage war against the laborers who were mining that energy, and, in some cases, these weapons were used in campaigns of mass extermination.

**ECONOMICS AND GLOBAL WEALTH**

I know that one of the major causes of the First World War was the conflict between European nations over the scramble for resources in Africa. After all, it was the push for control over wealth that created colonialism in the first place. The chart on the next page shows the GDP, or gross domestic product, numbers for the period 1850 to 1950. GDP represents the total dollar value of all of the goods and services produced over a specific time period. It is calculated in two basic ways: either by adding up what everyone earned in a year (income approach), or adding up what everyone spent in a year (expenditure method). Either way, governments and economists use this number...
to determine how well a country is doing and how healthy its economy is. The chart on the following page shows how much the GDP grew in each of the areas of the world from 1870 to 1950. The numbers have been adjusted for inflation and represent what the international dollar was worth in 1990.

World Gross Domestic Product (GDP) in billions (1990 international dollars)

<table>
<thead>
<tr>
<th>1870</th>
<th>1913</th>
<th>1950</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe and Western Offshoots (including North America, Australia, New Zealand, Japan)</td>
<td>611.1</td>
<td>1845.9</td>
</tr>
<tr>
<td>Latin America</td>
<td>27.9</td>
<td>121.7</td>
</tr>
<tr>
<td>Asia</td>
<td>422.2</td>
<td>664.2</td>
</tr>
<tr>
<td>Africa</td>
<td>40.2</td>
<td>72.9</td>
</tr>
<tr>
<td>World</td>
<td>1110.8</td>
<td>2704.7</td>
</tr>
</tbody>
</table>


These are big numbers! In general, this chart tells me that global wealth increased by 480 percent over an 80-year timespan. In 1870, I see that Europe and other Western powers held the most wealth, but Asia was a significant contender in second place. By 1913, on the eve of World War I, the Western powers had significantly outpaced everyone else in generating wealth. This makes sense because the years between 1870 and 1913 saw the height of European imperialism. Great Britain, France, and Germany had put in place systems of commerce, government, and military to extract wealth from their colonies to feed consumer culture at home and abroad. By 1950, Asia had been completely outpaced by the West in terms of GDP with the West generating three times the wealth as all of Asia. This is probably due to the fact that China and India did not industrialize as rapidly as Europe and the United States in this time period.

CONCLUSION

Taken together, what do the data on population, the impact of war, and GDP tell me about the early twentieth century? European powers vied with each other for control over competitive markets, fossil fuels, and trade networks, resulting in total war and millions of lives lost. In the desire to become the wealthiest and most powerful countries in the world, humans lost sight of the humanity of all. In other words, imperial powers had no concept of balance of power and very little concern for people’s lives in the colonies. It was only after living through two wars, a global depression, and genocide that the world powers realized they needed to find ways to cooperate to ensure the economic health and political stability of the world.
This short journal entry is an example of how historians go about exploring important questions and looking at new information. They use a mixture of historical documents and the writings of other historians to inform their thinking. All sources are listed in the working bibliography.

Working Bibliography & Notes

Foreman, Bill. “Panorama Teaching Unit Turbulent Decades 1900 — 1950.” World History for Us All. PDF file.


