2.27.2023 SHOW NOTES:

IS SOCIETAL COLLAPSE NOW IMMINENT?

(All material is used for educational purposes only)

NOTE: I have tried to make sure that none of the stories in this collection are duplicates, but I am allowing for the possibility that I may have missed cross-over referencing.

FURTHERMORE: Many of the articles I have posted here have video links imbedded in them that did not copy over to this page. You might want to reference the original sources for further investigation.

CHANGING AMERICA

MIT predicted society would collapse by 2040. New data tells how we're doing

by Christian Spencer | July 16, 2021 | Jul. 16, 2021

Story at a glance:

- **Scientists in the 1970s at the Massachusetts Institute of Technology predicted the fall of society.**
- **Using the LtG model, the fall of society will take place around 2040.**
- **The 2100s will be comparable to the 1900s in terms of the world's population, industrial output, food and resources.**

Scientists in the 1970s at the Massachusetts Institute of Technology (MIT) created a method to determine when the fall of society would take place.

That method indicated the fall will be some point near the middle in the 21st century around 2040, and so far, their projections have been on track, new analysis suggests.

In 1972, a team of researchers studied the risks of a doomsday scenario, examining limited availability of natural resources and the rising costs that would subvert the expectation of economic growth in the second decade of the 21st century.

Using a system dynamics model that was published by the Club of Rome — a Swiss-based global think tank that includes current and former heads of state, United Nations bureaucrats, government officials, diplomats, scientists, economists and business leaders — the scientists were able to identify the upcoming limits to growth (LtG) to forecast of potential "global ecological and economic collapse coming up in the middle of the 21st Century," The Guardian reported.

The Earth, according to LtG, has been terraformed beyond repair by greenhouse gases from fossil fuels, making the next generation to endure the "heavy legacy," a scarcity of mineral resources and a planet characterized by radioactive and heavy metal pollution.

In the '70s, the study was considered controversial and sparked debate, with some pundits misrepresenting the findings and methods, according to Vice.

However, Gaya Herrington, Director Advisory, Internal Audit & Enterprise Risk at major accounting firm KPMG, updated the LtG model in a published finding in the Yale Journal of Ecology in November 2020.

In Herrinton's estimates, the world's population, industrial output, food and resources will rapidly decline. The 2100s will be comparable to the 1900s, according to Vice. However, Herrington is treating her research as a personal project as a precaution to see how well the MIT model holds up.

Herrington's study concluded that society has about another decade to change courses and avoid collapse by investing in sustainable technologies and equitable human development.

LIVE SCIENCE

Society is right on track for a global collapse, new study of infamous 1970s report finds

A steep downturn in human population and quality of life could be coming in the 2040s, the report finds.

By Brandon Specktor published July 19, 2021

Human society is on track for a collapse in the next two decades if there isn't a serious shift in global priorities, according to a new reassessment of a 1970s report, Vice reported

In that report — published in the bestselling book "The Limits to Growth (opens in new tab)" (1972) — a team of MIT scientists argued that industrial civilization was bound to collapse if corporations and governments continued to pursue continuous economic growth, no matter the costs. The researchers forecasted 12 possible scenarios for the future, most of which predicted a point where natural resources would become so scarce that further economic growth would become impossible, and personal welfare would plummet.

The report's most infamous scenario — the Business as Usual (BAU) scenario — predicted that the world's economic growth would peak around the 2040s, then take a sharp downturn, along with the global population, food availability and natural resources. This imminent "collapse" wouldn't be the end of the human race, but rather a societal turning point that would see standards of living drop around the world for decades, the team wrote.

Related: How much time does humanity have left?

So, what's the outlook for society now, nearly half a century after the MIT researchers shared their prognostications? Gaya Herrington, a sustainability and dynamic system analysis researcher at the consulting firm KPMG, decided to find out. In the November 2020 issue of the Yale Journal of Industrial Ecology, Herrington expanded on research she began as a graduate student at Harvard University earlier that year, analyzing the "Limits to Growth" predictions alongside the most current real-world data.

Herrington found that the current state of the world — measured through 10 different variables, including population, fertility rates, pollution levels, food production and industrial output — aligned extremely closely with two of the scenarios proposed in 1972, namely the BAU scenario and one called Comprehensive Technology (CT), in which technological advancements help reduce pollution and increase food supplies, even as natural resources run out.

While the CT scenario results in less of a shock to the global population and personal welfare, the lack of natural resources still leads to a point where economic growth sharply declines — in other words, a sudden collapse of industrial society.

"[The BAU] and CT scenarios show a halt in growth within a decade or so from now," Herrington wrote in her study. "Both scenarios thus indicate that continuing business as usual, that is, pursuing continuous growth, is not possible."

The good news is that it's not too late to avoid both of these scenarios and put society on track for an alternative — the Stabilized World (SW) scenario. This path begins as the BAU and CT routes do, with population, pollution and economic growth rising in tandem while natural resources decline. The difference comes when humans decide to deliberately limit economic growth on their own, before a lack of resources forces them to.

"The SW scenario assumes that in addition to the technological solutions, global societal priorities change," Herrington wrote. "A change in values and policies translates into, amongst other things, low desired family size, perfect birth control availability, and a deliberate choice to limit industrial output and prioritize health and education services."

On a graph of the SW scenario, industrial growth and global population begin to level out shortly after this shift in values occurs. Food availability continues to rise to meet the needs of the global population; pollution declines and all but disappears; and the depletion of natural resources begins to level out, too. Societal collapse is avoided entirely.

This scenario may sound like a fantasy — especially as atmospheric carbon dioxide levels soar to record highs. But the study suggests a deliberate change in course is still possible.

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Top 10 ways to destroy Earth

Herrington told Vice.com the rapid development and deployment of vaccines during the COVID-19 pandemic is a testament to human ingenuity in the face of global crises. It's entirely possible, Herrington said, for humans to respond similarly to the ongoing climate crisis — if we make a deliberate, society-wide choice to do so.

"It's not yet too late for humankind to purposefully change course to significantly alter the trajectory of [the] future," Herrington concluded in her study. "Effectively, humanity can either choose its own limit or at some point reach an imposed limit, at which time a decline in human welfare will have become unavoidable."

Read more about the report at Vice.com.

Originally published on Live Science.

BBC

Are we on the road to civilisation collapse?

Studying the demise of historic civilizations can tell us how much risk we face today, says collapse expert Luke Kemp. Worryingly, the signs are worsening.

By Luke Kemp18th February 2019

Great civilizations are not murdered. Instead, they take their own lives.

So concluded the historian Arnold Toynbee in his 12-volume magnum opus A Study of History. It was an exploration of the rise and fall of 28 different civilizations.

He was right in some respects: civilizations are often responsible for their own decline. However, their self-destruction is usually assisted.

The Roman Empire, for example, was the victim of many ills including overexpansion, climatic change, environmental degradation and poor leadership. But it was also brought to its knees when Rome was sacked by the Visigoths in 410 and the Vandals in 455.

Collapse is often quick and greatness provides no immunity. The Roman Empire covered 4.4 million sq km (1.9 million sq miles) in 390. Five years later, it had plummeted to 2 million sq km (770,000 sq miles). By 476, the empire's reach was zero.

Our deep past is marked by recurring failure. As part of my research at the Centre for the Study of Existential Risk at the University of Cambridge, I am attempting to find out why collapse occurs through a historical autopsy. What can the rise and fall of historic civilisations tell us about our own? What are the forces that precipitate or delay a collapse? And do we see similar patterns today?

You might also like:

- How Western civilisation could collapse
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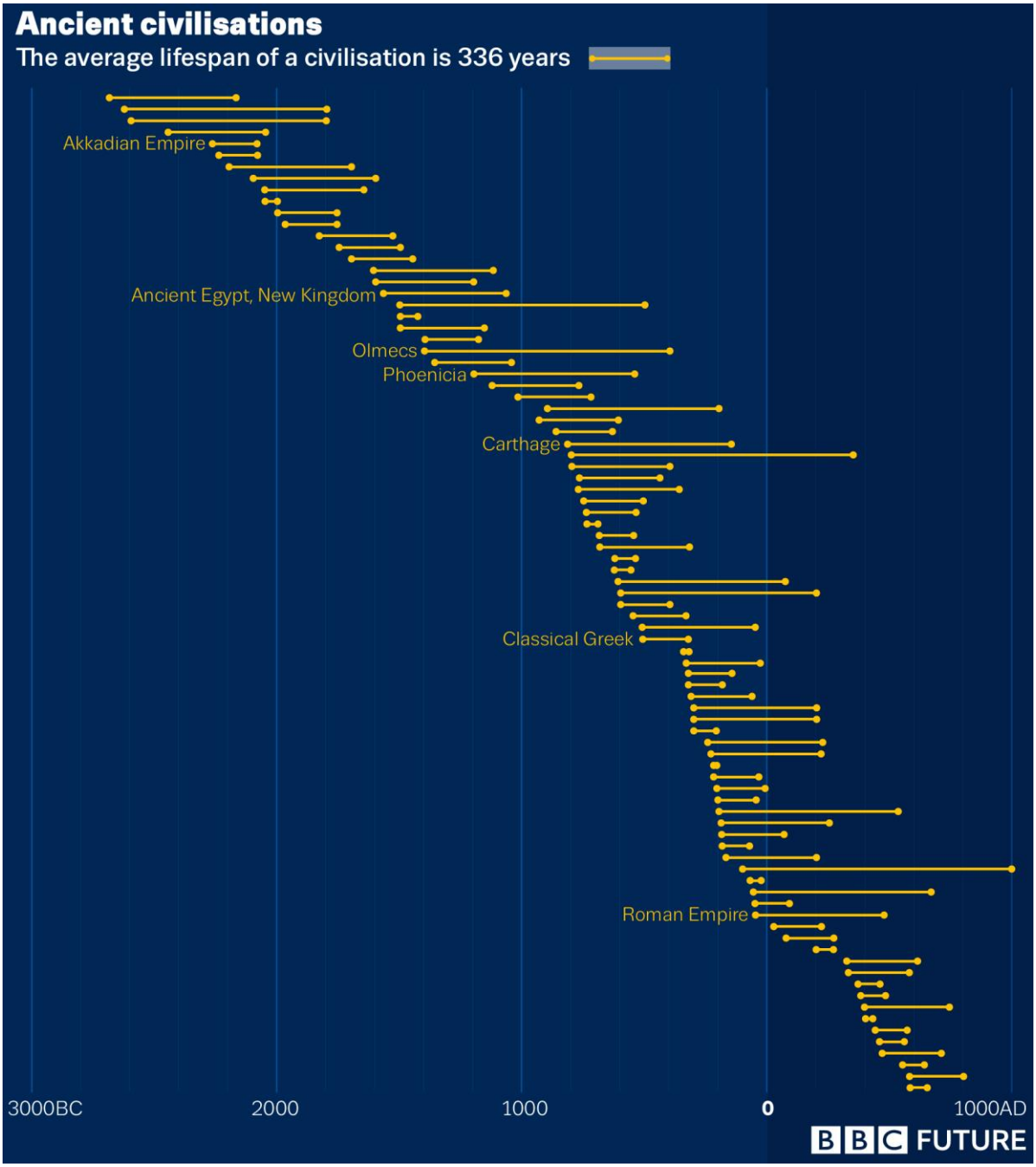
- What are the biggest threats to humanity?

The first way to look at past civilisations is to compare their longevity. This can be difficult, because there is no strict definition of civilisation, nor an overarching database of their births and deaths.

In the graphic below, I have compared the lifespan of various civilisations, which I define as a society with agriculture, multiple cities, military dominance in its geographical region and a continuous political structure. Given this definition, all empires are civilisations, but not all civilisations are empires. The data is drawn from two studies on the growth and decline of empires (for 3000-600BC and 600BC-600), and an informal, crowd-sourced survey of ancient civilisations (which I have amended).



Click/pinch to enlarge. [Here's the full list of the civilisations displayed above.] (Credit: Nigel Hawtin)

Collapse can be defined as a rapid and enduring loss of population, identity and socio-economic complexity. Public services crumble and disorder ensues as government loses control of its monopoly on violence.

Virtually all past civilizations have faced this fate. Some recovered or transformed, such as the Chinese and Egyptian. Other collapses were permanent, as was the case of Easter Island. Sometimes the cities at the epicenter of collapse are revived, as was the case with Rome. In other cases, such as the Mayan ruins, they are left abandoned as a mausoleum for future tourists.

What can this tell us about the future of global modern civilization? Are the lessons of agrarian empires applicable to our post-18th Century period of industrial capitalism?

Collapse may be a normal phenomenon for civilizations, regardless of their size and technological stage

I would argue that they are. Societies of the past and present are just complex systems composed of people and technology. The theory of "normal accidents" suggests that complex technological systems regularly give way to failure. So collapse may be a normal phenomenon for civilizations, regardless of their size and stage.

We may be more technologically advanced now. But this gives little ground to believe that we are immune to the threats that undid our ancestors. Our newfound technological abilities even bring new, unprecedented challenges to the mix.

And while our scale may now be global, collapse appears to happen to both sprawling empires and fledgling kingdoms alike. There is no reason to believe that greater size is armor against societal dissolution. Our tightly-coupled, globalized economic system is, if anything, more likely to make crisis spread.

If the fate of previous civilizations can be a roadmap to our future, what does it say? One method is to examine the trends that preceded historic collapses and see how they are unfolding today.

While there is no single accepted theory for why collapses happen, historians, anthropologists and others have proposed various explanations, including:

CLIMATIC CHANGE: When climatic stability changes, the results can be disastrous, resulting in crop failure, starvation and desertification. The collapse of the Anasazi, the Tiwanaku civilization, the Akkadians, the Mayan, the Roman Empire, and many others have all coincided with abrupt climatic changes, usually droughts.

ENVIRONMENTAL DEGRADATION: Collapse can occur when societies overshoot the carrying capacity of their environment. This ecological collapse theory, which has been the subject of bestselling books, points to excessive deforestation, water pollution, soil degradation and the loss of biodiversity as precipitating causes.

INEQUALITY AND OLIGARCHY: Wealth and political inequality can be central drivers of social disintegration, as can oligarchy and centralization of power among leaders. This not only causes social distress, but handicaps a society's ability to respond to ecological, social and economic problems.

The field of clio dynamics models how factors such as equality and demography correlate with political violence. Statistical analysis of previous societies suggests that this happens in cycles. As population increases, the supply of labor outstrips demand, workers become cheap and society becomes top-heavy. This inequality undermines collective solidarity and political turbulence follows.

COMPLEXITY: Collapse expert and historian Joseph Tainter has proposed that societies eventually collapse under the weight of their own accumulated complexity and bureaucracy. Societies are problem-solving collectives that grow in complexity in order to overcome new issues. However, the returns from complexity eventually reach a point of diminishing returns. After this point, collapse will eventually ensue.

Another measure of increasing complexity is called Energy Return on Investment (EROI). This refers to the ratio between the amount of energy produced by a resource relative to the energy needed to obtain it. Like complexity, EROI appears to have a point of diminishing returns. In his book The Upside of Down, the political scientist Thomas Homer-Dixon observed that environmental degradation throughout the Roman Empire led to falling EROI from their staple energy source: crops of wheat and alfalfa. The empire fell alongside their EROI. Tainter also blames it as a chief culprit of collapse, including for the Mayan.

EXTERNAL SHOCKS: In other words, the "four horsemen": war, natural disasters, famine and plagues. The Aztec Empire, for example, was brought to an end by Spanish invaders. Most early agrarian states were fleeting due to deadly epidemics. The concentration of humans and cattle in walled settlements with poor hygiene made disease outbreaks unavoidable and catastrophic. Sometimes disasters

combined, as was the case with the Spanish introducing salmonella to the Americas.

RANDOMNESS/BAD LUCK: Statistical analysis on empires suggests that collapse is random and independent of age. Evolutionary biologist and data scientist Indre Zliobaite and her colleagues have observed a similar pattern in the evolutionary record of species. A common explanation of this apparent randomness is the "Red Queen Effect": if species are constantly fighting for survival in a changing environment with numerous competitors, extinction is a consistent possibility.

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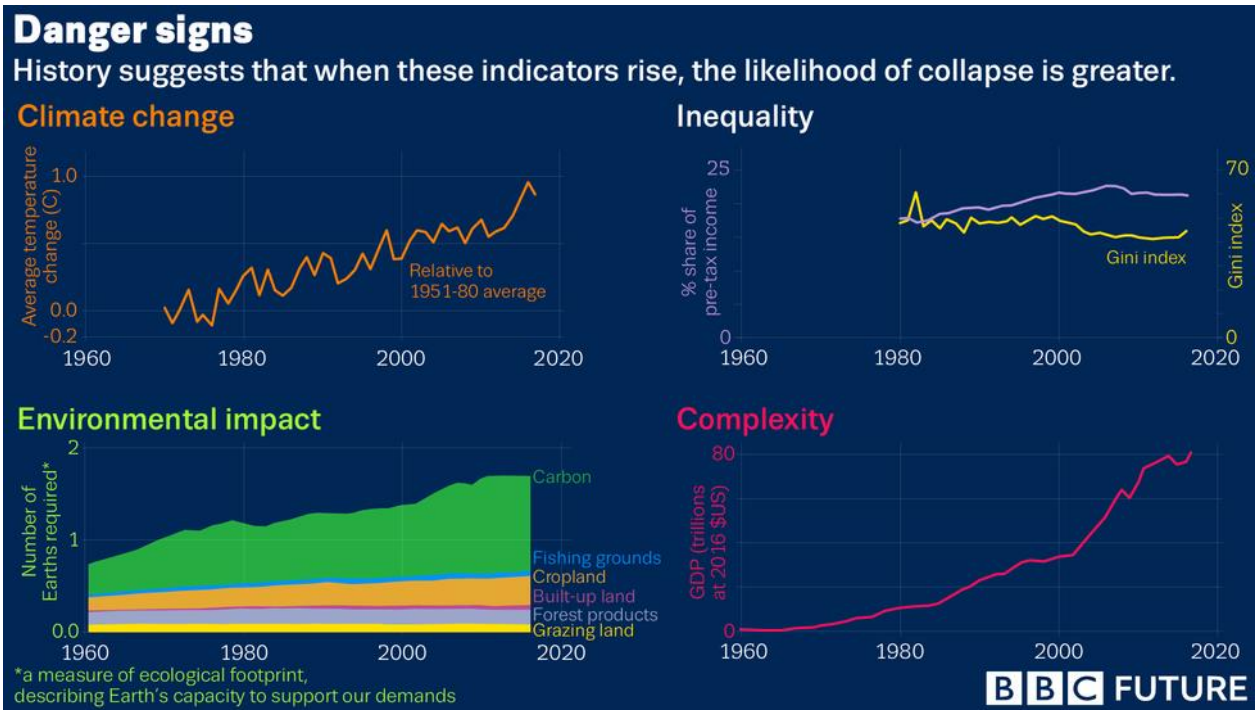
Despite the abundance of books and articles, we don't have a conclusive explanation as to why civilizations collapse. What we do know is this: the factors highlighted above can all contribute. Collapse is a tipping point phenomena, when compounding stressors overrun societal coping capacity.

We can examine these indicators of danger to see if our chance of collapse is falling or rising. Here are four of those possible metrics, measured over the past few decades:



Click/pinch to enlarge (Credit: Nigel Hawtin)

Temperature is a clear metric for climate change, GDP is a proxy for complexity and the ecological footprint is an indicator for environmental degradation. Each of these has been trending steeply upwards.

Inequality is more difficult to calculate. The typical measurement of the Gini Index suggests that inequality has decreased slightly globally (although it is increasing within countries). However, the Gini Index can be misleading as it only measures relative changes in income. In other words, if two individuals earning $1 and $100,000 both doubled their income, the Gini would show no change. But the gap between the two would have jumped from $99,999 to $198,998.

Because of this, I have also depicted the income share of the global top 1%. The 1% have increased in their share of global income from approximately 16% in 1980 to over 20% today. Importantly, wealth inequality is even worse. The share of global wealth from the 1% has swelled from 25-30% in the 1980s to approximately 40% in 2016. The reality is likely to be starker as these numbers do not capture wealth and income siphoned into overseas tax havens.

Studies suggest that the EROI for fossil fuels has been steadily decreasing over time as the easiest to reach and richest reserves are depleted. Unfortunately, most renewable replacements, such as solar, have a markedly lower EROI, largely due to their energy density and the rare earth metals and manufacturing required to produce them.

This has led much of the literature to discuss the possibility of an "energy cliff" as EROI declines to a point where current societal levels of affluence can no longer be maintained. The energy cliff need not be terminal if renewable technologies continue to improve and energy efficiency measures are speedily implemented.

Measures of resilience

The somewhat reassuring news is that collapse metrics are not the entire picture. Societal resilience may be able to delay or prevent collapse.

For example, globally "economic diversity" – a measurement of the diversity and sophistication of country exports – is greater today than it was in the 1960s and 1970s, as measured by the Economic Complexity Index (ECI). Nations are, on average, less reliant on single types of exports than they once were. For example, a nation that had diversified beyond only exporting agricultural products would be

more likely to weather ecological degradation or the loss of trading partners. The ECI also measures the knowledge-intensity of exports. More skilled populations may have a greater capacity to respond to crises as they arise.

There are some reasons to be optimistic, thanks to our ability to innovate and diversify away from disaster. Yet the world is worsening in areas that have contributed to the collapse of previous societies

Similarly, innovation – as measured by per capita patent applications – is also rising. In theory, a civilization might be less vulnerable to collapse if new technologies can mitigate against pressures such as climate change.

It's also possible that "collapse" can happen without violent catastrophe. As Rachel Nuwer wrote on BBC Future in 2017, "in some cases, civilizations simply fade out of existence – becoming the stuff of history not with a bang but a whimper".

Still, when we look at all these collapse and resilience indicators as a whole, the message is clear that we should not be complacent. There are some reasons to be optimistic, thanks to our ability to innovate and diversify away from disaster. Yet the world is worsening in areas that have contributed to the collapse of previous societies. The climate is changing, the gap between the rich and poor is widening, the world is becoming increasingly complex, and our demands on the environment are outstripping planetary carrying capacity.

The rungless ladder

That's not all. Worryingly, the world is now deeply interconnected and interdependent. In the past, collapse was confined to regions – it was a temporary setback, and people often could easily return to agrarian or hunter-gatherer lifestyles. For many, it was even a welcome reprieve from the oppression of early states. Moreover, the weapons available during social disorder were rudimentary: swords, arrows and occasionally guns.

Today, societal collapse is a more treacherous prospect. The weapons available to a state, and sometimes even groups, during a breakdown now range from biological agents to nuclear weapons. New instruments of violence, such as lethal autonomous weapons, may be available in the near future. People are increasingly

specialized and disconnected from the production of food and basic goods. And a changing climate may irreparably damage our ability to return to simple farming practices.

Think of civilization as a poorly-built ladder. As you climb, each step that you used falls away. A fall from a height of just a few rungs is fine. Yet the higher you climb, the larger the fall. Eventually, once you reach a sufficient height, any drop from the ladder is fatal.

With the proliferation of nuclear weapons, we may have already reached this point of civilizational "terminal velocity". Any collapse – any fall from the ladder – risks being permanent. Nuclear war in itself could result in an existential risk: either the extinction of our species, or a permanent catapult back to the Stone Age.

While we are becoming more economically powerful and resilient, our technological capabilities also present unprecedented threats that no civilization has had to contend with. For example, the climatic changes we face are of a different nature to what undid the Maya or Anazasi. They are global, human-driven, quicker, and more severe.

Assistance in our self-imposed ruin will not come from hostile neighbors, but from our own technological powers. Collapse, in our case, would be a progress trap.

The collapse of our civilization is not inevitable. History suggests it is likely, but we have the unique advantage of being able to learn from the wreckages of societies past.

We know what needs to be done: emissions can be reduced, inequalities levelled, environmental degradation reversed, innovation unleashed and economies diversified. The policy proposals are there. Only the political will is lacking. We can also invest in recovery. There are already well-developed ideas for improving the ability of food and knowledge systems to be recuperated after catastrophe. Avoiding the creation of dangerous and widely-accessible technologies is also critical. Such steps will lessen the chance of a future collapse becoming irreversible.

We will only march into collapse if we advance blindly. We are only doomed if we are unwilling to listen to the past.

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Luke Kemp is a researcher based at the Centre for the Study of Existential Risk at the University of Cambridge. He tweets @lukakemp.

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DAILY RECONING

BREAKING: CIA Insider Reports Collapse of International Monetary System Now Imminent

Sun Feb 26 2023 20:45:57 GMT-0600 (Central Standard Time)

If you are at all concerned about the U.S. dollar or you own any assets (like stocks or bonds) priced in it, then an urgent new warning from Jim Rickards is worth paying attention to.

Mr. Rickards is well-known as a *New York Times* best-selling author and from his TV appearances, but his experience actually spans 35 years on Wall Street, and he still manages a hedge fund now.

Less well-known is his extensive work within the government, where he's been an adviser to the Office of the Director of National Intelligence, which oversees the NSA, the CIA and 14 other U.S. intelligence agencies.

He's considered *the world's foremost expert on global banking and world currencies,* and he's predicting a ***collapse*** of the international monetary system that will ultimately lead to the death of the U.S. dollar as the world's reserve currency.

What will this mean for everyday Americans?

There will be a devastating stock market crash — this expert's data show at least a 70% loss, practically overnight…

One in every two IRAs will be set ablaze…

And ultimately, the U.S. dollar will lose its coveted status as the world's reserve currency as up to 80% of its value vanishes practically overnight.

Keep in mind, when the dollar tanks –any investment priced in dollars drops too — stocks, bonds, pensions, money market funds, Social Security and dozens of other popular investments.

Why is this currency crisis inevitable?

To put it bluntly, the same problems that caused the financial meltdown of 2007 are not only still present, but they're *worse*.

Because there's more fragility… more debt… more derivatives… and more leverage… the effects of the coming crash will be exponentially multiplied — so much so that even the Federal Reserve itself will need a bailout.

Jim Rickards insists that while his warnings are serious and the situation is beyond all repair, there is no need to panic.

Jim's not one of those so-called "preppers." He's not buying a bunker and going into hiding. Quite the opposite, in fact.

There's still time to protect your savings & even profit from the crash…

Mr. Rickards wants to show Americans how to not only protect their savings but potentially make once-in-a-lifetime profits as this crisis unfolds.

Jim is quoted as saying, "What's critical during the coming crisis will be **where** you invest. Pick the right asset classes to park your money and you'll do quite well. But if you pick the wrong investments, you stand to lose almost everything."

To get the word out and warn as many Americans as possible to these dangers lurking in the financial system, Jim Rickards has released a new book, and for a limited time, it's being made available FREE.

An independent financial research firm based in Baltimore, Maryland, called Agora Financial is publishing Jim Rickards' new book, called ***The Big Drop: How to Grow Your Wealth During the Coming Collapse***.

For a limited time only, if you are a U.S. resident, you can receive a FREE copy of his book that many experts are calling "the most valuable financial book in America." Simply click below to visit the website for all the details.

GRID

A mass exodus from Christianity is underway in America. Here's why.

It's less about hot-button topics like abortion and gay marriage and more about the Cold War and the internet.

Suzette Lohmeyer, Senior Editor, and Anna Deen, Data Visualization Reporter
December 17, 2022

While the number of Americans who celebrate Christmas as a cultural holiday is going strong, there has been a shocking rise in the number of people ditching Christianity — what sociologists call "nonverts."

Pew Research Center estimates that Christians will be a minority of Americans by 2070 if current trends continue.

And it likely will, with the largest percentage of those losing their religion being young adults who are about as old as that REM reference: people around 30 and under.

It's a kind of "cultural whiplash" from religion to secularism that's hit the United States much faster than it has other parts of the world, said theology and sociology professor Stephen Bullivant.

Bullivant, a practicing Catholic who teaches at St. Mary's University in London and the University of Notre Dame in Sydney, spoke to Grid about why Americans are leaving Christianity in droves and the demographics that are seeing the (ahem) ungodliest declines. His new book, "Nonverts: The Making of Ex-Christian America," came out in the U.S. on Dec. 1.

Young adults are leading the mass exodus

Bullivant made it clear that it's important not to glom all young adult nonverts as having one big reason for leaving the church. "Each person has a complex story, and we need to recognize the personal journey," he told Grid. That said, he added, there are larger trends we can examine.

For example, the largest demographic of nonverts, younger adults, will raise their children as “nones” — people from nonreligious families. And while a tiny percentage of nonverts return to religion, nones rarely embrace religion at any point in their lives.

Bullivant noted that it’s not shocking that young adults are the ones leaving at the highest rates. “When people do nonvert,” he said, “they tend to do in their early to mid-20s.”

And to those who dismiss the trend as just young people trying something different who will eventually come back to the church, that is not what the data shows. Not only have the percentages of adults under 30 claiming to have no religion increased dramatically over the past 50 years, other age groups saw rises as well, Bullivant said.

The move toward secularism happened incredibly fast in the U.S.

While the trend toward atheism and agnosticism in Europe has been a slow but steady decline, Bullivant said, the increase in Christians dropping the faith didn’t really take off in the U.S. until the early 2000s, and the decline since then has been steep and quick.

For people who study such trends, there was kind of this feeling in the ’90s that if a rise in secularism hadn’t happened yet in America, there was no reason to think it would. “Even the most dramatic historical examples of religious growth or decline tend to occur over many generations,” said Bullivant. “But then it was as if in the early 2000s, something was released.”

It wasn’t so long ago, when you are talking about as big a culturally religious shift as we’re talking about, he added.

And it’s important to note, said Bullivant, that it wasn’t about an influx of secular immigrants or nones raising throngs of nonreligious babies. It was about Americans deciding they were not tied to any religion. Interestingly, while a third of Americans that identify as nones say they are atheist or agnostic, Bullivant notes in his book, the rest have varying degrees of belief in God — Christian or otherwise.

And the big question: Why now?

Bullivant said that if you look at the big picture of American 20th-century culture, you stop asking, “Why is it happening now?” and start asking, “Why didn’t it happen earlier?” You can’t just blame shifting political views.

“It’s about looking at what happened in the 20th century that dampened down the possibility of being nonreligious — and then what changed?” he asked.

Bullivant said there are three main answers to that question: the Cold War, 9/11 and the internet.

If you compare the Cold War in Europe to the Cold War in the U.S., there was one major difference when it comes to religion. In the U.S., it was very much about Christian America vs. godless communism, whereas in Europe there just wasn’t that religious element.

In Europe, it was OK to explore secularism a bit, he said, whereas in America questioning their faith or going so far as to proclaim they were atheist or agnostic was really not socially acceptable on a political, cultural or religious level.

It’s also about who the atheist and agnostic influencers were in both parts of the world. In the U.K., for example, it was respectable establishment intellectual figures — such as the mathematician and philosopher Bertrand Russell. In the United States, said Bullivant, you had people like Madalyn Murray O’Hair, who “while fascinating for all sorts of reasons was very easy to depict as someone who had been a communist, who had tried to defect to Moscow and was a divorcee” which all made her sort of a social outcast during a religiously overtoned Cold War.

The generation born after the height of the Cold War — in the early to mid ’80s — didn’t grow up with propaganda and blacklist fears, said Bullivant, so there is a safe space for the idea of a nonreligious life to open up.

When 9/11 happened, Bullivant said, then you have the new atheism with many prominent people coming out and publicly questioning faith in a higher being — such as Christopher Hitchens, Sam Harris and Richard Dawkins — and it becomes OK to reevaluate what you believe, said Bullivant: “They opened up a nonreligious space.”

And of course the internet, Bullivant added. That was happening at about the same time, and it gave people access to communities of people also questioning their

faith. Bullivant particularly saw this when interviewing ex-Mormons and ex-evangelicals.

“If you’re raised in small-town Texas or Idaho and everyone you know is some kind of Christian, you’re in a kind of bubble. And then with the internet, you start getting support groups online with thousands of members and that helps erode those bubbles,” he said.

One thing Bullivant said is overemphasized when it comes to examining why people leave the church: shifting cultural values.

As people’s opinions in the U.S. changed on women’s roles in society, abortion and same-sex marriage, it was absolutely difficult for the churches to deal with, said Bullivant. They thought it meant “alienating large segments of people” who didn’t agree with the church’s stances on issues.

But, if you look at the Episcopal Church, which has changed along with the culture, its numbers are tanking, said Bullivant. Churches shifting with the times doesn’t seem to “fill the pews.”

“When Catholics say, ‘The reason young people are leaving is because they disagree with the church on abortion and contraception,’ they do disagree with the church, and abortion and contraception, and gay marriage and all sorts of stuff,” he said. “But it’s very unlikely that if the church changed those positions, or softened them in a pastoral way, that those people wouldn’t leave or that they’d come back or anything like that.”

The rise of secular, rather than religious, cult figures after covid

Interestingly, said Bullivant, historically cataclysmic events — the Civil War, World War II — often trigger religious revivals on the fringe of the mainstream, such as cults. The fact that that hasn’t been apparent with covid, the most recent cataclysmic event, is more evidence of a waning religious mainstream, he said.

The closest recent group that’s come is perhaps the rise of QAnon, he said, but that’s more a secular than a religious movement.

“In the past, Q would be some kind of angel or Virgin Mary or Native American shaman or religious thinker. Q is meant to be more of a civil servant, functionary,”

he said, “and the argument is that, well, you need a strong religious center to have wild fringes popping up.”

Thanks to Lillian Barkley for copy editing this article.

SMITHSONIAN

How 1960s Mouse Utopias Led to Grim Predictions for Future of Humanity

John Calhoun studied behavior during overcrowding in mice and rats

Maris Fessenden Former correspondent February 26, 2015

What does utopia look like for mice? According to a researcher who did most of his work in the 1950s through 1970s, it might include limitless food (of course!), multiple levels and secluded little rodent condos. These were all part of John Calhoun's experiments to study the effects of population density on behavior. But what looked like rat utopias and mouse paradises at first quickly spiraled into out-of-control overcrowding, eventual population collapse and seemingly sinister behavior patterns.

The mice were not nice.

For io9, Esther Inglis-Arkell writes about Calhoun's twenty-fifth habitat and the experiment that followed:

At the peak population, most mice spent every living second in the company of hundreds of other mice. They gathered in the main squares, waiting to be fed and occasionally attacking each other. Few females carried pregnancies to term, and the ones that did seemed to simply forget about their babies. They'd move half their litter away from danger and forget the rest. Sometimes they'd drop and abandon a baby while they were carrying it.

The few secluded spaces housed a population Calhoun called, "the beautiful ones." Generally guarded by one male, the females—and few males—inside the space didn't breed or fight or do anything but eat and groom and sleep. When the population started declining the beautiful ones were spared from violence and death, but had completely lost touch with social behaviors, including having sex or caring for their young.

Calhoun's experiments, which started with rats an outdoor pen and moved on to mice at the National Institute of Mental Health during the early 1960s, were interpreted at the time as evidence of what could happen in an overpopulated world. The unusual behaviors he observed he dubbed "behavioral sinks."

After Calhoun wrote about his findings in a 1962 issue of *Scientific American*, that term caught on in popular culture, according to a paper published in the *Journal of Social History*. The work tapped into the era's feeling of dread that crowded urban areas heralded the risk of moral decay — and events like the murder of Kitty Genovese (though it was misreported) only served to intensify the worry. A host of science fiction works — books like *Soylent Green*, comics like *2000AD* — played on Calhoun's ideas and those of his contemporaries. The work also inspired the 1971 children's book *Mrs. Frisby and the Rats of NIMH*, which was also made into a 1982 film *The Secret of NIMH*, notes the National Institutes of Health.

Now, interpretations of Calhoun's work has changed. Inglis-Arkell explains that the habitats he created weren't really overcrowded, but that isolation enabled aggressive mice to stake out territory and isolate the beautiful ones. She writes, "Instead of a population problem, one could argue that Universe 25 had a fair distribution problem."

But we can take comfort in the face that humans are not mice. The *NIH Record* spoke to medical historian Edmund Ramsden about Calhoun's work:

Ultimately, "[r]ats may suffer from crowding; human beings can cope," Ramdsen says. "Calhoun's research was seen not only as questionable, but also as dangerous." Another researcher, Jonathan Freedman, turned to studying actual people — they were just high school and university students, but definitely human. His work suggested a different interpretation. Moral decay could arise "not from density, but from excessive social interaction," Ramsden says. "Not all of Calhoun's rats had gone berserk. Those who managed to control space led relatively normal lives."

Calhoun's work didn't give us answers, but it is rare that any single study or series of studies can draw definite conclusions. Instead we have ideas and some strange footage of old experiments about mouse utopias: