

Instructions

1. Read the following article and circle unknown words. Write definitions for class on the left side.
2. There are broad areas four areas of risk identified in the article: Nuclear weapons, global warming, biological threats and mis/disinformation. Next to each number on the right, identify the threat that is described and then find an highlight three examples of each threat described in the article



3. In your journal write a 50 word paragraph describing which of these threats you believe to be the most significant, and why that threat is the most significant.
4. In the same journal entry describe what can be done about your chosen threat on an international, national, local and individual level. Remember that nihilism is the enemy! So long as there are people of goodwill there will

Founded in 1945 by Albert Einstein and University of Chicago scientists who helped develop the first atomic weapons in the Manhattan Project, the Bulletin of the Atomic Scientists created the Doomsday Clock two years later, using the imagery of apocalypse (midnight) and the contemporary idiom of nuclear explosion (countdown to zero) to convey threats to humanity and the planet. The Doomsday Clock is set every year by the Bulletin's Science and Security Board in consultation with its Board of Sponsors, which includes 11 Nobel laureates. The Clock has become a universally recognized indicator of the world's vulnerability to catastrophe from nuclear weapons, climate change, and disruptive technologies in other domains.

Doomsday Clock Statement 1.20.22

US relations with Russia and China remain tense, with all three countries engaged in an array of nuclear modernization and expansion efforts— including China's apparent large-scale program to increase its deployment of silo-based long-range nuclear missiles; the push by Russia, China, and the United States to develop hypersonic missiles; and the continued testing of anti-satellite weapons by many nations. If not restrained, these efforts could mark the start of a dangerous new nuclear arms race. Other nuclear concerns, including North Korea's unconstrained nuclear and missile expansion and the (as yet) unsuccessful attempts to revive the Iran nuclear deal contribute to growing dangers. Ukraine remains a potential flashpoint, and Russian troop deployments to the Ukrainian border heighten day-to-day tensions.

1.

For many countries, a huge gap still exists between long-term greenhouse gas-reduction pledges and the near- and medium-term [emission-reduction actions](#) needed to achieve those goals. . . . This past year's climate negotiations in Glasgow marked an important milestone in climate multilateralism: a critical first round of the treaty's cycle of upgrading national efforts. Countries were under pressure to strengthen their emission-reduction pledges significantly relative to their pledges six years ago in Paris. The results, unfortunately, were insufficient. China and India affirmed that they would move away from use of coal, but only gradually; they affirmed for the first time the objective of achieving "net zero," but only in 2060 and 2070, respectively. There was only partial progress toward defined accounting rules to allow international markets for greenhouse gas emissions and removals to develop. Developed countries again failed to follow through on treaty commitments to provide necessary financial and technological support. Overall, countries' projections and plans for [fossil fuel production are far from adequate](#) to achieve the global Paris goals to limit the warming of the surface of the planet to "well below two degrees Celsius" (3.6 degrees Fahrenheit) relative to the temperature around 1800, at the beginning of the industrial revolution.

2.

Although the new US administration's quick return to the Paris Agreement speaks the right words, it has yet to be matched with actionable policies.

Developed countries improved their responses to the continuing COVID-19 pandemic in 2021, but the worldwide response remained entirely insufficient. Plans for quick global distribution of vaccines essentially collapsed, leaving poorer countries largely unvaccinated and allowing new variants of the SARS-CoV-2 virus to gain an unwelcome foothold. Beyond the pandemic, worrying biosafety and biosecurity lapses made it clear that the international community needs to focus serious attention on management of the global biological research enterprise. Further, the establishment and pursuit of biological weapons programs marked the beginning of a new biological arms race.

3.

. . . One particularly concerning variety of internet-based disinformation infected America last year: Waves of internet-enabled lies persuaded a significant portion of the US public to believe the utterly false narrative contending that Joe Biden did not win the US presidential election in 2020. . . . Large fractions of Congress and the public continue to deny that Joe Biden legitimately won the presidential election, and their views on these matters appear to be hardening rather than moderating. Similar trends regarding COVID-related disinformation are apparent around the world, crippling the ability of public health authorities and medical science to achieve higher vaccination rates. Mask-wearing and social distancing are similarly discouraged by disinformation. While we know more now about the role of social media campaigns in taking advantage of vulnerabilities in human psychology and cognition to spread disinformation and societal disunity, the behavior of social media companies has changed hardly at all. Political attacks on institutions that provide societal continuity and store hard-won knowledge about how best to deal with problems continue apace. Continued [disinformation] efforts . . . threaten to undermine future US elections, American democracy in general, and, therefore, the United States' ability to lead global efforts to manage existential risk.

4.

In view of this mixed threat environment, the members of the Science and Security Board find the world to be no safer than it was last year at this time and therefore decide to set the Doomsday Clock once again at 100 seconds to midnight. This decision does not, by any means, suggest that the international security situation has stabilized. On the contrary, the Clock remains the closest it has ever been to civilization-ending apocalypse because the world remains stuck in an extremely dangerous moment. In 2019 we called it the new abnormal, and it has unfortunately persisted.

Last year, despite laudable efforts by some leaders and the public, negative trends in nuclear and biological weapons, climate change, and a variety of disruptive technologies—all exacerbated by a corrupted information ecosphere that undermines rational decision making—kept the world within a stone's throw of apocalypse. Global leaders and the public are not moving with anywhere near the speed or unity needed to prevent disaster.

Leaders around the world must immediately commit themselves to renewed cooperation in the many ways and venues available for reducing existential risk. Citizens of the world can and should organize to demand that their leaders do so—and quickly. The doorstep of doom is no place to loiter.