of a plausible series of likely events.

Technologists will tell you that the future is already here, it is just unevenly distributed. But there is one factor that defies such a simplistic vision: humans. One day, in the not too distant future, everybody alive today will be dead. The planet will be inherited by people who had zero input into how Earth — their only home — was farmed, fished, burned, polluted, shaped and exhausted. Perhaps some of them are reading this.

If so, the people of the future — those born in the late twenty-first century and beyond — may well scan this special issue of *Nature* with bewilderment or mocking nostalgia. In a series of articles starting on page 397, we tackle the ethics and opportunities of early-twenty-first-century science and technology and its impact on our future generations (see nature.com/futuregenerations). Gene editing, nuclear waste, climate change, the march of computers and population growth — decisions and paths embarked on today will resonate well into the future.

Nature has long taken an interest in the fate of future generations and how science can improve — and endanger — them. Back in March 1870, an issue in the first volume of this journal carried a review of the book *Hereditary Genius* (Macmillan, 1869) by Francis Galton, who spawned the field of eugenics (see A. R. Wallace *Nature* **1,** 501–503; 1870). His book introduced claimed scientific concepts into what had previously been an economic and social debate about the relationship between present and future people. In Britain, this came during the era of friendly societies, groups of like-minded people who — before welfare and insurance — would pay subscriptions while young, and (they hoped) receive benefits in old age, sickness and death. (In reality, and in a stark example of the pressures that still squeeze pension provision, many of these societies paid out more to older members than they could take from healthy young workers, and so went bust.)

The concept of intergenerational equity in popular debate has since focused on finance, with environmental stability and sustainability tacked onto discussions only in the past few decades. The younger generations might feel, quite legitimately, that they are getting a raw deal. Just as many of the people who paid into friendly societies never got a penny back, so the generation born around the turn of the millennium must look at the home-owning and financially secure baby-boomers and curse the timing of their births. Yet these are the young people who will, as they mature, be asked to make monumental decisions that affect not just one or two generations to come, but hundreds.

"How do we best serve tomorrow's people?"

As tools emerge that could eradicate the genetic basis for ill health, should they be used? When do nations abandon the (already shaky) attempts at collective action on climate change and make explicit their pursuit of pure self-interest? Just how do we dispose of drums of toxic waste that could remain hazardous for a million years? If the future starts tomorrow, then how do we best serve tomorrow's people?

Perhaps there is a lesson in science fiction? Taking what we have and spinning it forward raises questions about the direction we head in — some of which are addressed in this special issue. And the best way to answer those questions is to work out, as best we can, where we, they — or if you are reading this in the future, you — want to end up. We start from here. ■

Climate changes

The loss of three key facilitators must not impede progress on emissions mitigation.

Christiana Figueres has charmed the world. As executive secretary of the United Nations Framework Convention on Climate Change, she helped to lead a remarkable transition from nearly collapsed climate negotiations in Copenhagen in 2009, to an agreement between the world's governments in Paris last year. She transcended her once-thankless — and largely powerless — post as facilitator-in-chief to become a popular and influential advocate for action on global warming. Figueres has now announced that she will be stepping down in July. She will leave on a high note, but whoever fills her shoes will have to deal with significant head winds.

Figueres's departure, which became public knowledge on 19 February, is part of a larger shake-up in the UN climate shop. On the same day, Héla Cheikhrouhou, executive director of the Green Climate Fund, which was created to help developing countries to reduce emissions and adapt to climate change, announced that she will leave her post at the end of her term in September. And on 15 February, former French foreign minister Laurent Fabius, who skilfully guided the negotiations to a smooth conclusion in December, announced that he is stepping down as president of the climate talks. French environment minister Ségolène Royal will take his place until November, when the leadership transitions to Morocco at the next major meeting, in Marrakesh.

In her letter to governments, Figueres lauded the Paris agreement as a historic achievement and said that the world is now transitioning into a phase of "urgent implementation". From a political perspective, it is certainly true that the Paris agreement was historic. After all, there was no guarantee going into the meeting that anything at all would come out of it, let alone the formal agreement that will be opened up for ratification on 22 April, Earth Day, this year.

Both Figueres and Fabius deserve credit for making that happen, but their successors have plenty of work ahead. It is no secret that the actions that governments have committed to thus far fall well short of those needed to limit warming to 2 °C, let alone to 1.5 °C, which is the stated goal of the agreement. Nor is it clear that the world is urgently moving forward.

The Green Climate Fund, which was created more than five years ago and has approved just eight projects, is still trying to collect the money promised by nations. The US Supreme Court has put US President Barack Obama's regulations for power-plant emissions on ice, pending a legal challenge. Policymakers in the United Kingdom are still debating how to proceed in the wake of a government decision last November — just before the climate talks got under way — to pull the plug on a programme supporting the development of carbon capture and sequestration technologies. And in another branch of the UN, the International Civil Aviation Organization has proposed a rule on aircraft emissions that is so weak as to be irrelevant.

Nor is the Paris agreement a done deal: crucial details about the framework for monitoring commitments must still be negotiated. For instance, countries have yet to agree on precisely what kind of information they should submit to the UN. To track progress, build confidence and hopefully pave the way for more ambitious policies, scientists, environmentalists and governments need these data to be solid. Given that this objective is the only thing resembling accountability in an otherwise voluntary agreement, negotiations on this point could determine whether the Paris agreement is indeed a success.

Figueres was optimistic about the work to come. "The journey that lies ahead will require continued determination, ingenuity and, above all, our collective sense of humanity and purpose," she wrote to government officials. "I know that together you will again rise to the task." Let us hope that she is right. ■

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