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How to Create an Optopia? – Kim Stanley Robinson's "Ministry for the Future" and the Politics of Hope

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Abstract

Kim Stanley Robinson—award-winning science fiction writer—has warned us that our current history is a choice between utopia or catastrophe. In this interview and in the following reflections, we explore the implications of this existential choice for the social science disciplines; in particular, economics, finance, accounting, and management. Our goals are to build a provocation and develop some propositions about the direction of capitalism and the purpose of management research in an age of climate crisis. Against the backdrop of dread and greed and the specter of plutocratic capitalism, we offer a politics of hope. We envision a green capitalism in which corporations are held accountable for environmental and social stewardship. Rather than falling back on government or the corporation as an "either/or" choice, we urge a "both/and" approach and call for the active inclusion of communities and citizens in climate response through democratic, polycentric governance structures. Within this agenda, we envision a new role for the academy as "Ministry"; namely, giving voice to future generations and the silent (or silenced) victims of the present and, by embracing pragmatic realism, inspiring a liveable future—an optopia—that we can still forge from where we are.

Keywords

Climate change, sustainability, accounting, business schools

Introduction

Kim Stanley Robinson—award-winning science fiction writer—has warned us that our current history is a choice between "utopia or catastrophe; there is no middle ground" (Robinson, 2016, p.10). In this interview and in the following reflections, we revisit, refine and explore the implications of this existential choice for the social science disciplines; in particular, economics, finance, accounting, and management. We have constructed the main section of the paper as an iterative dialogue with the author, building from the initial text of a talk he gave at a panel discussion organized at the University of Oxford (*Kim Stanley Robinson: From Science Fiction to Climate Action)*, the transcript of a phone interview that proceeded that event, and the email correspondence in which we followed up on key themes.

Our goals are to build a provocation and develop tentative propositions about the direction and purpose of research in an age of crisis. If the foundations of our civilization—and even the survival of humanity—face such a serious threat, does the research found in business schools and cognate institutions make sense? Do the ways we engage with corporations and institutions provide challenge or solace to those steering our liner towards the iceberg? And does our compartmentalizing of academic work undermine our ability to engage with the oncoming challenges?[2]

The role of business—specifically, of corporations—in the climate crisis has received increasing public and academic attention in the last decade. Following Wright and Nyberg (2015), we distinguish two fundamentally different and seemingly contradictory narratives: business as the problem (predatory capitalism) and business as the solution (corporate environmentalism).

The first narrative asserts that corporations enact a seemingly inevitable process of creative self-destruction (Wright & Nyberg, 2015). Running up against planetary boundaries, they pursue the extraction of finite resources and, notwithstanding the consequences of *over*consumption, they (and the economic hegemony they serve) promise remedy to a hapless society in the form of *more* consumption. Accounting celebrates profits and growth but fails to reflect the harms imposed by corporations on communities and the

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environment (Hopwood, 2009; Atkins et al., 2015). Ingenious rebranding and short-term profitable "green solutions" promise win-win outcomes, yet the required work of decarbonization remains undone. This is the world of predatory corporations pursuing predatory profits, imposing predatory delay (Steffen, 2016) on urgent climate action—knowing that the price is being paid by voiceless victims in far-away places and by future generations. Business and society, in thrall to growth, consumption and profits, are tied in a death dance (Nyberg et al., 2022).

In contrast, corporate environmentalism sees climate change as an opportunity for innovation, with sustainable or "green" strategies yielding "purposeful corporations" furthering growth and profit (Eccles et al., 2014; Mayer, 2013; Mayer, 2018; Henderson & Serafeim, 2020). Many academic proponents of corporate environmentalism agree that changing the DNA of profit-seeking firms would take more than enlightened self-interest and, in fact, requires urgent legal and institutional changes (Mayer, 2018; Henderson, 2020). Nevertheless, corporate environmentalism is often put into practice through a free-market, neoliberal ideological lens that minimizes the role of institutional change and focuses on the self-governing capacity of corporations, an ideology that gave rise to a cottage industry of sustainability management and consulting (e.g., Sternfels et al., 2022). Such normative interpretations display the hallmarks of managerialism: a canonistic faith in the omnipotence of markets and corporations and in their ability to find technological solutions to climate change (ranging from green energy sources to geo-engineering), which can be brought about widely enough—and soon enough—by self-regulating corporate actors and light-touch institutional reform focussed on carbon accounting (Kaplan & Ramanna, 2021). That reform is to be enacted by business-friendly governments allowing market forces to do their job. The current debate in management displays a serious rift between critical scholars and their managerialist colleagues, each depicting the other as "unrealistic" or even as engaging in fantasies of either doom or magical thinking. Finding realistic alternatives is hard, not least because most alternatives can easily be distorted or caricatured to fit the "culture war" between the two camps. Alternatives, such as the insistence by anthropologists, sociologists, critical theorists, and feminist theorists that "organizing can be done in many different ways," tend to get silenced, marginalized or patronized as naïve and unrealistic — perhaps even as dangerous "utopias" (Parker, 2002, p. 2).

Meanwhile, scientists around the world continue to assert that climate change is a fact and is an existential threat to our civilization, not to mention countless other species. On the plus side, recent policy changes have opened the possibility of large-scale and meaningful climate action in the European Union and the United States. Carbon prices in the EU, for example, are now economically meaningful and carbon taxes, being gradually phased in over this decade, will undermine the profitability of the largest emitters unless they switch to low-carbon business models. While the EU focuses on sticks in its climate policy, the US has introduced meaningful carrots as part of the 2022 Inflation Reduction Act, a $369 billion package of subsidies aimed at luring companies to invest in low-carbon technologies (Murray, 2022). With such powerful policy trains leaving the station, companies can choose to hop onboard and get on with the job of decarbonization or find ways to deflect the impact of these policies by taking their business into regions still friendly to fossil fuels.

It is too early to say whether enough is being done in time or it's all too little, too late. This article is motivated by the belief that a new world is in the making; neither a climate dystopia as depicted by critiques of the neoliberal hegemony, nor a utopia driven by market forces and the omnipotence of corporations. Instead, a "hybrid way" is surfacing, which blurs ideological frontiers and is fashioned by government-driven investments, subsidies and taxes and with innovation springing up in their wake from various walks of life, from the private and public sectors, and from civil society. It is this "hybrid way" that the science fiction writer Kim Stanley Robinson imagined in his latest novel, *The Ministry for the Future* (Robinson 2020). It's fashioned as an *optopia*, rooted in the realities of current corporate capitalism and aware of its critiques, but aware also of how to render corporate capitalism useful to a global project of climate action. Robinson's cautious optimism is based on a politics of hope and a moral position that we can't afford to give up in the face of a slowly unfolding existential crisis that has already started to take victims. As the author put it several years ago in a scholarly article, "Climate change is inevitable—we're already in it" (Robinson, 2016, p. 9).

It is the salience of heatwaves that gives Robinson the startling opening of *The Ministry*. In the near future, a devastating heatwave kills 20 million people in India—a tragic testament to the "almost complete failure" of the world's nations to adhere to the Paris Climate Agreement. After the disaster, the international community sets up the Ministry for the Future, a United Nations organization designed to get serious about climate action by representing the people of the future and the voiceless of the present. Throughout the ensuing hundred vignettes, we follow the converging trajectories of protagonists Mary Murphy—the spirited and seasoned Irish politician heading the Ministry – and Frank May, an NGO worker traumatized into activism by the Indian climate holocaust. An initial frightening encounter between them turns into a moving friendship as Murphy—constantly reminded by May's suffering and that of the 20 million victims—works through a myriad of issues that eventually solidify into a coherent and viable roadmap to decarbonization.

The journey that unfolds takes in an extraordinary intellectual landscape: Robinson interweaves detailed arguments about economics and finance (from Smith and Friedman to Keynes, Jevons, and Chen), with diversions into legal theory, psychology, sociology, and geo-engineering. As this exhausting trek reaches its ninety-fourth chapter—the imaginary 58th global climate summit meeting in Zurich—the author moves from tragedy to hope. However, the hope on offer is not a product of naïve and unbridled optimism: the fictional COP 58[3] starts with a celebration of decarbonization successes and ends with apprehension of outstanding challenges.

Robinson inspires us to discuss in detail three areas of concern. First, we reflect on the consequences of alternative narratives—of dread and hope—in the face of existential crisis, and we underline the notion of responsibility and choice in societal, corporate, and individual response strategies. Second, we consider how Robinson's approach to green capitalism is simultaneously sceptical and pragmatically supportive and we wonder what that means for academics' engagement with business. Against the backdrop of dread and greed and the specter of plutocratic capitalism, we offer a politics of hope. We envision a green capitalism in which corporations are held accountable for environmental and social stewardship. Finally, we envision a new role for "the academy as ministry": our contention is that by embracing both the humanities and pragmatic realism, economics and management science can give voice to future generations and the silent (or silenced) victims of the present, and inspire a liveable future—an optopia—that we can still forge from where we are. We indicate a set of practical recommendations that could shift the academic habitus and its institutional context to focus more on interdisciplinarity, specific firms and practices, emerging solutions, and how the world could be.

The Interview

Authors: Kim Stanley Robinson, you evoke the late cultural critic Raymond Williams's 'structure of feeling' to describe the zeitgeist, the collective feelings embodied in society and culture. In the Ministry, you paint a vivid picture of 'a time of dread' as the severity of the environmental crisis leads to mass suffering, environmental terrorism and a global migration crisis. Our time feels "*unjust and unsustainable, and yet massively entrenched, but also falling apart before your eyes*" (p. 124). The 'entrenchment' means that even though we live with this knowledge of impending disaster, we still carry on in this state of dissonance with reality. As you describe our predicament in *Ministry*: "*[Y]et they still burned carbon. They drove cars, ate meat, flew in jets, did all the things that had caused the heatwave and would cause the next one. Profits still were added up in a way that led to shareholder dividends. And so on.*" (p. 228) How would you sum this all up?

Kim Stanley Robinson: Indeed, "structure of feeling", a term from Raymond Williams, the great British Marxist literary critic and theorist, seems a good way to approach this. Williams made the point that although our feelings are biological in origin, so that we always have our basic animal emotions, these are also shaped by language and culture, which help us to understand and control those emotions in a social setting.

So, the structure of feeling of our time—the time of climate change, the 2020s, which is now also the time of the COVID-19 pandemic, and Russia's war on Ukraine—this moment in history, in other words—has to be, I think, identified first by the word *dread*. The future is looking like a crash—we are on a trajectory toward a crash. Hence, this feeling of dread. I imagine the late 1930s must have felt much the same.

So, then a question follows from this first impression of dread: is this feeling an aspect of capitalist realism, which is to say our deep cultural attachment to capitalism, and our inability to imagine anything but capitalism?

We live in a civilization fundamentally shaped by capitalism. In this legal system, deeply responsible for our structure of feeling, capital is always invested at the highest expected rate of return. Negative externalities are not included in this calculation; the quest for profit and shareholder value is the primary and often the only goal. Using that rubric, an oversimple algorithm, we are wrecking people's lives and our only planet's biosphere. Indeed, we are now crossing planetary biophysical boundaries that we can't recover from, so the crash becomes more likely and more severe.

If we can't imagine anything but this simplistic and predatory form of capitalism, and stay stuck in capitalist realism, then of course our dread becomes intensified, because it includes a sense of inevitability: we feel that we are doomed. You see this overwhelming sense of doom often now in popular media, and among young people; it's a common emotional setting, which of course impinges on everything else in life. Is such a "realism"—to feel like there's no alternative, and that we're doomed –justified by the biophysical facts of the current moment? Well, considering all, it's my sense that we are at a cliff's edge. We are not doomed at this point, but we are in great danger of inflicting irreversible damage on Earth's biosphere.

Authors: Further to multiple warnings from the Intergovernmental Panel on Climate Change and a growing concern among citizens around the world, there are now well-articulated plans to get back from the cliff's edge. The European Union's, and other governments' plans to decarbonize by 2050 (European Commission, 2019) are just one part of the Paris Agreement's ongoing pledges, which are designed to become more stringent year by year. The US Inflation Reduction Act, with its huge package of subsidies

for green technologies, promises to be a game-changer too. In your past writings, you talked about other viable plans, such as the Socolow wedge diagrams proposed at Princeton (Pacala & Socolow, 2004) that describe in quantitative detail how we can ratchet back from the edge of catastrophe quite rapidly (Robinson, 2016), and recently you have mentioned that many of these plans have existed for quite some time; for example, the Worldwatch Institute's Plan B 3.0 (Brown, 2008) had its origins over a decade ago. What is different about today's plans for climate action?

Kim Stanley Robinson: The scientific community is now issuing urgent warnings that given our ongoing carbon dioxide emissions and other harmful biospheric practices, we're getting close to breaking certain planetary boundaries; and if we break these planetary boundaries, we are putting ourselves on a trajectory of geophysical changes in the Earth system that heads towards what has been called 'hothouse Earth', an ice-free planet (Steffen et al., 2018). It's possible that we can lose control, so that even if all human effort was devoted to climb back to a more normal, or let's say more recent, geophysical state of the planet, we wouldn't be able to. There is high danger; indeed, the stakes could not be higher; it is an existential threat.

So, on the one hand, in our cultural mindset we have capitalist realism, and there's a deep feeling of dread because we can't imagine any alternatives. On the other hand, there's a growing eco-realism, which tells us that although we haven't yet broken any basic planetary boundaries, we're coming very close to doing so. The 2020s have therefore come to be seen as a watershed decade—in this decade, and not later, we have to begin to make changes so that we don't break some of these planetary boundaries.

Authors: Yet in *The Ministry for the Future*, you project a positive history: the emergence of a new structure of feeling (of Gaia citizenship and a sense of social justice), and a utopia of working scientific, economic and policy solutions for the environmental crisis and its economic and social consequences. In 2016, you famously declared, "*Utopia is no longer a nice idea, but, rather, a survival necessity* (Robinson, 2016, p. 10). It's necessary not just because the present is bad, but because the future will inevitably be very much worse, in environmental terms. But how is utopia a realistic alternative?

Kim Stanley Robinson: In *Ministry*, I set out to imagine a positive history that gets us to a better state. It's possible that utopia is not the right word here. Joanna Russ made up the term 'optopia', which denotes not a perfect society, but the optimum society, the best one possible given where we are now. We have a moral obligation to find that optopia.

The present moment sets some harsh constraints. We have entered an era of climate change that imposes radical physical stresses on both human and natural systems. We are caught in a technological and cultural path dependency, and we can't easily change course. So, it's possible to freak out. But if you're in a race—an intense race, with high existential stakes, which you might win or you might lose – then it is not the time to give up. You actually have to race harder; you have to make the effort to win the race. You can give up if you lose, but in the meantime, in this decade, it's not appropriate to give up, particularly since so many people in much less privileged positions than you and I are doing their damnedest to cope with the situation that we're in.

Hope, therefore, becomes a political position. Gramsci popularized a phrase originally coined by Romain Rolland, which describes this position: pessimism of the intellect, optimism of the will. It's the will that is very important in that phrase. You will optimism as a club to fight within the political arena. Given our situation, I would recommend being fueled by dread, but also buoyed, and kept focused on the necessary work, by willed hope, as a political position.

Authors: Let's unpack this a bit, shall we? On one hand, you refer to our predicament of dread, intensified by the specter of environmental catastrophe, but adding a hopeful note, you underline the amazing "*human capacity to walk this tightrope over the abyss without paralyzing fear*" (Robinson, 2016, p. 10). On the other hand, you do talk about the existentialist choices we have to make about the roads ahead: to decarbonize or not to decarbonize, how and at what pace. English-literature scholar Roger Luckhurst reminded us in the recent panel discussion with you at Hertford College that this dread is not necessarily a bad thing – for Kierkegaard, Heidegger, Sartre, de Beauvoir and for your own doctoral advisor Jameson, angst, anguish and dread were signs of our intrinsic dizziness, resulting from the burden of freedom. In an existentialist reading of our predicament of ecological emergency, it would be cowardice to give up, or to give in to despair. You emphasize the vital importance of the rapid transition out of the carbon economy, and we see an implicit emphasis on the existentialist concept of the meaning-giving project both in the language of *The Ministry* (which describes a vast landscape of much-needed and possible climate-action projects), and elsewhere in your work where you talk about climate action as a vital intergenerational project, even in the face of frightening odds: "*We can't panic, nor can we give up just because we can't do it all in our lifetime*. […] *[A]ll we can do is work on our present reality and build what we can.*" (Robinson, 2016, p. 15).

This existentialist undertone in your work echoes the current intense preoccupation with the meaning and purpose of business, of our commercial and career undertakings as meaning-giving 'projects'. Are we – as society, as corporations, or as managers—in fact exercising the existentialist freedom to choose climate-action as an existentialist project (or in fact, multiple various projects) and make these our own, or is it possible that given a well-defined climate action roadmap, the danger is that what we are asking people—and the organizations they work for—is not to exercise their radical freedom, but to fall

in line, in the process potentially losing their freedom and authenticity? As Simone de Beauvoir put it, "the genuine man will not agree to recognize any foreign absolute" (de Beauvoir, 1962, p. 5).

Kim Stanley Robinson: I dedicated *Ministry* to my teacher and mentor Fredric Jameson—who started as a student of Sartre, and was very well aware of de Beauvoir's work as well—partly in order to underline the lesson I take from existentialism, as taught to me by Jameson: that although we are in this dreadful freedom, we do have choice. We all have to choose what the meaning of our life is and have an existential project. As always, the project we choose takes on a huge importance. Without a project, you're caught in a world without meaning, in absurdity and despair. But with a project you can orient yourself, as with a compass or some kind of internal cognitive map. Everything that you do then affirms that life has meaning, and you make choices accordingly.

Whether you are a private individual, a CEO, or a corporation, it is important to have that project. In the face of climate emergency, we still have choices among numerous possible projects – there is no one version of the roadmap to decarbonization; there is no "foreign absolute". I wrote *The Ministry for the Future* to imagine a thought experiment of the choices and solutions we face today, as possibly enacted by a major body (the eponymous international UN-authorized organization), imagined as completely committed to its own existentialist project of decarbonizing and protecting all living creatures now and to come.

But in that process, it must tackle social problems, and it has to prioritize. To prioritize, we have to start with the world of values; in *Ministry*, with social and climate justice and human rights: equal rights to women; global citizenship; release and repatriation of refugees.

Along with that choice, there is a need for us to rediscover the boundaries of what's appropriate behavior. The victims of climate disasters must be able to say, it is not OK for them to pay that price. Climate refugees—who are becoming one and the same as economic refugees—need to be released from camps and given back their own existentialist freedom and life projects.

Authors: Ultimately, at a macro or policy-making level, you suggest that humanity's choices come down to a binary choice between utopia (or, rather, *optopia*) and catastrophe. From an existentialist and management standpoint, the emphasis shifts from choice to commitment. How do we keep an inter-generational and costly climate-action project going – how do we commit multiple generations to it? In *Ministry*, you advocate a pragmatic turn with economics at the heart of creating the requisite incentives: although fossil-fuel asset holders receive compensation, climate justice is exercised to incorporate historical disparities in carbon burn and factored into the assessments of the financial and human burden going forward. Farmers also get paid for carbon retention; wildlife corridors are created, and multiple geo-engineering solutions are trialed and scaled quickly – all paid by a brilliant monetary invention and instrument, the Carboni (carbon coins) issued by a coalition of central banks in what amounts to a global quantitative easing. Would you care to elaborate on the economics underlying these solutions?

Kim Stanley Robinson: In 2008 alone, several trillion dollars were introduced into the economy[4]. And then in 2020, with the pandemic, again many trillions of dollars were created and given out by governments to people—to individuals and businesses. Carbon quantitative easing would therefore not be entirely novel, but would require the backing of the world's central banks to pay the two or three or four trillion dollars per year that needs to be spent on carbon drawdown, and on green ecological projects.

Let's put it this way: anything that helps the health of the biosphere would be paid for by new money from the central banks, after which it circulates—as Keynes would have it—in the general economy with a multiplier effect. Can that happen? Yes, it can happen. Chen and co-authors wrote a paper about it (Chen et al., 2017) and there is a group called the Network for Greening the Financial System (NGFS), consisting of 114 central banks, including all of the important ones, and they have put forward nine suggestions for greening the financial system (NGFS, 2019[5]).

Then, moving from monetary policy to fiscal policy, there is also the Green New Deal-type plans; these are also rooted in Keynesian economics. This time it would be a matter of government legislation, rather than central banking decisions. Doing both would be entirely appropriate. Legislatures can designate that public funds be spent on green projects; that's what the Green New Deal (and the Inflation Reduction Act, recently passed by the Biden administration) is about in the U.S. (Galvin & Healy, 2020) and also the green recovery aims to be in the European Union (European Commission, 2020).

You see these efforts being made, and it's quite plausible that China, given its centralized government, is also pushing green recovery type spending, which they can command from the top. Rather than perceiving these as commercial investment opportunities, which they very well might be, we could additionally compare this kind of spending to national defence spending. In the defence of your country, you must defend your biosphere; and so, as a function of national defence, legislatures would then designate a certain amount of defence funds toward green work.

Authors: Economist Rebecca Henderson, following a long tradition of similar arguments, maintains that what drives decarbonization efforts today is the realization that you can make a profit out of long-term environmental stewardship (Henderson, 2020; Guimaraes & Liska, 1995). Elsewhere we learn that the market for environmental, social and governance (ESG) investments by 2025 is likely to be in the order of 50 trillion US dollars (Adams, 2021). This suggests that

lots of investment products will in some sense be framed by an ESG metric or an ESG goal. 20 years ago, ESG investment was a niche area in finance, and now it has become mainstream (Flood, 2019; Murray, 2022). In *Ministry*, you outline a private–public partnership approach of investing in decarbonization, driven predominantly by governments. Yet if Henderson is right, and money is to be made by innovative private enterprise, should we not trust individuals (and individual businesses, bettering themselves in mutually beneficial exchange) to undertake the work of decarbonization? Could we not rely on companies and capital markets, under what the economic historian Deidre McCloskey calls the "Bourgeois Deal of commercial profit and dignity" (McCloskey, 2016) to undertake the important investment and innovation work required?

Kim Stanley Robinson: No. What we need is a global system-level response, which will require government leadership. Capital seeking the highest rate of return will not suffice, because decarbonization work is not the highest rate of return. So, intervention by government is necessary. It is true that some private capital is now aware and reacting. Mark Carney gathered a group at COP 26 in Glasgow of various asset managers who committed to aligning their investments with the climate goals set out in the Paris Agreement, and this group commanded assets of USD 130 trillion—some 40% of global assets (UN News, 2021). Since then, some members of his group have ignored or broken this commitment, which reinforces the necessity of government requirements; but it is nevertheless a good sign, of capacity and willingness.

What we may be seeing in this development is asset managers thinking: if the biosphere is destroyed, that would be bad for business, so we must figure out a way to make "green work", such as biosphere restoration, profitable. Because the risk of a biosphere crash is now acknowledged to be real. This is significant progress.

But we may have to draw down as much as 500 gigatons of carbon dioxide from the atmosphere by 2100 (Pörtner et al., 2022), and nobody wants that amount of dry ice. There is no pure market solution for this; we need a public spending solution, as when tackling sewage and waste. Even though nobody wants sewage treatment, sewage still has to be gathered, processed, and put back into the environment without wrecking the environment. Government pays for this work, often by hiring private firms to do it, and often using taxes to pay the costs. The same is probably going to have to be true of CO_2. In that project, there is not enough market demand to do the necessary. So, we need government.

It's possible we may need governments to take over much more of the economy to avoid a biosphere crash. This might resemble the situation that developed in World War Two, when allied governments took complete control of their economies. This was quite authoritarian, but it was democratically agreed to by the people being governed. Whether that kind of support for government control of the economy can be gathered adequately to deal with climate change is an open question. Bombs aren't falling on our heads, but on the other hand huge stresses on the biophysical support system are becoming obvious everywhere, and many people are suffering from this as if in a war situation.

Possibly there will come a point where people begin pushing their political representatives to cooperate in a worldwide solution that would necessarily be government-driven, therefore also treaty-driven, which is to say structured by the Paris Agreement, which is the space we've created for arranging this giant historical transformation. This action still may manifest as governments paying businesses to do the necessary work, across many public–private partnerships.

Authors: Our inability to recognize the need for immediate action has a lot to do with the decision-biasing circumstance that economists call the tragedy of the time horizon (Carney, 2015). You wrote in *Ministry*, *"[W]e can't imagine the suffering of the people of the future, so nothing much gets done on their behalf. What we do now creates damage that hits decades later, so we don't charge ourselves for it, and the standard approach has been that future generations will be richer and stronger than us, and they'll find solutions to their problems.*" […] "But b*y the time they get there, these problems will have become too big to solve*." […] "*Extinctions and ocean warming can't be fixed no matter how much money future people have, so economics as practiced misses a fundamental aspect of reality*." (p. 173)

Ultimately, the question is this: how do we make investors who (with their short-term focus) have been shorting the planetary future, go long on the planet? Again, the challenge is to tackle the tragedy of the time horizon. What financial and policy tools can help companies to do carbon-negative work?

Kim Stanley Robinson: One tool I see being developed is a form of risk management, in that private capital is asking that the World Bank, the IMF, and possibly the central banks, securitize their investments in clean energy creation and other "green work", with guarantees that if losses are suffered later because a high-risk investment has somehow gone wrong, the investors will get compensated for that, at least to some degree. This would be one form of "risk-adjusted investment" in which ultimately government would be reducing the risks of the initial investments.

The Inflation Reduction Act in the US is a demonstration of how legislation can create direct investment in private businesses doing "green work"; this is very powerful, perhaps the most powerful method of all. This bill has galvanized the entire U.S. green business world.

Another tool, described to an extent in my novel as happening in the next decades, would be the creation of long-term government bonds, in this case very long term, like decades, in which the return on the bond is unusually high.

Not high enough to tempt all investment and create a liquidity trap, but high enough to get a certain amount of investment, the money then paid by the central banks that created the bonds to private firms to do "green work". This would create in effect a financial instrument that would let investors go long in the future, by investing in carbon-negative projects with a very long-term pay-back, these investments then also paying for needed work in the short term.

Yet another tool would be to pay directly for carbon dioxide to be pulled out of the atmosphere, by way of a "carbon coin" created and paid out by central banks. The central banks would have to do the quantitative easing style creation of new fiat money to pay for this, but if they were forced to create a lot of new money for this, it would indicate that there was a lot of CO2 being pulled out of the atmosphere, by way of a lot of human labor and investment, so it would be a jobs program and also a climate stabilizer.

Another version of carbon coin cold be created to pay fossil fuel companies, and petro-states dependent on their fossil fuel income, to leave their carbon assets in the ground and use those resources to make positive investments instead. This will be controversial and expensive, but I think necessary; billions of people live in countries that depend on fossil fuel income to function, and weaning them off that dependency is in everyone's interest. The help would need to involve discounting, amortization, and entailments, which would add to the difficulties of creation and implementation, and yet it must be done; and what must be done can be done. We've seen the start of this process in South Africa, with the nine billion dollars of aid given to them to help them shift from coal to clean energy; the same process has started with Indonesia, and it should begin immediately in Colombia, which under its new government has requested such help.

Many ideas like these have been outlined in a white paper put out by the Network for Greening the Financial System, a group composed of 90 or so of the largest central banks. So, work on these ways of helping to stimulate and direct private capital is well started, but more is needed.

Authors: In *Ministry*, you observe, "*the world runs by laws and treaties, so one can hope"* (352), and in your *optopian* scenario, it is because of treaties that carbon coins and compensation work without making the rich richer; while at the same time adding a sense of climate justice. What kind of tools do you envision in this space, and how do we avoid what is possibly the largest challenge – climate injustice and further rising inequality along the way?

Kim Stanley Robinson: International laws and treaties can define the pay-outs for keeping fossil-fuel assets in the ground above a certain amount, and how these pay-outs are to be amortized over time, paid with zero interest, but with guarantees. Companies could be required by law and international treaty to do carbon-negative work with the initial use of the carbon coin they would be given. Carbon-negative work would have to be defined, measured (as per the Paris Agreement) and certified. All of this requires leadership and managerial work, too, with many challenges, which I will return to in a moment.

As for inequality, we must ask: should people profit from exploiting the environment? It depends. There is a difference between earning a living and profit maximization. Maximizing profit, in the current performance evaluation system using the current accounting standards, is a sign that some people have been ripped off - it is capitalism at its most basic, the power of the few over the many.

Aspiring green capitalists and managers can say they want to make a profit, but the people working in the fields will just want to make a living if they can. So, there's still that massive class difference between people who sell their labor as their only resource, and people who have capital and therefore can invest it and hope to make a profit from it.

I would direct attention to the wage ratio. The co-operative movement worldwide has tackled the issue of the wage ratio, defining it as being proper and appropriate when it is around 10 to 1. An example is the cooperative Mondragon, in Spain. In my novel I describe the US Navy, with a wage ratio of eight to one, in that the admirals are only making eight times as much as the able seamen (see also Federal Pay, 2022), as one of the most efficient and hardworking and effective organizations on Earth, with good *esprit de corps*. It's crucial to remember that the "one" in this calculation has to be defined as *adequacy*. Adequacy would then be something like the inner circle of Kate Raworth's doughnut (Raworth, 2017). Laws would require that no one falls out of the inside of the doughnut, into immiseration; and then the outer circle of the doughnut would represent planetary boundaries, those biophysical limits that we can't cross without catastrophe. This too would be legislated. In other words, the person getting the most money in the system makes ten times as much as the person getting the least. If you have adequacy (an adequate income defined by a decent wage), then a wage ratio of ten to one means the top income is "ten times adequacy"; that ten times is already great luxury. But the wage ratio in America right now is 670-to-one on average (Rushe, 2022). That means that the CEO is making as much in a day as his basic employees are making in two years. With that you get widespread cynicism, despair, and the intention to break things if you can, as part of a general disbelief in the system.

So, this is what our current capitalism has to tackle, a change into a post-capitalism that actually takes into account everybody alive and establishes limits and boundaries within which any economy has to stay, legally and practically, to continue to function. That change would crash our current intense Gilded Age wage ratio—class difference at its worst—which is what neoliberal capitalism has brought us to.

Authors: Another challenge takes the form of accounting: how do we measure success, or performance, if you will, so we can show there is progress, and indeed, some sort of return to be earned on green capitalism? We have built up a costly bureaucracy, the institutions of accounting, to give account of progress, and make managers, politicians, governments and corporations accountable by disclosure, while measuring, monitoring and auditing their performance along the way. If we are going to pay governments and corporations to leave carbon-intensive assets in the ground and invest in long-term green projects instead, we have to be able to verify that they've done so. In a recent working paper, one of us argued that we won't make progress unless we can tangibly measure success: that is, we need to redefine the very notion of "profit" by internalizing some of the negative (and possibly positive) externalities that corporations impose on social and natural capital. Right now, accounting calculations do not internalize these externalities (Mayer et al., 2022). Are accountants (and the institutions of accounting) important in your *optopia*?

Kim Stanley Robinson: Absolutely—accounting is crucial in this. The highest rate of return is decided by accounting standards. So, what's the highest rate of return? Why should extraction of value, destruction of people's lives, destruction of the biosphere, bring the highest financial return?

Clearly the accounting here is wrong, but that is not to say that we could not swap that accounting system out for a more accurate, more humane, safer, and more effective accounting system. This is fundamental for a revised political economy that gets us through this emergency. It's kind of a tail-wagging-dog solution: by changing the way we measure the success of our activities, our activities get paid for or don't get paid for. Our actions change as a result of our changed measurements of our actions. For example, GDP to Human Welfare Index—and so on.

Consider the role of the discount rate in investment appraisals: it is just another accounting game. The discount rate basically gets picked out of a hat—there is nothing scientific about it. When set too high, the people of the present are predating on future people, in a kind of Ponzi scheme writ large. This opinion is not just mine. The economist Frank Ramsey called the discount rate ethically indefensible. A discount rate of four percent, which Nordhaus got the pseudo-Nobel prize in economics for (Nordhaus, 2007; Nordhaus, 2019), is too high. Some economists suggest that the discount rate should be zero (Arrow et al., 2013, Weitzman, 2013); Robert Solow said we ought to act as if the discount rate was zero.

In some North American tribes, it was traditional to talk about the seven generations before and after you as being your equals – you work for the seven generations. If that principle fuelled economics, we could shape the discount rate to remove the infinities from the calculations (a mathematical problem only) and thus give a higher value to the lives of future generations. For instance, what about a discount rate that starts at zero in the present, and is nearly nothing for the next seven generations, and then you ratchet it up through the centuries? Or maybe you start at relatively high discount rate, like four, and bring it down to zero as you calculate farther into the future? These are accounting games, economic calculations that are crucial for deciding what to do right now. Both these fixes have been mentioned, and they're worth discussing more in a way that they haven't been.

At the macro level, the global indexes that matter to the measurement of carbon drawdown and ecological success will also create new realities. They will need to capture both the financial and the carbon situations in the same calculations. The relevant public accounting would therefore include a lot of new measuring systems, because economics is above all a system of quantified ethics. It is also a great lever of political power; and all that depends on measurement. So, as I argued it in *Ministry*, we can continue using older instruments - with adjustments if necessary - like The Inclusive Prosperity Index, the Genuine Progress Indicator, the UN's Human Development Index Inequality Adjusted, and the Global Footprint Index. And we would have to make up many new ones as well…. In *Ministry* I further play with the idea of an amalgamated new comprehensive index of indexes, called the Biospheric and Civilizational Health Meta-Index. As you yourselves said earlier, we won't make progress unless we can measure the progress we're making, and (crucially) unless we can hold everyone to account.

Authors: You remind us that economics is essentially quantified ethics. But whose ethics do your proposals really represent? Are they radical enough to give the protection to the people of the future (and to the voiceless and powerless of today) that they need? In a 2004 article, you suggested that we need system-level change as "*The system we live in is grossly unjust and a danger to us all, now even to all the other species*." You evoked the specter of revolt and violence when you went on to say "*ordinary middle-class citizens of the West will eventually look like the French aristocracy before the Revolution if we do not respond to the injustice and cruelty in our system*" (Robinson et al., 2004, p.182). Aiming for optopia, by definition, involves exigencies and compromises, a pragmatism that panders to the powerful of today. The danger is, they will be too vested in the status quo, and too tied to hard-to-change institutions. As you yourself say about central bankers, "one principle for bankers in perilous times was to avoid anything too radical and untried and so they were all going to go down" (p. 190). So how do our economic and management decisions accommodate this inevitable pluralism?

Kim Stanley Robinson: Politics; diplomacy; laws and treaties. We have these mechanisms, and have to trust them

in this emergency, which doesn't give us time to invent new tools, if there are any such.

I argue in *Ministry* that we should go for the optimum society, the best one possible, given where we are now, given everything. We are in a certain particular political economy that is locked in by laws, treaties and backed by armies. It's the nation-state system, and international neoliberal capitalism, in an uneasy historical mix, even a struggle for power. These are the social systems we have to work with. They are not well suited to a biosphere emergency, but that is irrelevant. They are what we have to work with, and we have to manipulate them in ways that will make them better at dealing with the biospheric emergency that we're in.

I'm aware that I'm arguing conservatively here, but I'm arguing for reforms so numerous and systemic that ultimately, they will add up to revolution—to postcapitalism, to optopia or utopia, if you will, some generations down the line. Hopefully, we can get there as fast as we can, and meanwhile, we can throw ourselves into our moment of the project.

Authors: You have expressed the view that the hyperconsuming first world are experiencing our extra carbon burn as more of a burden than an enhancement (Robinson, 2016, p. 12), thus working towards a greener, more egalitarian society could be a necessity, a cultural relief, if you will, from the mental strains and physical excesses of capitalism. Are you trying to redefine the meaning of green prosperity, away from its economic association with wealth and growth?

Kim Stanley Robinson: Yes. Prosperity, human flourishing cannot be fully captured by economics. And driving climate action takes so much more than proving that the economics work, that we have to consider all the ways we decide how to act in the world. These ways include value systems that are not captured by economic rationality or economic calculations. We sacrifice our economic well-being all the time in the actions that sometimes get called social reproduction; these actions need to be remembered as part of our new structure of feeling going forward. You suffer to take care of family members, at least if this is calculated economically; but it often does not feel like suffering, even when it feels hard. It's part of a "gift economy" or a matter of values that transcend economic analysis, that are simply part of being human, being a social primate alive among other social primates, trying to help each other. Solidarity, mutual aid—these are modern political names for these older values.

There is also the possibility of a new spirituality around the idea of Gaia-citizenship, following James Lovelock (2007), to help people connect to each other and find meaning in climate action at a spiritual level. If the planet itself is regarded as everyone's one and only home, it can be a locus of devotion and even worship. Ultimately, people need something bigger than themselves.

In *Ministry*, I created a thought experiment which attacks social problems and suggests solutions, and envisions a world that we might work towards, at the same time increasing the meaning of our lives and sharpening our political will. Most of the novel focused on political economy, but there was a spiritual element suggested in it as well, as people's feelings changed.

Authors: And yet despite its advocacy of a new spirituality —or even a new religion—the role of violence in this "optopia" scenario is strong. Can we avoid such violence?

Kim Stanley Robinson: The violence, the string of ecoterrorist acts in *Ministry for the Future*, is appalling to me personally. I wrote it because I thought it might happen, in the same way I wrote the catastrophe that begins the book, because I feared it might happen. As people begin to suffer the sharp end of the stick of climate change disasters, the survivors may be so angry that they may not only want justice, they may also want revenge. And violence of that kind would be a lashing out— incoherent, messy, counterproductive. The "effective violence" I also portrayed in my novel, I doubt would happen, because violence begets violence. It was an attempt to imagine some solutions people can believe in now, in our current structure of feeling, but I doubt they would work.

So, I put them in the book to make it feel realistic to the way things are going to go if we don't come to grips with this problem. But like many other science-fiction novels, the violence portrayed is among other things a kind of a warning to the reader, saying 'let's not go down this path'.

There are better futures than the one portrayed in *Ministry*. As optimistic as it is, once you see the lay of the land of the next decade, you can say this: we can do better even than the future in *Ministry for the Future*.

Authors: Thank you.

Discussion

Kim Stanley Robinson's comments here, and the overall message of *Ministry*, make us uncomfortable. They force us to lift our eyes from our cluttered but comforting academic desktops to a threatening horizon: a prospect of change —"environmental" in cause, but "social and economic" in to-be-experienced reality—that should be the dominant frame of our daily activity as researchers and teachers. We ought to be talking about this constantly. But it isn't and we don't.

As we reflect on our interview, we notice connections between the interweaving ideas; here, we pick at three threads to tease out some implications for academic work in management (and its sister disciplines). First, we reflect on Robinson's framing of the structure of feeling and the potential challenges of our emotional responses to climate change. We speculate on how alternative narratives affect

both business and management research and how this might demand a shift in intellectual work from the descriptive and explanatory to the normative. Secondly, we consider how Robinson's approach to a new politics of hope and green capitalism is simultaneously sceptical and pragmatically supportive and we wonder what that means for academics' engagement with business. Finally, we consider the multifaceted nature of the crisis and what it means for how we structure the academic habitus.

Dread, Greed, and Hope

Robinson's book begins with the horror of mass death; he is specific about the appalling consequences that face us if crisis is not averted. In this and his other books and in his comments above, Robinson does not shy from a "catastrophist" position on the science. Before discussing how he resolves this into a more hopeful conclusion, it is interesting to note the fluctuating and contradictory climate narratives that dominate public and business discourse.

Despite the efforts of well-funded campaigns by, among others, Big Oil, it is fair to say that outright climate change "denial" has receded in recent years. In its place, extensive lip-service is paid to the issue. There is undeniably a substantial amount of cynical corporate greenwashing, with some firms acting as "merchants of doubt," deflecting and delaying climate action (Oreskes & Conway, 2011; Wright & Nyberg, 2015; Nyberg et al., 2022). It is interesting to speculate on what lies behind an economic system that continues to follow paths that lead us all to disaster, with CEOs and investors pushing for unmoderated growth on a finite planet. Yet the decision makers cannot hide behind a "we didn't know." One possible explanation is that these elite groups share a sense of helplessness and *de facto* nihilism. We know that, faced with daunting problems, people can learn to suppress their worries and carry on as if nothing is happening. We know also that such cognitive dissonance has psychological costs. But as the late French sociologist Bruno Latour and others have argued, the CEOs (using this label loosely as synonym for the leading elites) haven't just been shielding their eyes to "carry on as normal"—but rather have engaged in an orgy of appropriation and extraction, a frenzied grabbing of resources, in the last 30 years (Wright & Nyberg, 2015; Latour, 2018). As Robinson reminds us, remuneration patterns have transformed radically; the poor roughly stay where they are, the rich become hyper-rich. We speculate that this egregious behavior is due in part to a collective loss of positive visions of progress. People have always been greedy, but the data now show a level of eye-watering and outrageous greed.

Perhaps the dread, the helplessness, drives this in three ways. At a petty, selfish level: grab what you can to protect yourself and yours from the oncoming storm. A second, highly visible narrative is that allowing unimaginable plutocratic wealth is our only escape route: Elon Musk must become rich enough to take a few remnant souls with him to Mars. At a fundamental level, however, dread simply obliterates a worthwhile future: "I can't build a better world, or build a long-term company, because we're all going to fry. I might as well focus on the immediate game of limitless accumulation." The grubby ambitions dominate because the lofty ones are crushed under the prospect of societal doom. Postmodernism is sometimes cast as "cynicism about metanarratives," but our problem is that the metanarrative of inevitable doom crowds out those of building a sustainable and positive future.

Against this dystopian analysis, Robinson offers cautious optimism, the optimism of the will. Robinson's proposals cover a middle ground between managerial utopias, popular in conservative neoliberal circles, in which the corporation and the market act as our saviors, and critical scholars' dystopias, in which the economic hegemony leads us to catastrophe. While there is actually much common ground between the two views, with writers such as Andy McAfee (2019) and Kaplan and Ramanna (2021) celebrating the positive potential of technology and business, there is still a fundamental difference: Robinson sees that although capitalism must be worked with—it's what's here now—it must also be reformed. The existing structures and practices will not be enough. Climate change is intrinsically political and asks us: can we change the foundation of our society without letting it collapse (Oreskes & Conway, 2013; Wright & Nyberg, 2015)?

From our perspective, as social scientists studying management and business, we side with Robinson and other colleagues who remind us, to quote Martin Parker, that "[o] rganizing can be done in many different ways" (Parker, 2002, p. 2). We don't need to believe that capitalism will save us, but we must start with the existing political and economic framework, challenging and pushing its boundaries as we proceed. We can help accelerate evolution and prevent creative destruction from turning into creative self-destruction (Wright & Nyberg, 2015).

The antidote to dread, then, is imagination plus realism. This requires new forms of accounting for profit and the environment (Hopwood, 2009) and new modes of organizing the production and distribution of goods and wealth. We can be inspired by the ground-breaking work by the Nobel-laurate economist Elinor Ostrom and her colleagues, who depicted, against the once dominant theory of the "tragedy of commons," a hopeful and varied world of polycentric systems capable of governing common-pool resources such as the global atmosphere (Ostrom, 2009, p. 412). With this view, the tragedy of anthropogenic warming is not an inevitable matter of market-economic forces, but a question of institutional arrangements. Importantly, those institutional arrangements can be changed. The tragedy of the commons

can be avoided, subject to the attributes of a community and the rules-in-use it sets and allows to evolve over time. Monitoring, control, and evaluation are important processes of managing common-pool resources, as are the interactions among all actors constituting the assembly—governments, private and public organizations and, importantly, citizens—and such processes must be carefully designed, monitored, and if need be, improved. Ostrom also demonstrated that a wide casting of the net of stakeholders does not necessarily result in chaos—it could instead be a productive force. Studying their conditions of possibility—the interactions and the various enabling processes of "talk" that facilitate these governing mechanisms—is therefore an urgent scholarly task. Such an undertaking can happen *in situ* by meticulous field work or by mobilizing utopian metaphors (Atkins et al., 2015; Dahlman, 2022). If the crucial fault lines lie not between capitalism and the climate, but between capitalism—in its corporate plutocratic variant—and democracy, then Ostrom's polycentric systems of governing commons may well be our best hope. In Robinson's novel, the Ministry for the Future is one agent among many; his book is helpful because it imagines this polycentricity in such detail. This means we must pay attention to the way in which political processes adapt; Pek (2022) gives an illustration of this in regard to the role of citizens' assemblies and Battilana et al. (2022) explore how democratizing an organization can help reorient it.

All this leaves us with a fundamental challenge. Hitherto, our research has been defined by a version of science which emphasizes detachment, description, and explanation. We are engineers who have abandoned building bridges, settling instead for ever finer analyses of the structure of concrete. We need to refocus our attention on how the world *could* be. This will require some disruption both to the way we engage with firms and the way we pursue academic work.

Green Capitalism

In Robinson's novel, we see the Ministry as an organization relatively free from the malaise of self-serving, profit-maximizing *homo economicus*. The characters—flawed as they are—focus on real issues rather than greasy-poling. Perhaps this is a weak point in terms of realism. But maybe it also provides a model to which we need to aspire. The role of the state is key, but the Ministry's endeavor goes with, rather than against, the grain of capitalist economics. Powerful corporations play a role in saving the planet.

Robinson understands that the corporation is a legal fiction; its terms of engagement with society can therefore be changed by society itself. This is exactly what would happen if governments got their act together, closed loopholes for tax havens, legally bound corporations to provide environmental stewardship, and—via a large-scale "carbon quantitative easing"—paid entrenched private corporations and sovereign states for leaving fossil fuels in the ground (and substantial profits on the table), while obliging them to invest their compensation funds in the green energy transition. Such expansionist economics had been labeled as wasteful and irresponsible during the free-market–oriented Regan-Thatcher era; however, in our time, Keynesianism is back with a vengeance. This brings Robinson's insight into focus: economics is essentially quantified ethics. There is nothing inevitable about the superiority of either neoliberal market economics or Keynesianism. The questions are: which is ideologically acceptable in a given context and which can, through its distributive practices, match the prevailing values and priorities?

Accordingly, the novel plays entertainingly (and at one point, shockingly) with the idea of "Davos Man" (and the billionaire-heavy talking shop of enlightened capitalism), but avoids presenting clearly drawn bad guys, just as it lacks unequivocal heroes. Robinson's approach to green capitalism in our interview is striking. Self-regarding billionaires swooping in by private jet to share their PR advisors' thoughts on climate change are unquestionably something of a joke, but we have to work with what we've got. The corporations and the billionaires might embody bucketloads of cant and contradictions, but short of totalitarianism, they really are the only game in town. This puts us—especially those of us in business schools—in an intrinsically awkward spot. We have to combine energetic scepticism of greenwashing with continuing incremental engagement with the greenwashers. We can always retreat to pure research so as to maintain our intellectual purity, but that would be to relinquish any hope of influence. This is a profoundly uncomfortable position, with two difficult consequences.

If we are to critically engage with companies, we need to talk about specific firms. Astonishingly, it is relatively rare for top-ranked publications to feature specific references to actual organizations. Talking about the fast fashion industry at a theoretical level may be legitimate as academic work, but publishing an article addressing lies told by, say, Arcadia Group would be treated as mere journalism trying to pass as scholarship. But maybe academic engagement with corporations sometimes requires calling out greenwashing and specific lies. Unlike journalists, academics have limited experience in dealing with the potential legal complexities involved in straight talk; we do, however, have established principles of fair comment that we leave in the drawer. Taking this (potentially confrontational) position also means that we must cling ever more closely to rigor and truth and avoid the motivated reasoning that corrupts public discourse. For example, McAfee (2019) argues that the West (especially the US) is making significant improvements in environmental impact. Others (e.g., Wiedmann et al., 2015; Hickel & Kallis, 2020) argue that this interpretation fails to fully account for the impact of imported goods. This is a hard, empirical, technical question—and we cannot let our opinion be determined by what we would like (for whatever reason) the answer to be or what we intuitively feel would be a helpful answer.

The Academy as the Ministry

Crucially, *Ministry* embodies an approach to the crisis which embraces the need for holism. All the problems are interconnected, as are all the solutions. Perhaps the most obvious feature of the novel, made apparent by the breadth of Robinson's comments above, is that the current crisis defies disciplinary boundaries. We need accounting as much as geo-engineering: a system-level response. Yet we in the academic universe, faced with a problem demanding the combined efforts of both private enterprise and the state, carry on an intellectual life carved into artificially neat domains. Even within business schools, the climate change agenda, such as it exists, sits in disciplinary silos with paltry levels of interaction. Even at the level of simple cross-citation, the "sustainable supply chain" literature and the accounting and economics literatures are seated at different ends of the table, while the legal scholars and geoscientists are in other rooms altogether. Of course, everyone believes in the importance of a multidisciplinary perspective, except at those moments that matter most in a practical academic career: earning a doctorate, receiving a promotion in rank, and the award of tenure. And yet, we do see signs of hope: recent developments in leading journals are pointing to a broadening of research formats and perspectives (Hannah, 2020; Howard-Grenville, 2021; Tihanyi et al., 2022).

Robinson's approach is humanistic, and offers an exemplar of what Deidre McCloskey calls "humanomics"—the economics in the text is informed by a deep understanding of the power of the stories humans tell, and the emphasis is on the importance of meaning, persuasion, talk, and relationships in cooperation and economic life (McCloskey, 2021). The implication for an economic science—and we would go as far as claiming, for management science—is that it needs the humanities, defined loosely as "the study of the human mind and its curious products" (McCloskey, 2021, p. 20), including the ideas, values and the myths we live by (Midgley, 2011). We posit that such a humanistic turn is essential for the Academy as Ministry. If the essence of managerial work is a meaning-giving project, informed by universal values and a willed optimism in the face of the dread of disaster, then we must learn from literature and philosophy—as well as from the physical sciences - and treat academic work as scholarship, driven by curiosity and commitment, and less so by career considerations.

Our career paths and the performance benchmarks need to be reimagined accordingly. As institutional contexts frame the nature and content of academic work, we encourage anti-dogmatism and interdisciplinarity in academic training, journal architecture and promotion decisions. We need to push back on scientism, the quest for ever-more "scientific" and rigorous knowledge that crowds out concerns with the moral contexts and consequences of economic and organizational life. We side with McCloskey in suggesting that in our own training, research, editorial and reviewer judgments—not to mention teaching!—we must take seriously and respect what the humanities offer, and strive to acquire a deep understanding of the power of ideas, ethics and rhetoric in the managerial phenomena we study.

Interdisciplinarity and methodological pluralism allow managerial researchers to stay relevant and close to practice. Case studies and field experiments help us understand and evaluate emerging practices, diverse policies and response strategies in the contexts in which they occur. Methodological pluralism should be welcome and taught, rather than warned against; the intelligent use of numbers, statistics and models ought to complement, rather than substitute qualitative and field-based insights.

Finally, we see a problem with the timescales and the artificial and growing stratification of academic publication. The median *Fortune* CEO has a tenure of around 5 years—a figure of the same order of magnitude as the time it can take between submission and print publication in some of the leading management journals. Combined with the competitive stakes for academic careers, it is unsurprising that the "best" research often reflects a risk-averse conceptual conformity and finds it hard to "speak to the moment." The academy's ability to engage with the greening—or failure to green—of capitalism is reduced to a distant echo; we can watch in horror as the effects of climate change hit, consoling ourselves that four or 5 years later we might be able to read a fascinating explanation of the organizational processes that caused it. It should give us pause that Kim Stanley Robinson can write and publish a meticulously researched 106-chapter novel faster than an academic can publish a 20-page paper. Instead of slavishly following and reinforcing a hierarchy of journals driven by idiosyncratic and arbitrary principles and ranking organizations, we should write for the relevant dissemination channels that best further our ideas to multiple audiences, using the "horses for courses" principle. As phenomena, multidisciplinary approaches and insights evolve, so should new journals appear and old ones steer their editorial course. When disseminating our learnings, we ought to communicate to our multiple audiences on their own terms. As educators, we have a moral responsibility to draw out the implications of our insights to help people on the front lines suffering or shaping events and responses, and to galvanize and inspire those who might otherwise be content to sit things out. As educators, we have a role in informing not only businesses and policymakers, but citizens as well. If we believe that citizen-and community-based projects are to play a progressive role in solving climate action, we have to engage with them, and assess them not only in light of their stated goals, but also against a benchmark of social justice and universal values.

Robinson's important book ends with a repeated message: "there is no such thing as fate" (p. 563). As we write, the Ministry for the Future does not exist as a United Nations body in Zurich or anywhere else. For now, we will have to see how well we can change the culture and practices of academia to stand in its place. We don't have long.

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Notes

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2. The discussion here does not require familiarity with Kim Stanley Robinson's work, although we hope it will encourage scholars to become familiar with his and others' attempts to tackle the current situation in serious fiction.
3. COP stands for Conference of the Parties, an annual summit attended by the countries that signed the United Nations Framework Convention on Climate Change (UNFCCC) – a treaty that came into force in 1994. Robinson's book projects a vision for the next 30 years.
4. https://www.atlanticcouncil.org/global-qe-tracker/
5. At the Paris "One Planet Summit" in December 2017, eight central banks and supervisors established the Network of Central Banks and Supervisors for Greening the Financial System (NGFS). Since then the membership has grown to 114 central banks. The Network's purpose is to help strengthening the global response required to meet the goals of the Paris agreement and to enhance the role of the financial system to manage risks and to mobilize capital for green and low-carbon investments in the broader context of environmentally sustainable development. It's 6 recommendations from 2019 are: (1) integrating climate-related risks into financial stability monitoring and micro-supervision; (2) integrating sustainability factors into own-portfolio management; (3) bridging the data gaps on climate risk assessment; (4) building awareness and in-house capacity to improve understanding of how climate-related factors translate into financial risks and opportunities; (5) achieving robust and internationally consistent climate and environment-related disclosure; (6) supporting the development of a taxonomy that enhances the transparency around which economic activities contribute to the transition to a green and low-carbon economy and are more exposed to climate and environment-related risks. https://www.ngfs.net/en/executive-summary-call-action

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