COVID-19 as a window of opportunity for sustainability transitions? Narratives and communication strategies beyond the pandemic

Miriam Bodenheimer and Jacob Leidenberger
Fraunhofer Institute for Systems and Innovation Research ISI, Karlsruhe, Germany

ABSTRACT
The current COVID-19 crisis can provide a window of opportunity for promoting sustainability transitions across the globe, but this goal can only be achieved with deliberate planning and carefully designed strategic communication in the public sphere. This policy brief outlines a three-part narrative that discursively connects the COVID-19 pandemic with its potential to facilitate sustainability transitions. We seek to make clear the connection between the coronavirus outbreak and unsustainable behavior, to explain that continuing unsustainable behavior could cause further crises of a similarly debilitating scale, and to frame the current lockdown and standstill as a timely occasion to change direction and to prevent future crises. The policy brief concludes by adapting organizational crisis communication strategies to the current situation and answering questions of how, when, by whom, and at whom communication should take place.

Introduction
In a recent editorial discussing the potential of the COVID-19 pandemic to bring about a sustainable consumption transition, Cohen (2020, 1) points out that the coronavirus outbreak “is simultaneously a public health emergency and a real-time experiment in downsizing the consumer economy.” While it is undoubtedly true that this disaster can provide a window of opportunity for promoting sustainability transitions in consumption and production—which are desperately needed to prevent other similarly dramatic crises brought on by climate change—this goal can only be achieved with deliberate planning and carefully designed strategic communication in the public sphere. In this policy brief, we aim to outline ideas on how to discursively connect the current COVID-19 pandemic with its potential as a window of opportunity for sustainability transitions in a way that is constructive, expedient, and considerate of the socially and psychologically difficult situation in which societies across the globe currently find themselves. We begin by sketching out the cornerstones of a possible narrative before discussing communication strategies surrounding the questions of how, when, by whom, and at whom this communication should take place.

Crafting a narrative: COVID-19 as a window of opportunity for sustainability

The psychological and psychosocial burden of the current situation for individuals, families, and societies as a whole should not be underestimated. In a recent review article, Brooks et al. (2020) identify significant negative effects resulting from even short periods of quarantine, some of which continue to negatively impact mental health even years after the end of the period of isolation. In designing communication strategies that create any type of association between the COVID-19 pandemic (which is a threatening situation with highly negative connotations) and sustainability transitions (which should ideally be attached to positive connotations) it is therefore important to proceed with the utmost care. We propose the following narrative to structure this discourse:

Make clear the connection between the COVID-19 pandemic and unsustainable behaviors
We can identify various links between ecologically, economically, and socially unsustainable behaviors and the outbreak and severity of the COVID-19 pandemic. With regard to environmental issues, studies have highlighted the role of large-scale land-use changes—such as agricultural intensification,
mining, road building, and deforestation—and the resulting loss of habitats and biodiversity in increasing the likelihood that infections will spread from wildlife to humans as zoonotic diseases (IPBES 2019; Scott 2020; Daszak 2020). Conversely, intact ecosystems, as well as reduced contact between animals and people can prevent the transmission of wildlife diseases to humans (WHO and Secretariat of CBD 2015). Patz and Confalonieri (2005, 393) argue that “[t]here are inherent trade-offs in … ecosystem changes associated with economic development,” particularly “between infectious disease risk and development projects geared to food production, electrical power, and economic gain.” However, in examining the outcomes of six major episodes of zoonotic diseases between 1997 and 2009, the World Bank (2012) estimated that the global economic losses amounted to at least US$80 billion—a statistic which should cast serious doubts on the actual net economic gains achieved through ecologically harmful development projects.

But short-sighted economic decision making does not only play a role in pandemics by driving environmentally unsustainable behavior. Rather, while economically unsustainable behavior did not cause the coronavirus outbreak, it certainly contributed to the severity and all-encompassing nature of the current crisis. With regard to coronavirus, the consulting firm Deloitte recognizes that “[a] decades-long focus on supply chain optimization to minimize costs, reduce inventories, and drive up asset utilization has removed buffers and flexibility to absorb disruptions” (Kilpatrick 2020). The high degree of globalization, just-in-time production, and heavy concentration of production facilities in just a handful of low-wage countries—particularly China—has made the global economy especially vulnerable to disruption (Parsons 2020). Likewise, the extensive amounts of travel that results from such an internationally connected world make it easy for infectious diseases to spread rapidly.

Finally, the lack of value assigned to the social aspects of sustainability, such as the low wages and low prestige ascribed to jobs in the care economy and the stringent imposition of a for-(maximum)-profit orientation upon the healthcare sector now make this crisis harder to handle. Medical systems across the world, even in highly industrialized countries, lack sufficient beds, respirators, and necessary staff in their intensive care units to assist a pandemic-level flood of patients (Mihm 2020). In short, lack of ecological sustainability contributed to the coronavirus outbreak, lack of economic sustainability to its rapid and global spread, and lack of social sustainability to its severity.

**Explain that continuing unsustainable behavior could cause further crises of a similarly debilitating scale as the COVID-19 pandemic**

While the scale of the current pandemic has not been seen since the Spanish Flu of 1918–1919, there have been many other serious zoonotic disease episodes in recent years, including HIV, SARS, MERS, and Ebola (Daszak 2020). And to experts, the current situation was, unfortunately, not unexpected. For instance, at a 2018 meeting of the World Health Organization, a professional group began to warn about the next pandemic caused by “Disease X,” an anticipated but not yet known disease that they described as follows:

[It] would likely result from a virus originating in animals and would emerge somewhere on the planet where economic development drives people and wildlife together. Disease X... would spread quickly and silently; exploiting networks of human travel and trade, it would reach multiple countries and thwart containment. Disease X would have a mortality rate higher than a seasonal flu but would spread as easily as the flu. It would shake financial markets even before it achieved pandemic status (Daszak 2020).

This description appears to fit COVID-19 remarkably well and the fact that it was written two years prior to its occurrence shows that the current crisis is not, in fact, a black swan event but instead a predictable result of our unsustainable handling of ecosystems. Continuing this way makes it very likely that we will experience an ongoing series of catastrophic events, both on a regional and global scale, if we do not change our behavior. While this particular disaster comes in the form of a pandemic, countless experts warn of other potential catastrophes resulting from continued unsustainable behavior, including all the forecasted outcomes from climate change.

Frame the current situation of lockdown and standstill as a window of opportunity to change direction and prevent future crises.

One of the most common reactions to the current crisis across the globe is a feeling of helplessness and anxiety. Wilmott (2020) highlights the importance of meaning during this difficult time: “identifying and reflecting on potential sources of meaning can help us remain purposeful, even in the throes of lockdown.” She goes on to explain that part of experiencing meaning comes from having a sense of control over our lives. One way to regain some of this power is to change our behavior in such a way as to prevent such crises in the future.

The current lockdown situation, spanning significant parts of the global economy and society, provides a unique opportunity for change. Not only is public life so slowed down at present as to allow us
to change directions, but the COVID-19 pandemic has also debunked the myth that certain conditions are without alternative in the contemporary world. Some of the doctrinal suppositions that are suddenly being called into question in the mainstream public discourse include prioritization of profit over quality of care in the healthcare sector, extensive international business travel, working exclusively on-site in office jobs, just-in-time production without buffers, and concentration of supply chains in a limited number of low-wage countries. As more and more nations discuss a “return to normal” after COVID-19, it is critical to reflect upon which aspects of the “old normal” should be retained and where it is time to create a more sustainable “new normal.”

**Strategies of crisis and post-crisis communication**

Having a clear narrative is important, but not sufficient in designing a communication strategy: questions of how and when to communicate, as well as who should communicate and to which audience must also be considered. The question of the audience is directly related to the country where this audience is located and how—through which medium—this particular audience can be reached. The communication strategy discussed in this policy brief relies on examples from Germany and Austria, as well as Italy, and is therefore focused primarily on Western Europe; it should not be considered universally applicable. Nevertheless, similar patterns regarding the cultural context, the political system, the socio-political culture, and the media system can be observed in several countries: As media and communication researchers Hallin and Mancini (2004) point out in their models of media and politics, this is particularly true for Austria, Belgium, Denmark, Finland, Germany, the Netherlands, Norway, Sweden and Switzerland. Similar patterns can also be found in France, Greece, Italy, Portugal and Spain. Of course, the specific context of a particular country must always be taken into account when designing a communication strategy for that population, but similar socio-political, cultural, and media patterns make the strategy discussed here likely to be applicable to all of these countries with only minor adjustments.

In designing a strategy to deliver the narrative outlined above, it is useful to look at crisis communication, which comes from the organizational context, but can provide a useful starting point in this situation as well. Crisis communication is characterized by being

- Truthful and cautious (factual, transparent, and without speculation)
- Understandable (short, simple, and catchy messages)
- Fast (active and early)
- Consistent (uniform, coordinated, and continuous)
- Explanatory (committed to gaining knowledge)
- Addressing different target groups via appropriate channels (Wingen 2019; BMI 2014).

If communication during a crisis combines these characteristics, it can satisfy people’s need for trustworthy information and significantly increase interest in expert knowledge (Keyworth 2020). This directive applies not only to information on how to overcome the disaster, but also to questions of where it originated and how similar situations can be avoided in the future. Consequently, crisis communication is well-suited to deliver the narrative connecting COVID-19 and the need for sustainability transitions.

Next follows the question of when communication should take place. This is very simple to determine in times of emergency: the earlier and faster the better (Wingen 2019; BMI 2014). Communication during a crisis can help people to better understand it. This also applies to the nexus with sustainability issues. Due to widespread lockdowns, people currently have time, and also the need, to address the causes of the COVID-19 pandemic and to find out how they themselves, through their lifestyle, can contribute to avoiding such adverse events in the future. In times of crisis, people are generally more sensitive to what experts say and also more open to new ideas, since new answers to previously unknown questions and issues are needed. It should therefore be a priority to provide this information while people are actively looking for answers. Doing so, rapid crisis communication might also help to prevent the accelerated spread of rumors or conspiracy theories at the beginning of an emergency situation resulting from a lack of information, or at least counteract their dissemination and deliver more clarity on the actual situation.

However, quick reactions also leave less time for reflection, so communication should be restrained, fact-based, and deal openly with knowledge gaps (Caspari 2020). This is an important aspect in building trust with relevant audiences. Once the crisis has been overcome, a return to classic science communication is advisable, meaning that academic communication takes place within the scientific community, but its insights are also summarized for nonscientific audiences, both from individual scientists directly (e.g., via social media or statements in the press) and through scientific organizations’ public relations efforts (Schäfer 2017).
As to who should communicate, Austrian media scholar Matthias Karmasin (2020), underlines that “in spite of all prejudices, in times of crisis, science is still one of those subsystems of society where people trust that the measures of quality assurance and the process, through which one reaches valid statements, have a greater degree of reliability than in other systems. There seems to be a significant amount of fundamental trust here.”

In the case of Germany, the great interest of the German media and public in the person of Christian Drosten, a Berlin-based virologist, is a good example of the high level of trust in experts and scientists in times of crisis: While Drosten—whose obvious expertise and simultaneous humility make him very charismatic—was unknown to the public before the COVID-19 pandemic, he suddenly became the most sought-after expert in Germany and even launched his own podcast, which had already reached several million downloads by late March (Kenya, Kogel and Terschüren 2020). Roberto Burioni, an Italian virologist, experienced a similar rise to fame starting in 2016 when he was asked to counter the opinions of vaccine opponents in a televised talk show. Reflecting upon his surging popularity over the following years as an author of popular science communication, he explained, “I realized that the language used in conferences, with colleagues or even with patients, so I tried to use not a single difficult word.”

He turned instead to concrete, non-medical metaphors” that were easily understandable and relatable to the general public (Starr 2020). These examples show that, in addition to following the principles of crisis communication, it can be helpful to choose scientists as “public ambassadors” whose personalities support the spread of their scientific messages. Sustainability experts should look for such individuals within their ranks and seize this opportunity to bring their issues to the forefront while the media and public are particularly ready to listen to experts.

This observation, finally, raises the question of who the target audience of the above narrative should be and which medium should be chosen for communication. The two primary goals of disseminating this narrative are, first, to provide the general public and politicians with more in-depth explanations regarding the reasons for the COVID-19 pandemic and the role that unsustainable behavior played in it. The second objective should be to increase current and future willingness to engage in behavioral changes necessary for sustainability transitions. To achieve these goals, communication should be direct and through high-reach channels such as mass media. The COVID-19 crisis has clearly demonstrated that in many countries around the world, people have “been seeking out more established media brands for information on the public health crisis and its economic consequences” (Koeze and Popper 2020). Precisely because this information often contains expert opinions, the COVID-19 pandemic creates opportunities to highlight and restore the value of expertise. It became clear that classic media such as television news or the print press enjoy great attention during crises because of their high level of credibility (Greb 2020). However, they also contribute to an oversupply of information, which means that individual messages risk being drowned out in the flood. Moreover, mass media coverage naturally follows specific rules, selecting news according to characteristics such as unexpectedness, controversy, location of an event, or continuity (Eilders 1996) and it is necessary to keep these factors in mind when designing a scientific communication strategy for sustainability experts.

Once the immediate urgency has been overcome, communication from the scientific community is likely to revert back to more classic science communication that focuses on detailed answers based on a greater amount of available data and scientific findings. While communication of more scientifically-oriented results usually takes place in academic journals or conferences, sustainability transitions experts should ensure that they also continue to make relevant new insights pertaining to the connection between the COVID-19 pandemic and sustainability known to the public. This should be done in a relatable and easily understandable way that continues to build upon the narrative of the coronavirus outbreak as a window of opportunity for sustainability transitions.

Notes

1. We were unable to find a similar study with a focus on a public lockdown rather than individual quarantine. However, in many countries the current social distancing measures are so severe that the difference between quarantine and lockdown is fairly minor, so that it may be assumed that the current lockdown may likewise cause similar negative psychological effects.

2. The exact path of transmission to humans for COVID-19 is not yet clear, but it is suspected that the virus originated in animals.

3. The word “opportunity” should be used with caution in framing the public discourse in the coming months. Instead, it may be more advisable to advocate that a focus on sustainability transitions in the future is a chance to gain something positive out of a very difficult situation. The phrase is used here nevertheless, as it is the standard academic term in the context of transitions studies.
4. These countries form the “North/Central Europe or Democratic Corporatist Model.”
5. These five countries belong to the “Mediterranean or Polarized Pluralist Model.”
6. Applying the same strategy in countries such as the United States, United Kingdom, or Canada would require much greater adjustment. Not only are there greater differences in the cultural, political, socio-political, and media contexts as compared to Western Europe in the “North Atlantic or Liberal Model”, but the United States and United Kingdom, in particular, have also become much more polarized societies in recent years. This has led to a “post-truth era”, characterized by the spread of “alternative facts” and “fake news,” which makes the communication of scientific facts particularly challenging and requires a strategy tailored much more specifically to those individual contexts.
7. Translated by the authors from German. Although scientific expertise seems to be trusted more in times of crisis, it is also important to mention a general growing pattern of distrust toward science among certain segments of the population—especially at the extremes of the political spectrum—in recent years (Huber 2019).
8. We also note that this observation applies to popular science communication more generally.
9. This includes the United States, where—in spite of the significant societal polarization—established mainstream media brands like CNBC, The New York Times, and the Washington Post saw an increase in monthly online traffic of between 50% and 100% in March 2020. In contrast, more partisan sites like Infowars, Breitbart, or Truthdig remained more or less stagnant (Koeze and Popper 2020).

Disclosure statement
No potential conflict of interest was reported by the author(s).

ORCID
Miriam Bodenheimer http://orcid.org/0000-0002-9401-3296
Jacob Leidenberger http://orcid.org/0000-0002-1618-0451

References
Brooks, S., R. Webster, L. Smith, L. Woodland, S. Wessely, N. Greenberg, and G. Rubin. 2020. “The Psychological Impact of Quarantine and How to Reduce It: Rapid Review of the Evidence.” The Lancet 395 (10227): 912–920. doi:10.1016/S0140-6736(20)30460-8.
Bundesministerium des Innern, für Bau und Heimat (BMI) 2014. Leitfaden Krisenkommunikation (Crisis Communication Guide). Berlin: Bundesministerium des Innern, für Bau und Heimat. https://www.bmi.bund.de/SharedDocs/downloads/DE/publikationen/themen/bevoeckrungsschutz/leitfaden-krisenkommunikation.pdf?jsessionid=E69C1020D4569100CB9B4A97D05822162_cid364?__blob=publicationFile&v=4.
Caspari, L. 2020. “Absolute Transparenz ist nicht immer richtig (Absolute transparency is not always correct).” ZEIT Online, March 19. https://www.zeit.de/politik/deutschland/2020-03/krisenkommunikation-angela-merkel-emmanuel-macron-corona-krise
Cohen, M. 2020. “Does the COVID-19 Outbreak Mark the Onset of a Sustainable Consumption Transition?” Sustainability: Science, Practice and Policy 16 (1): 1–3. doi:10.1080/15487733.2020.1740472.
Daszak, P. 2020. “We Knew Disease X Was Coming. It’s Here Now.” The New York Times, February 27. https://www.nytimes.com/2020/02/27/opinion/coronavirus-pandemics.html
Greb, V. 2020. “Neue alte Freizeitbeschäftigung in der Corona-Krise: Fernschn (New Old Leisure Activity in the Corona Crisis: Television).” Deutsche Welle, March 15. https://www.dw.com/de/neue-alte-freizeitbesch%C3%A4ftigung-in-der-corona-krise-fernsehen/a-52755904.
Hallin, D., and P. Mancini. 2004. Comparing Media Systems: Three Models of Media and Politics. Cambridge: Cambridge University Press.
Huber, J. 2019. “Mehr Vertrauen, Mehr Misstrauen (More Trust, More Distrust).” Der Tagespielle, March 6. https://www.tagesspiegel.de/gesellschaft/medien/glaubwuerdigkeit-der-medien-mehr-vertrauen-mehr-misstrauen/24072144.html
Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). 2019. IPBES Global Assessment on Biodiversity and Ecosystem Services. Paris: IPBES. https://ipbes.net/sites/default/files/ipbes_global_assessment_chapter_3_unedited_31may.pdf
Karmasin, M. 2020. “In Krisenzeiten großes Vertrauen in Wissenschaft (Great Trust in Science in Crisis).” Österreichische Akademie der Wissenschaften, March 16. https://www.oeaw.ac.at/detail/news/in-krisenzeiten-grosses-vertrauen-in-wissenschaft/
Kenya, K., D. Kogel, and H. Terschüren. 2020. “Christian Drosten.” Deutschlandfunk Kultur, March 27. https://www.deutschlandfunkkultur.de/christian-drosten-wie-ein-virologe-zum-erfolgreichen.4038.de.html?dramarticle_id=473441
Keyworth, C. 2020. “Keep Calm, and Listen to the Experts.” The Psychologist, March 15. https://thepsychologist.bps.org.uk/keep-calm-and-listen-experts.
Kilpatrick, J. 2020. “COVID-19: Managing Supply Chain Risk and Disruption.” Deloitte. https://www2.deloitte.com/global/en/pages/risk/articles/covid-19-managing-supply-chain-risk-and-disruption.html.
Koeze, E., and N. Popper. 2020. “The Virus Changed the Way We Internet.” The New York Times, April 7. https://www.nytimes.com/interactive/2020/04/07/technology/coronavirus-internet-use.html
Mihm, S. 2020. “Why the U.S. Doesn’t Have Enough Hospital Beds.” Bloomberg, March 13. https://www.bloomberg.com/opinion/articles/2020-03-13/why-u-s-hospitals-are-ill-prepared-for-coronavirus.
Parsons, T. 2020. “How Coronavirus Will Affect the Global Supply Chain.” Hub: Johns Hopkins University, March 6. https://hub.jhu.edu/2020/03/06/covid-19-coronavirus-impacts-global-supply-chain/
Patz, J., and U. Confalonieri. 2005. “Human Health: Ecosystem Regulation of Infectious Diseases.” In Ecosystems and Human Well-Being: Current State and Trends: Findings of the Condition and Trends Working Group of the Millennium Ecosystem Assessment, edited
by R. Hassan, R. Scholes, and N. Ash, 393–418. Washington, DC: Island Press. https://www.millenniumassessment.org/documents/document.283.aspx.pdf
Schäfer, M. 2017. “Wissenschaftskommunikation ist Wissenschaftsjournalismus, Wissenschafts-PR… und mehr (Science communication is science journalism, science PR…and more”). Wissenschafts kommunikation.de, March 1. https://www.wissenschaftskommunikation.de/wissenschaftskommunikation-ist-wissenschaftsjournalismus-wissenschafts-pr-und-mehr-3337/
Scott, J. 2020. “How Biodiversity Loss is Hurting Our Ability to Combat Pandemics.” World Economic Forum, March 9. https://www.weforum.org/agenda/2020/03/biodiversity-loss-is-hurting-our-ability-to-prepare-for-pandemics/
Starr, D. 2020. “This Italian Scientist Has Become a Celebrity by Fighting Vaccine Skeptics.” Science, January 2. https://www.sciencemag.org/news/2020/01/italian-scientist-has-become-celebrity-fighting-vaccine-skeptics doi:10.1126/science.aba7356.
Wilmott, R. 2020. “Keeping Your Sense of Meaning during Lockdown.” The Psychologist, April 2. https://thepsychologist.bps.org.uk/keeping-your-sense-meaning-during-lockdown.
Wingen, K. 2019. “In der Krise kommunizieren: zehn Tipps für das, was jetzt wichtig ist (Communicating in a crisis: ten tips for what is important now).” Wissenschafts Kommunikation.de, February 11. https://www.wissenschaftskommunikation.de/in-der-krise-kommunizieren-zehn-tipps-fuer-das-was-jetzt-wichtig-ist-23541/
World Bank. 2012. People, Pathogens and Our Planet: The Economics of One Health. Washington, DC: World Bank. https://openknowledge.worldbank.org/handle/10986/11892
World Health Organization (WHO) and Secretariat of the Convention on Biodiversity (CBD). 2015. Connecting Global Priorities: Biodiversity and Human Health. Geneva: WHO. https://www.cbd.int/health/SOK-biodiversity-en.pdf