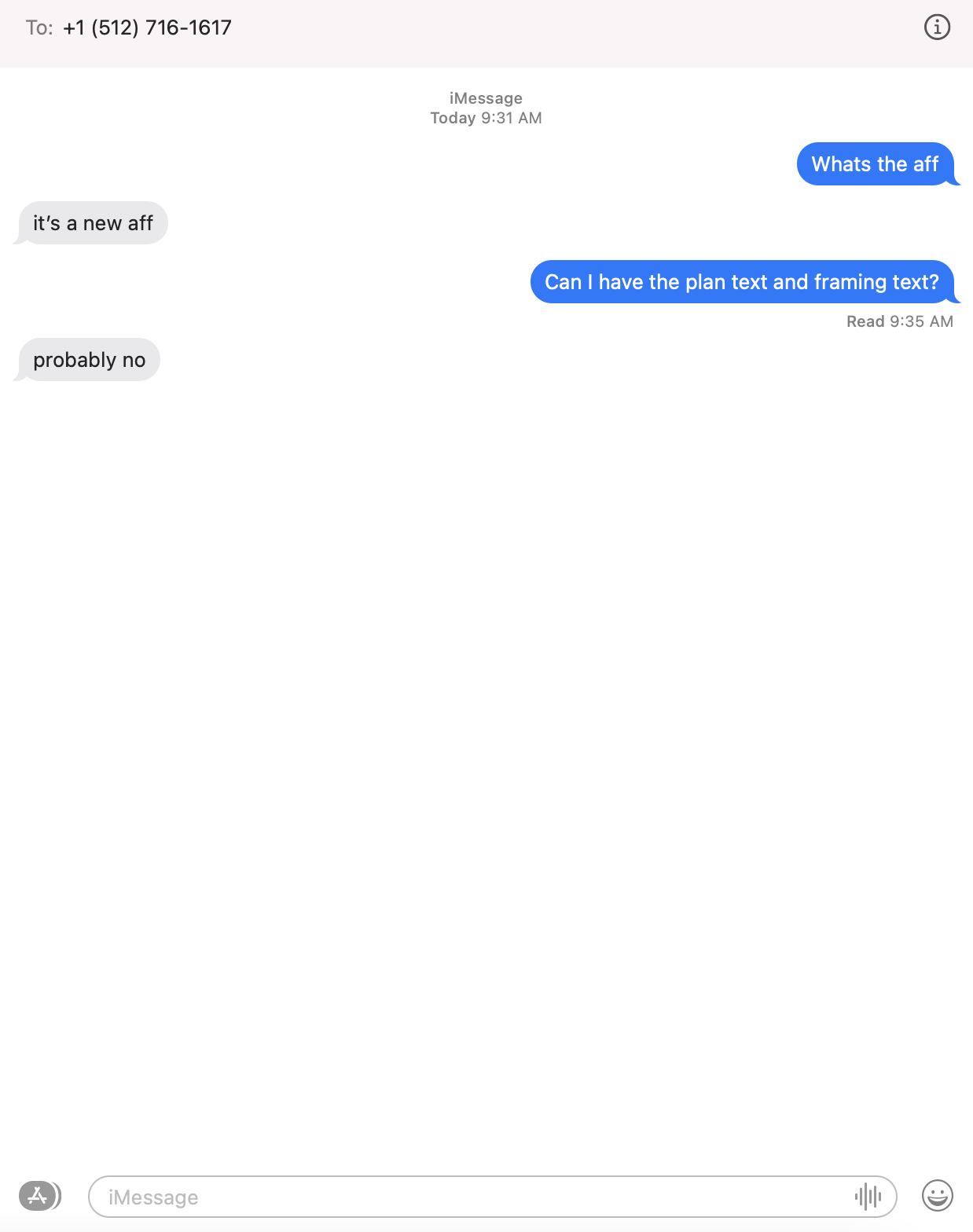
### New affs

#### Interpretation—The aff must disclose the advocacy text and the standard text before the round. To clarify, disclosure can occur on the wiki or over message.

#### Violation—they didn't



#### The standard is prep and clash- Two internal links-a) Neg prep: The AC framework controls the direction of a round – even if its whole rez, my prep drastically differs based on a util AC, topical K aff, or a burden/tricks aff. 4 minutes of prep is not enough to put together a coherent 1nc or update generics—30 minutes is necessary to learn a little about the affirmative and piece together what 1nc positions work best against the affirmative and cut and research their applications to the affirmative. Exacerbated by the fact that philosophy can be dense and hard to fully understand with a few cross ex questions absent any pre-round prep. They also get months to frontline their one aff, while I coming into the round guessing—o/w since their already structurally ahead, b) Aff quality-disclosing the framework text allows preliminary research into the framework preventing frameworks from winning just because they are terribly confusing and not a philosophy that policymakers would actually use-if they affirmatives framework would be crushed with 20 minutes of research then it does not deserve to win. This will answer the 1ar's claim about innovation—with 30 minutes of prep, there's still an incentive to find a new strategic, well justified aff, but no incentive to cut a horrible, incoherent aff that the neg can't check against the broader literature.

#### Fairness- consittutive of comp activites, args presume

#### Edu- funded ny schools

#### CI- intervention, race to bottom, collapses, yours vs best

#### T isn’t violent – A] I don’t have the power to impose a norm – only to convince you my side is better. T doesn’t ban you from the activity – the whole point is that norms should be contestable – I just say make a better arg next time. B] Exclusion is inevitable – every role of the ballot excludes some arguments and even saying T bad excludes it – that means we should delineate ground along reciprocal lines, not abandon division altogether. Reading T isn’t psychic violence – that was above, but especially if we’re not going for it since reading T can be used to prevent aff shiftiness and make substance a viable option.

#### No silencing DA - T is just like a disad or critique we’ve said a certain practice the aff took was bad and it would’ve been better had they done it differently not that they are bad debaters – just like the cap k says the aff engaged in some practice that reinforced capitalism and it would’ve been better if they had emphasized Marxism – impositions in some form are inevitable because the negative has the burden of rejoinder and needs link arguments – every disad link says the aff did something wrong and theres an implicit version of the aff that wouldn’t have linked

#### Theory before the K – A] Prior question. My theory argument calls into question the ability to run the argument in the first place. They can’t say the same even if they criticize theory because theory makes rules of the game not just normative statements about what debaters should say. B] Fair testing. Judge their arguments knowing I wasn’t given a fair shot to answer them. Prefer theory takes out K because they could answer my arguments, but I couldn’t answer theirs. Without testing their args, we don’t know if they’re valid, so you prefer fairness impacts on strength of link. Impact turns any critical education since a marketplace of ideas where we innovate, and test ideas presumes equal access.

## Util

#### Pleasure and pain are intrinsically valuable. People consistently regard pleasure and pain as good reasons for action, despite the fact that pleasure doesn’t seem to be instrumentally valuable for anything.

Moen 16 [(Ole Martin Moen, Research Fellow in Philosophy at University of Oslo) “An Argument for Hedonism,” Journal of Value Inquiry (Springer), 50 (2) 2016: 267–281, <https://link.springer.com/article/10.1007/s10790-015-9506-9>] TDI

Let us start by observing, empirically, that **a widely shared judgment about intrinsic value and disvalue is that pleasure is intrinsically valuable and pain is intrinsically disvaluable.** **On virtually any proposed list of intrinsic values and disvalues (we will look at some of them below), pleasure is included among the intrinsic values and pain among the intrinsic disvalues.** This inclusion makes intuitive sense, moreover, for **there is something undeniably good about the way pleasure feels and something undeniably bad about the way pain feels, and neither the goodness of pleasure nor the badness of pain seems to be exhausted by the further effects that these experiences might have.** “Pleasure” and “pain” are here understood inclusively, as encompassing anything hedonically positive and anything hedonically negative.2 **The special value statuses of pleasure and pain are manifested in how we treat these experiences in our everyday reasoning about values.** If you tell me that you are heading for the convenience store, **I might ask: “What for?” This is a reasonable question, for when you go to the convenience store you usually do so**, not merely for the sake of going to the convenience store, but **for the sake of achieving something further that you deem to be valuable.** You might answer, for example: “To buy soda.” This answer makes sense, for soda is a nice thing and you can get it at the convenience store. I might further inquire, however: “What is buying the soda good for?” This further question can also be a reasonable one, for it need not be obvious why you want the soda. You might answer: “Well, I want it for the pleasure of drinking it.” **If I then proceed by asking “But what is the pleasure of drinking the soda good for?” the discussion is likely to reach an awkward end. The reason is that the pleasure is not good for anything further; it is simply that for which going to the convenience store and buying the soda is good.**3 As Aristotle observes**: “We never ask [a man] what his end is in being pleased, because we assume that pleasure is choice worthy in itself.**”4 Presumably, a similar story can be told in the case of pains, for if someone says “This is painful!” we never respond by asking: “And why is that a problem?” We take for granted that if something is painful, we have a sufficient explanation of why it is bad. If we are onto something in our everyday reasoning about values, it seems that **pleasure and pain are both places where we reach the end of the line in matters of value.**

#### Util good – Existential threats outweigh.

**GPP 17** (Global Priorities Project, Future of Humanity Institute at the University of Oxford, Ministry for Foreign Affairs of Finland, “Existential Risk: Diplomacy and Governance,” Global Priorities Project, 2017, <https://www.fhi.ox.ac.uk/wp-content/uploads/Existential-Risks-2017-01-23.pdf>

1.2. THE ETHICS OF EXISTENTIAL RISK In his book Reasons and Persons, Oxford philosopher Derek Parfit advanced an influential argument about the importance of avoiding extinction: I believe that if we destroy mankind, as we now can, this outcome will be much worse than most people think. Compare three outcomes: (1) Peace. (2) A nuclear war that kills 99% of the world’s existing population. (3) A nuclear war that kills 100%. (2) would be worse than (1), and (3) would be worse than (2). Which is the greater of these two differences? Most people believe that the greater difference is between (1) and (2). I believe that the difference between (2) and (3) is very much greater**. ...** The Earth will remain habitable for at least another billion years. Civilization began only a few thousand years ago. If we do not destroy mankind, these few thousand years may be only a tiny fraction of the whole of civilized human history. The difference between (2) and (3) may thus be the difference between this tiny fraction and all of the rest of this history. If we compare this possible history to a day, what has occurred so far is only a fraction of a second.65 In this argument, it seems that Parfit is assuming that the survivors of a nuclear war that kills 99% of the population would eventually be able to recover civilisation without long-term effect. As we have seen, this may not be a safe assumption – but for the purposes of this thought experiment, the point stands. What makes existential catastrophes especially bad is that they would “destroy the future,” as another Oxford philosopher, Nick Bostrom, puts it.66 This future could potentially be extremely long and full of flourishing, and would therefore have extremely large value. In standard risk analysis, when working out how to respond to risk, we work out the expected value of risk reduction, by weighing the probability that an action will prevent an adverse event against the severity of the event. Because the value of preventing existential catastrophe is so vast, even a tiny probability of prevention has huge expected value.67 Of course, there is persisting reasonable disagreement about ethics and there are a number of ways one might resist this conclusion.68 Therefore, it would be unjustified to be overconfident in Parfit and Bostrom’s argument. In some areas, government policy does give significant weight to future generations. For example, in assessing the risks of nuclear waste storage, governments have considered timeframes of thousands, hundreds of thousands, and even a million years.69 Justifications for this policy usually appeal to principles of intergenerational equity according to which future generations ought to get as much protection as current generations.70 Similarly, widely accepted norms of sustainable development require development that meets the needs of the current generation without compromising the ability of future generations to meet their own needs.71 However, when it comes to existential risk, it would seem that we fail to live up to principles of intergenerational equity. Existential catastrophe would not only give future generations less than the current generations; it would give them nothing. Indeed, reducing existential risk plausibly has a quite low cost for us in comparison with the huge expected value it has for future generations. In spite of this, relatively little is done to reduce existential risk. Unless we give up on norms of intergenerational equity, they give us a strong case for significantly increasing our efforts to reduce existential risks. 1.3. WHY EXISTENTIAL RISKS MAY BE SYSTEMATICALLY UNDERINVESTED IN, AND THE ROLE OF THE INTERNATIONAL COMMUNITY In spite of the importance of existential risk reduction, it probably receives less attention than is warranted. As a result, concerted international cooperation is required if we are to receive adequate protection from existential risks. 1.3.1. Why existential risks are likely to be underinvested in There are several reasons why existential risk reduction is likely to be underinvested in.Firstly, it is a global public good. Economic theory predicts that such goods tend to be underprovided.The benefits of existential risk reduction are widely and indivisibly dispersed around the globe from the countries responsible for taking action. Consequently, a country which reduces existential risk gains only a small portion of the benefits but bears the full brunt of the costs. Countries thus have strong incentives to free ride, receiving the benefits of risk reduction without contributing. As a result, too few do what is in the common interest. Secondly, as already suggested above, existential risk reduction is an intergenerational public good: most of the benefits are enjoyed by future generations who have no say in the political process. For these goods, the problem is temporal free riding: the current generation enjoys the benefits of inaction while future generations bear the costs. Thirdly, many existential risks, such as machine superintelligence, engineered pandemics, and solar geoengineering, pose an unprecedented and uncertain future threat. Consequently, it is hard to develop a satisfactory governance regime for them: there are few existing governance instruments which can be applied to these risks, and it is unclear what shape new instruments should take. In this way, our position with regard to these emerging risks is comparable to the one we faced when nuclear weapons first became available. Cognitive biases also lead people to underestimate existential risks.Since there have not been any catastrophes of this magnitude, these risks are not salient to politicians and the public.72 This is an example of the misapplication of the availability heuristic, a mental shortcut which assumes that something is important only if it can be readily recalled. Another cognitive bias affecting perceptions of existential risk is scope neglect. In a seminal 1992 study, three groups were asked how much they would be willing to pay to save 2,000, 20,000 or 200,000 birds from drowning in uncovered oil ponds. The groups answered $80, $78, and $88, respectively.73 In this case, the size of the benefits had little effect on the scale of the preferred response. People become numbed to the effect of saving lives when the numbers get too large. **74** Scope neglect is a particularly acute problem for existential risk because the numbers at stake are so large.Due to scope neglect, decision-makers are prone to treat existential risks in a similar way to problems which are less severe by many orders of magnitude.A wide range of other cognitive biases

#### We don’t ignore structural oppression---preventing existential risk and framing it as a “we” claim is good.

Coles and Susen 18—Research Professor at the Institute for Social Justice at Australian Catholic University AND Reader in Sociology at the School of Arts and Social Sciences of City, University of London (Romand and Simon, “The Pragmatic Vision of Visionary Pragmatism: The Challenge of Radical Democracy in a Neoliberal World Order,” Contemporary Political Theory May 2018, Volume 17, Issue 2, pp 250–262)

Visionary pragmatism is driven by a political ethos that accents radical receptivity and a sense that a greater degree of wildness in our efforts is indispensable for transformative democratic movements. While some of my earlier works accented the ethical character of receptive generosity in political life, Visionary Pragmatism argues that receptivity is indispensable for generating democratic power – precisely because receptivity involves vulnerability, relationship formation, capacities to modulate, and learning in unexpected ways amidst difficult differences. Drawing on my engagements with the movement for democratic action research in Northern Arizona, I argue that receptive practices engender remarkable capacities for fostering grassroots critique and alternatives, powerful political assemblages across differences, and transformative dynamics in the face of what otherwise appear to be intractable problems. Our best and most powerful possibilities for co-creating urgent democratic change almost always advance along pathways engendered partly through relationships of careful attentiveness to what we initially took to be oblique, unintelligible – or, perhaps, even odious.

For these reasons, my political, theoretical, and pedagogical engagements move across many different configurations and a wider range of situations, ideologies, modes, and commitments than most. Eschewing a single subject position, in Visionary Pragmatism, I experiment with first-person plurals in which the ‘we’ morphs in relation to the different loci of initiative that animate my reflections. Sometimes ‘we’ refers to proponents of radical and ecological democracy very broadly, sometimes to scholars in higher education, sometimes to political theorists, sometimes to the action research movement that formed among people at Northern Arizona University and its community partners, sometimes to a specific action research team, sometimes to all people facing the possibility of planetary ecological collapse. Among the many things I find compelling about the writing of James Baldwin is how he shifts his pronouns without notice – for example, sometimes using ‘we’ to represent black people, sometimes as an uncanny member of the white-majority United States. This rhetorical shiftiness encroaches upon and pulls his readers – especially white readers – beyond the ‘innocence that constitutes the crime’ of their assumed individual and collective white subjectivities in ways that work in visceral, relational, and conceptual registers (Baldwin, 1992, p. 6). Such uncertainty has significant capacity to erode habits and defences, as one finds oneself unexpectedly drawn into perspectives, locations, energies, and tendencies that unsettle and reorient one’s own subjectivity. Much of my work has theorized ‘moving democracy’, and my rhetorical shifting of the first-person plural is a textual practice that aims to enhance this in ways that facilitate reflection.

Throughout Visionary Pragmatism, I argue that there are powerful reasons for active hope. At the same time, we do not live far from tipping points beyond which planetary ecological collapse, globalizing neoliberal fascism, and violent chaos may overwhelm our efforts. I do not think so much in terms of pessimism or optimism as I do about seizing and co-creating opportunities for catalysing dynamic changes in theory and practice that foster a powerful movement of receptive democracy, for complex democratic commonwealth and ecological flourishing. In one sense, as Walter Benjamin’s discussion of Paul Klee’s ‘Angelus Novus’ makes poignantly clear, it is always ‘too late’ for so much and so many, as catastrophic history keeps piling wreckage at our feet. At the same time, there are what Benjamin (1968) calls ‘weak messianic powers’ that emerge as the retroactive force of salvaged aspects of past struggles ignite sparks with emerging struggles to explode the continuum of progress. In this sense, up to our day, it is never altogether too late. With the language of ‘game-transformative practice’, I argue that a visionary-pragmatic movement of radical democracy must do something analogous in response to the fierce urgency of now, to avoid a sixth extinction in which this possibility could well become a casualty.

## Pic

#### Counterplan: Private Companies other than Indigenous owned and operated companies should ban the appropriation of outer space by private entities

#### Solves the whole aff- cant recreate the logic of settler colonialist violence, NB of space col good

# Case

#### Vote neg on presumption – they don’t even claim to solve

#### Perf con – you defend giving the state more power,

#### Alliance DA - using debate as a mode of advocacy ensures the failure of their radical project – competition means debaters ally themselves with individuals who vote for them and alienate those who are positioned with the burden of rejoinder and forced to negate – at worst you vote affirmative on presumption because they don’t use debate as a stepping stone for their advocacy outside the space and don’t have a net benefit to negating.

#### Aff has been read before – not uq key

## Space Col Good

#### Colonization of outer space is essential to humanity – 5 warrants

Orwig 15 [(Jessica, a senior editor at Insider. She has a Master of Science in science and technology journalism from Texas A&M University and a Bachelor of Science in astronomy and physics from The Ohio State University. Before NY she spent time as an intern at: American Physical Society in MD International Center for Theoretical Physics in Italy Fermi National Accelerator Laboratory in IL American Geophysical Union in DC), “5 undeniable reasons humans need to colonize Mars — even though it's going to cost billions,” Slate, 4/21/2015, https://www.businessinsider.com/5-undeniable-reasons-why-humans-should-go-to-mars-2015-4] MN

Establishing a permanent colony of humans on Mars is not an option. It's a necessity. At least, that's what some of the most innovative, intelligent minds of our age — Buzz Aldrin, Stephen Hawking, Elon Musk, Bill Nye, and Neil deGrasse Tyson — are saying. Of course, it's extremely difficult to foresee how manned missions to Mars that would cost hundreds of billions of dollars each, could benefit mankind. It's easier to imagine how that kind of money could immediately help in the fight against cancer or world hunger. That's because humans tend to be short-sighted. We're focused on what's happening tomorrow instead of 100 years from now. "If the human race is to continue for another million years, we will have to boldly go where no one has gone before," Hawking said in 2008 at a lecture series for NASA's 50th anniversary. That brings us to the first reason humans must colonize Mars: 1. Ensuring the survival of our species The only home humans have ever known is Earth. But history shows that surviving as a species on this tiny blue dot in the vacuum of space is tough and by no means guaranteed. The dinosaurs are a classic example: They roamed the planet for 165 million years, but the only trace of them today are their fossilized remains. A colossal asteroid wiped them out. Putting humans on more than one planet would better ensure our existence thousands if not millions of years from now. "Humans need to be a multiplanet species," Musk recently told astronomer and Slate science blogger Phil Plait. Musk founded the space transport company SpaceX to help make this happen. Mars is an ideal target because it has a day about the same length as Earth's and water ice on its surface. Moreover, it's the best available option: Venus and Mercury are too hot, and the Moon has no atmosphere to protect residents from destructive meteor impacts. 2. Discovering life on Mars Nye, the CEO of The Planetary Society, said during an episode of StarTalk Radio in March that humanity should focus on sending humans instead of robots to Mars because humans could make discoveries 10,000 times as fast as the best spacecraft explorers we have today. Though he was hesitant to say humans should live on Mars, he agreed there were many more discoveries to be made there. One monumental discovery scientists could make is determining whether life currently exists on Mars. If we're going to do that, we'll most likely have to dig much deeper than NASA's rovers can. The theory there is that life was spawned not from the swamps on adolescent Earth, but from watery chasms on Mars. The Mars life theory suggests that rocks rich with microorganisms could have been ejected off the planet's surface from a powerful impact, eventually making their way through space to Earth. It's not a stretch to imagine, because Martian rocks can be found on Earth. None of those, however, have shown signs of life. "You cannot rule out the fact that a Mars rock with life in it landing on the Earth kicked off terrestrial life, and you can only really test that by finding life on Mars," Christopher Impey, a British astronomer and author of over a dozen books in astronomy and popular science, told Business Insider. 3. Improving the quality of life on Earth "Only by pushing mankind to its limits, to the bottoms of the ocean and into space, will we make discoveries in science and technology that can be adapted to improve life on Earth." British doctor Alexander Kumar wrote that in a 2012 article for BBC News where he explored the pros and cons of sending humans to Mars. At the time, Kumar was living in the most Mars-like place on Earth, Antarctica, to test how he adapted to the extreme conditions both physiologically and psychologically. To better understand his poignant remark, let's look at an example: During its first three years in space, NASA's prized Hubble Space Telescope snapped blurry pictures because of a flaw in its engineering. The problem was fixed in 1993, but to try to make use of the blurry images during those initial years, astronomers developed a computer algorithm to better extract information from the images. It turns out the algorithm was eventually shared with a medical doctor who applied it to the X-ray images he was taking to detect breast cancer. The algorithm did a better job at detecting early stages of breast cancer than the conventional method, which at the time was the naked eye. "You can't script that. That happens all the time — this cross pollination of fields, innovation in one, stimulating revolutionary changes in another," Tyson, the StarTalk radio host, explained during an interview with Fareed Zakaria in 2012. It's impossible to predict how cutting-edge technologies used to develop manned missions to Mars and habitats on Mars will benefit other fields like medicine or agriculture. But we'll figure that out only by "pushing humankind to its limits" and boldy going where we've never been before. 4. Growing as a species Another reason we should go to Mars, according to Tyson, is to inspire the next generation of space explorers. When asked in 2013 whether we should go to Mars, he answered: "Yes, if it galvanizes an entire generation of students in the educational pipeline to want to become scientists, engineers, technologists, and mathematicians," he said. "The next generation of astronauts to land on Mars are in middle school now." Humanity's aspirations to explore space are what drive us toward more advanced technological innovations that will undoubtedly benefit mankind in one way or another. "Space is like a proxy for a lot of what else goes on in society, including your urge to innovate," Tyson said during his interview with Zakaria. He added: "There's nothing that drives ambitions the way NASA does." 5. Demonstrating political and economic leadership At a February 24 hearing, Aldrin told the US Senate's Subcommittee on Space, Science and Competitiveness that getting to Mars was a necessity not only for science, but also for policy. "In my opinion, there is no more convincing way to demonstrate American leadership for the remainder of this century than to commit to a permanent presence on Mars," he said. If Americans do not go to Mars, someone else will. And that spells political and economic benefit for whoever succeeds. "If you lose your space edge," Tyson said during his interview with Zakaria, "my deep concern is that you lose everything else about society that enables you to compete economically."

#### sSpace col key to innovation

West 20 Darrell M. West, 8-18-2020, "Five reasons to explore Mars," Brookings, <https://www.brookings.edu/blog/techtank/2020/08/18/five-reasons-to-explore-mars/> TDI

The recent launch of the Mars rover Perseverance is the latest U.S. space mission seeking to understand our solar system. Its [expected arrival at the Red Planet in mid-February](https://www.nytimes.com/2020/07/30/science/nasa-mars-launch.html) 2021 has a number of objectives linked to science and innovation. The rover is equipped with sophisticated instruments designed to search for the remains of ancient microbial life, take pictures and videos of rocks, drill for soil and rock samples, and use a small helicopter to fly around the [Jezero Crater landing spot](https://mars.nasa.gov/resources/22474/jezero-crater-mars-2020s-landing-site/). Mars is a valuable place for exploration because it can be reached in 6 ½ months, is a major opportunity for scientific exploration, and has been mapped and studied for several decades. The mission represents the first step in a long-term effort to bring Martian samples back to Earth, where they can be analyzed for residues of microbial life. Beyond the study of life itself, there are a number of different benefits of Mars exploration. UNDERSTAND THE ORIGINS AND UBIQUITY OF LIFE The site where Perseverance is expected to land is the place where experts believe 3.5 billion years ago held a lake filled with water and flowing rivers. It is an ideal place to search for the residues of microbial life, test new technologies, and lay the groundwork for human exploration down the road. The mission plans to investigate whether microbial life existed on Mars billions of years ago and therefore that life is not unique to Planet Earth. As noted by Chris McKay, a research scientist at NASA’s Ames Research Science Center, that would be an extraordinary discovery. “Right here in our solar system, [if life started twice](https://www.space.com/9329-earth-unique-life-common-universe.html), that tells us some amazing things about our universe,” he pointed out. “It means the universe is full of life. Life becomes a natural feature of the universe, not just a quirk of this odd little planet around this star.” The question of the origins of life and its ubiquity around the universe is central to science, religion, and philosophy. For much of our existence, humans have assumed that even primitive life was unique to Planet Earth and not present in the rest of the solar system, let alone the universe. We have constructed elaborate religious and philosophical narratives around this assumption and built our identity along the notion that life is unique to Earth. If, as many scientists expect, future space missions cast doubt on that assumption or outright disprove it by finding remnants of microbial life on other planets, it will be both invigorating and illusion-shattering. It will force humans to confront their own myths and consider alternative narratives about the universe and the place of Earth in the overall scheme of things. As noted in my Brookings book, [Megachange](https://www.brookings.edu/book/megachange-economic-disruption-political-upheaval-and-social-strife-in-the-21st-century/), given the centrality of these issues for fundamental questions about human existence and the meaning of life, it would represent a far-reaching shift in existing human paradigms. As argued by scientist McKay, discovering evidence of ancient microbial life on Mars would lead experts to conclude that life likely is ubiquitous around the universe and not limited to Planet Earth. Humans would have to construct new theories about ourselves and our place in the universe. DEVELOP NEW TECHNOLOGIES The U.S. space program has been an extraordinary [catalyst for technology innovation](https://www.jpl.nasa.gov/infographics/infographic.view.php?id=11358). Everything from Global Positioning Systems and medical diagnostic tools to wireless technology and camera phones owe at least part of their creation to the space program. Space exploration required the National Aeronautics and Space Administration to learn how to communicate across wide distances, develop precise navigational tools, store, transmit, and process large amounts of data, deal with health issues through digital imaging and telemedicine, and develop collaborative tools that link scientists around the world. The space program has pioneered the miniaturization of scientific equipment and helped engineers figure out how to land and maneuver a rover from millions of miles away. Going to Mars requires similar inventiveness. Scientists have had to figure out how to search for life in ancient rocks, drill for rock samples, take high resolution videos, develop flying machines in a place with gravity that is 40 percent lower than on Earth, send detailed information back to Earth in a timely manner, and take off from another planet. In the future, we should expect large payoffs in commercial developments from Mars exploration and advances that bring new conveniences and inventions to people. ENCOURAGE SPACE TOURISM In the not too distant future, wealthy tourists likely will take trips around the Earth, visit space stations, orbit the Moon, and perhaps even take trips around Mars. For a substantial fee, they can experience weightlessness, take in the views of the entire planet, see the stars from outside the Earth’s atmosphere, and witness the wonders of other celestial bodies. The Mars program will help with space tourism by improving engineering expertise with space docking, launches, and reentry and providing additional experience about the impact of space travel on the human body. Figuring out how weightlessness and low gravity situations alter human performance and how space radiation affects people represent just a couple areas where there are likely to be positive by-products for future travel. The advent of space tourism will [broaden human horizons](https://unitedearth.us/religion-and-spirituality/does-seeing-earth-from-space-alter-your-perspective/) in the same way international travel has exposed people to other lands and perspectives. It will show them that the Earth has a delicate ecosystem that deserves protecting and why it is important for people of differing countries to work together to solve global problems. Astronauts who have had this experience say it has altered their viewpoints and had a profound impact on their way of thinking. FACILITATE SPACE MINING Many objects around the solar system are made of similar minerals and chemical compounds that exist on Earth. That means that some asteroids, moons, and planets could be rich in minerals and rare elements. Figuring out how to [harvest those materials](https://www.sciencefocus.com/space/space-mining-the-new-goldrush/) in a safe and responsible manner and bring them back to Earth represents a possible benefit of space exploration. Elements that are rare on Earth may exist elsewhere, and that could open new avenues for manufacturing, product design, and resource distribution. This mission could help resource utilization through advances gained with its Mars Oxygen Experiment (MOXIE) equipment that converts Martian carbon dioxide into oxygen. If MOXIE works as intended, it would help humans live and work on the Red Planet. ADVANCE SCIENCE One of the most crucial features of humanity is our curiosity about the life, the universe, and how things operate. Exploring space provides a means to satisfy our thirst for knowledge and improve our understanding of ourselves and our place in the universe. Space travel already has exploded centuries-old myths and promises to continue to confront our long-held assumptions about who we are and where we come from. The next decade promises to be an exciting period as scientists mine new data from space telescopes, space travel, and robotic exploration. Ten or twenty years from now, we may have [answers to basic questions](https://www.brookings.edu/book/turning-point/) that have eluded humans for centuries, such as how ubiquitous life is outside of Earth, whether it is possible for humans to survive on other planets, and how planets evolve over time.