

SYNTHESE1

① So-called overtourism has become a major concern in many popular places, especially since the end of the Covid-19 Pandemic. ② This is scrutinized¹ in an article from The New York Times published in January 2025, a graph and a 2024 article, both from the Economist, and an undated picture illustrating tensions between tourists and local residents. ③ The documents raise the question of whether it is possible to control overtourism without jeopardizing² the economic advantages it provides.

SYNTHESE2

The recent expansion of facial recognition in Britain has sparked intense debate. Such is the issue addressed in this corpus – three 2023 articles respectively published in *The Economist* (Doc1), *The Conversation* (Doc2), and *The Guardian* (Doc3), and a 2019 cartoon by Steve Greenberg (Doc4). As facial recognition seems set to become ubiquitous in public places, is it realistic to seek a balance between safety and liberty?

SYNTHESE3


The falsification and fabrication of scientific results are becoming alarmingly common. This is the subject of these documents published in 2023 – an article from *Science* (Document1) about the rise of journal retractions, a *Guardian* article (Document 2) dealing with the scope of scientific fraud, one from *The Sydney Morning Herald* (Document 3) focusing on how scientists can combat fraud, and two charts from *The Economist* (Document 4) illustrating the rise in retracted biomedical papers. In view of its multifaceted nature and various causes, to what extent can scientific fraud be curbed?

≠ ~~Fist I will wonder...., then we will see...~~


¹ To scrutinize = examiner

² To jeopardize /'dʒepədaɪz/ = menacer / compromettre


- When can I use “~~Also,...~~” to start a sentence?

	OK ✓	NOT OK ✗
Oral test / Khôlle		
Q1 / Mines		
Q2 / Mines (Essay)		
Synthèse		
Opinion Piece (X-ENS)		

- When can I use the phrase “~~We will study...~~” in an introduction?

	OK ✓	NOT OK ✗
Oral test / Khôlle		
Q1 / Mines		
Q2 / Mines (Essay)		
Synthèse		
Opinion Piece (X-ENS)		

- When can I use “~~We have to ...~~” or “~~People must ...~~” in a conclusion?

	OK ✓	NOT OK ✗
Oral test / Khôlle		
Q1 / Mines		
Q2 / Mines (Essay)		
Synthèse		
Opinion Piece (X-ENS)		

The question of human settlement on Mars is, for many people, not “if” but “when”. Elon Musk’s SpaceX company began speaking of the Mars Colonial Transporter around 2012. Its latest incarnation, the prototype for a massive spaceship called Starship that can house up to 100 passengers and crew, took off from Texas in April but exploded before reaching Earth’s orbit. Whether that counts as a success or not depends on who you ask, but it testifies to Musk’s determination to see a human presence on Mars in the next decade.

His view that colonising the cosmos is humankind’s ultimate and inevitable destiny is widely shared. The moon, lacking an atmosphere, short on water, and with weak gravity, is not a very attractive stepping stone, but Mars has none of those drawbacks and is considered a much more viable place to build the first off-world settlement. “Once the exclusive province of science fiction stories and films,” according to Nasa, “the subject of space colonisation has rapidly moved several steps closer to becoming a reality thanks to major advances in rocket propulsion and design, astronautics and astrophysics, robotics and medicine.”

Why, though, should we wish to dwell on a world that lacks what we need to survive? There’s a dismaying irrationality in the answers. Stephen Hawking claimed that “spreading out [into space] may be the only thing that saves us from ourselves” – from the threat of human-made catastrophes such as the climate crisis or nuclear war. Well, lord knows the world has problems, but supposing they can be solved anywhere other than Earth is an escapist fantasy; Nasa’s claim that “the urgency to establish humanity as a multiplanet species has been re-validated by the emergence of a worldwide pandemic” borders on misinformation.

The timescales just don’t add up. Climate change either will or won’t become an existential risk well before it’s realistic to imagine a self-sustaining Martian settlement of millions: we’re talking a century or more. Speculating about nuclear war post-2123 is science fiction. So the old environmentalist cliché is right: there is no Planet B, and to suggest otherwise risks lessening the urgency of preserving Planet A. As for the threat of a civilisation-ending meteorite impact: one that big is expected only every several million years, so it’s safe to say there are more urgent worries. The sun going out? Sure, in 5bn years, and if you think there will still be humans then, you don’t understand evolution.

For some, the justification for planetary settlement is not existential fear but our innate drive to explore. But at least “Because it would be cool” is an honest answer to the question: “Why go?”

So let’s go with that, and assume something like Musk’s big fat rocket can get us there. What might life in Mars City be like? Advocates for off-world colonies love to show images like those in the physicist and space activist Gerard O’Neill’s 1977 book *The High Frontier: Human Colonies in Space* – an orderly, utopian American suburbia of chic apartments and parks, simply transplanted elsewhere in the solar system. Science fiction, on the other hand, is full of grim outposts on bleak, frozen planets, and savage prison or mining colonies. If history is any guide, frontier settlements are no picnic, and certainly not the kind of places that nurture harmonious, tolerant societies. If you want to know what to expect from colonies established by “billionauts” such as Musk or Jeff Bezos, perhaps ask their employees in Amazon warehouses or the Twitter offices. Many advocates for space settlement are “neoliberal techno-utopians”, says the astrophysicist Erika Nesvold, who sell it on a libertarian ticket as an escape from the pesky regulation of governments.

The space industry doesn’t talk much about such things. As Nesvold discovered when she began quizzing commercial space companies in 2016, ethical questions such as human rights or environmental protection in space typically meet with a response of “we’ll worry about that later”. The idea is to get there first.

If the notion of a “colonial transporter” gave you a twinge of unease, you’re not alone. Associations of space exploration with colonialism have existed ever since it was first mooted in the 17th century. Some advocates ridicule the comparison: there are surely no indigenous people to witness the arrival of the first crewed spaceships on Mars. But the analogy gets stronger when thinking about how commercial incentives might distort rights afforded to the settlers (Musk has floated the idea of loans to get to Mars City being paid off by work on arrival). And if the argument is that these settlements would exist to save us from catastrophe on Earth, the question of who gets to go becomes more acute. So far it has been the rich and famous.

Planetary scientists are often among the least enthusiastic about space settlements. It’s not surprising really – you may as well ask ecologists if we should build cities in the Amazon. But whether you think we should preserve

Mars for scientific study or try to “terraform” it to give it a breathable atmosphere and a warmer climate, it would be best to have that debate before we arrive.

Elon Musk, Mars and the Modern Economy , June 7, 2022 | *The New York Times* | By Paul Krugman | **Opinion Columnist** /'kɒləm(n)ɪst/

Elon Musk is clearly having a moment; he's trying to back out of his deal to buy Twitter, but he probably can't without paying billions in damages. Perhaps that's why he's thinking about zooming off to Mars?

OK, I'm being unfair. (Am I about to receive a poop emoji?) While Musk's decision to talk up a scheme to send a million colonists /'kɒlənɪsts/ to Mars may reflect a desire to change the subject, his plan calls for doing so by 2050 — and he has been talking about that idea for years.

Still, the Mars talk caught my attention, largely because of the line about one million people.

What's your reaction to that number? Does it seem absurdly high? In terms of the logistics of actually getting people to Mars, it probably is. But my original home field in economics was international trade. And if you know anything about trade, or for that matter the realities of industry, you realize that one million is actually an absurdly low number of people — far too few to support a modern economy.

Let's instead treat the SpaceX chief's Mars fantasies as a teachable moment — a chance to talk about the economics of globalization more generally.

Musk's comments immediately called to mind for me a great essay by one of my favorite science fiction writers, Charlie Stross, that posed precisely this question: "What is the minimum number of people you need in order to maintain (not necessarily to extend) our current level of technological civilization?"

Stross's answer was that given the complexity of modern society, you'd need a lot of people. In fact, writing back in 2010, he explained how Musk's current plan is thinking far too small: "Colonizing Mars might well be practical, but only if we can start out by plonking a hundred million people down there." I agree — if anything, that's on the low side. To understand why, you need to think about why nations engage in international trade.

One reason is that countries have different resources and climates: It's hard to grow pineapples in Norway. But another reason is that in the modern world there are often huge economies of scale in production. These economies of scale make it efficient to supply the entire world market for some goods from only a handful of locations — sometimes just a single location — with international trade delivering those goods to customers in other countries.

For example, a recent shortage of semiconductor chips — which seems, finally, to be easing — has drawn attention to the role of photolithography machines, which use light to etch microscopic circuits on silicon wafers. The world market for these it turns out, is dominated by a single firm in the Netherlands, ASML, which has a complete monopoly on the latest generation of machines, which use extreme ultraviolet light to make circuits even more microscopic.

So how many factories does ASML have assembling these cutting-edge machines? One.

These economies of scale mean that no one country can reasonably produce the full range of goods required to operate a modern, high-technology economy. International trade is essential, and more essential the smaller the economy — which is why Canada is far more dependent on imports than the United States, Belgium far more dependent than Germany, and so on.

Now, given access to world markets, even small countries can have full access to the benefits of modern technology; life in Luxembourg is pretty good. But the realities of transportation costs mean that Musk's hypothetical Mars colony would have to be largely self-sufficient, cut off from the rest of the solar system economy. And it wouldn't have enough people to pull that off with anything like a modern standard of living.

As I said, I see Musk on Mars as a teachable moment, an unintended thought experiment that helps remind us of the positive aspects of international trade. Yes, there are downsides to globalization, especially to rapid change that can disrupt whole communities. But you really wouldn't want to live in a world without extensive international

trade. And you really, really wouldn't want to live on another planet, cut off from the globalization we've created on this one.

The Musk superfans who want to live on Mars with Elon, Apr 21st 2023 | By Charlie McCann | 1843 Magazine

A hush fell over the crowd that had assembled less than four miles from the launchpad. In the distance stood the Starship. Some 120-metres tall – larger than the Statue of Liberty –, **the Starship** is the largest, most powerful rocket ever built, and in 60 seconds SpaceX would, for the first time, attempt to vault it into the sky. **The rocket is intended one day to convey cargo and human passengers to Mars, the colonisation of which is Elon Musk's great ambition.** The success of this test flight would bring Musk, the CEO of SpaceX, one step closer to inaugurating a new space age.

As the countdown neared zero, Galen Matson, a long-term resident of the ranch³, watched the plumes of cryogenic fuels curl out of the engines. “I’ve got goosebumps,” he said. “I’ve been waiting so long for this. I really might cry.”

Given the seeming success of this test, how soon might we expect to make landfall on Mars? Matson reckoned it would take as little as seven, maybe ten years. He longs to go to Mars himself. On that morning as he watched the invader ascend into the clouds, his fantasy sidled a little further into the realm of possibility. **It did not matter that, a few minutes later, the Starship exploded.**

The ranch is “a mecca for really committed space dorks”, said Matson. On the window sill stands a votive candle, with a picture of **a beatific Musk wrapped around it. Musk deserves such a display of devotion** because, as a Rocket Ranch Facebook post said, he “has done more to carry us through the open window” – to bring humans to space – “than any other person in our history”.

I quickly came to realise that people’s feelings about Musk were bound up with their feelings about travel to Mars. Musk, unlike NASA, is serious about settling Mars. **His use of reusable rockets is drastically reducing the cost of space missions. That might bring down the cost** of settling Mars from prohibitively expensive to just insanely expensive (without accounting for trivialities like the lack of a breathable atmosphere).

A startlingly high number of people with whom I spoke did not simply want to move to the red planet. They wanted to be among the first to go, even if the rigours of life there meant “that I would go and die in a month”, said John McCorquodale, a nomadic electrical engineer.

Underlying this yearning is a deep pessimism **about humanity’s future on Earth. Many think a catastrophe will strike at some point, wiping out Homo sapiens.** It is not clear what shape this calamity might take – climate change, an asteroid, a world war – but what is certain is that it is coming. Earth is overdue for a collision with a **“planet-killer asteroid”**, said Felix Schlang, a YouTuber. Harper, the executive-development coach who had been living at the ranch for the past two months, argued – citing Musk himself – that the catastrophe could be coming soon, making interplanetary travel an urgent priority. “The window may be very narrow.”

Several ranchers I spoke with referred to Musk’s master plan, the idea that all his businesses, or most of them, are intended to support the mission to colonise Mars (Musk himself has not claimed this). To avoid the punishing radiation on Mars’s surface, for instance, **humans could live in underground tunnels carved by the giant drills of the Boring Company, one of Musk’s other ventures.** The only source of power on Mars will be electricity; the vehicles could therefore all be Teslas. Happily, some of these companies’ products might solve problems on Earth, but according to this rationale, that is not their primary purpose.

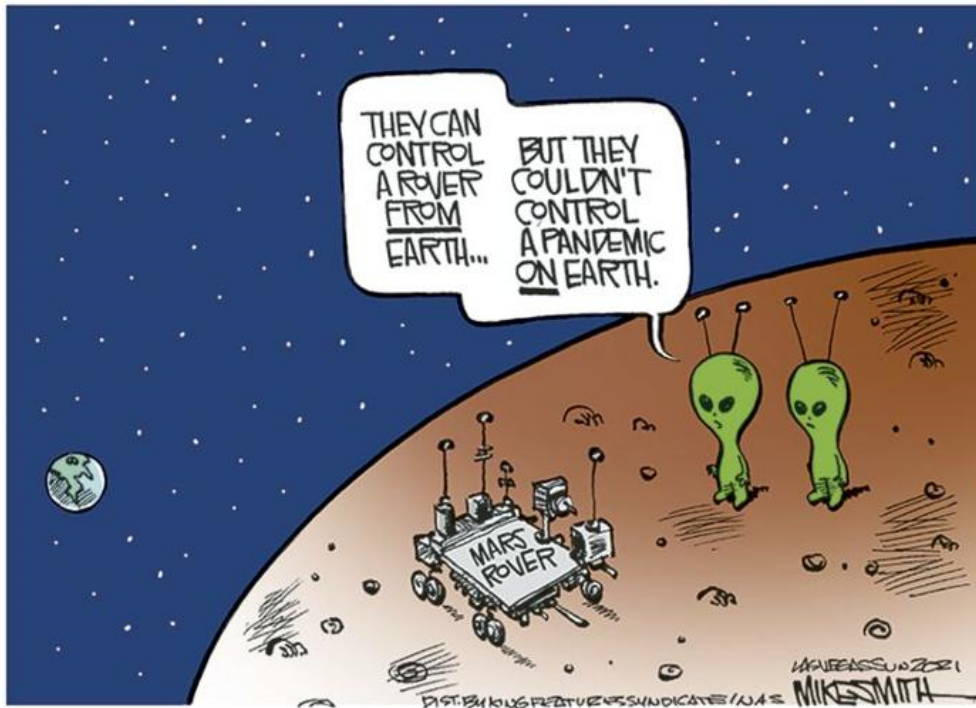
The successful launch of the Starship (before it exploded) meant for Musk’s most ardent acolytes that, all of a sudden, Mars may be within reach. For that, and for other accomplishments, Musk is widely praised by ranchers. Their admiration sometimes borders on veneration. At the outpost, I met Praveen, an Indian engineer and college student, who drove for 22 hours from his university in Georgia to catch the Starship. “Musk is almost like a demi-god,” he said.

But I also detected some rumblings of ambivalence. When I asked the Rocket Ranch crowd what they thought of Musk, a minority, but a substantial one, responded with a “hmm”, or at least an acknowledgment that he was

³ The ranch = a viewing area and campsite for space enthusiasts near the launch site (owned by Rocket Ranch)

controversial. Many people did not understand why he bought Twitter last October; it was not obvious how it furthered the project of colonising Mars.

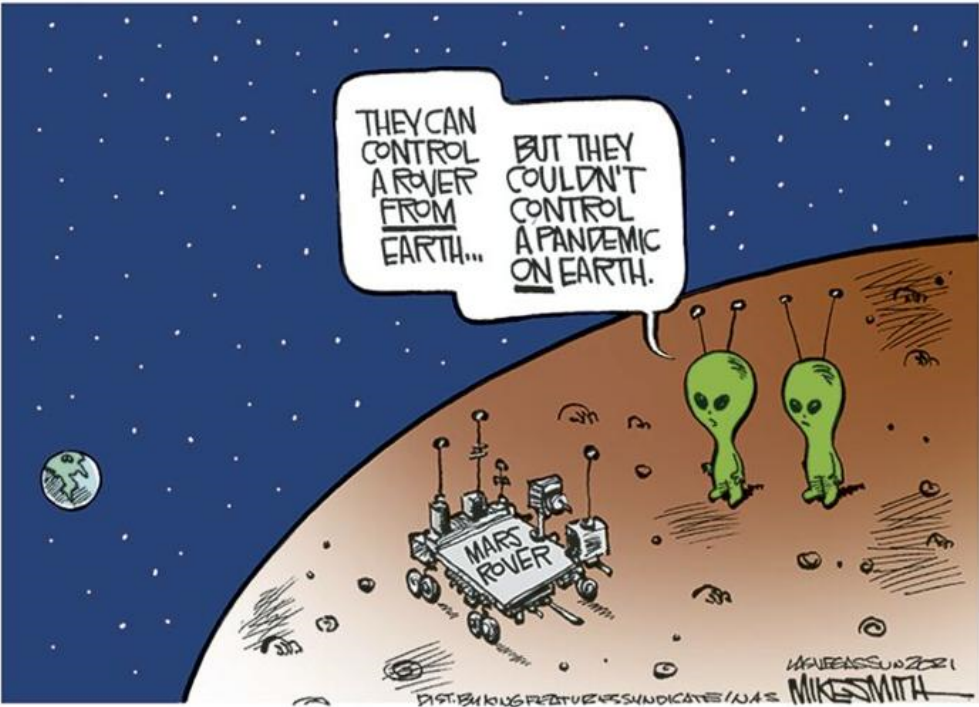
Musk's Twitter antics have, at least for some, pierced an aura of infallibility that had enveloped him. According to McCorquodale many fans believed that when Mars was colonised, **"Musk would be king"**, because he seemed to possess superhuman levels of intelligence and focus that he was using to save humanity. But the acquisition of Twitter was "a giant error", McCorquodale said. The saga taught McCorquodale that the visionary he revered was **"just a dude"**.



A picture of Mike Smith :



A cartoon by Mike Smith



TITLE

The colonization of Mars

The dream of colonizing Mars

"The Contested Justification of Colonizing Mars"

"Mars Colonization: An Ambitious but Impracticable Endeavor?"

Introduction / First sentence :

~~For a few years, space exploration has become a reality.~~

~~With the advent of science,...~~

~~In 1969, N Armstrong set foot on the Moon~~ 🤔

In recent years, Elon Musk has been spending a lot of time and money trying to take humans to Mars. ✓

KEY QUESTION

~~Is it a good idea~~ to colonize Mars ?

Can humans colonize Mars ? 😞

Is it realistic to try to colonize Mars?

Is it achievable and worthwhile ?

Is it realistic and necessary?

Is it reasonable and reliable ?

Is it realistic to try to colonize Mars?

Is it achievable and worthwhile ?

Is it realistic and necessary?

Is it reasonable and reliable ?

→ How realistic and necessary is it?

→ How feasible and desirable is it?

→ To what extent can, and should, humans settle on Mars?

The documents beg the question of whether, if possible, humans should colonize Mars. ✓

PLAN:

1- Why go to Mars

2- Technical issues

3- Ethical issues

Conclusion / Phrase conclusive

- DOIT ETRE COURTE
- Pas de conclusion personnelle
- Conclusion que l'on tire **des quatre documents** (y faire référence)
- **Eviter les modaux**: ~~*we must, *governments should, *~~
~~humans have to...~~
- **Finir sur une idée**

They are all the more hopeful since the missions are less expensive thanks to reusable rockets. 🤔

While Elon Musk's dream seems to be becoming a reality thanks to science, **the four documents concur** that there is more hope for humanity in focusing on a future on Earth. ✓

The four documents concur that humans _____ better focus on a future on Earth. ✓

The questionable relevance of colonizing Mars

In recent years, space colonization has seemed increasingly close to reality, **not least thanks to**⁴ billionaires like Elon Musk. An 1843 Magazine feature article describing the launch of SpaceX's Starship in April 2023, highlights the boundless enthusiasm of the would-be Mars travelers. However, alongside a cartoon, published in the Las Vegas Sun in 2021, which depicts two aliens deriding such endeavors, a 2023 Guardian op-ed and a 2022 New York Times editorial both dismiss the Mars project as unrealistic. Consequently, however ambitious it may be, how desirable is this colonization plan, given its inherent impracticalities and the ethical issues it raises?

⁴ Not least thanks to ...= Notamment grâce à ...

All documents suggest that what has long been a sci-fi dream is now within reach. Mars fanatics, quoted in The Guardian and 1843 Magazine, **vindicate**⁵ the necessity to desert planet Earth either because it is doomed by climate change, pandemics, wars or because modern societies need rebooting. As pictured in the cartoon, the successful landing of a rover on Mars in 2021 was an early breakthrough, which according to NASA, quoted in the Guardian, has triggered unabated advances in space-related scientific fields ever since. All articles concur on the key part played by Elon Musk's longstanding determination to colonize Mars. Although SpaceX's Starship exploded, the April 2023 launch is thus a **harbinger**⁶ of **success** for Musk fans.

⁵ To vindicate =

⁶ A harbinger of ... /'hɑ:bɪn(d)ʒə/ = Un signe avant-coureur

Yet settling on Mars remains a technical **conundrum**⁷. Surviving there in the long term is currently unthinkable, as pinpointed in 1843 Magazine. The Guardian adds that it will take at least a century before an actual colony is established there. But there is more. Even though 1843 Magazine reports that SpaceX's reusable rockets are purportedly cost-effective, The New York Times demonstrates that the project is economically unsustainable. Indeed, to maintain the current high standards of living on Mars, self-reliance would be required, but it remains hardly possible, unless at least a hundred million people could be sent up there.

⁷ A conundrum = Un problème insoluble / Une énigme

Beyond the technicalities, settling on Mars chiefly raises ethical issues. Debunking Musk's impending end-of-the-world scenarios as **bogus**⁸, The Guardian **construes**⁹ the plan as the escapist **whim**¹⁰ of a privileged few. While The New York Times **lionizes**¹¹ globalization, The Guardian warns against Musk's **unpalatable**¹² colonialist stance, especially since his fortune relies on global HR management practices which he means to replicate on Mars. Even his staunchest supporters seem to be starting to doubt that his goal is really to save humanity, as shown in 1843 Magazine. The ETs in the cartoon thus **query**¹³ humanity's sense of priorities, contrasting our technological achievement with our utter failure at coping with Earth's problems.

The general skepticism in these documents therefore dictates a common-sense approach: humans had better focus on saving their own planet rather than trying to flee. (439 words)

⁸ Bogus =

⁹ To construe =

¹⁰ Whim =

¹¹ To lionize = aduler

¹² Unpalatable =

¹³ To query / 'kwɪəri/= questioner / mettre en doute

- **Avoiding weak adjectives.** Use a more precise word than 'good/bad/important'.

Going to Mars (**P30**) is a good way to ensure the future of humanity.

Humans would live in bad conditions.

He may be doing this for bad reasons.

It would be impossible to develop a good economic system.

Space research plays an important role in science.

It could have important consequences.

This research has led to important progress.

- **Fix the mistakes**

*Elon Musk, which goal is to colonize Mars...

P29

Traduire "Dont" → My grandmother, whose new husband is very nice, is happy again.

N30

Utiliser "Whose" → The ladies, whose umbrellas were too small, got rain-soaked.

* an other planet

* They can not survive in Mars

* To go on Mars

* To discuss about sth

*Musk expectations

*The last Musk's rocket

*The Musk's ambitions

*The most famous of these companies is the Musk's one

*A Stephen Hawking's sentence

*The biggest Elon Musk's project