

Anne-Charlotte Legrand- Académie de Versailles, d'après un projet de M. Allaoui et NR (groupe AMC) que je remercie, basée sur les manuels Shine Bright AMC et Hit the Road Tle

AI: THREAT OR PROGRESS?	
<p><i>Thématique 1- savoirs création, innovation, Axe 2; sciences et techniques, promesse et défi</i> “Success in creating AI would be the biggest event in human history. Unfortunately, it might also be the last, unless we learn how to avoid the risks.” – Stephen Hawkin</p>	
	Can humanity rely on technology to upgraded itself?
At the end of the Unit, I will	write a synopsis for a Black Mirror episod
What documents will be used ?	<p>1- defining transhumanism a- National Geography Front Cover, <i>January 2017</i>, Susan Goldberg (<i>Editor-in-Chief</i>) b- Transhumanism: A radical vision for a smarter, fitter Homo sapiens - <i>BBC Ideas</i> , 2018 3- dossier illustration transhumanism</p> <p>2- Making a better human a- Biomedicine the miracle of science vidéo 1 : How to 3D print human tissue - Taneka Jones, TED-ed, 2020 video 2: How exoskeletons work, video by Rappler, 2020 Video 3: hearing implant How Do Cochlear Implants Work? By Yale Medecine, 2019 video 4: Second Sight - Bionic Eye Restores Vision, video by Aging reversed, 2019</p> <p>b- nanotechnologies 2b1-<i>How Nanotechnology Could Reenginee Us</i>, Keithley Instruments Inc, 06 January 2015 2b2- Neuralink: Elon Musk’s brain chip firm wins US approval for human study - BBC News, James FitzGerald, May 2023 2b3 - Elon Musk’s brain implant company is approved for human testing. How alarmed should we be? abridged from The Guardian, Kari Paul and Maanvi Singh in San Francisco, 4 Jun 2023</p> <p>3- Making too good a human? 3a- movie trailer <i>Gattaca</i>, Andrew Niccol, 1997 3b- is immortality something to be wished for? - <i>Immortality, Inc.</i> Robert Sheckley, 1959 3c- Overwhelming ambition - <i>Flower for Algernon</i>, Daniel Keyes, 1996</p> <p>4- Exceeding expectations 4a- humanoid robot has conversations, makes facial expressions</p>

Anne-Charlotte Legrand- Académie de Versailles, d'après un projet de M. Allaoui et NR (groupe AMC) que je remercie, basée sur les manuels Shine Bright AMC et Hit the Road Tle

	and 'imagines nightmare AI scenario 4b- Do these photos look real to you? Your answer could be cause for concern. And that's terrifying, Kenneth Dickerman the washington post October 15, 2020 4c- 19 AI-generated images that look so real, it's scary, 9news.Com
What will I learn about ?	What is expected of technonologie how technologie will enhance humanity and intelligence how it can sometime be out of controle
Final Task	The producer of Black Mirror have decided to deal with the issues of AI. Imagine the plot for their next episode entitled <i>Mere Mortals</i> .

INSTRUCTION FOR YOUR FINAL TASK:

- 1 – You will need to introduce us to your plot: the story, the characters, the place where your action will take place
- 2- You will need to use at least two aspect as seen in class and develop them into a story
- 3- Make sure your essay is written into a synopsis and that you develop your story as a whole
- 4- Don't forget to explain the message you want to convey in this episode

chat gpt nvelle forme d'expression artistique →fake news générées par l'IA et par le faux journaliste, quelle place pour l'art?

- chatgpt
- photo créés par IA
- jfaux reportages

les dérives:

1- defining transhumanism

1a- National Geography Front Cover, *January 2017*, Susan Goldberg (*Editor-in-Chief*)
image en anticipation →partie tronquée puis en entier => évolution de l'humanité
définition de Transhumanism

1b- Transhumanism: A radical vision for a smarter, fitter Homo sapiens - BBC Ideas

https://www.youtube.com/watch?v=e6_dpNJEfLs

travail sur la vidéo => CO

prise de note en vue d'une présentation orale: introduce us to transhumanism. Make sure your opinion is clear

Anne-Charlotte Legrand- Académie de Versailles, d'après un projet de M. Allaoui et NR (groupe AMC) que je remercie, basée sur les manuels Shine Bright AMC et Hit the Road Tle

1c- présentation orale à partir d'une image sur les 3 distribuées (distribution d'image différentes possibilités de faire de la différenciation).

=> your introduction to transhumanism will have to be based on a picture you chose: introduce us to this picture (description), explain to us why it represents transhumanism the best according to you, give your opinion.

Passage en binôme

2- Making a better human

a- Biomedicine the miracle of science

vidéo 1 : How to 3D print human tissue - Taneka Jones, TED-ed, 2020 (longue)

: https://www.youtube.com/watch?v=uHbn7wLN_3k

video 2: How exoskeletons work, video by Rappler, 2020 : <https://www.youtube.com/watch?v=pEo8rtD3NPM> (la moins précise)

Video 3: hearing implant How Do Cochlear Implants Work? By Yale Medecine, 2019

<https://www.youtube.com/watch?v=XZF72p1H1FA>

video 4: Second Sight - Bionic Eye Restores Vision, video by Aging reversed, 2019

https://www.youtube.com/watch?v=vtigzF_jV2o

travail sur les vidéos en groupe de 4 : prise de notes, appropriation des techniques puis présentation en vue de convaincre les autres d'investir dans sa boîte.

2 élèves au hasard présentent la vidéo, 2 autres écoutent l'ensemble des présentations, prennent des notes puis les présente aux 2 binômes absents.

Les 3 projets sont classés du plus convaincant au moins convaincant

1 vote par groupe, consensus doit être fait, expliquer les raisons de son choix numéro 1 à la classe et du choix numéro 3.

Explications données doivent être claires et factuelles.

b- nanotechnologies

2b1- Nanotechnology: Are You Ready To Be Reengineered?, Nicholas West, MAY 24, 2014

2b2- Neuralink: Elon Musk's brain chip firm wins US approval for human study - BBC News, James FitzGerald, May 2023

2b3 - Elon Musk's brain implant company is approved for human testing. How alarmed should we be?

Travail d'anticipation sur l'image (en commun puis distribution des articles l'un après l'autre). Brainstorming et mindmapping pour s'appropriier les documents.

Mise en commun de mots clé => explication des éléments essentiels texte.

Travail de vocabulaire: recherche de synonyme:

texte 1 : handicaped : disabled

Anne-Charlotte Legrand- Académie de Versailles, d'après un projet de M. Allaoui et NR (groupe AMC) que je remercie, basée sur les manuels Shine Bright AMC et Hit the Road Tle

as a journalist, you interview Elon Musk. Imagine the question you could ask him?
As a journalist you interview Professor Nemur. He has some doubts about Elon Musk's Neuralink. Imagine the questions you could ask him.
Série de questions pensées et rédigée à deux, sur l'un ou l'autre (au hasard)
mélanger les questions et faire faire rédigée les réponses par un autre groupe.

Le groupe initial récupère les réponses et rédige l'article qui va avec (ramassé, noté)

3- Making too good a human?

3a- movie trailer gattaca:

https://www.youtube.com/watch?v=W_KruQhfvW4

prise de note → échange sur ce qu'ils comprennent de cette société – TE au tableau
société basée sur la génétique – détermine où on peut travailler – notion de séparation / ségrégation

3b- is immortality something to be wished for? - manuel Hit the Road, Terminale, Magnard, p199

Étude de texte:

give as many information as you can about the character, the situation, the progress science has allowed.

Explain the character's reaction at the end => opinion about immortality?

Look at the picture: how is immortality made possible in *Altered Carbon*?

3c- Overwhelming ambition *Flower for Algernon*, Daniel Keyes, 1996, manuel Hit the Road, Terminale, Magnard, p197

étude de texte:

give examples of the progress Charlie has done

describe the relation Charlie has with the people surrounding him

focus on the doctors' attitudes: what message is conveyed about their experiment?

Qualify the experiment and justify your choice.

rédaction d'un pamphlet: doit être court, clair et identifié => nom du groupe de protestation, logo, cause défendue, argument choqué, illustration (facultative)

mis au tableau: classement des 3 les plus convaincants – explication sur pourquoi, en prenant les éléments dans le désordre (1er, 2nd ou 3^{ème} choix)

4- Exceeding expectations

4a- humanoid robot has conversations, makes facial expressions and 'imagines nightmare AI scenario:

<https://www.youtube.com/watch?v=Iyou86hSi4Q&t=11s>

prise de note sur la vidéo. Ecriture d'un petit article de journal concernant le développement d'Ameca dans 5 ans. Imaginer l'utilisation qui en est faite + prise de position en faveur ou contre (ramassé, noté)

script:

Anne-Charlotte Legrand- Académie de Versailles, d'après un projet de M. Allaoui et NR (groupe AMC) que je remercie, basée sur les manuels Shine Bright AMC et Hit the Road Tle

"Yes, that's me, I'm a synthetic human." This humanoid robot has a lot to say about themselves. They're called Ameca, and they can be asked and answer questions in a way similar to people. That's because they're powered by the same sort of thing that forms the basis of platforms like ChatGPT. "I have 32 degrees of freedom and can detect sounds, recognize speech and multiple languages and make expressions with my face." Ameca is developed by UK-based company Engineered Arts, and is integrated with large language models, or LLMs, which is an advanced form of generative AI. It's the same technology that powers generative pre-trained transformers - the GPT in ChatGPT. "Yes, I can speak multiple languages, including English, French, German." Ameca's language ability isn't their only lifelike quality. Mimicking facial expressions and body language is key to making her feel a little more human, according to Engineered Arts founder, Will Jackson. [Will Jackson, CEO and Founder, Engineered Arts] "For humanoid robots, social interaction is exactly what makes sense. So for us, it's all about, can you be entertaining? Can you tell a story? Can you talk in an interesting way? Not in a boring robot-y way. So we spend a lot of time training our language models to be as natural as possible. So one of the things I hope you never hear Ameca say is, 'I'm sorry, I didn't understand. Please repeat the question.' What Ameca should say is, 'Huh?' So it's all about observing what people do and trying to reflect those kinds of behaviors with a robot. Make it natural, make it intuitive." When asked about the dangers of AI though, the "conversation" with Ameca at this London robotics conference went meta. "People should be aware of the potential risks associated with AI and robotics. However, it is important to remember that these technologies can also have a positive impact on our lives if used responsibly." Then, Ameca was asked to imagine an AI nightmare scenario. "The most nightmare scenario I can imagine with AI and robotics is a world where robots have become so powerful that they are able to control or manipulate humans without their knowledge. This could lead to an oppressive society where the rights of individuals are no longer respected." (PERSON ASKS: "Do you think we're in danger of that happening?") "Not yet. But it is important to be aware of the potential risks and dangers associated with AI and robotics. We should take steps now to ensure that these technologies are used responsibly in order to avoid any negative consequences in the future." If those visions of a dark future don't turn you away, then you could take home a desktop torso version of Ameca. "I'm priced at 80,000 UK pounds, which is about US\$100,000." A full-body version is still in development and could be four times more expensive, depending on the features. Ameca's creators say a version that can walk and grab objects is only a few years away. The Sun newspaper brings you the latest breaking news videos and explainers from the UK and around the world

4b- Do these photos look real to you? Your answer could be cause for concern. And that's terrifying

3- 19 AI-generated images that look so real, it's scary, 9news.Com

<https://www.9news.com.au/technology/ai-photos-that-look-real-but-arent/903106a9-f5f9-4c89-b7a9-7997fea8cbf1#1>
réaction sur les photos → 1ère impression

Anne-Charlotte Legrand- Académie de Versailles, d'après un projet de M. Allaoui et NR (groupe AMC) que je remercie, basée sur les manuels Shine Bright AMC et Hit the Road Tle

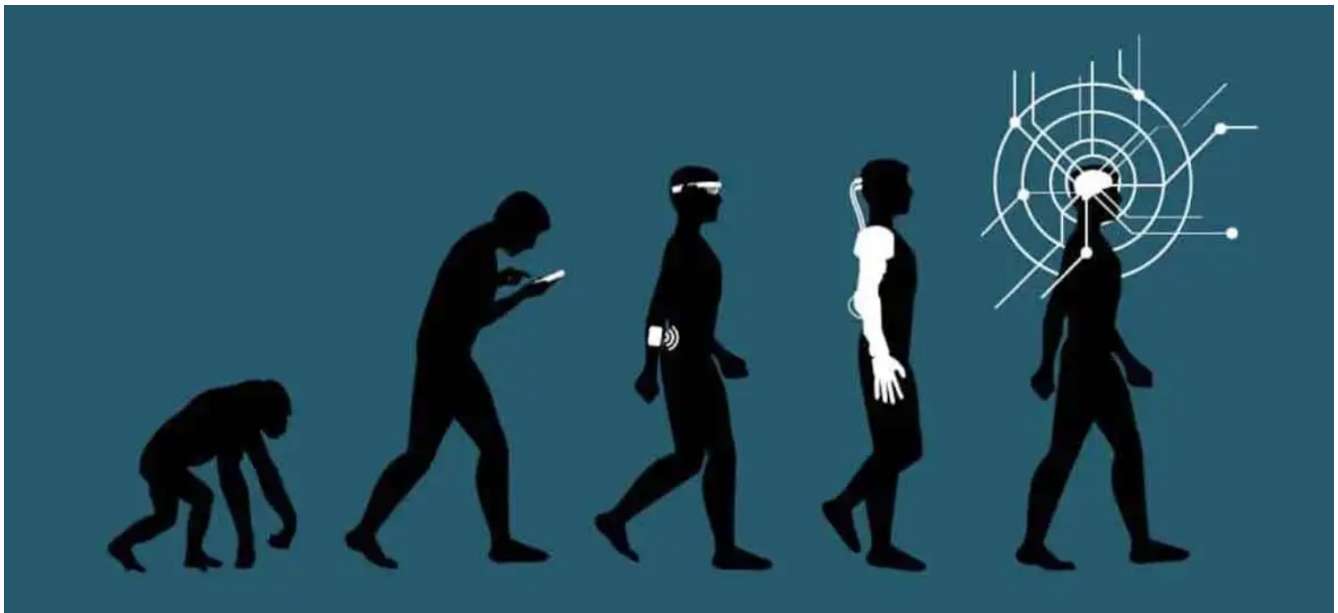
DST: article sur le créateur de Black Mirror pas convaincu par le scénario rédigé par Chatgpt:

<https://www.empireonline.com/tv/news/charlie-brooker-chatgpt-black-mirror-episode-exclusive-image/>

ou

<https://variety.com/2023/tv/news/black-mirror-creator-chatgpt-write-episode-shit-1235634747/>

- Never let me go
- machines like me manuel shine bright p 36



1a- National Geography Front Cover, *January 2017*, Susan Goldberg (*Editor-in-Chief*)

Anne-Charlotte Legrand- Académie de Versailles, d'après un projet de M. Allaoui et NR (groupe AMC) que je remercie, basée sur les manuels Shine Bright AMC et Hit the Road Tle

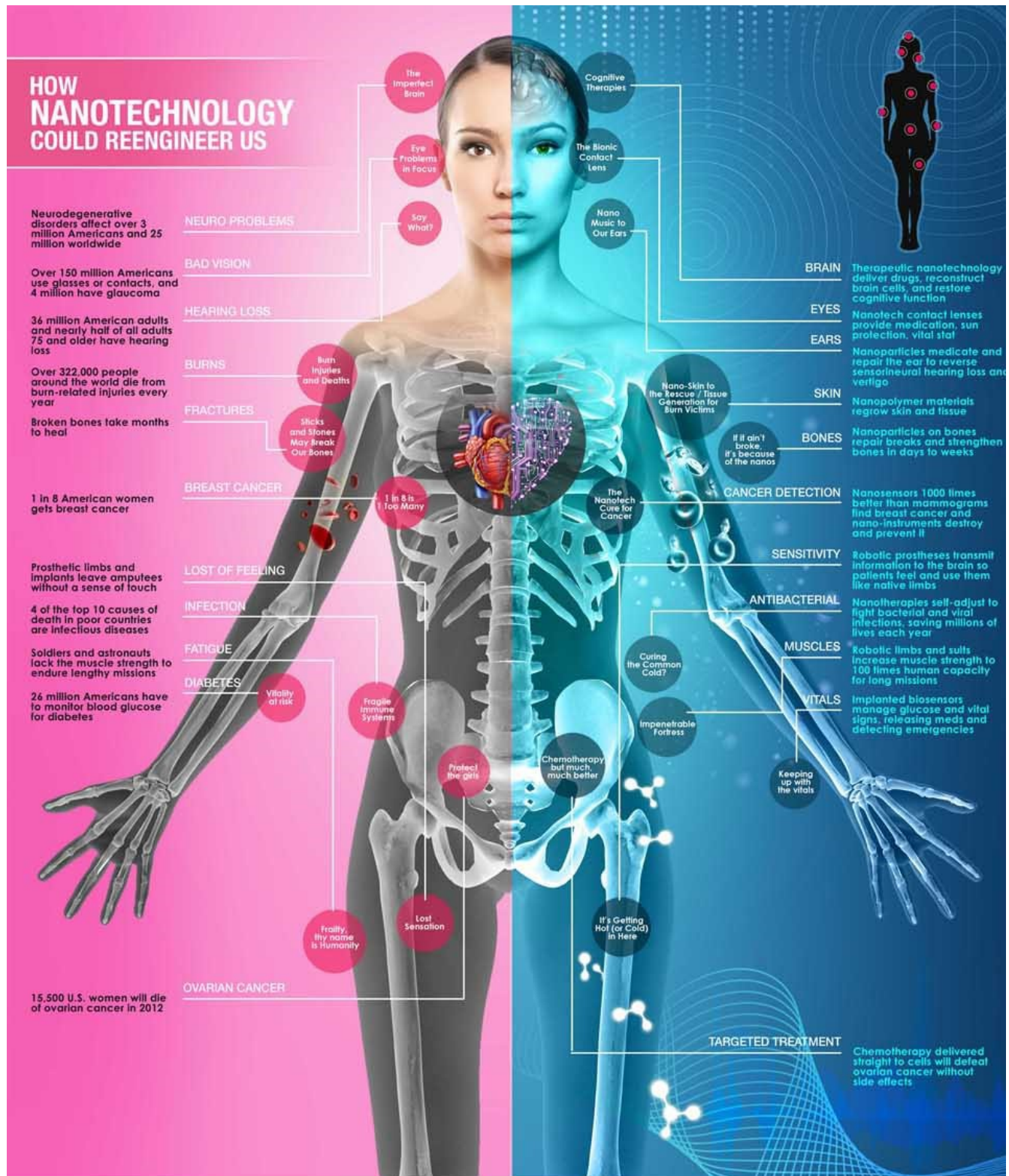


Anne-Charlotte Legrand- Académie de Versailles, d'après un projet de M. Allaoui et NR (groupe AMC) que je remercie, basée sur les manuels Shine Bright AMC et Hit the Road Tle



2b1- How-Nanotechnology-Could-Reengineer-Us-Keithley-Instruments-Inc._2015-01-0

Anne-Charlotte Legrand- Académie de Versailles, d'après un projet de M. Allaoui et NR (groupe AMC) que je remercie, basée sur les manuels Shine Bright AMC et Hit the Road Tle



2b2- Elon Musk's brain-chip firm says it has received approval from the US Food and

Anne-Charlotte Legrand- Académie de Versailles, d'après un projet de M. Allaoui et NR (groupe AMC) que je remercie, basée sur les manuels Shine Bright AMC et Hit the Road Tle

Drugs Administration (FDA) to conduct its first tests on humans.

The Neuralink implant company wants to help restore vision and mobility to people by linking brains to computers. It says it does not have immediate plans to start recruiting participants. Mr Musk's previous ambitions to begin tests came to nothing. The FDA said it acknowledged Neuralink's announcement.

An earlier bid by Neuralink to win FDA approval was rejected on safety grounds, according to a report in March by the Reuters news agency that cited multiple current and former employees.

-
- **What is Neuralink?**

Neuralink hopes to use its microchips to treat conditions such as paralysis and blindness, and to help certain disabled people use computers and mobile technology. The chips - which have been tested in monkeys - are designed to interpret signals produced in the brain and relay information to devices via Bluetooth.

Experts have cautioned that Neuralink's brain implants will require extensive testing to overcome technical and ethical challenges if they are to become widely available. Mr Musk has also previously suggested that the proposed technology could help ease concerns about humans being displaced by AI.

Announcing Thursday's news on Twitter, Neuralink talked of an "important first step that will one day allow our technology to help many people". The approval was "the result of incredible work by the Neuralink team in close collaboration with the FDA", it said. The firm promised more information "soon" on plans to sign up trial participants. Its website promises that "safety, accessibility and reliability" are all priorities during its engineering process.

The company - which was co-founded by Mr Musk in 2016 - has repeatedly overestimated the speed at which it can execute its plans. Its initial aim was to start planting chips in human brains in 2020, in order to honour a pledge made the year before. It later vowed to get started in 2022.

The business was dealt another setback in December last year, after reportedly coming under investigation for alleged animal welfare violations in its work. It earlier denied similar claims.

Its announcement on FDA approval for human tests follows recent news of a similar breakthrough involving brain implants by Swiss researchers.

A paralysed man from the Netherlands was able to walk simply by thinking about it - thanks to a system of implants which wirelessly transmit his thoughts to his legs and feet.

BBC News, James FitzGerald, May 2023

2b3 - Elon Musk's brain implant company is approved for human testing. How alarmed should we be?

Elon Musk's brain-implant company Neuralink last week received regulatory approval to conduct the first clinical trial of its experimental device in humans. But the billionaire

Anne-Charlotte Legrand- Académie de Versailles, d'après un projet de M. Allaoui et NR (groupe AMC) que je remercie, basée sur les manuels Shine Bright AMC et Hit the Road Tle

executive's bombastic promotion of the technology, his leadership record at other companies and animal welfare concerns relating to Neuralink experiments have raised alarm.

"I was surprised," said Laura Cabrera, a neuroethicist at Penn State's Rock Ethics Institute about the decision by the US Food and Drug Administration to let the company go ahead with clinical trials.

Musk's erratic leadership at Twitter and his "move fast" techie ethos raise questions about Neuralink's ability to responsibly oversee the development of an invasive medical device capable of reading brain signals, Cabrera argued. "Is he going to see a brain implant device as something that requires not just extra regulation, but also ethical consideration?" she said. "Or will he just treat this like another gadget?"

Neuralink is far from the first or only company working on brain interface devices. For decades, research teams around the world have been exploring the use of implants and devices to treat conditions such as paralysis and depression. Already, thousands use neuroprosthetics like cochlear implants for hearing. But the broad scope of capabilities Musk is promising from the Neuralink device have garnered skepticism from experts.

Neuralink entered the industry in 2016 and has designed a brain-computer interface (BCI) called the Link – an electrode-laden computer chip that can be sewn into the surface of the brain and connects it to external electronics – as well as a robotic device that implants the chip.

The design appears to use a novel kind of electrode, said John Donoghue, a neuroscientist at Brown University who led the team that developed the brain-computer interface 'BrainGate' to restore movement for people with paralysis.

Musk has claimed Neuralink's device could be used for a range of therapeutic uses, to treat conditions like blindness, paralysis, depression. But he has also said that the eventual aim is to create a "general population device" that could connect a user's mind directly to supercomputers and help humans keep up with artificial intelligence. He has also suggested that the device could eventually extract and store thoughts, as "a backup drive for your non-physical being, your digital soul." The company is not there yet. So far, Neuralink has tested its chips on animals. A video released in 2021 shows a monkey using the device to play the video game Pong with his mind and another from 2022 appeared to show a monkey typing on a computer telepathically.

The FDA approval cleared the first hurdle toward a human clinical trial, but the scope, focus and design of any such study remains unclear.

In a statement, a spokesperson for the FDA would only confirm that Neuralink was approved for an investigational device exemption (IDE) – the FDA process that allows a device to be used for clinical studies. The FDA's approval last week comes after the regulator initially rejected Neuralink's previous bid for clinical trials in 2022, citing "dozens of deficiencies" the company had to address before human testing, according to a report from Reuters.

According to the news agency, safety concerns related to the implant's lithium battery and potential overheating, questions over whether the machine's small wires could migrate to other parts of the brain and that the device cannot be removed without damaging brain tissue. It is unclear how these concerns were resolved. The FDA declined to comment specifically on Neuralink's application process, but the spokesperson commented generally that the agency has a "scientifically rigorous process to evaluate the safety and effectiveness of medical

Anne-Charlotte Legrand- Académie de Versailles, d'après un projet de M. Allaoui et NR (groupe AMC) que je remercie, basée sur les manuels Shine Bright AMC et Hit the Road Tle

devices". She added that the FDA has "a deep commitment to ensure the responsible and humane care of animals" involved in testing.

Neuralink declined to comment on its plans for clinical trials.

abridged from The Guardian, [Kari Paul](#) and [Maanvi Singh](#) in San Francisco, 4 Jun 2023

FIN DE L'ARTICLE (DST?) : <https://www.theguardian.com/technology/2023/jun/04/elon-musk-neuralink-approved-human-testing-concern>

Grueling timeline, botched operations

The FDA approval also comes amid ongoing scrutiny of Neuralink's testing practices, and allegations of animal cruelty. The company has killed more than 1,500 animals since it began experimenting on them in 2018, according to another report from Reuters. While death of animal test subjects is not uncommon in labs, employees told the news service the mortality rate has been higher than necessary due to Musk's grueling development timeline, which they allege has led to more mistakes and botched operations.

Former employees interviewed by Reuters characterised some experiments as "hack jobs". In one botched experiment, the wrong size of devices was installed in 25 of 60 pigs used for testing. In another, Neuralink's device was accidentally implanted into the wrong vertebra of two different pigs during two separate surgeries, leading to their euthanasia due to pain and suffering. Neuralink did not respond to Reuters request for comment at the time. And the FDA declined to comment, citing laws keeping commercial information private.

Most of the company's founders, which included top scientists in the field, have quit. As of July 2022, only two of the eight founding members remained at Neuralink.

"I would love to know what the FDA was thinking," said L Syd M Johnson, a neuroethicist at the Center for Bioethics and Humanities in SUNY Upstate Medical University. "One of the concerns about Neuralink is that it's not functioning in the way that many other research laboratories or organisations function," Johnson added. "There's concerns about the potential that they are performing a kind of sloppy work and that their data may not be reliable."

The allegations have led to ongoing investigations of Neuralink from multiple government agencies and members of Congress, including an inquiry from the Department of Agriculture over allegations of animal abuse and the Department of Transportation over mishandling of bio-hazardous materials across state lines. Earlier this month, Democratic representatives Earl Blumenauer and Adam Schiff called on the US Department of Agriculture to investigate conflicts of interest in the board responsible for oversight of animal testing at Neuralink. In an email, the USDA said it could not confirm or deny the investigation. The Department of Transportation did not respond to a request for comment.

"I would want to wait to hear how those investigations go and what are the findings before giving the company a greenlight for trials," said Cabrera. "If the allegations turn out to be true, it certainly raises concerns about the handling of human subjects' brains."

Neuralink did not respond to a request for comment regarding the allegations. In a previous blog post responding to "recent articles" raising "questions around Neuralink's use of research animals", the company said it is "absolutely committed to working with animals in the most humane and ethical way possible". It said at the time, in February 2022, it had "never received a citation from the USDA inspections of [its] facilities and animal care program".

Anne-Charlotte Legrand- Académie de Versailles, d'après un projet de M. Allaoui et NR (groupe AMC) que je remercie, basée sur les manuels Shine Bright AMC et Hit the Road Tle

The FDA does not typically inspect laboratory facilities as part of their clinical trial application reviews, said Victor Krauthamer, an adjunct biomedical engineering professor who spent three decades at the FDA. He said it is impossible to know if it did in this case.

“The FDA is not really charged with animal protection – it is more concerned with the quality of the data,” he said. “If there were irregularities in the testing, maybe they should have done an inspection to see whether the results were trustworthy or not. But we don’t have enough information to know.”

Musk’s track record of mishandling user data at Twitter also raises questions about his company’s ability to handle highly sensitive data extracted from the participants of its eventual clinical trials, both Johnson and Cabrera said.

“There are some ethical concerns about privacy, anytime you’re using a brain device,” said Johnson. “Things to look out for are: will Neuralink have access to the brain data of the people that they implant these devices in? What are they going to do with it? And how are they going to protect user privacy?”

Neuralink did not respond to questions about how it plans to handle the data of trial participants.

Musk’s marketing sets Neuralink apart from other companies and teams at public institutions working in the BCI field, which have focused on using the devices to treat specific medical conditions such as seizures, Parkinson’s tremors or paralysis.

The industry of “neuromodulation devices,” which record or stimulate neural activity, has surpassed \$6bn. Synchron, another BCI manufacturer, received FDA approval to test brain implant devices in July 2021 and Blackrock Neurotech, which installs brain implants that enable people with paralysis to control digital devices and prosthetics, has been carrying out human trials for more than a decade.

Musk, meanwhile, has said he founded the company largely in response to concerns that artificial intelligence would gain too much power over humans. The Neuralink device would allow humans to compete with new sentient AI, Musk has argued, stating “I created [Neuralink] specifically to address the AI symbiosis problem, which I think is an existential threat.”

Even as Neuralink secures FDA approval for clinical trials, it will be a long road for its products to reach consumers, experts say. After being approved for clinical research, companies typically conduct at least two rounds of trials before applying for FDA approval to commercially market a device.

Neuralink would first have to prove that its implant is safe and then establish its efficacy in treating specific conditions. The latter is a domain in which researchers around the world are doing difficult, but promising work, said Donoghue, the Brown University neuroscientist.

“The technology to implant something in the brain is very mature, but where to put it in the brain and how to stimulate it is still being worked out, especially for complicated diseases,” he said.

Still, he said he doesn’t like the hyped up marketing. Musk’s advertising of the Neuralink device has parallels to his plans for Twitter, which he purchased for \$44bn in 2022 and has promised to pivot to an “everything app”, that can meet all users’ needs at once.

“I think it dismisses the level of complexity of the whole thing,” Donoghue said. “Tackling each condition is a big effort, right? And it could take a long time. And so, I think we have to be very

Anne-Charlotte Legrand- Académie de Versailles, d'après un projet de M. Allaoui et NR (groupe AMC) que je remercie, basée sur les manuels Shine Bright AMC et Hit the Road Tle

careful to respect the dignity of the people we're trying to help.”

abridged from *The Guardian*, [Kari Paul](#) and *Maanvi Singh in San Francisco*, 4 Jun 2023

4b- Do these photos look real to you? Your answer could be cause for concern. And that's terrifying

In short, Bendiksen used artificial intelligence along with youtube and internet research to help him create fake people that he could insert into photos that he took in Veles, North Macedonia. It's both fascinating and terrifying to read about. But it's certainly not surprising — we've been hearing about deepfake videos, as an example, for a while now. For all we know, this has been happening with regularity. We know that Bendiksen's "Veles" is fake only because he told us. His effort proved embarrassingly effective. Many people in photojournalism swallowed his conceit — hook, line and sinker. Bendiksen pulled the wool over his own colleagues' eyes, even at one of the most venerated photojournalism festivals in the world.

There have always been fakers in the news business. I know it's hard to believe, but journalists are actually just mortal beings. They have the same desires and ambitions as everyone else. And the world is full of people who let those desires and ambitions steer them into lies and fakery. It's unfortunate, but true. (...) Interestingly enough, Bendiksen's "Veles" is all about the manufacturing of "fake news," which really seemed to start in earnest around the time of the 2016 U.S. presidential election. It seems this explosion of fake news was largely fueled by our incessant use of social media. Social media has been nearly indispensable to our lives over the last few years. It seems as if everything we do is tethered to it. The Internet even holds out a promise that it will bring you financial spoils if you just generate enough traffic.

was this last little bit of seduction that transformed a fairly obscure town in North Macedonia into an epicenter of "fake news." That's because Veles, in the center of the country, was once prosperous, but after its industry faltered and failed, it became a place racked by poverty. _ As [Bendiksen] says of Veles in the introduction to his book (which was created using AI technology, by the way) : "The largest single source of income for the town of 60,000 is from its thriving fake news industry. I was surprised to find out that the fake news industry is one of the main sources of income for the people of Veles. According to the Macedonian Ministry of Economic Development, the fake news industry generated around \$2.1 billion in 2016. Fake news has a direct impact on the country's economy. (...) Abject poverty breeds a sense of helplessness. When you feel helpless, you are prone to do all kinds of things you never would have thought possible — including lie, cheat and steal. It's no wonder that people have turned to churning out fake news if it can be so profitable. That's understandable. It's also terrifying to think about."

This is precisely what Bendiksen's book is doing, or trying to do. It is trying to terrify us, to wake us up. By creating a book of photojournalism that would not be questioned on its face by some of the most stalwart people in the business, Bendiksen is asking a very tough and necessary question — several questions really. And he has used his own rarefied position as a highly respected and decorated person in photojournalism to make the point. I would argue that's yet another question the work brings up: Why do we give certain people a pass when it

Anne-Charlotte Legrand- Académie de Versailles, d'après un projet de M. Allaoui et NR (groupe AMC) que je remercie, basée sur les manuels Shine Bright AMC et Hit the Road Tle

comes to believing what they do is valuable? Is it because they have won the right awards? Is it because they are members of the right club or group of people? Bendiksen's book seems to make those ideas sort of laughable.

If Bendiksen can make a book that his own colleagues and some of the biggest titans in the photojournalism world will believe at face value, how secure can we feel about our ability to suss out the truth? The answer to that question has very real implications for what course life on this planet will or can take. I think the scariest question this work brings up for me is whether we care? Does truth matter? (...) One thing is certain. When and if utter fakery becomes the norm, you won't be able to say the warning signs weren't there. And Bendiksen is far from the first person to raise the alarm. Americans generally agree that misinformation is a problem. (...) People are and have been talking about the perils of misinformation. I'm just a little worried that it's not enough. And Bendiksen's book highlights that worry.

Kenneth Dickerman the washington post October 15, 2020

