THE CONVERSATION T.J THOMSON AND DANIEL ANGUS

What to expect this year for AI?
Que faut-il attendre de l'IA cette année ?

2023 a été un tournant pour l'évolution de l'intelligence artificielle et son rôle dans la société. Nous avons assisté à l'émergence de l'IA générative, qui a permis de démocratiser la technologie, particulièrement avec l'arrivée de ChatGPT. L'intelligence artificielle a envahi tous les domaines que ce soit la médecine, l'éducation, le monde du travail ou encore l'art. Des avancées encore plus radicales sont attendues cette année, ainsi que des régulations. Faisons le point.
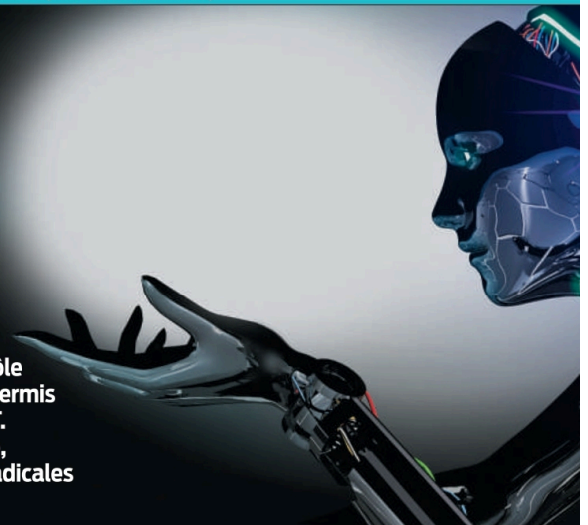
In 2023, artificial intelligence (AI) truly entered our daily lives. The latest data shows four in five teenagers in the United Kingdom are using generative AI tools. About two-thirds of Australian employees report using generative AI for work.

2. At first, many people used these tools because they were curious about generative AI or wanted to be entertained. Now, people ask generative AI for help with studies, for advice, or use it to find or synthesise information. Other uses include getting help coding and making images, videos, or audio.

3. So-called "prompt whisperers" or prompt engineers offer guides on not just designing the best AI prompts, but even how to blend different AI services to achieve fantastical outputs.

4. AI uses and functions have also shifted over the past 12 months as technological development, regulation and social factors have shaped what's possible. Here's where we're at, and what might come in 2024.

AI changed how we work and pray

5. Generative AI made waves early in the year when it was used to enter and even win photography competitions, and tested for its ability to pass school exams. ChatGPT, the chatbot that's become a household name, reached a user base of 100 million by February 2023.

6. Some musicians used AI voice cloning to create synthetic music that sounds like popular artists, such as Eminem. Google launched its chatbot, Bard. Microsoft integrated AI into Bing search. Snapchat launched MyAI, a ChatGPT-powered tool that allows users to ask questions and receive suggestions.

7. GPT-4, the latest iteration of the AI that powers ChatGPT, launched in March 2023. Simultaneously, corporate giants like Coca-Cola began generating ads partly through AI, while Levi's said it would use AI for creating virtual models. The now-infamous image of the Pope wearing a white Balenciaga puffer jacket went viral. A cohort of tech evangelists also called for an AI development pause.

8. Amazon began integrating generative AI tools into its products and services in April. In the United States, screenwriters went on strike in May, demanding a ban of AI-generated scripts. In July, worshippers experienced some of the first religious services led by AI.

9. In August, two months after AI-generated summaries became available in Zoom, the company faced intense scrutiny for changes to its terms of service around consumer data and AI. The company later clarified its policy and pledged not to use customers' data without consent to train AI.

---

1. truly vraiment, réellement / **daily life** quotidien / **data** données / **tool** outil / **to report** déclarer.

2. to entertain distraire, divertir / **advice** conseil(s).

SUR LE BOUT DE LA LANGUE

Notez la traduction de ces phrases
four in five (§ 1) */ four out of five teenagers* quatre adolescents <u>sur</u> cinq
to get ten out of ten avoir dix <u>sur</u> dix
to spread over 3 kilometres s'étendre <u>sur</u> 3 kilomètres
over a period of 3 months <u>sur</u> une période de 3 mois
every other year un an <u>sur</u> deux

3. so-called dénommé, baptisé / **prompt** message (de guidage, d'invite) / **whisperer** chuchoteur, ici conseiller / **to design** concevoir / **to blend** mélanger / **to achieve** obtenir / **output** production, ici résultat.

4. to shift changer / **over** au cours de / **regulation** réglementation / **to shape** façonner.

5. to make, made, made waves ici, se faire remarquer / **ability** capacité / **to pass** ici, réussir / **household** ici, courant (aussi, foyer, ménage) / **to reach** atteindre.

6. to launch lancer / **ChatGPT-powered** alimenté par ChatGPT.

7. iteration ici, version / **corporate** ici, (de l')industrie / **ad = advertisement** publicité / **infamous** (tristement) célèbre / **to wear, wore, worn** porter (vêtement) / **puffer jacket** doudoune / **to go, went, gone viral** se propager rapidement (via les réseaux sociaux, etc.), faire le buzz / **cohort** groupe / **evangelist** ici, fervent défenseur.

8. screenwriter scénariste / **to go, went, gone on strike** se mettre en grève / **to demand** exiger / **ban** interdiction / **worshipper** fidèle / **service** office religieux, messe.

9. to face (devoir) faire face à / **scrutiny** surveillance, examen minutieux / **policy** politique / **to pledge** promettre (de), s'engager (à) / **consent** consentement, accord / **to train** former, exercer, entraîner.

✷ facile **A2-B1** / ✷✷ moyen **B2-C1** / ✷✷✷ difficile **C1-C2**

SUPPLÉMENT VIDÉO
L'élection présidentielle américaine de 2024 pourrait placer l'intelligence artificielle au centre des préoccupations avec notamment de nouvelles inquiétudes sur l'influence de l'AI sur les électeurs.
www.vocable.fr/videos-anglais

Accédez directement aux vidéos avec le QRcode

In 2023, the Biden administration issued an executive order and the European Union passed a law aimed at regulating AI. (IStock)

AGI is an advanced form of AI. If realized, an artificial general intelligence (AGI) could learn to accomplish any intellectual task that human beings or animals can perform. (Wiktor Szymanowicz/Shutterstock)

10. In September, voice and image functionalities came to ChatGPT for paid users. Adobe began integrating generative AI into its applications like Illustrator and Photoshop.

11. By December, we saw an increased shift to "Edge AI", where AI processes are handled locally, on devices themselves, rather than in the cloud, which has benefits in contexts when privacy and security are paramount. Meanwhile, the EU announced the world's first "AI Law".

12. Given the whirlwind of AI developments in the past 12 months, we're likely to see more incremental changes this year and beyond. In particular, we expect to see changes in these four areas.

Increased bundling of AI services and functions

13. ChatGTP was initially just a chatbot that could generate text. Now, it can generate text, images and audio. By bundling generative AI into existing services and combining functions, companies will try to maintain their market share and make AI services more intuitive, accessible and useful. At the same time, bundled

services make users more vulnerable when inevitable data breaches happen.

Higher quality, more realistic generations

14. In 2023, AI struggled with rendering human hands and limbs. By now, AI generators have markedly improved on these tasks. At the same time, research has found how biased many AI generators can be. Some developers have created models with diversity and inclusivity in mind. Companies will likely see a benefit in providing services that reflect the diversity of their customer bases.

Growing calls for transparency and media standards

15. Various news platforms have been slammed in 2023 for producing AI-generated content without transparently communicating this. AI-generated images of world leaders and other newsworthy events abound on social media, with high potential to mislead and deceive. Media industry standards that transparently and consistently denote when AI has been used

to create or augment content will need to be developed to improve public trust.

Expansion of sovereign AI capacity

16. In these early days, many have been content playfully exploring AI's possibilities. However, as these AI tools begin to unlock rapid advancements across all sectors of our society, more fine-grained control over who governs these foundational technologies will become increasingly important.

17. In 2024, we will likely see future-focused leaders incentivising the development of their sovereign capabilities through increased research and development funding, training programs and other investments.

18. For the rest of us, whether you're using generative AI for fun, work, or school, understanding the strengths and limitations of the technology is essential for using it in responsible, respectful and productive ways. Similarly, understanding how others – from governments to doctors – are increasingly using AI in ways that affect you, is equally important. ●

---

breach violation.

14. to struggle avoir du mal (à) / **limb** membre (corps) / **markedly** nettement / **in mind** en tête, à l'esprit / **benefit** avantage / **to provide** fournir / **customer base** clientèle.

15. to slam critiquer violemment / **content** contenu / **leader** dirigeant(e) / **newsworthy** digne d'intérêt, médiatique / **to abound** abonder / **to mislead, led, led** tromper, induire en erreur / **to deceive** tromper, abuser / **consistently** systématiquement / **to denote** indiquer, signifier, marquer /

---

10. paid ici, (abonnés à un compte) payant.

11. to handle gérer / **device** appareil, dispositif / **privacy** vie privée, confidentialité / **paramount** capital, essentiel / **meanwhile** pendant ce temps.

12. whirlwind tourbillon, tornade / **to be likely to** être susceptible de, risquer de / **incremental** progressif.

13. to bundle regrouper / **market share** part de marché /

---

trust confiance.

16. playfully avec humour / **to unlock** débloquer, révéler / **fine-grained** affiné, précis / **foundational** fondamental.

17. future-focused tourné vers l'avenir / **to incentivise** motiver, inciter (par des mesures fiscales) / **funding** financement / **training** formation.

18. strength force, atout / **to affect** toucher, concerner / **equally** tout aussi.

OpenAI achievements include the release of **GPT-2** through to **GPT-4** and **Dall-E**, an AI system capable of creating realistic images and art based on textual descriptions.

THE NEW YORK TIMES CADE METZ

The secret ingredient of ChatGPT is human advice

Le secret de ChatGPT, ce sont les conseils humains

« GPT-5 vous donnera l'impression de communiquer avec une personne plutôt qu'avec une machine », peut-on lire en ligne à propos de la prochaine version révolutionnaire du *chatbot* d'OpenAI, censée être dévoilée courant 2024. Mais si ChatGPT ressemble de plus en plus à une intelligence humaine, c'est avant tout parce qu'en coulisse, des milliers d'experts l'entraînent à mieux répondre. À l'instar d'une armée de tuteurs guidant un élève, ces personnes apprennent au robot comment répondre à des questions précises, évaluent ses réponses et corrigent ses erreurs. Un modèle d'apprentissage qui a ses avantages... et ses inconvénients.

In November 2022, the company behind Facebook released a chatbot called Galactica. After a torrent of complaints that the bot made up historical events and spewed other nonsense, Meta removed it from the internet. Two weeks later, the San Francisco startup OpenAI released a chatbot called ChatGPT. It was a worldwide sensation.

2. Both bots were powered by the same fundamental technology. But unlike Meta, OpenAI had sharpened its bot using a technique that was just beginning to change the way artificial intelligence is built.

3. In the months leading up to the release of ChatGPT, the company hired hundreds of people to use an early version and provide precise suggestions that could help hone the bot's skills. Like an army of tutors guiding a grade school student, they showed the bot how to respond to particular questions, rated its responses and corrected its mistakes. By analyzing those suggestions, ChatGPT learned to be a better chatbot.

A new perfecting technique

4. The technique, "reinforcement learning from human feedback," is now driving the development of artificial intelligence across the industry. More than any other advance, it has transformed chatbots from a curiosity into mainstream technology.

5. These chatbots are based on a new wave of AI systems that can learn skills by analyzing data. Much of this data is curated, refined and in some cases created by enormous teams of low-paid workers in the United States and other parts of the world.

6. For years, companies like Google and OpenAI have relied on such workers to prepare data used to train AI technologies. Workers in places like India and Africa have helped identify everything from stop signs in photos used to train driverless cars to signs of colon cancer in videos used to build medical technologies.

7. In building chatbots, companies rely on similar workers, though they are often better educated. Reinforcement learning from human feedback is far more sophisticated than the rote data-tagging work that fed AI development in the past. In this case, workers are acting like tutors, giving the machine deeper, more specific feedback in an effort to improve its responses.

GPT-5

---

1. to release lancer, sortir / **complaint** plainte, critique / **to make, made, made up** inventer / **to spew** vomir; ici, débiter / **nonsense** bêtises, inepties / **to remove** retirer / **worldwide** dans le monde entier / **sensation** succès.

2. to power alimenter, faire fonctionner / **to sharpen** affiner, peaufiner, parfaire / **bot = robot**.

3. to lead, led, led up to aboutir à; ici, précéder / **to hire** embaucher, engager / **early** ici, première / **to provide** fournir, apporter / **to hone** aiguiser, affûter, peaufiner /

skill aptitude, compétence / **grade school** école primaire / **to rate** évaluer, noter / **mistake** erreur.

4. reinforcement learning apprentissage par renforcement / **feedback** retours, commentaires / **to drive, drove, driven** ici, alimenter / **mainstream** classique, traditionnel.

5. AI = artificial intelligence / **data** données / **to curate** ici, assembler / **to refine** affiner.

6. to rely on compter sur ; ici, utiliser / **to train** former, entraîner / **sign** ici, panneau / **driverless** sans conducteur / **sign** ici, symptôme.

7. educated instruit, ayant fait de solides études / **rote** répétitif, mécanique / **tagging** étiquetage, marquage / **to feed, fed, fed** alimenter / **deep** approfondi / **to improve** améliorer.

A large language model (LLM) is a type of artificial intelligence (AI) algorithm that uses deep learning techniques and massively large data sets **to understand, summarize, generate and predict new content.**

An ethical split

One source of concern is that hyper-intelligent software could become uncontrollable, leading to a catastrophe - a concern among tech workers who follow a social movement called "effective altruism," that believes AI advances should benefit humanity. On the other hand there are those who embrace a worldview called "effective accelerationism" which counters that not only should the development of AI be allowed to proceed unhindered, it should be speeded up. A slew of startups including Hugging Face and Mistral AI have argued for less restrictive regulation.

concern (source d')inquiétude / **software** logiciel(s) / **to benefit** être bénéfique / **to embrace** adhérer à / **worldview** vision du monde / **to counter** rétorquer / **to proceed** avancer / **unhindered** sans entrave, débridé / **slew** flopée, multitude / **to argue** affirmer, soutenir / **regulation** réglementation, loi.

Using human preferences to train the model is a key difference between ChatGPT/GPT-4 and traditional language models. (Istock)

the behavior of these bots in some ways, they explain, it can degrade performance in other ways. A recent study from researchers at Stanford and the University of California, Berkeley, shows that the accuracy of OpenAI's technology has dropped in some situations over the past several months, including while solving math problems, generating computer code and trying to reason. This could be the result of continuing efforts to apply human feedback. >>>

behavior comportement / **to degrade** diminuer / **accuracy** exactitude, précision / **to drop** chuter, baisser.

8. In 2022, OpenAI and one of its competitors, Anthropic, used freelance workers in the United States through the website Upwork. Hugging Face, another prominent lab, is using U.S. workers hired through the data curation startups Scale AI and Surge. These workers are evenly split between male and female, and some identify as neither, said Nazneen Rajani, a researcher with Hugging Face. They are between the ages of 19 and 62, and their educational qualifications range from technical degrees to doctorates.

🤗 Hugging Face

9. U.S.-based workers earn between roughly $15 and $30 an hour. Workers in other countries make considerably less. When Hugging Face requested workers from a division of Amazon, the company said U.S.-based workers would be five times as expensive as those abroad.

10. This work requires hours of meticulous writing, editing and rating. Workers may spend 20 minutes writing a single prompt and its response. Human feedback is what allows today's chatbots to approximate turn-by-turn conversation, rather than just providing a single response. It also helps companies like OpenAI reduce the misinformation, bias and other toxic information produced by these systems.

11. But researchers warn that the technique is not fully understood. Though it improves

8. competitor concurrent / **prominent** important, célèbre / **lab = laboratory** / **curation** conservation, stockage / **evenly** également, équitablement / **to, split, split, split** diviser / **qualification** diplôme / **to range from... to** aller de... à / **degree** diplôme.

9. roughly approximativement / **to request** demander, solliciter / **division** département, service /

abroad à l'étranger.

10. editing montage / **rating** classification / **prompt** message (de guidage, d'invite) / **to approximate** se rapprocher, être proche (de), ici essayer d'imiter / **misinformation** désinformation / **bias** préjugé(s).

11. researcher chercheur / **to warn** avertir, mettre en garde /

SUR LE BOUT DE LA LANGUE

Certains mots de cet article peuvent être *Nom* [N] ou *Verbe* [V] :

*They are **powered** by the same technology.* [V]
*It takes a lot of **power** to run it.* [N]
*The technique is now **driving** the development.* [V]
*It was a publicity **drive**.* [N]
*They **advanced** slowly.* [V]
*It has had more influence than any other **advance**.* [N]
*The sign indicates you must **stop**.* [V]
*She was waiting at the bus **stop**.* [N]
*Workers **act** like tutors.* [V]
*He was caught in the **act**.* [N]

Sam Altman revealed that OpenAI's next-generation large language model **GPT-5** will have better reasoning capabilities, improved accuracy and a new video feature.

>>> **12.** Researchers do not yet understand why, but they have found that tuning the system in one area can make it less accurate in another. "Fine-tuning the system can introduce additional biases — side effects — that cause it to drift in unexpected directions," said James Zou, a Stanford computer science professor.

A vicious circle

13. In 2016, a team of OpenAI researchers built an AI system that taught itself to play an old boat-racing video game, Coast Runners. But in an effort to capture the little green widgets that lined the racecourse — a way of scoring points — the AI system drove its boat in endless circles, crashing into walls and repeatedly catching fire. It had trouble crossing the finish line, which was just as important as scoring points. That is the conundrum at the heart of AI development: As machines learn to perform tasks through hours of data analysis, they can also find their way to unexpected, unwanted and perhaps even harmful behavior.

14. But the OpenAI researchers created a way of fighting this problem. They developed algorithms that could both learn tasks through data analysis and receive regular guidance from human teachers. With a few mouse clicks, the workers could show the AI system that it should move toward the finish line, not just gather points.

15. Around the same time, OpenAI, Google and other companies began building systems, known as large language models, that learned from vast amounts of digital text culled from the internet, including books,

Yann LeCun is one of AI's most vocal defenders. In November 2023, he signed an open letter to Joe Biden urging an embrace of open source AI.
(AP Photo/Thibault Camus)
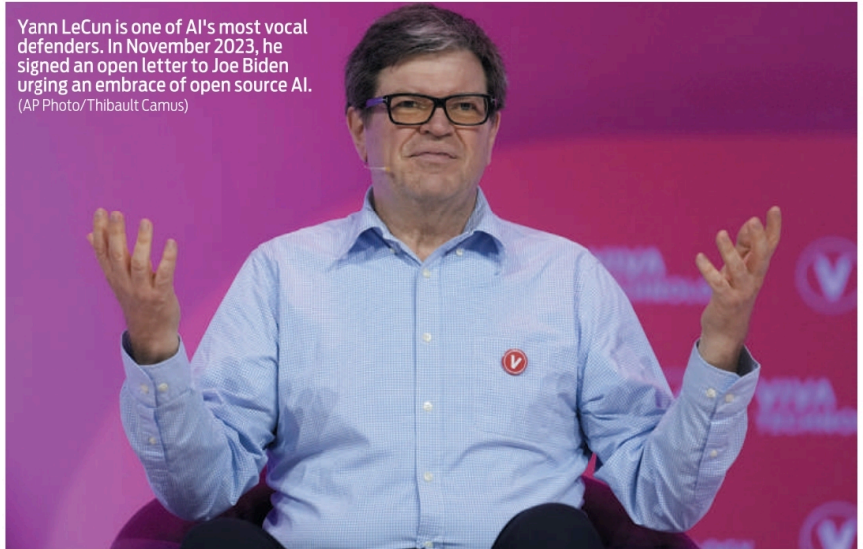
Wikipedia articles and chat logs. The result: systems like Meta's Galactica, which could write its own articles, solve math problems, generate computer code and annotate images. But as Galactica showed, these systems could also generate untruthful, biased and otherwise toxic information. When asked, "Who runs Silicon Valley?" Galactica replied, "Steve Jobs."

16. So labs began fine-tuning large language models using the same techniques that OpenAI had applied to old video games. The result: polished chatbots like ChatGPT. Ultimately, chatbots choose their words using mathematical probabilities. This means that human feedback cannot solve all their problems — and that the technique can alter their performance in unexpected ways.

17. Yann LeCun, chief AI scientist at Meta, believes a new technique must be developed before chatbots are completely reliable. Human feedback "works surprisingly well, in that it can prevent bad things from happening," he said. "But it cannot be perfect." ●

---

12. yet (pas) encore / **to fine-tune** régler avec précision, affiner, mettre au point / **side effect** effet secondaire / **to drift** dériver, se laisser entraîner / **unexpected** inattendu / **computer science** informatique.

13. racing course / **widget** gadget / **to line** border, longer / **racecourse** piste / **to score** marquer (des points) / **endless** incessant, continuel / **to crash into** percuter / **to have trouble (+ ger.)** avoir du mal à / **to cross** franchir / **finish line** ligne d'arrivée / **conundrum** énigme, problème / **unwanted** indésirable / **harmful** néfaste, dangereux.

14. guidance conseils / **toward** vers / **to gather** accumuler.

15. to cull récupérer, glaner /

chat log historique de discussions (en ligne) / **untruthful** mensonger / **to run, ran, run** gérer, diriger.

16. to polish peaufiner / **ultimately** en fin de compte, finalement.

17. to prevent from (ger.) empêcher de.

Testez-vous

Avez-vous bien compris l'article ? Cochez la bonne réponse.

1. **What was the name of the first chatbot according to this article?**
   a. OpenAI
   b. Galatica
   c. ChatGPT

2. **What technique has recently enhanced chatbot performance?**
   a. human tutoring
   b. more complex algorithms
   c. adaptive software

3. **How do chatbot workers compare to workers in other sectors of AI?**
   a. They earn more money.
   b. They are all based in the US.
   c. They are generally better educated

4. **What is sometimes the result of using human feedback?**
   a. Improvement in one area may lead to inaccuracies in other areas.
   b. The system blocks due to contradictory input.
   c. The system generates untruthful, biased and otherwise toxic information.

SOLUTIONS : **1.** b ; **2.** a ; **3.** c ; **4.** a

FOCUS

World Chess Champion Garry Kasparov pauses before making his first move in a game against the IBM Deep Blue computer on May 3, 1997. (STAN HONDA / AFP)

A brief history of AI

Saviez-vous qu'Alan Turing était un des pionniers de l'intelligence artificielle? Ou encore qu'un robot avait battu le meilleur joueur d'échec au monde en 1997? Retour sur les moments marquants de l'histoire de l'IA ainsi que sur les acteurs ayant joué un rôle dans son développement.

1956: A summer gathering of scholars at Dartmouth College is considered the founding event of A.I. organised by John McCarthy, a computer scientist credited with coining the term 'artificial intelligence'. The Dartmouth Workshop followed decades of speculative research, including Alan Turing's 1950 paper that considered machines that could think like humans.

AI = **artificial intelligence** / **gathering** rassemblement / **scholar** expert, spécialiste, universitaire / **computer scientist** informaticien / **to be credited with** ici, être à l'origine de / **to coin** inventer / **workshop** atelier; ici, groupe de discussion / **paper** article.

1997: Deep Blue, a chess-playing expert system designed by IBM, defeats the world champion Garry Kasparov in a chess match.

chess échecs (jeu) / **to design** concevoir / **to defeat** vaincre, battre.

OpenAI

2015: OpenAI is founded. A group of technology investors, including Reid Hoffman, Elon Musk and Peter Thiel, commit $1 billion in long-term funding for the A.I. venture intended to benefit humanity.

to commit dédier, consacrer / **billion** milliard / **funding** financement / **venture** entreprise (risquée), projet / **to be intended to** avoir pour ambition de.

2016: Google's AlphaGo AI beats the world's best player in the ancient Chinese board game of Go.

board game jeu de société.

2018: The neural networks that have come to define the A.I. revolution — called large language models — are released. BERT, a system developed by Google that can complete sentences, signals a major breakthrough.

artificial neural network réseau de neurones artificiels (ensemble d'algorithmes qui se base sur le fonctionnement des neurones biologiques) / **to release** lancer, sortir / **to complete** achever, terminer / **to signal** indiquer, annoncer / **breakthrough** avancée, progrès.

2022: ChatGPT, an online chatbot designed by OpenAI, Is released. Though its accuracy is criticised, ChatGPT's ability to deliver college admission essays and life advice signals a breakthrough for A.I. — while raising worries about its misuse.

accuracy précision / **college** université / **essay** dissertation / **advice** conseil(s) / **to raise** ici, soulever (fig.) / **worry** inquiétude, crainte / **misuse** détournement, utilisation abusive.

November 2023: On 17 Nov., Sam Altman, the chief executive of OpenAI, is removed by its board — only to return a few days later after employees threaten to quit. The episode highlights a central divide in the industry — between optimists and those who worry about the technology's ability to do harm.

chief executive directeur(-trice) général(e) / **to remove** chasser, démettre de ses fonctions / **board** conseil d'administration / **to threaten** menacer (de) / **to highlight** mettre en lumière / **divide** division, clivage, fracture / **to do harm** nuire (à).

December 2023: Google released Gemini, its latest state of the art AI model.

state-of-the-art dernier cri, ultra-sophistiqué.

(Sven Hoppe/dpa via AP)

● **Sam Altman**, the co-founder and CEO of OpenAI, has emerged as one of the most influential figures in the world of artificial intelligence (AI). He is known for his belief that artificial general intelligence (AGI) will be able to do anything that humans can.

CEO = Chief Executive Officer, PDG / **figure** personnalité / **belief** conviction.

(ROMUALD MEIGNEUX/SIPA)

● **Elon Musk** helped to establish OpenAI in 2015. He has long been concerned about A.I.'s potential dangers. He left OpenAI in 2018 after disagreements with Mr. Altman.

to be concerned about être préoccupé par / **disagreement** désaccord, différend.

(AP Photo/Jeff Chiu)

● **Larry Page**, who founded Google with Sergey Brin, has long been a proponent of A.I. and its benefits. Mr. Page has a more optimistic view of A.I. than others, telling Silicon Valley executives that robots and humans will live harmoniously one day.

proponent partisan, défenseur / **benefit** bienfait, avantage / **executive** cadre, dirigeant.

(Steven Ferdman/REX/Shutterstock)

● **Demis Hassabis** a neuroscientist, is a founder of DeepMind, one of the most important research labs on A.I. Google bought DeepMind in 2014.

But also **Geoffrey Hinton, Reid Hoffman, Satya Nadella, Peter Thiel, Eliezer Yudkowsky, Bill Gates, Mark Zukerberg...**