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UNIVERSIDAD FEDERAL DE LA INTEGRACIÓN LATINOAMERICANA
INSTITUTO LATINOAMERICANO DE CIENCIAS DE LA VIDA Y LA NATURALEZA
CENTRO INTERDISCIPLINARIO DE CIENCIAS DE LA VIDA
PROGRAMA DE POSGRADO EN BIOCIENCIAS
MAESTRÍA ACADÉMICA Y PRESENCIAL
PROCESO ORDINARIO DE SELECCIÓN DE ESTUDIANTES REGULARES 2023.2
PRUEBA DE DOMINIO DEL IDIOMA INGLÉS

Esta prueba tiene carácter eliminatorio, constituyendo la primera etapa del PSR (Proceso Regular de Selección), de la maestría del PPG-BC (Programa de Posgrado en Biociencias), de la UNILA (Universidad Federal de la Integración Latinoamericana), en la segunda semestre de 2023, regulado por el Aviso Público PPG-BC n. 2023/06, sus rectificaciones y resultados.

La prueba evaluará a los candidatos comprendiendo la idea central del texto e interpretando y resolviendo cuestiones relacionadas con el texto original.

Esta prueba constará de 10 (diez) preguntas referentes a 02 (dos) textos en inglés, con un valor máximo de 10 (diez) puntos por pregunta y hasta 100 (cien) puntos por prueba.

*Para contestarlas, **marque sólo una alternativa por pregunta en la hoja de respuestas adjunta, sin tachaduras**. Las respuestas de prueba con tachaduras o más de una alternativa marcada no se tendrán en cuenta.*

***Las preguntas 1, 2, 3, 4 y 5** se refieren al **primer texto adjunto**, de NATURE. Stop talking about tomorrow's AI doomsday when AI poses risks today. **Nature**, Londres, Reino Unido, 27 de junio. 2023, Editorial. Disponible en <https://www.nature.com/articles/d41586-023-02094-7>. Consultado el 27 de junio. 2023.*

***Las preguntas 6, 7, 8, 9 y 10** se refieren al **segundo texto adjunto**, de TOZER, Lilly. Did our human ancestors eat each other? Carved-up bone offers clues. **Nature**, Londres, Reino Unido, 26 de junio. 2023, Noticias. Disponible en <https://doi.org/10.1038/d41586-023-02082-x>. Consultado el 27 de junio. 2023.*

Para ser aprobado en esta etapa de selección, es necesario obtener un puntaje igual o superior a 50 (cincuenta) puntos.

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La aplicación de esta prueba comenzará en el campus Jardim Universitário, edificio Ginásio, sala G-102-2, a las 8:30 horas y terminará a las 10:30 horas del 4 de julio de 2023, fecha límite para que los candidatos entreguen las hojas de respuestas identificadas al PPG-BC.

***Número de registro del candidato*:**									
RESPUESTA DE PRUEBA DEL CANDIDATO									
Primeras preguntas de texto					***Preguntas del segundo texto***				
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
A	A	A	A	A	A	A	A	A	A
B	B	B	B	B	B	B	B	B	B
C	C	C	C	C	C	C	C	C	C
D	D	D	D	D	D	D	D	D	D
E	E	E	E	E	E	E	E	E	E
Foz do Iguaçu, Estado de Paraná, 4 de julio de 2023.									

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Pregunta 01*. ¿Cuál es el principal objetivo de la carta abierta firmada por Elon Musk y otros tecnólogos en relación a la inteligencia artificial (IA)?*

a) advertir sobre los riesgos para la existencia humana que puede causar la IA.

b) promover el uso generalizado de la IA en la industria de la tecnología y aumentar la productividad.

c) resaltar los beneficios potenciales de la IA para la humanidad y la salud humana.

d) exponer la falta de regulación adecuada para la IA.

e) advertir sobre los riesgos de reducción de puestos de trabajo provocados por la IA.

Pregunta 02*. ¿Cuál es el principal argumento presentado en el texto en relación al discurso apocalíptico sobre la inteligencia artificial (IA)?*

a) el discurso apocalíptico sobre la IA es una estrategia de las empresas tecnológicas para promover la competencia entre naciones.

b) la carrera armamentista para desarrollar tecnología militar con IA es el principal riesgo que enfrenta actualmente.

c) el discurso apocalíptico sobre la IA desvía la atención del daño social causado por los sistemas y herramientas de IA.

d) la narrativa "IA amenaza con la extinción humana" es una forma de llamar la atención sobre los beneficios potenciales de la IA.

e) la narrativa de "La IA amenaza con la extinción humana" es una forma de llamar la atención sobre los beneficios de la IA en la producción de conocimiento.

Pregunta 03*. ¿Cuál es la principal crítica presentada en el texto con respecto a la conversación sobre los riesgos y la regulación de la IA?*

a) la falta de reconocimiento de los beneficios potenciales de los sistemas y herramientas de IA.

b) el dominio de la conversación por un grupo homogéneo de ejecutivos de empresas y tecnólogos.

c) la falta de transparencia sobre los algoritmos utilizados en los sistemas de IA.

d) la subestimación del daño social causado por los sistemas y herramientas de IA.

e) el dominio de la conversación por parte de un grupo de políticos de países ricos sin espacio para la contribución de científicos y tecnólogos.

Pregunta 04*. ¿Cuál es una de las principales preocupaciones relacionadas con la última generación de IA generativa mencionada en el texto?*

a) la falta de compromiso de los organismos reguladores estatales con la ética y la responsabilidad hacia las empresas de IA.

b) el potencial de producir información falsa y engañosa con fines políticos y económicos.

c) falta de compromiso de las empresas tecnológicas con la ética y la responsabilidad.

d) la falta de transparencia en las pruebas y datos utilizados en el entrenamiento de modelos de IA.

e) la reticencia de las empresas tecnológicas a adoptar medidas de seguridad y privacidad.

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Pregunta 05*. ¿Cuál de las siguientes alternativas NO forma parte de las acciones que deben seguir las empresas de IA, según el texto?*

a) establecer estándares éticos para el desarrollo de la IA.

b) tener libertad para desarrollar y crear IA sin regulación estatal.

c) presentar datos completos a organismos reguladores independientes.

d) tener compromiso ético y técnico con la implementación de la IA

e) realizar rigurosas pruebas de seguridad antes de lanzar productos.

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Pregunta 06*. ¿Cuál es la principal conclusión del estudio sobre hueso fosilizado con marcas de corte?*

a) el hueso fosilizado es de una especie desconocida de homínido.

b) las marcas de corte en el hueso son solo daños causados por el desgaste natural.

c) los cortes en el hueso fueron hechos por animales depredadores.

d) los humanos antiguos se carnificaban y se comían la carne unos a otros.

e) los humanos antiguos se comían la carne y los huesos unos a otros.

Pregunta 07*. Respecto a las marcas encontradas en el hueso, se puede señalar:*

a) las marcas fueron causadas por mordeduras de león.

b) las marcas fueron el resultado del desgaste natural.

c) las marcas fueron hechas con herramientas de piedra.

d) las marcas fueron causadas por imperfecciones dejadas por personas.

e) las marcas fueron hechas por peleas físicas entre humanos.

Pregunta 08*. Con respecto a los rasguños en la tibia mencionados en el texto, ¿cuál es la principal conclusión que presenta el texto?*

a) los rasguños fueron causados por motivos rituales o funerarios.

b) los arañazos no tienen un significado particular.

c) los arañazos fueron causados por accidentes de trabajo.

d) los rayones fueron causados por el uso y desgaste natural.

e) los rasguños son evidencia de comportamiento caníbal.

Pregunta 09*. ¿Cuál es la principal conclusión sobre las marcas de corte mencionadas en el texto?*

a) las marcas de corte son evidencia de canibalismo entre los primeros humanos.

b) no es posible determinar si las marcas de corte son resultado del canibalismo por la especie desconocida de la tibia.

c) las marcas de corte son solo un ejemplo del comportamiento depredador entre los primeros humanos.

d) las marcas de corte son el resultado de accidentes y no tienen nada que ver con el canibalismo.

e) las marcas de corte son evidencia de la evolución natural de la tibia y sus adaptaciones.

Pregunta 10*. Según Zeresenay Alemseged, ¿qué se necesita para obtener más información sobre el comportamiento de los primeros homínidos?*

a) llevar a cabo estudios adicionales sobre fósiles existentes y nuevos.

b) analizar fósiles de animales encontrados en las mismas áreas.

c) investigar los hábitos alimentarios de las poblaciones actuales.

d) realizar excavaciones en nuevos sitios arqueológicos.

e) investigar los hábitos alimenticios de otros animales.

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nature

EDITORIAL | 27 June 2023

Stop talking about tomorrow’s AI doomsday when AI poses risks today

Talk of artificial intelligence destroying humanity plays into the tech companies’ agenda, and hinders effective regulation of the societal harms AI is causing right now.

Open AI chief executive Sam Altman (seen here testifying before the US Senate) is among the signatories of an open letter warning of the risk of human extinction from AI. Credit: Win McNamee/Getty

It is unusual to see industry leaders talk about the potential lethality of their own product. It's not something that tobacco or oil executives tend to do, for example. Yet barely a week seems to go by without a tech industry insider trumpeting the existential risks of artificial intelligence (AI).

In March, an open letter signed by Elon Musk and other technologists warned that giant AI systems pose profound risks to humanity. Weeks later, Geoffrey Hinton, a pioneer in developing AI tools, quit his research role at Google, warning of the grave risks posed by the technology. More than 500 business and science leaders, including representatives of OpenAI and Google DeepMind, have put their names to a 23-word statement saying that addressing the risk of human extinction from AI "should be a global priority alongside other societal-scale risks such as pandemics and nuclear war". And on 7 June, the UK government invoked AI's potential existential danger when announcing it would host the first big global AI safety summit this autumn.

The idea that AI could lead to human extinction has been discussed on the fringes of the technology community for years. The excitement about the tool ChatGPT and generative AI has now propelled it into the mainstream. But, like a magician's sleight of hand, it draws attention away from the real issue: the societal harms that AI systems and tools are causing now, or risk causing in future. Governments and regulators in particular should not be distracted by this narrative and must act decisively to curb potential harms. And although their work should be informed by the tech industry, it should not be beholden to the tech agenda.

RELATED

Many AI researchers and ethicists to whom *Nature* has spoken are frustrated by the doomsday talk dominating debates about AI. It is problematic in at

The battle for ethical AI at the world's biggest machine-learning conference

least two ways. First, the spectre of AI as an all-powerful machine fuels competition between nations to develop AI so that they can benefit from and control it. This works to the advantage of tech firms: it encourages investment and weakens arguments for regulating the industry. An actual arms race to produce next-generation AI-powered military technology is already under way, increasing the risk of catastrophic conflict — doomsday, perhaps, but not of the sort much discussed in the dominant 'AI threatens human extinction' narrative.

Second, it allows a homogeneous group of company executives and technologists to dominate the conversation about AI risks and regulation, while other communities are left out. Letters written by tech-industry leaders are "essentially drawing boundaries around who counts as an expert in this conversation", says Amba Kak, director of the AI Now Institute in New York City, which focuses on the social consequences of AI.

AI systems and tools have many potential benefits, from synthesizing data to assisting with medical diagnoses. But they can also cause well-documented harms, from biased decision-making to the elimination of jobs. AI-powered facial recognition is already being abused by autocratic states to track and oppress people. Biased AI systems could use opaque algorithms to deny people welfare benefits, medical care or asylum — applications of the technology that are likely to most affect those in marginalized communities. Debates on these issues are being starved of oxygen.

One of the biggest concerns surrounding the latest breed of generative AI is its potential to boost misinformation. The technology makes it easier to produce more, and more convincing, fake text, photos and videos that could influence elections, say, or undermine people's ability to trust any information, potentially destabilizing societies. If tech companies are serious about avoiding or reducing these risks, they must put ethics, safety and accountability at the heart of their

work. At present, they seem to be reluctant to do so. OpenAI did 'stress-test' GPT4, its latest generative AI model, by prompting it to produce harmful content and then putting safeguards in place. But although the company described what it did, the full details of the testing and the data that the model was trained on were not made public.

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Tech firms must formulate industry standards for responsible development of AI systems and tools, and undertake rigorous safety testing before products are released. They should submit data in full to independent regulatory bodies that are able to verify them, much as drug companies must submit clinical-trial data to medical authorities before drugs can go on sale.

For that to happen, governments must establish appropriate legal and regulatory frameworks, as well as applying laws that already exist. Earlier this month, the European Parliament approved the AI Act, which would regulate AI applications in the European Union according to their potential risk – banning police use of live facial-recognition technology in public spaces, for example. There are further hurdles for the bill to clear before it becomes law in EU member states and there are questions about the lack of detail on how it will be enforced, but it could help to set global standards on AI systems. Further consultations about AI risks and regulations, such as the forthcoming UK summit, must invite a diverse list of attendees that includes researchers who study the harms of AI and representatives from communities that have been or are at particular risk of being harmed by the technology.

Researchers must play their part by building a culture of responsible AI from the bottom up. In April, the big machine-learning meeting NeurIPS (Neural Information Processing Systems) announced its adoption of a code of ethics for meeting submissions. This includes an expectation that research involving human

participants has been approved by an ethical or institutional review board (IRB). All researchers and institutions should follow this approach, and also ensure that IRBs — or peer-review panels in cases in which no IRB exists — have the expertise to examine potentially risky AI research. And scientists using large data sets containing data from people must find ways to obtain consent.

Fearmongering narratives about existential risks are not constructive. Serious discussion about actual risks, and action to contain them, are. The sooner humanity establishes its rules of engagement with AI, the sooner we can learn to live in harmony with the technology.

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NEWS | 26 June 2023

Did our human ancestors eat each other? Carved-up bone offers clues

A fossilized hominin leg shows gashes that were probably made by stone tools.

Lilly Tozer

A reconstruction of *Homo erectus*, a hominin species that lived between 1.6 million and 150,000 years ago. Credit: S. Entressangle/E. Daynes/Science Photo Library

A fossilized leg bone bearing cut marks made by stone tools might be the earliest

evidence that ancient humans butchered and ate each other's flesh.

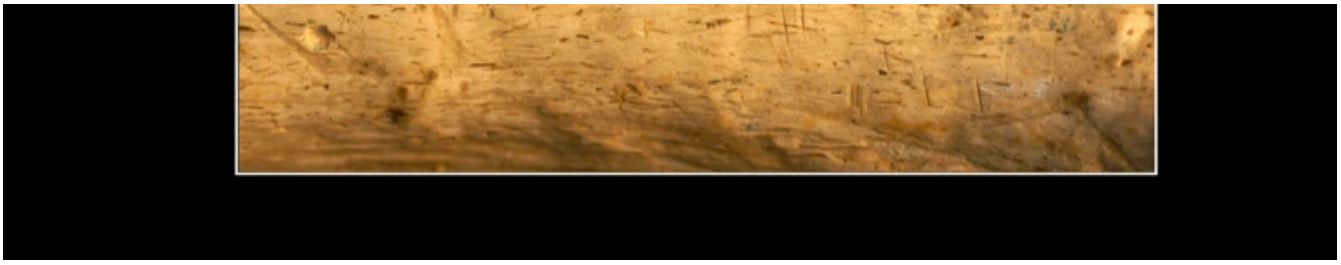
The 1.45-million-year-old hominin bone, described in *Scientific Reports*[1] on 26 June, features cuts similar to butchery marks found on fossilized animal bones from around the same time. The scrapes are located at an opportune spot for removing muscle, suggesting that they were made with the intention of carving up the carcass for food.

"The most logical conclusion is, like the other animals, this hominin was butchered to be eaten," says study co-author Briana Pobiner, a palaeoanthropologist at the Smithsonian Institution in Washington DC. The discovery was "shocking, honestly, and very surprising, but very exciting", she adds.

Cuts, not bites?

Pobiner had been examining a collection of fossils at the National Museums of Kenya in Nairobi — searching for animal bite marks — when she found unexpected linear markings a few millimetres long on the fossil of a tibia belonging to an unidentified hominin species.

Pobiner concluded that the cuts didn't look like animal bites, but resembled those known to be made by stone tools.



The small linear markings on this fossilized leg bone could have been made using stone tools. Credit: Jennifer Clark

She took impressions of the features and compared them against a database of nearly 900 marks made on modern bones using a variety of methods, prepared by her colleagues. The researchers concluded that 2 of the 11 marks were from lion bites, but that the other 9 were made by stone tools — suggesting that one individual might have been butchering another. The authors ruled out other cut-making processes, such as wear or blemishes left by people handling the bone after it was were discovered; the colour of the marks match that of the bone's surface, indicating they are of the same age, says Pobiner.

Previous evidence of butchery among hominins has been found at sites in Europe and Africa. This includes cuts on a hominin skull found in South Africa that dates to between 1.5 million and 2.6 million years ago, although there is disagreement among researchers about the age of the fossil and the marks' origin.

Flesh eaters

The context and position of the scratches on the tibia are important in understanding why they might have been made, says Jessica Thompson, a palaeoanthropologist at Yale University in New Haven, Connecticut.

Previous analyses at other archaeological sites found that flesh could have been removed from the bones for ritualistic or funerary reasons in ancient hominin societies. But these behaviours have not yet been observed in hominins found in Kenya around the early Pleistocene period. Furthermore, the marks are located where the leg's popliteus muscle begins, near the calf. To make this gouge, the cutter must have first removed the larger gastrocnemius muscle — likely a good

source of meat.

If the cut marks are the result of early-human butchery, it isn't possible to say whether they are an example of cannibalism, because the tibia's species is unknown. Still, the findings offer insights into ancient human behaviour, such as their food-gathering habits.

"This discovery represents more than simply a single odd tale of an unfortunate and long-ago event," says Thompson. "It suggests that hominins using stone tools to butcher and consume other hominins happened as a typical part of life for our ancestors."

Zeresenay Alemseged, a palaeoanthropologist at the University of Chicago, Illinois, cautions that these conclusions come from only one fossil. Research that analyses existing and new fossils would illuminate whether early hominins exhibited this sort of behaviour, he says. "The evidence is so sporadic at this point, all we're doing is connecting the dots," says Alemseged. "We are trying to go inside the brains of the early hominids, which means it's going to be very complex."

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References

1. Pobiner, B., Pante, M. & Keevil, T. *Sci. Rep.* **13**, 9896 (2023).

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