

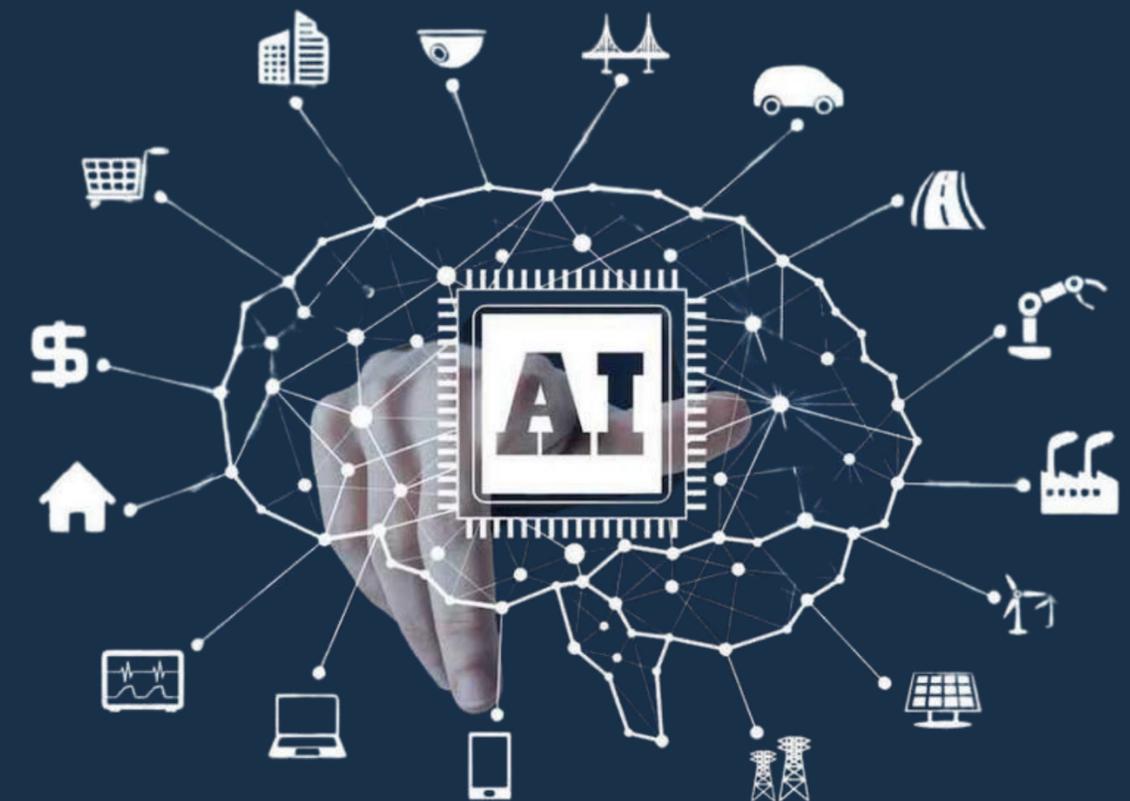


Adopción de IA en las empresas mexicanas

Hallazgos, retos y oportunidades

Oscar Preciado

Technology & Performance Solutions



Congreso Internacional de Ciberseguridad, Tecnologías, Innovación y Ciencia
Guadalajara, Jalisco, 22 de Mayo de 2025

PRESENTACIÓN

Oscar Preciado

- Ingeniero Industrial por la Universidad de Guadalajara
- He participado en diferentes programas de especialización del Instituto Panamericano de Alta Dirección de Empresas (IPADE)
- Múltiples certificaciones en temas relevantes en datos, analítica avanzada e IA
- +25 años de experiencia trabajando soluciones de software empresarial y consultoría
- +15 años trabajando con soluciones de datos y analítica avanzada
- Fundador y Director General de **Technology & Performance Solutions** - Empresa especializada en temas de **Datos, Analítica Avanzada e IA**



Contacto:

oscar.preciado@tps.ai

Technology & Performance Solutions (TPS)



20 años en el mercado



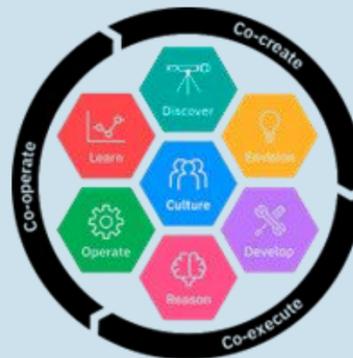
Alianzas Estratégicas



Oficinas en Guadalajara, CDMX y Culiacán con operación en toda la República



Ciclo de Análisis de la Información: Planeación, Análisis Descriptivo y de Diagnóstico, Analítica Predictiva, Analítica Prescriptiva - Optimización, IA Tradicional y Generativa



Enfoque ágil en implementación de proyectos



Especialistas en el ciclo de vida de los datos: Acceso, Integración, Calidad, Gobierno, Disponibilización.

IAA+ CONTEXTO

Lineal vs Exponencial

Take 30
LINEAR
steps...



Lineal vs Exponencial

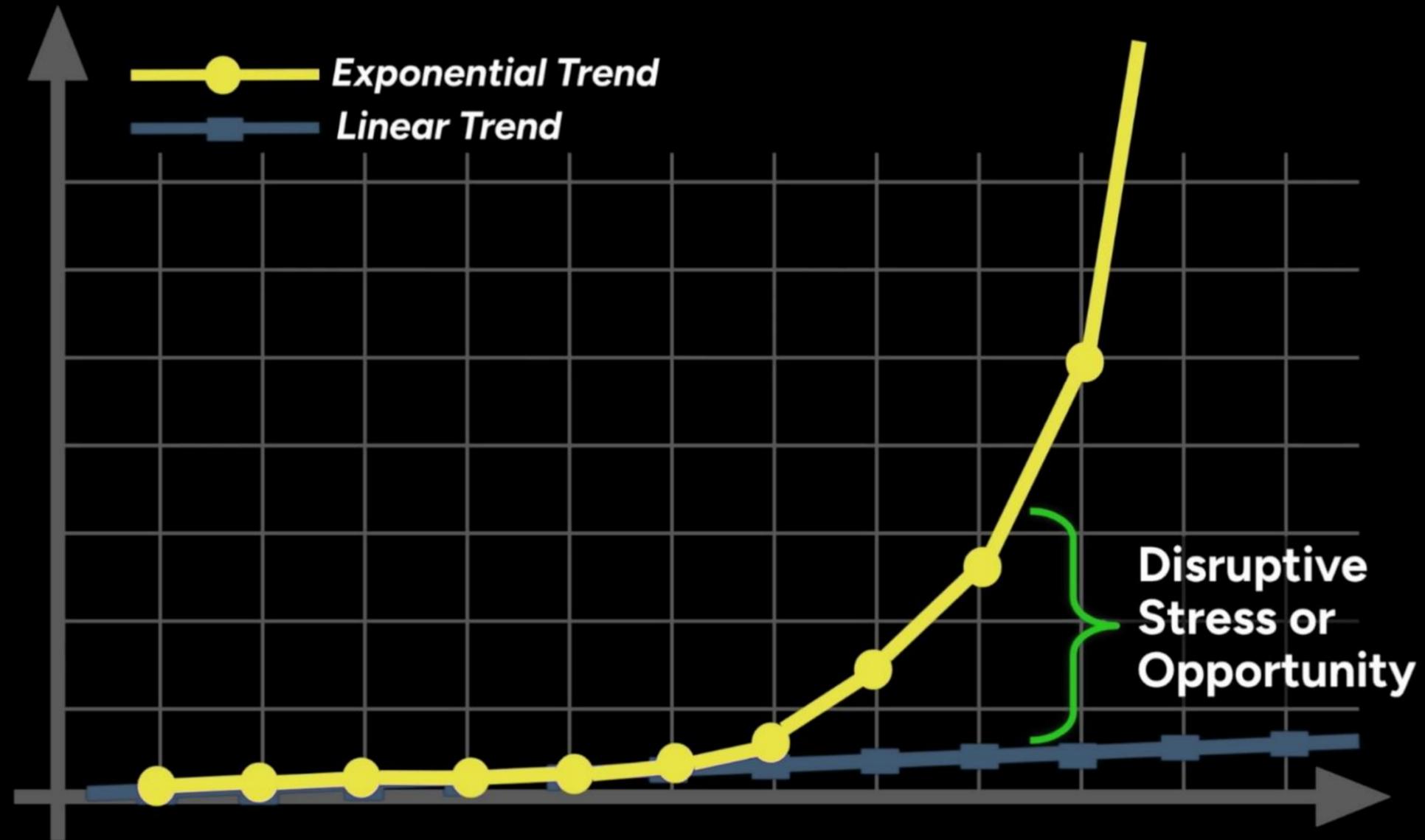
Take 30
EXPONENTIAL
steps...



26X around the Earth!

1,073,741,824
meters!

Lineal vs Exponencial



Convergencia de tecnologías exponenciales

Computation

Sensors

Networks

Artificial Intelligence

Advanced Materials & Manufacturing

Robotics

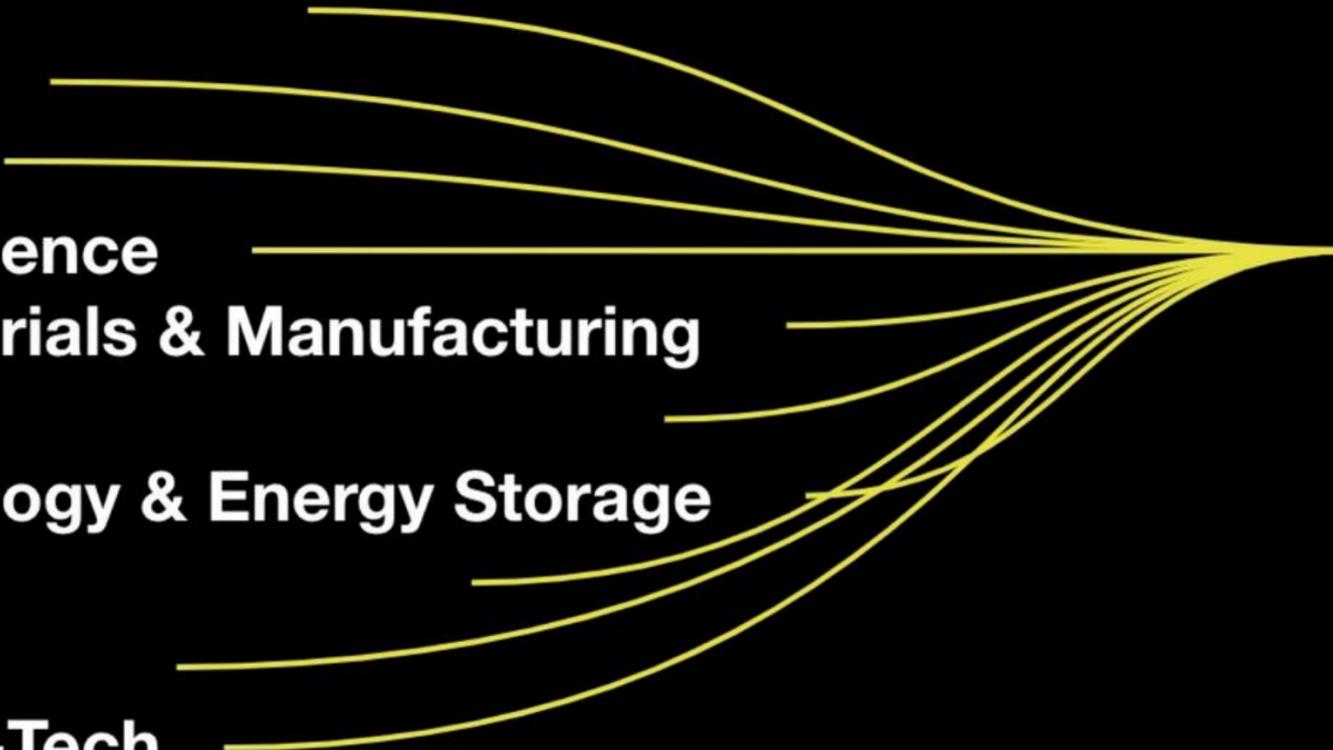
Battery Technology & Energy Storage

AR-VR (XR)

3D Printing

Biotech/Health-Tech

TODAY

A diagram illustrating the convergence of various exponential technologies. On the left, a list of ten technologies is shown in white text: Computation, Sensors, Networks, Artificial Intelligence, Advanced Materials & Manufacturing, Robotics, Battery Technology & Energy Storage, AR-VR (XR), 3D Printing, and Biotech/Health-Tech. From each of these text items, a thin yellow line extends to the right, where all lines converge into a single point. From this convergence point, a thick yellow arrow points towards the word 'TODAY', which is written in large, bold, yellow capital letters.

“

We will experience as much change in the next decade, as we've experienced in the preceding 100 years.

– Ray Kurzweil



+ IIA → IIA +

APRENDIZAJES - ¿QUÉ HEMOS ENCONTRADO?

Desconocimiento

Nivel de Madurez

Falta de Estrategia

Equipos Incompletos

Usos de la IA en México 2025

Anexo 1: Resultados del sondeo sobre uso actual y futuro de metodologías de IA

Función	Utilizo	Planeo
Automatización y asistencia:		
Chatbots: Asistentes virtuales que usan IA para responder con voz o texto.	69%	89%
Robot Process Automation (RPA): Robots de software para automatizar procesos.	51%	77%
Motores de recomendación: Sistemas que recomiendan acciones o personalizan respuestas.	49%	80%
Robótica de IA: Robots físicos que usan IA para automatizar procesos.	11%	30%
Creación y síntesis de contenido:		
IA Generativa: IA que crea contenido nuevo, clasifica y sintetiza contenido existente como texto, imágenes, audio o video.	66%	87%
Generación Aumentada por Recuperación (RAG): Recuperación de información (un proceso de búsqueda y selección de datos relevantes) y generación de lenguaje natural (la capacidad de crear texto coherente y contextual).	32%	60%
Análisis e Interpretación de datos:		
Procesamiento del lenguaje natural: Sistemas que entienden, procesan, generan o traducen texto en lenguaje natural.	61%	82%
Análisis predictivo: Sistemas que hacen previsiones, predicen resultados o detectan anomalías.	57%	87%
Visión por computadora: Sistemas que usan IA para detectar objetos, reconocer imágenes o analizar videos.	34%	58%
Razonamiento y toma de decisiones:		
Razonamiento basado en reglas: Sistemas expertos que usan lógica programada para apoyar decisiones.	49%	78%
Sistemas de toma de decisiones: Sistemas de IA que recomiendan decisiones.	43%	78%
Agentes inteligentes: Sistemas que actúan o toman decisiones de forma autónoma (en inglés AI agentic).	33%	65%
Replica virtual (Digital twins): Versión digital del mundo físico como un proceso de manufactura para análisis, simulación y predicción de su comportamiento.	17%	46%
Aprendizaje y mejora:		
Aprendizaje automático: Sistemas que aprenden con datos sin necesidad de reprogramación (Aprendizaje supervisado, no supervisado y por refuerzo).	47%	78%

Nuevos Roles Requeridos para la Adopción de IA

list new roles and job positions required by companies adopting AI

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Perplexity Sources · 10 Tasks

- LinkedInEditors: 5 new jobs being created by AI - LinkedIn
- Winssolutions: 48 Jobs AI Will Replace by 2025: Check If Yours is at...
- LinkedInEditors: The AI Revolution at Work: How 2025 is Shaping the...
- Efectio » Company Cul...: The Rise of AI Roles: What New Job Titles Mean for...

Companies adopting AI are creating several new roles and job positions to manage, implement, and govern AI technologies effectively. Key emerging roles include:

- **AI Consultant:** Bridges business needs and AI solutions, guiding AI adoption and aligning projects with business goals 1.
- **AI Prompt Engineer:** Specializes in crafting and refining prompts to optimize outputs from generative AI tools, requiring strong communication and critical thinking skills 1 4 6.
- **AI Customer Experience Specialist:** Designs smooth, personalized AI-driven customer interactions to improve user satisfaction 1.
- **AI Ethics Officer:** Ensures responsible and ethical AI development and deployment, developing guidelines and conducting ethical reviews 1 4.
- **AI Security Specialist:** Focuses on cybersecurity threats enabled by AI, defending against sophisticated attacks 1 5.
- **Generative AI Engineer:** Develops autonomous content-creating AI systems 4.
- **Computer Vision Engineer:** Works on enabling machines to interpret visual data 4.
- **AI Compliance Specialist:** Oversees AI governance, compliance, and ethical use within organizations 3 5.
- **AI Research Scientist:** Advances AI algorithms and models through research 6.
- **AI or Machine Learning Engineer:** Builds and optimizes AI and ML systems, a highly demanded technical role globally 2 6.
- **Chief AI Officer (CAIO):** Leads holistic AI strategy, collaborating across IT, HR, and compliance teams to integrate AI responsibly and effectively 6.
- **Governance and Regulation Specialist:** Develops AI policies, risk management protocols, and ensures responsible AI use 5.
- **Security and Policies Specialist:** Creates security frameworks and handles AI-related breaches and risks 5.

list new roles and job positions required by companies adopting AI

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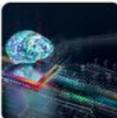
Perplexity Sources · 10 Tasks

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LinkedInEditors
linkedin.com/pulse/5-new-jo...
5 new jobs being created by AI - LinkedIn
Like the internet and social media before it, AI will profoundly impact the job market. But as a wise grandma might say, there are two sides to every coin.
- 

Built In
builtin.com/articles/gener...
Generative AI Is Changing the Workforce — Are Companies Ready?
Generative AI promises to reshape the future of work. Prepare for that change now.
- 

Efectio » Company Culture Management
efectio.com/en/the-rise-of...
The Rise of AI Roles: What New Job Titles Mean for Your Career » Efectio
The rapid evolution of artificial intelligence (AI) is not just reshaping technology; it is fundamentally transforming the job market. As we step into 2025, new job titles are emerging, reflecting the diverse applications of AI across various industries. The Emergence of New Job ...
- 

LinkedInEditors
linkedin.com/pulse/how-ai-c...
How AI is Creating New Job Opportunities and Reshaping the Workforce Across...
AI is fundamentally transforming the workforce, not just by automating jobs but also by creating entirely new roles that never existed before. According to the World Economic Forum, AI and automation could result in a net gain of 97 million new jobs by 2025, even as some traditional ...
- 

HRD Australia
hcamag.com/au/specialisat...
Now hiring: What are the emerging roles amid AI transformation?
Here's a list of new job titles emerging across Australian workplaces due to AI
- 

CustomGPT
customgpt.ai/ai-employment-...
The Future Unveiled: 5 AI-Driven Employment Opportunities Soon To Emerge - ...
Explore emerging AI-driven jobs transforming the employment landscape. Discover futuristic careers and opportunities AI will soon unveil.

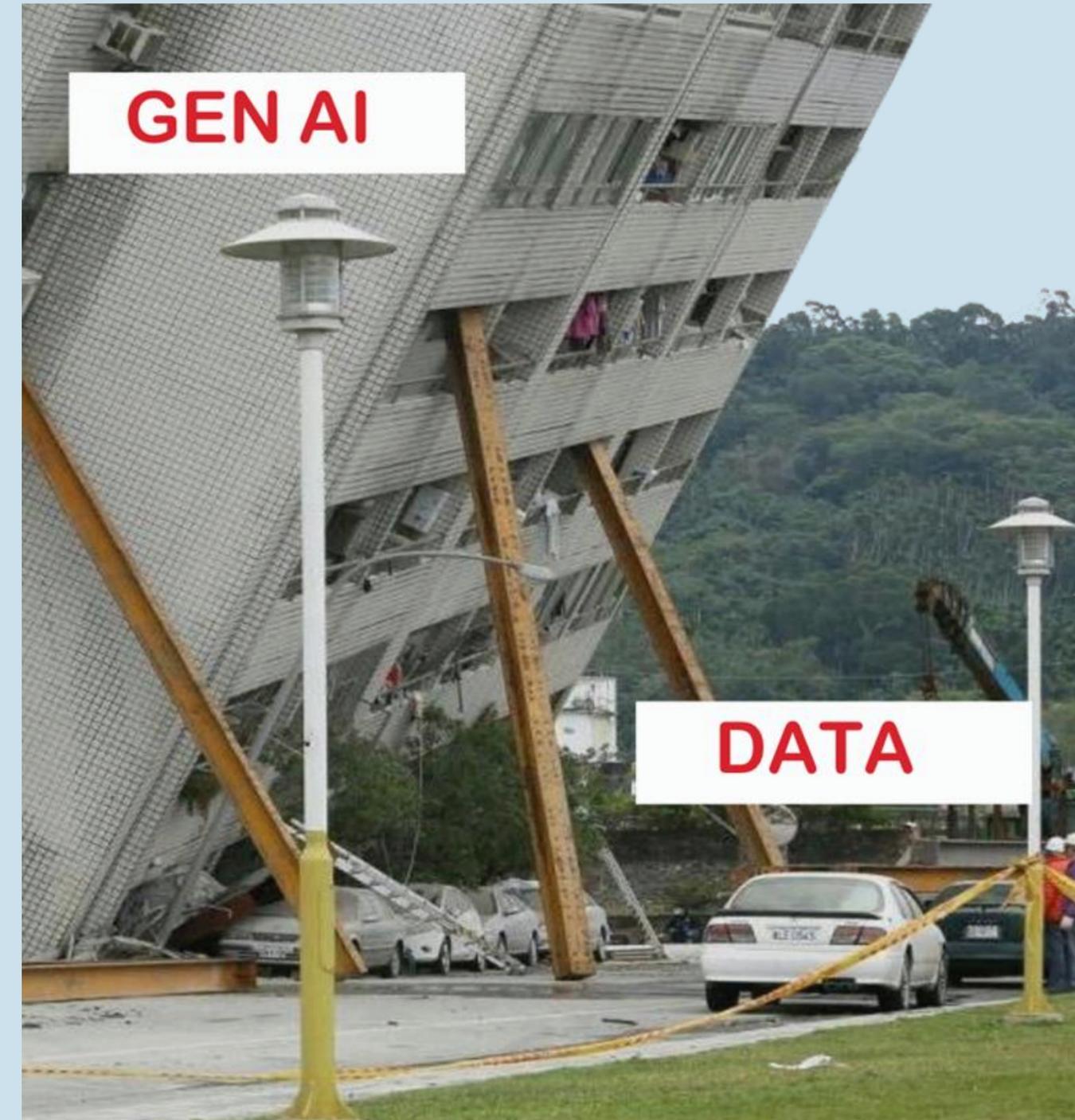
RETOS PARA LA ADOPCIÓN DE LA IA

Datos

Data is
your most
powerful tool

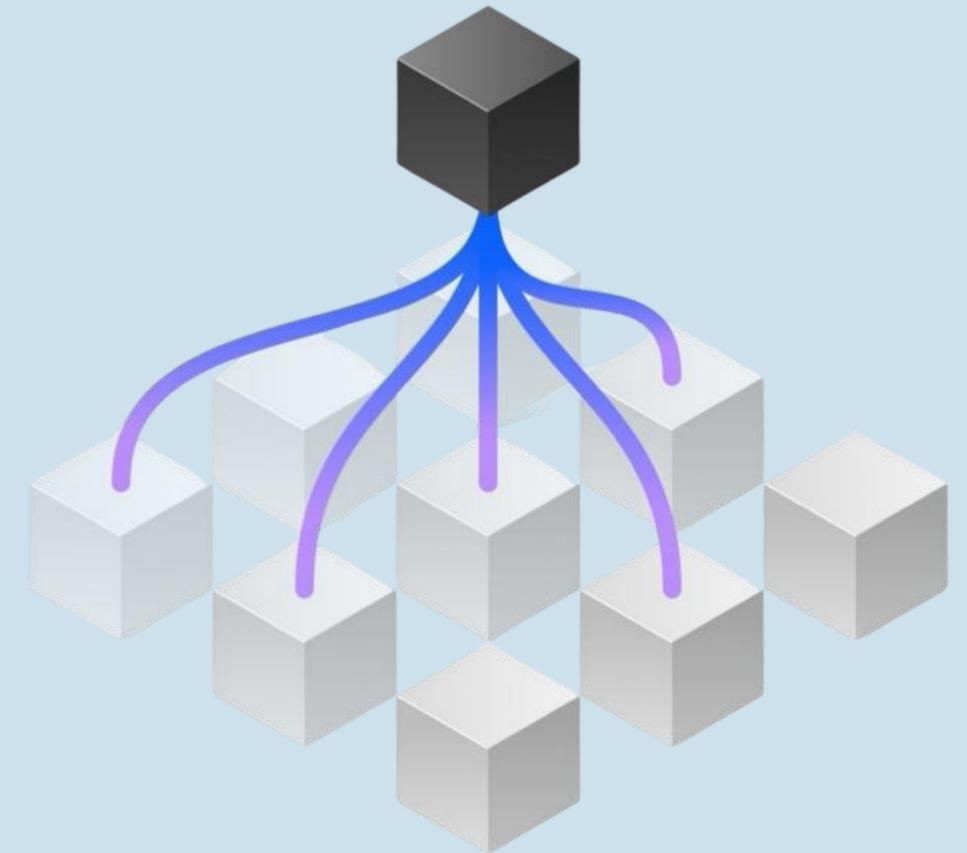
99%

**DE LOS DATOS
EMPRESARIALES AÚN NO
SON APROVECHADOS POR
LA IA GENERATIVA**

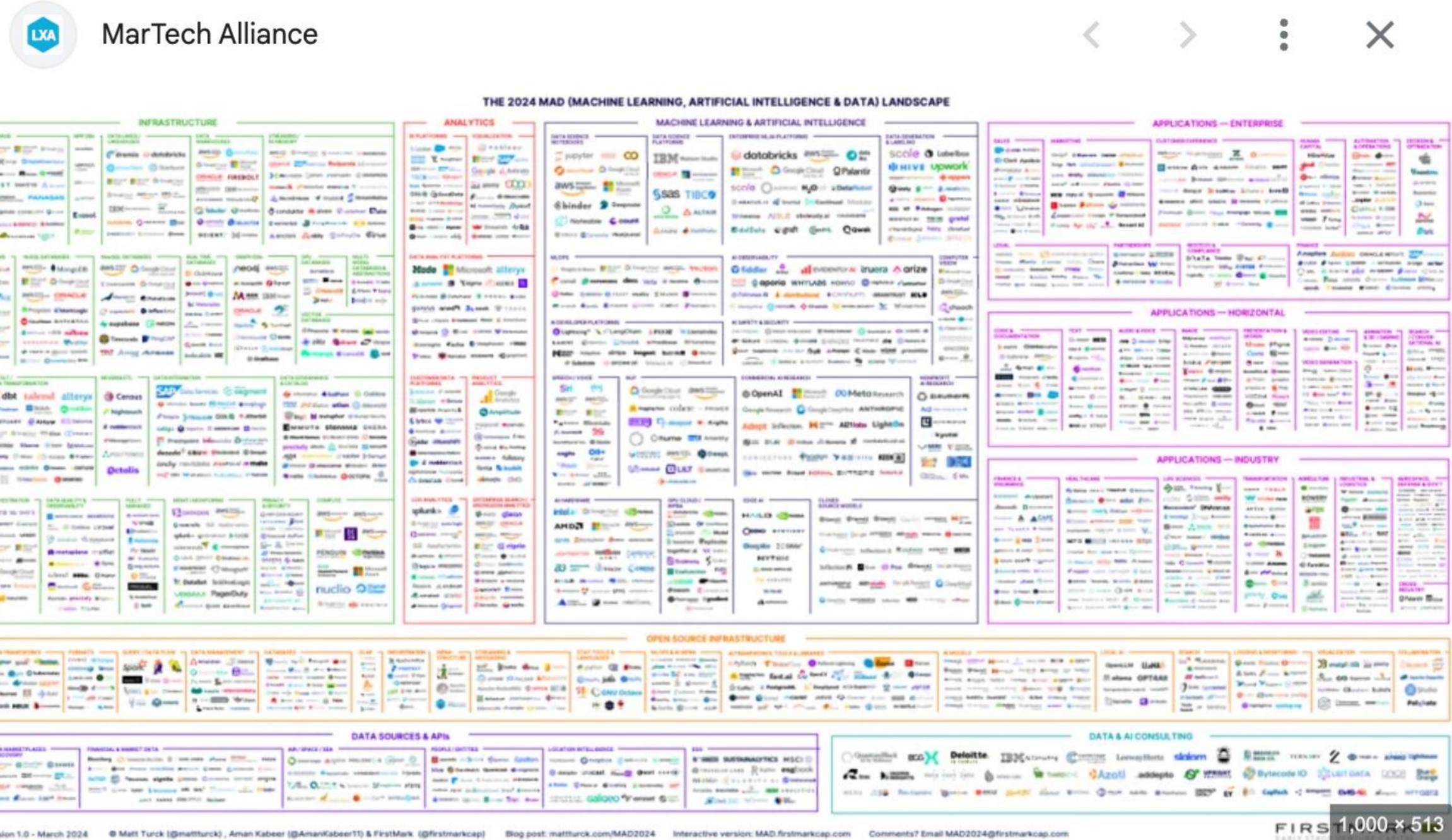


Datos

- **Acceso e Integración (Data Silos)**
- **Calidad**
- **Gobierno (Datos y Modelos)**
 - **Seguridad**
 - **Privacidad**
- **Disponibilidad (Data Sharing)**
- **Uso (Data literacy)**



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Streaming/In-Memory

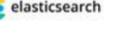
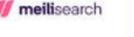
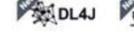
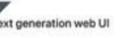
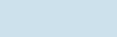
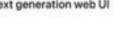
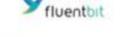
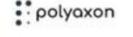
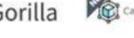
Streaming/In-Memory

Streaming/In-Memory

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Talento - Tu equipo no es tan fuerte como piensas

“We have to have the best team for today—but will it be the right team for the future? We cannot be sure. That’s why we need to reskill, retool, and get people ready for what is coming.”
Ngiam Siew Ying
CEO, Synapxe

Most CEOs are acting fast on generative AI—but fewer understand its workforce implications

“We must change our business model to benefit from AI—and in the future, quantum computing—to recruit the best talent.”
Nobuhiro Tsunoda
Chairperson, Ernst & Young Tax Co., Japan

51% of CEOs say they’re currently hiring for generative AI-related roles that didn’t exist last year.

Only 44% of CEOs have assessed the impact of generative AI on their workforce.

Connecting the dots will be crucial in the coming year, given that 40% of CEOs plan to add staff because of generative AI. A larger portion (47%) expect to reduce their workforce because of generative AI, but they say the number of jobs created will exceed the number of jobs lost overall.

The augmented workforce of the future promises to create more value than people or machines can deliver alone, but you can’t plug tomorrow’s talent into yesterday’s operating model. CEOs must identify the people doing tomorrow’s jobs today and tap their experience to define how work should be done in the future.

¿Cómo lo resolvemos?

Revisar y analizar las capacidades del equipo

- Identificar el talento con visión de futuro que pueda liderar el cambio y darles las herramientas para enseñar a otros.
- Entender qué es lo que falta y si la capacitación puede llevarte a dónde necesitas
- Evaluar el costo asociado a reemplazar talento que no puede adaptarse.

Fomentar la creatividad con una cultura de innovación y creatividad

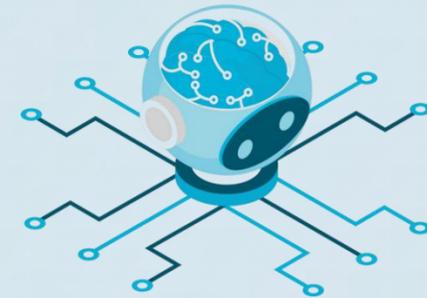
- Cultivar la adopción de la tecnología en personas de diferentes áreas para que impulsen las iniciativas de transformación.
- Redefinir las formas de trabajo - fomentar la experimentación con IA Generativa para diseñar e implementar nuevas maneras de hacer las cosas.
- Recompensar la toma medida de riesgos - usar incentivos para mostrar que, independientemente del resultado, la experimentación con IA Generativa entrega valor a la organización.

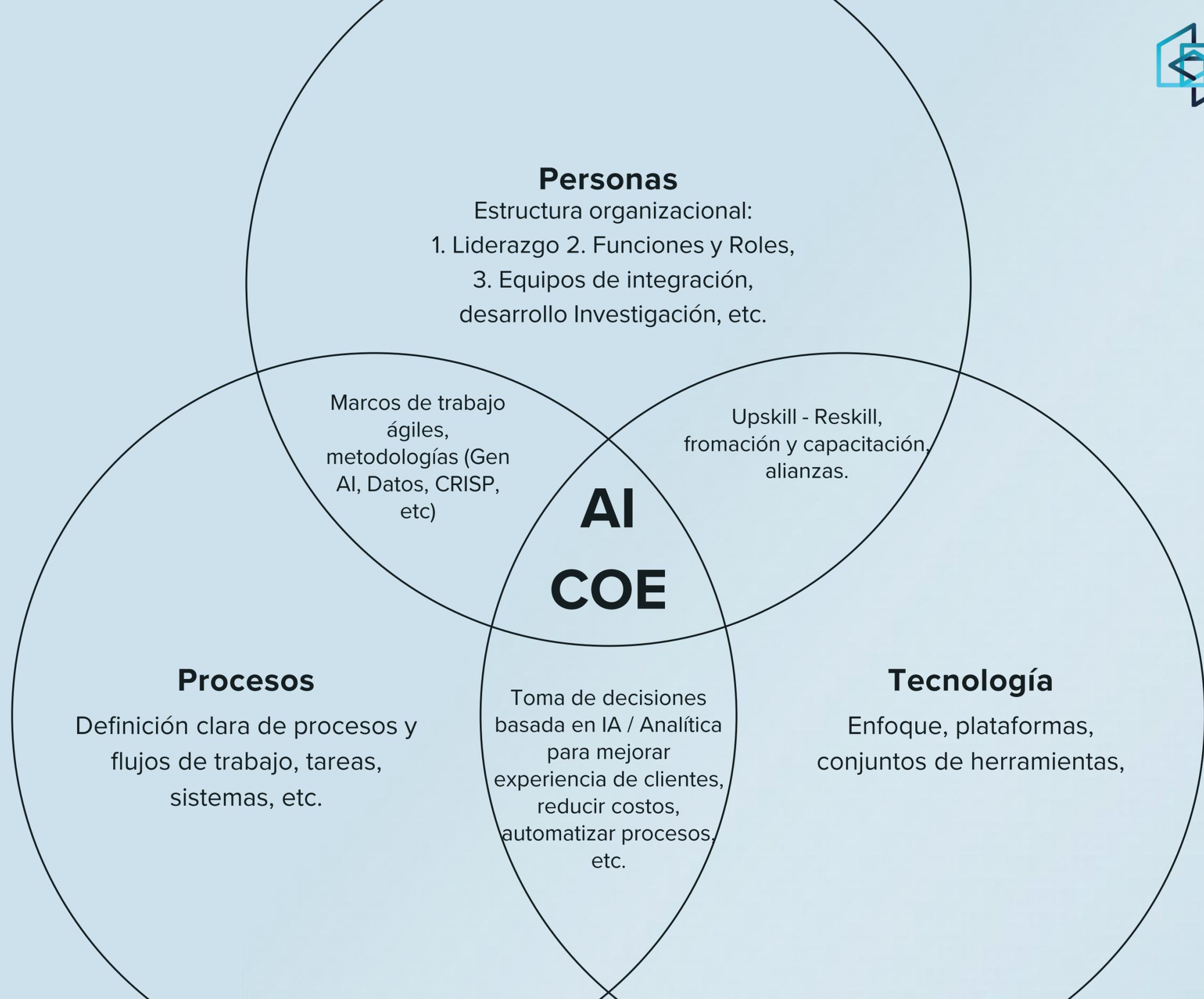
Hacer de las personas la inversión tecnológica más importante

- Analizar con detalle la información del equipo de trabajo, identificar las áreas de oportunidad y determinar un plan de Upskill/Reskill/Retooling.
- Saber cuándo comprar, construir, pedir prestado o usar un agente. Evaluar en dónde hace sentido cerrar la brecha con capacitación, automatización o usando alianzas.
- Estar preparado para invertir más que en el pasado para atraer talento con habilidades altamente demandadas.

OPORTUNIDADES

El viaje hacia la IA





**LA IA NO REEMPLAZA
NUESTRAS CAPACIDADES
Y CREATIVIDAD, LAS
AUMENTA Y EMPODERA...**

**...LET'S PUT
AI TO WORK!**



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¡Gracias!