

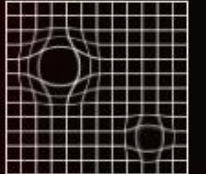
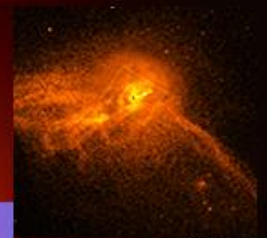
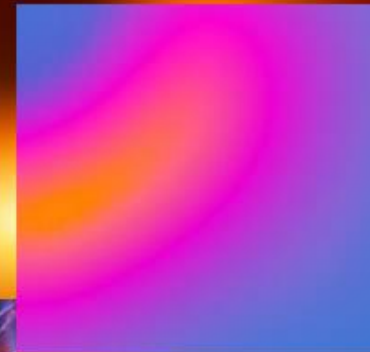


Microsoft AI for Healthcare

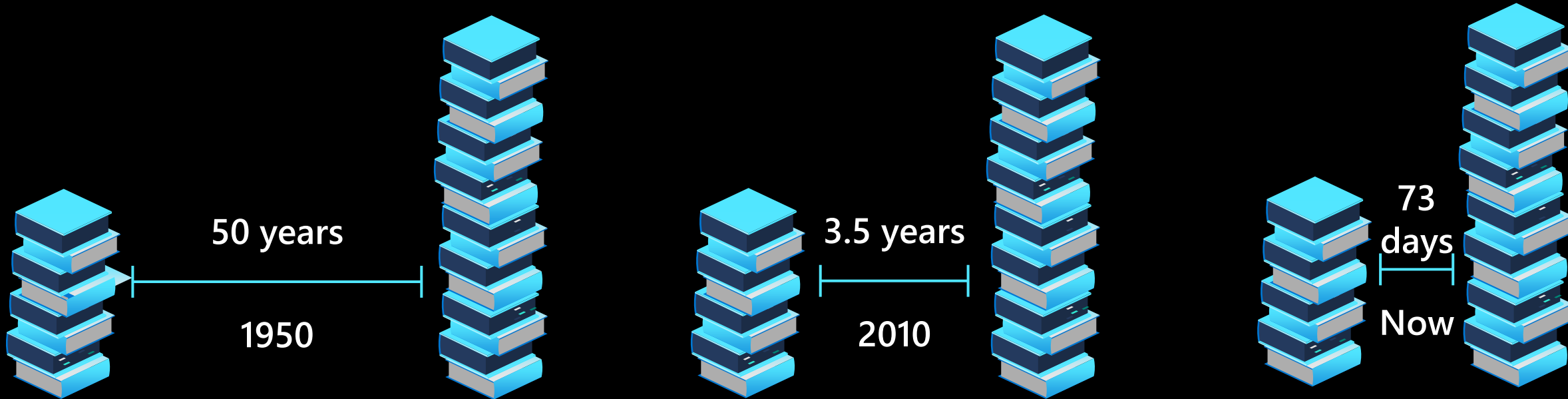
Manuel Dias

National Technology Officer & Executive Board Member

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MEDICAL KNOWLEDGE GROWING AT AN EXPONENTIAL SPEED



DRIVING INTELLIGENT HEALTHCARE

A futuristic healthcare interface. A hand holds a transparent screen displaying COVID-19 data, chemical structures, and a robotic arm. The screen shows a biohazard symbol, a human silhouette, a bar chart, and a 3D model of a virus. Text on the screen includes 'CORONAVIRUS COVID-19', 'PULSE 82', '125', 'DBP-80', 'STATUS 15% COMPLETE', '54', '38', 'FUNC ATAT : STABLE', and 'TEMP 194.2'. Chemical structures are visible in the background.

1GB Data

On average of health-related data created daily per person

2 Billion

people in 2050 over 60 years old, 10% increase over today's population

97% patients

raised their expectations on healthcare services, in quality, agility and intelligence

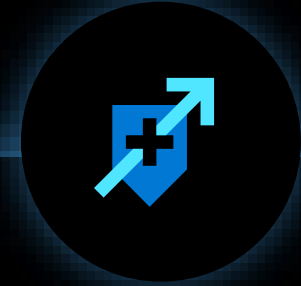
How Technology transforms Healthcare



Enhance patient
engagement



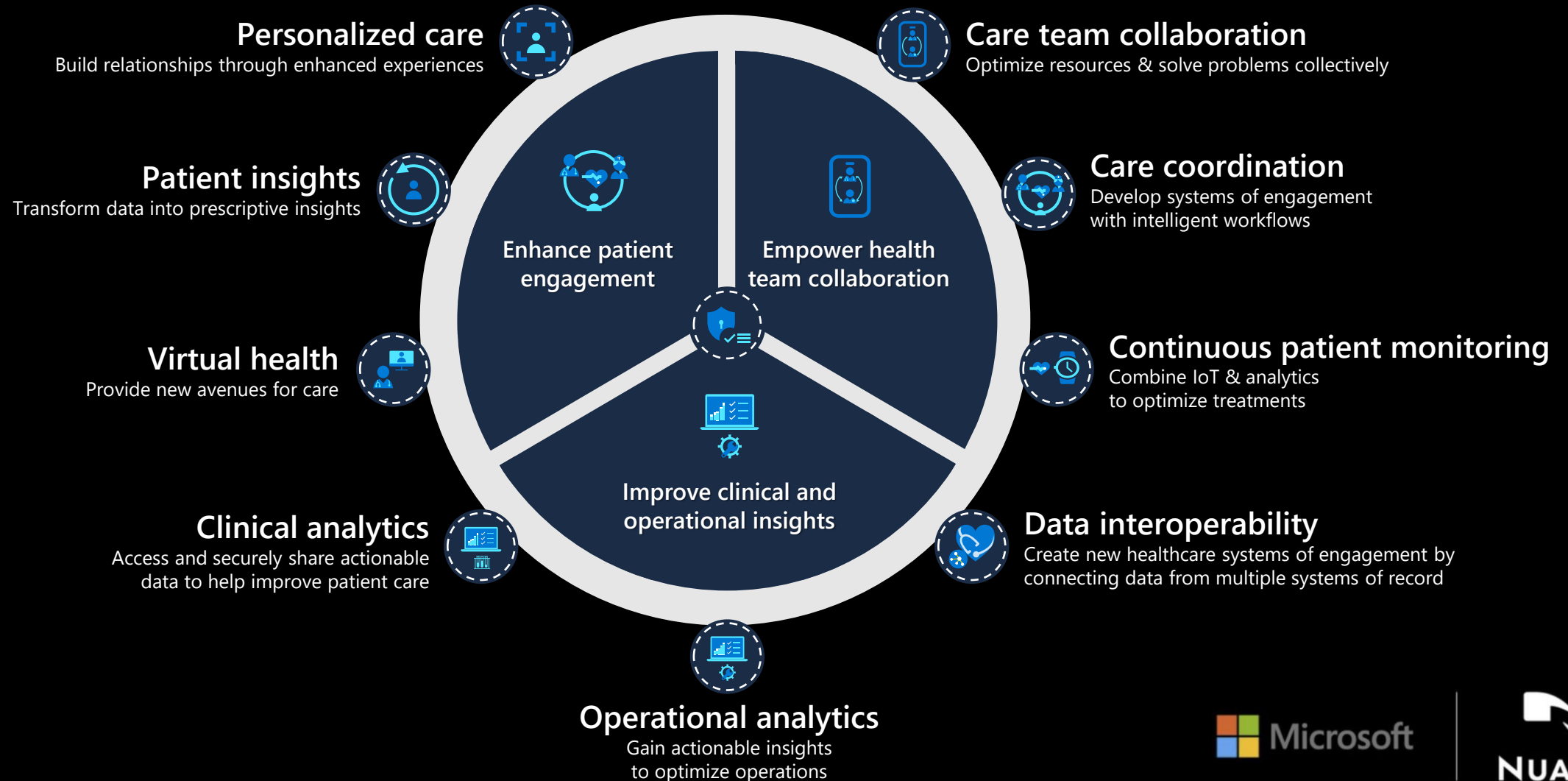
Improve clinical and
operational outcomes



Accelerate scientific
innovation



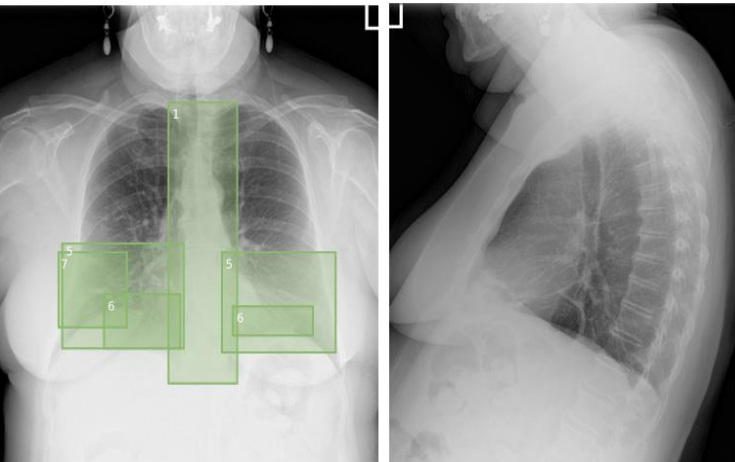
MICROSOFT CLOUD FOR HEALTHCARE



MAIRA-2: The First Open Model for Grounded Radiology Report Generation!

MAIRA-2 incorporates additional contextual information, aligning the model's inputs with the comprehensive data that radiologists use daily. This includes integrating **lateral views**, **prior frontal images**, **prior reports**, and sections like **Indication**, **Technique**, and **Comparison**.

The model extends beyond generating reports by **spatially grounding** each described finding directly onto the image using annotations like bounding boxes, enhancing image comprehension and verification.



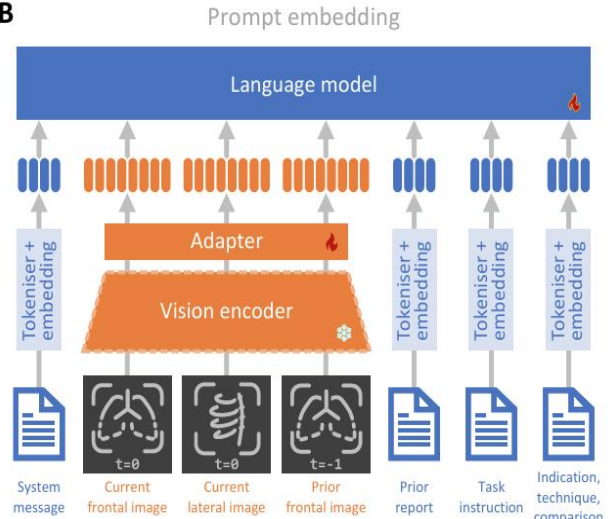
Frontal Image **Lateral Image** (flipped horizontally for display)

Indication: Cough and wheezing for 5 months.
Technique: PA and lateral views of the chest were obtained.
Comparison: None
Prior Report: None

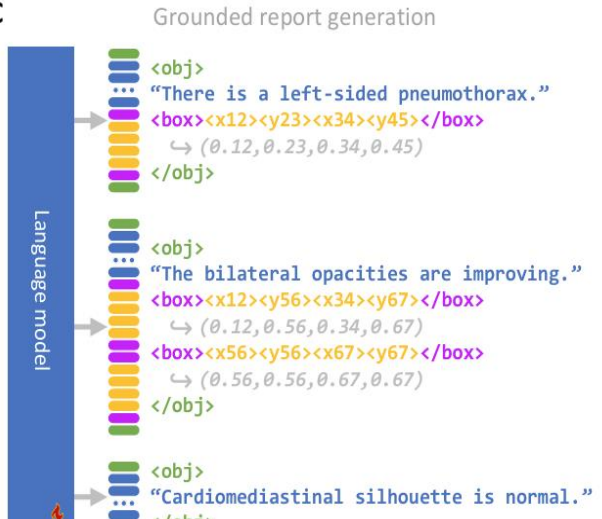
Findings:

1. Degenerative changes seen in the dorsal spine.
2. The lungs show no mass.
3. The lungs show no effusion.
4. Diaphragms are sharp.
5. Prominent interstitial lung markings at lung bases more the right the left with some consolidation of markings.
6. Atelectasis is noted.
7. Infiltrate in the right middle lobe laterally.
8. Cardiac size is normal.
9. There is no hilar adenopathy.
10. There is no mediastinal adenopathy.

B Prompt embedding



C Grounded report generation



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↳ (0.56, 0.56, 0.67, 0.67)
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...
</obj>
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Smart Personalized Care



Healthcare Bot Service
around the world

1,230 instances of COVID-19 Bots
18,000,000 individual users
160,000,000 messages served

Claims Management and Automation



NHS
Business
Services
Authority



90%

Data confidence using
computer vision
technologies on
handwritten forms

Drug Discovery



Adaptive
biotechnologies®

The logo for Adaptive Biotechnologies, featuring a stylized DNA double helix icon to the left of the word "Adaptive" in a bold, sans-serif font, with "biotechnologies®" in a smaller font below it.

500M

Immune-system sequences
processed within weeks, *not*
29 years

MIXED REALITY ON HEALTHCARE

FMUL

Mixed Reality & AI

Focused on **Cardiovascular**
and **Neurologic** diseases

Using AI for **precise diagnosis**
and advanced data processing

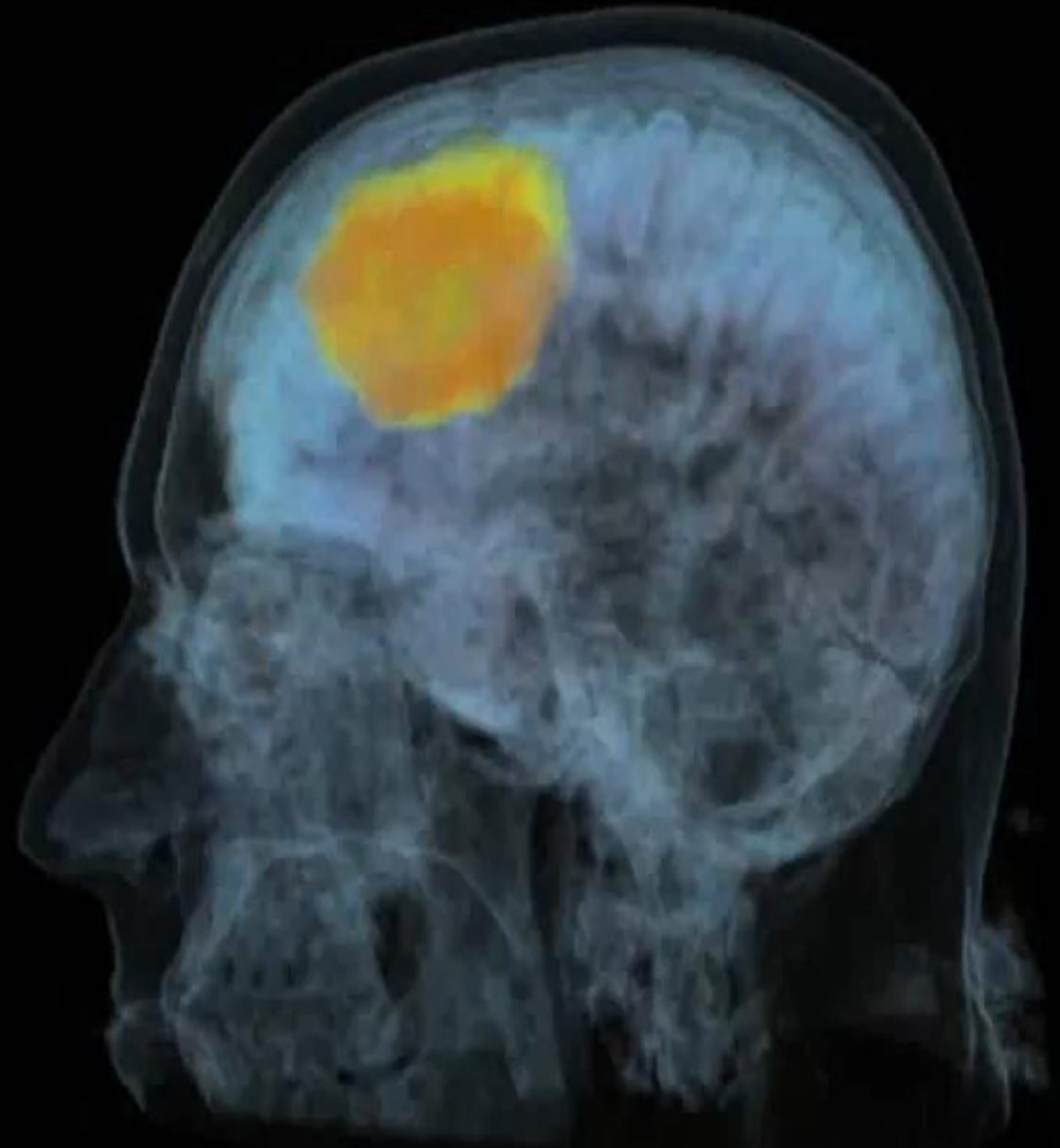


Project InnerEye

Assistive AI for Cancer Treatment

Machine learning techniques for the **automatic delineation of tumors** as well as healthy anatomy in 3D radiological images. This enables:

- Extraction of **targeted radiomics** measurements for quantitative radiology
- Fast radiotherapy planning
- Precise surgery planning and navigation



Copilot for Doctors

Automated clinical reports: DocPort records consultations and generates reports, reducing administrative work.

Time-saving: Frees up 40% of healthcare professionals' time for patient care and research.

Adopted by ULSSM: Part of their strategy to streamline processes and reduce bureaucracy.

Broad application: Used in multiple specialties, following initial training sessions. **Strategic alignment:** Supports international best practices and addresses key priorities, per ULSSM leadership.



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Ferramenta de inteligência artificial apoia trabalho das equipas da ULS Santa Maria

© Novembro 20, 2024





Portuguese Order of Psychologists

Virtual assistant for the Portuguese Order of Psychologists, which aims to facilitate the clinical practice of more than 27,000 Psychologists.

[Exame Informática | Psicólogos portugueses ganham um assistente virtual com IA \(visao.pt\)](#)

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

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EVENTOS OPP

The Psychologist:
Practice & Research Journal

ORDEM DOS PSICÓLOGOS

Ordem dos Psicólogos assina protocolo com o Governo que permite 100 mil consultas a estudantes do Ensino Superior

04.setembro.2024

O Bastonário da Ordem dos Psicólogos Portugueses, Francisco Miranda Rodrigues, assinou esta quarta-feira, 4 de setembro, um protocolo com o governo para a atribuição de Cheques-Psicólogo a estudantes do Ensino Superior. Um protocolo que permite que sejam disponibilizadas 100 mil consultas de psicologia a estes estudantes.

“The only way to discover the limits of the possible
is to go beyond them into the impossible”

Arthur C. Clarke, Author

