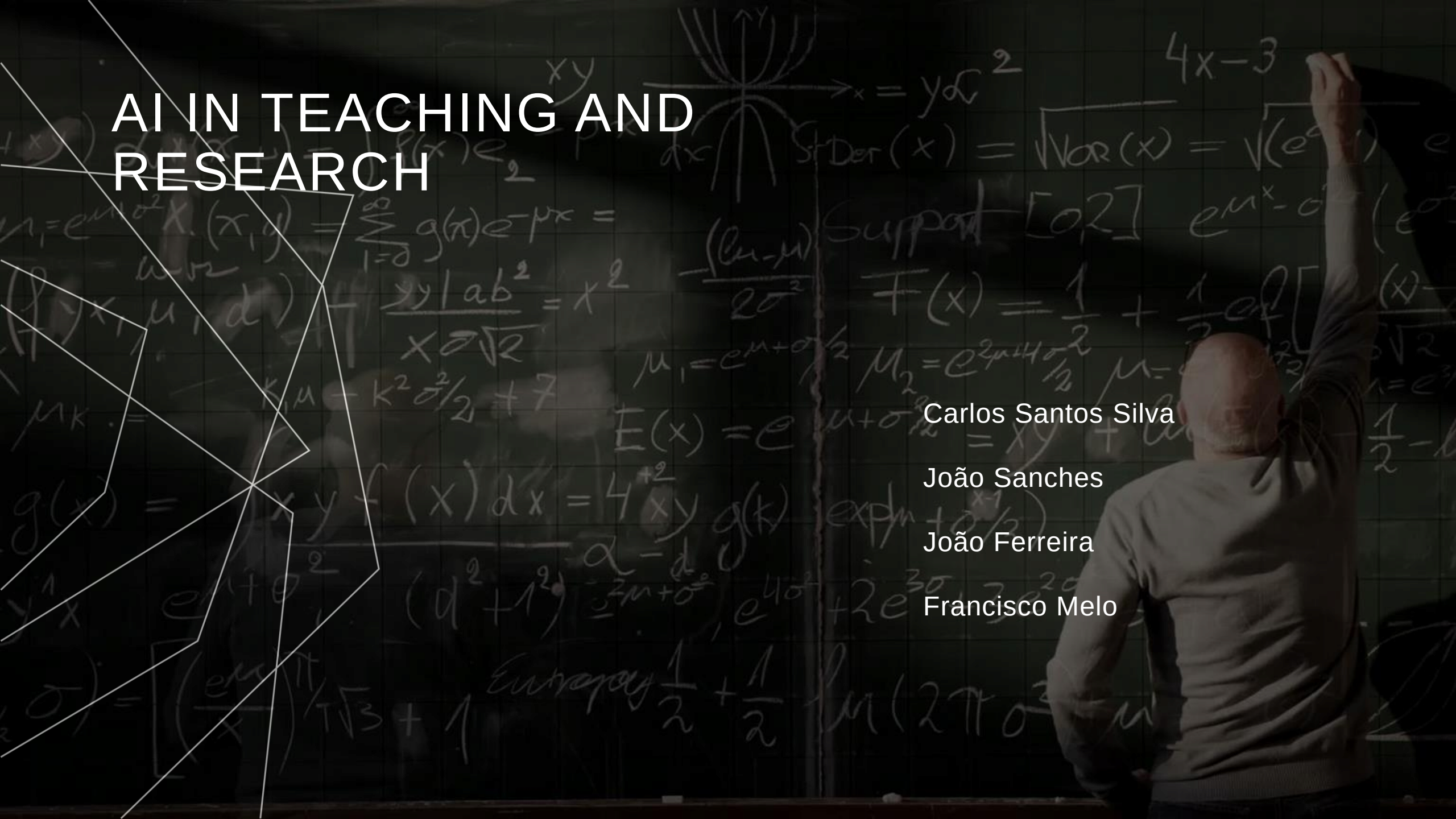
AI IN TEACHING AND RESEARCH

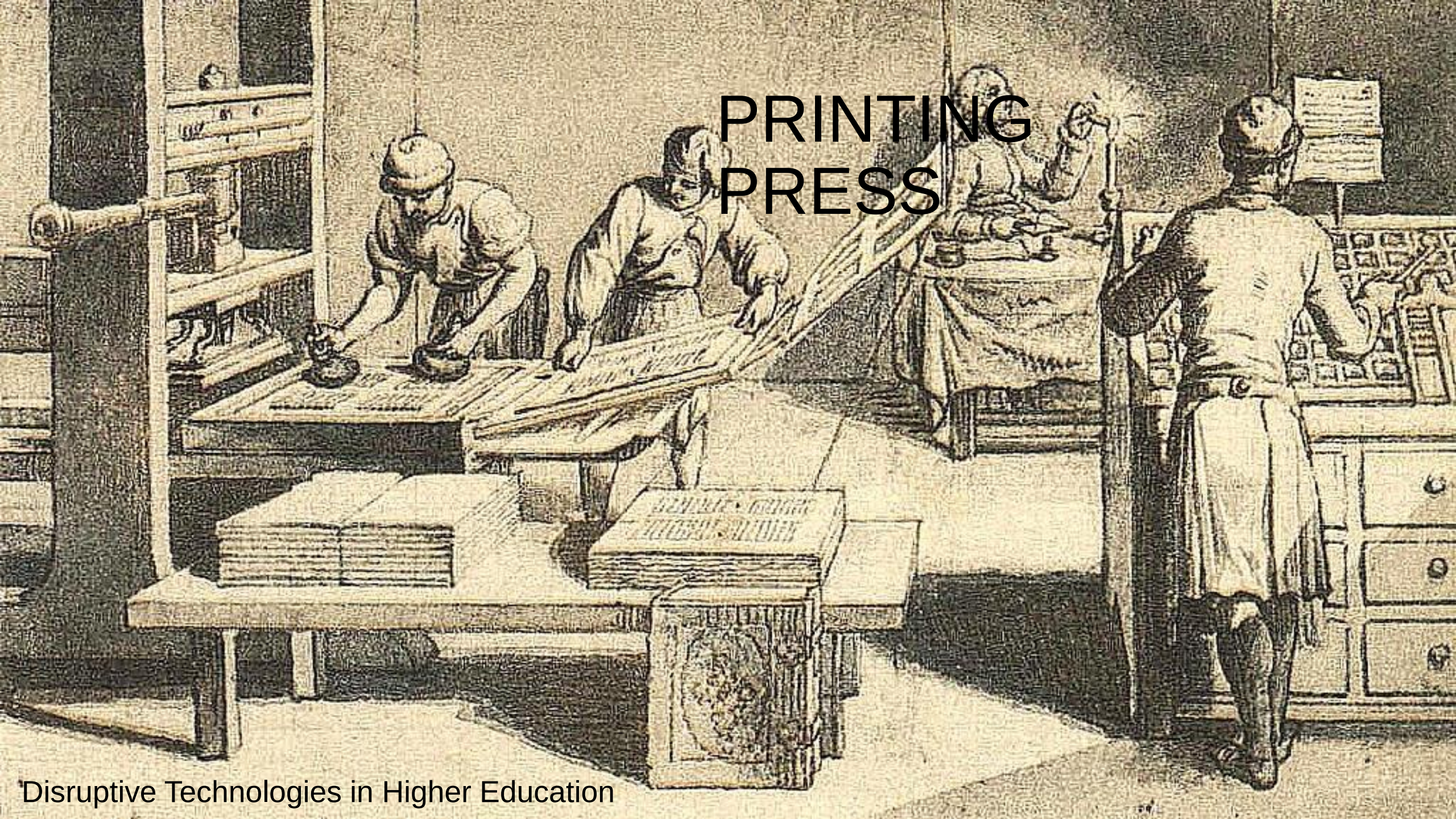


Carlos Santos Silva

João Sanches

João Ferreira

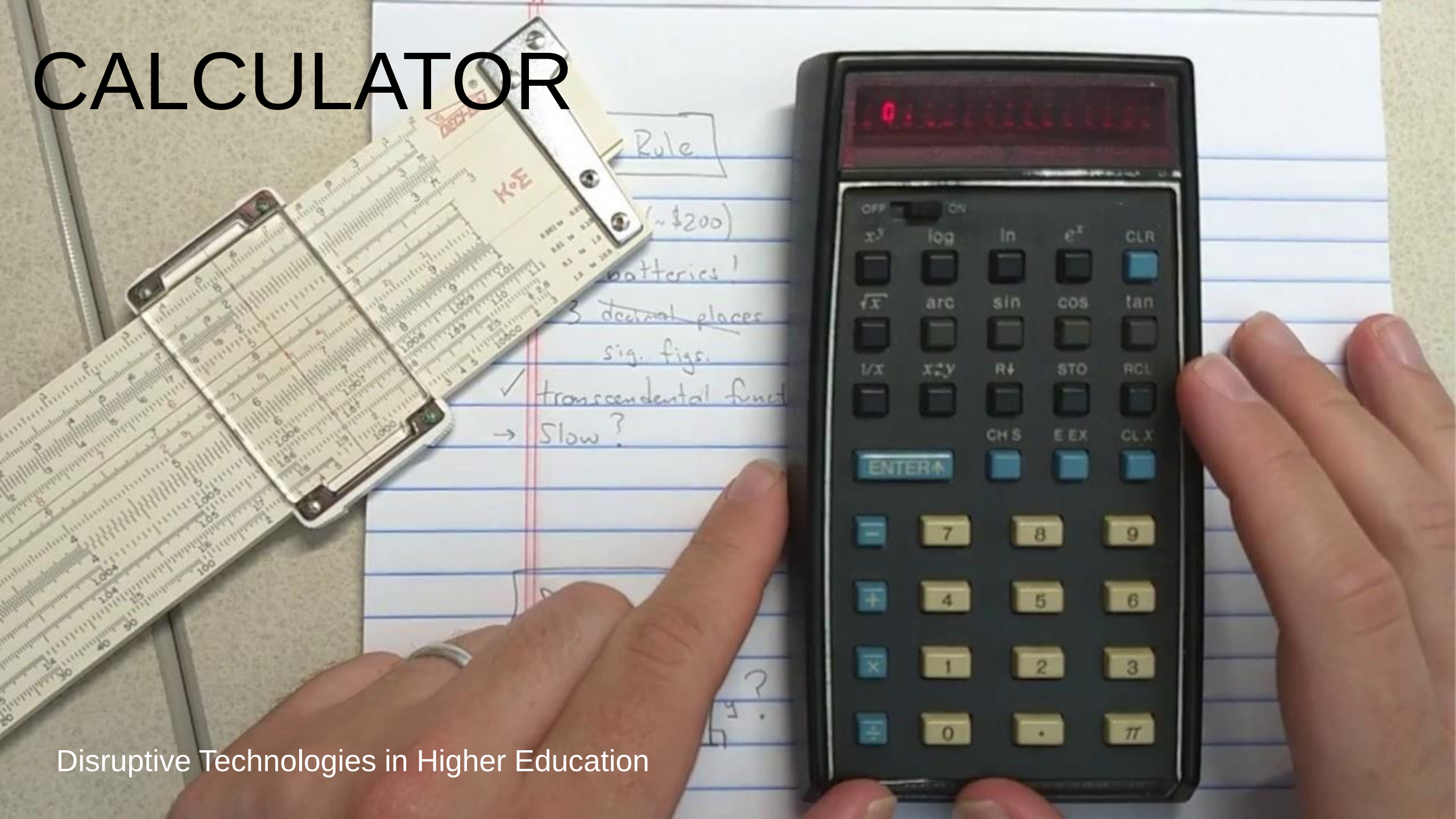
Francisco Melo


PRINTING
PRESS

BLACKBOARD

Disruptive Technologies in Higher Education

CALCULATOR



Disruptive Technologies in Higher Education

ICT

Definitions

Overhead Projector: machine designed to project an image, text, and drawings onto a small screen or whiteboard

Transparencies: pages transparent and flexible used to place information and images

5

IST RECOMMENDATIONS ON AI

Do not forbid AI use

Acknowledge AI use

Demonstrate limitations

Generate quality content

Interactive Personal evaluation

https://conselhopedagogico.tecnico.ulisboa.pt/files/sites/32/relatorio-reflet2-1.pdf

STUDENTS ARE USING IT!

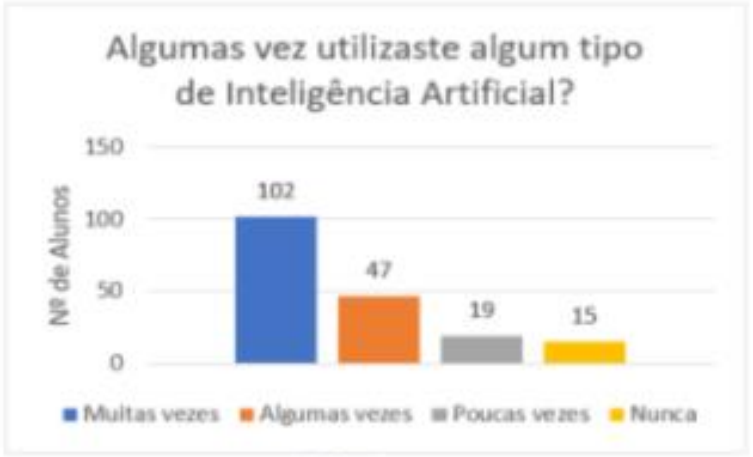


Gráfico 1

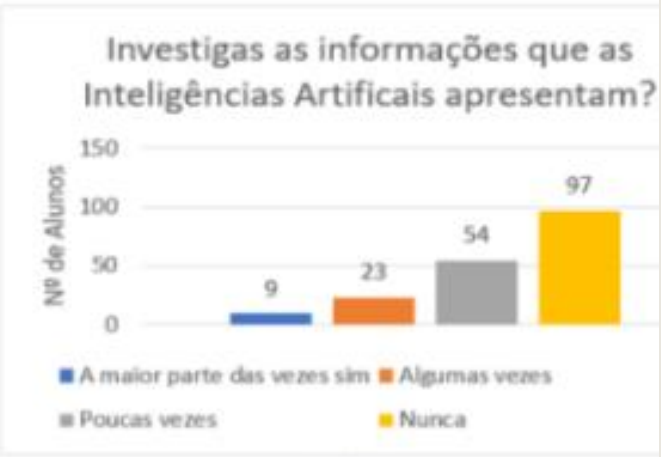
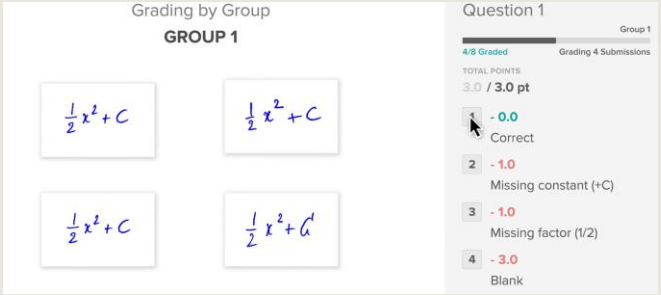


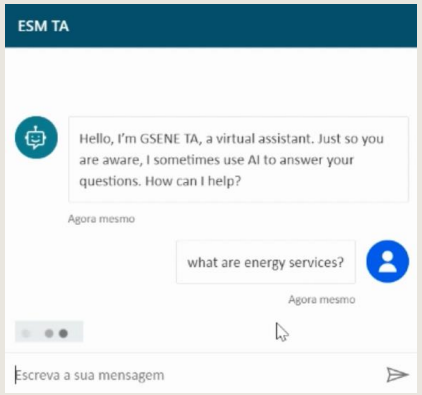
Gráfico 2

Gráfico 3

Gráfico 4

PROFESSORS MUST USE IT!





- Content generation
  - Lecture notes, exams, laboratory guides, slides **translation**
  - **Generate** videos, animations, and visual aids for complex concepts
- Grading and feedback
- Teaching Assistant
  - Generate quizzes (Kahoot!)
  - Class chatbots

WHERE TO START

Co-pilot on Edge

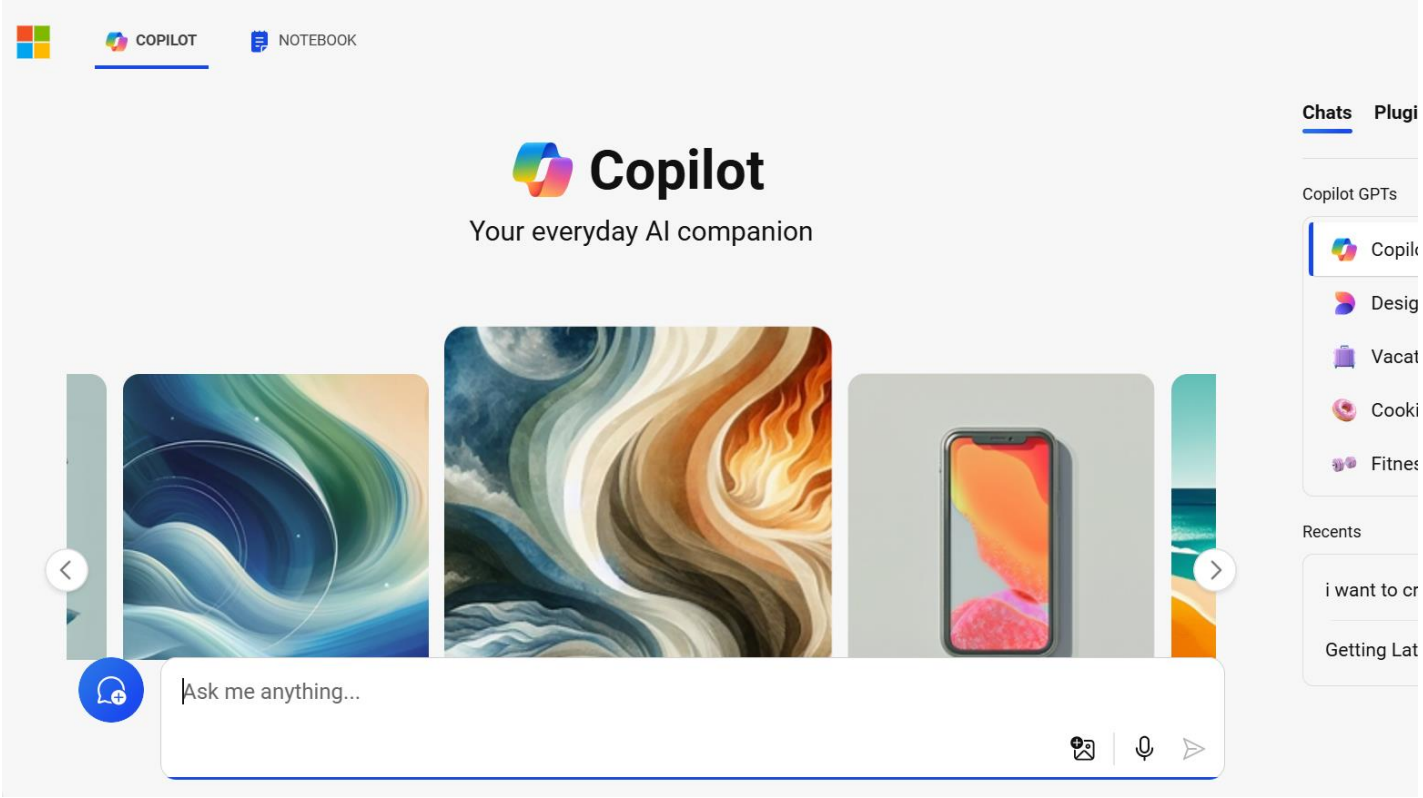
Microsoft 365

- Power Automate
- Chatgpt for Excel, Powerpoint, Word

Kahoot!

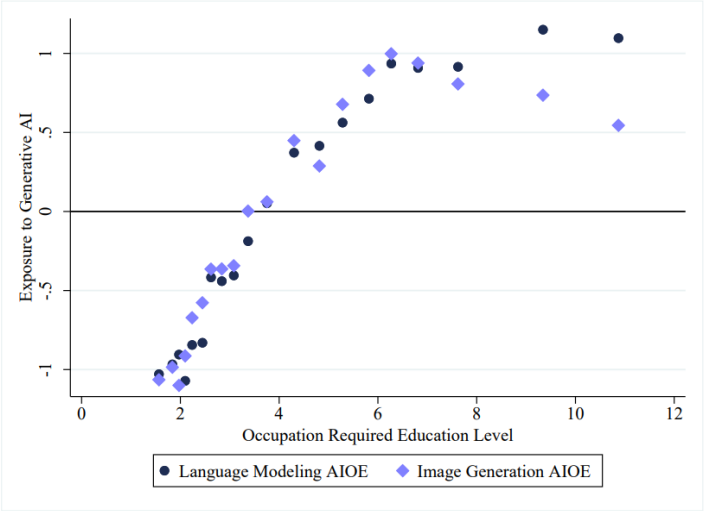
invideo.io /Veed.io

upstack.ai

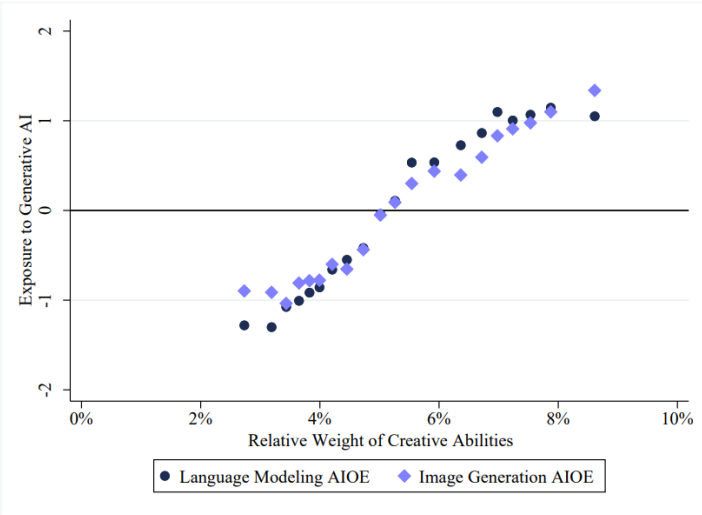


JOB EXPOSURE TO AI

Panel B. Exposure to Generative AI and Required Level of Education.



Panel C. Exposure to Generative AI and Presence of Creative Abilities.



Rank	SOC Code	Occupation Title	Language Modeling AIOE
1	41-9041	Telemarketers	1.926
2	25-1123	English Language and Literature Teachers, Postsecondary	1.857
3	25-1124	Foreign Language and Literature Teachers, Postsecondary	1.814
4	25-1125	History Teachers, Postsecondary	1.813
5	25-1112	Law Teachers, Postsecondary	1.802
6	25-1126	Philosophy and Religion Teachers, Postsecondary	1.800
7	25-1067	Sociology Teachers, Postsecondary	1.770
8	25-1065	Political Science Teachers, Postsecondary	1.770
9	25-1111	Criminal Justice and Law Enforcement Teachers, Postsecondary	1.754
10	19-3041	Sociologists	1.747

765	47-4031	Fence Erectors	-1.675
766	47-2051	Cement Masons and Concrete Finishers	-1.678
767	47-2053	Terrazzo Workers and Finishers	-1.685
768	47-2221	Structural Iron and Steel Workers	-1.701
769	47-3014	Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons	-1.711
770	47-2171	Reinforcing Iron and Rebar Workers	-1.781
771	45-4021	Fallers	-1.791
772	27-2031	Dancers	-1.793
773	47-3011	Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	-1.822
774	51-6021	Pressers, Textile, Garment, and Related Materials	-1.854

246	17-2141	Mechanical Engineers	0.678

TU DELFT ROBOT DESIGN ASSISTED BY GEN AI

CLOSING REMARKS

AI is a powerful tool for learning

It is necessary to verify contents

Hundreds of tools

We have to use, learn how to use and improve its use