GEN AI?

What is the influence of AI on the young generation of scientists?

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IUPAP Inter-Commission Symposium

(THE) ARTIFICIAL INTELLIGENCE, [NOUN]

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- *The capacity of computers or other machines to exhibit or simulate intelligent behaviour.*
  ~ Oxford English Dictionary

- *AI is generally considered to be a discipline of computer science that is aimed at developing machines and systems that can carry out tasks considered to require human intelligence.*
  ~ UN Regional Information Centre for Western Europe

Artificial Intelligence - Buzzword Bingo?

M

Machine Learning
Enabling AI to imitate the way that humans learn

N

Neuromorphic Computing
Developing computing that mimics the concept in which the human brain thinks

N

Neural Networks
Making decisions by using processes that mimic the way biological neurons work together

D

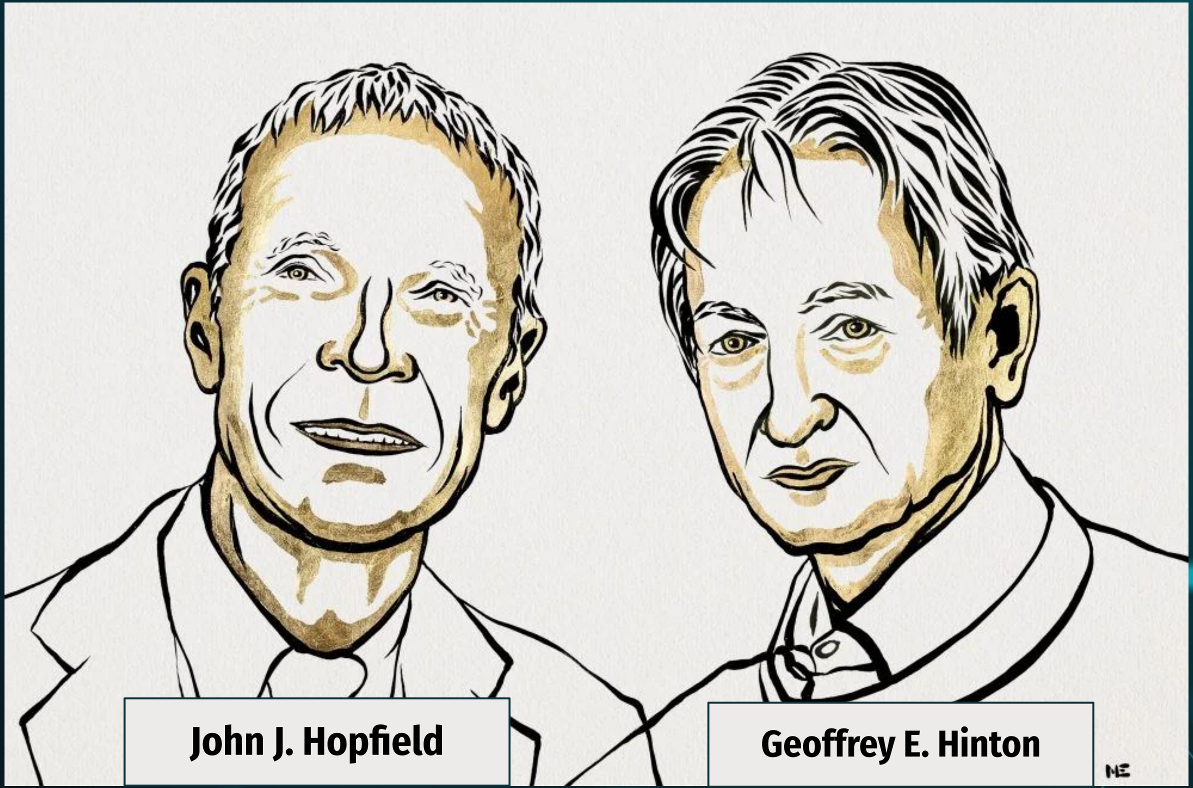
Deep Learning
Using multilayer Neural Networks to stimulate the complex decision-making of the human brain

~ IBM

And it is timely...

The 2024 Nobel Prize in Physics

"for foundational discoveries and inventions that enable machine learning with artificial neural networks"



And it comes in with momentum...

A GLANCE AT THE GEN AI TIMELINE

Snapchat

2015
Snapchat launched AI-powered Filters

DeepL

08/2017
Translational AI DeepL was released

Github Co-Pilot

11/2021
Release of the coding AI Github Copilot

ChatGPT 3.0

11/2022
Release of the conversational AI ChatGPT 3.0

Why shouldn't we…

Write proposals through AI?

Why shouldn't we…

Stop handmade code development?

Why shouldn't we…

Create AI conference summaries and stop conference attendance?

So why shouldn't we?

Arguments that encourage the Use of AI

The young generation adapts to new technology quickly and identifies its capabilities in the process

The use of AI appears natural to the young community

Peer pressure enforces a wide coverage of users

Little regulation opens the possibility to usage in a variety of ways

It might be the Holy Grail for a relaxed life!

Arguments that keep us from the Use of AI

Loss of individuality through the usage of AI and rise of self doubt of personal skills

Reputation of AI remains to be disputable

AI learns underlying concepts and develops prediction power but extracting these physical concepts is complex

Science is about struggling and problem solving

Consequently, we end up visibly unsure!

There are conflicts arising… - A Thought Process

I need to advance toward a permanent position as soon as possible!

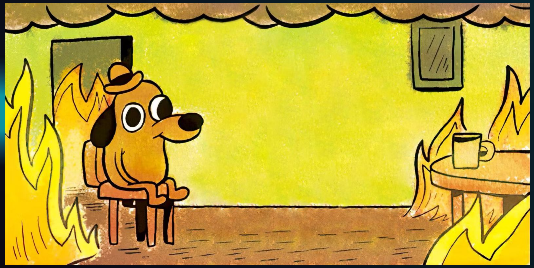
AI tools will make my proposals better and make me receive this vital funding, so I have to use it!

Well, if I use AI, am I even good enough to climb the academic career path without it?

But if everybody else uses it, I won't advance and be able to compete!

Well, if I have to rely on it to perform, then does it even rely on me?

Am I even needed and is there any future for me in my passion?



What can we do? - We need a Strategic Approach!

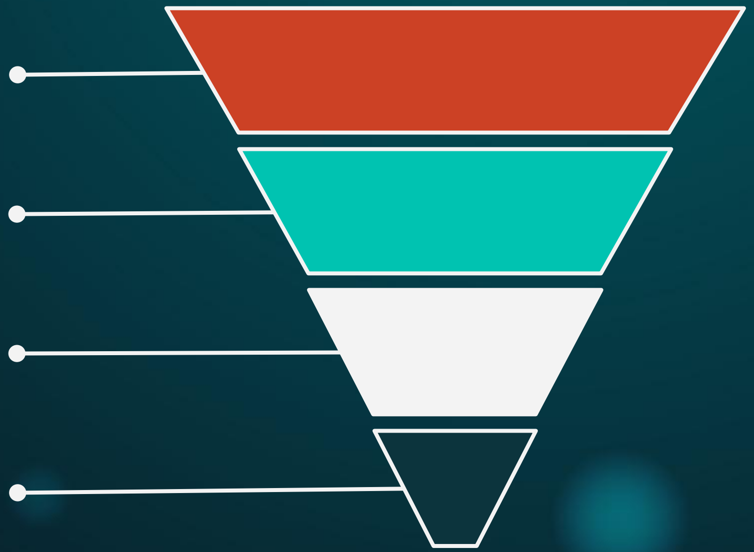
“It’s not about allowance or restriction but about guidance.”

CONSCIOUSNESS

WELLBEING

EDUCATION

AWARENESS



Summarizing...

"It is our Young Generation that is heavily impacted by Artificial Intelligence. But caught between Peer Pressure and Loss of Identity, they lose navigation. Therefore, it is for all of us to become aware of this situation and educate ourselves on this subject. We have to develop an aura of wellbeing around the topic Artificial Intelligence and foster consciousness on the use of AI among students and among us!"

Thank you for your valuable attention!

I hope it was also valuable for you!