



#### AI IN MY LIFE

A World Leading SFI Research Centre



#### **Al Careers**

HOST INSTITUTION





PARTNER INSTITUTIONS













## What is AI in My Life?



- Workshop series on Artificial Intelligence
- Developed by ADAPT research centre and partners
- Designed to help students navigate the 'Age of Al'

#### Our Partners:





















## What you'll learn today



# AI IN MY LIFE

- Examples of some jobs working with AI
- What we mean by 'multidisciplinary' and 'dual skilling' in the context of AI careers
- How to do an initial search for third-level courses relating to Al

#### Our Partners:













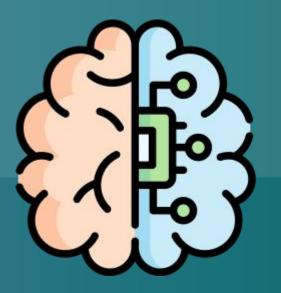






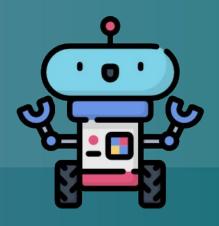


#### What is AI?



Artificial intelligence refers to many different technologies that are designed to accomplish tasks that can otherwise be only carried out by human minds, for example identifying patterns, recognising images, understanding languages or solving problems.

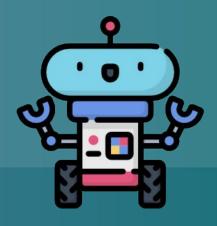
#### Is AI the career for me?



What do you look for in career?



#### Is AI the career for me?



Does the idea of a career in AI appeal to you?

## Reasons to Consider a Career in Al







1. All offers the ability to work in a variety of fields and with life-changing technology.

You can use AI to make a real difference in the world





#### 2. Al jobs are plentiful

National and international studies show skills related to AI appear to be in demand across almost all sectors of the economy [1]

More than 40 of the world's leading AI innovators have a presence in Ireland [2]

[1] Demand for AI skills in jobs: Evidence from online job postings, OECD, 2021 3ed32d94-en.pdf (oecd-ilibrary.org)

[2] Skillnet Ireland:

https://www.irishtimes.com/special-reports/2022/07/21/whats-ai-got-to-do-with-it/





# 3. There's a big talent gap, so AI professionals can earn top salaries

- There is a shortage of people within areas associated with AI and Data Analytics.
  - This shortage is driving salaries and demand for expertise.[1]
- All is a lucrative area due to the demand for people with relevant skills.
  - E.g. A Machine Learning Engineer with 5 years of experience typically earns €85-110k in Ireland. [2]
- [1] European enterprise survey on the use of technologies based on artificial intelligence
- [2] https://www.morganmckinley.com/ie/ireland-salary-guide-calculator





# 4. You can work at the forefront of an emerging field

Al is a relatively new area that is advancing rapidly

An AI career is future-proof because it is a component of so many cutting-edge advancements!

# Al Career Examples

What could a career in AI look like?



# Multidisciplinarity and Dual Skilling



Al is a *multidisciplinary* field

This means it combines expertise from multiple disciplines

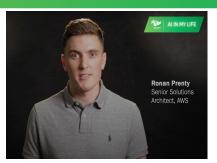
Driverless car development, for example, requires: Al developers, engineers, psychologists, legal and transport experts, and more! People who are *dual- or multi-skilled*possess a range of skills and knowledge
from different domains

They can apply these skills to tasks outside what's considered normal for their original training

e.g., Marine biologists using AI to automatically identify whales from images



#### **Industry Career Videos**



How can we use AI to reduce food waste on flights?



Joanne Reynolds
Community Engagement
Manager, AWS

How are humans and AI different?



How can AI help those with disabilities?



Can we use AI as a tool, like a spanner, to solve problems?



How can we imagine the jobs of the future?



#### Research Career Videos



<u>How does physics work in augmented</u> <u>reality?</u>



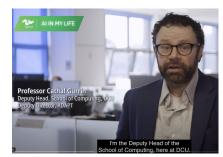
<u>How can AI help us find biodiversity solutions?</u>



How can Al recover a lost history and recreate lost documents?



How AI can help us with preferences?



How can AI help people with Alzheimer's remember things?



What does a career around privacy in Al look like?



How can AI identify fake news?





#### What did you think about these AI careers?



- Were the profiles what you thought a career in AI might be like?
- What key skills does it sound like these people have?
- Do you think these people studied programming first in college?
   Or did they 'dual skill', gaining expertise in another area and then applying it to AI?

#### Many Careers of the Future are Unknown



Think you can identify jobs of the past?

Try our quiz at: https://bit.ly/ObsoleteJobs





#### Many Careers of the Future are Unknown



- Just as former jobs such as these disappeared, new roles appeared
- Future advances in technology are hard to predict, so many careers are not yet known



### What we **do** know now



Al is here to stay and its influence will continue to grow

**Everyone** will need some knowledge of Al

**Resilience/adaptability will be key** to make the most of the challenges and opportunities that arise



#### Al Careers

What should I study?



# Back to 'Dual Skilling'



Al combines multiple disciplines

Many people who **develop** Al systems have a background in IT or engineering

Others **combine expertise** in another area with knowledge of AI in order to apply it in their work - this is what we refer to as "**Dual Skilling**"



# Want to develop Al systems?



#### Some tips:

It's probably best to consider a **specialist degree** in AI, Data Analytics, Computing, Robotics, Language Technology, or a similar field.

This will provide you with the **technical skills you need to succeed**.



# Want to develop Al systems?





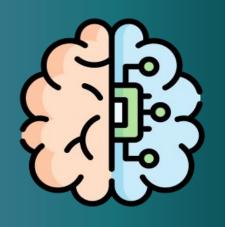
Irish Higher Education Institutions offer 100+ courses, from Certificate to Masters level, in AI and related areas, such as Computer Science, Automation and Machine Learning.

You can see a list of these courses at\*: <a href="https://bit.ly/Al Courses Ireland">https://bit.ly/Al Courses Ireland</a> (Go to page 83)

\*Links to a pdf of 'Al Skills: A Preliminary Assessment of the Skills Needed for the Deployment, Management and Regulation of Artificial Intelligence' [Appendix D].



# Want to leverage AI?



Students who wish to work with AI – using it to enhance their area of work – have lots of study options.

For example, you could:

Select a course that allows you to focus on your favourite field but **combine it** with some modules (i.e. subjects) related to AI.

Most Irish higher education institutions have courses that allow you to combine disciplines like this and gain powerful "dual skills".

E.g., DCU's degree in Chemistry with Artificial Intelligence, or UCD's degree in Biomedical Sciences – Artificial Intelligence for Medicine & Medical Research.



#### Where can I find out more?



Have a look at current courses available on AI. These are available in the AI Skills report. (AI Skills report, 2022, pg. 83-92).

There are many AI-related Post Leaving Certificate courses at Level 5 and Level 6 on the <u>National</u> <u>Framework of Qualifications</u> in areas such as robotics, automation and data analytics.

Search for these using the Qualifax - The National Learners' Database course finder: <a href="https://www.qualifax.ie/index.php?option=com\_wrapper&view=wrapper&ltemid=15.">https://www.qualifax.ie/index.php?option=com\_wrapper&view=wrapper&ltemid=15.</a>

Top tip: use full term "Artificial Intelligence" rather than "AI" to search







# Got questions?



- Talk to your guidance counsellor about course options
- Attend college open days
- Contact the Registry or Admissions offices of universities and colleges of further education
- Don't be afraid to reach out and ask questions!



#### What have we learned?

There's a broad range of careers for those with an interest in AI

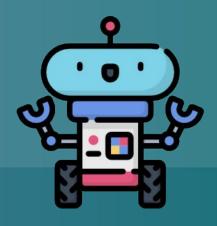
You could develop AI systems or 'dual skill'

We don't know many of the careers of tomorrow yet

Adaptability and AI knowledge will be key



#### Is AI the career for me?



Does the idea of a career in AI appeal to you?



# AI IN MY LIFE #Discuss AI

A World Leading SFI Research Centre





Want to find out more about AI?

Explore more Al in My Life modules at:

www.adaptcentre.ie/projects/ai-in-my-life/

Thanks to our partners:



















#### Al Careers

# Additional Resources: A DCU Example



# Want to develop Al systems?



Examples of relevant degree courses in DCU:

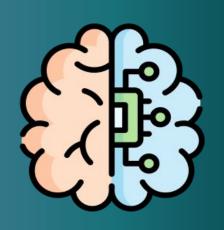
DC190 – Electronic and Computer Engineering

DC123 – Data Science

DC121 – Computer Science



# Want to leverage AI?





Examples of relevant degree courses in DCU:

DC189 – Global Challenges

DC241 – Digital Business and Innovation

DC160 – Chemistry with Al

DC238 – Social Sciences and Cultural Innovation

DC210 – Psychology and Disruptive Technology

DC232 – BCL (Law and Society)

