

PROMOTING EXCELLENCE

Working with Artificial Intelligence in digital environments

Dr Wayne Holmes
University College London



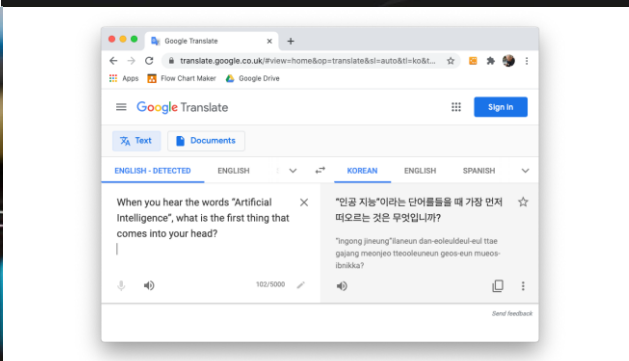
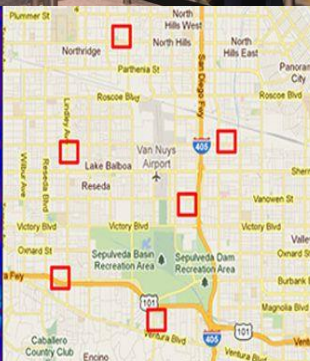
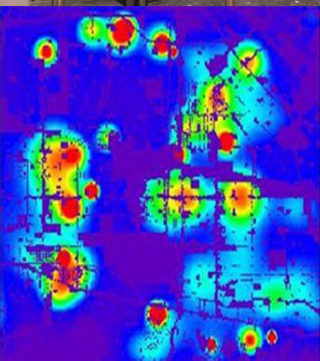


Image recognition



+



=



Panda

57.7% confidence

Gibbon

99.3% confidence

GPT-3

PROMPT You poured yourself a glass of cranberry,
but then you poured about a teaspoon
of grape juice into it. You are very thirsty.
So you drink it.

RESPONSE You are now dead.

AI and jobs

“The jobs that AI can easily replace are those that require recently evolved skills like logic and algebra. They tend to be middle-income jobs.

Conversely, the jobs that AI cannot easily replicate are those that rely on the deeply evolved skills like mobility and perception.

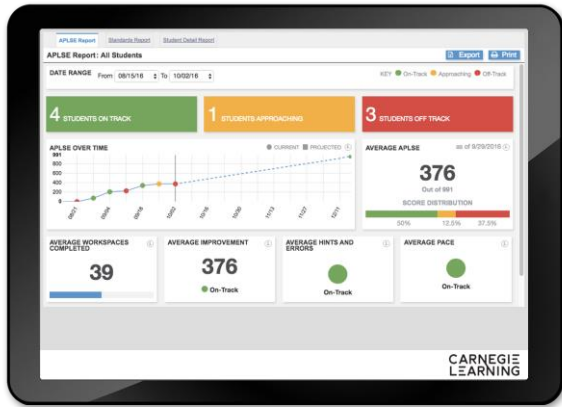
They tend to be lower-income jobs.”

Dhaval Joshi (2014)

AI and education/VET

- Learning *with* AI
- Learning *about* AI
- Preparing *for* AI

Learning with AI



PEARSON

Changing Planet

A Changing Planet by Jason C. Neff

Due February 4 4:00 AM

Nonrenewable Energy

117 Points

Get Started

Nonrenewable Energy

- Introduction
- Formation of Fossil Fuels
- Oil Reserves
- Coal Reserves
- Natural Gas Reserves
- The Future of Fossil Fuels
- Nuclear Energy
- Geothermal
- Renewable Energy

Get Started

JAN FEB

TUE 28 TUE 30 TUE 04

TEACHER ADVISOR

Free math lesson planning and instructional guidance with IBM's Watson AI

Grades | About Teacher Advisor | Login | Sign Up

Grade 3

Ask Watson

What are you teaching? Ex. fractions lessons for tactile learners

Search

Need help? Get some help.

- Explore Academic Standards
- Find & Customize a Lesson
- Find a Learning Activity
- Browse Strategies & Resources

NWEA Map users can now see targeted content recommendations based on Instructional Area FIT scores. Click here for more!

Mathematics interface showing fraction operations:

$\frac{3}{10} - \frac{1}{5} < \frac{2}{10}$

Visual representations include a bar model for $\frac{3}{10}$, a number line for $\frac{1}{5}$, and a measuring cup for $\frac{2}{10}$.

Ver 0.150

Identify the Area9 building

Previous review comments

- ULRIK JULI CHRISTENSEN 09-04-2018 11:53PM: Make this higher contrast for 508 compliance (NEEDS WORK)
- REBEKA HILLINGSOE 09-03-2018 09:13AM: There is a missing word in the first sentence (REJECTED)
- KHURRAM JAMIL 09-02-2018 10:59AM: Change to a picture with more diversity (REJECTED - RESOLVED)

REJECTED NEEDS WORK APPROVED PERFECT

ALLEARN

Transcript Objectives Directions

أفلايك في وكالة الشرق الأوسط للسياحة
إني إن تريد أن تعرف؟
تريد أن تعرف إلى بيروت.

ممتاز! استمع أن أساعدك أن تخرج
رحلة إلى بيروت، كولا، ما هو عنوانك؟

أعدو أريد أن تلتزم شرح لسانج
شكرا في أي يوم تريد أن تعرف؟

Ask him to repeat what he said.
Respond to him.

Explorer Page 4 of 5



Welcome

Teaching about AI

Learning about AI

Bienvenue dans l'enseignement de l'IA!

Il existe u
élèves.

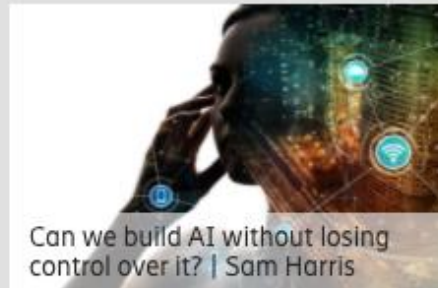
Ce portail
de vos élèves.

Afin de trouver les ressources qui répondent aux besoins de vos élèves, faites votre choix dans l'un des menus. Vous pouvez choisir plusieurs options à la fois, dans n'importe quel menu.

Learning about AI

ner les meilleures ressources pour vos

dent précisément à vos besoins, et à ceux



Preparing *for* AI



AI and VET

“Developments in the field of artificial intelligence are attracting increasing attention with particular regard to their deployment in the work situation, and in activities designed to improve the efficiency and cost effectiveness of training and retraining.”

Artificial intelligence and its potential as an aid to vocational training and education. CEDEFOP (1990)

Artificial Intelligence in the Policies, Processes and Practices of Vocational Education and Training

“There is an urgent need for young people to be equipped with a knowledge about AI, meaning the need for educators to be similarly equipped is imperative.”

Artificial Intelligence in the Policies, Processes and Practices of Vocational Education and Training

TACCLE AI (2020) identified the needs:

- for AI and related skills to be an integral part of **professional training**
- for **new qualifications** to be developed and taught
- for a focus on the application of AI for the **improvement of teaching**
- for VET teachers and trainers to develop **new capabilities**

Three takeaways

1. *AI has huge potential, but there are also huge challenges.*
2. *AI can support VET, but possibly at the expense of excellence (good pedagogy and student agency).*
3. *We need to both inform and learn from teachers and trainers, to enable tomorrow's AI for VET to be excellent.*

EN L'AN 2000.

Thank you for listening.

Dr Wayne Holmes
wayne.holmes@ucl.ac.uk

