# Discovery-based learning Via Participatory Live Coding





# Imperial College Business School

#### Participatory **Live Coding**

### **Participatory** Live Coding

#### Live Coding

click here for an example (this will open a GIF in your web browser)

#### Hello World in Python

- An intuitive, high-level programming language celebrated for its simplicity and readability.
- Python is extensively used in a diverse range of fields such as web development, data analysis, Al, and scientific computing.

Refer to the code snippet on the right for a basic "Hello World" example in Python.

This is often the first program learners write when starting with Python or any new programming language.

```
import sys

def main():
    print("Hello World")

sys.exit(0)
```

Festival of Learning and Teaching 2023

Imperial College London Understand the process

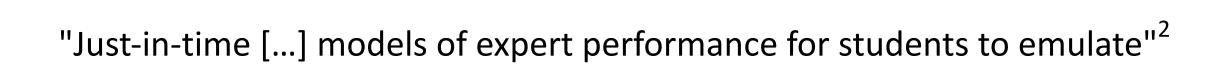
"I've done that!"

#### Finding Bugs

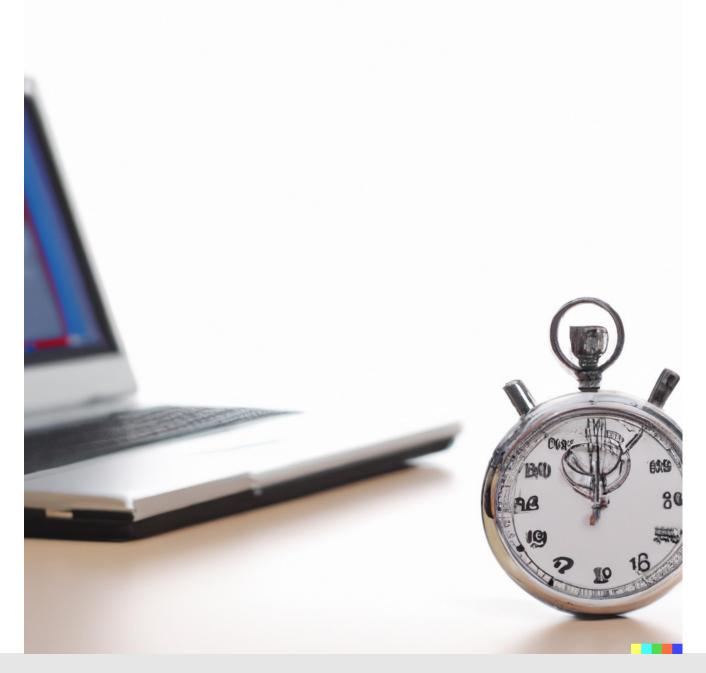
click here for an example (this will open a GIF in your web browser)

Discovery-based learning

#### guidance \*some <del>assembly</del> required<sup>1</sup>

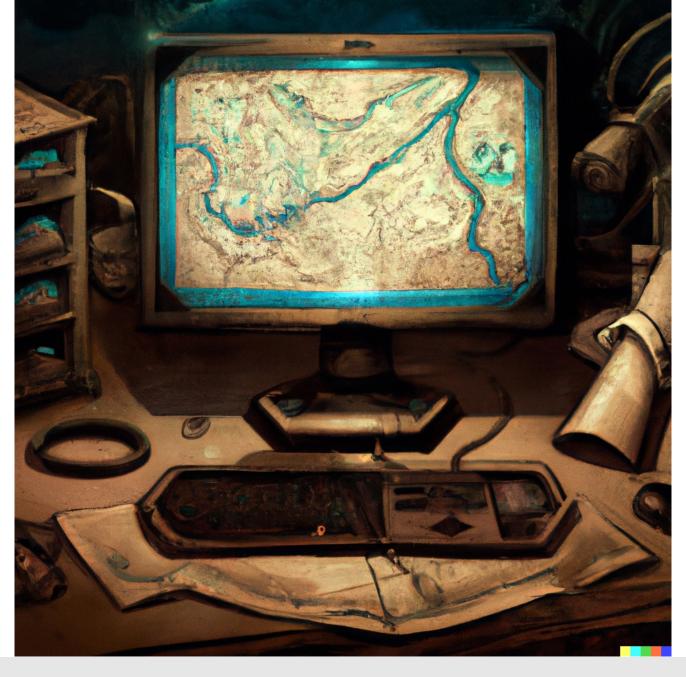


2. Hmelo-Silver, C.E., Duncan, R.G. and Chinn, C.A., 2007. Scaffolding and achievement in problem-based and inquiry learning: a response to Kirschner, Sweller, and Clark. *Educational psychologist*, *42*(2), pp.99-107.



#### Not without limitations

Where it works best



# The Carpentries<sup>3</sup>

## Embrace best practice<sup>4</sup>

4. Nederbragt, A., Harris, R.M., Hill, A.P. and Wilson, G., 2020. Ten quick tips for teaching with participatory live coding. *PLOS Computational Biology*, *16*(9), p.e1008090.

Thanks!