

KING'S
College
LONDON



RiVR

IMAGINE ■ CAPTURE ■ CREATE



#RemoteForensics

King's Forensics,
Department of Analytical, Environmental and Forensic Sciences

**360 Virtual Reality (VR) for remote teaching of
Analytical Chemistry'**

Dr Caroline Pollard
Dr Jonathon Brooks

Who are we?

Dr Caroline Pollard
Teaching Fellow Analytical Toxicology MSc



Dr Jonathon Brooks
Teaching Fellow for Forensic Science MSc



Analytical Toxicology for Forensic Science and Analytical Toxicology

- This module is for the Masters course in Forensic Science and Analytical Toxicology, with the students that come from an array of undergraduate background subjects (forensic science, chemistry, biology etc).
- The aim of the module is to better understand the physio-chemical properties of compounds in order to describe and explain the functionality of analytical instruments (GC/UV/IR/LC).
- How has this been taught in the past?
 - ✓ Basic chemical properties lectures and workshops - Introduction to different analytical techniques (GC/LC/IR/UV) using both lectures and practical session
 - ✓ How different chemical properties react within these instruments to better explain chemistry



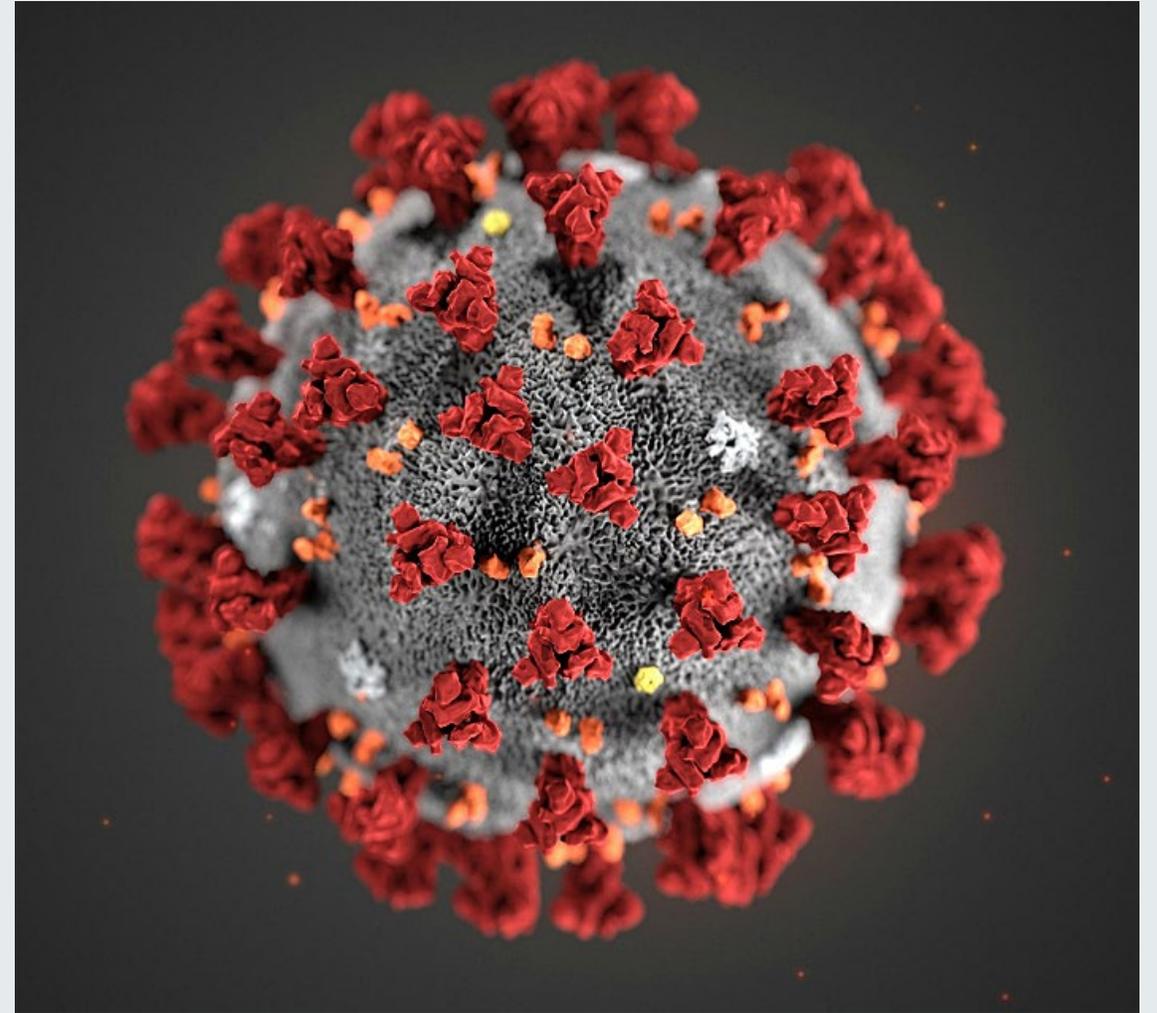
Global Pandemic (CV-19)

Basic Online learning became the 'norm'

- ✓ Online TEAMS meetings (sharing the screen and presenting the information): utilising breakout rooms, online mindmaps, and interactive quiz
- ✓ Pre-Recorded Lectures added to virtual learning environment

Adapt our usual teaching and collaboration was key:

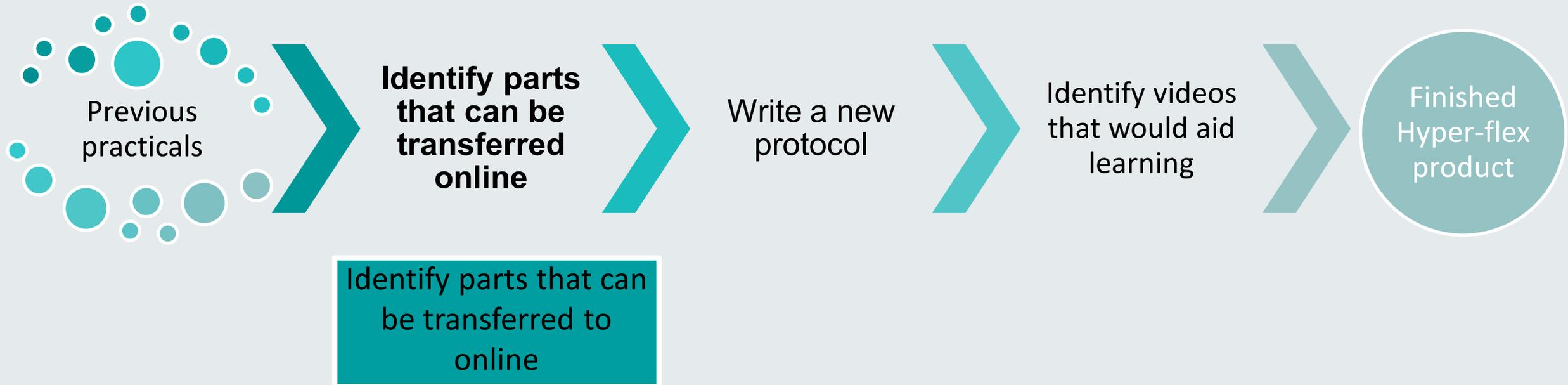
- ✓ Social media → sharing of resources and experiences
- ✓ KCL's 'Elevensies' → highlighted different ways live practicals can be taken online
- ✓ Previous experience → interacting with past teaching staff of these practicals



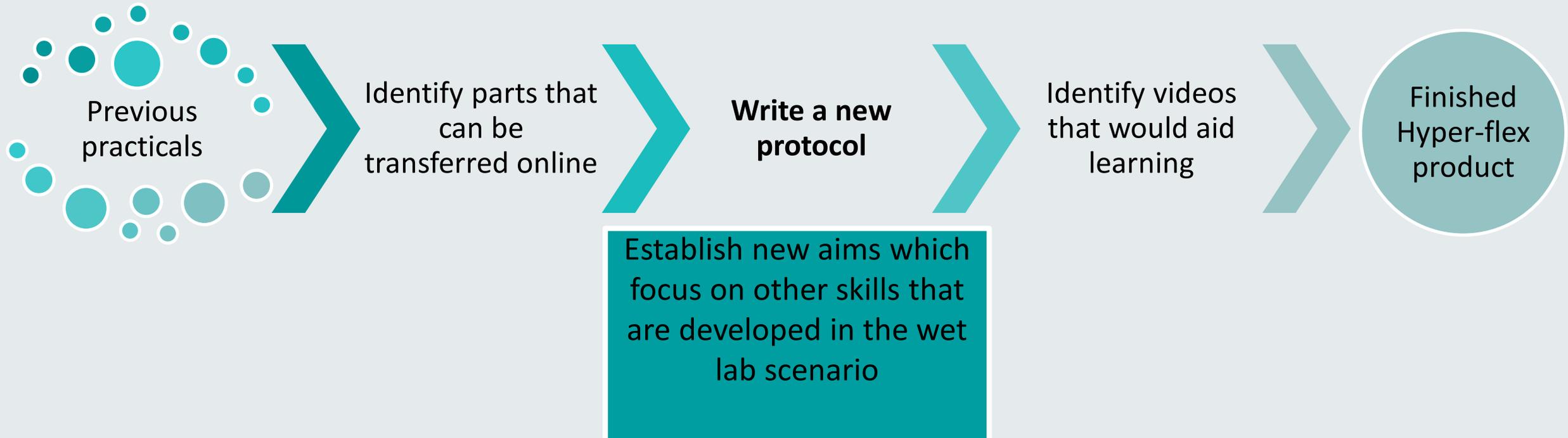
Our workflow



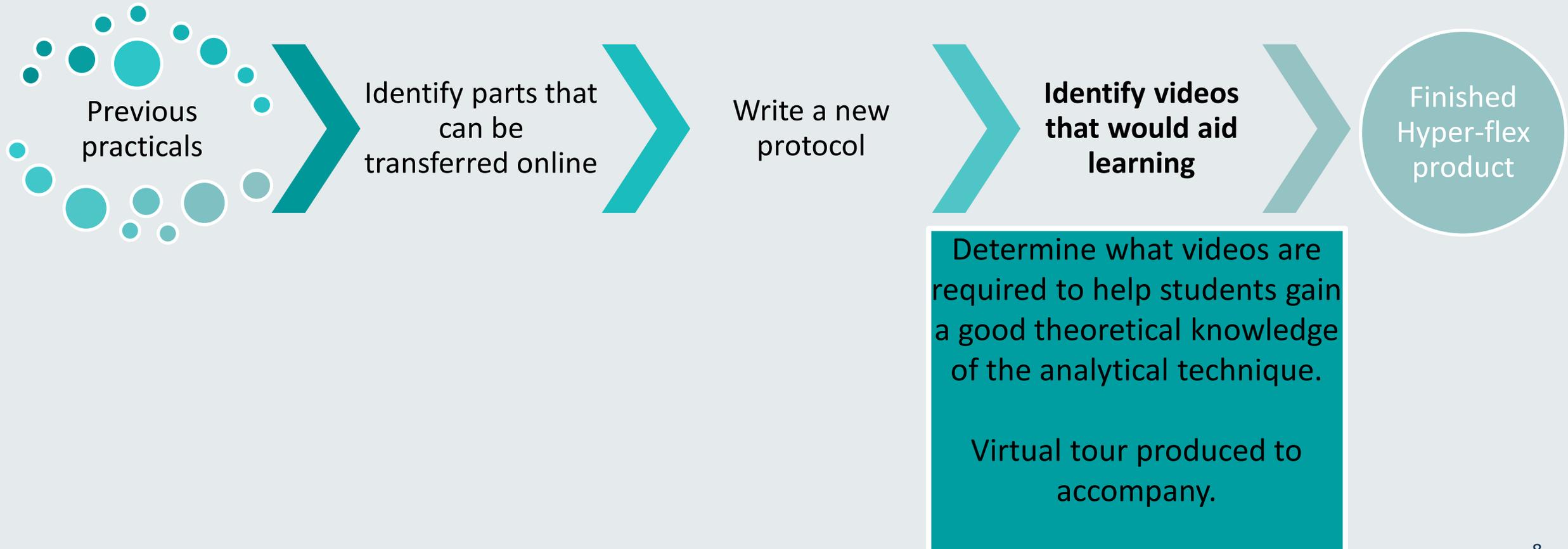
Our workflow



Our workflow



Our workflow



Our workflow



- Students use the virtual tour as they work their way through the protocol
- Virtual laboratory helps them visualise the scenarios, produce real-time data and analyse results

Creating an online laboratory



Creating an online laboratory



Creating an online laboratory

Feedback from students (day 1)

Conclusions



Contact for a tour of the virtual environment!

Dr Jonathon Brooks

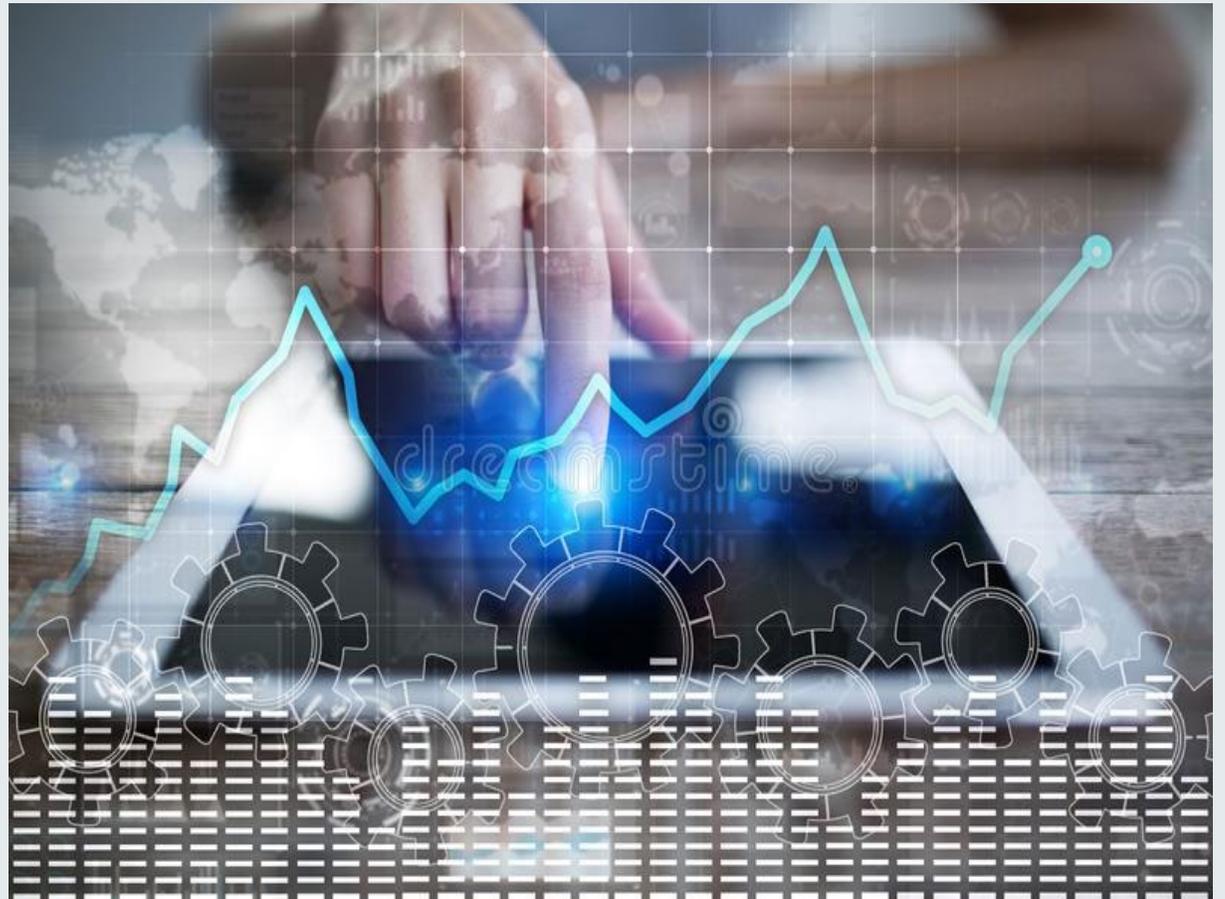
Teaching Fellow (Forensic Science)

King's Forensics

Department of Analytical, Environmental and Forensic
Sciences

Faculty of Life Sciences & Medicine

Email: jonathon.brooks@kings.ac.uk



References
