

How HMRC uses AI in tax investigations

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What is AI?

- **More than just automation**
- **More than just a chat bot**
- **Artificial = non-human**
- **Intelligence = thinking**
- **Non tax examples**



How HMRC uses AI in tax investigations



- **Who to investigate**
- **When to investigate**
- **Monitoring**
- **Predicting**

The more obvious signals

- **Something doesn't add up – literally**
- **There's something missing**
- **A quantum leap**
- **A question of undertaking a simple sense check**



The more obvious signals

HMRC may observe, monitor, record and retain internet data which is available to anyone. This is known as 'open source' material and includes news reports, internet sites, Companies House and Land Registry records, blogs and social networking sites where no privacy settings have been applied.

The less obvious signals

- **Cross checking to other taxpayers**
- **Activity behind the scenes**



What data does HMRC hold?

- **First party data**
- **Third party data**
- **Periodic reports**

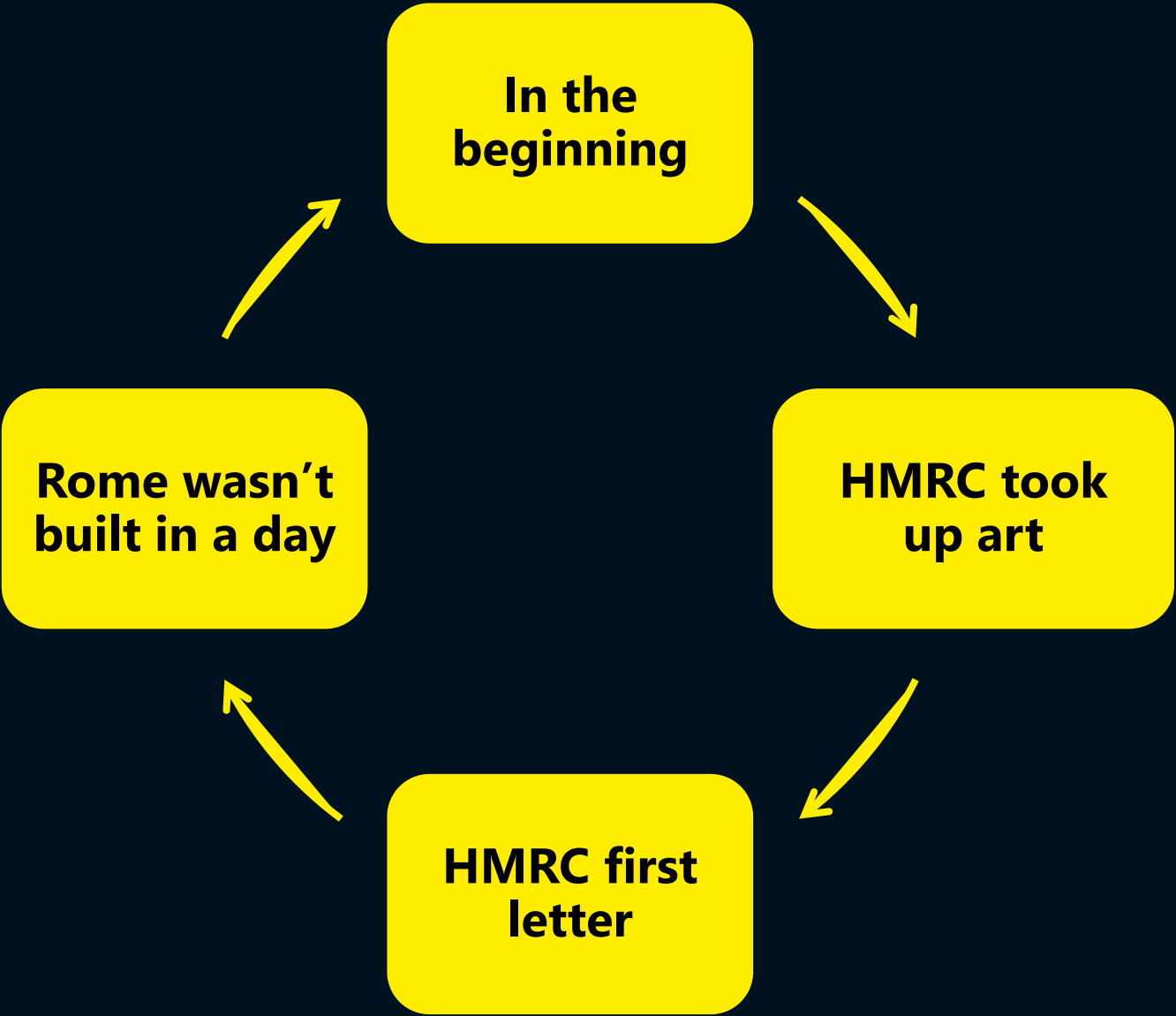


How is that data used in a tax investigation?

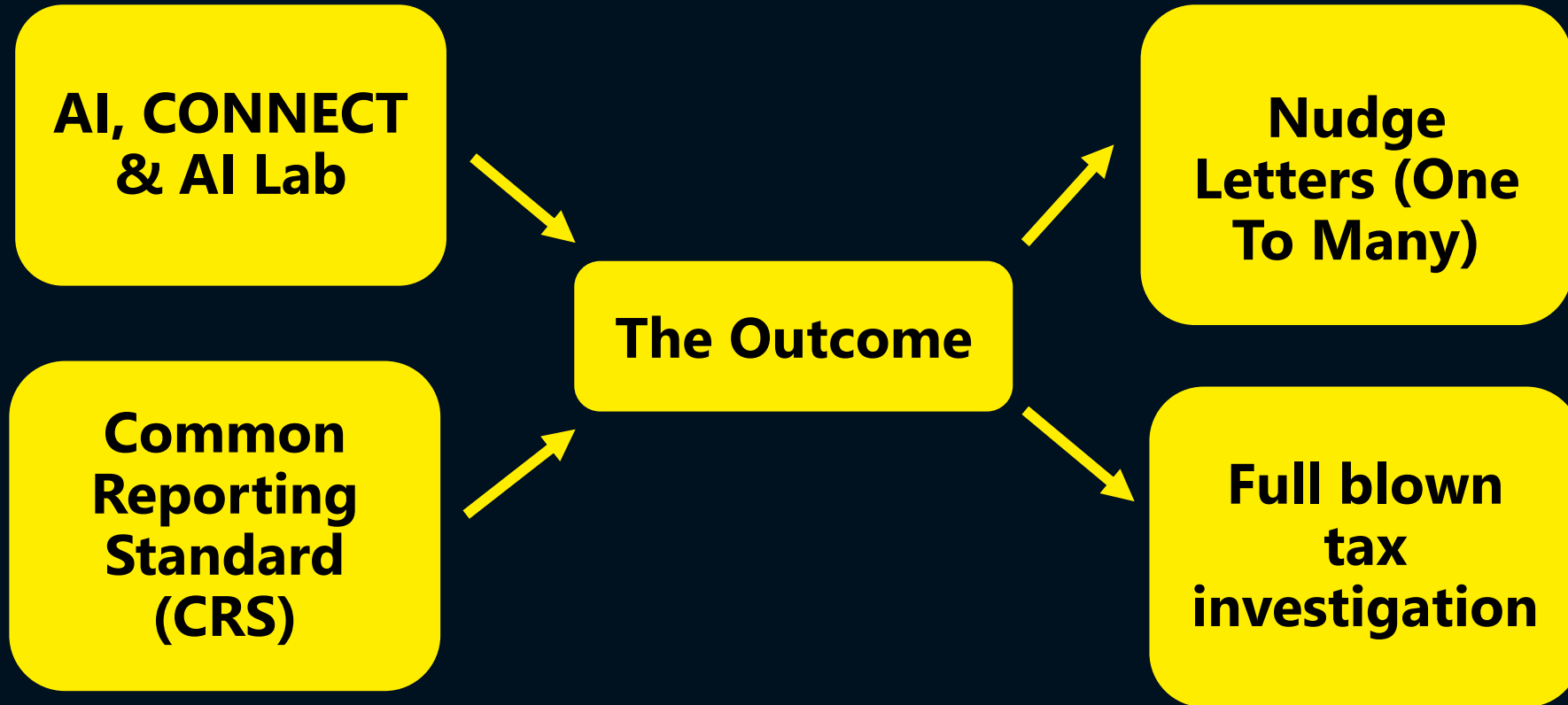
- **Collate**
- **Compare**
- **Contrast**
- **Trends**
- **Connections**



Building a case - yesterday



Building a case - tomorrow



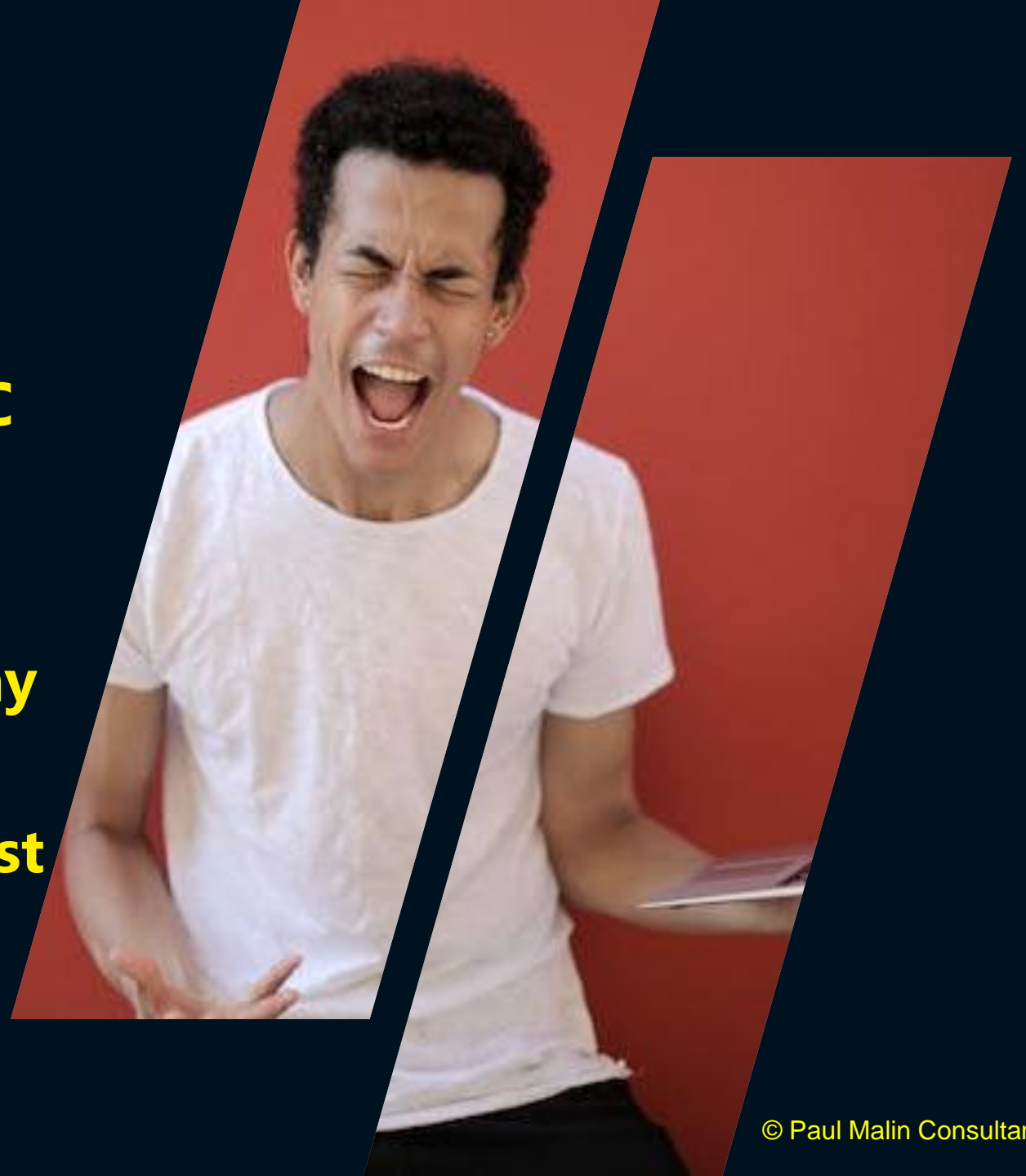


What does AI mean for HMRC?

- **Less time spent on research**
- **A higher volume of cases**
- **Less time to prepare**
- **Overall, a poor service**

What does AI mean for taxpayers?

- **Unexpected contact by HMRC**
- **Delays in having their case progressed**
- **Increased uncertainty over any future plans**
- **More uncertainty over the past**
- **An increase in stress levels**





What does this mean for you as an adviser?

- **Higher volume of cases**
- **An inability to communicate with HMRC on a regular basis**
- **Strained relationships with clients (and HMRC?)**

Where does HMRC get its information from?

- Anywhere & everywhere
- Overseas under CRS
- not forgetting the UK
- and “well-wishers”



A CASE STUDY #1

The case of a landlord

- **Connect is an AI tool**
- **Used on HM Land Registry**
- **HMRC use Connect on their own files**



A CASE STUDY #2

Questions arise:

- **Has the property been rented?**
- **What does the lender know?**
- **Has a deposit been paid?**
- **What do the papers say?**
- **Is it a holiday let?**



A CASE STUDY #3

- **Has the property been sold?**
- **Has the capital gain been declared?**
- **Have funds been sent abroad?**



Customer record cards

What do they say?

- **Personal information**
- **Account information**
- **Transaction information**
- **Credit information**

How much information is held on taxpayers?

- **63 Terabytes of data = 55 Billion items of data**
- **A database of 6,100 gigabytes of taxpayer information**

What can go wrong?

- **Right name, wrong person**
- **“False positives” without being checked**
- **Garbage in is garbage out**
- **Computers don't think!**



AI – the future?

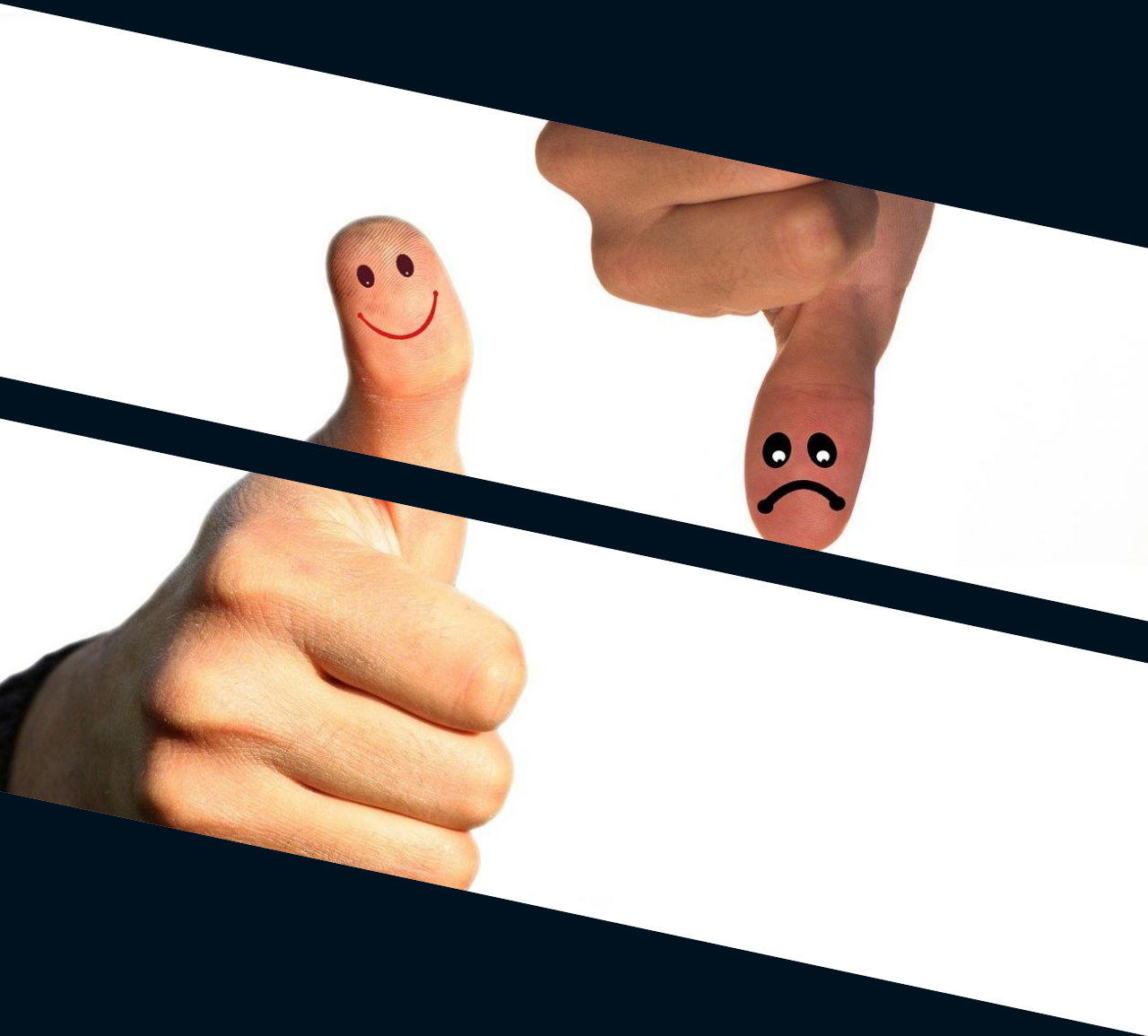
- **No responsibility within HMRC**
- **AI requires “clean data”**
- **Anomalies abound**
- **Unshakeable belief**

Does size matter anymore with AI?

- **Still limited by the human interface**
- **But to a far lesser extent**
- **What AI is unable to process**
- **... .. CONNECT can take over**



The good and bad of AI



The good:

- Handling and cross-matching large amounts of data

The bad:

- AI cannot think for itself
- Accounting years can move
- Cannot get around security

AI around the world

- **Italy – VeRa Algorithm**
- **Xenon is a tool used by six European countries**

Other countries...

What are the AI roadblocks today?

- **Humans and education**
- **Inconsistency across platforms**
- **The limits of AI**
- **Resource and integration**



The future of AI

- **Public Sector Fraud Authority**
- **£4m contract with Quantexa**
- **£180m target in year 1**
- **Further £25m of funding**



Other departments

- **DWP**
- **The government**
- **The Counter Fraud Function**



**THANK
YOU!**

Any questions?

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