

AL DEMYSTIFYING THE HYPE, REALISING THE POTENTIAL

USING AI TO INNOVATE AND ADVANCE YOUR BUSINESS

Innovation Network South Yorkshire







1. Introductions
2. Uses of AI at ZOO 4. Broader Considerations Q&A

5. Discussion / Considerations



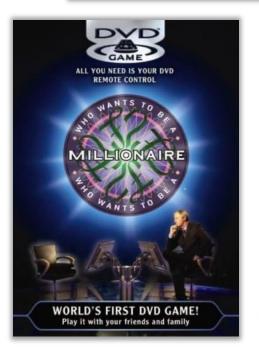


A BRIEF HISTORY

ZOO Digital licenses Blue-Ray software to Hollywood client

Published: 19:24 14 Jun 2010 BST

ZOO Digital (LON:ZOO) has said that a major Hollywood film studio has adopted its recently launched automated authoring software for the Blu-Ray disc format, which enables entertainment products to be created more efficiently for multiple languages and territories.





2001–2003: ZOO formed through a merger led by Gremlin Interactive founder.

2003-2005: Developed interactive DVD games (e.g. Who Wants to be a Millionaire).

2006-2012: Moved into localisation services for physical and digital media (movie posters, DVD/BD menus).

2012-Present:

- Developed cloud-based solutions for subtitle translation.
- World-first cloud-based dubbing platform.
- Pivoted from physical media to working with streaming platforms.



MISSION

To make life easier for the people who entertain the world



VIACOMCBS



















facebook



HOW WE DO IT

Utilising technology in the cloud to overcome difficulties experienced by content localisation companies taking a more traditional approach.



Software R&D

Dedicated team of software and QA engineers.

Focus on innovation & disrupting traditional methods.

Leveraging emerging AI models through a dedicated research team.



Localisation depts.

Managing projects.

Maintaining relationships.

Delivering content.



Global freelancers

Gifted and creative community of over 12,000 freelancers who come together to make the magic happen.



OUR SERVICES

From a company offering localised DVD & Blu-ray menus, we have grown to offer services across a wide range:

- Dubbing & Audio Description
- Subtitling
- Artwork localisation
- Metadata text
- Scripting & adaptation
- Compliance editing
- Audio post-production
- Media services
- Mastering

Dubbing

Audio Description



Subtitling

Artwork

Metadata







What is Al?

...in the context of this presentation...

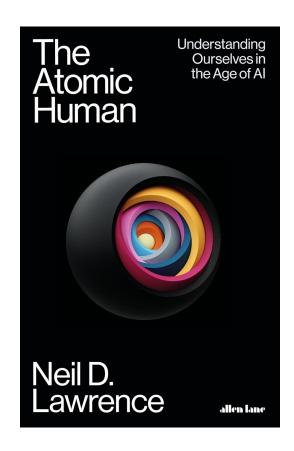
Al is not just one tool or feature

Al as a capability: systems that learn, adapt, and decide

Not just rules, scripts, or automation

"If automation is about *doing*, Al is about *deciding*."







https://amzn.to/4imQRNI





APPLICATIONS IN SOFTWARE R&D

In-house development teams at ZOO make use of AI in every-day tasks.

Use of AI requires care and an understanding of the underlying subject matter.

Otherwise, one risks accepting solutions without considering wider implications.

It's about driving up efficiency, rather than replacing engineers.

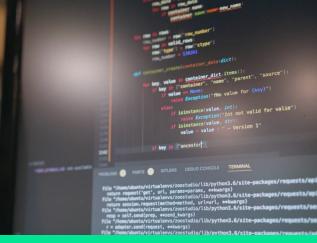
Code completion

Test generation



Creation of documentation

Developing management practice



Talking through ideas and working out problems





ADDITIONAL OPPORTUNITIES

ZOO's R&D department has only scratched the surface of applications of Al within the department.

Several reasons for this – availability of insider knowledge limited.



Security Testing

Use of AI to more effectively test the security of systems, rather than relying on libraries of known vulnerabilities and common mistakes.

Augmenting an already advanced security posture.



User Feedback

E.g. automated analysis of support tickets to identify commonly recurring issues.

Al agents to respond with commonly-required support responses.

Driving user experience insights.



Summarisation

Automatically summarise online meetings, highlighting action points and helping those that could not attend.

Send personalised follow-up notifications.

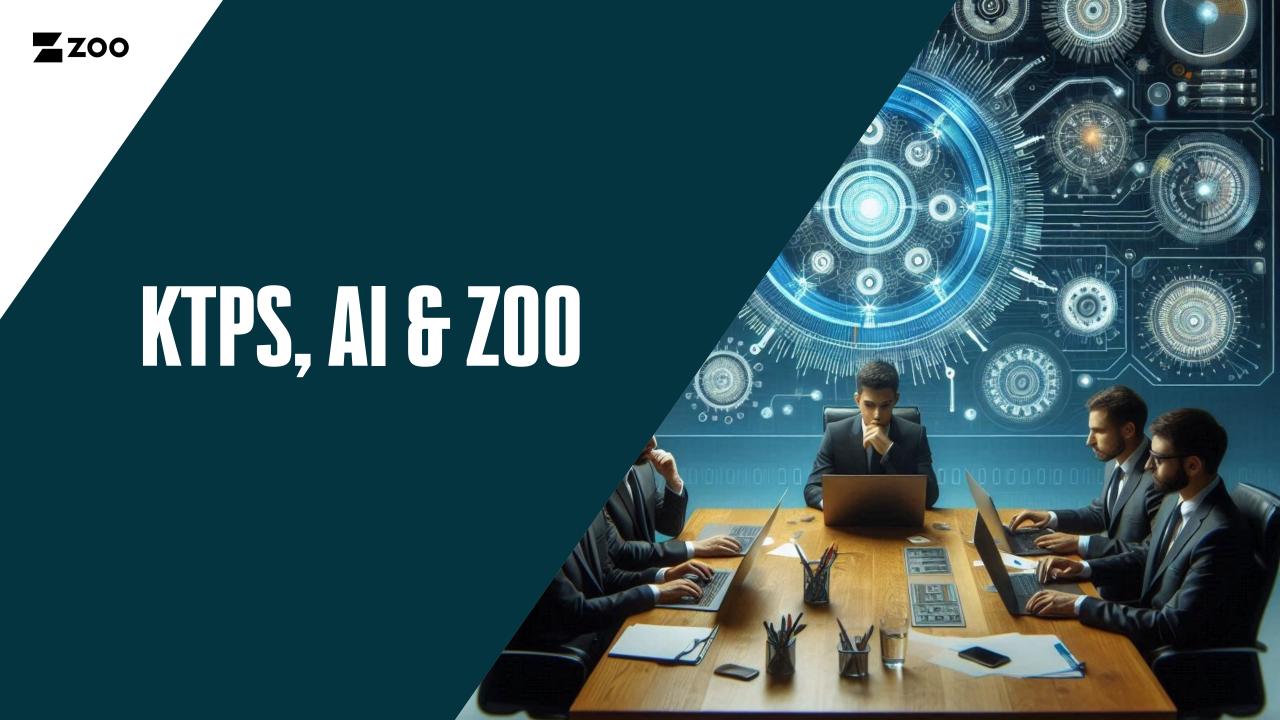
Generate action items for discussion at follow-up meeting.



Al White Paper & Fireside Chat: Will robots take over the world of localisation?



https://www.zoodigital.com/ai-white-paper/





DUBBING AT ZOO

ZOO specialises in dubbing & subtitling film dialogue from one language into another.

- ZOO pioneered use of cloud technology for dubbing.
- Maintaining a competitive edge means continually needing to innovate.
- Finding professional voice artists can be a significant challenge.
- Particularly the case where child voice actors are involved.



KTP SUPPORT



Child voice actors: tapping into the University's Al expertise

How to take a recording of a grown-up's voice and make it sound like a child's.

Not simply a case of changing the pitch. Style of delivery also needs adjustment.

ZOO worked with the *Speech and Hearing Research Group* at The University of Sheffield.

ZOO lacked any internal resource / experience and so was led by the research group.

The project had to avoid using our customers' data to train models.



TRAINING DATA

Lots of training data is required (a feature of many Al projects).

Lots of examples of speech from both adults and children. The same script is read by an adult voice actor as well as several children.

No intention to replace real actors.

Aim is to not only transform the voice, but also the performance.

This project was fundamentally about machine learning; the machine has to "learn" the parameters that provide the mapping between the adult voice and that of the child speaker.





BROADER CONSIDERATIONS



ETHICAL USE OF DATA

Are we being clear about how we're using data?

Is this a small step on a slippery slope?



Where does training data come from?



Who is affected by how models are trained?



Is there a long-term impact on employment?



CHALLENGES



Lack of expertise

- Al talent is scarce and expensive.
- Small teams don't have dedicated data scientists.
- Reliance on prebuilt tools.

Resource constraints

- Training & finetuning requires significant compute power.
- Difficult to justify large-scale experimentation.

Hype vs Practical value

- Trap is to use it because it's ontrend.
- Without a clear ROI, projects become costly distractions.

Lack of data

- Models need lots of relevant, clean data to work well.
- Small orgs often lack the volume or variety.
- Task of cleaning & optimising is time-consuming.

Integration

- Al tools don't just "plug in".
- Integration with existing systems is often complex.
- Model drift, monitoring, and updating models over time.



SCALE, POWER & RESPONSIBILITY

Differentiating how smaller tech firms and large organisations might engage with Al

Small Organisations

- Limited resources
- Closer to users & stakeholders
- More conscious of transparency & consent
- Tend towards adoption rather than invention

Big-tech Companies

- Huge volumes of data & compute power
- Incentivised to move fast & dominate markets
- Perhaps more willing to cross ethical lines for scale
- Set the tone for what becomes "normal" in the industry





Duncan Payne **ZOO Digital Group Plc**