

What is AI technology?

AI: Where machines emulate intelligent behaviour.

Machine learning: a subset of AI that uses data to learn those behaviours.

Deep learning: a subset of machine learning that uses large neural networks as a method of learning.

Descriptive/prescriptive analytics: analysis performed to understand the past and give advice on how to act in the future, respectively.

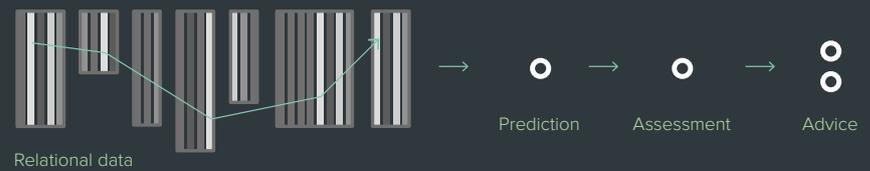
AI involves several specialised technologies but Machine Learning is central to them all.

Traditional Analytics & Machine Learning¹

Machine generated data involving billions/trillions of rows of data makes finding correlations difficult in real time and the processing power required is increasingly expensive.

Every additional data dimension/field doubles the complexity of the query and the problem compounds, resulting in a tool which struggles with more than a billion rows of data.

A representation of a query to find correlations between rows of data across 7 data sets.



Unstructured data increases the difficulties but machine learning offers a way to find correlations.

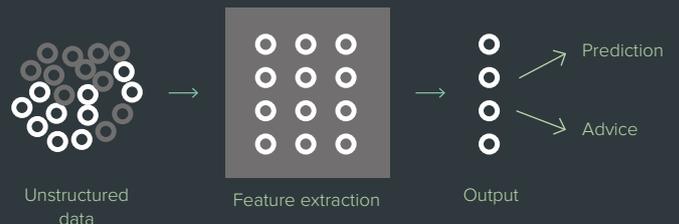
Black box algorithms result in feature extraction where relationships are identified descriptively and the outputs enable predictions and advice/actions.

However, there are issues:

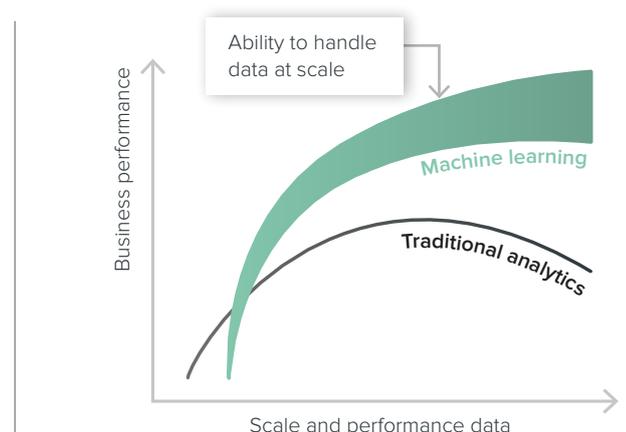
- “Dirty, noisy” inputs create coarse grain outputs

- The “black box” approach makes it hard to define data accountability/traceability
 - Computationally expensive
- Machine Learning enables the user to manually set up features/required data outputs

Deep Learning can detect those features provided there is enough data.



The three E’s of the AI AdTech promise



Breaking down barriers



Complexity



Scale



Unstructured
data



Cost



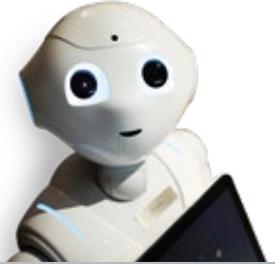
Uncertain
returns



Business
inertia

Machine Learning opportunities in AdTech

- Targeting / audience segmentation
- Personalisation – creative variants
- Behavioural / location triggers
- Fraud prevention
- Bid optimisation
- Journey prediction
- Lookalike targeting
- X-Platform identification



5 steps to AI success ²

1. Define use case

- Problems to be solved now and in the future
- Articulate to CxO's

2. Forecast value

- Current data sources + horizon + third-party
- Where is value creation / competitive advantage?
- Multiple application strategy

3. AI tools

- Identify tools, tech stack, internal skills, buy or build
- Aggregation, storage, analysis strategy
- Agile, test & learn

4. Deploy & adapt

- 2nd stream
- Optimise user interaction
- Redefine workflow
- Productivity & workforce goals

5. Empower & enable

- Collective approach
- Create trust
- Re-skill



GeoSpock solves the problem of data analytics tools that struggle in real time when reaching billions of lines of data and cost a small fortune to run.

GeoSpock has created a proprietary indexing engine; infin8, that enables data analytics to run faster, bigger, better with lower infrastructure costs.

Built on top of GeoSpock's indexing engine is illumin8, an analytics tool that provides you with incomparable geospatial insights from your data in real time.

- Founded in 2013 by Dr Steve Marsh
- Innovative and proprietary technology inspired by University of Cambridge PhD
- \$5.4 Series A Funding in 2015
- 30 employees based in Cambridge UK
- First commercial application in AdTech 2016

¹ Adapted from ZDNet

² Informed by McKinsey (MGI), Artificial intelligence the next digital frontier?, June 2017