Media Analytics

Understanding video content


In this Blog I will discuss what I learned from the lecture on the 6th of February 2020, about Media Analytics given by guest speaker Dr Suzanne Little.

The lecture started like any other, with an introduction. Dr Little began by explaining the different terms that fall under 'media'. She then introduced the topic 'Media Analytics'. From my interpretation I understand Media Analytics to be, 'gathering data to track and improve performance'. The idea of Media Analytics is fascinating; however, practicalities can be challenging. Writing things on paper is easy but testing and experimentation can be difficult, especially when dealing with humans.

Dr Little explained how computers are being programmed to "see". Computers are being taught how to understand different scenarios. However, this approach is quite challenging as computers can't understand abnormal scenarios.

Semantics is the study of a relationship between words and how we construct meaning. The term Polysemy falls under Semantics. It simply means, 'the coexistence of many possible meanings for a word or phrase'. A sentence could be interpreted differently by different people. Without specification the real meaning is never know. If I ask for a round orange ball, what do I mean? Do I want a tangerine, an orange football or the sun? It could be any one of these objects. No one would know unless I specified further.
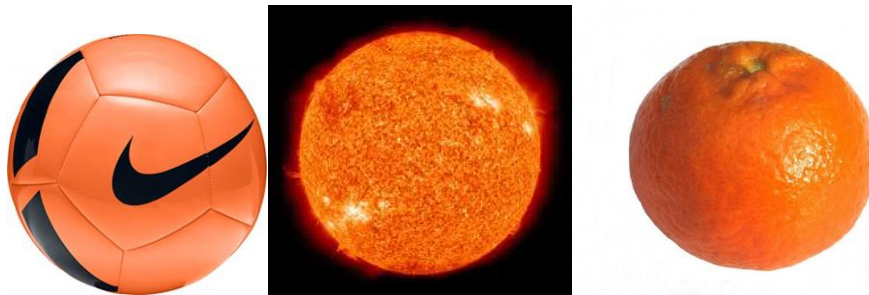
Similarly, computers can't use initiative, which is what makes it hard to teach them. We must be specific when giving computers instructions. This might seem easy and doable but there are an infinite number of abnormal scenarios that could occur. This makes teaching computers how to "see", quite difficult.

I learned in the lecture that visual similarity and semantic similarity are not the same thing. Two things can have the same physical properties but that doesn't necessarily mean they are the same thing.

Visual Similarity ≠ Semantic Similarity

Supervised Learning is the machine learning task of learning a function that maps an input to an output based on example input-output pairs. Supervised Machine Learning uses labelled examples to train computer systems. This training is used in cars, to aid the driver with parking. It is also used to diagnose abnormal voltage.

In summary, Media Analytics has many potential applications. These include health, broadcast media, entertainment, sport, agriculture and so much more.

More on Media Analytics:

- https://www.nielsen.com/eu/en/solutions/capabilities/media-analytics/
- https://matomo.org/docs/media-analytics/
- https://en.wikipedia.org/wiki/Social_media_analytics

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