





### WHAT IS AN ENTITY?

A.I. is able to recognise any organisation, individual, location or event as an 'entity.' Platforms that use A.I. can learn how an entity is written or spoken about, resulting in hyper-relevant results. By analysing how people write or speak about entities, the technology recognises that Apple iPhones cannot be eaten, and apples are not touchscreen. Context is key here.

So if you wanted to look up media coverage on **Apple™**, you won't be shown articles on apples (the fruit). No orchards. No cider. Just Tim Cook's finest.

But entities are more than just a matter of precision. They allow us to compute sentiment, so that you can keep track of whether a company, person or place is receiving positive or negative media coverage. Relationships between different entities can also be detected, allowing you to derive more detailed insight from your media monitoring.

The best part? Entities get smarter and more precise over time. Every time the A.I. algorithm reads a new article, it gets a better sense of the entity's context. And it does all of this on its own!

A.I. powered entities provide more accurate information in an effective and efficient manner.

Entities can easily adapt in an ever-changing world, in stark contrast to the rigidity and complexity of maintaining long and confusing Boolean searches.

Dr Miguel Martinez, Chief Data Scientist at Signal Al

# THE CATCH WITH KEY WORDS

Searching by keyword is the most fundamental form of searching. We do it every time we use Google! We type in a keyword, hit 'Enter', and then go through the results.

Keywords have perfect recall. Say you wanted to look up media coverage on the company Slack, so you search for the keyword "slack" across a database of articles.

You will be returned **every** single article that mentions the word "slack." This includes every article on Slack (the company). This is referred to as IOO% 'recall', which means you're getting back **everything** you asked for. Although this seems impressive, there's a major catch.

Unfortunately, you will also be returned every article that mentions the word "slack" that's not about the company. From politicians that slack on the job, to teachers that don't cut their students any slack – you will receive **a lot of** irrelevant information.

Like keywords, entities have an extremely high recall (approximately 99%). Unlike keywords, entities show you exactly what you're looking for.

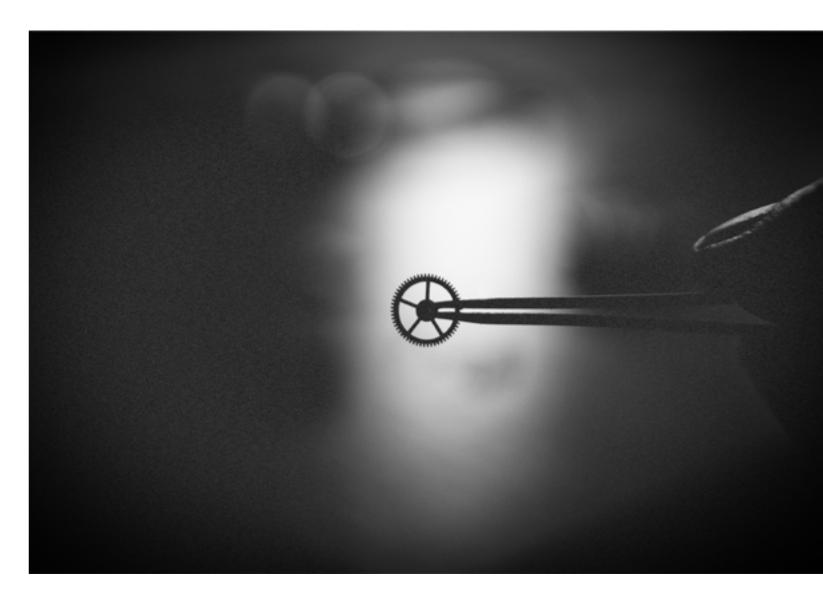
# ENTITIES VERSUS KEYWORDS PRECISION'S THE MISSION

Keywords are ultimately a very poor way of monitoring media coverage. On the other hand, entities are extremely precise.

### But how much more precise are entities compared to keywords?

We ran some tests to find out:

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Company	Keyword precision	Entity precision	
Apple	668	988	
Alphabet	518	998	
Slack	178	998	



Keywords performed extremely poorly. When we searched for news coverage regarding Slack, only 17% of the returned articles were relevant.

This doesn't translate well when it comes to time saving:

Company	Total number of articles you'd have to get through to see IOO relevant ones		Time wasted getting through irrelevant articles	
	Keyword	Entity	Keyword	Entity
Apple	151	102	26 minutes	60 seconds
Alphabet	196	IOI	48 minutes	30 seconds
Slack	588	IOI	4 hours	30 seconds

## BOOLEAN IS A BORE

A Boolean search is essentially a longer, more complex keyword search. Boolean combines keywords – which in themselves have poor precision – with operators (words such as "AND", "NOT", "OR") in an attempt to maximise the precision of your search.

If you wanted to search for Jaguar (the car manufacturer), you'd have to construct the following string:

"Jaguar" AND "car" NOT ("animal" OR "wildcat" OR "mammal" OR ...so on and so forth) Although this is much more precise than simply searching for the keyword "jaguar", it still won't be maximally precise. The search string could literally go on forever and ever, as you include more and more terms you want to omit or include. Your Boolean search will also never ever be perfect, due to the limits of human knowledge. We can never know every single term to include or omit.

For this reason, Boolean searches are inefficient and simply not appropriate for monitoring media coverage. Not only are you forced to build long, messy search strings, but they are almost impossible to maintain over time.



Our wonderful friends at Amadeus once relied on Boolean searches before they discovered A.I. technology. Amadeus rely on effective media monitoring to shape their business strategy, so it only makes sense for them to use the best tools available. Daniel Batchelor, Global Head of Corporate Communications at Amadeus says, "To inform our overall business strategy, we needed a solution to benchmark, sense check and understand how stakeholders and customers are reacting globally to the brand and

its products."

Unfortunately, their media monitoring monitoring capabilities were very limited to begin with. Here's what their search string looked like with Boolean:

"Amadeus" NOT ("Amadeus Capital" OR "Wolfgang" OR "Mozart" OR "GDS Hotel codes" OR "Austrian Music Award" OR "Hugo Wolf" OR "Café Amadeus" OR "Paul Arditti" OR "tot Zappa" OR "Amadeus art centre" OR "Arditti" OR "Amadeus River Cruises" OR "Amadeus Russo" OR "godfather of cats" OR "musicals" OR "Habaneira do Camiño" OR "cat Amadeus" OR "National Theatre" OR "Quatuor Amadeus" OR "Amadeus de Destardes" OR "Sala Amadeus" OR "amadeusonline" OR "multimedios" OR "Golf Today" OR "Amadeus Hall" OR "Rambo" OR "Amadeus Ehrhrd" OR "Johann Hölzel" OR "Amadeus Löw" OR "Die Amadeus-Award" OR "Konzert in Amstetten" OR "de Mozart" OR "wrestling" OR "The Chiefs" OR "FHSAA" OR "Five Chiefs" OR "Amadeus Food" OR "Lindemann" OR "Amadeus Capital Partners" OR "Amadeus review" OR "Amadeus the musical" OR "Wolfgang" OR "Amadeus Guest House" OR "HairerSoft" OR "Maxwell Amadeus" OR "Rock me, Amadeus!" OR "Rock me Amadeus" OR "Amadeus Data Processing" OR "Amadeus Basin" OR "Dr Amadeus Shamu" OR "Amadeus Cannon" OR "AMADEUS PETERSON" OR "Bryan AmadeuS" OR "Amadeus Awad's Eon" OR "Merry Christmas Amadeus" OR "Amadeus Cachia" OR "Amadeus the cat" OR "Karl Amadeus" OR "precision medicine platform" OR "Amadeus Choir" OR "Daniel Amadeus" OR "Amadeus Ragsdale" OR "Amadeus Cachia" OR "Amadeus Traffic Analytics" OR "Amadeus Analytics" OR "Accademia Amadeus" OR "AMADEUS Band" OR "Altéa Network" OR "Opus Amadeus" OR "Karl Amadeus" OR "Shackles of Amadeus" OR "the film Amadeus" OR "the movie Amadeus" OR "Amadeus Association" OR "Amadeus Choir" OR "Podvratnik Amadeus" OR "Amadeus Muscat" OR "Amadeus Road" OR "Chamber Orchestra" OR "Amadeus Shamu" OR "Providence Players" OR "Hoffmeister" OR "Amadeus Mozar" OR "Tom Hulce" OR "Amadeus Capital" OR "Amadeus OM" OR "Natalia heeft" OR "Boris Becker" OR "Lilly Becker" OR "Konzert" OR "Konzert" OR "Grand Prix Freestyle" OR "Freestyle to Music" OR "Amadeus Concepcion" OR "basketball" OR "Amadeus Hedin" OR "Ivan Vasiliev" OR "Oksana Bondareva" OR "Amadeus de Massa" OR "Orquesta Escuela" OR "Amadeus FiRe" OR "Johnny Amadeus Cecotto" OR "trupa Amadeus" OR "Nicola Naylor" OR "Lyceum" OR "Cine Amadeus" OR "Giovanna Civitillo" OR "Amadeus Nat" OR "Audi R8")

Still here? Good.

Here's what their search looks like now, thanks to A.I.:

"Amadeus"

Simple.



A.I. has come a long way from just being science fiction. It is now a reality that is revolutionising the way we live and work. Indeed, our A.I. does not replace the human knowledge in making decisions on what is relevant. Instead, it is empowering humans to be more efficient keeping the room to apply human critique and approval.

Dr Dyaa Albakour, Lead Data Scientist at Signal Al

# **FUTURE** OF PR

A.I.

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Cut through the noise with cutting-edge A.I. technology. In a world where there's almost too much information, A.I's hyper-relevant results ensure that you're always in the know.

A.l. searches are ridiculously easy to set up, self-maintaining, and far less time exhaustive than any other option. Easy, efficient, and exact -A.I. makes for a seamless media monitorina experience.

You can reinvest the time you save through A.I. in more highvalue work. From tracking competitors, to analysing coverage across particular themes; focus on tasks and projects that add real value to your business.

Signal is the leading provider of A.I. tools for PR δ Comms professionals. There are already over 350,000 search entities in the Signal platform, and this number is rapidly growing. Clients can request any entity they'd like, no matter how niche: interested in monitoring a tiny fintech start-up in a remote town in Latvia? Not a problem, Signal can create that entity for you!

Find out what A.I. could do for your business - request a demo today.





Be in the know.

Signal is the A.I. powered media monitoring platform delivering strategic insights that help you make the best possible decisions.

For more information email hello@signal-ai.com or call us on +44 (O) 2O 3828 8200 (UK and rest of world) or +1 917 398 5931 (US).





