The movie Arrival from 2016 is not your typical alien story. Instead of focusing on action or fighting, it’s all about language and communication. It shows how difficult and confusing it can be to talk to someone or something that doesn’t speak your language or even think the way you do. Watching this movie makes you realize that these same problems happen in real life too, especially when it comes to teaching computers how to understand human language. That’s what experts call Natural Language Processing, or NLP for short.  
  
In the movie, twelve huge alien spaceships suddenly appear around the world. Nobody knows why they’re here or what they want. That’s where Dr. Louise Banks, a language expert, comes in. The government asks her to help figure out how to talk to the aliens, called Heptapods. With the help of a scientist named Ian Donnelly, she works to understand their strange language. But this isn’t like learning Spanish or French. The Heptapods use a completely different kind of writing circular symbols that look more like art than words. Their language doesn’t just work differently; it actually changes how people think.  
  
While trying to understand the alien language, Dr. Banks faces a lot of the same problems that computers face when trying to understand human language. One of the biggest issues is ambiguity. Early in the film, the Heptapods communicate what seems to be the phrase “offer weapon,” which sparks panic among global leaders. Dr. Banks explains that “weapon” might also mean “tool.” The meaning depends on the context. Computers have a hard time with this too. For example, the word “bat” could mean an animal or something you play baseball with. Figuring out the right meaning is still really hard for machines.  
  
Another problem is that language isn’t just about words — it’s also about culture and how people see the world. In Arrival, Dr. Banks learns that to truly understand the Heptapods, she has to understand how they think, not just translate their words. This happens with human languages too. Some words or phrases only make sense if you know the culture behind them. For example, if someone says “it’s raining cats and dogs,” they mean it’s raining heavily, but a computer might think animals are falling from the sky. That’s why teaching computers to understand language is so tricky.  
  
The Heptapods’ language is also really different because it doesn’t happen in a straight line like English. Their written symbols are circles, and they share a whole idea all at once instead of one word at a time. This is hard for humans to understand, and it’s the same with computers. Most of the tools we use to teach computers language expect words to come in order, like a sentence. But not all languages follow the same rules, and that can confuse both people and machines.  
  
Even though the movie doesn’t focus much on sarcasm or humor, it still shows how easy it is to misunderstand what someone means if you only look at the words and not the feeling behind them. This is another big problem for computers. They can read words, but they don’t really “get” jokes, sarcasm, or emotions very well. That’s why things like chatbots sometimes give weird or wrong answers.  
  
The way Dr. Banks figures out the alien language is also similar to how people train computers to understand language. At first, she uses a basic, step-by-step approach, making guesses about what symbols might mean. This is like early computer programs that followed strict grammar rules. But over time, she starts noticing patterns and lets the language itself guide her understanding. Computers learn this way too now, using huge amounts of text to find patterns and meanings. The biggest difference is that Dr. Banks actually starts to think in the Heptapod language, which changes how she sees the world. Computers aren’t anywhere close to doing that — they don’t really “understand” language, they just predict words based on patterns.  
  
One of the coolest ideas in the movie is that learning a new language can actually change how your brain works. In the story, when Dr. Banks learns the Heptapod language, her mind starts seeing time differently — like the past, present, and future all at once. This comes from a real theory called the Sapir-Whorf hypothesis. It says that the language you speak can shape how you think. Computers don’t have thoughts or feelings, so even if they can copy human language, they don’t really experience the world the way we do. The movie shows how deep and powerful language really is — it’s not just about words, it’s about how we understand life itself.  
  
The film also reminds us that translation isn’t just about swapping words from one language to another. You need to understand culture, emotions, and meaning. Computers still struggle with this. That’s why sometimes online translators mess up jokes or phrases. In the movie, if Dr. Banks had just tried to translate the alien symbols literally without understanding their way of thinking, it could have caused disaster.  
  
What Arrival really shows is that language is complicated, and understanding it takes more than just knowledge — it takes patience, empathy, and a willingness to learn how others see the world. Teaching computers to understand language is hard for the same reason. While computers are getting better at understanding words, they still can’t fully grasp emotions, culture, or the deeper meaning behind what people say.  
  
In the end, Arrival is more than just a movie about aliens. It’s a reminder that language shapes how we see the world, how we connect with others, and even how we think. It also shows us that understanding each other — whether human or alien — is never simple. The same is true when we try to teach computers our language. It’s a long, complicated process, and like Dr. Banks shows us, sometimes understanding starts with listening, not just translating.