**Lesson 07 Discussion**

Natural Language Processing (NLP) is applied in many areas of everyday life. So, what could possibly go wrong? Consider some of the well-known limitations of NLP. How can you envision unexpected or undesirable behavior to arise from these limitations? What steps might be taken to address this problem?

Not long ago I saw a post in LinkedIn where one of the users was talking about a personal experience with a particular airline. It was for the well-known situation where the airline sends the baggage to another destination completely different than the desired one. The interesting part is that right after that happened this person tweeted to the airline the following message: *“Thank you for sending my baggage to Hyd and flying me to Calcutta at the same time. Brilliant service. #DieIndigo”* immediately after that the airline replied *“Glad to hear #KeepFlying6E”.* This is a classic example of one the well-known limitations of NLP, understanding and correctly replying to irony and sarcasm. Irony and sarcasm present a problem for Machine Learning Models because irony and sarcasm generally use words and phrases that by definition may be positive or negative, but actually have the opposite connotation. One option to address this problem could be to train the models with certain cues that frequently accompany ironic or sarcastic sentences, such as “yeah right”, “whatever”, etc. But even then that might be a difficult process.