Microsoft innovation lab:

Recent incidents suggest that understanding the nature of a person and his behavior becomes really important for various reasons especially security. Nowadays, many companies look for a well suited employee for their organization. They want employees who can not only put their academic knowledge and ideas into development but also want to know the nature of employees. Superficial background checks, personality tests etc would be insufficient. This poses a potential security risk to the company. Hence companies are now eager to know employees personality, behavior and interests. This problem becomes tedious for a person to do it himself.

To solve this problem we shall use machine learning. By just knowing a person’s name we can link to their Facebook, twitter or any other active social website to know his personality and his behavior. This can be done by reading and understanding their posts and images uploaded by the employee. By analyzing their posts, we can interpret their behavior, hobbies and also understand their thoughts. The implementation can be done in two parts, software development and algorithms. The software development part includes writing scripts which extracts data from the web i.e. social networking sites, blogs etc. Since extracting data can be time consuming these scripts can deployed on a server. Using machine learning algorithms we can extract useful information from this raw data. Now for simplicity we can assume that this raw data can be broadly classified into text and images. The semantics of the text can be understood using various techniques like word level and sentence level embeddings, similarity checking, sentiment analysis etc. A year ago a paper was published by Andrej Karpathy which could read and caption a given image. This paper was based on deep neural networks which would give the main description of the image. We could get information from images and understand its context.

We can check his background and other details based on the company’s requirement. His social behavior, involvement with peers, interested domains, mental stability, strengths and weaknesses, emotional behavior etc can be known. Based on these factors we can generate his emotional employability index.

This is just one such application. This can be extended to various other domains like student admissions etc.