**Artificial Intelligence**

**INTODUCTION**

Artificial intelligence (AI) has received increased attention in recent years. Innovation, made possible through the Internet, has brought AI closer to our everyday lives. This advance, alongside interest in the technology’s potential socio-economic and ethical impacts, brings AI to the forefront of many contemporary debates. Industry investments in AI are rapidly increasing, and governments are trying to understand what the technology could mean for their citizens.

**Current Uses of AI:**

Although artificial intelligence evokes thoughts of science fiction, artificial intelligence already has many uses today, for example:

* **Email filtering**: Email services use artificial intelligence to filter incoming emails. Users can train their spam filters by marking emails as “spam”.
* **Personalization**: Online services use artificial intelligence to personalize your experience. Services, like Amazon or Netflix, “learn” from your previous purchases and the purchases of other users in order to recommend relevant content for you.
* **Fraud detection**: Banks use artificial intelligence to determine if there is strange activity on your account. Unexpected activity, such as foreign transactions, could be flagged by the algorithm.
* **Speech recognition**: Applications use artificial intelligence to optimize speech recognition functions. Examples include intelligent personal assistants, e.g. Amazon’s “Alexa” or Apple’s “Siri”.

**What it’s all about**

Artificial intelligence (AI) traditionally refers to an artificial creation of human-like intelligence that can learn, reason, plan, perceive, or process natural language. Artificial intelligence is further defined as “narrow AI” or “general AI”. Narrow AI, which we interact with today, is designed to perform specific tasks within a domain (e.g. language translation). General AI is hypothetical and not domain specific, but can learn and perform tasks anywhere. This is outside the scope of this paper. This paper focuses on advances in narrow AI, particularly on the development of new algorithms and models in a field of computer science referred to as machine learning.