

Clarion Article for Feb/Mar 2017

Recently, Dr Al-Assam gave The Adstock Science Club a talk about work being carried out at the department of Applied Computing at Buckingham University in the development of automated algorithms to identify some diseases at their very early stages. In particular he gave examples of some of the basic strategies used to detect and quantify cancer of the uterus or womb. At this early stage of development, this relies on gathering and analysing hundreds of ultra-sound images of the uterus, both healthy and abnormal and by allowing the algorithm to learn which images were normal and which were not.

Due to a certain amount of resistance to this research in the UK by many medical staff who are fearful that their skills will be made redundant, and also because of UK's Data protection laws, images used to train the system had to be obtained from Belgium. Dr Al-Assam explained that these systems were not intended to replace expert clinical diagnoses but to aid in the initial investigation freeing up clinicians and specialists to concentrate their valuable time and skills on the more difficult and problematic cases.

In my January talk I examined some of the technologies that are currently out there that may have an impact on the future of humans and our ever closer relationship with machines. The development of technology, from the discovery of fire, the invention of the wheel to the Industrial Revolution, is a story that spans many thousands of years but it is only since the late 18th century that the pace of discovery and invention began to accelerate and now almost seems exponential. The advent of the computer, Moore's Law, and the latest discoveries in medical science have led us to a place where scientists are able to augment the human body with a variety of prosthetics, implants and enhancements. Some futurologists have coined the term "The Singularity" to define the coming together of Man and Machine. Should we be worried about this or should we embrace these developments with open arms?