**Collapseofwork**

The robots are coming - increasingly they will do more and more things which we currently call work. So this talk is about the role work plays in our lives. In a world where less than .001% control the development of the technology, 1% are involved in implementing it and 99% just passive spectators.

in 1979 I was teaching a course on the LBS MBA called Information Systems. I said there were three strands - computing, office automation and telecommunications I used to bring in well known people to talk and one of them was Clive Jenkins (leader of the ASTMS trade Union with 500000 members). He was rather irascible and often on TV and in newspapers. I went to the launch of his new book at the British Computer Society, it was entitled "The collapse of work". He argued that computerisation was taking over the functions that humans provided. He was right but about 50 years too early.

Words we associate with work include trade, career, employee, wage-slave, earner. That list contains a whole raft things connected to work from belonging to how we see ourselves to providing the economic wherewithal.

Many years ago it was all about survival. When work was about more than survival it became agricultural. Then came the industrial revolution so the factory arrived and soon after the office. The professions gained more strength and seemed to support the class system that we had. The middle class were very concerned that their children had the right education/ qualifications to get into these professions.

So we move through to today where we take work almost as a human right. The news is full of unemployment figures or zero hours contracts or the growth in self-employment.

What role does work then play?

Economic - the bottom two levels of Maslow's hierarchy need financial input. These are either provided through our own individual efforts or the state. Increasingly in the future these could be provided by machine then the decision will become much more political. Many of these functions will be done by robots at a very low cost so the power will go to those who fund and design them.

Belonging - most of us need to belong and that is one of the roles of work. The office, shop, school, surgery, studio, factory, garage. ... The list goes on and on. If the world of work disappears then we will have to find other ways of belonging. Maybe work has been too big a crutch and we will be able to be part of things we like doing.

Identity - ask almost anybody who they are and they will tell you what work they do/did. With the growth in multiple careers then who we are is more about our current identity though what we used to do, maybe a lot, is how we see ourselves. This may have been appropriate when technology was changing slowly but now who can say what jobs will exist in 20 years time.

Another important aspect of work is structure. Work is ritual in our lives and if that disappears then we need other rituals. When one becomes self-employed then it is important for our week to have some shape.

Robots are good(at the moment) with structured tasks, be they manual or intellectual. Humans excel where there are variations, some of them very small. This advantage won't last long so we might have to think what we are good at which will not be overtaken by machines in a few years. A good example is Work Fusion. It takes on big complex jobs and splits them into micro-tasks, those can be automated are while others require human input. But computers are watching those tasks and learning so when they learnt enough the task can be automated. We are making ourselves redundant!

Lack of the opportunity to work may be one the driving forces for extremism and radicalism.

When we were growing up work was synonymous with employment. How that has changed, the latest figures show a big growth in self-employment. My recent ski accident involved a lot of people and I am interested in who of those are vulnerable to the change in technology.

I was brought off the slope by pisteur in a blood wagon. He summoned a taxi who took me to the doctor - some vulnerability here but he had a good relationship with a local doctor. The doctor took X-ray of my knee and decided I needed to go to hospital. I would not have felt comfortable with a machine making those decisions so I feel that aspect of doctoring isn't under threat. I was taken to hospital in an ambulance talking to para-medic from the GDR. The transport aspect is definitely under threat but there are much wider issues with paramedics. The hospital had lots of personnel and technology. Apart from the medical aspects there was the input of nurses and supporting staff in keeping me comfortable, fed and everything clean. When you are traumatised it is good to have some human contact rather than a machine providing the same service.

I came back to Kingston by road ambulance driven in turn by two drivers who had worked for the London ambulance service for 20 years. It was surprisingly cheery and I learned a lot from the woman lived in bad end of Hackney. The transport is obviously threatened but we may end up living in a very efficient yet boring world.

The contrast to the Swiss hospital was extreme where.everything was well funded and resourced. Medically Kingston was very good but a lot of the subsequent functions could have been provided better and cheaper via robots. This highlights the issue of funding, the pressure to use machines may come from trying to keep the cost down.

As a result of less and less people required to do jobs one group may be seriously threatened trade unions.

This all may seem very gloomy so to cheer you up let's look at the history of bank cash points. In1990 there was about 100k, by 2015 there is over 400k.During this time the number of bank Cashiers has held steady even increased. Why? Cashiers are no longer necessary to give out money instead they provide a range of services. Though there is less per branch more and smaller ones are opening because they require fewer cashiers.

Maybe a part of the future will be Cedar – like airbnb and uber but for work. One thing robots cant do is turn their hand to different tasks each day, which makes irregular work a beachhead on which humanity can hope to fight back.