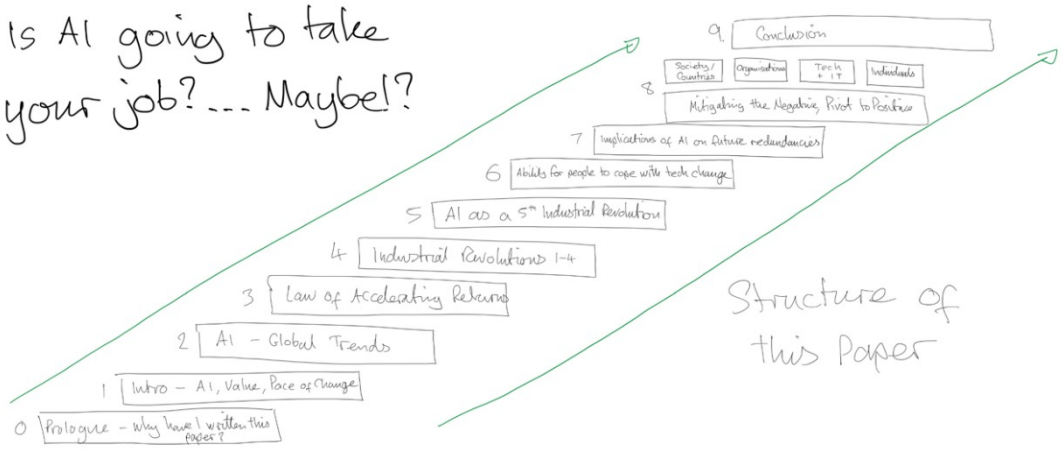


Is AI going to take your job? Maybe?!

AI - The 5th Industrial Revolution - What can the previous 4 teach us?

Simon Owen

https://www.linkedin.com/in/simonowendigital/
https://www.empoweryour.world/

Prologue....1
1. Introduction....1
2. A global perspective of the future of AI....1
3. Exponential Acceleration of Technology: The Law of Accelerating Returns....1
4. Background – The Industrial Revolutions....1
5. AI as the 5th Industrial Revolution and it’s alignment with the Law of Accelerating Returns....1
Industrial Revolutions and the Law of Accelerating Returns....1
6. Ability of people to adapt to change....1
7. Implications of AI for Future Redundancies....1
Industry and Role impact....1
AI Intentionality....1
8. Mitigating the negative Impact, pivoting to a positive impact....1
Education....1
Country / Society....1
Organizations....1
IT / Tech Orgs....1
People....1
Process and People Enablement....1
10. References....1

Published July 2024. This is a point-in-time view: the examples and tools reflect the AI landscape as it stood then. The core argument – that this is a revolution of pace, and that our ability to adapt is uneven – has only sharpened since. Where the thinking has since become part of EmPOWER Your World, I have flagged it at the close.

Prologue

Is AI going to take your job? From conversations with some of my friends across the Microsoft community they think not and are saying things like:

“It’s a job changing thing, not a job taking thing.”

“It’s just the evolution of work. People will evolve their up-skilling (and development) to stay current.”

“AI won’t take your job but someone using AI might take your job.”

When I started thinking about these comments, I agreed… to an extent… One of the amazing strengths of humans is that we can learn, and we can evolve, and we can find those glowing opportunities that hide in the darkness that change what we do and how we do it. Many people’s careers are made up of different strands and interests. Those careers often evolve and grow through a lifetime. We’ve also navigated large scale technological changes before in the ‘Industrial Revolutions’…

But when I started to think more broadly about different industries and diverse levels, and capabilities, within organisations and the pace of change that we’re seeing I started to wonder… Is it really that simple in the case of these increasingly rapid technology revolutions? Can people evolve enough from where they are today? And even more importantly can people evolve fast enough to reinvent themselves in the future too? And if so, how long can we sustain that with the accelerating pace of change and disruption?

In some cases, I have no doubt that we can evolve fast enough and grasp the opportunities that come… but does everyone, especially those whose jobs may be most likely to be disrupted, have the foundation to reinvent themselves to the level required at the pace that may be required? I just don’t know.

These thoughts sat in my head and kept floating around. They triggered more questions. They generated some ideas. They prompted me to dig into what's happened before around technology changes to see if it offered any clues as to who has been previously affected, by how much, and what the impact has been.

It's this AI future, the concept of 'Industrial Revolutions', and accelerating rate of change that made me wonder whether AI will (eventually) take our jobs because the rate of change could be so fast that we don't have the ability to keep up and evolve, that prompted me to write this paper to share these thoughts, and see what others think.

In this white paper I will investigate previous major technology revolutions and understand any similarities, or trends, between those and what we are starting to see now, to see if there could be some learnings that we could take forward to minimize current, or future, technology changes. I summarize my goals of this document as being:

- Looking to the past to learn what it could mean to the future in this world of accelerating technological advancement.
- Providing a broader perspective towards potential societal, educational, organisational, and personal, impact from AI.
- Provide some ideas for governments, organisations, technology companies, and individuals, on what could or should be done differently to minimize any negative impacts.

Over the coming sections we'll explore these through topics such as Kurzweil's Law of Accelerating Returns, the history of the industrial revolutions and what we can learn from them, how AI fits in with the law of accelerating returns, potential impact for redundancies, and what might be done by governments, organisations, IT / Tech, and individuals, to try to combat that impact.

Independent of your background, role, industry, position in an organisation, technology experience, I hope you find it interesting, thought provoking, and perhaps even inspirational to get you thinking about your (or your families future generations) role in a ‘5th Industrial Revolution’ and how you might want to act to be able to shape, steer, or react to, this rapidly changing world!

1. Introduction

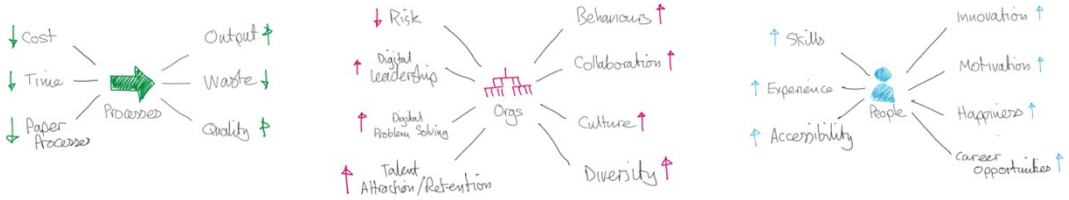
You cannot currently go to many places without hearing the topic of AI mentioned. Be it news stories about Open AI and Chat GPT, or how it is (or at least could) be used, how organisations are being disrupted by AI, that CEOs and C-Suites are driving action to explore and experiment to change how their organisations work rather than a technology change being driven by IT. Almost every week there's a new announcement or functionality launched by major tech companies like Microsoft. It's clearly a big deal!

There is a huge amount of promise and opportunity being spoken about, and from the early releases of these AI technologies, and our experiments with them, it's easy to see why! Despite some (sometimes funny, sometimes worrying) errors, biases, gaps etc. in how they work and the outputs they produce we have peeked behind the curtain and seen a tiny bit of the magic that is behind it.

We have seen it generating content from multiple sources to create content which may have taken us hours to do manually. We've seen it create first drafts of documents, or a document structure, that accelerates our creative editing processes. We've seen it creating images and videos. We've seen it producing transcripts of meetings, or videos, or podcasts, summarizing key points, decisions, actions. We've seen it help people to find answers, understand next steps, or to instruct systems through natural language.

These can lower the barrier to entry for people to start learning and doing something (e.g. writing a document, creating an App, building a spreadsheet) or learning something new, or can accelerate tasks to make people more productive, efficient, or innovative, offer insights from a different perspective, or can provide automated ways to perform tasks that the individual may not have the knowledge or skills to do… or perhaps that they don't want to do.

We can think about value quite broadly in this context in line with how we've been talking about Power Platform value. Not just the value to improving processes but also to the organisation, and especially to the people themselves in organisations but also in general society - https://www.empoweryour.world/blog/pp-value-hypothesis



It's an exciting time from a technology perspective to ponder how these technologies will develop in weeks, months, years, decades, centuries! The more distant future could be unrecognizable to us today! Let's think what that might be like…

If we think about how the world has changed during the lifetime of the current oldest person alive (Maria Branyas of Spain, who was born in 1907 and is 117 years old) – In her lifetime she's seen such monumental events such as:

- The Wright Brothers' first flight in 1903 become something that takes many of us around the world every year for holidays, business, conferences. And further evolved into Space Travel! Sending people and technology to explore places millions of miles away.
- Cars have become commonplace with many households having multiple of them. Some of them use data from cameras and sensors to make decisions on steering, braking, obstacle avoidance to improve safety.
- Television being small, black and white, and rare, to being the size and quality of a cinema, and something many homes have in multiple rooms. Going from an exceedingly small number of programmed channels to devices where you can watch anything, from anywhere, at any time.
- Telephony – Although the first home phone was installed in 1877, she saw the telephone become commonplace… and then become

mobile to allow us to communicate from wherever in the world we are!

- Computers appearing, and moving from large industrial devices that filled rooms, to being things that we have in our homes and work, to things that we carry in our pockets or wear.
- The Internet transforming many aspects of life from how we share information, shop, talk, work, socialize, connect with others and making the world feel much smaller.

Maria has seen the world become almost unrecognizable from that she was born into. She didn't see the 1st Industrial Revolution where steam transformed travel and manufacturing, but she did see the 2nd where mass production came about making manufacturing faster, cheaper, and make products more available to a wider market. She also saw the 3rd where digital technologies transformed how we lived and worked, and the 4th where the integrated use of data, automation and robotics / cobotics brought more efficiencies… And it's proposed that she's seeing the beginning of the 5th where AI will enhance the workplace in ways that we are only just beginning to imagine!

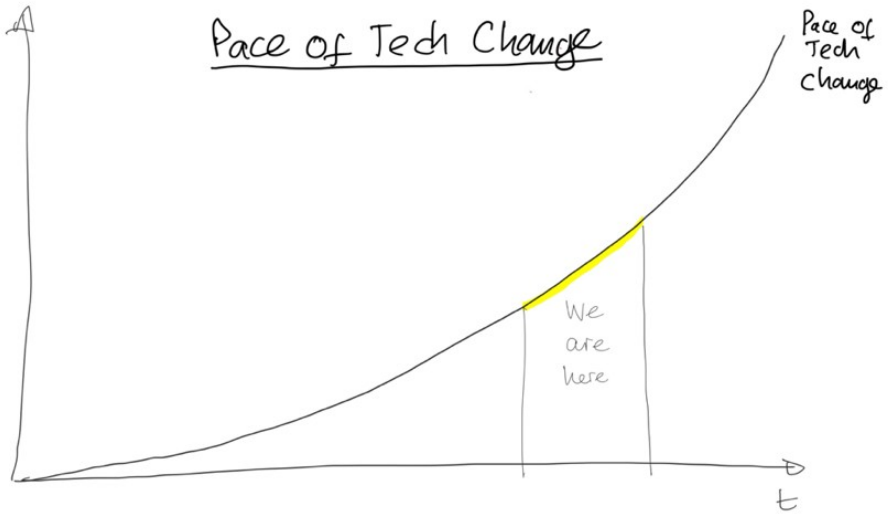
The amount of change that Maria has seen over her 117 years is more than took place in the 117 years before that but will also be much less than takes place in the next 117 years!

In his book, Diary of a CEO, Steven Bartlett references the Education Entrepreneur Michael Simmons talking about this accelerating rate of change. He says, "If someone is 40 years old today, the rate of change they will experience in 2040 when they are 60, will be four times faster than today. What feels like a year's worth of change will happen in just 3 months and when someone who is 10 today is 60, they will experience a year in today's rate of change in 11 days (about 1 and a half weeks).

To take that concept even further Ray Curswell, Futurist, forecasts that across the 21st Century we will witness in the order of 20,000 years of

progress when measured by today's rate of change. 1000 times more progress than in the 20th Century!

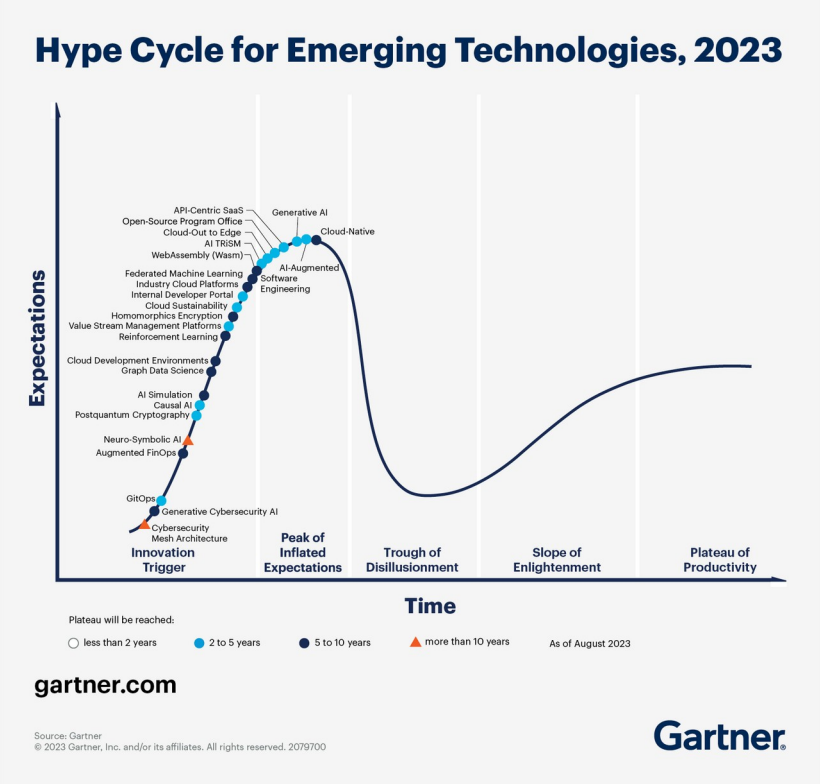
The rate of technological change is accelerating at an exponential rate! Is our ability to deal with it accelerating at the same rate?



2. A global perspective of the future of AI

There are several organisations who study technology trends, engage with organisations and leaders, and do their best to predict the future! Gartner are one of these organisations. They publish this information in numerous ways. One of these ways is the ‘Hype Cycle’ which aims to predict the path and timeline a technology will take to go from initial inception through to general consumption by the masses.

In their Hype Cycle for Emerging Technologies issued in September 2023, we can see there are many AI related technologies gathering pace and building expectations to be future bets.



The Gartner Hype Cycle gives a view of the maturity of new technology. It tracks a path of a technology through the following phases:

- It appears on the radar in the ‘Innovation Trigger’ area where there is rapidly growing excitement of what’s possible with it and what value could be achieved.
- This reaches a ‘peak of inflated expectations’ where expectations are massively high that technology is going to bring us world peace,

take us to the moon, or perhaps ‘just’ transform how we do things dramatically.
- This is followed by the realisation that it’s not ready, it’s harder to do than thought, and more expensive than hoped and when we plunge into the ‘Trough of Disillusionment’.’
- As it becomes more mature, better understood, more effective, easier to deploy, lower cost, more enterprise ready, with real value business cases are delivered we climb the slope of enlightenment and there are real examples of value and it’s a real differentiator for those front runners who have invested in it.
- We eventually reach the plateau of productivity where it’s a commonly used technology with understood strategy, patterns, and execution.

However, although very insightful, the Hype Cycle and prediction of times to value are not perfect. Not all technologies go the distance and make it to the ‘Plateau of Productivity.’ As is the nature of technology some will fail or not become financially viable as planned.

We can all recognise that other technologies have come along and been shouted about as ‘the next big thing’ and ‘game changers’ but many, like ‘the Metaverse,’ have faded somewhat… them too disrupted (for now?!) by AI. So why will AI accelerate through to the Plateau of Productivity? And why now?

Well from the news, discussions with our peers and across organisations, and the Hype Cycle we can see that expectations for AI are big and growing further! There are clearly huge expectations and we’re starting to get a glimpse of how these AI technologies could enhance what we do, make it faster, make it easier, and aid in automating (or at least accelerating the thinking and evolution time) of our work.

Gartner calls out 4 key themes around the Hype Cycle to consider in 2023 and beyond – Emergent AI, Developer Experience, Pervasive Cloud, Human-Centric security, and privacy. All 4 of these contain AI elements.

The ‘Emergent AI’ theme heavily features Generative AI and its ability to provide profound examples of how work can be performed differently, faster, and bring different viewpoints and insights. Other key AI technologies featured in this theme are AI Simulation, Causal AI, Federated Machine Learning, Graph Data Science, Neuro-symbolic AI, Reinforcement Learning.

These technologies provide a variety of value propositions including:

- Sustainable Differentiation
- Greater Workforce Productivity
- Enhance Digital Customer Experiences
- Make Better Business Decisions
- Distinguish against competitors
- Content and Product Development
- Automation of human work

At that point in time Gartner’s prediction of these coming to mainstream adoption was 2 to 5 years. These estimates are reviewed and updated with each edition, so it will be interesting to see how these change over the coming editions.

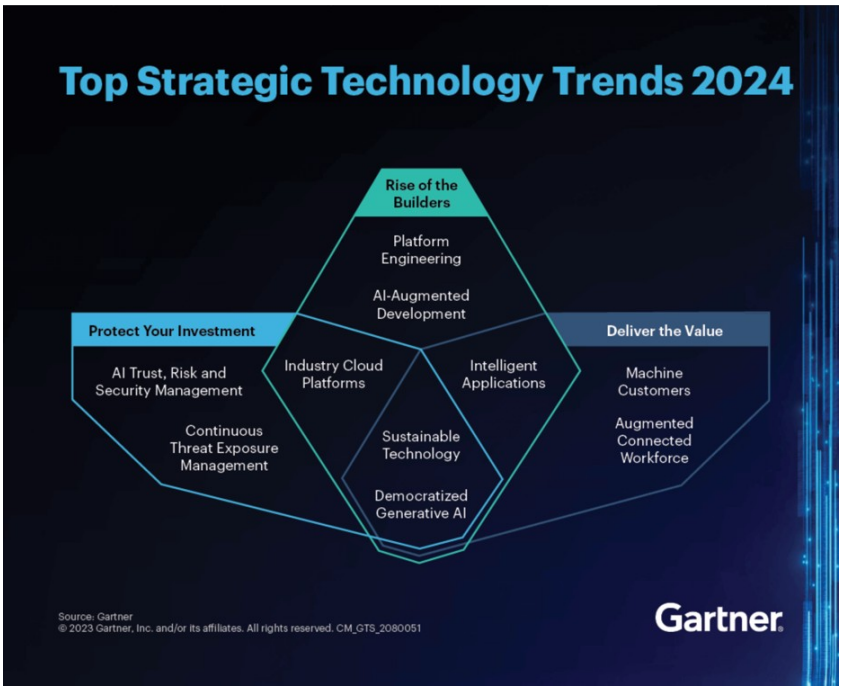
A further insight into that view of the future is seen in Gartner’s Top Strategic Technology Trends for 2024 where we see AI continuing to be a key theme in 2024.

They have identified 10 top technology trends and grouped them under 3 themes:

- Protect your investment – Focus efforts on Deliberate, Realistic, Forward looking innovation.
- Rise of the Builders – Unleash the creative powers of communities with technology choices that fit non-specialist workers to create.

- Deliver the Value – Improve experience for stakeholders through a virtuous circle of value determination and delivery through facilitating access to quickly evolving digital tools.

All three of these themes call out a variety of AI capabilities with Democratized Generative AI sitting in all categories.



These themes should look familiar if you are familiar with ‘Low Code’ and the transformation that we’ve been going through with tooling like the Microsoft Power Platform (Power Apps, Power Automate, Power BI, Power Pages, and now Copilot Studio (containing the artist formally known as ‘Power Virtual Agents’). The principles behind change that we’ve been going through over the last 5 years or so are transferable through into this change around AI. We have insights and experience that we can learn from!

Protect your investment – Focus efforts on Deliberate, Realistic, Forward-looking innovation.

A strong Power Platform Vision and Strategy understands the full scope of value that can be achieved from an implementation of platform aligned as an enabler for an organisation's vision & strategy. It has a scalable governance model that enables innovation and empowerment, with appropriate safety and security of data and systems. It has methods to realise and deliver those types of value at scale through Citizen Developers, Pro / IT developers, and a fusion of those, aligned to both tactical and strategic use case opportunities.

Rise of the Builders – Unleash the creative powers of communities with technology choices that fit non-specialist workers to create.

With Low Code tooling our builders are anyone across an organisation from ‘Citizen Developers’ through to ‘Pro-Developers’ within IT. We inspire new behaviours in how leaders enable and empower their teams, and how those teams transform their processes and themselves. Through establishing a community, with a culture of sharing and collaboration, we can break down organisational silos and enable anyone, in any role, at any level, to solve business problems in innovative ways.

Deliver the Value – Improve experience for stakeholders through a virtuous circle of value determination and delivery through facilitating access to quickly evolving digital tools.

We form a partnership between our platform owners, centre of excellence, centre for enablement, governance teams, leaders, champions, and citizen developers. This partnership, and symbiotic relationship of growth and enablement creates a win-win. We work together to inspire leaders and Citizen Developers to understand how the tools can be used to solve problems, develop capability, and deliver value. We then build their capability, and teach them how to approach opportunities, design solutions, develop them, and release and support them. We then celebrate them to the organisation and beyond, and the solutions they’ve made and the value they’ve delivered. This celebration then influences the next level of leaders and potential citizen developers to start their journey thus creating our virtuous circle of value.

Is AI going to take your job? Maybe?!

Simon Owen

These topics are discussed in more detail in my blog - www.EmpowerYour.World

Happily, we can take these principles learned from our Low Code journey through into how we plan and execute introducing, and maximizing value, from AI too!

3. Exponential Acceleration of Technology: The Law of Accelerating Returns

We've spoken about the rate of change of technology and how it's accelerated to this point and is predicted to continue to accelerate exponentially but why is that though? Where does it come from? And is it just true in Technology?

Ray Kurzweil is a 'Futurist' who looks at trends to predict the direction of the world and how life will evolve. In 'Edge.Org' he describes his 'Law of Accelerating Returns' like this:

Evolution applies positive feedback in that the more capable methods resulting from one stage of evolutionary progress are used to create the next stage. Each epoch of evolution has progressed more rapidly by building on the products of the previous stage.

Evolution works through indirection: evolution created humans, humans created technology, humans are now working with increasingly advanced technology to create new generations of technology. As a result, the rate of progress of an evolutionary process increases exponentially over time.

Over time, the "order" of the information embedded in the evolutionary process (i.e., the measure of how well the information fits a purpose, which in evolution is survival) increases.

The basic premise being that it's the equivalent concept to 'Compound Interest' in financial terms. If we think about a savings account or saving for a pension when we retire. Imagine that we're able to save £$€ 1000 per year from birth and can get 5% interest.

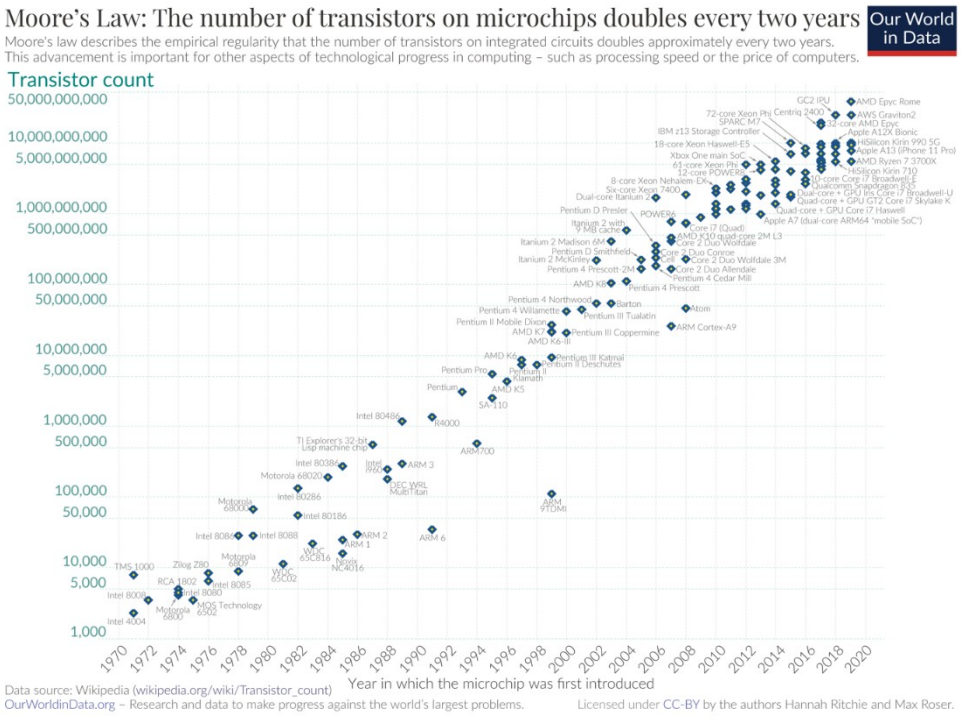
Over 60 years those 60 x £1000 aren't just worth £60k but instead £372,263, if we do the same to age 70 it's not £70k but £618,955, and age 80 it's not £80k but £1,020,790!

It's this same concept used by Kurzweil to explain how data, information, knowledge, wisdom also grows with exponential 'interest' and the build in capability gives rise to the next paradigm shift where there's a step-change and leap forward in technology or process.

The other key thing is that this ‘input’ and depositing of effort also isn’t linear in each paradigm stage. Things start slowly as people experiment and explore, but then rapidly start to accelerate (similar to the initial phases of the Gartner Hype-Cycle as excitement and expectation for something grows, but different in the sense that this increased effort is also over the ‘Peak of Inflated Expectations’, and through the ‘Trough of Disillusionment’, and into the ‘Slope of Enlightenment’ as value is being realised from the Technology.) as more effort is put in to capitalise on the investment by getting to market early and maximising returns. As the limits of that generation of the technology are reached, effort put into it decreases as efforts are shifted to the next generation. This is described as an S-Curve.

We’ve seen this concept in real life linked with ‘Moore’s Law’ – This is an observation-based law, rather than a theory, that the number of transistors in an integrated circuit doubles about every 2 years to operate substantially faster, and producing a higher volume of chips as demand has increased. It’s this which has powered the 3rd and 4th Industrial Revolutions, and the proposed 5th Industrial Revolution of AI.

Gordon Moore, Co-Founder of Fairchild Semiconductor and Intel, made this observation in 1965 and it was formalised as a law in 1975 and has held ever since.



This law has featured in Semiconductor industry long term planning and R&D target setting that has moved technology through different technology paradigms from valves, through transistors, and onwards towards ‘three-dimensional molecular computing.’ This has potentially made the law a self-fulfilling prophecy but has also given us a real example of how Kurzweil’s Law of Accelerating Returns comes to life.

We can see other ways that the Law of Accelerating Returns is visible – Early technology changes – the wheel, fire, stone tools – took thousands of years to evolve and become commonplace. The printing press less than a thousand years ago took around a hundred years to be widely deployed. More recently advances such as mobile phones took only a few years to reach mass adoption.

Kurzweil proposes that paradigm shifts are happening twice as fast each decade. Looking backwards this shows that the 20th Century saw only 20 years of progress compared to the current rate. 21st Century will be the equivalent of 200 centuries… 20,000 times more change than its predecessor as Ray Curswell also predicted in my Introduction.

Is AI going to take your job? Simon Owen
Maybe?!

4. Background – The Industrial Revolutions

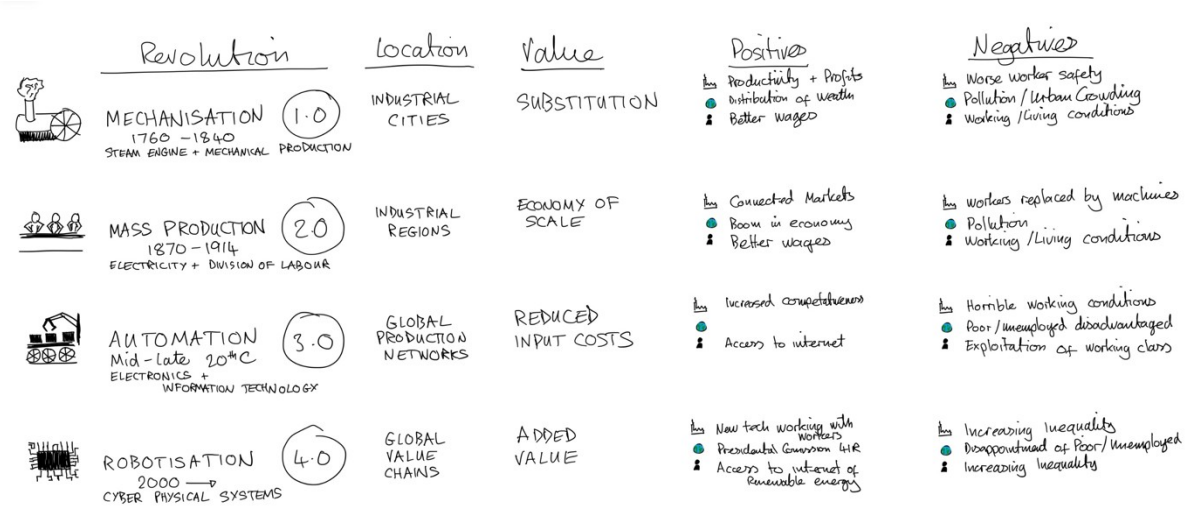
In previous sections I have referred to technology revolutions and Industrial Revolutions and positioned this AI movement as being ‘Industrial Revolution 5.0 but to give this better context of what the previous Industrial Revolutions were, what parallels there were, and what we can learn from them.

National Geographic describes the term ‘Industrial Revolution’ as:

“… a succinct catchphrase to describe a historical period… where the pace of change appeared to speed up. This acceleration in the processes of technical innovation brought about an array of new tools and machines. It also involved more subtle practical improvements in various fields affecting labor, production, and resource use.”

So, one of the key distinctions between an Industrial Revolution and a smaller level change is that it’s a technology driven change that massively impacts industries, the economies of countries, and the everyday lives of people. Another key observation is that these changes have global impact (but initially, in the case of the First Industrial Revolution, sometimes started in one location e.g., UK, and spread)

As well as having enormous economic impact these changes have had enormous social impact too, both positive and negative. To summarise these changes and some of the impacts that have been felt for industries, countries, and individuals, I’ve tabulated some details on each of the previous Industrial Revolutions.



In the first Industrial Revolution we can see that the change was initially localized to specific cities and substituted agricultural work with steam and mechanical production. This brought increased productivity and profits for organisations, greater distribution of wealth across a wider group, and better wages for individuals. However, it also resulted in worse worker safety, increased pollution, and poorer working and living conditions.

In the second the processes of mass production gave economies of scale to produce more at lower costs, and to increase market sizes across regions that boosted the economy of those regions and improved the wealth of individuals. However, that mass production also meant that workers were being replaced by machines, pollution continued to increase, and working and living conditions reduced further.

As Automation came in during the third Industrial Revolution production networks spread globally due to the ability to further scale operations to produce large volume at lower cost. This meant horrible working conditions for some workers, the poor and unemployed starting to become disadvantaged as the difference between rich and poor started to grow, with the working class becoming exploited. The internet started to phase in for individuals during this time to change our home lives too.

The Fourth Industrial Revolution introduced robotics and cobotics doing the work of, and working alongside, humans, producing and using more data than ever, to add more value to Global Value Chains by increasing volumes, efficiencies, and productivity. However, these technologies also widened the inequality between organisations, countries, and individuals.

These Industrial Revolutions clearly made profound differences on a global scale for organisations, country economies, and for individuals but what did it mean in terms of disruption of the employment market? With these accelerating leap forwards of each of these Industrial Revolutions I’ve investigated the impact of unemployment, the types of roles made redundant, and time to re-skill in the workplace that came after because of that change.



- The First Industrial Revolution saw the redundancy of seasonal manual farm roles and small farm owners as industry moved to machine operations. This new type of work required a high level of up-skilling.
- The Second Industrial Revolution saw mass production drive a surge in redundancy of artisans and craftsmen as factory worker roles were replaced by machines. These people up skilled by learning the new technology and processes.
- The Third Industrial Revolution triggered high unemployment through the replacement of routine assembly line jobs by automated production lines. The move of assembly line workers to roles requiring a digital skillset needed a high level of re-skilling.
- The Fourth Industrial Revolution also caused high unemployment of white-collar office and admin roles. This robotization change with the needs of automation and connectivity skills required extensive education and retraining for people to evolve their capabilities.

With each leap forwards people were disrupted, displaced, and forced to evolve. This will have been possible for some, and more challenging for others. We can see from the time and complexity to retrain that this became greater as the technology gap, and pace of change, increased. I’m sure many of us have real world experience of these later changes being a challenge for our older relatives or friends or neighbours, where they struggle with some new technology and evolving with how the world works…. Online banking, streaming services, contactless payments, smart

assistants etc. Some do well with the change…. Others are left behind. It would be interesting to know how 117-year-old Maria Branyas is using technology.

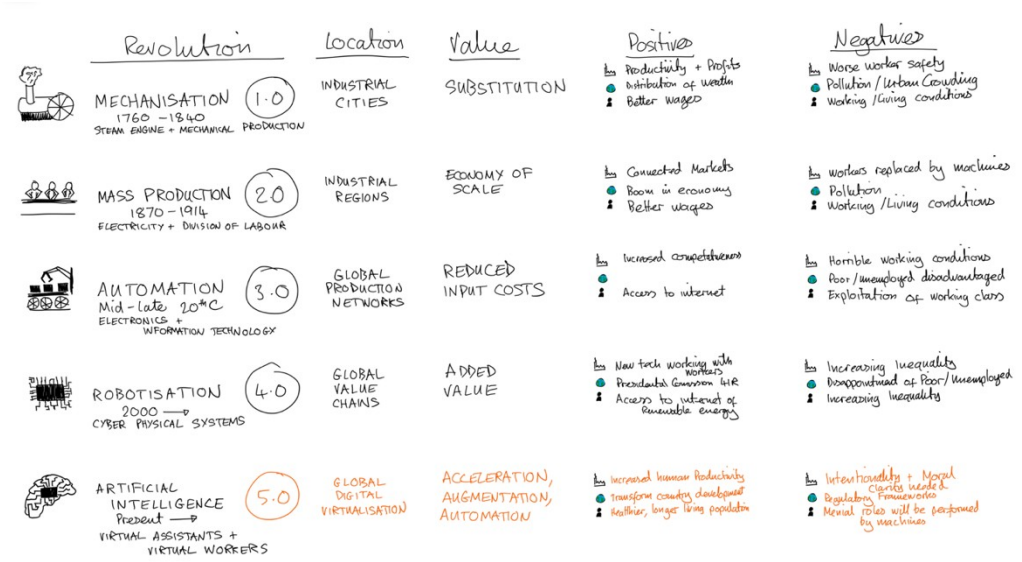
This identifies a key principle that we need to be conscious of with accelerating technology change - We have a moral duty to try to design technology, and our social and political systems, to ensure that no-one is left behind!

5. AI as the 5th Industrial Revolution and it's alignment with the Law of Accelerating Returns

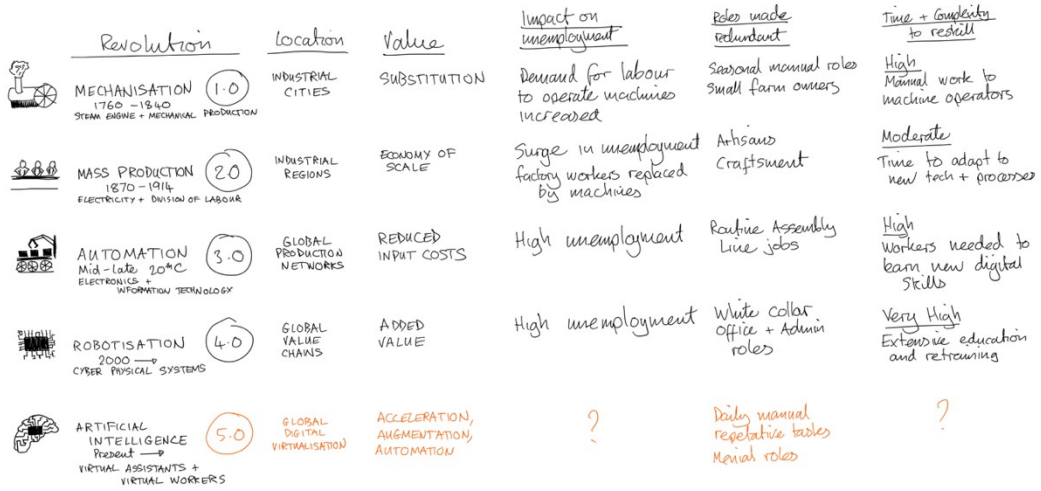
Now we've looked into previous Industrial Revolutions and understand some of the themes of them let's look at AI through the lens of an Industrial Revolution.

It fits the criteria we described at the beginning of this section – "A technology driven change that massively impacts industries, the economies of countries, and the everyday lives of people… with global impact." It feels like it's a fit. In terms of impact, we're already seeing increased human productivity and transformation of the way countries, governments, and organisations and thinking and planning.

Let's expand our tables to include AI as a 5th Industrial Revolution with some proposed descriptions to see how it compares:



The predicted challenges that we're already working through are identifying what our intentions are for where AI will fit in how we work and live, the regulatory, moral, and ethical, frameworks we need to operate in.

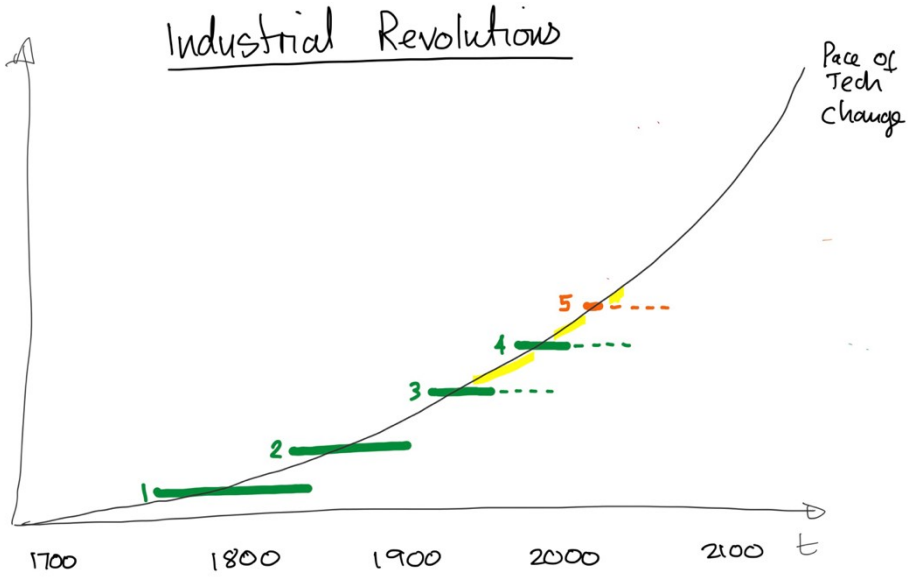


At this point in time, it's too early to predict what impact there may be on unemployment or the effort for those potentially displaced to re-skill into new careers, but from the types of activities we see being made more efficient, or removed, from those actively exploring the first generations of AI tools, we can start to identify some potential activities or types of role that could be impacted but hearing terms like 'Human in the Loop' from governments and organisations shows there is positive intent not to actively displace people and fully automate their roles.

We could describe the first activities which people are finding are reduced as 'menial' activities. Finding and connecting information together, summarizing, pulling out actions / decisions / insights, making plans, drafting documents, drafting emails etc. Time consuming and low value work. We'll dig into this more in the next section.

Industrial Revolutions and the Law of Accelerating Returns

If we look at the dates, durations, and impacts of these Industrial Revolutions we can see that their frequencies are increasing, and durations to be embedded are shortening (albeit potentially with a longer 'tail' due to the increasing divide between countries, industries, and organisations.) We can see that these align with our view of the increasing pace of technological change.



If we think about Kurzweil's 'Law of Accelerating Returns' we can see how these also align with the law and each revolution bringing a step-change in technologies, and each revolution being the foundation and acceleration of the incoming next phase. Steam and Mechanical transformation providing a foundation for Mass Production, which then laid a foundation and incentive for process automation, and this driving a need for robotics and increased data.

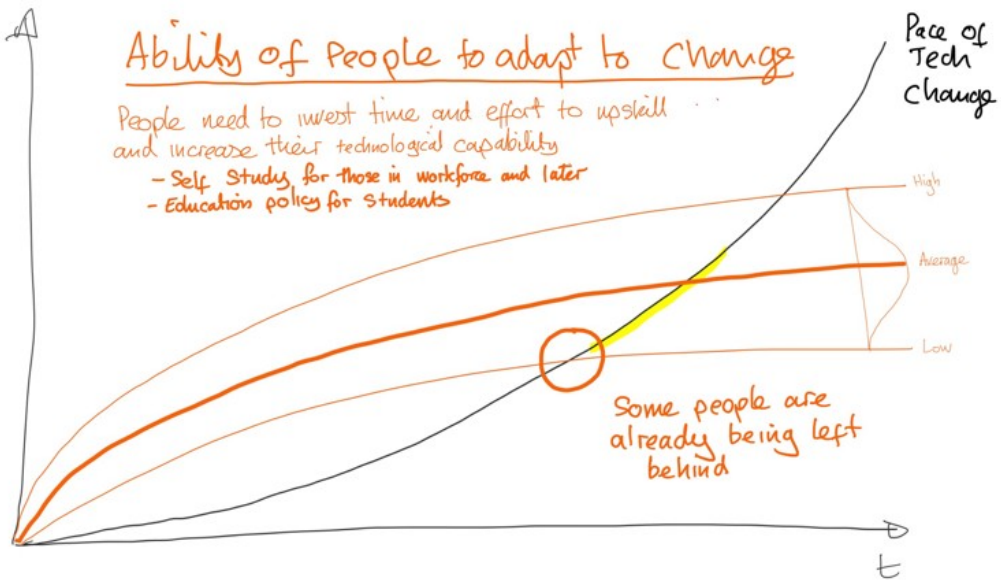
The next evolution of value and impact is how we create, use, manage, interact with, and gain insights from, that data and associated processes. AI – The 5th Industrial Revolution!

6. Ability of people to adapt to change

We know that people will have diverse levels of ability to adapt to technological change. Let's assume that humans as a population have an 'average' ability to cope with technological change (whatever that means.) Some have a higher ability and can cope with more, or faster, change, some a lower ability who are less able to cope with that level of change.

We've seen from the alignment of Industrial Revolutions to the Acceleration of Returns that the effort and complexity of retraining has increased at the same rate of change. This suggests that as the pace of change increases, we have an increasing challenge with the ability of the population to keep pace with the evolution of skills needed to keep pace with change.

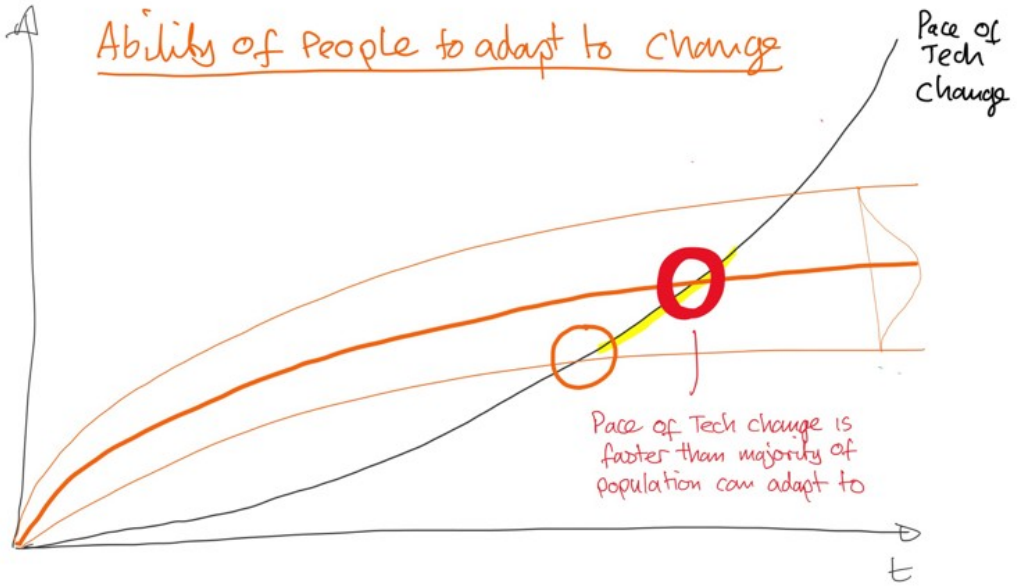
We can draw this picture on our chart:



This demonstrates that at the earlier stages of history (on the left of the chart) when change is slow that all people are able to keep up with change (as an example in the book Utopia for Realists by Rutger Bregman he says that change was so slow that if we were to take an Italian from

the 1300's and transport them to the 1700's they would barely recognize any change.)

Where we are now (the yellow line) we've got a scenario where people with a lower ability to adapt to the pace of change (less technologically minded, or those who can't afford the technology) are starting to be left behind.



As the rate of change continues to increase up the yellow phase of the line. We have the risk that unless we do something different, we reach a pace of change of technology that is greater than most of the population can adapt to.

We – Countries and Governments, educators, technology companies, organisations, and individuals – need to do something different! We'll discuss some options and ideas for mitigating this risk later in this paper but first let's understand the size of the risk we're talking about…

7. Implications of AI for Future Redundancies

"AI APOCALYPSE COULD TAKE AWAY ALMOST 8M JOBS IN UK SAYS REPORT"

A recent newspaper article in the UK shouted loudly about the potential for vast numbers of redundancies due to AI – As is often the case behind scaremongering headlines, designed to make people click, read, and generate advertising revenue, this is a partial truth… In this case this was the worst-case scenario from a modelling scenario… The best-case scenario was that there would be no job losses. The truth is likely to be somewhere between these two extremes and there will be likely redundancies as AI technologies move through the hype cycle and become embedded in how our organisation, countries, and individual lives work over the coming years and decades… but where between those extremes might the real answer be? And who might it impact?

As mentioned above, based on people currently experimenting with these AI tools in their day to day lives, the types of tasks we are seeing improved and made more efficient by AI one of the expected potential role impact areas are 'Daily manual repetitive tasks' and 'menial roles.' But what is meant by 'menial'?

Menial might be considered through the lens of various levels of an organisation, or distinct types of roles. They might look different in different industries, and very commonly only consist of activities that are a varying sized part of someone's role rather than their whole role.

This last factor is an important part of understanding potential impact to individuals. For example:

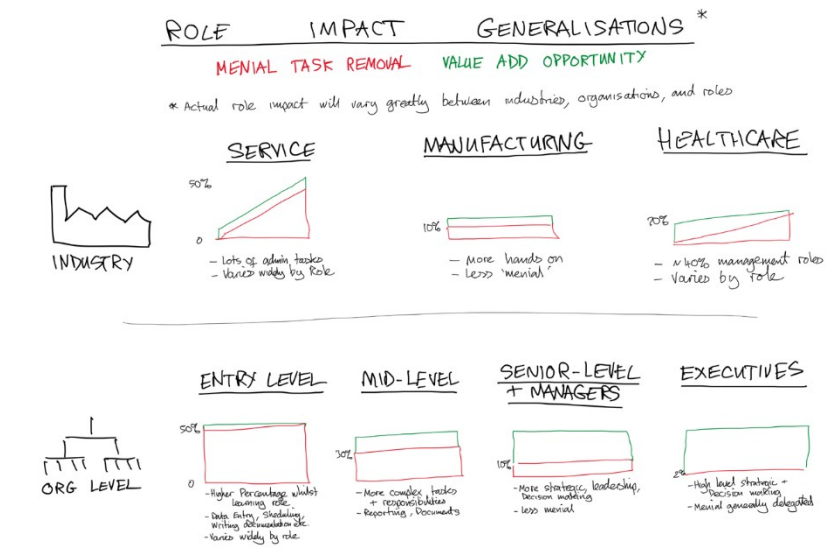
- If someone's role consists of 10% 'menial' tasks AI tools will provide them the assistance to liberate (some of) that 10% to use it for more interesting and valuable activities and have the opportunity flexibility to broaden their skills at a manageable pace.
- If their role is 90% 'menial' tasks then removing, or massively reducing, those tasks it forces the need to re-skill and change career paths or specialization, but also places them at risk of redundancy and a period of higher stress.

But this isn’t the whole picture – This is the ‘downside’, from the experiments of using AI in day-to-day roles we’re also seeing an ‘upside’ where people are able to do things they couldn’t yesterday. They’re able to accelerate their brainstorming. They’re able to accelerate their learning by distilling vast quantities of information and summarise it, turn it into learning points, generate quizzes and tests to check their learning. They’re able to query data and information from the perspective of a person in a different role, or position, or with a different viewpoint to understand different aspects or concerns. They’re able to rapidly create a structure, a plan, or outline content, for a piece of work. If we can effectively harness it this upside is HUGE… and will also vary from industry to industry and role to role.

Industry and Role impact

Let’s have a look at some pictures of what these downsides (work removal / risk of redundancy) and upsides (new opportunities) might look like across different industries, roles or different levels of an organisation:

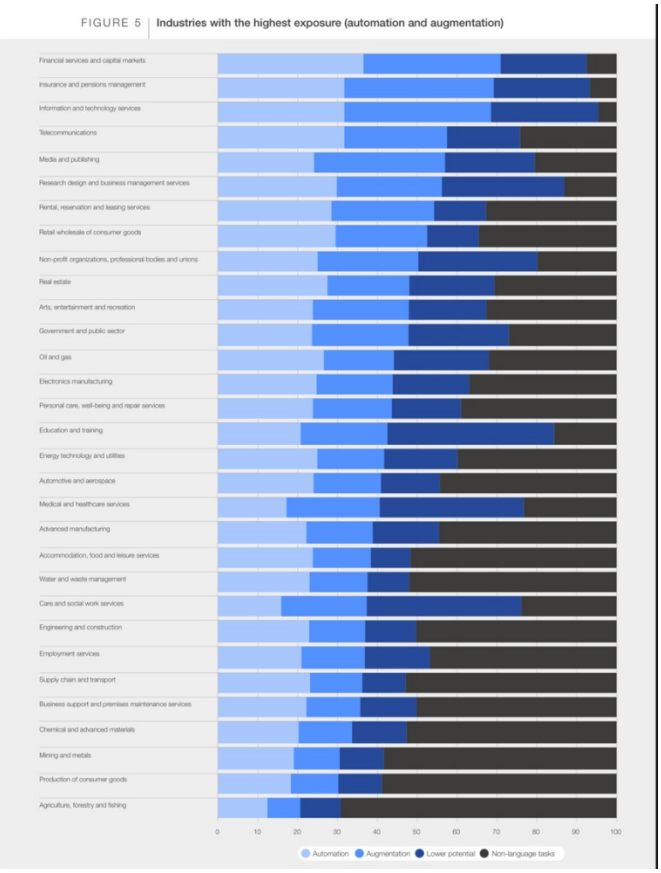
Estimating the exact percentage of work considered as 'menial administration tasks' across different job sectors can be challenging. Actual percentages can vary based on the industry, specific organisation, specific roles and responsibilities but aim to give an indicator. Additionally, the term 'menial' can be subjective and what one person considers menial, another might not. The same is true relating to what new opportunities could be generated and how they could be transformed into organisational, national, or individual value. However, here are some general insights to help us frame these ideas and provide a talking point.

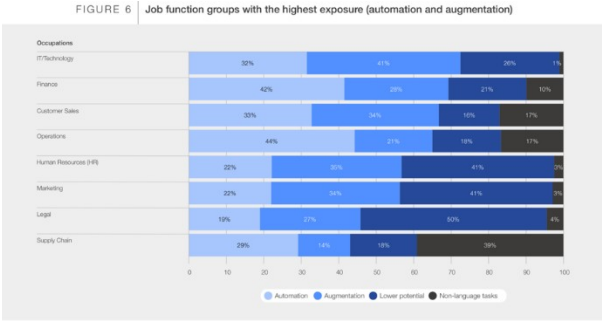


The World Economic Forum (WEF) have also performed some research into this for their white paper “Jobs of Tomorrow : Large Language Models and Jobs” providing a greater level of granularity of this view across industries and roles within those industries.

WEF have identified each Occupation or Role by percentage of tasks that could be automated, augmented, have a lower impact or activities with non-language tasks that wouldn’t be impacted.

This is how they’ve analysed industries and occupations





These visualisations give some thoughts as to some of the risk areas there could be in organisations and industries as we see momentum build with AI making impact. These highlight areas where we need to have clear intentionality as to how and where we'll use AI, and strategic workforce plans to target our recruitment plans to the organisations we're developing into.

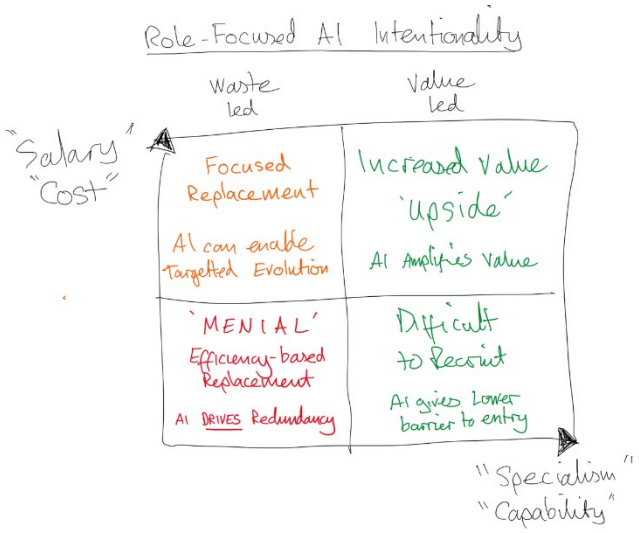
If many menial tasks could be removed from entry to mid-level parts of the organisation, how will this impact our recruiting and how could we refocus newly spare capacity on higher value tasks? Are these tasks that

would have previously been done at the next level up in the organisation? Are there sufficient of these tasks that need to be done? Are the potentially displaced staff capable of doing the tasks in the required timeframe, or what would it take to up-skill them for those roles?

AI Intentionality

Another way to look at these factors of 'Downside' and 'Upside' are how they might be used to remove waste (to drive efficiencies, to reduce costs, to increase value) or to increase value (to build capability, to fill capability gaps in an organisation, to advance careers, to amplify value of individuals) is to plot them on a grid (as shown below) showing Cost / Salary vs Specialism / Capability.

We can use this as a tool to support Strategic Workforce Planning when considering whether to Buy (recruit), Borrow (Bring in 3rd party partner resources, move resources around inside an organisation), or Build (develop capability within an organisation or department).



Using this view of potential intentionality relating to people and roles we can see where, and why, some of these outcomes could be targeted to enable business outcomes. Identifying a current state and where we want to move them to - For example:

Low Specialism – Low Cost – This could be an area where roles with a high proportion of 'Menial' tasks. It could be an area where there is a risk that redundancies could occur either through organic means or more targeted approaches.

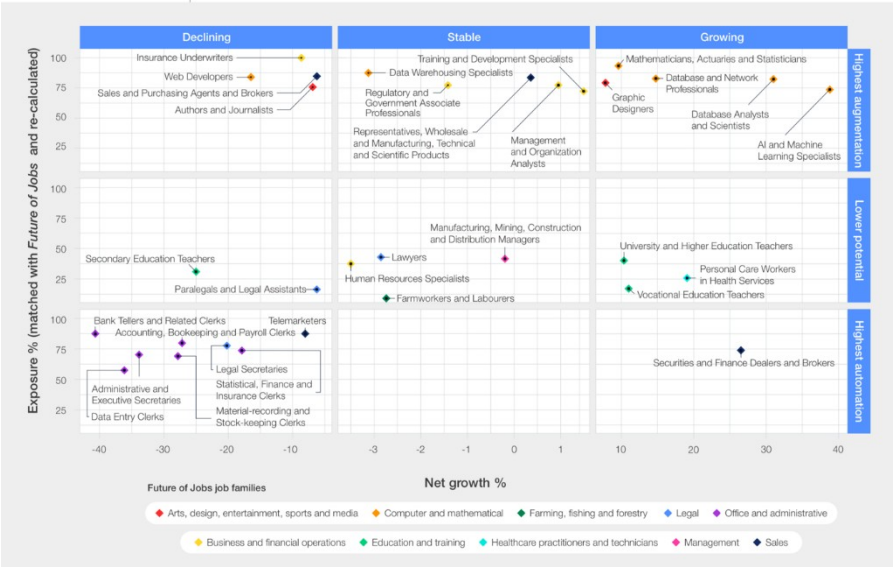
Low Specialism – High Cost – This could be high cost – low value roles where an organisation uses AI to target those roles to incorporate higher value capabilities, or movement to other roles. This could be part of an individual's development plan to move to one of the higher specialism / capability categories.

High Specialism – Low Cost – These could be roles which are difficult to recruit for either due to insufficient skills in the market or competing recruitment from higher salary industries. AI could be a targeted way to accelerate building capability in an organisation vs buying readymade resources.

High Specialism – High Cost – This could be where we can maximise the value from individuals to use AI to provide a mechanism for them to remove 'menial' / low value activities from their work, provide approaches to stretch and develop individuals further, and to accelerate them delivering value even further.

WEF's paper has a similar view which refines it to some example roles

FIGURE 7 | Job exposure potential vs growth potential



As you see from these concepts of redundancy risks, cost, value, capability, downsides and upsides, there are a lot of questions that need to be answered as part of establishing an AI strategy for an organisation as part of the Organisational Change Management aspects.

8. Mitigating the negative Impact, pivoting to a positive impact

As we've learned over the previous sections there is a level of predictability in the pace of change of technology, and from what we can learn from previous Industrial Revolutions some of the potential impacts (positive and more challenging) we might expect to see from this, and future, Technology changes.

There are risks of redundancies across many industries in more entry / lower-level positions in organisations where there are a higher proportion of 'menial' and administrative activities. This is also true in some industries where there are a high proportion of these activities.

The risk to an individual reduces where roles are less 'transactional' and require more manual activities and / or more insight, experience, and decision-making or leadership capability where AI technologies can support or enhance or accelerate activities.

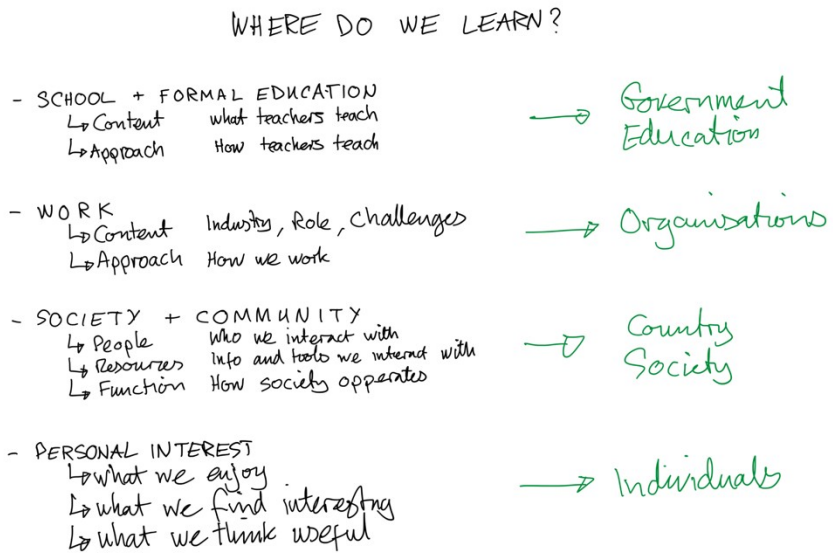
However, there are also upsides and opportunities associated with this change too where they can be used to help people be more empowered, more innovative, develop new skills and new career paths and opportunities. There are also opportunities to use these capabilities and opportunities to solve societal challenges.

The main lens I've looked at these risks and opportunities at is one of impact to people. I believe people to be pivotal to all change – They are how value is delivered. They are who are ultimately impacted positively or negatively. And so, it's their experience who should be central to our risk mitigation and focus on value.

Education

The general theme to supporting people through change is to ensure they are in the best position possible to have the skills and knowledge they need, when they need it. There are some common phases in life, or triggers, when we learn the most, and so these are key areas where we need to think about how we incorporate educating on technology changes into them, so we don't just learn about content and information, but also how to evolve and adapt and learn HOW to learn.

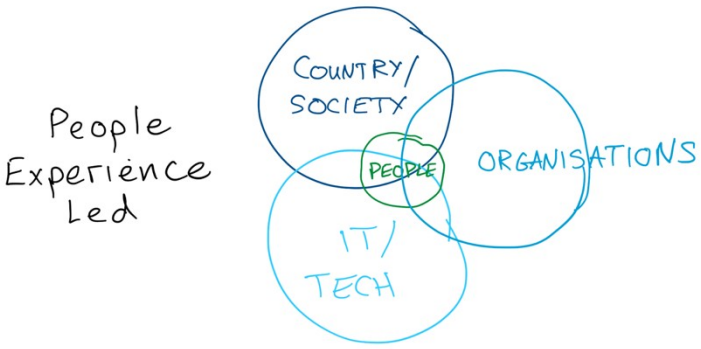
The ones I've identified are: School & Formal Education; Work; Society & Community; Personal Interest.



These different phases and areas of change are all people-led or people-driven however people cannot do this without enablement from other areas. I have categorised these enablers as:

- 'Country / Society' - including Governments, policies.
- IT / Tech - both the organisations developing and making these AI technologies available, and more broadly IT organisations and IT functions within organisations.
- Organisations – These are companies across all industries who are deploying these technologies.

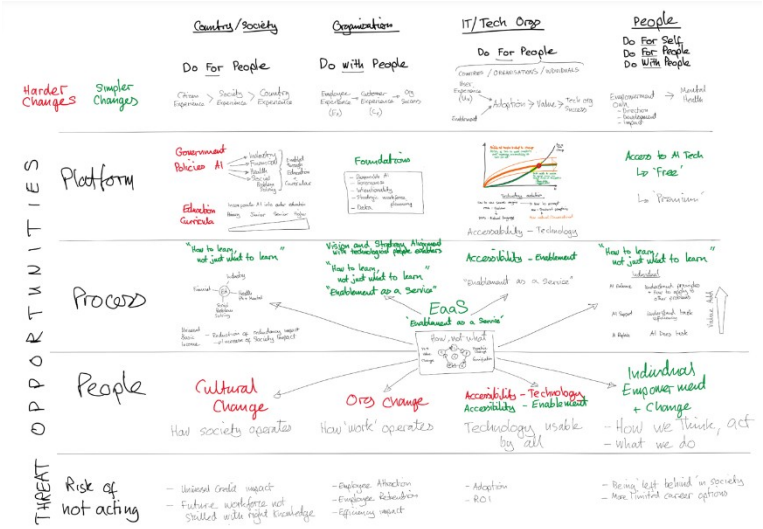
These are all interlinked with People, and more specifically Individuals, being at the intersection of them all.



This categorization gives us a way of breaking down the challenge and describing activities that can be taken – We can also break it down further within these categories by thinking about the challenges and opportunities through the lenses of:

- Platform (How we deploy and manage the technology)
- Process (The activities we have to consider around the technology)
- People (how we need to consider maximizing the impact to people in each of these categories).

Some of these changes and opportunities are likely to be harder, or take longer, than others.



Let's take these categories one at a time:

Is AI going to take your job? Simon Owen
Maybe?!

Country / Society

Seek to deploy AI FOR the people to improve their capabilities, improve their services, and improve their experience and life. By improving ‘Citizen Experience’ (how life is for individuals) we look to improve ‘Society Experience’ (how life is to live day to day as a collective), which in turn improves ‘Country Experience’ (how we function and perform as countries.)

Platform – We need foundations that enable AI and policies that embed AI into how our countries operate.

Embedding it in how government departments operate and use these tools to gain the efficiencies in how they work, but also to up-skill policy makers to live and breathe the technology to truly understand the opportunities and shape future policy direction to impact the direction of countries. This would enable us to start enabling benefits in areas such as Industry, Economy, Health, Social, and general problem solving.

Process –

Learning and Education Policy integration

Identify opportunities to incorporate AI into education policy and curricula at all ages and levels of education, and teacher training, to establish it as a common tool and language that will feed the workforce of the future and enable leveraging it to its full advantage and value.

Rather than embed AI learning into Computer Science subjects embed in all subjects and teach ‘HOW to learn using AI, not just WHAT to learn’ as a teaching method into all curricula to introduce behaviours for embedding AI for the future. E.g., Use it as a teaching tool to how to structure work, learning and revision plans to minimize anxiety and mental health challenges. For language subjects how to use it to consume videos and create transcripts to translate them into quizzes to aid learning.

The governments of many countries have started investigating this and seeking to learn from those who are already using AI on their own initiatives.

Here are some examples of government approaches to educational change that all recognize several aspects of the opportunities and are starting to explore what this looks like

- UK
  - UK House of Lords - https://lordslibrary.parliament.uk/educational-technology-digital-innovation-and-ai-in-schools/
  - UK Gov Education - https://educationhub.blog.gov.uk/2023/12/06/artificial-intelligence-in-schools-everything-you-need-to-know/
- USA
  - USA Department of Education - https://www2.ed.gov/documents/ai-report/ai-report.pdf
- Europe
  - EU Digital Education Action Plan - https://education.ec.europa.eu/focus-topics/digital-education/action-plan#:~:text=The%20Digital%20Education%20Action%20Plan%20(2021%2D2027)%20is%20a,States%20to%20the%20digital%20age.
  - A paper on AI and Education with a critical lens from a human rights, democracy, and legal perspective from a group called 'Council of Europe' https://rm.coe.int/artificial-intelligence-and-education-a-critical-view-through-the-lens/1680a886bd
- And a more critical viewpoint on Technology in Education from UNESCO
  - 'An ed-tech tragedy? Educational technologies and school closures in the time of COVID-19' - https://unesdoc.unesco.org/ark:/48223/pf0000386701

I think it's great that governments are acting and seeking to learn from people already experimenting with AI to supplement their work with things like 'Instructional Assistants,' 'Teaching Assistants,' 'Parent Assistants,' and 'Administration Assistants' - this is a key opportunity / risk. Governments are notoriously slow at change and incorporating

technologies. If it is too slow people are likely to drive this change without them.

Another educational opportunity is to use these technologies to introduce interconnected learning between subjects aligned to larger scale national challenges and knowledge gaps e.g. How to connect learning concepts to real life examples e.g., Maths connection to financial management. Connecting sport studies and diet and nutrition to physical and mental health. Using AI to establish and support critical thinking to aid understanding of different perspectives to social challenges – different political perspectives, different age groups, different countries, different ethnic groups, different sexualities etc.

Budgetary impact

Another enabling / risk mitigation process is related to the prospect of mass redundancies – There is a chance that redundancies would trigger an increase in unemployment benefit payments with reduced opportunities for similar types of roles. A potential phased move to Universal Basic Income (UBI) would provide a route to proactively mitigate the impact of redundancies.

People – Cultural Change

This would be a huge change to how society operates and so this would require significant effort, planning, and time.

There are different groups of population that would need to be addressed:

Youngest Generations – Incorporating AI into everyday learning approaches will seed AI as ‘how life is’ and expectations of on the world of work, society, and culture of learning and problem solving.

Working Generations – Supporting Organisations with best practices to adopt and embed AI tools. Promoting examples of effective implementation. Provide learning opportunities to understand how AI can be used in daily life. Increase expectations on how AI and technology is integrated into work, society, and introduce a culture of learning and problem solving.

Older Generations – Provide learning opportunities and support to learn and embed mechanisms for a phased introduction of technology to aid ongoing learning, physical and mental health, improvement of service, and supporting society to solve problems.

The risk of not acting

- Increasing gap between individuals and capability levels
- Increasing gap between countries and organisations.
- Disconnected society with an increasing gap between those who can navigate society, and those who can't.

World Economic Forum's summary recommendations mirror these themes:

"Policymakers will need to adapt strategic workforce planning capabilities, lifelong learning systems and social safety nets to manage the upcoming period of disruption. Similar analysis to that shared in this paper can help provide more precise views of the situation in specific geographies. Governments can also partner with and support employers and educational institutions to provide training programmes that prepare workers for the jobs that will grow and benefit the most from LLMs. Additionally, social safety nets and assistance in transitioning to new roles will need to be reimagined and be more precisely targeted for those most likely to be affected."

Organisations

Seek to deploy AI WITH the people to collaboratively empower them to improve their capabilities and their work life. By improving ‘Employee Experience’ (how life is for employees) we improve how our organisation works, the problems solved, and opportunities grasped. Through improving the experience of employees, that translates into improved ‘Customer Experience’ (the value those customers get from our organisation), which in turn increases the success of our organisation.

Platform

Establish strong, safe, and scalable, foundations on which to build your technology elements to then build adoption on top of.

- Responsible AI policy – What is your intentionality for AI in your organisation? What will and won’t you do with it, and to what ends? How will you manage AI bias and discrimination? How will you incorporate ethics, transparency, fairness and accountability in your deployment?
- Data foundations – Which data sources and repositories are you planning to make available? Are they clean and of high data quality? Are they adequately secured? How are you going to make them available and to who?
- Scalable governance – You will need to balance innovation and experimentation with governance and control. Does everything need to confirm to the same rules and processes, or can you identify a risk-based approach to be flexible where risk is low and govern it with care where risk is higher.

Processes

- Vision & Strategy – What are your longer term organisational goals? Identify opportunities where you you believe tools like AI and Low Code development could support these and start experimenting against these hypotheses.
- Strategic Workforce Planning – Consider how your strategic recruitment needs change over time as AI follows the Law of Accelerating Returns and potentially impacts the roles and responsibilities in your organisation and industry.
- Identify the tools, processes, and enablers you need to implement to change the mindset of your org, help them

develop new capabilities and understand how to use them to deliver value, and how to connect to learn rapidly and collaboratively.

Microsoft have created a paper that paints a picture of AI in the enterprise for organisations that bring to life some of these opportunities - https://info.microsoft.com/rs/157-GQE-382/images/EN-AU-CNTNT-Whitepaper-DigitalTransformation-MSFTvisionforAIintheenterprise.pdf

Various organisations are also describing how organisations should consider their journey to incorporate AI into their business:

- Avanade - https://www.avanade.com/en/services/artificial-intelligence
- Forbes - https://www.forbes.com/advisor/business/software/ai-in-business/
- BCG - https://www.bcg.com/capabilities/artificial-intelligence
- Gartner - https://www.gartner.com/en/information-technology/topics/ai-strategy-for-business
- McKinsey - https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/how-advanced-industrial-companies-should-approach-artificial-intelligence-strategy

People

- Identify how you will manage the long-term organisational change. There is an opportunity for a fundamental shift in 'how work operates.' We need to support and educate people through these changes. We will need to inspire different populations through our organisation to start experimenting and navigating the change curve.
- Educating people HOW to learn in this rapidly changing landscape, not just WHAT to learn as our formalised training mechanisms are unlikely to be able to keep up with the pace of evolution. We will need to establish learning paths for fundamental or organisational specific elements but for application of tooling we'll need a variety of learning

approaches where people own their own development and share valuable sources and learnings through an internal community.

- Educate people how to identify opportunities where technology and tools might fit and help them solve problems in different ways. Teach them to experiment with a growth mindset within our governance frameworks. Provide templates, standards, and documented best practices to solve problems in effective, efficient, scalable ways, and share these insights to help others deliver value at speed.

The Risk of not acting

- Lag against competitors and negatively impact employee attraction of the right skills to enable our strategic workforce plan.
- Lag against competitors and negatively impact employee retention to those who are more advanced or provide more opportunity to develop future looking capabilities.
- Efficiency impacts our organisation's ability to match pace with our competitors and achieve our vision & strategy.

World Economic Forum’s summary recommendations also reflect some of these elements:

“Business leaders can use insights on the direct impact of LLMs on jobs to understand which roles will be most affected and responsibly support the transition of workers to new

roles and ways of working. Internal workforce planning, learning and development, and talent management practices should also be strengthened to support the adoption

of generative AI in the workplace, recruit new talent in growing jobs or invest heavily in re-skilling and upskilling workers towards growing roles.”

IT / Tech Orgs

Seek to deploy AI FOR the people – Counties / Societies, Organisations, Individuals to (as Microsoft say) “empower every every person and every organisation on the planet to achieve more.”

By maximizing the User Experience (in this context how simply, safely, and effective individuals, organisations, and countries, can use and deliver value), we will drive and enable adoption, which will maximize value to those groups, and value to the Tech Organisation success.

Platform

Evolve our accessibility and User Experience as we see Technology follow the Law of Accelerating Returns and see the pace of technology change increase exponentially through different technology paradigms. We need to ensure that technology is accessible to all groups of society to avoid groups being ‘left behind’.

For Technology Accessibility we will need to design technology to mask complexity and can be used by people of any age, any physical ability, any neurological ability, any stage of life. We’re currently experimenting with prompting language and how to best write prompts to gain the insights we want. This will need to become more flexible, natural, and conversation based, to enable all of society to use it. There is a comparison between this and how early web browsers required people to search using Boolean operators to be precise in our language, but we are now using a more natural language to search.

IT Organisations need to consider how platforms and tools can be deployed incorporating empowerment principles.

Processes

We need to focus on Accessibility from an Enablement perspective and provide mechanisms to give people a reason to start people on their adoption journey, lower the technology barrier to entry, support their upskilling and the simplicity to use tools to get to a desired outcome and deliver value.

An opportunity is to use embedded AI to collect insights to understand a desired outcome and provide ‘next best action’ for more and more

complex scenarios. An example of this is ‘In-line Actions’ in Microsoft’s Power Apps where it offers guidance and advice to makers when using certain controls https://learn.microsoft.com/en-us/power-apps/maker/canvas-apps/inline-actions.

Another form of accessibility from an enablement perspective could be connecting people together who have similar goals or challenges, or are using certain technologies and struggling, to aid in community building and promoting of learning points that would benefit a greater audience to learn.

People

Bringing together Accessibility in Technology and Enablement to focus on all demographics in society and organisations to balance person specific. Interactions, learning, and support mechanisms to make technology usable by all of any physical ability and neurological ability.

The Risk of not acting

With the accelerating rate of technology change there is a risk that, if left unresolved, tech will outpace the ability of the majority of the population to adopt and use it. This could impact adoption and return on investment to develop the product.

People

Inspire and invest in people to deploy AI FOR ourselves, FOR other people in our lives, and WITH people to collaborate and share. Teach people empowerment to manage their own direction, development, and impact to maximize their experience, their outcomes, and their lives.

We are the masters of our destiny and need to invest effort and time to investigate, explore, and learn AI technology and tools to ensure we can stay relevant during a 5th Industrial Revolution. We don't necessarily need to understand everything about the technology, but we do need to understand what it is, what it can do, how we can use it, what problems we can solve with it, what it's limitations are, how we can help others also understand it.

Platform

Be aware of the tools and resources available to everyone at no additional cost (e.g. available in tools many people already have, or available without additional payment / licensing)

Be aware of tools and resources available for additional cost / subscription / licensing.

Processes

Understand how to use available AI technology and tools, what problems and opportunities could be addressed using these tools.

Understand how we can connect with others to learn, share knowledge, provide assistance to others, share ideas.

Understand where, and how, to find available information and resources to build our capabilities.

Use the tools to learn the tools! "I have 1 hour available each week. Give me a 12 week learning plan to develop my AI capabilities that will give me a foundational understanding of AI technology and available free tools, how to interact with it by writing prompts, how to use it to solve problems and make my everyday tasks easier, and where I can find help and help others, Tailor this learnt plan to a complete beginner with little technology knowledge. Provide 3 links to resources for each learning topic."

Understand where AI can add value in our lives:

- AI Replace – Where can AI do menial tasks that we don't want to do or occupy a lot of our time for little value to remove them from our workload? (Remove Waste)
- AI Support – How can AI help us perform activities faster, easier, or with less effort? (Add Value)
- AI Enhance – How can we use AI to help us do things better, or do things that we're unable to currently do, or teach us new skills? (Add MORE value)

People

Have a growth mindset – You don't have to know everything. You just need to start and learn as you go and overcome challenges, either individually or through help from others, as you reach them.

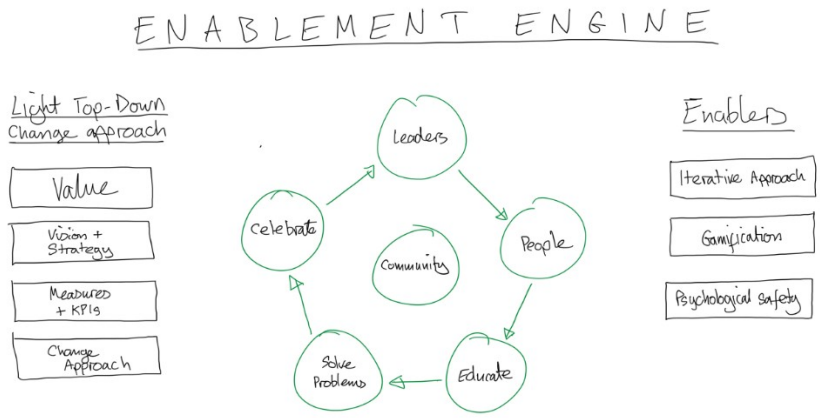
Ask for help, give help, tell your story, inspire others to start their own journey!

The Risk of not acting

If we do not recognise a 5th Industrial Revolution based around AI or future technologies, we risk being left behind by society and how processes and services will operate in the future or miss out on the value and benefits that they could bring us. This could limit some of our opportunities in society and limit our future career options.

Process and People Enablement

The principles enabling each of these categories, and the process for doing it, can be the same. This is a long-term change and to deliver it we need an ‘Enablement Engine’ and due to its long-term nature can consider the need to implement ‘Enablement as a Service’ to manage this evolution. Some components of such an ‘Enablement Engine’ and how I’ve used it to enable and grow adoption of the Power Platform is shown, and described, below.



On the left we have the structure of a light ‘top-down’ change approach. On the right the enablers of an iterative approach where we create a safe environment to learn, share, and assist each other, and use the principles of gamification to make it fun.

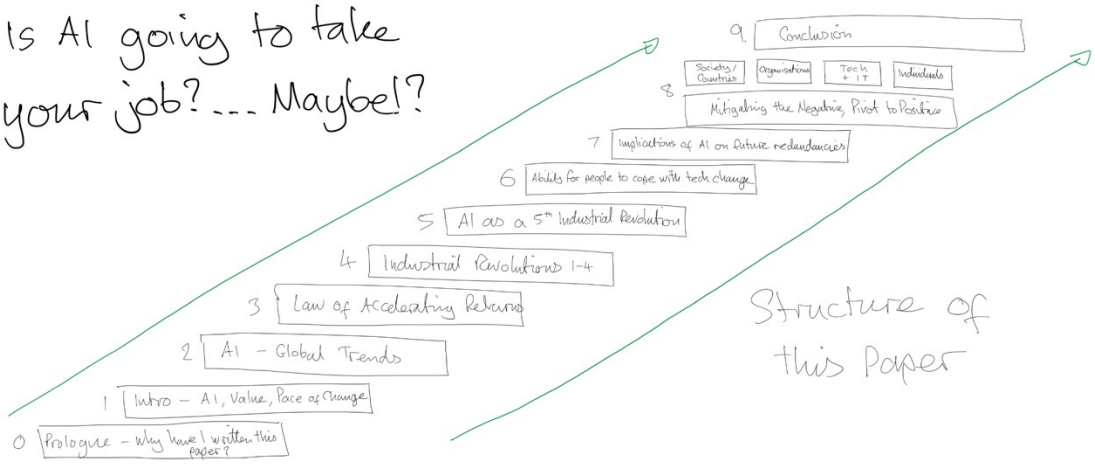
Within that operating framework we have the ‘Enablement Engine’:

- Inspiration of **Leaders** to understand the opportunity for change.
- Encouraging and inspiring **People** to understand the personal impact of embracing the change.
- Supporting everyone’s **Education** in embracing AI.
- Aiding them in applying it successfully in their personal lives, their working lives, and to the greater good for society to **Solve Problems.**
- **Celebrate** their successes to exemplify the opportunity and personal benefits.

- Bringing these aspects together to increase the collaborative sense of **Community** to support each other, share their learnings and collaborate, and accelerate the change.

To understand the ‘Enablement Engine’ and Enablement as a Service – read more here… https://www.empoweryour.world

9. Conclusion



Through this paper I've introduced a number of concepts to build up layers of information, context, and perspectives on the pace of technological change, and some ideas on how we can take action from a country / governmental / societal, organisational, Tech / IT, and Individual perspectives.

A key part of these topics is the recognition that over the last 200-300 years we've seen technology advance faster than ever before. Each huge leap forwards have been enabled by the foundation of the last. Each step change (that we've been calling 'Industrial Revolutions') has triggered global change and boosts many economies around the world but they have also caused inequalities and gaps between the richest and poorest between, and within, countries. Various population demographics have been impacted by these changes but in general it's been those whose roles have been constituted of a higher proportion of 'menial' tasks who have been subject to the higher proportion of redundancies.

If we reflect on AI as a potential '5th Industrial Revolution' based on the global perspective of what it could change and the impact it could have on the global economy based on tech organisation investments, and the perspectives of strategic trend analyzers such as Gartner, there's a potential for these technologies to have similar levels of positive and negative impacts that we've seen in previous Industrial Revolutions.

From the position on the Gartner Hype Cycle of AI technologies, and the current level of maturity of the front runners, I think we can currently say,

Is AI going to take your job? Simon Owen
Maybe?!

“No, AI is not going to take your job” but extend that to, “No, AI is not going to take your job… yet!” With the rate of technological change accelerating, I expect that AI will take over a substantial proportion of menial / low value, high repetition, administrative tasks.

As I hope I’ve shown, we have a choice how we approach this potential scenario though from a country / governmental / society perspective, from an organisational / industrial perspective, from an IT / Tech perspective, and as individuals. These all come down to how and when we educate people to evolve and build capability.

As individuals the greatest control we have is over our own actions and how we spend our time. There are an increasing number of resources and tools available that mean we can start up-skilling ourselves and broadening our awareness of this AI world and exploring how we can build the capabilities to be in the strongest position possible for the future to positively impact, and influence, our working lives, our societies and communities, our selves, and the ability of our families, friends, and loved ones to inspire them to then follow in our footsteps to start their own Technology adoption journey.

Our future is ours to shape!

I hope that this has introduced you to some new ideas and ways of looking at this topic than you might have seen, or thought about, previously. To read more of my ideas, thoughts, and approaches to people enablement and technology adoption that can be applied at a country, organisational, educational, societal, and individual level, please visit and subscribe to my Blog - https://www.empoweryour.world

If you’d like to follow my content, discuss it further or provide your perspective and insights that could shape a future / follow up to this white paper, connect with me on LinkedIn - https://www.linkedin.com/in/simonowendigital

Is AI going to take your job? Maybe?!

Simon Owen

Also feel free to get in touch if you have any proposed opportunities, or for collaboration to work together to shape the future and change the world, society, organisations, and individuals! 😊

Where this thinking now lives

This paper started a thread that now runs right through EmPOWER Your World:

- Which work stays human, and which gets automated, augmented or amplified, became **F04 Human Advantage** and module **M42 Workforce / Human Advantage**.

- "AI won't take your job, but someone using AI might" became the adoption engine: **M40 Network-Led Adoption** (adoption you pull, not push) and **F02 Holistic Enablement**.

- The reskilling and enablement actions in section 8 now ship as the programme's learning and facilitation bundles.

More at empoweryour.world.

9. References

Microsoft Copilot was used to build up insights on Industrial Revolutions, and to assist in creating the first structure of this document. This structure was then updated, changed, evolved, through more investigation, reading, listening to audiobooks, reading LinkedIn content and listening to news stories.

The Law of Accelerating Returns | SpringerLink. https://link.springer.com/chapter/10.1007/978-3-662-05642-4_16.

The Law of Accelerating Returns* - Springer. https://link.springer.com/content/pdf/10.1007/978-3-662-05642-4_16.pdf.

THESIS The law of accelerating returns - Nature. https://bing.com/search?q=Kurtzweil%27s+paper+on+The+Law+of+Accelerating+Returns+summary.

in print | NASDAQ • The law of accelerating returns is an important .... https://www.thekurzweillibrary.com/in-print-nasdaq-the-law-of-accelerating-returns-is-an-important-concept.

THESIS The law of accelerating returns - Nature. https://www.nature.com/articles/nphys1010.pdf.

http://www.kurzweilai.net.

https://doi.org/10.1007/978-3-662-05642-4_16.

Diary of a CEO – Stephen Bartlett

Gartner Hype Cycle for Emerging Technologies

Gartner Top Strategic Technology Trends for 2024

www.EmpowerYour.World

National Geographic - Industrial Revolutions

Guardian - newspaper article in the UK on potential redundancies

Utopia for Realists - Rutger Bregman

Country Education approach references

- UK
  - UK House of Lords - https://lordslibrary.parliament.uk/educational-technology-digital-innovation-and-ai-in-schools/
  - UK Gov Education - https://educationhub.blog.gov.uk/2023/12/06/artificial-intelligence-in-schools-everything-you-need-to-know/
- USA
  - USA Department of Education - https://www2.ed.gov/documents/ai-report/ai-report.pdf
- Europe
  - EU Digital Education Action Plan - https://education.ec.europa.eu/focus-topics/digital-education/action-plan#:~:text=The%20Digital%20Education%20Action%20Plan%20(2021%2D2027)%20is%20a,States%20to%20the%20digital%20age.
  - A paper on AI and Education with a critical lens from a human rights, democracy, and legal perspective from a group called 'Council of Europe' https://rm.coe.int/artificial-intelligence-and-education-a-critical-view-through-the-lens/1680a886bd
- And a more critical viewpoint on Technology in Education from UNESCO

Is AI going to take your job? Maybe?! Simon Owen

- ‘An ed-tech tragedy? Educational technologies and school closures in the time of COVID-19’ - https://unesdoc.unesco.org/ark:/48223/pf0000386701

Microsoft – AI in the Enterprise - https://info.microsoft.com/rs/157-GQE-382/images/EN-AU-CNTNT-Whitepaper-DigitalTransformation-MSFTvisionforAIintheenterprise.pdf

Various organisations are also describing how organisations should consider their journey to incorporate AI into their business:

- Avanade - https://www.avanade.com/en/services/artificial-intelligence
- Forbes - https://www.forbes.com/advisor/business/software/ai-in-business/
- BCG - https://www.bcg.com/capabilities/artificial-intelligence
- Gartner - https://www.gartner.com/en/information-technology/topics/ai-strategy-for-business
- McKinsey - https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/how-advanced-industrial-companies-should-approach-artificial-intelligence-strategy

World Economic Forum : Jobs of Tomorrow : Large Language Models and Jobs - https://www3.weforum.org/docs/WEF_Jobs_of_Tomorrow_Generative_AI_2023.pdf