Social regulation in the era of the 4th Industrial revolution and platform economy,

by

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Abstract

The current robust debate with regards to regulating and licensing Uber and social media behemoths such as Uber and Google, Facebook etc has spurred interesting and relevant debates amongst policy makers and regulators. Apart from their tax evasion strategies, they face the scrutiny of many regulators concerned with fair competition and social impact. The latest $ 2.7 billion fine of Google by the EU competition commissioner and the City of Londons latest formal ruling by its Transport and Employment departments have put the mega Platform and app economy on the backfoot – with increased critical dialogue on its existing business models. Meanwhile backlash to the 'power of platforms' has seen violence in South Africa with uber drivers and metered taxis. in the internet economy and social media behemoths has spurred national policy makers into developing new modes of social regulation.

A winner-takes-all internet economy/society that marginalizes the working and middle class is a recipe for democratic malaise and desecration of the values and ethos that many around the globe have cherished for a long time, as have been seen recently with the emergence of the anti-globalisation movement. There is therefore a need for policy and regulation to adequately prepare populations, through social regulation, education and skills training, to face the new reality of tech disruption and enhance adaptability to changing labour market conditions, and to ensure equitable sharing of the spoils of the 4th industrial revolution (where necessary through redistributive means).

As South Africa and SADC adopts the regional industrialization plan, as well as the AU's Africa Free trade agreements (FTAA), there is need for SADC and national policy makers and regulators (competition and sector regulators) to unpack the impact (both positive and negative of 'power of platforms' and tech disruption. This paper shall assess the

a. *Impact of the platform economy on social and economic policy with a focus on developing south integration paths/dependencies*

b Issues of market concentration and channel dominance;

c. The 4th industrial revolution (4IR) - and its impact on labour, skills and innovation.

Need for integrated model of sector-national-regional regulations rooted in social equity and an inclusive transition in the national-regional and global techno economy paths

Introduction and overview of technology led globalisation

Since the dawn of the new millennium, the techno-centic driven globalization discourse - driven by Information and Communication Technologies, (ICT), world wide web, convergence of telecoms, and mass miniaturisation of consumer goods (from i-pods to smart car, has seen the move towards the advent of the 'information society', succinctly theorised by Manuel *Castell's* classical trilogy- 'The Network Society' (1998) has clearly unpacked this neo-liberal path dependent phenomena and its dominance of global, regional, sub regional and national-local-community impacts trajectories. Key elite global economic governance institutions such as the annual WEF /Davos summits, the WTO (trade) and WIPO/TRIPS (IP and services) policy frameworks have led to massive de-regulation and market access, and largely diluted the economic, social and innovation policy space-matrix of many developing economies for years. Most developing south nations were mere consumers/users of first world Multinational Corporations (MNC's). This ICT enabled revolution enabled massive outsourcing & off-shoring in global value chains- and largely laid the foundation for the current so called 4th industrial revolution -with robotics, big data and IoT leading the 'new wave' of capitalist globalization and wealth accumulation.

It was after World War 2 period, that renowned sociologist *Karl Polyani* introduced the concept of the 'Great Transitions' – a term used to describe the post reconstruction period of Europe, Japan and the US that led to social expansion of middle class, rapid urbanisation, highways and byways as industrial production units of multinational corporations (i.e. Fordism), that spurred employment and demand in the leading northern economies. This led to a sustained consumer boom and a permanent urban middle class that sustained these post WW 2 economies for many decades.

In the1970's, sociologist Daniel Bell's classic book Postindustrial society unpacked the transition to industrial society and was a key academic primer in setting the scene for understanding mega shifts in techno-industrial waves of new technological development that drastically altered work organization and labour relations. New modes of investments such as Just in Time (JIT) manufacturing and flexible production especially in low wage East Asia were required to meet consumerization of consumer electronics. This changed the way production and work was organized, setting the scene for the waves of outsourcing and multitudes of consumer electronics that featured in the post- industrial economies and society of the 1990's.

The 1990's had seen the most intensive modes of technocentic driven globalisation in history - driven by Information and Communication Technologies, (ICT), software development, convergence of telecoms, and mass miniaturisation of consumer goods (from ipods to smart cars). The advent of the 'information society', theorised by Manuel ***Castells*** trilogy- the 'Network Society' has clearly unpacked this phenomena. Key global economic governance drivers at the time was the formation of the WTO and WIPO in the early 1990's that led to massive de-regulation and shaped economic and social policies of developing economies for years. From the early dial up to Web.2.0, to i-pods, the new web 3.0 social media world of Wikis are now a daily interactive tool in the professional and private life for hundreds of millions. This knowledge economy demands spurred new tools and models such as software as a service models; enabling outsourcing & off-shoring, and micro-work, all within the framework of rapid de-regulation and competition at the ' bottom of the pyramid'. For innovators everywhere, the rise of the Open Source movement brought in the pro-sumerisation of new applications from web design to FOSS and open source hardware. Indeed, open source, open content and open knowledge applications has given great impetus to hundreds of thousands of micro- innovators, writers, artists, and 'prosumers' globally, many of whom simply.

The United Nations UN Development Agenda's (UNDA) Sustainable Development Goals (SDG's), is still seen as the benchmark to create an unprecedented opportunity to achieve equitable growth, protect the environment and improve the quality of life of people around the world. And developmentalism ICTs are essential to achieving the SDGs by 2030, by providing new solutions to help realize the vision set forth by the international community – particularly in the current phase of the so called 4th Industrial revolution popularized by the WEF. The possibilities are limitless', expounds the WEF elite and the mega tech enterprises such as Amazon, Tesla, Google, Tencents, Apple, etc. Yet, in a world where we produce enough food to feed everyone, 795 million people – one in nine – still go to bed hungry each night. Even more – one in three – suffer from some form of malnutrition. According to the ITU 'Digital technologies create major opportunities to improve how we produce, distribute and manage food, as a major driver for economic growth and an accelerator for innovation.[1]

Confronting inequality in an age of tech disruption

Leading MIT economists Erik Brynjolfsson and Andrew McAfee of MIT have pointed out that the 4th industrial revolution could *yield greater inequality, particularly in its potential to disrupt labor markets.* As automation substitutes for labor across the entire economy, the net displacement of workers by machines might exacerbate the gap between returns to capital and returns to labor. On the other hand, it is also possible that the displacement of workers by technology will, in aggregate, result in a net increase in safe jobs. We cannot foresee at this point which scenario is likely to emerge, and history suggests that the outcome is likely to be some combination of the two. It is in this mileu that carefully planned industrial and HRD skills policy should be crafted and calibrated to ensure a just transition into the 4th industrial economy.

At the annual World Economic Forum (WEF) since 2016, the 4th Industrial Revolution discourse dominated debates. Key sessions pondered on "major disruptions to labour markets in terms of

[1] World Broadband Development Report 2017, International Telecommunications Union (ITU), Geneva.

the growth in wholly new occupations, new ways of organizing and coordinating work, new skills requirements in all jobs and new tools to augment workers' capabilities" (World Economic Forum, 2016)[2]. IN fact post WEF 2018 South African president Ramaphosa announced the launch of the 4th industrial revolution commission. Key issues that progressive social justice proponents need to unpack is the nature of the 4IR discourse itself, its location within the historical technocentric capitalist path – whose core strategy through capitalist development is the weakening and dislocation of labour and profit maximization.

One of the policy questions confronting African policy makers is the extent to which investments made in education and vocational training are preparing citizens for the digital economy, and how governments and other stakeholders can assist citizens to manage the transition. The challenge is compounded by the failure to generate sufficient formal sector jobs for young is fueled by scarcity of fiscal resources, with many African countries experiences high levels of debts, limiting their capacity to borrow.

As the 4 IR discourse goes mainstream, tech-centric economic, social and workplace organization changes and disruptions. The rapid rise of micro-workers (professional workers without formal employment) is morphing into a new 'precariat class'; and together with the concomitant mass offlays in the manufacturing industry has created a dual vulnerable industrial proletariat and a precariat. New Schumpeterian modes of technology disruption have again created new waves of opportunity and instability. The rise of Uber aptly symbolizes this new wave of disruptive business models, monetization of new apps, micro-grids and new technological waves. These have major implications for economies, with potential for mega wealth creation but also disrupting standard every day modes of life and work as we know it.

Amazon founder and owner Jeff Bezos wealth has skyrocketed to $ 105 billion- the wealthiest person on the planet is the poster child of the super billionaire club, largely on the back of robotics and AI displacing shopfloor workers. But while Amazon is raking in billions in net profits, it still plays the game of extracting further rents from the US government through ingenious tax breaks in the process - while many of its employees are on food stamps, aptly captures the great Silicon Valley divide.

Technology is therefore one of the main reasons why incomes have stagnated, or even decreased, for a majority of the population in high-income countries: the demand for highly skilled workers has increased while the demand for workers with less education and lower skills has decreased. The result is a job market with a strong demand at the high and low ends, but a hollowing out of the middle. This helps explain why so many workers are disillusioned and fearful that their own real incomes and those of their children will continue to stagnate. It also helps explain why middle classes around the world are increasingly experiencing a pervasive sense of dissatisfaction and unfairness.

[2] World Economic Forum WEF is the annual global elite summit of world leaders and though leaders, convened by Dr Klaus Schwab. Since 2016 the ' fourth industrial revolution discourse has been a dominant theme. www.wef.org

Back to Future ? National industrial policies

Traditionally, Economic development results from structural change in the economy that shifts labour from low productivity activities (such as traditional agriculture) towards activities that have higher productivity levels (Ros, 2000). This indispensable process, at the heart of economic catch-up, is not as simple as it sounds. 'Successful' structural change involves not only diversifying activities but adopting and adapting existing technologies and climbing the technology ladder by continuously upgrading production structures in key sectors of manufacturing (Amsden, 2001; Gerschenkron, 1962). In this regard, China and the New Industrial Countries NIC's or Asian Tigers of Malaysia, South Korea, Vietnam have been successful at climbing the ladder in Global Value Chains; aided by generous trade packages and incentive support of US multinational corporations MNC's.

These "radical" technological advances, however, represent only a fraction of what the economic literature typically identifies with innovation and technological change. At the extreme, radical innovations can lead to what Joseph Schumpeter called "technological revolutions," consisting of a cluster of innovations that together may have a far-reaching impact in a whole range of industries or the economy as a whole. These technologies are also sometimes called "general purpose technologies" of which the Internet and social media are ' everyday utilities' These seemingly different phenomena—*the degradation of the environment and the degradation of work—share a common root in the logic of capital accumulation. Successful businesses need to generate profits (not just products) and then reinvest the surplus.* To accomplish this, businesses must cut costs and expand operations, producing an ever-expanding array of goods and services, as well as the consumer markets to absorb them. The need to control the details of the labor process in order to decrease labor costs leads to the degradation of work; the constant need to produce, sell, and consume more strains the environment.

A 'winner-takes-all' economy that offers only limited access to the middle class is a recipe for democratic malaise and dereliction, as is evident with the rise of the super populist Trump, who on a platform of anti - establishment politics critised the Silicon Valley tech giants in his 2016 presidential campaign, only to give them the largest tax break in history in November 2017, with an (unrealistic) expectation that offshore jobs in the East by US Multinationals will miraculously return to the US mainland.

In a bizzare way, Trump's pro- business nationalist trade policy agenda is implementing its own hybrid model of a US homegrown industrial policy- but in this case private sector led - but enabled by massive tax breaks. Will this gamble pay off in light of the current trade wars with the US's core trading partners- China, EU and NAFTA ?

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The recent UN ITU's 2017 World Broadband report notes the overall significant, but uneven development with regards to Broadband in various ITU regions and nations. New technologies are driving substantial transformation in different sectors and are accelerating achievement of the SDGs. Other advances in science, technology, and engineering such as big data, the Internet of Things (IoT), Intelligent Transport Systems (ITS), sensor networks, automation, computational modelling, machine learning, Augmented Reality (AR) and Artificial Intelligence (AI) may also contribute to economic and social welfare worldwide. However, Harnessing the potential of ICTs is essential to the implementation of the post-2015 development agenda, which is why it is so important that the 2030 Agenda for Sustainable Development calls for the provision of "universal and affordable access to the Internet in least developed countries by 2020." The Technology Facilitation Mechanism will be important for contributing to this goal and potentially linking the Sustainable Development Goals (SDGs) to WSIS+10 follow-up.

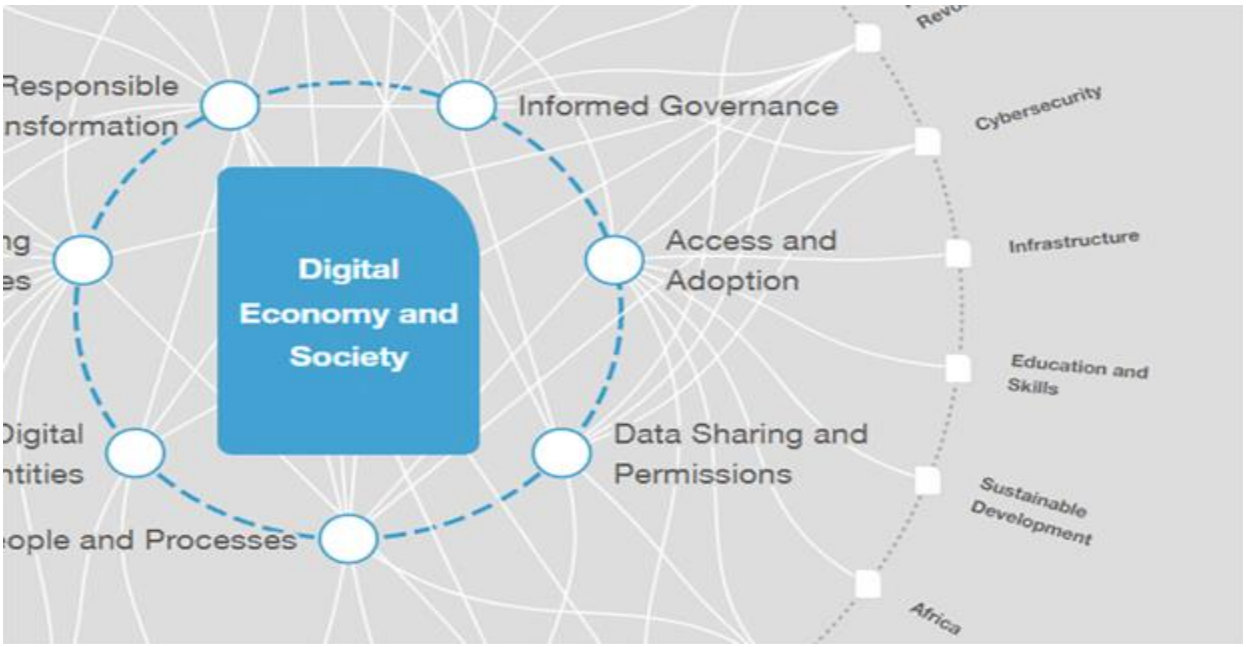

Figure 1: The digital economy ecosystem approach, ITU, 2017

According to UNCTAD, between 2013 and 2015, the value of online trade increased from USD 16 trillion to USD 22 trillion. However, the benefits of ICTs and e-commerce may not *materialize automatically nor smoothly* – the returns to e-commerce differ significantly across different economies and industries, depending on their ability to adapt to the digital economy. By contrast, the potential of labour disruption and displacement looms large in many developing south nations. These advances are becoming increasingly common place in the workplace, public spaces and homes, and of increasing interest to policy-makers.

In terms of connectivity, and who is connected (and who is not), the picture is rather different for mobile and for Internet. By the end of 2017, some 3.58 billion people are projected to be online, equivalent to some 48.0% of the global population, up from 3.4 billion people or 45.9% of the world's population who are estimated to have been online at the end of 2016 (a year-on-year

increase of some 180 million people, of which massive new growth are in developing regions such as BRICS, G-77 and Africa region

Case of Uber: Created by American Uber Technologies, the famous, if not notorious Uber application headquartered in California has become a worldwide online transportation network company offering reliable and affordable rides since March 2009. The service has been made available in a whopping 66 countries and 507 cities across the globe but as Uber grew internationally, its legality is being challenged by government as well as taxi drivers who refer to Uber transporters as 'pirate taxis'.Uber further offers their employees a flexible and independent job opportunity with its modern technology undoubtedly a great match for their passengers and drivers and even serves as a competitor for others in the transportation fields. Despite the spectacularly rapid growth of this business, challenges prevail. April 2014 saw the Uber service being banned in Berlin even though the company was active in other German cities and the dispute of whether or not to reinstate the deal still goes on. This, however, is just a tip of the iceberg. While developments of self driving car technologies are being sought at the recently established Pittsburgh facility, United Kingdom court ruling could soon affect thousands of workers in the gig economy.

This comes after an employment court declared that Uber drivers are not self employed individuals and should be paid the 'national living wage' in addition to being entitled to leave pay, pensioners fund and other working rights. This immediately strips Uber of its right to classify UK drivers as 'self employed' even though the company readily appealed against the ruling. This declaration has resulted in companies of the like facing scrutiny for inspection of their working practises. According to research by Citizens Advise, it is suggested that up to 460 000 national workers could falsely be classified as self employed, resulting in a stupendous cost of 314m per annum in tax loss and employer insurance policies. Four courier firms are already amongst the services facing legal action from cyclist who demand to be recognized as staff employees and enjoy the perks that go with it.

The Uber ruling could, according to The Guardian, consider an approach whereby the service receives a stipulated amount as commission from the employees earning. James Farrar and Yaseen Aslam recently represented a group of nineteen Uber workers who argued that they were employed by the San Francisco-based firm and were not self employed while raising the issue of working conditions which Farrar described as "tremendous pressure" and "repercussions" occurring for the company if he were to cancel a pickup. Furthermore, it was stated that he would often make just 5 an hour – this being lower than the standard rate of 7.20 that employers are usually obliged to pay workers over the age of 25.

"The fact it takes an employment tribunal to decide whether these drivers are self-employed shows that proving employment status is an extremely complicated and costly process," said its chief executive, Gillian Guy. "For many people struggling at the sharp end of insecure work, such as in false self-employment, taking such a case is simply not an option." This is not, however, the end of the process for Uber. The case is set to be escalated to the employment appeal tribunal and further hearings can be expected following its decision in the Supreme Court. Payments due

to drivers will only be calculated at the end of the process. Jo Bertram reports: “Tens of thousands of people in London drive with Uber precisely because they want to be self-employed and their own boss.

As South African, SADC and AU policy makers and regulators confront major trade policy frameworks such as the AU Continental Free Trade Agreement (CFTA) and SADC’s Industrial roadmap ,new thinking by stakeholders – academics, trade unionists, policy makers, NGO’s and economic justice networks need to critically engage the 4th industrial revolution discourse in a more public and dynamic manner that is inclusive.

The Shumpeterain dynamism- which sucks up local capital and labour in a 21st century virtual economy into the northern owned platform economy behemoths - clashes directly with the real economy of worker rights, social wages and the need for pension and other benefits so that the new 4th industrial revolution discourse is rooted in the values of workers equity , social justice and solidarity in the globalised economy.