

Towards Sustainable Futures: A Review of 'Sustainable Futures: An agenda for action', Raphael Kaplinsky, Polity, 2021

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There is no shortage of books on the crisis of contemporary capitalism¹. Many explore a specific dimension of the crisis (institutional, environmental, financial, digital economy, populism, etc.). Relatively rare are books that examine the contemporary global crisis by integrating technological, economic, social and environmental dimensions into one analytical perspective. Kaplinsky's book does that. With such ambitious aim, the author has to straddle several disciplinary boundaries and expose himself to objections by specialists. Kaplinsky is fully aware of the vast territory he covers and thus quite rightly calls it 'meta-analysis' (p.4).

The book explores the contemporary global crisis through the angle of the Mass Production techno-economic paradigm (TEP), its rise and exhaustion. The mass production TEP is a combination of the technological, economic and social factors which accompanied and facilitated the growth surge after WWII. Its decline is seen as an outcome of its internal contradictions, primarily a lack of synergy between three types of sustainability – economic, social and environmental. The crisis is also explored through the installation of the 'post-mass production' TEP driven by the Information and Communications Technologies (ICT) as the instrument to overcome the bottlenecks created by the maturity of the previous paradigm. In this respect, the analysis is genuinely in the spirit of Carlota Perez' and Christopher Freeman' work.

The book contains nine chapters which cover the economic, social and environmental dimensions of contemporary global challenges. A brief introductory chapter is followed by the three chapters (2-4) which provide a primer for 'virgin' readers into the major trends in each of these areas over the past seven decades. Chapter 2 describes and presents evidence of the rise and the fall of the mass production economy. Kaplinsky very persuasively analyses the social decay that has accompanied the secular stagnation of the recent period, including accumulated health and social problems linked to inequalities, the rise of populism, and the erosion of liberal democracy (chapter 3). A third dimension of the crisis of the mass production TEP is reflected in the deterioration of environmental sustainability driven by the 'take-make-use-waste' model of growth, which led to the final breakdown of four of nine planetary boundaries (chapter 4).

The three dimensions of the crisis – economic, social and environmental- have a common cause: the mass production TEP, which has run out of steam through lacking synergies between economic,

¹ The following is just an example of some from a variety of methodological and theoretical perspectives: Thomas Piketty (2017) *Capital in the Twenty-First Century*, Richard A. Posner (2011) *A Failure of Capitalism. The Crisis of '08 and the Descent into Depression*, Harvard UP; Wolfgang Streeck (2014) *Buying Time: The Delayed Crisis of Democratic Capitalism*, Verso, London; Paul Collier (2018) *The Future of Capitalism: Facing the New Anxieties*, Allen Lane; Mark Pelling, David Manuel-Navarrete, Michael Redclift (2012) *Climate Change and the Crisis of Capitalism. A Chance to Reclaim, Self, Society and Nature*, Routledge, London; Anatole Kaletsky (2011) *Capitalism 4.0: The Birth of a New Economy in the Aftermath of Crisis*, Public Affairs; Richard D. Wolf (2016) *Capitalism's Crisis Deepens: Essays on the Global Economic Meltdown*, Haymarket Books; Bruno Amable (2017) *Structural Crisis and Institutional Change in Modern Capitalism. French Capitalism in Transition*, Oxford UP.

social and ecological dimensions (chapter 5). Kaplinsky finds its starting position in the neo-Schumpeterian techno-economic paradigm framework developed by Freeman and Perez² and in its variants developed by Geels et al and Schot³. This systemic framework explicitly links changes in technology with economic structure and social and political relations.

The maturity of the mass production techno-economic paradigm (TEP) is for Kaplinsky inextricably linked to the end of post-war golden age since the mid-1970s in the developed world, to the rise of neo-liberalism, the rising inequalities, the financialisation of capitalism and the expansion of deep globalisation through global value chains. These are all seen as responses to or as result of the exhaustion of the mass production TEP. Some academic readers might wonder why these phenomena are related more to the exhaustion of the mass production TEP than to the installation of the emerging ICT driven paradigm. A reason may be the methodological complexity of analytically delineating two parallel processes.

The most interesting suggestion is that the 1990s-2000s globalisation process, especially the transfer to China of the mass production industries in the 1990s-2000s, was the factor that deferred the mass production TEP's inevitable demise and the faster spread of the ICT TEP. It seems plausible to interpret the opening of China and other BRICS as the opportunity for global capitalism to expand and thus postpone the limits to the economic and social sustainability of the paradigm in the advanced countries, while reducing labour costs and shifting environmental consequences abroad. However, it is not easy to accept that many phenomena like ICT-driven business processes, financial globalisation, and global value chains (GVC) are responses to the mass production TEP rather than features of the ICT-driven TEP. Finally, the productivity paradox is usually explained in relation to inroads of the ICT and 'computers everywhere but not in statistics' phenomenon rather than to the exhaustion or maturity of the mass production TEP⁴. Kaplinsky notes that the key ICT inventions occurred during the deployment of mass production TEP (p.124). He also points out that the ICT TEP did not diffuse more widely until the 2000s. Still, ignoring the interaction between two TEPs and treating them as sequentially separable seems too strong a simplification. For example, financialisation and Global Financial Crisis 2008 would have been technically and institutionally impossible without the elements of the ICT TEP.

The engine of the new TEP are ICTs whose role is explored in chapter 6. This chapter is about the potential of the ICT to revive productivity growth, decentralise production, and bring residence, production, and consumption closer together. The transformative potential of the ICT is also in its capacity to customise products but also to collectivise consumption, enhance reparability and enable greening of processes, products and services. This is probably the most conventional chapter because it reiterates the description of the ongoing changes made by McAfee and Brynjolfsson,

² Perez, C (1985) "Microelectronics, Long Waves and Technical Change: New Perspectives for Developing Countries", *World Development*, Vol. 13, N° 3, pp. 441-463; Perez, C (2002) *Technological Revolutions and Financial Capital*, Edward Elgar; Freeman C. and C. Perez (1988) "Structural Crises of Adjustment, Business Cycles and Investment Behaviour", in G.Dosi et al. eds. *Technical Change and Economic Theory*, London: Francis Pinter, pp. 38-6; Freeman, C. and F. Louca 2001. *As time goes by. From the industrial revolution to the information revolution*, Oxford University Press, Oxford.

³ Frank W. Geels (2005) *Technological Transitions and System Innovations. A Co-Evolutionary and Socio-Technical Analysis*, Edward Elgar, Cheltenham; Johan Schot, Laur Kanger (2016) *Deep Transitions: Emergence, Acceleration, Stabilization & Directionality*, *Research Policy*, Volume 47, Issue 6, Pages 1045-1059

⁴ Brynjolfsson, E., D. Rock and C. Syverson (2017), "Artificial Intelligence and the Modern Productivity Paradox: A Clash of Expectations and Statistics", NBER Working Paper, No. 24001, National Bureau of Economic Research, Cambridge, MA, <http://dx.doi.org/10.3386/w24001>.

Rifkin and Schwab⁵ on the ICT driven industrial revolution. It is good that the reader is spared the debates on whether this revolution is the second (McAfee and Brynjolfsson), the third (Rifkin), the fourth (Schwab) or the fifth (Freeman-Perez). There is also an account of the negative aspects of ICT such as cybercrime, automated weaponry, and potential for job destruction. However, the impression is that the current trajectory of the ICT, in particular critical accounts of 'surveillance capitalism' (Zuboff, 2019)⁶, 'platform economy' (Srniczek, 2017)⁷ and current trajectories of artificial intelligence (Acemoglu, 2021),⁸ has been somewhat understated. The issue is that the socially conflictual nature of the new technology emerges from within the economic system through social and political shaping of the ICT trajectory rather than from its 'unwanted' uses (crime, war) or its impact, as in the case of employment.

This somewhat generic account of potential and emerging changes driven by digitalisation and artificial intelligence is supplemented by a much more hands-on account of three cases of 'transformative potential' of ICTs explored in chapter 7. The first case is the mobile payments application M-Pesa, which started in Kenya. A second is the case of large dams' generation of hydroelectricity as an example of the somewhat broadly defined mass production TEP, contrasted to forthcoming distributed renewables. The third example and the most persuasive is precision farming and robots in agriculture. One may argue about the transformative potential of each of three cases, which are fascinating readings. M-Pesa is an excellent case of frugal innovation. Still, the extent to which it can initiate transformation through activities like promoting solar panels via mobiles is one for discussion. Taking large dams as examples of mass production TEP rather than of complex capital-intensive projects seems again somewhat too broad a view of what MP entails. This may be the case as we do not learn much detail about the introduction of distributed renewables as examples of ICT-driven or facilitated technologies. On the other hand, the excellent example of precision farming ticks all the boxes of potential systemic changes driven by the ICT.

All three cases are explored to the extent to which they are being implemented today without dwelling on issues of their systemic integration. A more critical reader would object that Kaplinsky has seen only the rosier side of the ICT evolution and ignored unwanted evolution. The decentralisation potential of the ICT is strong, but equally, the economics of ICT networks shows a significant propensity to concentrated and 'winner takes all' market structures. Each of the cases discussed can evolve into a system characterised by multiple platforms where smaller companies will be integrated within the broader ecosystem. This seems to be the emerging trend in several industries, and possibly the ICT driven TEP may be better defined as driven by 'digital platforms'⁹. Social, political and economic forces will drive its exact nature. Still, we already seem to be far away from the idea that small scale and distributed technologies are automatically synonymous with equitable and sustainable social outcomes (Kenney and Zysman, 2016¹⁰).

The book's two last chapters (8 and 9) try to answer what needs to be done, how, and by whom. These two chapters carry the weight of the book's subtitle - an agenda for action. The aim is to work

⁵ Schwab, K. *The Fourth Industrial Revolution*; Crown Business: New York, NY, USA, 2017

⁶ Zuboff, Shoshana (2019) *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. London, UK: Profile Books.

⁷ Srniczek, Nick (2017) *Platform Capitalism, Polity*

⁸ Daron Acemoglu (2021) *Harms of AI*, NBER working paper 29247.

⁹ For example of construction industry see McKinsey (2020) *Rise of platform era: the next chapter in construction technology*, McKinsey Insight, <https://www.mckinsey.com/industries/private-equity-and-principal-investors/our-insights/rise-of-the-platform-era-the-next-chapter-in-construction-technology>

¹⁰ Kenney, Martin, and John Zysman. "The Rise of the Platform Economy." *Issues in Science and Technology* 32, no. 3 (Spring 2016). <https://issues.org/rise-platform-economy-big-data-work/#.YdLCJb8ipzw.link>

towards a more sustainable economy, society and environment. Given its comprehensive and integrative approach, Kaplinsky sets the net widely and outlines five areas of required responses. These are: reregulation of the financial sector, redistribution of wealth and income together with reducing the power of the giant corporations, implement a Smart New Green Deal, strengthening global and local governance that can generate responses to sustainability challenges, and promoting international development by supporting sustainable growth in low-income economies. This may seem too programmatic, but it is a well-grounded and well-backed up chapter with outlined specific potential actions.

The last chapter represents the accumulated know-how of a development economics scholar who is fully aware that the critical issue is policy design but even more the process and the politics of policy. This can be read as recipes for a 'cookbook' on how to navigate in the complexity of transformation towards sustainability. Kaplinsky argues for the private sector as the engine and the 'steering wheel' role of the government. He outlines key challenges for global governance, national and local governments. The main mechanism in this process are alliances among actors which operate based on different accountability criteria. The art in this process is how to compensate losers and how to upscale successful niche experiments. This calls for actions that generate synergies among different actors and activities with clear directionality. Kaplinsky is aware that the issues are also political, and that policy cannot avoid 'reactionary power bases' in oil industry, plutocracy, and other sectors that may be losers. This wide range of challenges calls for sequencing and prioritisation, and this chapter should be read as compulsory background reading for policymakers engaged in these issues.

Kaplinsky conceives three instruments for change – regulation, incentives and civil society action. In particular, he considers non-private-civil society organisations a critical factor in shaping the economy and society. In addition to advocacy and pressure on governments, he sees their equally important role as an essential component of paradigm change at the local level. Their role is indispensable in social, economic, and environmental sustainability, and Kaplinsky illustrates this with several real-life examples.

So, how should the reader approach this book?

It is an excellent example of what Dallyn et al. (2015)¹¹ define as the work of the academic public intellectual 'who is *in* but not *of* the academic profession'. By this, they consider contributions that exist in and around the requirements of professional metrics and academic auditing rather than because of them (p. 1032). The author aims to engage with the non-professional public, the non-specialised generalists, and the non-peer audience. This only increases the book's social and broad intellectual relevance.

It's unique value is that it explores economic, social, technological, political and environmental issues through the prism of sustainable development and armed with the notion of techno-economic paradigms. This approach enables him to superbly generate and connect a range of insights into one conceptual perspective. For those reasons, it may be used in teaching as an accessible summary of the various interconnected dimensions of sustainability.

The general public will also find it accessible. This is a quality that I consider exceptional in the increasingly professionalised academy that has difficulties communicating with a broad audience.

¹¹ Dallyn S, Marinetto M, Cederström C. The Academic as Public Intellectual: Examining Public Engagement in the Professionalised Academy. *Sociology*. 2015;49(6):1031-1046. doi:10.1177/0038038515586681

Through growing fragmentation, it has lost the capacity to link its pieces of research to the relevant whole. Thus, Kaplinsky's book is hopefully a sign of the return of public intellectuals, desperately needed in a fake-news-distorted and information-overloaded world. As I hinted in a few places, the book may not always please all academics. Still, I think it is the price worth paying for a socially and intellectually timely and relevant contribution.

Finally, the book offers enlightened policymakers and many local ('street level') activists a framework for thinking through the complexity of the sustainable development challenges and acting upon them. Ultimately this is the best that any public intellectual can hope for.

In conclusion, Raphael Kaplinsky has written an essential book for a wide range of audiences addressing today's most significant global challenges. The book's ultimate message is that 'to choose not to act is to act'. In that respect, it represents an excellent basis for action. If sustainable development is the goal, this book is a good platform to start from.