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Proposal for sub-theme “Structural changes...” or “Development”

The false promises of digitalisation

In many countries, government agencies, business and employers associations, CEOs from big corporations, but also academia and even trade union leaders seem to be convinced that the “digitalization” of society and economy is an unstoppable accelerating process, which can and should be shaped in favour of workers. Furthermore it is argued, that digital technologies offer potential for low-carbon transformation of energy and mobility systems, the circular economy and the protection of ecological systems. Yet it is not very clear how far digitalization can be linked to societal goals and also not whether it can be placed at the services of a global transformation towards ecological sustainability.

Some analysis of the digital economy, also coined as “cognitive capitalism”, assumes that a “new spirit of capitalism” would allow a certain margin of autonomy and nonhierarchical cooperation between firms, workers and the so called “prosumers”, a term to catch the convergence of boundaries between consumers and producers, actually referring to the unpaid work of the internet user, done without awareness. Other contemporaries are more skeptical with respect to the wonderful promises of digitalization. Their discussion is mainly focused on the social impact of digitalization on both labour and on social relations in the society at large and on the corporate crusade against data governance, which is just getting started. However, the case of the German metal workers union IG Metal might illustrate that also hopes addressed to digitalization of the manufacturing process are widespread - towards an upgrading of jobs, better cooperation and participation between groups of employees, a substitution of highly demanding and unattractive tasks, comprehensive training opportunities and thus better chances for upward mobility for workers. Before this backdrop, in a first part the paper will address the foreseeable consequences digitalization of manufacturing will have on the employment relationship and on trade unions representation of workers interests, with a special emphasis placed on flexibility, uncertainty and different sort of risks as the new normal of work in the upcoming era of digital capitalism across the globe.

The second part of the paper will start with the assumption that a digitalization of the economy (and the society at large) is still a concept of what could be rather than what is. Therefore this concept should not be taken as a given. Instead we should consider all the challenges and risks of this trend and then consider, whether we should resist or foster the trend. Therefore, in addition to the social consequences of a further substitution of human labour by machines and algorithms also the ecological implications of digital production system have to be considered.

It can be taken for granted that producers will only automate if doing so is profitable. But for profits to occur, producers need *firstly*, cheap raw materials and cheap energy and *secondly*, a market to sell. Keeping this in mind might help to highlight the critical flaws of digitalization: If robots would replace so many workers as predicted by international institutions and numerous think tanks, thereby creating even more mass unemployment and if wages are pushed further down because only the highly qualified workers could expect to receive a decent salary, the two questions arise: *First*, to whom would the producers sell all their “intelligent products” and *second*, can the material inputs of production really can stay cheap if all advanced economies and even some developing countries will follow the same rout towards a “4th industrial revolution”?

New digital infrastructures, products and services are driving up energy consumption and the demand for “critical” raw materials (meaning metals and minerals which are scarce not only in an economic and geopolitical sense but also scare in its physical existence). Also waste and long-lived anthropogenic pollutants (e.g. electronic waste, new chemical compounds and alloys) which are part

and parcel of the new “intelligent” products pose environmental and health risk. Elaborating in detail on these ecological constraints of digitalization and pointing to some unavoidable trade-offs (among others between energy and metals) the paper attempts to present evidence for the following statement: As we come closer to the “tipping points” of ecological systems and to peak production of many natural resources – including the critical metals and minerals necessary for a digitalization of industry and society – a radical critique would have to face up to the conclusion that there will be no powerful international alliances of activists and workers against the global power of the billionaires so long as we continue to channel 20th century solutions (based on infinite growth on a finite planet) towards resolving current planetary catastrophes.