THE CREATIVE SOCIETY AND THE NEW TECHNOLOGICAL REVOLUTION

Issues Paper by Ron Gass

NAEC Seminar to be held on 24th November 2016

The attached paper is circulated well in advance so as to provoke thought.

As Discussants, Barrie Stevens and Riel Miller will circulate comments closer to the event.

The NAEC seminar will be held in Paris at the OECD Headquarters on 24 November 2016 in Room C. For more information or to register please contact naec@oecd.org.

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I   HOMO SAPIENS AT THE CROSS ROADS?

1.   There can be little doubt about the reality that a new technological revolution is on the way, and that it will have massive human, social and economic consequences. There are many threads to this story, but they can be summed up as: transhumanism, numerisation, artificial intelligence and big data.

2.   The OECD has a long history of proposing policies to deal with the economic and social effects of new pervasive technologies, but the new wave presents a novel challenge because it raises the issue of whether science can and/or should intervene in the process of natural selection (Fukuyama, The End of Man, 2015).

II   THE NEXT STAGE OF CAPITALISM?

3.   Already, the public debate is faced with the visions of recognized authors. Rifkin (The Zero Marginal Cost Society, 2015) sees the eclipse of capitalism and the emergence of the Collaborative Economy. Ferry (La Révolution Transhumaniste, 2016) sees the next stage of capitalism and the urgent need for regulation. The OECD itself has initiated a debate on the Future of Work, and is working on the policy synergies and trade-offs involved in the new production revolution.

III   THE MISSING LINK - SOCIETY ON THE MOVE

4.   What is missing is the recognition that fundamental societal trends are taking place in parallel to the technological trends. At the same time that the "technological bomb" is being prepared in Silicon Valley and like places, humankind is inventing new forms of economic and social action in cities, towns and villages across the world. The OECD Futures Programme reviewed these trends in the report on "The Creative Society for the 21st Century", including for example the ideas of "social capitalism" developed by the University of Harvard. It is indeed inevitable that, as a consequence of profound social and environmental costs, capitalism will become more "social". But this is usually limited to taking into account the "implications" of the new technologies for machine/man functioning (ergonomics) and skills, employment and work organization (socio-technical systems). (See, for example, the recent OECD Conference on Technology, Innovation and Inclusive Growth - Future Perspectives)

IV   TECHNOLOGY ON TAP BUT NOT ON TOP

5.   In this approach, technology is seen as ergonomic - with economic growth as the main objective. But now that economic growth is seen as a means, not an end, a more open-ended approach is needed. In the AIA Seminars on OECD and the Crisis of Progress and Inclusive Society, it was suggested that the most likely future scenario is the systemic interaction of powerful societal and technological trends: the co-existence of social diversity and hi-tech, with novel forms of social and economic innovation.

6.   If technology is to be seen as "on tap but not on top", it is necessary to define the social forces at play: at the level of individuals, more autonomy, freedom and self-expression; at the level of society, more diversity, democracy and equality of opportunity. In sum, a profound move away from Charlie Chaplin's depiction of the impact of production technology in the film "Modern Times".

7.   An illuminating example is the emergence of a new artisanat, self-employed and home-based, made possible by the 3d printer. This opens up the possibility not only of a shift from Fordism but also towards a more ecological economy based on repair rather than replace, re-cycle rather than waste. In the words of the Club of Rome: a circular economy.

8.   Climate change is precipitating a shift in public attitudes towards energy production and use. In the words of the new PDG of Engie: "this revolution happened in the minds of people, before becoming technological" (Le Monde, 5 May 2016). In other words the societal trend towards decentralization, self-help and community-based security is enmeshing with the technologies for renewable energy.

9.   More generally, it needs to be recognized that pervasive technologies do not exist in thin air. Management theories and philosophies are an integral part of the trends. Taylorism went with Fordism, and vertical hierarchy with mass production. Complexity and uncertainty, inherent in contemporary society and economy, call for adaptive organizations based on clear goals, but with decentralized power and decision-making -- "entrepreneurship" if you like. It is the interaction of this shift in individual and organizational behavior with the new technologies that is typical of the Creative Society.

V   HARNESSING TECHNICO-ECONOMIC PROGRESS TO HUMAN GOALS

10.   That technico-economic progress is now recognized to be a powerful means, but not an end, changes the policy debate. The days of the "technological fix" are over, and the "Solutionism" of Silicon Valley is historically naive. The new technological revolution faces humankind with a choice: whether to advance further down the road of human progress or to create an artificial being. There is no escaping, therefore, the challenge of harnessing technico-economic progress to where we want to go.

VI   A SOCIETY FIT FOR FUTURE GENERATIONS

11.   So where do we want to go?   That is the fundamental question raised by the new technological revolution. It is, of course, essentially a philosophical and political question. It is about ends rather than means, and that is why leading philosophers and historians like Fukuyama, Sandel, Habermas and Ferry have entered the debate (see Luc Ferry, La Révolution Transhumaniste).

12.   To be blunt, this raises the question whether technology will determine the future society, or whether the new technologies will be harnessed to meet human needs by the capacity of political systems to exercise strategic foresight, and to do so with the participation of civic society and the citizenry. Failure to advance in this direction, leaving the field to the high-tech giants, will further undermine public trust in political systems.

13.   All the elements of the debate (apart from the contribution of the philosophers!) are now on the OECD table. For example, the 2016 OECD Forum discussed Post-Capitalism, the Algorithmic Society, the Circular Economy, the Digital World and the Future of Work, and "the sort of society we want in this digital age and the social contract to deliver it" (see Anthony Gooch, OECD Insights Blog, Productive Economies for Inclusive Societies). What could be the elements of strategy to tackle this complex problematique?

1.   Reconciling the Economy, Nature and Society

14.   The Western Enlightenment idea of progress via the mastery of nature through science needs to give way to a <u>balance</u> between the three sides of the OECD Triangular Policy Paradigm. All countries, whatever their level of development, share this challenge. The NAEC Seminar on the OECD and the Hegemony of Economic Growth led to this conclusion. It could serve as a global policy framework.

2.   Vision, Goals and Strategic Foresight

15.   Technology tends to outpace the capacity of society to foresee and control its implications. Economic and technological forecasting need to be complemented by democratic procedures which enable communities -- national, metropolitan, regional and local -- to chart the future they aspire to attain. The NAEC Seminar on the New Economic Growth Paradigm brought to light successful examples of this.

16.   The UN Sustainable Development Goals provide a framework which needs to be translated into the realities of nations at different stages of development and of the metropolitan, regional and local communities within nations. Such efforts will enable representative democracy to be enriched by direct and participative democracy.

17.   Active citizenship is obviously involved in this endeavor, as in the Athenian model (cf Castoriadis and the "imaginaire social"!). What this implies is the need for the citizenry to be helped to invent the future they would like to see, through education and opportunities to influence events.

3.   Legislation, Regulation and Collective Bargaining

18.   The above processes will lay the ground for anticipatory legislation, regulation and collective bargaining. Pervasive technologies of the kind that change society do not arrive at the touch of a magic scientific wand. From science to innovation, and from innovation to the mass market, is a complex process affected at many stages by public policy, collective bargaining and the prevailing theories of industrial management. In the OECD there is a long history of policies "to co-ordinate the shaping of the technological future with that of the social and economic future" (Science, Growth and Society, OECD, 1971). The contemporary reality is that a new technological revolution is poised to dominate the political scene, unless anticipatory regulation, preferably at the international level, is rapidly put in place.

4.   Towards Social Capitalism

19.   The dilemma is that regulation cannot take the place of the job-creating role of enterprises. No-one can tell how the Schumpeterian process of "creative destruction" will work out in the long run, but are there signs that the capitalist system is already shifting to take on the challenge of more and better jobs? For without this outcome, inclusive growth, and beyond that the inclusive society, will be out of reach.

20.   This is why the NAEC Seminar on "The Useless Man" (Professor Giraud), which analyzed the global system in terms of jobs rather than value, is of considerable interest. The Giraud Model shows how the spatial distribution of nomadic jobs and sedentary jobs, the latter being tied to territory whereas the former "migrate" because of the free movement of capital, affects the economic and social viability of metropolitan, regional, local, and national communities.

21.   The significance of the UN Sustainable Development Goals and the OECD Better Lives Initiative is that, stimulated by the new information and communications technologies, there is now a powerful social demand across the world for new forms of work, better living conditions, liveable environments, and freedoms. Basically what this means is a new balance between the economic, social and environmental systems, driven by universal human needs.

22.   The role of business in society is changing in response, as for example in the guidelines for Corporate Social Responsibility (C.R.S.) and Responsible Business Conduct (R.B.C.) (see OECD Insights Blog, Roel Nieuwenkamp, The Force of Finance for Responsible Business, 2016). There are many other signs of this change. Social business, social entrepreneurship and ethical investment are in vogue. And the 2016 MCM called on the OECD to further its analysis of the sharing and circular Economy as well as platform markets.

23.   Beyond the private sector, there is now a well-established "third sector" of the economy, which has proved to be resilient during the prolonged 2008 crisis, especially in terms of job creation. The OECD (LEED) has also played an important role for more than 30 years in the development of the social economy, which is growing as non-traded, non-profit activities are launched to combat rising unemployment and environmental degradation.

24.   The growing role in governance by cities, regions, towns and rural areas, characterized by the valorization of their territorial natural and human assets, is providing a fertile ground for such initiatives; and more generally for a better balance between economic, social and environmental goals.

25.   It seems reasonable to conclude that social capitalism is more likely to prevail than the more radical alternative of post-capitalism (Paul Mason), or even of a growthless economy (Daniel Cohen).

5.   The New Social Contract.

26.   Yet it cannot be denied that the new technological revolution could lead to growing inequalities and elitist social organization. Are there signs of a new, emerging social contract to stave off such results?

27.   The existing social contract is based on income maintenance to meet social risks such as unemployment, ill-health and poverty in old age. Its culmination would lie in universal minimum income (cf the recent Swiss referendum). But this does not respond to the reality that, in a global economy based on "creative destruction"; the most serious social risk is the obsolescent of skills and the capacity to take up the new opportunities.

28.   Recognizing this, the New Social Contract will be based on the redistribution of opportunities over the life cycle, and the empowerment of disadvantaged groups (notably youth, women and the aged) to take them up. This fundamental reform of social security on the one hand, and life-ling learning on the other, is already on the cards in OECD (cf the concepts of Active Society and Recurrent Education, already discussed at Ministerial level in the 1980's). The new OECD Centre of Opportunity and Equality is the vehicle for further progress.

6.   The Learning Society.

29.   It is probably the lag in knowledge and skills that is the main obstacle to the "civilizing" of the new technological revolution by the general population (see Andreas Schleicher's statement at the 2016 OECD Forum). Education has a unique role in democratic society: it roots the rising generation in their historical heritage; but it also prepares the young for the world to come (see Trends for

Shaping Education, OECD 2010). Knowledge and skills give the power to <u>shape</u> the future, as well as to <u>adapt</u> to it.

30.   The dilemma is that the evidence of PISA and PIACC suggest that inequalities in both schooling and life-long learning opportunities are growing, blocking the social ladder which is essential in democratic societies. If the professions are threatened (Richard and Daniel Suskind, The Future of the Professions: How Technology will Transform the Work of Human Experts -- OUP, 2015), the situation could deteriorate because they would monopolize life-long learning opportunities.

31.   The answer lies in recognizing that learning takes place in enterprises as well as schools, justifying a "second chance" policy which redistributes learning opportunities over the life-cycle.

32.   It is, of course, true that early childhood education for disadvantaged families would help. But this was tried by the Kennedy Administration (the Head Start Program) in the US, and apparently failed. In any case, action is needed now for the generations already in, or about to enter, the workforce.

VII   A NEW GLOBAL HUMANISM

33.   The idea of Progress, based on the power of science and technology, a child of Western Civilization, has run into a brick wall (AIA Seminar on the OECD and the Crisis of Progress) of the nuclear threat, climate change, and widespread joblessness. The fact that science, technology and economic growth are now recognized by OECD as <u>means</u> (AIA/NAEC Seminar on the Hegemony of Growth), does not diminish the importance of economic growth, but it does raise the question of "growth for what?" Hence, the philosophers enter the debate.

34.   The SDGs and the Better Lives Initiative put "the good life" into the centre of the picture, and inclusive growth and inclusive society are important steps in that direction, but the essential feature of the new humanism is that humankind is not an object, but the subject of its own destiny. (See Cynthia Fleury, Les Irremplaçables, Gallimard 2015.)

35.   The new technological revolution will offer opportunities in that direction, but it will call for a Creative Society to steer a viable course between transhumanism and the good life (see OECD Futures Report, The Creative Society of the 21st Century, 2010).

36.   This notion of a new humanism will no doubt raise the eye-brows of OECD economists, but it gives meaning to the OECD slogan, dominant since the 2012 MCM, that "it's all about people". Another angle to this same issue comes from the proposition in the NAEC Final Synthesis (paras. 84 and 85) that the maintenance of capital stocks is the foundation for the well-being of future generations. The new humanism leans on the reality that "human capital" cannot be written off, scrapped and replaced like physical capital. It is self-regenerating, based on the reality that homo sapiens is a learning animal.

37.   Put in another way, it can be seen that inclusive growth and inclusive society depend on human creativity, which is deeply interacting with the new technological revolution. Four questions are thus addressed to the two Seminar discussants, Barrie Stevens and Riel Miller, both among the authors of the OECD Report referred to above:

- <u>Social Diversity as an antidote to Technological Hegemony.</u> The disaggregation of policy frameworks, down to cities, regions and local communities (see NAEC Seminar on the New

Growth Paradigm), is opening up synergies between new technologies and human needs (the case of climate change and energy production are good examples). Can social diversity win the day?

- <u>Democratic Governance and Investing the Future.</u> Information and communications technologies are leading to forms of direct and participative democracy, including via the social media. Whether these will become competitive or complementary to representative democracy is an open question. There are now real-world cases (GOV, Development Centre, LEED and Strategic Foresight) where the citizenry ("active citizenship") and the civic society are involved in strategic plans for the future. It is almost as if the Athenian model of democracy is being revived! Do you see this as a route to democratising and humanising the new technologies?

- <u>Towards Social Capitalism?</u> The Report has a chapter on Social Capitalism and Human Diversity (Chapter 2). My analysis takes the line that social capitalism is a more likely outcome than post-capitalism. There are many signs of capitalism becoming more "socially and environmentally responsible", but more radical options are also on the table. The "transformative" character of the next technological revolution (see the statement by Andrew Wyckoff, at the NAEC Seminar on the New Growth Paradigm) is likely to force a change of paradigm. Do you agree? And if so, where are we heading?

- <u>Technology and Organisational Innovation.</u> Every wave of technology brings with it a change in organisational theory and the management models it inspires. So-called "scientific management", rather than the steam engine or electricity, led to the miseries of the mass-production line, identified with the Industrial Revolution (see Georges Friedmann, "Où va le travail humain" and Charlie Chaplin, the film "Modern Times"). It is not so much information technology as the techniques of "management by results" that is leading to problems of stress and burn-out in the Information Society. The interesting question is whether the next wave or organisational change, based on complexity theory, will lead to lateral, co-operative organisations, with decentralized power and decision-making, so as to favour innovative capacity? There is a long-standing thread in organisational theory (Joan Woodward and Tom Burns in the UK) linking technological success to flat hierarchy, so it is not surprising that "Give and Take - Why Helping Others Drives our Success" by Adam Grant is having such a big impact on US management circles. Does this mean that two fundamental human needs -- altruism and autonomy -- might be enhanced by the encounter between social change and the new wave of technologies?

38. Paradoxically, the philosopher Lichtenberg, a contemporary of Kant, concluded that "The Enlightenment consists in having, in all social conditions, well-founded notions of our essential needs" (Jean François Billeter, Esquisses, 2016). It sounds like the OECD Better Lives Initiative! For a fascinating review of contemporary theories of fundamental human needs, as they exist in developing countries, see p. 23 onwards of the Development Centre's report on "Measuring Well-being and Progress in Developing Countries at Different Stages of Development", by Boarini, Kolev and McGregor.

39. One could conclude that the idea of a new humanism is universal! It is the power of such human needs, not transhumanism, that will shape the future.