Science will deliver the progress we need – or it won't. Our ability to set priorities will decide

Science has become a part of almost every aspect of our lives, and takes justified credit for all manner of Progress—economic, technological, cultural, and social. And yet somehow, this does not feed our enthusiasm. The fundamental myth of progress—that it produces a steady betterment of life—is crumbling before our eyes. The experience of the twentieth century, with its civil and world wars, Gulags and Holocaust, was too tragic to support a continued belief in a kind of granted optimism of world history. Today, ISIS and the refugees crises, to say nothing about hybrid/proxy wars erupting in many parts of the world, also do not add to an optimistic picture.

In fact we live already in a "hybrid peace" where 21st century technology helps spread images of barbaric decapitations in front of the cameras, and wars have become inalienable elements of peace.

I am not doubting scientific progress. But I am thinking about how science development is distorted by our modern social organisation and economic system. I am thinking that real progress could have been much more impressive and tangible. I am thinking of the goals and definitions of Progress.

The problem is that the scientific endeavour is as much 'about' us as it is 'for' us. Today, progress is defined almost entirely by consumer-driven, often banal improvements in technology. Sure, our phones are great, but that's not the same as being able to send a man into outer space, fly across the Atlantic in eight hours or eliminate smallpox, to name a few of the quantum leaps of the post-war Golden Quarter. As the US technologist Peter Thiel once put it: 'We wanted flying cars, we got 140 characters.'

Our society is possessed by money, consumption, and economic growth. But again and again politicians and economists use the unsustainable argument that we need economic growth to have more welfare, to create jobs, to improve standards of living for everybody and to protect nature.

In this model, even science becomes an obedient servant of the system, allowing us to do more and more. But while allowing us to do more, science doesn't tell us whether doing more is right or wrong.

Therefore with scientific advances, we need greater ethical vision; better judgment; and stronger analysis of how to use knowledge for good, not evil. It was in the 19th century when the ideals of positivism pushed people to adjust their ethics to the standards of science. Today, it is more appropriate to talk about the ethical control of progress and results of scientific discoveries.

And it is not about making science a scapegoat for misuses of its advances. It is not science, but ignorance that is to be blamed. So education is critical.

Universal education is needed not only for those who expect to practice science but for everyone living in the modern world. We need it because education is a tool providing catalysts for important, sustainable change in our society. We need it to help youth chart a course. We cannot just train them to "succeed" in the current system—that is not a real education. We must inculcate in them a broader world vision and a greater capacity for critical thinking.

Political leaders, in particular, badly need to be exposed to scientific vision. The mind, once stretched by a new idea, never reverts to its original dimensions.

Unfortunately we have to recognize that today's governments are ill-equipped to understand science, sophisticated technological challenges, or the opportunities facing the world.

New instruments are needed to ensure that science and technology are adequately applied to address the wide range of increasingly urgent global problems— and not just to make our smartphone batteries

last longer. This will require a rapid transition to a different model of development; one which not only takes into account the interests of short-term growth, but provides opportunities for sustainable and inclusive development.

Unknown future change may be frightening, but it is inevitable. And, in fact, it provides an opportunity to improve our instruments, update our strategies and change ourselves. The wave of technological progress is far from its peak. We should be excited and filled with hope—about where it could take us, of course, only if we chart the course properly.

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