

Letter from Academia

Educating the educators to innovate: the need to reinvent academia's mission and to reengineer their basic tool: the Educator

José Tribolet^{1,2}

¹ Full Professor of Information Systems, Instituto Superior Técnico, University of Lisboa, Portugal

² President of the Board of Directors, INESC, Lisboa, Portugal
jose.tribolet@inesc.pt

Abstract. Innovating is an attitude towards the world. For humanity to improve its capabilities to innovate, then innovation, as an individual capability with social value, must be nurtured since birth, in every human being, along with the full toolset of values, such as liberty, responsibility, solidarity, compassion, honesty, among others. A foundation for the acquisition and maturation of the innovation attitudes in an individual lay on its basic drive to question the world, to understand, i.e. model it, and in such process, to identify perplexities that confront him as problems to be solved or opportunities to be addressed. I consider the development and maturation of these capabilities in each individual an essential responsibility of academic institutions. To adopt encompassing processes for providing learning environments, for the students to acquire and develop innovation capabilities, Academic Institutions need to refurbish their production tool set, so that it acquires inherent innovation capabilities in all the dimensions of the academic activities. This is perhaps the biggest challenge today for these Institutions, because it requires massive reprogramming of the Professors mindsets and practices.

Keywords. Innovation, Youth, Professors, Academia, Values, Capabilities, Learning Environments.

1 Innovating as an attitude

As an academic member of the novel Journal of Innovation Management, The International Journal on Multidisciplinary Approaches on Innovation, I bring forward to this first issue, some of the lessons life has taught me on the fundamental role education, and in particular, the role of the Academy, may and should play in the inculcation of innovation attitudes and practices in youth.

First of all, innovating is an attitude towards the world.

An human being manages his life by continuously balancing the minimization of risks for himself, therefore, securing a stable and predictable environment under his control, with the maximization of its differentiation from others, by searching value added, realizable opportunities, with potentially high future gains.

This balancing dynamics evolves since birth, and is strongly conditioned by all the experiences lived by each individual as time goes by. The role of family and the social institutional ecosystem that surrounds a child in their first years is, we all know, of tremendous relevance in the configuration of the values, the attitudes, the relational and emotional skills, of the future adult. In particular, the pedagogic models adopted to frame the child's education and the practices of action that the child experiences at this early stage, if not properly aligned with the acquisition and development of positive values, attitudes and skills, greatly impairs or even prevents their maturation in adulthood.

And this starts with the family unit, one should never forget! And it goes on through kindergarten, K-12, the scouts, the sports clubs, and so on.

So, the systemic design, operation and monitoring of the social and educational processes in the various institutional frameworks within which the growth of the youngsters flow in society should be a subject of major consideration in the construction of the future of each and all of us.

For humanity to improve its capabilities to innovate, then innovation, as an individual capability with social value, must be nurtured since birth, in every human being, along with the full toolset of values, such as liberty, responsibility, solidarity, compassion, honesty, among others.

Unfortunately we must recognize that often the "early-ages ecosystems" surrounding the child not only is not tuned to these goals, but often provides its antithesis, repressing innovative attitudes, rewarding conformity and egotism, repressing individuality, and nurturing the very anti-social values that are so widespread in our societies today.

2 The role of academic institutions

The role of academic institutions in providing the adequate environment and learning experiences for the proper maturation of each individual is, obviously, central in the configuration of the social attitudes towards innovation and the provisioning of individual skills best fit to actually innovate.

I strongly believe in the processes and the environments that pursue learning by doing, followed, of course, by reflexive actions, involving conceptual abstraction, theory formulation and knowledge building stages, which enable higher levels of individual and collective innovation initiatives, in real operational contexts.

Academic institutions should be, by definition, boot camp grounds for innovation, getting young people ready for the big battle of active life, challenging them to be Architects of the Future.

3 Modeling the world, questioning reality, innovating by acting, learning by doing

A foundation for the acquisition and maturation of the innovation attitudes in an

individual lay on its basic drive to question the world, to understand, i.e. model it, and in such process, to identify perplexities that confront him as problems to be solved or opportunities to be addressed.

I consider the development and maturation of these capabilities in each individual an essential responsibility of academic institutions. Providing learning contexts where the youth is faced with situational modeling and problem formulation is much more relevant than training him on how to present the “right” answer to a given problem.

And it is in this context that the development of the individual capabilities for innovation may and should happen. One learns how to innovate, by innovating and, in a structured and reflexive process, learning from what one has done.

4 Scouting and discovering, formulating and solving, developing and deploying, using and evaluating, improving and redesigning

Fostering innovating attitudes in an individual, framing innovative actions in solid, sustainable organizational processes and in societal frameworks are essential aspects of the “academic mission list”. Acquiring these individual “actionable capabilities” should also be part of the learning goals of any youth as it progresses along its academic education.

In my view, the primary intent of involving students in research and development activities is precisely to provide an adequate context for the acquisition of these actionable capabilities. The effective outcomes from such research should be seen, in terms of the essence of the student’s education, secondary, collateral results. Unfortunately, the emphasis is often put on these latter secondary outputs, rather than on the first, truly essential results. This serves the purpose of the supervisors, and their research interests, but not of the educator that should always live inside the professor and certainly not of the society that entrusted him with the educational responsibility of the youth.

5 Educating the educators to innovate: the need to reinvent academia’s mission and to reengineer their basic tool: the Educator

Academic institutions constitute a key institutional asset of Humanity. They are proud of their knowhow, they are fiercely independent; they follow strict rules of excellence.

Their core “machine tools” for the production of their outputs – highly educated professionals – are their Teaching Staff, the Professors.

To adopt encompassing processes for providing learning environments, for the students to acquire and develop innovation capabilities, Academic Institutions need to refurbish their production tool set, so that it acquires inherent innovation capabilities in all the dimensions of the academic activities.

This is perhaps the biggest challenge today for these Institutions, because it requires

massive reprogramming of the Professors mindsets and practices. The type of challenge has occurred in the past regarding research, and the academic world was able to address it quite adequately.

In this XXI century, the Innovation Mindset challenge is now in the forefront of the transformations required to happen in the Academic Ecosystem.

I hope this new Journal provides a serious and credible Forum to address this challenge and serves to promote and disseminate the best practices in operation today, so as to speed up this fundamental transformation that is required to happen in the Academic World.