Fourth Industrial Revolution Requires Soft Skills Training

Dr. Patricia Caratozzolo Martelliti, *Tec de Monterrey, Mexico*

The *Future of Jobs 2016* report released by the World Economic Forum includes a table of the skills required by future professionals in order to face the challenge of the *Fourth Industrial Revolution*. The report repeatedly uses the concept of skills stability to illustrate the degree to which, by the year 2020, particular occupations and job types are expected to require competence in new skills that have not before been part of that occupation's skill core set. Other skills have proven to be more relevant now than a few years ago with critical thinking, which was in fourth place in a 2015 assessment, occupying second place in the year 2020.

Although a majority of the engineering professional associations and employers explicitly emphasize the importance of this soft skill for successful accomplishments of the tasks in future, teaching objectives dedicated to the development of critical thinking have barely been the center of attention in engineering curricula. That is why it has become so important to incorporate specific soft skill training plans in continuing education programs, also considering the particular characteristics of the new generations of engineers, which include Millennials and Generation Z.

Two fundamental factors must be considered in addition to the design of the new cognitive and metacognitive tools in order to achieve the full development of critical thinking in younger generations:

- the strong consolidation of social networks that meant an unexpected difference in the way recent graduates see the world, think of private and public matters and become aware of themselves, and
- The exponential development of technological platforms that became accessible to them and creates a great difference between how they develop their cognitive abilities in contract to other generations.

Bearing in mind the above considerations, the need to develop those teaching-learning methods and strategies that prepare engineers as critical thinkers in the world is evident. The strength, responsibility and influence of engineers is now more important than ever, so their continuing training is crucial not only in professional skills but in all the skills and competencies for personal and social development.