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Davide Bleiner

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Introduction

In a few panel discussions, participants debate the issue on what kind of educational profile is the most suitable for making the new generations competent and successful. Some argue that a professional is uniquely distinguished by a certain *in-depth* understanding on the field she/he is mastering. Such in-depth understanding is a maturation process through hands-on experience that turns a student into a professional. The former is evaluated against a standardized set of know-hows, while the latter on a very specific history that through a number of particular projects has developed her/his mindset.

In-depth knowledge can however make the professional too narrow-sighted and limited in scope. The risk is that people can only do what they have already done. The ultimate risk is thus that we train skillful mouse-clickers! Therefore, it is argued in those panel discussions, *generalists* are to be seen as an added-value, i.e., professionals with a leadership thanks to “a vision beyond the horizon.”

Nevertheless, there is a third way, namely the “generalists” that become such because matured through multidisciplinary in-depth expertise. This is however only possible under two conditions. First, *aging*: A young person has by definition a limited project record, and only with the passing years she/he can make a way across a richer multidisciplinary portfolio. The second condition is *peer-level exchange*. Discussions, reviews, tutorials are essential to orient the maturation process and multiply the in-depth visions.

The Short-Wavelength Imaging and Spectroscopy (SWISS) workshop was such an attempt, to pave the way into the third way. Understanding that many scientific cases in nano-imaging, ultrafast spectroscopy, and materials characterization require multidisciplinary in-depth education, a number of papers have been invited to bridge such a gap. The idea was to orient, and to stimulate a process of in-depth understanding by highlighting the relevant issues on light sources, imaging, optics, data processing, diagnostics, etc. All in all knowledge, like a laser, also develops out of a noise that we call *brainstorming* and can only grow if within an *exciting* context!

Davide Bleiner