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Reshaping Food Science, Technology and Engineering Education Embracing Nutrition Integration and Sustainability

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A recent global survey taken among food professionals that included more than 700 respondents, mainly food scientists and technologists (FST) and food engineers (FE), revealed that the food industry has significant major roles impacting many education attributes. It included: academic partnership and collaboration (ranked #1), sustainability, circular economy food waste management, internships, and the most influential professional organization considering education. It was quite surprising that almost 70% of the respondents were affiliated with academia, the majority with a PhD and above. On the other hand, the food industry suffers from a very low image for many nutritionists that are promoting ultra-processed foods (UPFs). For instance, "… these products are highly palatable, cheap, ubiquitous, and contain preservatives that offer a long shelf life. These features, combined with aggressive industry marketing strategies, contribute to excessive consumption and make these products highly profitable for the food, beverage, and restaurant industry sectors that are dominant actors in the global food system" (Monteiro et al., 2019). This discrepancy between the FST and FE reflection of the food industry and a large number of nutritionists calls for a new paradigm to overcome the chasm separating these two domains. The professional study showed that the concept of enhanced integration with nutrition received a weighted average value of almost 'high' (on a Likert-type scale). This opens a new avenue for innovative and paradigm shift considerations such as mutual curricula, industrial internships, and novel methodologies for education such as project-based learning, hybrid-learning, the flipped classroom, design thinking, personalization, and sustainability. These new ideas will be covered.

Reference

Monteiro, C.A., Cannon, G., Lawrence, M., Louzada, M.d.C., & Machado, P.P. (2019). Ultra-processed foods, diet quality, and health using the NOVA classification system. Rome: FAO 48.

Keywords

Innovation, nutrition integration, sustainability, education, ultra-processed foods