



TAL 797 – Seminary

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DIGITAL TRANSFORMATION AND NEW TECHNOLOGIES IN SENSORY CONSUMER SCIENCE

PhD student:: Fernanda Nascimento da Silva

Adivisor: Valéria Paula Rodrigues Minim – Departamento de Tecnologia de Alimentos (DTA)

Sensory analysis is a very important science for academic research and for the food industry. It allows investigating the perceptions, reactions and sensations of consumers about the characteristics of a product, and can be applied for various functions, from product development to marketing strategies for its maintenance in the market. However, for this, the techniques must be used in a correct way, having an understanding of the objectives, methodologies and data analysis, being the statistical methods crucial for the analysis and interpretation of the results. Traditionally, sensory analysis is divided into three distinct groups: discriminative, descriptive and affective methods, and over the years, researchers in the field have improved the techniques associated with each of these methods. As technologies have advanced, new approaches have been implemented in sensory science, including the use of software for data collection and analysis, the use of biometrics to evaluate physiological and emotional responses, such as facial and voice recognition techniques, the use of virtual and augmented reality, machine learning for sensory data modeling, panel evaluators, or sensory attributes related to physicochemical measurements and acceptance. And the use of robotics and computer vision for food packaging responses, and food appearance using digital images. In this context, the use of new technologies in sensory analysis can contribute to the optimization of data collection, and obtaining more complete information about products and consumers. It also allows the evaluation of the results in a more robust and visual way, and these data can be used to obtain prediction models, thus helping in the development and maintenance of products in the market and in the marketing direction.

Keywords: Sensory analysis, technology, artificial intelligence.

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