Food models diffusion for Knowledge transfer

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Models and scientific software are currently hardly shared among and (re-)used by stakeholders in the food domain, even though they are research products that can support the transfer of knowledge from academia to industry or to students. Scientific software generally incorporates models that capture fundamental domain in an explicit format, i.e. math equations, this makes them relevant knowledge transfer medium, under the condition that sufficient contextual information is provided along the software to favour the effective diffusion re-use by users.

Hence, what academia should do to support a better re-used of the scientific models ?

To provide an answer to this question, we reviewed selected approaches, best practices, hurdles and limitations regarding knowledge transfer via software and the mathematical models embedded in it, to provide points of reference for the food community. In this purpose, we focused on three aspects. First, the publication of digital objects on the web, which offers valorisation software as a scientific asset. Second, building transferrable software as a way to share knowledge through collaboration with experts and stakeholders in the domain of food science and technology. Third, developing food engineers' modelling skills through the use of food models and software in education and training.

By highlighting miscellaneous approaches regarding scientific software, this communication aims at promoting knowledge transfer between and within academia, industry and other stakeholders, and at opening prospects for synergistic efforts that will allow the food community to face the oncoming challenges.

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