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LESSON PLANS REPOSITORIES AS TOOLS TO MAP DIGITAL COMPETENCES IN SCHOOLS WITH THE EUROPEAN DIGCOMP FRAMEWORKS



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Abstract:

With this paper we want to share a proposal to use data gathered with online repositories of educational lesson plans to create a qualitative visualization of the digital skills exercised 1) by teachers according to the DigCompEdu framework, 2) by students according to the DigComp 2.2 framework and 3) expressed at school level according to the DigCompOrg framework.

The starting point is the digital platform "Observatory" (Sugliano, Cavallini M. 2017) developed as part of the strategic project of the Italian Liguria Region, named Liguria Digital School. The Observatory is an information system that manages a plurality of data and services to the diversified types of its users. The main function is that of a repository of innovative teaching plans based on an original application profile developed taking into account the international frameworks for metadata of educational resources of (e.g.LOM IEEE, Dublin Core, W3C Schemas), the Italian official documents (e.g. Piano Nazionale Scuola Digitale) and continuously updated based on the indications and feedback of its users.

But the mere repository function - while precious for discussions between teachers - can constitute an element of weakness for digital platforms centered on the documentation and sharing of educational resources. Being "only" a repository of educational resources has in fact proved to be insufficient to guarantee the sustainability of platforms of this kind both nationally and internationally: for example, we can cite important experiences now completed such as the GOLD project in Italy or the ARIADNE project at European level.

Added value not only for sustainability over time, but for the increase of concrete results for its users, is the creation of models and tools to select, represent and make usable for different purposes, the data that emerge from the resource archive.

An important innovative function, is the one that allows you to view a mapping of the digital skills related to the lesson plans documented on the platform. To this end, the items of the classification system of the Observatory platform have been mapped on the 22 skills of the DigCompEdu framework - as evidence of the skills put in place by the teachers - on the 21 skills of the DigComp 2.2 framework - as evidence of the digital skills to which they have been exposed students - on the 74 descriptors of the DigCompOrg framework as evidence of the competence expressed at the Institute level by educational institutions.

A statistical analysis system and a data dashboard function, allows you to display on graphs the areas of digital competence more and less exercised by teachers and in schools to provide evidence of the areas to be developed; it will therefore be possible to use the platform to search for lesson plans suitable for bringing digital skills that are less practiced into the classroom.

These data will be important for school stakeholders and for the public administration who can have an overall picture of the trend of the digital development of human capital in the contexts from which the educational documentation.

The Observatory platform - ready for reuse on the basis of the practices of the Italian public administrations - can constitute an important support tool for the development of digital culture thanks to the teachers' self-monitoring functions and an important policy making tool thanks to the actions that interested parties can decide based on the data returned by the dashboards.

Keywords:

Lesson Plans, digital competences, DigCompEdu, DigComp 2.2, DigCompOrg.