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Overview of Modern Physics Learning Objects in Brazilian Government Repositories

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From the potential of the virtual education to a powerful ally in the teaching-learning process: digital technologies, which despite its potential brings with it great challenges, due to the plurality of resources and innovations provided by it. Students and teachers are surrounded by technologies that cause interest and, consequently, the use of these novelties begins to intensify, then emerges the need for a favorable use of these technologies to education. At the same time, it is consensual among physicists, at an international level, the need to introduce contents of Modern and Contemporary Physics in the curricula of Physics of High School. For many, the absence of the subject is unacceptable, since it was the century in which revolutionary ideas totally changed science and can arouse students' curiosity and help them recognize physics as a human endeavor, to make contact with the exciting world of science, current research in physics and still help to understand the world and the current digital culture. Many researches have been based on the understanding and the proportion of use of Digital Technologies of Information and Communication as resources for the teaching-learning. Among the difficulties it's to the plurality of resources found in the Internet and the time spent to find quality resources. Therefore, it was sought to identify which resources of modern physics are available in the repositories subordinated to the Brazilian federal government that can actually assist teachers in the teaching-learning process. Among the research questions that this paper seeks to answer are: what modern physics resources were developed and publicized? What are the main themes? What were developed in Brazil? Have they been funded in what way? Developed by whom? In this sense, we resorted to the repositories of educational resources linked to the Brazilian government, they are: Teacher Portal (Portal do Professor), International Bank of Learning Objects (Banco Internacional de Objetos de Aprendizagem - BIOE) e National Infrastructure of Learning Object Repositories (Infraestrutura Nacional de Repositórios de Objetos de Aprendizagem - INROA). Among the results, it is possible to point to the great amount of Brazilian resources that have auxiliary didactic guide to the teacher, elaborated from an edital financed by the Brazilian government and that the majority of the foreign resources are simulations, elaborated by the groups of the Phet Colorado and Wolfram.

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