

Software engineering for the inventory, the protection and the promotion of the algerian geological heritage

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Algeria, with its 2,381,741 km², contains a wide variety of exceptional geological and geomorphological sites. The quality of these sites makes their preservation as well as their development a major objective for the geoscientific community. The latter has a responsibility to raise awareness among political authorities and local populations in the importance of protecting these sites. Their sustainability will be scientifically, economically, and culturally beneficial. Indeed, these sites can be a significant economic driver in the development of geological tourism, crafts and small businesses.

The geoscientific databases have become a necessity for basic and applied research. They are equally important for the preservation of geological heritage. Among other things, the geoscientific databases enable making thematic maps, combining data of different types (text, images, tables, etc.) and doing targeted searches. They contribute to the decision-making by public authorities and the involved economic sectors, and promote scientific research. The databases can also be an effective teaching tool for students and researchers in geology, and a practical guide for tourists wishing to discover the beauty of Algeria.

The use of information and communication technologies (ICT) is, in our opinion, the most appropriate tool to achieve this objective. Our application, "GéoAl" falls within this framework. Its objective is to provide an inventory system integrating GIS, websites and databases, to become, with the collaboration of the geoscientific community, a reference tool for broadening knowledge on exceptional geological sites existing in Algeria. It is also a plea for an effective management that ensures the protection of these sites while allowing the economic development of the regions and of the indigenous populations.

Keywords : geological heritage, inventory, GIS, databases, protection, valorization