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DESIGNING A WEB PLATFORM PARADIGM FOR SATELLITE IMAGES BASED ON USER PREFERENCES

Abstract

Satellite images give a very helpful information in different fields such as environmental monitoring, disaster management, security and defense, mapping, marine monitoring, agriculture and many other applications.

Currently, there are several platforms providing the service to search, share, and manage satellite images. Typically, satellite images on these platforms are divided into patches, and each patch has different labels representing their content, these labels could be: 'water', 'forest', 'urban', among others. Each of these labels has a particular priority according to their predominance in the patch of the satellite image they represent.

With the described above paradigm, users must use the priority order of labels established in the database. However, each user is different, and everyone seeks and applies satellite images according to their needs, so the priorities are different from one to other users.

That is why in this paper we propose a new paradigm for an adaptive platform on which labels of the satellite images patches may be changing their priorities according to each user. The priority of the labels will be adapted in a personalized way depending on the activity and history search of each user. In that sense, a patch labels will have different priorities depending on the user requirements.

To implement this paradigm platform one must apply machine learning and artificial intelligence techniques.