

Using smartphones in the field to hunt geological treasures – experiences from Gea Norvegica Geopark, Norway

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Being out in the field is essential in learning about geology. Individual observations in the field and hands-on geology give an extra dimension to indoor classroom teaching. A classic way of teaching in the field is to let the students observe by themselves and take notes, and/or the teacher guides the students around. This works well as long as the teacher knows the geology and is a good mediator, or if the arrangements are thought through and the students are well prepared. Unfortunately, the enthusiasm of learning has a tendency to decrease with the age of the students, and this combined with the general comprehension that geology is difficult and abstract, makes the approach to geology in many cases difficult.

Today's technology of mobile devices makes it possible to approach geology in new ways, which in the field will add another dimension to the learning experience. There are several ways of using smartphones in teaching geology, but we will focus on the applications called TurfHunt and Smartguides made by the Icelandic company Locatify.

TurfHunt is a game with a set of geographic locations, created by a "game owner". People can be invited to join the game, and must physically reach the locations in the game in order to score points. For additional points there may be a set of multiple-choice questions on each location that must be answered. A scoreboard is continually updated to reflect the score of each player/team. Smart Guide is a guided audio tour including photos and maps. Smart Guide can be enjoyed on location using the GPS activation or from anywhere else (e.g., in the classroom) by browsing the photos, maps and listening to the guides. Both applications give us the opportunity to introduce geology in a fun but still informative way. The two applications can be used separately, but also together, e.g., to find an answer to the TurfHunt game in the Smartguide info.

Gea Norvegica Geopark has, during Autumn 2013, tested these two applications on school children in local schools, and will continue this work during Spring and Summer 2014. They have also been tested on a broader audience at various geopark locations. So far it has been a success in making learning fun. The school children immediately paid attention to the tasks and actually worked hard to find ways to find information for correctly answering the TurfHunt questions. The most frequently asked question has actually been: when can we do it again? Are there other TurfHunts and audiotours in the area, and can we play this outside school as well?

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