Visual Crowds for Geo- and Environmental Sciences

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Duration: One Day
Venue: Internationales Wissenschaftsforum Heidelberg (IWH)
Room H2.22, Hauptstraße 242, 69117 Heidelberg
Date: Tuesday, December 9th, 10:00-18:00

Motivation

Crowdsourcing has been a buzzword since its conception by Wired-Author Jeff Howe. In the approximately past ten years, thousands of websites, companies and research articles popped into existence. Now, the term crowd* (e.g. crowdfunding, crowdcreativity, etc.) reflects that we are facing a diversification and possibly babylonization of approaches.

Goal

In this workshop, we want to tie two threads of research together: human computation is an important factor in both geoscience and computer vision research. In geosciences, Open Street Maps is one of the major buzzwords, but this is only one of numerous recent advances. In environmental sciences huge amounts of data are collected, such as high-speed recordings of fluids, thousands of meters of glacier ice drilling cores or satellite data depicting e.g. sand transport in the Sahara desert. In computer vision everything started out with the ESP Game, Peekaboom and the LabelMe tools. Today, crowdsourcing is used in almost every discipline dealing with image data.

However, these communities rarely talk with each other. Publications are mainly focused at the disciplines' top journals with little to no overlap. Heidelberg University has been an international leader in the development of OpenStreetMap, reflected e.g. by its graduate school CrowdAnalyser dedicated to this topic. The Heidelberg Center for the Environment connects a wide array of research fields ranging from natural sciences to social and cultural sciences. The Heidelberg Collaboratory for Image Processing is one of the largest institutes for computer vision in Germany with more than 80 researchers working in all subfields ranging from machine learning over early vision to scene parsing.

Workshop Program

We believe that Heidelberg University is the optimal place to connect these largely disparate strands of research. We are therefore organizing a one-day workshop with several invited speakers from these fields to get known to each other. We will first focus on reporting recent and old learnings and the history of crowdsourcing in the respective fields. Then, we will start finding overlapping ideas, possible collaborations and a roadmap for the next years of research. The evening will have a nice social event in the heart of beautiful Heidelberg.