

From fun to insight – virtual earth tools of tomorrow

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ABSTRACT

Earth – the blue planet floating in space. This image has had a major impact on collective perception since a photo has been taken for the first time from a rocket overcoming gravity. It envisions how beautiful, fragile and limited our planet is. Nowadays more and more satellites circle around the earth. Equipped with diverse sensors they are recording Terabytes of data from the geo-sphere per day. Until recently only the science and research community had privileged access to remote sensing data from sky. However cutting edge web-services such as “google earth” are now disseminating satellite images to the broad public. Hybridised with street vector maps and a huge amount of POIs valuable applications have been implemented. You can plan your next holiday trip in 3D, teachers use the tool for training kids in geography. Al Gore’s vision of a “digital earth” initiative seems to be nearly accomplished. But, how will those services develop further? What may be the next functionalities and possible impact on society on the long run? Today it makes fun to fly from cosmos view down to your own pool or to calculate the shortest route to the next pizza hut. Is that all? Consider the potential to “geo-enable” society. Not just to visualize the topography of the earth but to analyse and understand the ecological and economic impact of our modern life style patterns on the geo-sphere. E.g. how much earth does an inhabitant of the “1st world” need of the “3rd world”? The average European consumes 24m² just for his orange juice. Or could we monitor the progressive sealing of soil in real time? In Germany 15m² per second are paved for settlement and traffic areas. What could an integrated “virtual earth” tool provide in the future?