WebGIS Application to Visualize Historical Reclamation Research Sites Using a Modified QGIS2Web Framework[1]

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Abstract: The American Society of Mining and Reclamation (ASMR) has recently sponsored projects that connect historical conference proceedings and journal papers on land reclamation with geographic coordinates. The major approach is to geocode these articles as informational placemarks using Google Earth. However, this approach cannot provide users with convenient concurrent access to the articles and their location contexts on a digital map. Thus, we propose a Geographic Information System (GIS) web application interfaced with the Web 2.0 technology as a technical solution. An open-source QGIS plug-in tool QGIS2Web is capable of integrating web mapping application into Hypertext Markup Language (HTML), JavaScript, and Cascading Style Sheets (CSS) as a Web 2.0 framework. This framework allows each article associated with historic land reclamation activities to be displayed in the Internet browser when the users navigate through each placemarks in an online base map – OpenStreetMap. To facilitate the display of the placemarks under different categories (e.g., publication years, technical divisions), a table of contents panel is included to the interface of this application. This tool can potentially be hosted on Amazon Web Service S3 or the ASMR website for comprehensive viewing and inquiry.

Additional Keywords: ASMR; Web 2.0; QGIS; Placemark, QGIS2Web, HTML

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