ストーリーマップを用いた地理的巡検コンテンツの整備と再利用

Contents improvement and circulation of geographical field excursion using storytelling maps

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Geographical field trips (excursions) are frequently carried out in various places with guidance by geographical or local experts, but such opportunities are not always open to a vast amount of people because of the limitations in timing and number of participants in an event. Whereas, aggregation and diffusion of various information through Internet services including online maps and SNS (social network service) seem to have a potential to contribute to the widespread adoption of the content (knowledge) of geographical field trips, although such “virtual” showcase may not often remain in the mind of viewers. In this study, we test the validity and efficiency of online-based story maps that integrate geographical field trip contents as a “story” to enable its virtual experience for general people. In such story maps, discrete geographical knowledge strongly related to place can be effectively connected in a timeline or "spaceline", in which a viewer can follow the story as a virtual experience to enhance its impression. This system also has a potential of offering the opportunity for such people to follow and experience the “real” field trip by following location- and timeline-based stories shown on the online maps.
The workflow of the present study consists of 1) implementation of a field excursion, and 2) the development and online publication of the excursion content. First, in the excursion carried out in the field, diverse types of information provided by expert guides are collected using digital cameras, voice recorders and a GNSS receiver. Next, with support of Kiki-kaki Map software, the GNSS logs are temporally and spatially associated with audio and image data, and text information is manually added to the image data. These organized image, voice and text data are put into online maps (ArcGIS Online and PhotoField) and the characteristics of each system are compared to optimize the workflow. Text and image data are also collected in the field using an SNS (Twitter), some which are also compiled into the online story map. Established online story maps are also assumed to be used by other users, who will be able to follow the story that is shown in the online map with an ability to access to the excursion content in the field, enabling individual field excursion. In addition, the impressions of the users at this time are also collected using the SNS to be utilized to enhance the excursion content.
We show a case study of geographical field excursion held in June 2015 at Narimasu (Tokyo) and Wako (Saitama). From the comparison of story map services, their advantages and disadvantages are summarized, and the enhancement of the above workflow is provided. As a result, the guide contents of the excursion (expert knowledge) are arranged into a time series on the map, showing the usefulness of a story map with a high accessibility by a large number of people. It is also suggested that the information aggregation through SNS can additionally contribute to enrich the excursion contents by the participants (a variety of opinions and impressions) as a collective intelligence. This system is expected to be in possible use by more general tourist information and school education. This study is supported by JSPS KAKENHI 26560154.

キーワード：巡検、SNS、ストーリーマップ、位置情報、専門知、集合知
Keywords: field excursion, social network system, story map, location information, expertise knowledge, collective knowledge

