

Public Participation GIS for traditional event and evaluation of GIS consensus factors

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Abstract: The object of this study is to analyze user characteristic of the usage of "Dashi(festival car)" location system using Web-GIS in traditional event "Kumagaya-Uchi feswatival" in Saitama, and to clarify factors which contribute to the appearance of expectation about regional effects brought about by Web-GIS using Covariance Structure Analysis.

Keywords: Public Participation GIS, Covariance Structure Analysis, Geo-Spatial Society

The term "public participation geographic information systems" (PPGIS) was conceived in 1996 at the meeting of the National Center for Geographic Information and Analysis (NCGIA) in the U.S. to describe how GIS technology could support public participation for a variety of applications with the goal of inclusion and empowerment of civic activity.

With the spread of mobile phones and the Internet, communications "person (point) and person (point)" have come to be frequently performed in the information space. Representative communication tool on the Internet, SNS (Social Networking Services) are becoming widely used. Such a community, which is formed from the communication of the information space is expected to lead to civic activity by an interest in the region.

The function of visualization of GIS is considered as a tool for connecting the region (poligon) to a person (point).

In Japan, from Nakhodka oil-spill accident

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that occurred in 1997, PPGIS has been used as a information sharing tool such as disaster information in an emergency such as a disaster.

Information in the Great East Japan Earthquake (2011) and the Kumamoto Earthquake (2016), the map or the like for the understanding and volunteers support the damage situation is published, this way, that you can trust help in disaster response and recovery and reconstruction of the affected areas aggregates, such as the contents of the support of the contents and safety confirmation of the information necessary for the affected areas has been published together with the map.

"Sinsai.info" (sinsai.info, 2011)

"ALL311: the Great East Japan Earthquake collaboration information platform" (Earth Science and Disaster Prevention Research Institute, 2011)

In addition, in ordinary times, PPGIS is beginning to be used in the collection and dissemination and civic activities of the information that was in close contact with the region. PPGIS is adapted to be used as a tool for connecting the region.

After the East Japan Earthquake (2011), PPGIS has been utilized for publishing damage information and day-to-day use in ordinary times has been used as an information sharing tool. Although

hazard maps by the GIS in the local governments have been published, also in order to these can be effectively utilized in an emergency, the promotion of day-to-day use of PPGIS in normal times will become important.

In this study, we equipped GPS to "Dashī (festival car)", and the position of "Dashī (festival car)" was displayed in the Web-GIS. In addition, it was published in the "Kumagaya-Uchiwa festival" held in Kumagaya, Saitama Prefecture. Furthermore it was obtained by questionnaires and evaluation results of the relationship between the motive and usage needs utilizing this system to a system user. These analyzes, the covariance structural equation was carried out by evaluating the relationship between the user attribute. Furthermore, recognition that not only the festival and System for In this study, in order to spread the available PPGIS in various scenes of the neighborhood is a technique that can PPGIS results in effects on communities it is necessary to obtain.

Finally, to understand the relationship between user attributes and usage needs of spatial information to be delivered by the Web-GIS, analysis and study of the relationship between the expectations for the effect of the interest and the region to regional activation and regional It aims to carry out. Thus, to understand the factors for the spread of PPGIS.

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