

Effective information transmission of activity in the North Ibaraki Geopark using SNS

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The 285 guides(interpreters) are active in the North Ibaraki Geopark. They show and discuss their activity in own group in the Facebook. The system for transmission of the information of their activity using facebook page was constructed. We will present the results and effects of this system.

Keywords: SNS, North Ibaraki Geopark, Facebook

Use of social media in Geopark

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We report the use of social media in Geopark.

Keywords: Geopark, Social Media, Facebook, Today's Incident, Landscape Photography

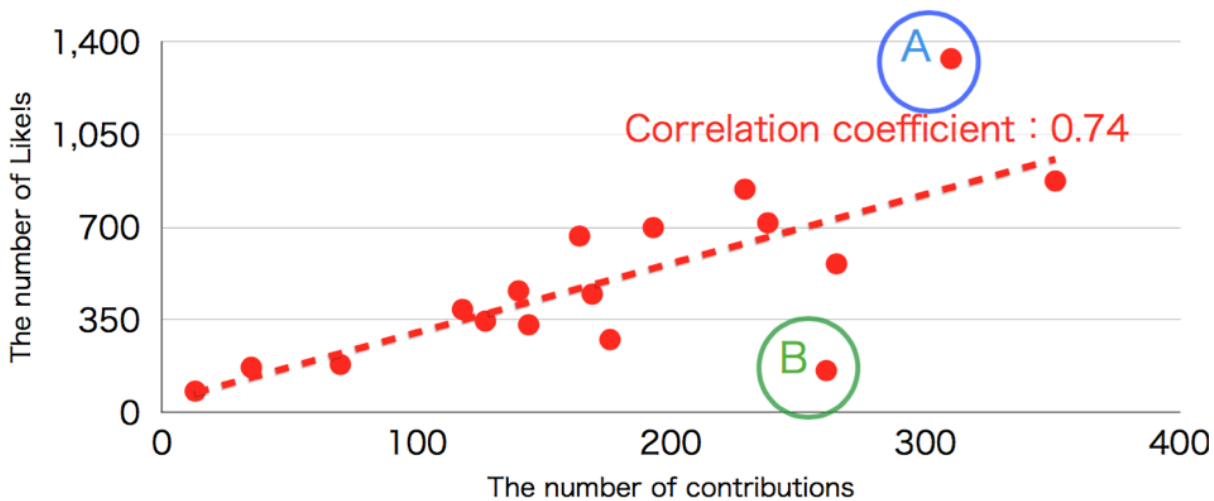


図2. 投稿数といいね！の数の相関

Figure.2 Correlation of Contribution and Like!

The number of contributions and the number of Like!s strong correlation.

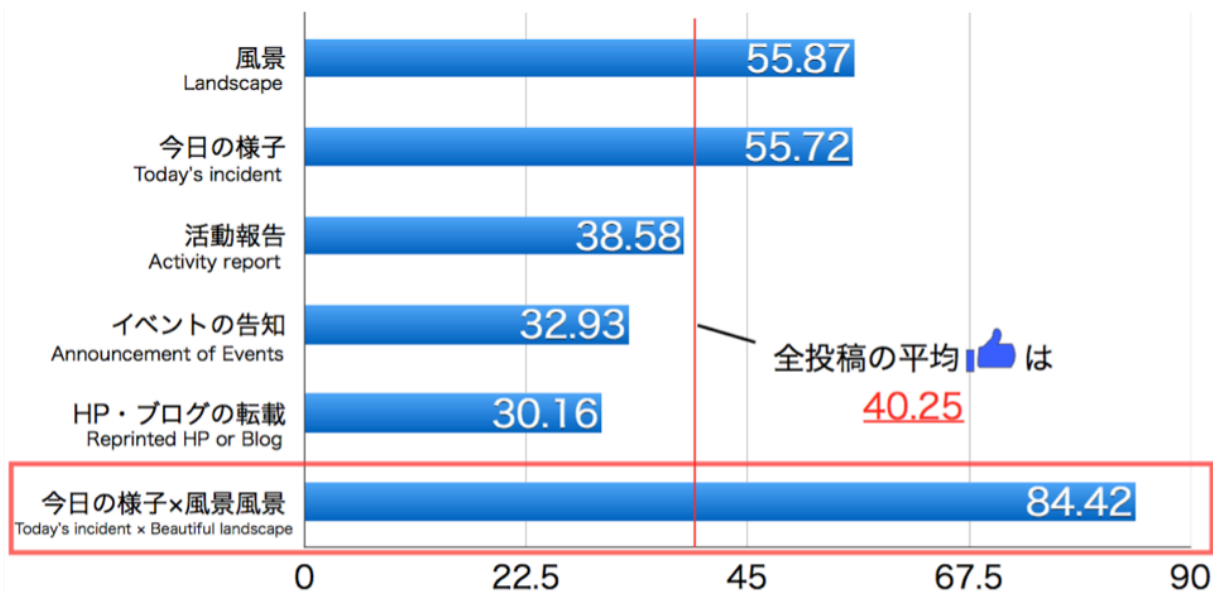


図5. カテゴリごとのいいね！の平均数

Figure.5 The average of number of Likes by Category

There is a lot of Like! in the contributions of beautiful landscape picture and today's incident. In addition, it becomes a lot by those combination.

Portal Site for Activities

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Various types of activities are available at the San'in Kaigan UNESCO Global Geopark. The current problem is that visitors often stress out when they have to visit different websites in search of necessary information before choosing what they want to do as an activity. Geo-canoe is one example. There are some geo-canoe businesses in the geopark and they are probably rivals. But I think one can discover one's own strength by getting to know the others. By introducing each other on each website effectively, We can provide useful information with visitors and expect the boost of economic effects over the entire area. Aside from geo-canoe, the San'in Kaigan Geopark should prepare many options of different activities throughout the year to meet visitor's satisfaction. And the council has created a portal site, allowing visitors to search in a shorter time. CMS function was introduced. The system is compatible with smartphones for practical use.

Keywords: activity, CMS function, compatible with smartphone, network, homepage

Citizen science of aurora

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Human beings have observed unusual variations in the heaven and recorded them through the ages, and people in the present day share a large amount of the beautiful digital images via internet. The purpose of this study is to utilize these social assets for natural science. More specifically, we conduct 1) archiving the old records about aurora phenomena in historical writings, and 2) a citizen science of aurora monitoring over the world. In this presentation we report our collaborative challenge among the humanity, natural science, and citizen science.

I felt it, did you? Sensor network and Social media can collaborate for disaster mitigation

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Kim et al. (2015) has developed a community based MEMS sensor network in Yokohama. The project aims to distribute the sensors every several hundreds meters in the area to provide information more closely linked to community's life. The network consists of sensor unit utilizing 12 bit MEMS sensor and Raspberry pi, which detects strong motion and process the data. In this study, we linked the sensor network with social media to share the triggering information among the community for future disaster mitigation.

In the sensor network, once the strong motion is detected, each sensor unit sends the triggering information to the main server. After all the information is collected, the server checks the status of the sensor unit which didn't detect the strong motion. As long as it was not break down, the 'not triggered' unit will respond to the server to inform "I am safe" means it is working but didn't detected a strong motion. Then the information is share via social media among the community. As one can imagine, 'not triggering' is very important first order safety confirmation as well as 'triggering'.

For the strong motion detection, we utilized the artificial neural network (ANN) as the pattern recognition algorithm. ANN works well under the low signal to noise ratio environment operation. However, noises which have similar pattern of strong motion signal still make false alarm. To overcome the issue, it might be helpful archiving both user's and sensor unit's triggering information in the system, and set up the site specific detection algorithm.

Keywords: MEMS accelerometer, Sensor network, Twitter, Facebook, Raspberry Pi, earthquake