‘SAPPORO SCIENCE MAP’ PROJECT TO CONNECT ‘SCIENCE’ AND ‘PLACE’ BY WEBLOG

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Abstract

‘Sapporo Science Map’ is a web project which is internet-based and related to local community for education of science communicators. The website is made by students where various geographic spots in the city are introduced in terms of related scientific stories. The basic concept is to connect ‘science’ and ‘place’. Connecting science with different areas is a good strategy to gather wider interest in science communication. What conditions are essential to make such connections successful is discussed.

Keywords: WWW, weblog, map, local community,

1. Introduction

At CoSTEP, we provide citizens with education program in science communication. As a part of curriculum, students conduct several science communication activities in order to acquire practical skills and to know what is needed in the real society, as well as knowledge. In this paper, one of such activities is introduced which is internet-based, and related to local community. It is ‘Sapporo Science Map’.

It is a website made by students where various places in the city are introduced in terms of related scientific stories. For example, the Sapporo TV broadcasting tower is described in terms of its iron truss structure. The tower is introduced not only as an attraction for citizens and visitors, but also as an artificial object based on science and technology. Another article is about a symphony hall “Kitara” which has an excellent pipe organ. There mechanism of pipe organ is described.

On the web page, each article is linked to the specific point of the map of Sapporo (marked by a graphic icon) and you can see the place which the article is referred to. On the other hand, you can see the map with many icons which are linked to each article and so you can choose any article via the map.

The project is planned to provide students with experience of science communication. For that purpose, we set two (different though related) goals. One is how to design the project adequate for training students, and the other is how to make a good website for science communication with the website’s visitors.

2. Concept

The basic concept of the website is to connect ‘science’ and ‘place’. People who are interested in Sapporo but not in science could find science familiar and interesting by viewing it from the window of Sapporo city. They also discover novel attractiveness of the city. On the other hand, people who are interested in science but not in Sapporo could discover novel attractiveness of the city via scientific point of view.

In general, connecting different areas is useful to attract wider interest. For example, science and art are often connected for the purpose. Today you can find not a few exhibitions and events in science museums about 'science and art'. As another example, famous cartoon characters or celebrities are connected to science to promote the latter. However, such connections are sometimes very 'expensive' and not always successful.

Such a connection strategy might be very effective, sometimes, but usually costs very much because of copyright or guarantee. In other words, it means that you pay much money to 'buy' attractiveness of the cartoons and celebrities for science. So the strategy can be used only when the budget is much enough. It is difficult for small organization or individuals to use the strategy.

What's more, using cartoon characters or celebrities tends to be monotonous. For example, if you try to use them to promote science, all you can do is just to put them 'nearby' the scientific contents to attract people. At most, you can make them 'talk' about science. The effectiveness of such connections are mostly depend on their 'innate' attractiveness. There is little room for creativity or elaboration in making such connections. (Of course, there are some excellent exceptions which make use of such 'attracters' very effectively.)

When it comes to combining geographic points with scientific stories, there are various combination patterns. 'City' has its own information space. It is not a single point but a complex of variety of geographic points. So you have to be very 'creative' to find intriguing combination between place and science. Such creativity is the important source of attractiveness of the contents, though the city itself is also attractive to residents and visitors.

In conclusion, connecting science with different areas is a good strategy to gather wider interest in science communication, and it's more effective when the area to be connected has its own 'information space' and lets communicators find their own, creative connection patterns.

3. Making Articles

5 students write articles by turn. Each student writes an article once two weeks. They investigate, interview, take photos, draw illustrations and write all by themselves.

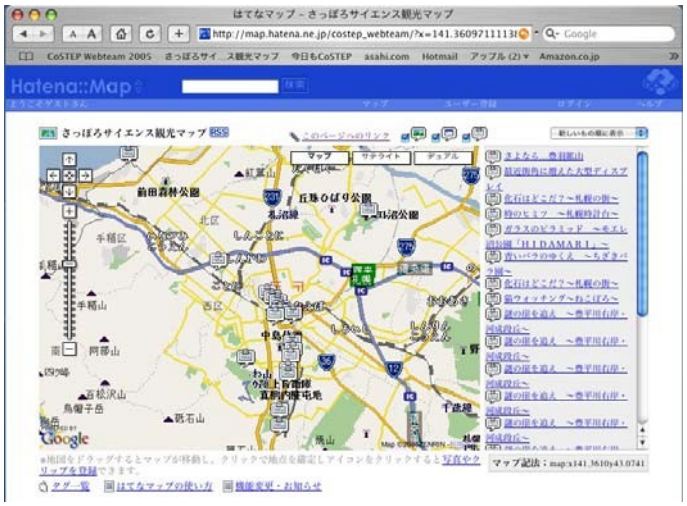
We prepare two different web sites: 'the background site' for blushing up articles, 'the foreground site' for publishing. At first, about a month before their publication, they upload their articles on the background site, which is visible only to them and teachers. Their articles are commented by themselves and by teachers and they rewrite them before they copy them to the foreground site, which is visible to all.

"Peer review" system mentioned above is introduced to improve scientific accuracy and readability of articles. They advise and exchange information each other. The system is also effective to motivate students continuing writing. The background site has a basic function as groupware. It is composed of BBS, calendar, and file sharing system. We also make use of the feature to motivate each other.

In general, even if a website has very impressive contents, it's difficult to be revisited by users. If you want people to repeat coming, you need to renew the contents frequently. Thus, continuous and frequent renewal of contents is very important for the website to be accessed. In that sense, how to motivate contents creators (=students) is one of essential issues.

4. Web Technology

We make use of weblog (provided by commercial company 'Hatena') combined with Google Maps API (application service to build a scalable map where any given point can be marked by a graphic icon and linked to any web article). Weblog is very easy to handle, and you don't need any special programming or designing skill to build web contents. Besides, as mentioned before, we prepare two different web sites: 'the background site' and 'the foreground site'. The former has basic function as groupware. Total cost for using that service is approximately 2000 yen (about 17 US dollars) per a month.



By virtue of these skill-free system and low cost operation, students can focus their minds on developing contents themselves. It also means that this activity can be spread easily to other communities. To propagate specific activity of science communication, these features are very important.

5. Accomplishment

From 20th Dec., 2005 to 30th Mar., 2006, there appeared 36 articles. Renewal frequency is 1 article per 2-3 days. Approximately 11,400 accesses have been accomplished. The website has been cited from many weblogs and other cites. It was also reported on the local newspaper (Hokkaido Shinbun).

Students are also offered to write scientific columns based on the website articles on the local newspaper. It starts this April. They also appears CoSTEP radio program regularly to introduce their activity. It is a very good training for students to convey the same message by using different media.

6. Reflection

There are not so many comments on the weblog than we expected in advance, it means that we don't have enough mutual communication with readers. Maybe the reason is that articles look very 'official' or 'anonymous' and difficult for readers to feel familiar enough to leave comments. It might have been better to make articles more 'personalized' or somewhat 'incomplete'.

7. Future Plan

This project has shown practical evidence that science communication without much cost or specific technical skill is effective to some extent. It is also an example of science communication which utilize geographic and human resources of certain local area. It is meaningful to extract know-how from this project which can be adapted to communities other than Sapporo city. It is hopeful that there will be many science maps in other cities in near future. Besides, 'off-line' tour traveling through places cited in 'Sapporo Science Map' is planned.

8. In the Context of Science Communication

How should this project be evaluated in the context of whole area of science communication? 'Sapporo Science Map' provided people with unique chance to get interested in science. It also helped us to rediscover resource in our local community. On the other hand, the project was effective for education of science communicators. Students must connect a certain geographic point to a certain scientific issue. They had to be 'creative' to plan articles. They also acquired various contents making skills such as composing contents, investigating data, interviewing, taking photos, drawing illustrations, and writing, as well as communicating with website visitors through this project.

Of course, the project has many things to be improved in the future. Besides, there are many other important issues to be considered in the area of science communication. However, it is not appropriate to require a specific activity of science communication to meet 'every' needs. The more important thing is to look constellation of each activity in the whole area of science communication. I think 'diversity' of activities is very important in today's developmental stage of science communication. In that sense, 'Sapporo Science Map' project can cope with other science communication activities to supplement each other.