

# Participatory Media and e-Culture

**National Institute of Informatics (NII)**

**Asanobu KITAMOTO**

**<http://agora.ex.nii.ac.jp/~kitamoto/>**



# Motivation

- Internet is now recognized as **an infrastructure for aggregating and sharing the power of people.**
- User participation is one of the key concepts in “**Web 2.0**” movement.
- How can we design user participation for e-Culture?



# Merits of Participation

- **Locality** : ‘where’ is important.
  - **Diversity** : ‘what’ is important.
- 
- **Locality** : local information that only people being there can collect (e.g. degree confluence project)
  - **Diversity** : collect partial knowledge or personal ideas (e.g. Wikipedia)



# Examples

- **Locality**

1. Photographs of Past and Present
2. DSR Imaginary Museum
3. Citadel of Bam

- **Diversity**

1. Senga Silk Road

- **Locality + Diversity**

1. Digital Typhoon and Typhoon Front



# Case Study: Digital Silk Road

- The goal is to create the **cultural digital archive** of Silk Road.
- Target users are not only experts, but also the general public (and kids).
- **Web as a platform** – every archive and tool is designed for the Web.
- **Integrating heterogeneous data**, such as images, text, maps and videos.

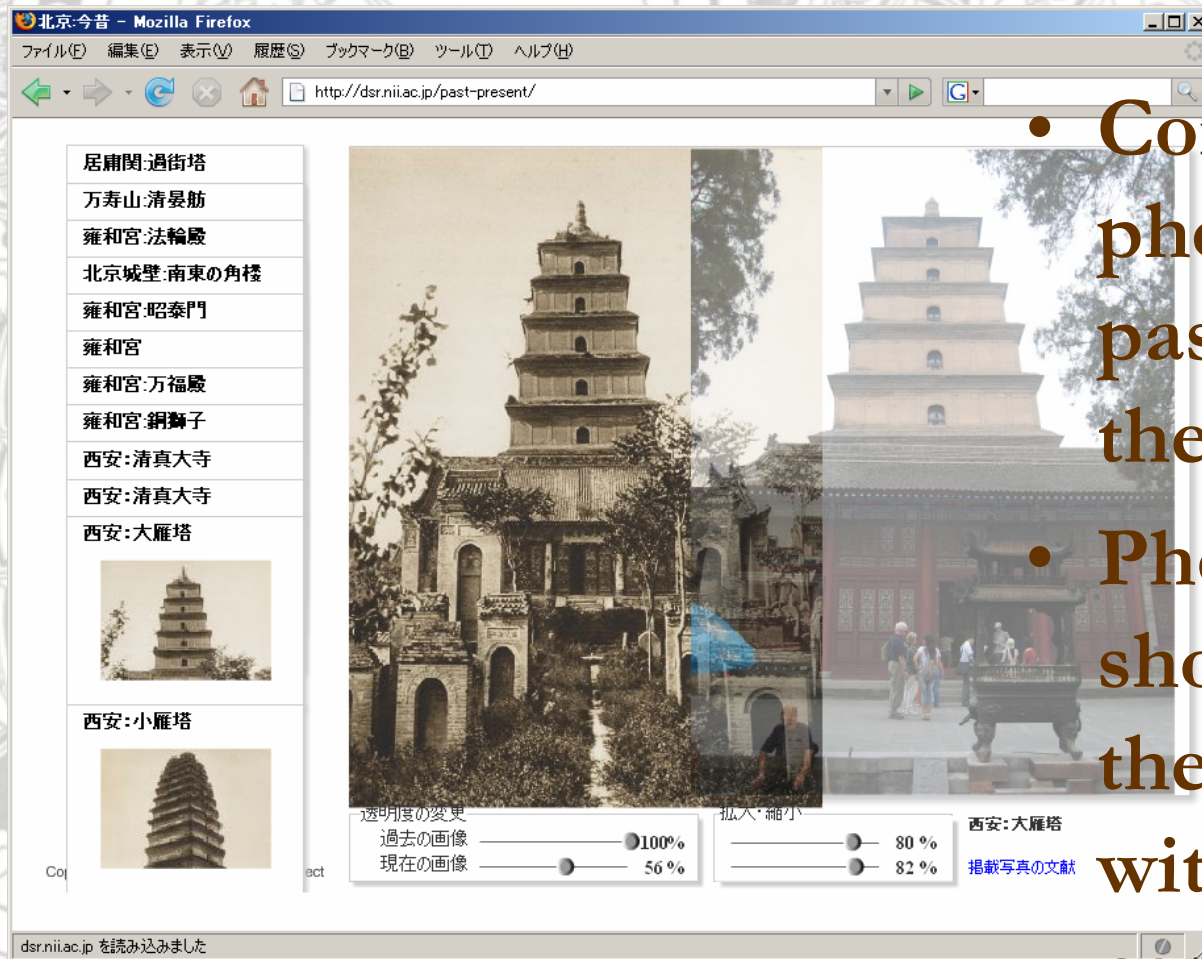
# DSR Project - Portal Site

## <http://dsr.nii.ac.jp/>



# Photographs of Past and Present

<http://dsr.nii.ac.jp/past-present/>



- Compare photographs in the past with those in the present.
- Photographs should be taken at the same place with the same composition.



# How Can We Collect Them?

- You need to go to the place to take pictures, but, too many places to go by yourself.
- What you need is volunteers (or collaborators) being near the place.
- To ask volunteers, it is important to show **small tasks that are clearly defined and easily to be done.**

# DSR Imaginary Museum

<http://dsr.nii.ac.jp/imdsr/>




- Collect photos, videos, and music recorded by the general people.
- Show them on a map with basic metadata.
- To become a collective album.



# Citadel of Bam

<http://dsr.nii.ac.jp/bam/>

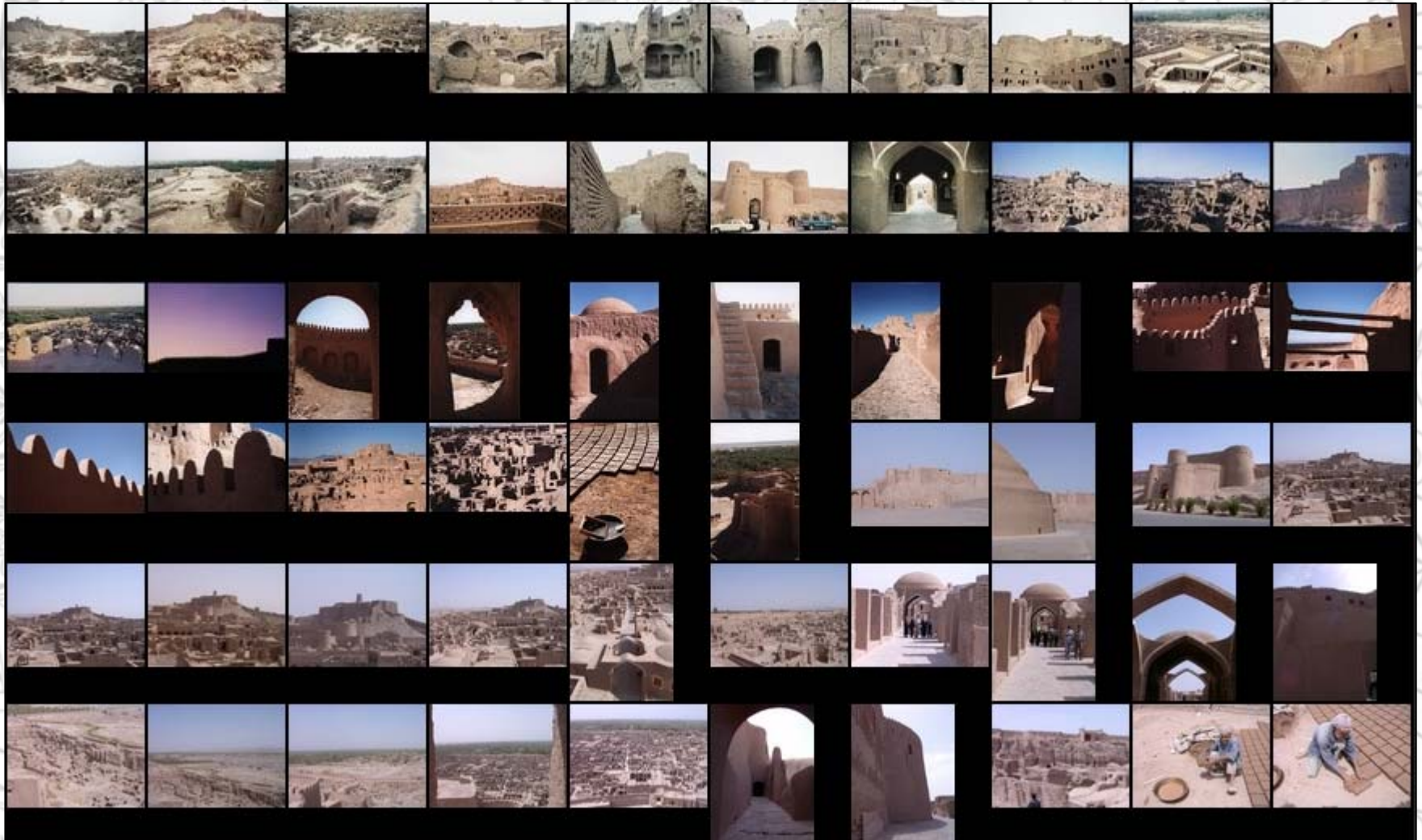
- **Citadel of Bam**, Iran, now World Heritage in Danger, was almost destroyed suddenly by the earthquake in December 2003.
- To keep record of Bam before the earthquake, we immediately started actions for **collecting any materials recorded before the earthquake.**



# User Participation in Emergency

- We opened the Website just after 5 days of the earthquake.
- We finally collected 200+ photographs and one movie from volunteers across the world.
- The collection shows **temporal changes** of one specific location, difficult to be done by one person.

# Collected Photographs



# Before the Earthquake



Image Courtesy: Linda Kudrnovska, December 2002

# After the Earthquake...



Image Courtesy: UNESCO Tehran Cluster Office, January 2004

# 80 Years Ago...



<http://dsr.nii.ac.jp/toyobunko/XIII-6-A-4/V-1/page/0219.html.ja>



# User Participation for Diversity

- User participation is for collecting **deep knowledge** and **various ideas**.
- **Experts' knowledge** is deep but partial, only within their expertise.
- **Subjective impression** of users is unique to users, and unpredictable.
- Participation leads to diversity.

# Senga Silk Road

<http://dsr.nii.ac.jp/senga/>

- Users can make a tour (slideshow) by selecting interesting images and arrange them into a sequence.
- User-created tours show diverse ideas on interpreting images in a user context.



遷画  
シルクロード

自由に画像を並べ替え、文化の変遷を見つけよう

↑  
「通画シルクロード」関連サイト

▼  
スタート

▶ プロジェクト概要  
▶ このサイトについて  
▶ ヘルプ  
▶ クレジット

みる  
「ツアーをみる」とは？  
シルクロードの貴重書に残された  
仏像や人々、文様や文書の数々を  
様々な視点で見て回れる  
ツアー(スライドショー)を  
公開しています。

つくる  
「ツアーをつくる」とは？  
シルクロードの貴重書に残された  
仏像や人々、文様や文書の数々を  
自由な発想で集めて並び、  
自分だけのツアーをつくり、  
公開することができます。

通画 -シルクロード-  
COPYRIGHT © 2007, DIGITAL SILK ROAD PROJECT, NATIONAL INSTITUTE OF INFORMATION. ALL RIGHT RESERVED.

# User-Created Tours

http://dsr.nii.ac.jp - 遷画 - シルクロード - Mozilla Firefox

ツアー名 /  
集まれ親戚


作者名 /  
二重

シルクロード /

ミーラン

顔

ツアー情報を閉じる



遷画  
シルクロード

ツアーをみる

ツアーをつくる

このサイトについて

> ヘルプ

COPYRIGHT © 2007, DIGITAL SILK ROAD PROJECT,  
NATIONAL INSTITUTE OF INFORMATICS. ALL RIGHT RESERVED.

dsr.nii.ac.jp からデータを転送しています...



# Locality + Diversity

- Locality: information which is **local and only observable at user's site.**
- Diversity: information described **from user's own viewpoints.**
- Locality and Diversity is combined for archiving **on-going emergency events**, in which many events occur simultaneously.



# Case Study: Digital Typhoon

- Digital archive mainly for science.
- Collection of typhoon satellite images – 27 seasons, 144,000 images.
- Satellite images are integrated with heterogeneous data sources, such as sensor data, mass media news and participatory media.
- 850,000 p.v. per day at maximum.

# Digital Typhoon

<http://www.digital-typhoon.org/>

Digital Typhoon: Typhoon Images and Information - Mozilla Firefox

ファイル(F) 編集(E) 表示(V) 履歴(S) ブックマーク(B) ツール(T) ヘルプ(H)

KITAMOTO Asanobu @ National Institute of Informatics (NII) Search Site Map

## Digital Typhoon: Typhoon Images and Information

agora Home Digital Typhoon Japanese

:: Notice :: Feedback :: Mobile Phone :: PDA :: Google Earth :: iPod :: Wallpaper :: Movie ::  
RSS / Atom / OpenSearch :: Kids :: Eyes on the Typhoon / Typhoon Front ::

### Real-time Typhoon Information

Updated: 2007-08-30 00:19 (UTC)

**T 200709**



[MTS107082921](#)  
[200709 \(WNP\)](#)  
[\(N23.6, E156.9\)](#)  
980 hPa / 55 kt

**Number of Typhoons**

[This year = 9 \(Best Track\)](#)  
[Average = 14.1 \(1951-2005\)](#)

**Latest Typhoon Information**

- [Typhoon News Weblog](#)
- [Typhoon 200709 \(FITOW\) \(2007-08-29\)](#)
- [Typhoon News Topics](#)
- [Local Information Portal](#)
- [AMeRAS \(AMeDAS Ranking\)](#)
- [AMeDAS Event Detection](#)
- [Disaster Information and Databases](#)
- Other News

Typhoon Database	Meteorological Satellite Images
<p>1. Search by Metadata</p> <ol style="list-style-type: none"><li><a href="#">Search by Date / Season</a></li><li><a href="#">Search by Name / Number</a></li></ol>	<p>2007-08-29 23:00 (UTC)</p>  <p><a href="http://www.digital-typhoon.org">www.digital-typhoon.org</a> 2007-08-29 22:00 UTC</p>



# Diverse Users and Usage

- **Searching the past database**, mainly for learning from historical data in research and education.
- **Checking the latest information**, mainly for supporting decision making by industry and government.
- **Obtaining alternative information** that mass media does not report.

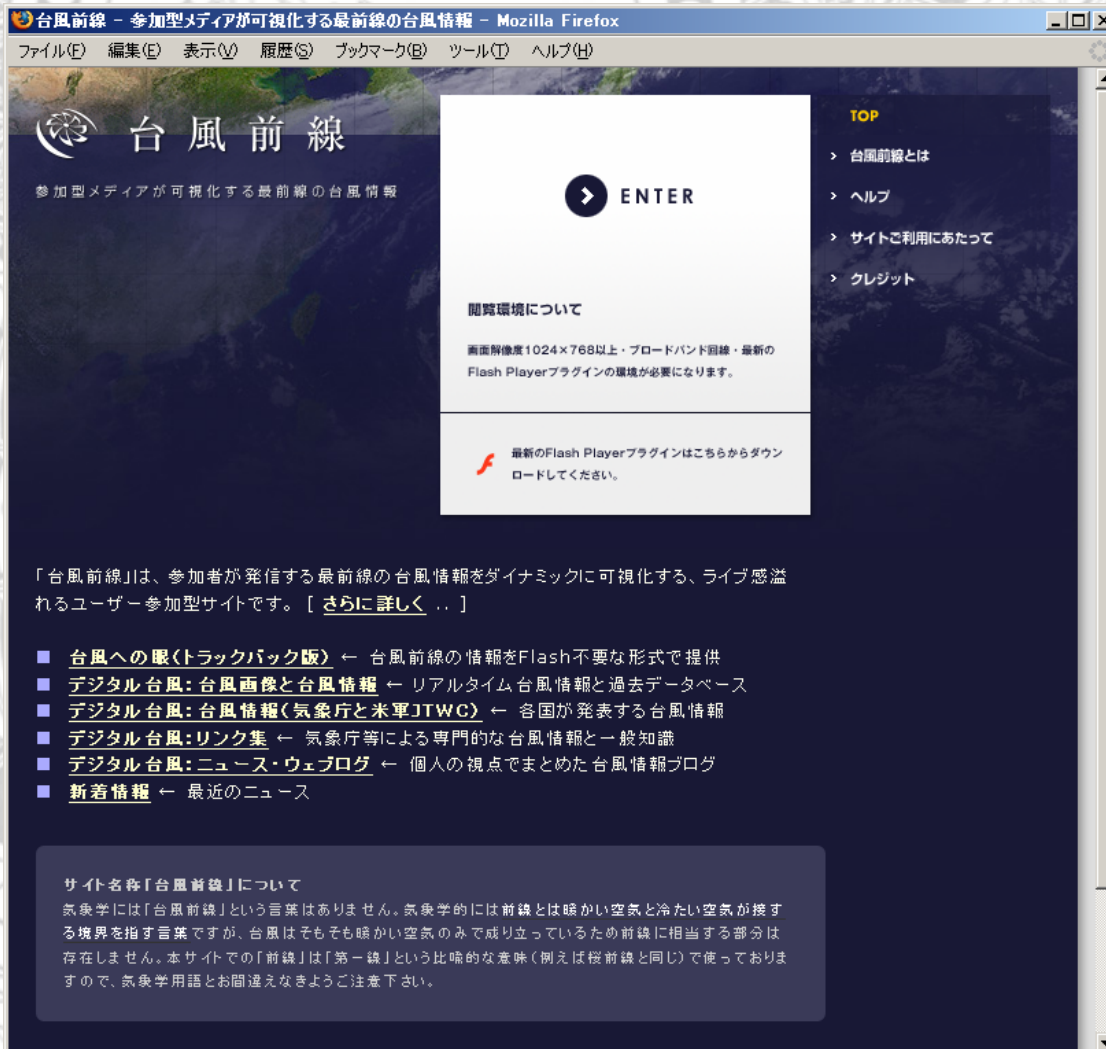


# Why User Participation?

- **Satellite images** are not enough to know about events on the ground.
- **Mass media news** are not enough to know about events at many places.
- **Sensor data** (AMeDAS) are not enough to know people's reactions.
- **Participatory media** can compensate the lack of information.

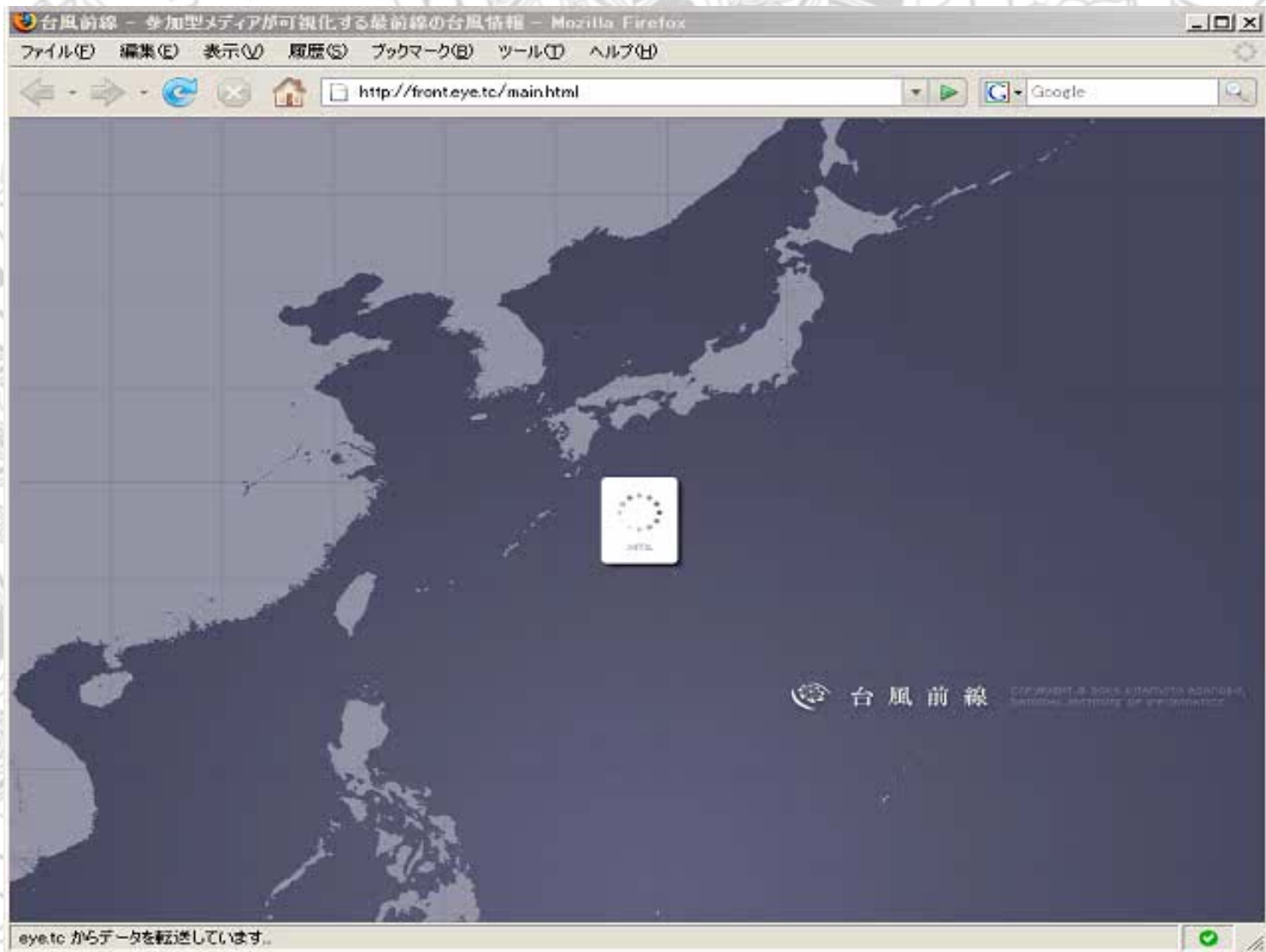
# Typhoon Front

## <http://front.eye.tc/>



- Trackbacks from weblogs.
- Geographic coordinates are based on zip codes.
- Mobile mails are acceptable from Sep. 2007.

# How People Participated?





# Participatory Media

- Local and personal information has been aggregated in near real-time.
- Personal information may not be so reliable, but is **more emotional and speaks to the heart.**
- **Linkage of objective and subjective information** will create a multi-facet information source.



# Summary

- **User participation** has a large impact on the Internet, and e-Culture is better to take part in this movement.
- **DSR project** realized some user participation in a cultural domain.
- **Digital Typhoon project** challenged more active user participation in a scientific domain.



## Future Work

- **Typhoon Front 2.0** will be released in the beginning of September, 2007 at <http://front.eye.tc/> .
- Promoting diversity and raising quality (and blocking spams) at the same time is a challenging issue.
- Design a system so that participation itself is entertaining and rewarding.



# Acknowledgment

- DSR project is partially supported by JSPS Grant-in-Aid for the Publication of Scientific Research Results (Database).
- Digital Typhoon project is partially supported by a research grant from Research Organization of Information and Systems, and other grants.
- Many thanks for those who participated in various participatory projects.