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The Construction of Open Data Portal using DKAN for Integrate to Multiple Japanese Local Government Open Data

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1. Introduction

The classified data categories of Japanese open data are, population and statistical data account for more than 20% of total open data. In other, the geographic data formats (about 30%) are primarily distributed for disaster prevention, education, and tourism sectors, and urban planning diagrams contain positional information regarding facilities. In recent years, the local government and civic tech community in Japan have focused on the context of the FOSS4G. Consequently, the Japanese local government have published open data in more than 200 organizations, but these data are almost simply provided as a file on their website.

In this study, we built open data platform for integrate Japanese local government open data that uses DKAN. DKAN is newer open source portal that extend the CKAN to be used as a Drupal, which feature has been enhanced, such as design template and map viewing.

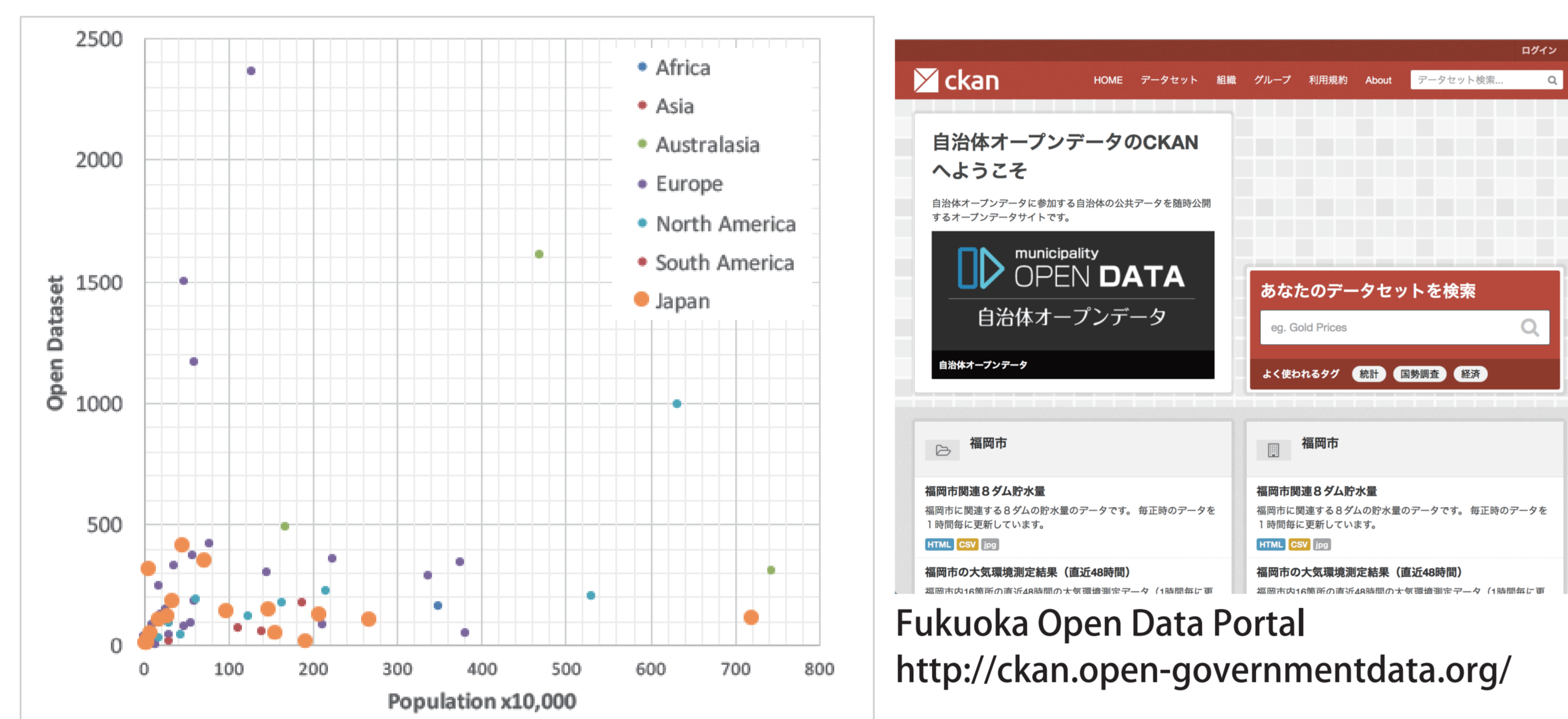


Fig.1 The Launch Open Data Cities by Using CKAN Platform

Table 1 The Comparison of CKAN and DKAN

Feature	DKAN	CKAN
Language	PHP	Python
Platform	Drupal	Pylons
Database	MySQL, PostgreSQL, SQL Server, or Oracle	PostgreSQL
Geodata Function	Geo File Entity Geofield Map Visualization Entity Geojson Bundle	ckanext-spatial ckanext-geoview ckanext-basemap

2. Collection of Open Data in Japan

Most Japanese open data, it is impossible to harvesting automatically. Because, we need to developed a supporting tool for collecting Japanese open data. The tool is built on Electron (http://electron.atom.io/) framework, it is possible to list the static open data website data with CSV. Electron is build cross platform desktop apps with JavaScript, HTML, and CSS. We also released a full list of meta data (10 categories) in spreadsheet format. Thus, it become possible to consider the status of Japanese local government open data.

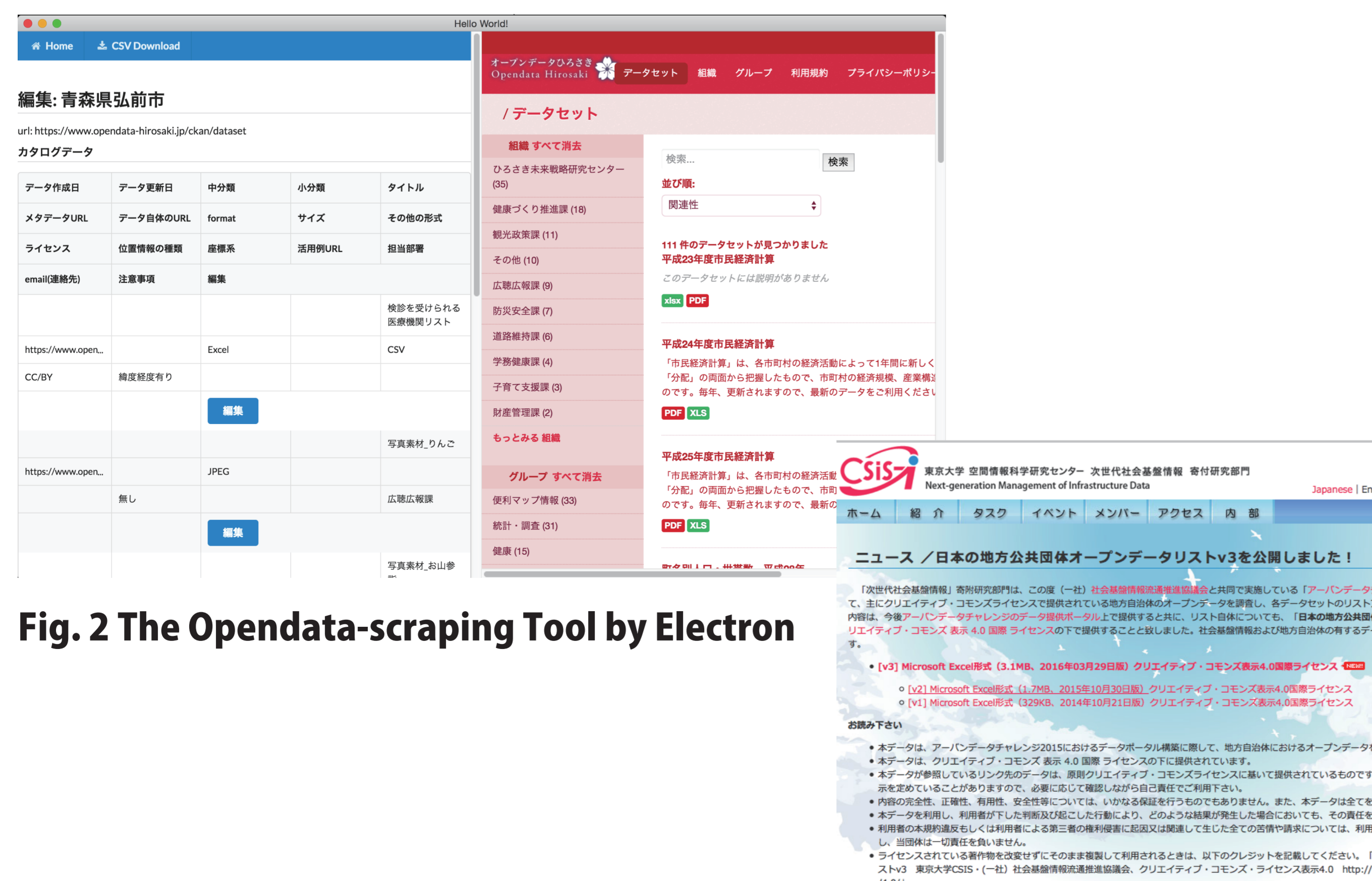


Fig. 2 The Opendata-scraping Tool by Electron

Fig. 3 Open Data Metadata List

3. The Construction Open Data Portal using DKAN

DKAN are those that have been implanted in the distribution of Drupal with the architecture of the CKAN. Screen configuration and function customization can be performed on the GUI difficult in CKAN an advantage, it can be complex rights management. The geodata preview function has been enhanced in the initial state, of course, mapping, graphing, can correspond to the open data such as GeoJSON and KML. Therefore, it is possible to use while checking on the Web map before use a variety of geospatial open data. The API function is also supported in RDF/JSON formats, it is possible to display the query sample on the portal site.

We have published to about 7,500 Japanese local government open data. The characteristics of the Japanese of open data is considered that there are many facilities information about the disaster, tourism and education.



Fig.4 The Construction of User Interface Design by DKAN site http://udct-data.aigid.jp/

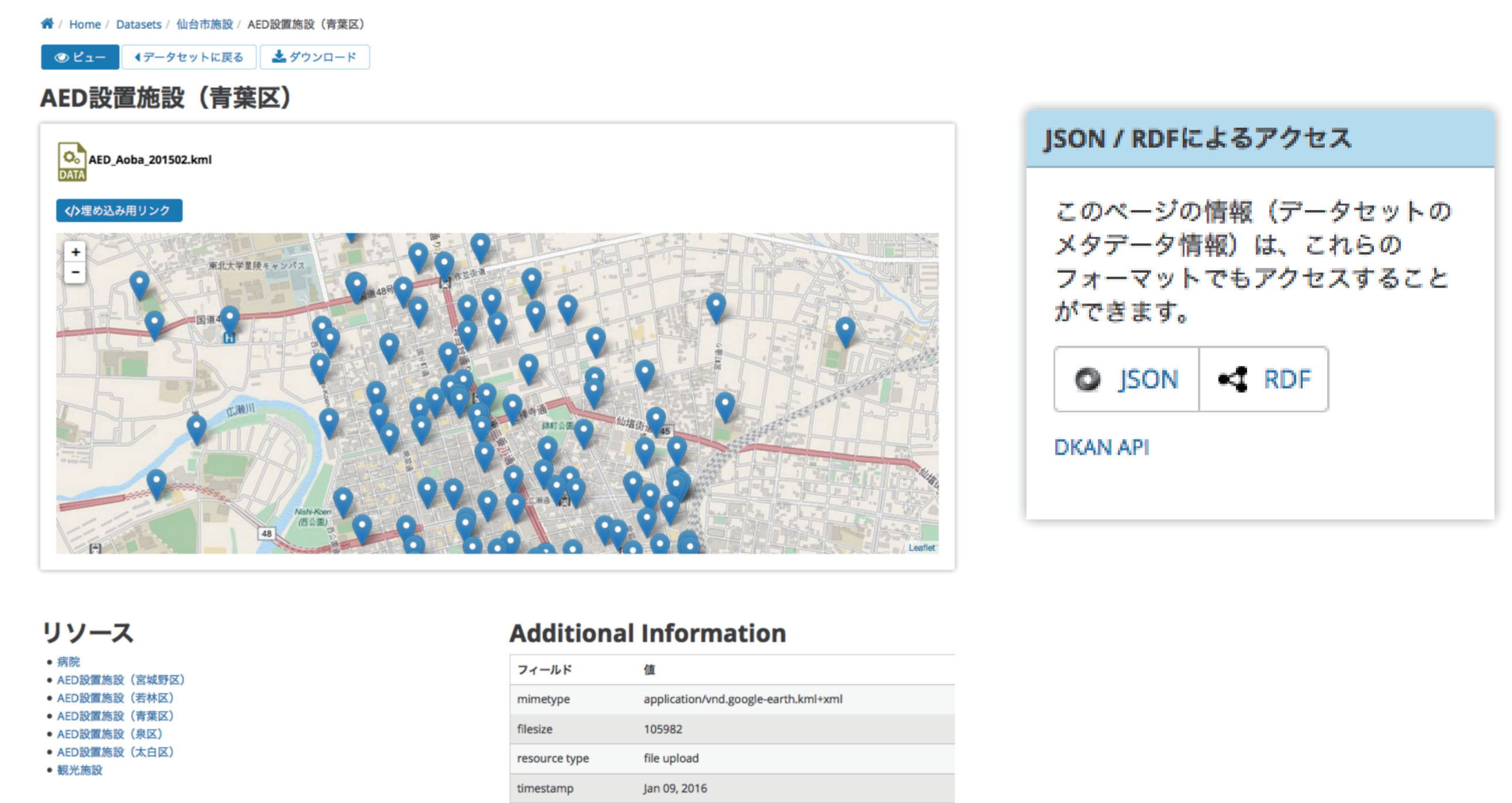


Fig.5 The Map Preview of Geospatial Data (cf. KML) and RDF-API

Table 2 The Top 10 Categories of Open Datasets Type in DKAN site

Data Type	Datasets	Data Type	Datasets
Population	537	Tourism	168
Administration	328	Agriculture	125
Disaster	295	Social Welfare	118
Education	261	Town Planning	108
Infrastructure	169	Transportation	106

4. Conclusions

We have examined the transition of viewing the number from October 1, 2015 to March 31, 2016. The 70% were new visitors, but it was a returning user visited for about 30% to obtain a wide variety of data. DKAN is highly search properties compared to CKAN, API also considered that it was often repeated use of the fact that are substantial.

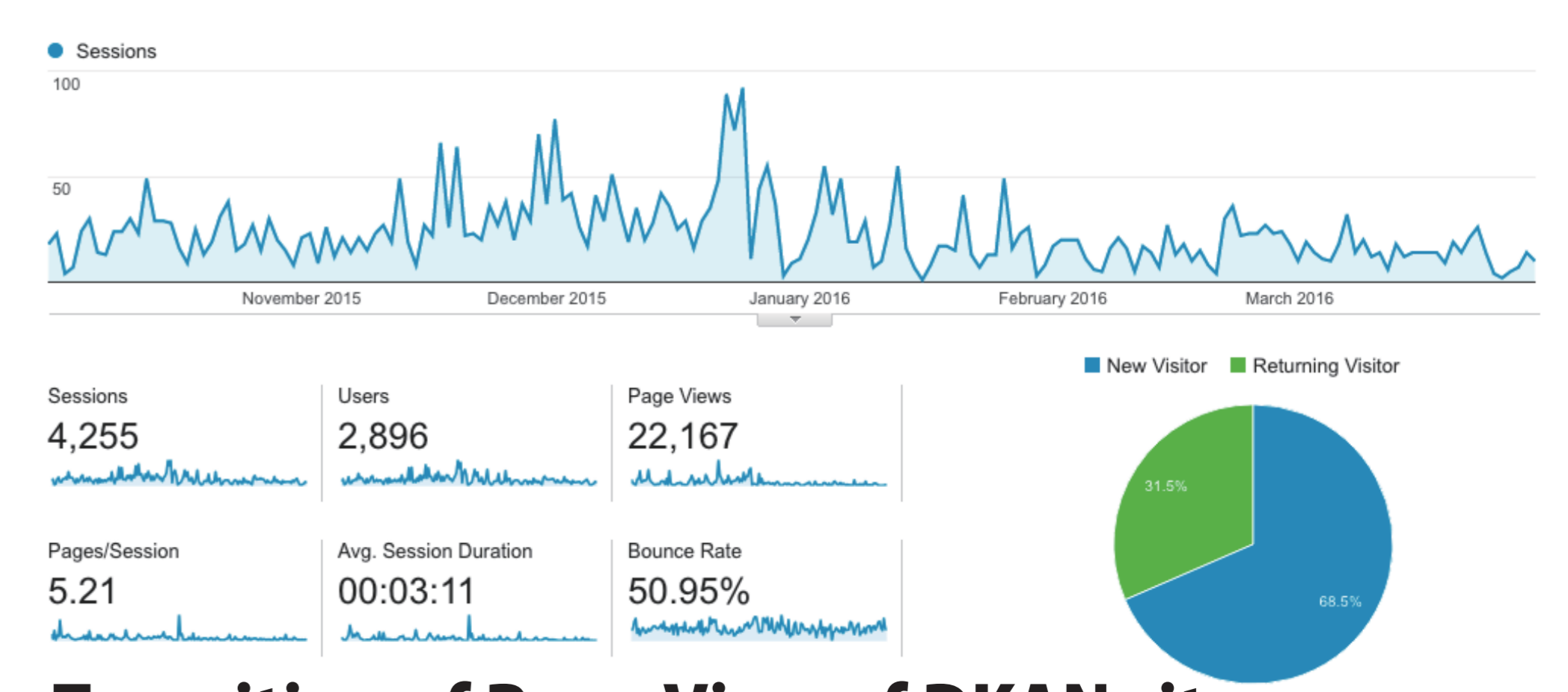


Fig.5 The Transition of Page View of DKAN site