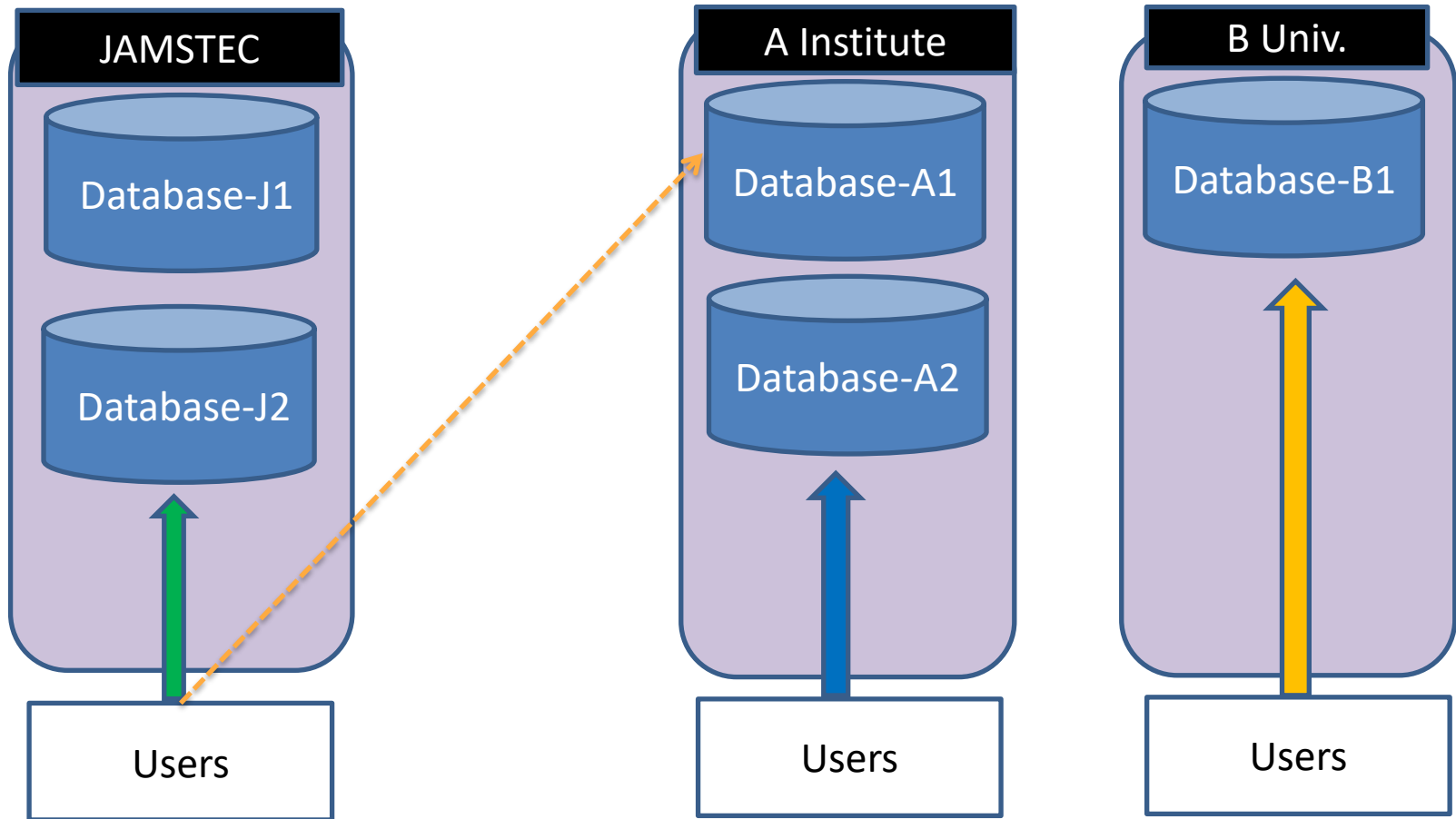


Proposal: Future collaborative
works for better metadata search

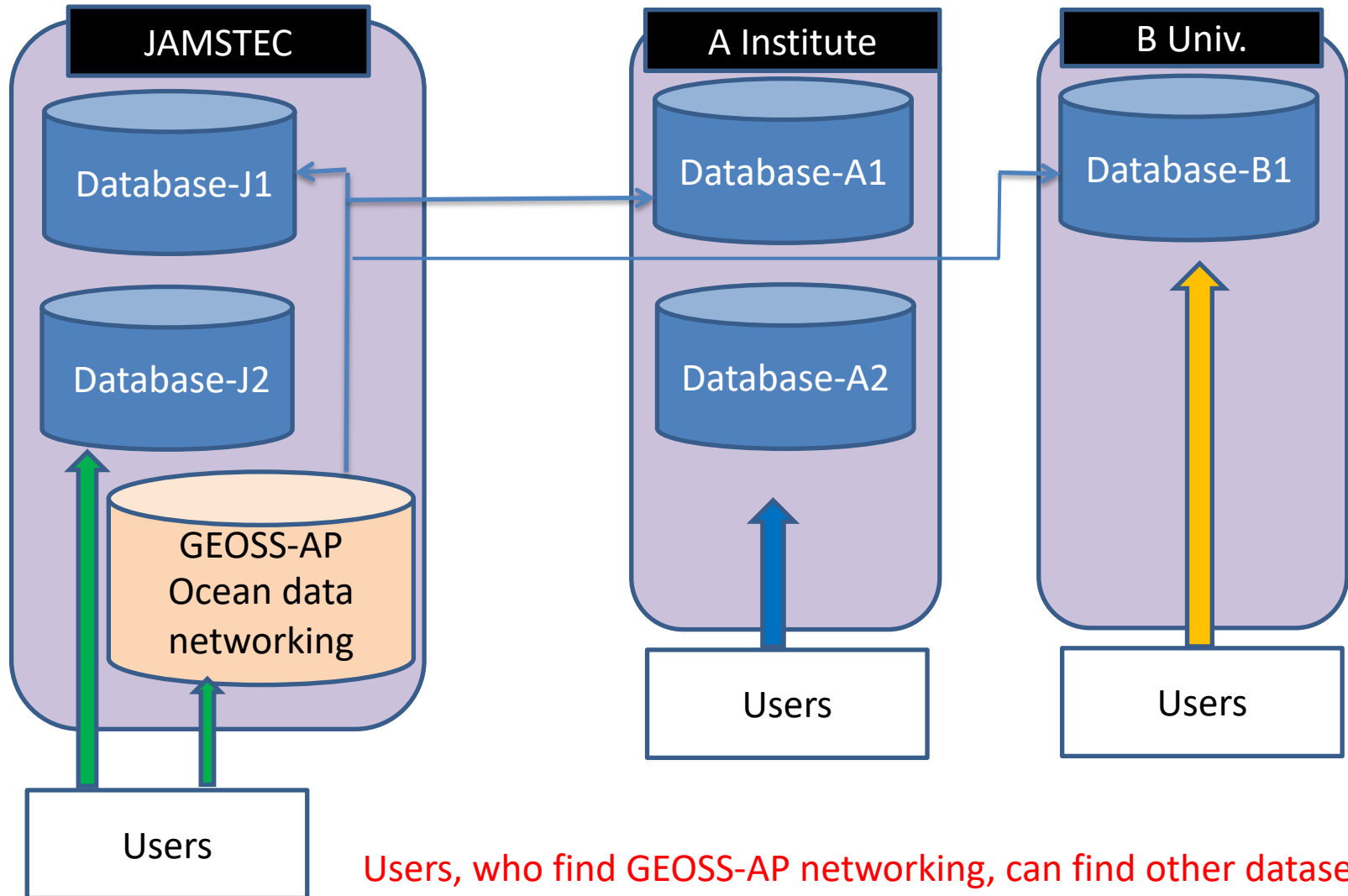
Ken Ando & Fumihiko Akazawa

Former system of observation database access in AP



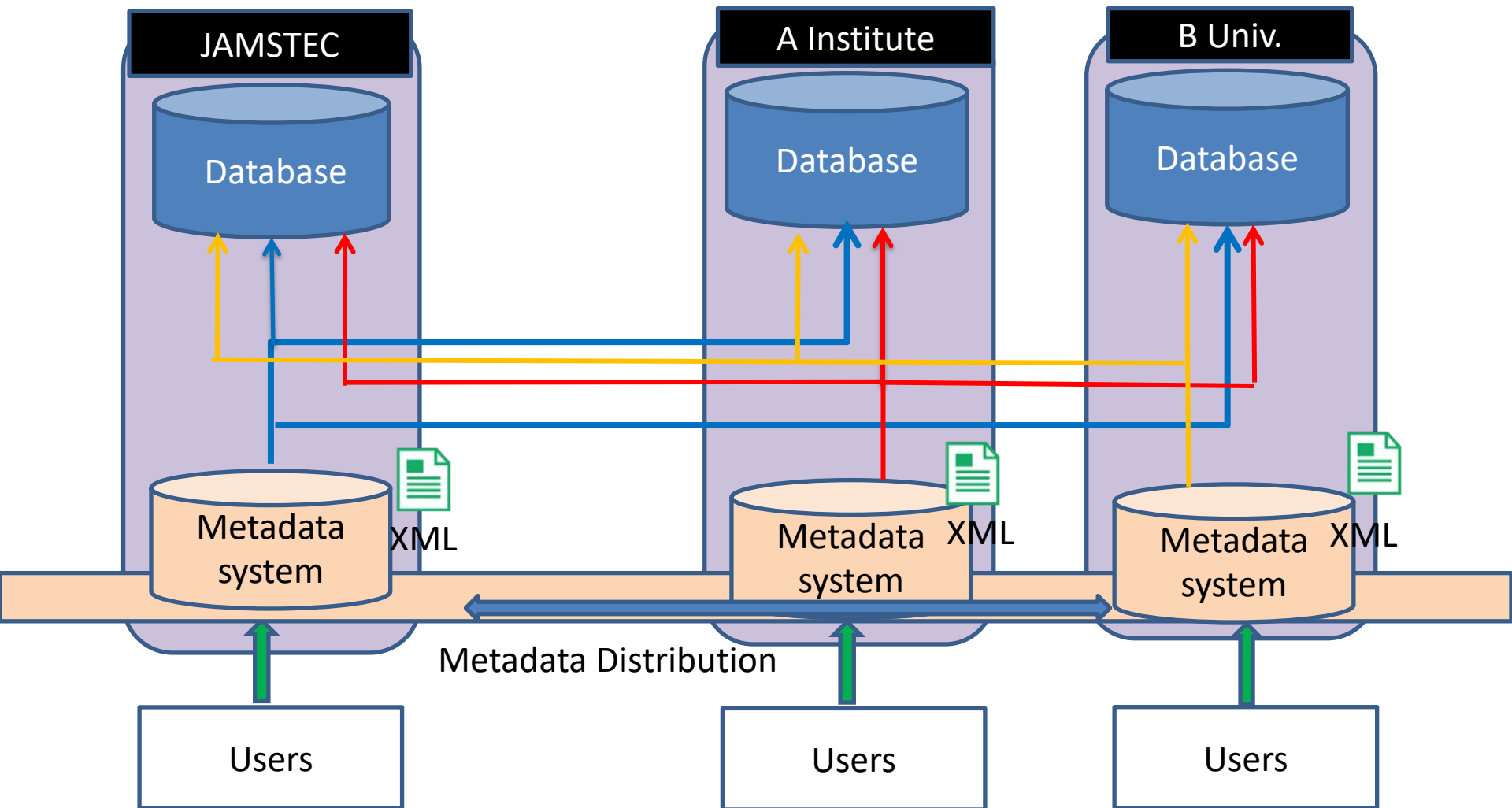
Users need to find each Databases by themselves.

Current system of access to observation databases



Users, who find GEOSS-AP networking, can find other datasets. Other users still need to find each Databases by themselves.

Proposal of a new system to access to observation database by using metadata search



Search of metadata for acquiring various observation data of various organizations.

What's common metadata What XML format among us?

1. Observation parameters
 - temperature, salinity, pH, CO₂,
 2. Observation information
 - Location, Date, Position, information related to observation
 3. Data format
 4. Contact point
 5. License
 6. URL of database site
- etc...

These are NOT observation data but Meta data.

Some examples in different levels and scopes, but there are several sites which we can refer;

1. CKAN: https://opendatastack.jp/document/ckan_user_manual/
2. CKAN: <https://github.com/ckan/ckan>
3. Japanese project: <https://www.open-governmentdata.org/>
4. Japanese project: <http://www.iugonet.org/about/?lang=ja>
5. Japanese project: <http://search.iugonet.org/list.jsp>
6. In JAMSTEC:
http://www.godac.jamstec.go.jp/catalog/data_catalog/j/index.html
7. Australian project: <https://www.govcms.gov.au/>

In most cases, they use “catalogue management system (CMS)”

Free Software for CMS

- Drupal
- CKAN - demo-site
- Dspace(MIT)
- Eprints(Univ. of Southampton)
- Concrete5
- Joomla!
- Movable Type
- NetCommons
- Plone
- TYPO3
- Word Press
- OpenDOAR
- Bootstrap

One example: <http://search.iugonet.org/list.jsp>, by using "Dspace"

IUGONET Data Set LIST MAP

Instrument/Project	Observed Region	ERG Campaign
Satellite: <input type="checkbox"/> AKEBONO <input type="checkbox"/> CHAMP <input type="checkbox"/> COSMIC		
Ground-Based: <input type="checkbox"/> SMART (Telescope) <input type="checkbox"/> DST (Telescope) <input type="checkbox"/> FMT (Telescope) <input type="checkbox"/> Refractor (Telescope) <input type="checkbox"/> Muon (Telescope) <input type="checkbox"/> Geomagnetic Indices <input type="checkbox"/> WDC Geomag., Kyoto <input type="checkbox"/> Geomag., Kakioka <input type="checkbox"/> MAGDAS/CPMN <input type="checkbox"/> MM210 <input type="checkbox"/> Induction <input type="checkbox"/> Magnetometer <input type="checkbox"/> SuperDARN <input type="checkbox"/> EISCAT <input type="checkbox"/> Imager <input type="checkbox"/> PWING/PsA <input type="checkbox"/> OMTI <input type="checkbox"/> Lidar <input type="checkbox"/> Ionosonde <input type="checkbox"/> Riometer <input type="checkbox"/> VLF/ELE <input type="checkbox"/> MU Radar <input type="checkbox"/> EA Radar <input type="checkbox"/> MF Radar <input type="checkbox"/> MW Radar <input type="checkbox"/> VHF Radar <input type="checkbox"/> GPS Receiver <input type="checkbox"/> AWS <input type="checkbox"/> BL/LT/WP Radar <input type="checkbox"/> Radiosonde <input type="checkbox"/> X-Band Radar <input type="checkbox"/> Others		

Keyword:
Timespan: To [Set Detail](#)

Information

Quick Look Images and How to Analysis about MAGDAS Data (ICSWSE, Kyushu University, Japan) was added, 22 Feb. 2018.

MAGDAS/CPMN UNITED NATIONS/JAPAN WORKSHOP
Quick-Look images and How to Analysis using SPEDAS, over 60 Geomagnetic Observatories are now available
SPACE WEATHER Science and Data Products from ICSWSE
2-6 March 2015, Fukuoka, Japan
Kyushu University, Japan ICSWSE

The MAGDAS (MAGnetic Data Acquisition System) is worldwide magnetometer array operated by International Center for Space Weather Science and Education (ICSWSE), Kyushu University, and now being deployed in order to carry out space weather studies and educations.

We need to clarify the dynamics of geospace plasma changes during magnetic storms and auroral substorms, the electro-magnetic response of iono-magnetosphere to various solar wind changes, and the penetration and propagation mechanisms of DP2-ULF range disturbances from the solar wind region into the equatorial ionosphere. By using this new MAGDAS data, we can conduct real-time monitoring and modeling of (1) the global 3-dimensional current system (2) the ambient plasma density for understanding the electromagnetic and plasma environment changes in the geospace, and so on.

Examples (MAGDAS):
2006/10/03: <http://search.iugonet.org/search.jsp?cid=208&to=2006/10/03&cid01=101&styp=2>
2012/03/10: <http://search.iugonet.org/search.jsp?cid=208&to=2012/03/10&cid01=101&styp=2>

Examples (MAGDAS and Dst/AE):
2006/10/03: <http://search.iugonet.org/search.jsp?cid=232&cid=208&to=2006/10/03&cid01=101&styp=2>
2012/03/10: <http://search.iugonet.org/search.jsp?cid=232&cid=208&to=2012/03/10&cid01=101&styp=2>

Detailed information:
MAGDAS: <http://data.icswse.kyushu-u.ac.jp/>

Another Example: CKAN at <https://demo.ckan.org/en/>

The screenshot shows the CKAN demo website interface. At the top, there is a navigation bar with the CKAN logo, links for 'Datasets', 'Organizations', 'Groups', and 'About', and a search bar. Below the navigation bar, a yellow warning banner states: 'Warning! All data in this instance will be deleted occasionally.' The main content area features a map background. A white text box on the map reads: 'This is a demo site for CKAN, the leading Open Data portal software. **Note:** Data hosted on this site might be deleted at any time!' Below this text is an image of Scrabble tiles spelling 'OPEN DATA' and a caption: ''open data (scrabble)' by Justin M Grimes on Flickr. CC-BY-SA.' To the right of the map is a 'Search data' box with a search input field containing 'E.g. environment' and a search button. Below the search box are 'Popular tags' for 'test', 'economy', and 'data testing'. At the bottom of the page, there is a 'Data Explorer Examples' section with a sub-section 'UK: Adur District Council Spending Data' and another sub-section 'Newcastle City Council: Payments over £500'.

CMS in our systems

We already used mainly for nation and institute

1. CSIRO: Drupal (<https://coastalresearch.csiro.au/>)
2. JAMSTEC: hand-made on Java script, no CMS (contents management system)
3. PMBC: Bootstrap (<https://dmcrth.dmcr.go.th/pmbc/>)
4. LIPI: OpenDOAR (<http://ir.lipi.go.id/>)
5. UMT: WordPress (<http://inos.umt.edu.my/?lang=en>)
6. VIO: Dspace
(<http://113.160.249.209:8080/dspace/?locale=en>)
7. NEAR-GOOS: hand-made full scratch

CMS can exchange XML files

- Agree to develop common XML file?
 - Then, we need to discuss common XML metadata format
- What metadata we will refer?
- Referring CSIRO's metadata?
 - Referring one of metadata in JAMSTEC's datasets?, which is the common with IUGONET in Japan.
 - Any other idea?

Actions for the next: Demonstration

- Learn meta-data from examples
- Demonstration among volunteers
- Put your hand up for joining this demonstration.

Plan to demonstration

1. develop the preliminary XML file for metadata exchange
2. Install or develop metadata system by using each CMS
3. Confirm the demo system of metadata search works well