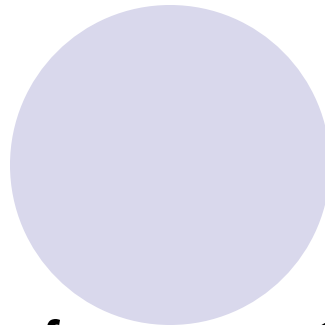
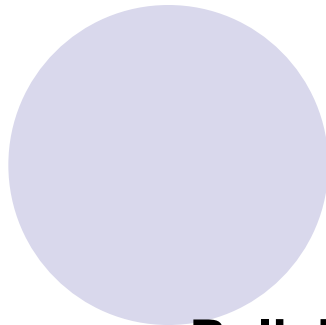
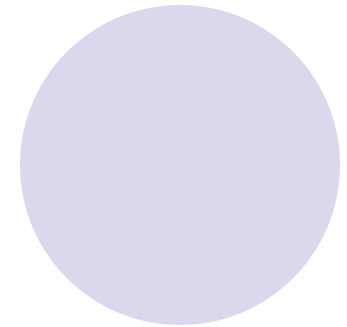
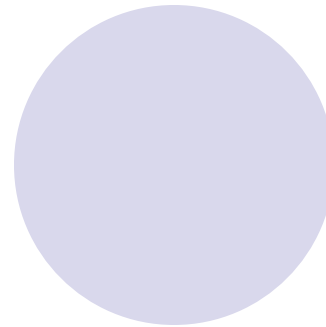


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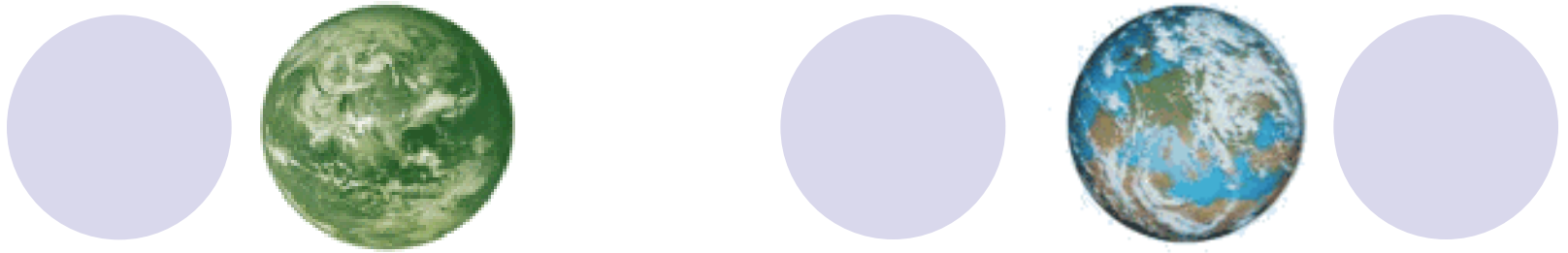
## **Policies for geospatial collections: a research in US and Canadian academic libraries**

**Ifigenia Vardakosta  
Sarantos Kapidakis**

[ifigenia,sarantos}@ionio.gr](mailto:{ifigenia,sarantos}@ionio.gr)

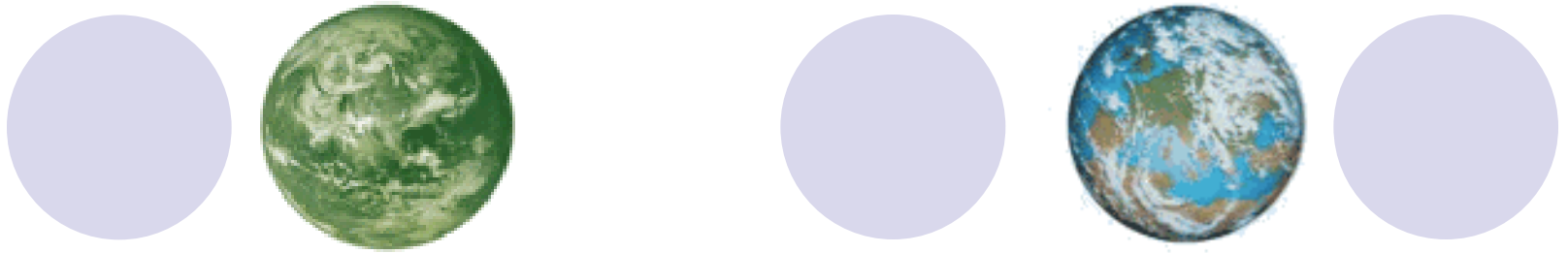
2<sup>nd</sup> Workshop on Digital Information Management

April 2012



## Session Overview

- Research Framework
- Definitions
- Literature Review
- Objectives of the research
- Methodology
- Findings
- Discussion – Conclusion
- Future Work



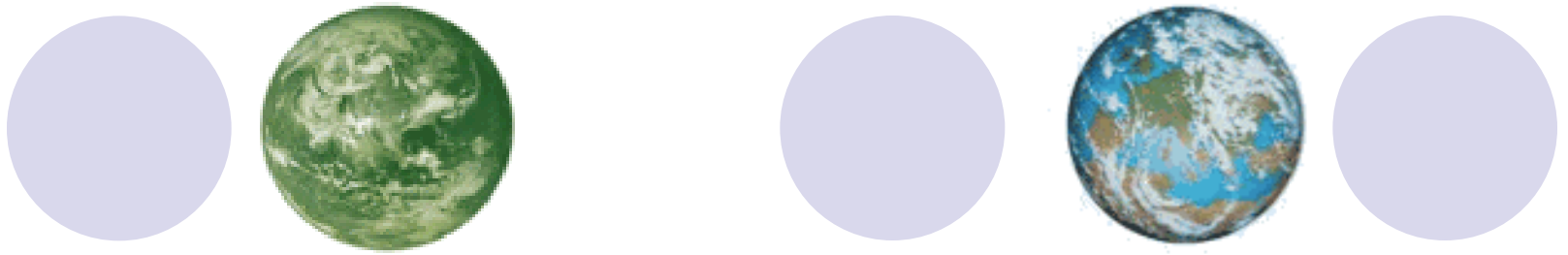
## Literature review

Although many studies have been occurred for GIS services and GIS collections

(e.g. ARL, 1999 ;ARL, 2005, Kinikin & Hench, 2005 Kinikin & Hench, 2005a, Gabaldon & Repling, 2006)

There is ...

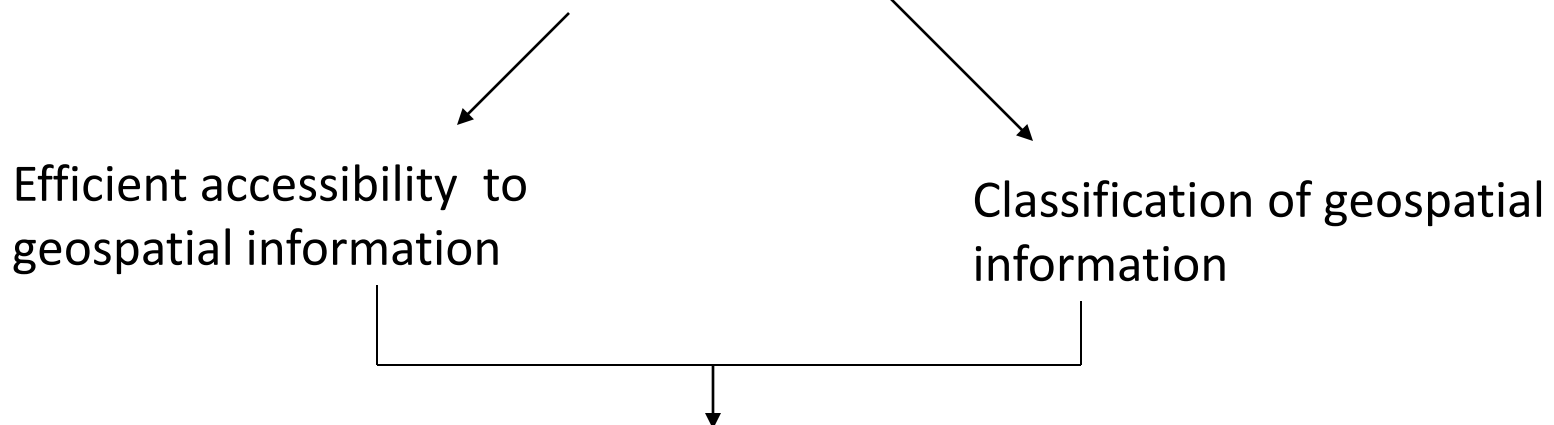
a gap on researches specifically on policies related to the development of geospatial collections and is our intention to contribute on this area.



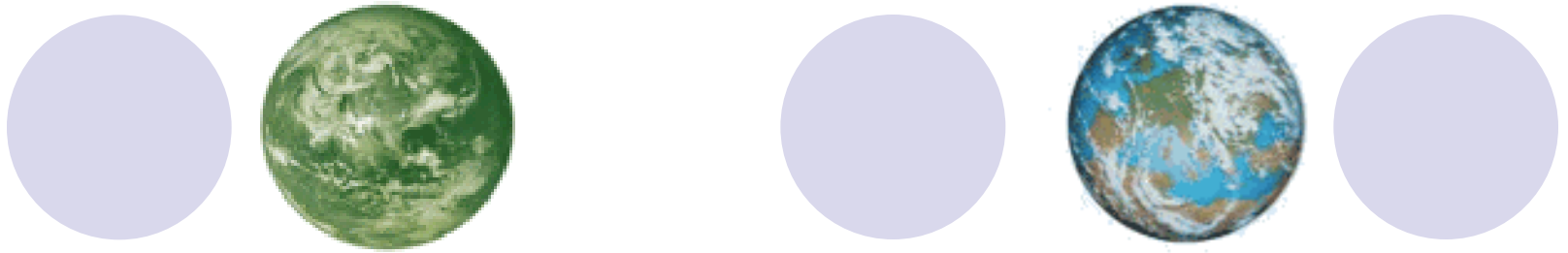
## Research Framework

**Digital Libraries** are “managed collections of information, with associated services, where information is stored in digital formats and accessible over a network” (Arms, 2001)

### Librarians in an online environment



**Viable contributors to the geographic research process in both academic settings and in the private sector (Abresch e.a, 2008, p.6)**

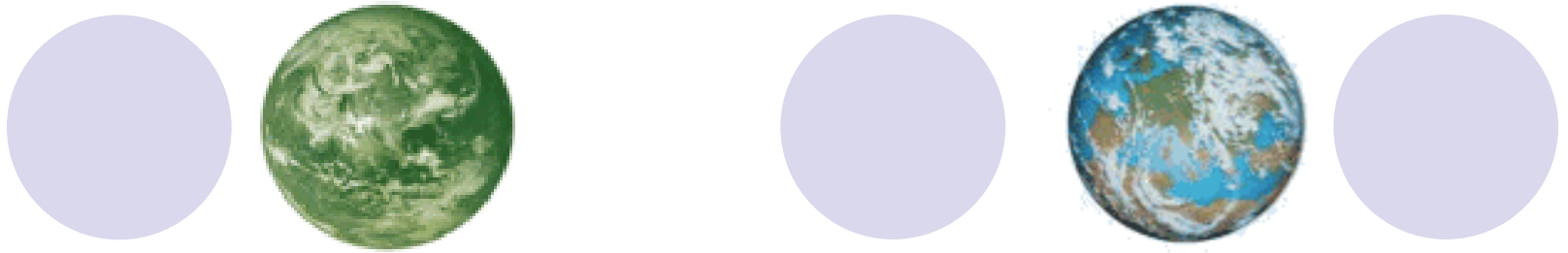


## Definitions

**Digital Geospatial Data** are digital items displayed as graphics, that are georeferenced or are geographically identified.

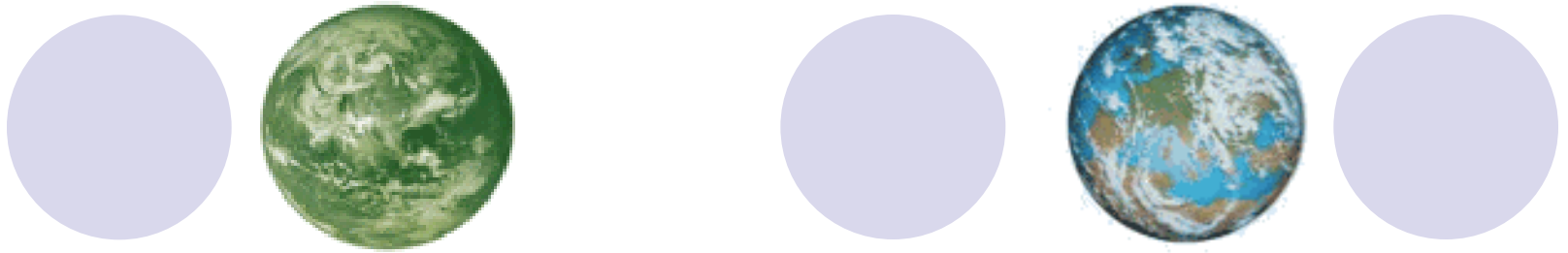
These are primarily composed of digital maps, remotely sensed images (e.g., aerial photographs, data collected by satellite sensors), datasets (e.g. shapefiles, layers, geodatabases, etc), atlases, globes (celestial and terrestrial), aerial views (e.g. panoramas), block diagrams, geologic sections, topographic profiles, etc.

(Larsgaard, Sweetkind-Singer & Erwin, 2007)



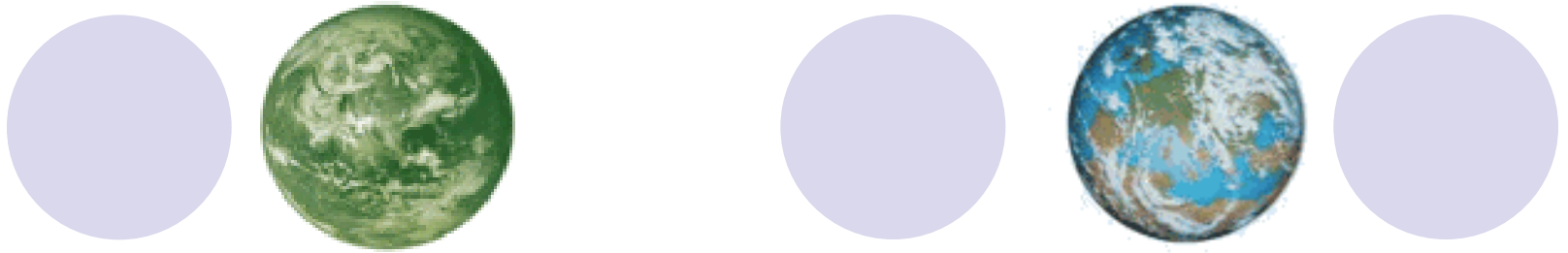
## Geospatial Data Collection Development Policies (GCDPs)

- “Geospatial data contain attributes (metadata and standards, partnerships, liability, and data organization and technical infrastructure) that require special attention and an understanding of both cartographic and geographic concepts” (Herold e.a, 1999)
- “Policy questions need to be placed within the context of the move towards large-and small-scale spatial data infrastructures that do, in the end, affect the developments of geolibraries” (Boxall, 2005)
- “Regularly assessing and revising policies helps academic libraries adapt GIS services to strike a balance between ever-changing needs of users and finite library staff, equipment and budgetary resources” (Sorice, 2006)
- «Using the collection development policy as a guide, librarians can create a process of assessing the needs of their user community, as well as other factors, such as university mission, library strategic planning, and budget” (Abresch e.a, 2008, p.205)
- «Geospatial Data Collection Development Policies differ from traditional paper-map policies in a number of ways» (Erwin & Sweetkind-Singer, 2010)



## Geospatial data characteristics

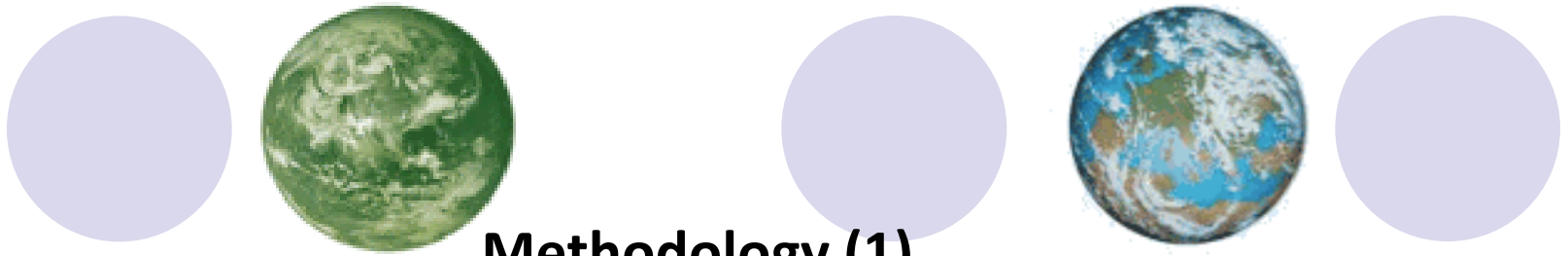
- No uniform data model (vector, raster, topological etc)
- Proprietary formats (therefore closely tied to applications)
- Large size (e.g. gigabyte granularities)
- Relational data systems (being stored in “geodatabases” relational database with geographic extensions)
- Extensive context (e.g. Remote sensing imagery in scientific modelling requires detailed knowledge of sensor characteristics)
- Implicit context (embedded in small, relatively scientific communities)
- Dynamic data (e.g. Climate Data Records - CDRs)



## Objectives of the research

- What are the main features of geospatial collection development policies?
- Do geospatial collection development policies include features that reflect the adjustment of libraries to the rapid growth of open geospatial data?
- Do the existence geospatial collection policies reflect the adjustment of libraries to limited financial means the last few years?





## Methodology (1)

### What?

- ▶ 21 Academic Libraries

### Why?

- academic libraries support a wide range of community
- more reliance on new technologies
- history in the implementation of GIS

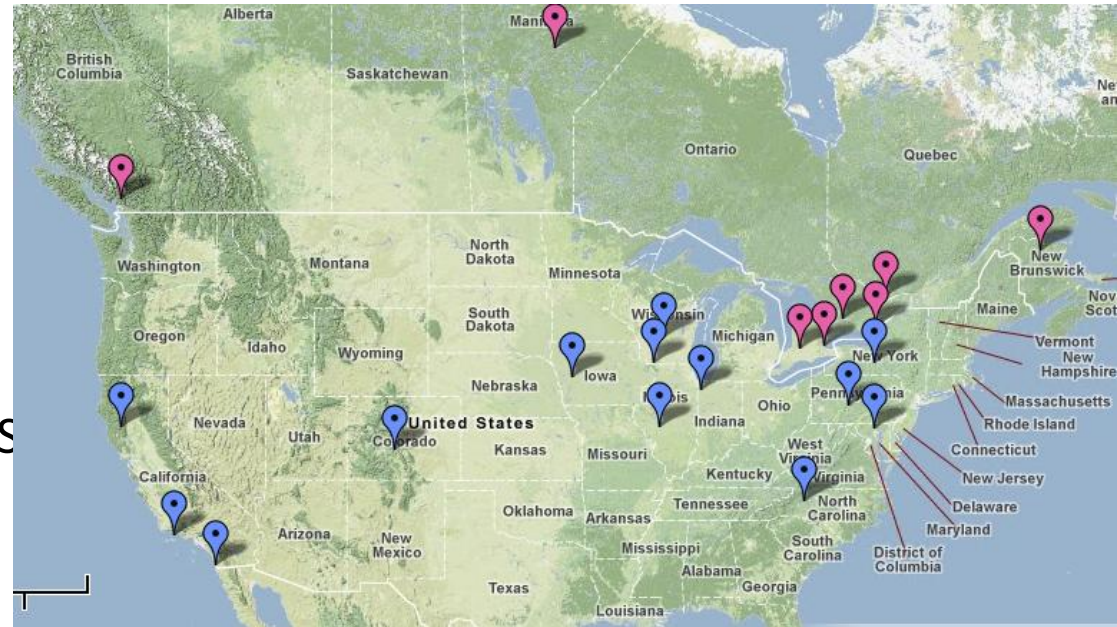
### Where?

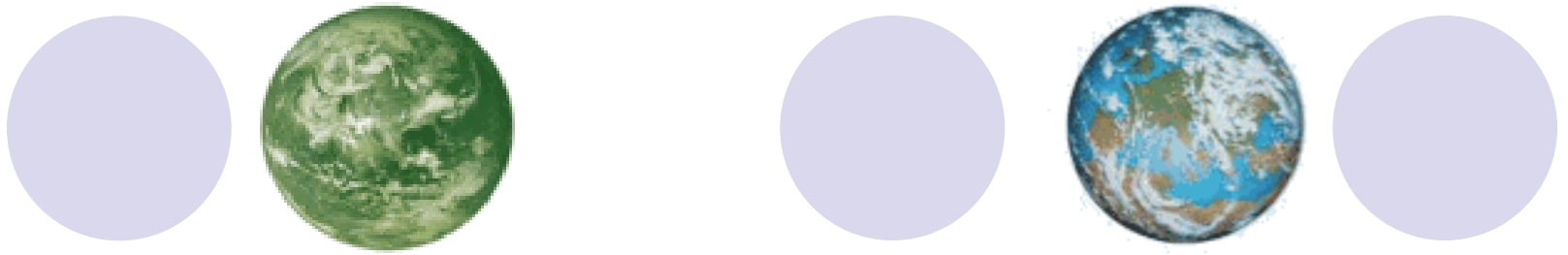
- ▶ In US (13) and Canada (8)

(the sample is based on our previous work regarding GIS implementation in academic libraries (Vardakosta & Kapidakis, 2011 ; Vardakosta & Kapidakis, 2011a )

These 21 libraries:

- ▶ serve departments like Geography, Geology, Topography, Earth Sciences etc.
- ▶ they implemented GIS collections and services

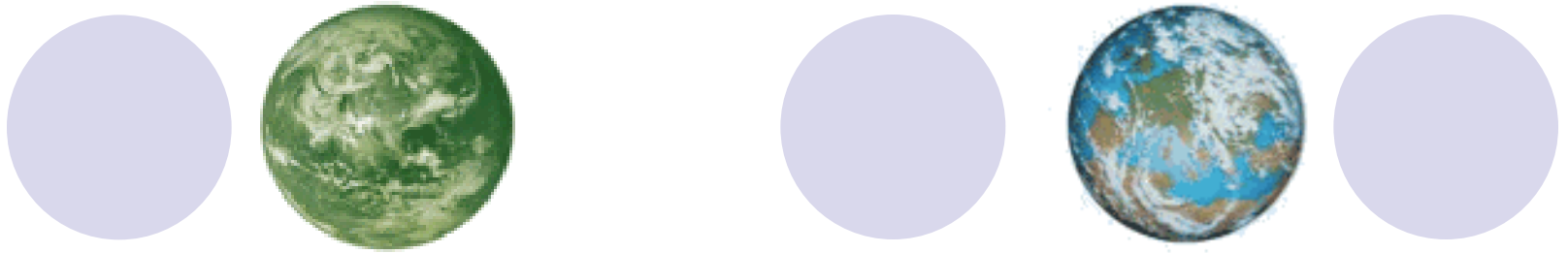




## Methodology (2)

### How?

- ▶ by searching their *websites* for:
    - a) the library's "GIS collection/data", "GIS services", or "geospatial collection/data", or "geographical collections/data" webpage if existed,
    - b) for relevant terms "geospatial policies", "collection development policies"
- If 🖱️ then : we were searching the library home page and trying to locate the link "policies" or "collection policies"



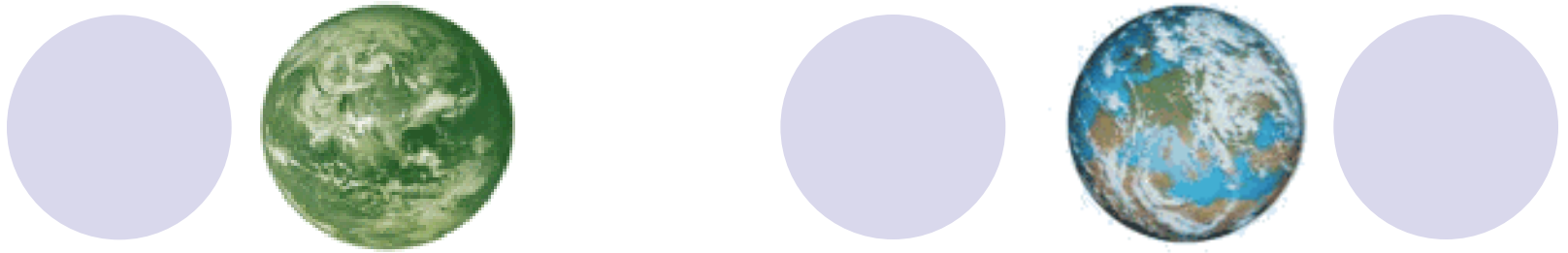
## Methodology (3)

**Why?** ▶ *"by searching their websites" ?*

"A library's web site can provide a powerful forum for communicating with users" (Hahn & Schmidt, 2005 )

Many researches (not for GIS policies) rely on combination of website and content analysis:

- ♦ Hahn & Schmidt, 2005
- ♦ Sorice, 2006
- ♦ Bennett & Nicholson, 2007
- ♦ Kim & DeCoster, 2011
- ♦ Weimer e.a., 2012



## Methodology (4)

Research method: “**content analysis**”

“is a research method that uses specific rules to extract meaningful conclusions from the analysis of written texts”

(Weber, 1990, p.9)

because :

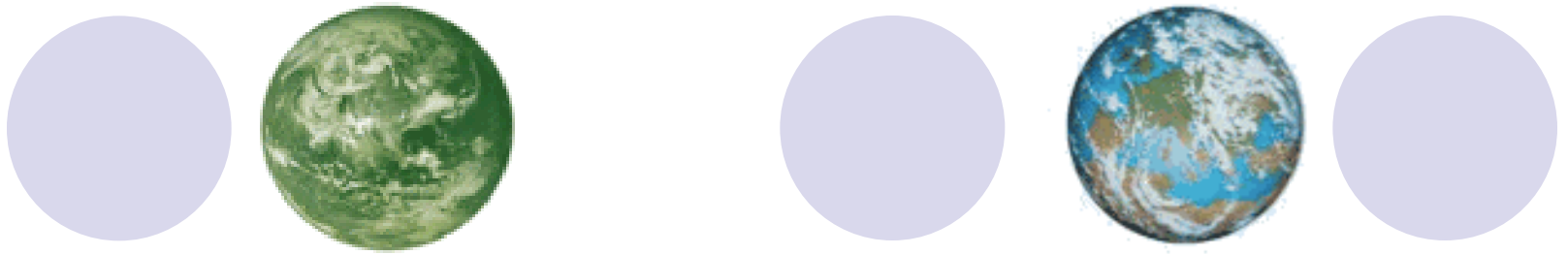
- ▶ is a method implemented in social sciences and mainly in the field of mass communications (newspapers, speeches etc)

(Robson, 2002, p.351)

- ▶ several researchers used it in similar surveys

(Hahn & Schmidt, 2005 ; Bennett & Nicholson, 2007)

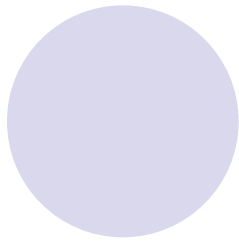
- ▶ it is within the context of policies that we sought to explore



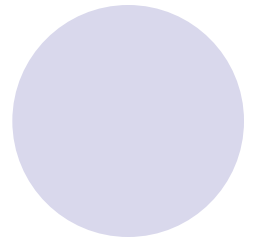
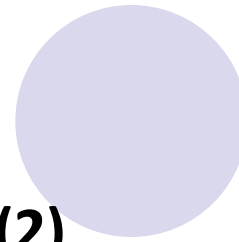
## Findings(1)

- ◆ 6/21 policies were only for GIS collections
- ◆ 5/21 along with map collection
- ◆ 8/21 along with geographical collection

Year of creation/update: 2003 - 2011



## Findings (2)



**Table 1.**  
**General Information**

<b>Rank</b>	<b>Content type</b>	<b>No of policies</b>	<b>Percent (n=21)</b>
1	Date created/revised/updated/	14	66.6%
2	Person related to/responsible for collection development policy	11	52.4%
3	Department Description/Academic Program Support	5	24%
4	Special considerations for collection development	1	4.8%
4	History	1	4.8%
4	Location of GIS Collection	1	4.8%



## Findings (3)

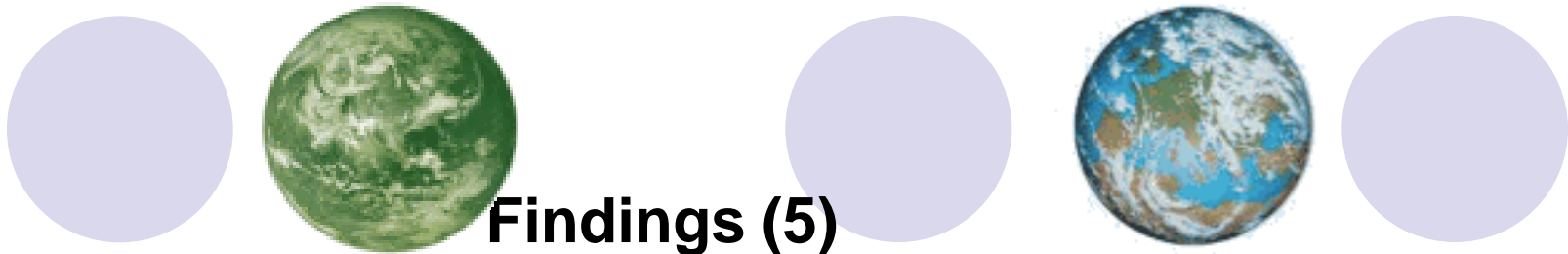
<b>Rank</b>	<b>Content Type</b>	<b>No of policies</b>	<b>Percent (n=21)</b>
1	Collection Purpose/Purpose of the collection/General Collection principles	10	47.6%
1	Collection Guidelines:	10	47.6%
	Subject boundaries/priorities	11	52.4%
	Publication dates collected	9	42.9%
	Languages	9	42.9%
	Geographical range	8	38.1%
	File formats and types	8	38.1%
	Type of materials included and excluded	5	23.8%
	Chronological span/limits	4	19.04%
2	Selection/Evaluation & Prioritization	4	19.04%
2	Audience/Description of users/Distribution	4	19.04%
2	Collection Profile/Description/Level/Brief Overview	4	19.04%
3	Acquisition/s	2	9.5%
4	Price	1	4.5%



## Findings (4)

<b>Table 3.</b>			
<b>Information Addressing Data</b>			
<b>Rank</b>	<b>Content Type</b>	<b>No of policies</b>	<b>Percent (n=21)</b>
1	Use/Licensing/Restrictions/ Copyright	4	19.04%
2	Data	3	14.3%
2	Weeding	3	14.3%
3	Metadata	2	9.5%
3	Documentation	2	9.5%
3	Software support	2	9.5%
4	Citation	1	4.8%



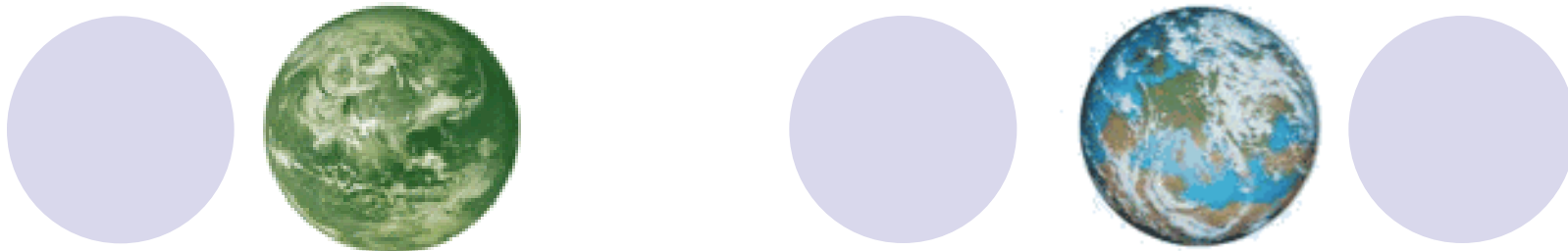


## Findings (5)

**Table 4.**

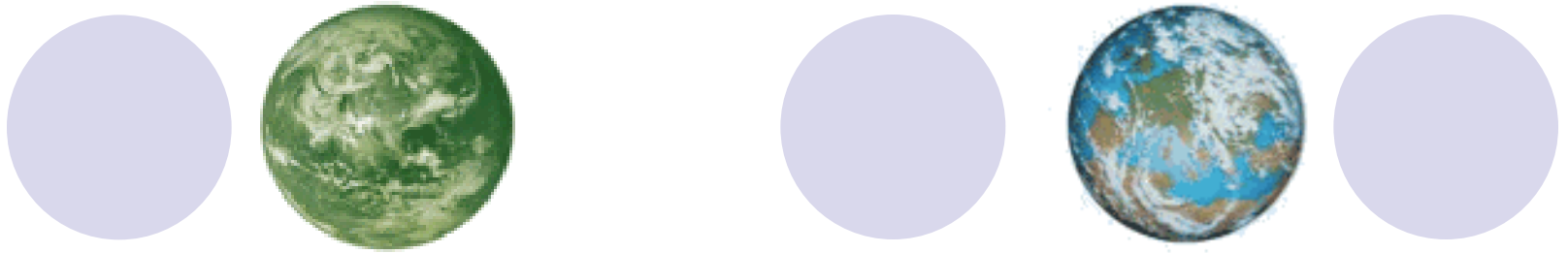
**Information Addressing OPEN ACCESS  
(availability of data)**

<b>Rank</b>	<b>Content Type</b>	<b>No of policies</b>	<b>Percent (n=21)</b>
1	Governmental sources (e.g. US Sensus Bureau, municipal agencies)	10	47.6%
2	Depository programs (e.g. FDLP, USGS, Canadian Topographic maps & data)	8	38.1%
2	Commercial firms	8	38.1%
3	Free data	3	14.3%
3	Gifts	3	14.3%
2	Consortia arrangements	2	9.5%
1	Non-profit entities (e.g. professional organizations or environmentally focused non profits)	1	4.8%
1	Products issued by people	1	4.8%



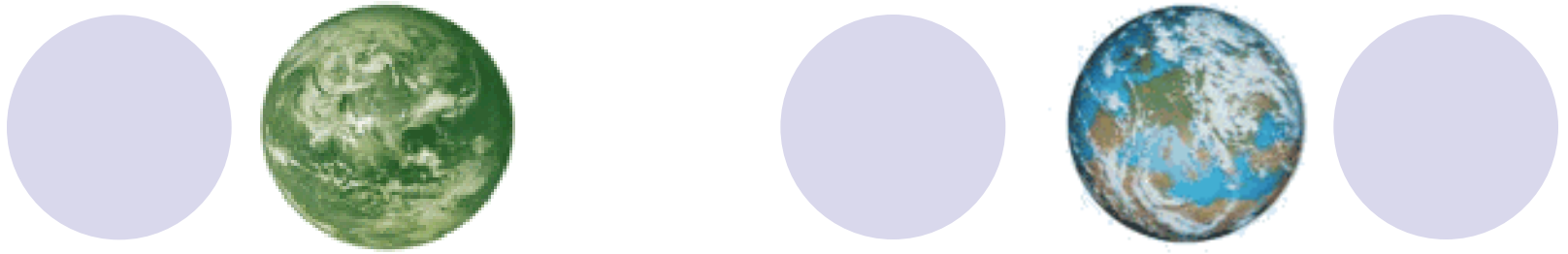
## Findings (6)

<b>Table 5.</b>			
<b>Information Addressing</b>			
<b>COOPERATION</b>			
<b>Rank</b>	<b>Content Type</b>	<b>No of policies</b>	<b>Percent (n=21)</b>
1	Cooperative arrangements and related collections	7	33.3%
2	Interdisciplinary Relationships	2	9.5%



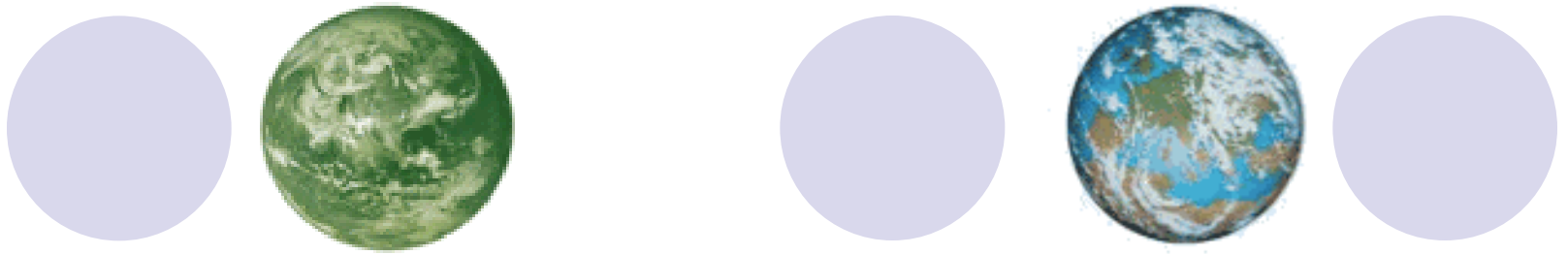
## Results related to research questions

- 1) **The main features of geospatial collection development policies are:**
  - ◆ General information (e.g. Date created/revised/updated, Person related to/responsible for the collection, department description)
  - ◆ Information regarding collection
  - ◆ Information regarding data
  - ◆ Information regarding availability of open data
  - ◆ Information regarding cooperation
- 2) **Features that reflect the adjustment to the rapid growth of open geospatial data**
  - ◆ The offer of public, government, local, etc. data
- 3) **Features that reflect the adjustment to limited financial means**
  - ◆ Open public data, Free data, Gifts, Cooperative arrangements



## Conclusions (1)

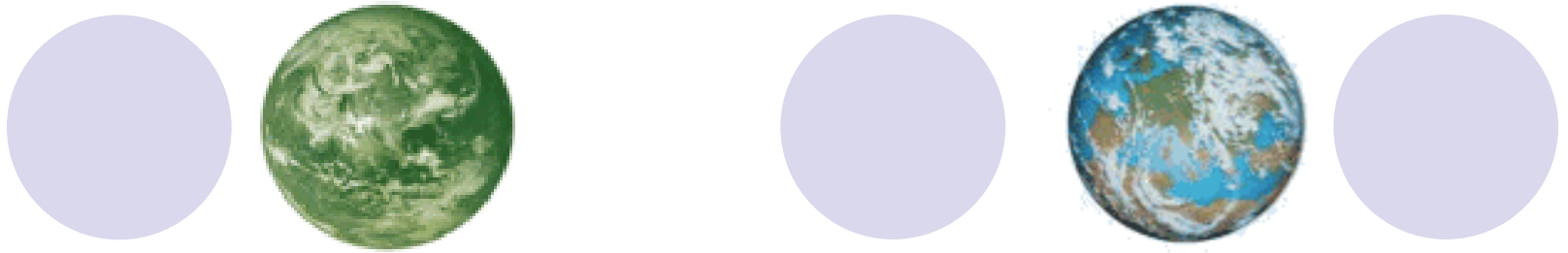
- ◆ 71.4% (15/21) were initial members of ARL GIS Literacy Project (8 from US, 7 from Canada)
- ◆ Lack of homogeneity in the text of geospatial policies
- ◆ Variety of terminology (e.g selection/material collected)
- ◆ Some documents provide epigrammatic information regarding important issues like acquisition or data distribution while some others are multi page
- ◆ Diversity of provided information



## Conclusions (2)

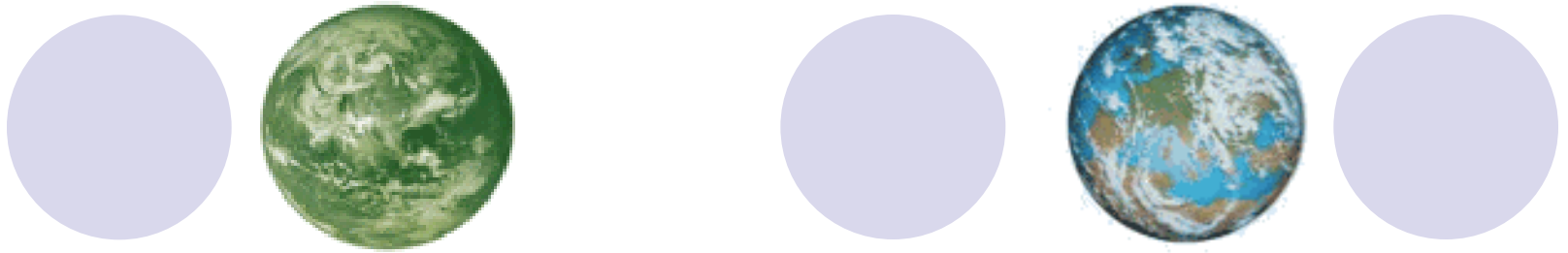
Features that appear in the majority of policies are:

- Person related to/responsible for collection development policy **(52.4%)**
- Collection Purpose **(47.6%)**
- Collection Guidelines **(47.6%)**
  - Subject boundaries/priorities **(52.4%)**
- Governmental sources (e.g. US Sensus Bureau, municipal agencies) **(47.6% )**
- Use/Licensing/Restrictions/Copyright **(19.04% )**
- Cooperative arrangements and related collections **(33.3%)**



## Future Work

- ◆ We consider that policies related to geospatial data have not been adequately examined
- ◆ Further research to geospatial collection development policies of other countries so to be able to make efficient conclusions

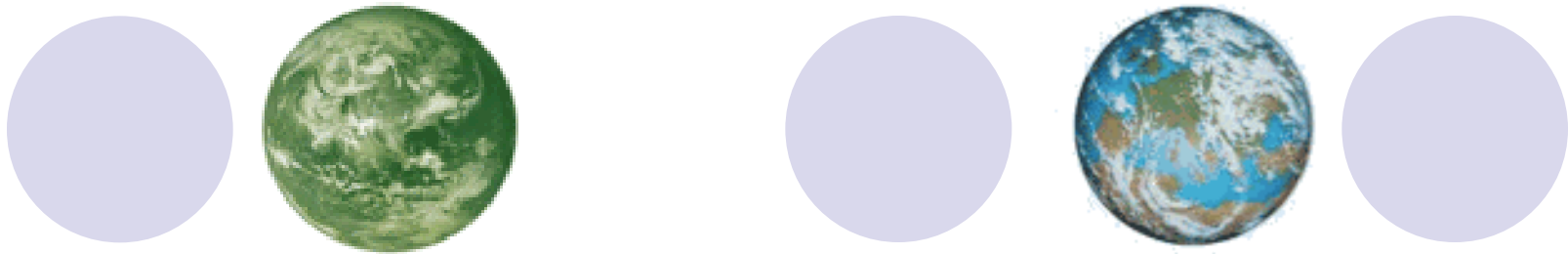


Geospatial information is in our everyday life..

In the environment of constant change librarians sought to be a part of the manipulation of this kind of information...

Thank you....

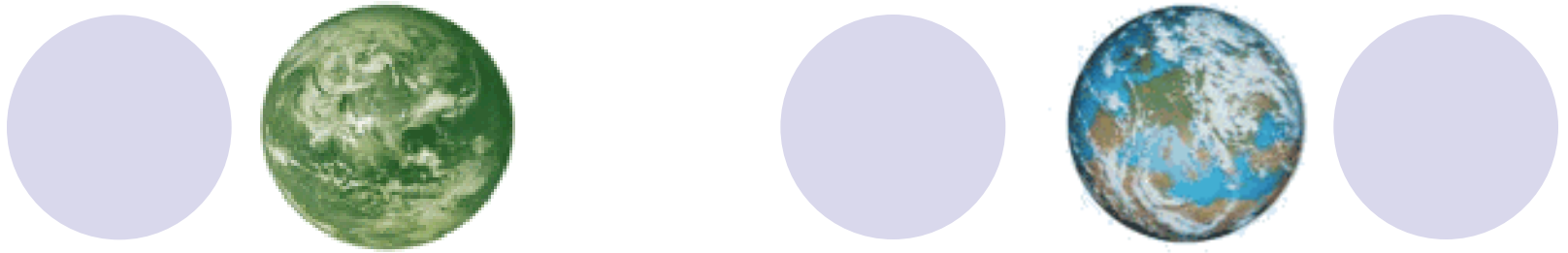




## Appendix. Examined Academic Libraries

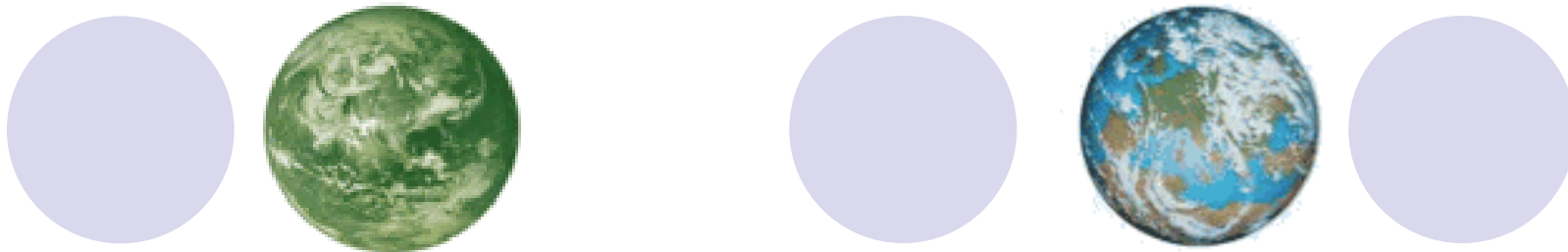
Carleton Univ.Library
Cornell Univ.
Duke
George Washington Univ.
Iowa State Univ.Library
McMaster University
Queen's Univ.
Ryerson Univ.
Simon Fraser Univ.
Stanford University / GIS at Branner
Univ.California-SanDiego
Univ.California-Santa Barbara
Univ.Colorado at Boulder
Univ.Illinois Urbana-Champaign
Univ.of Manitoba
Univ.of New Brunswick
University of Chicago
University of Pennsylvania
University of Waterloo
Univ. Wisconsin—Madison
University of Wisconsin-Milwaukee





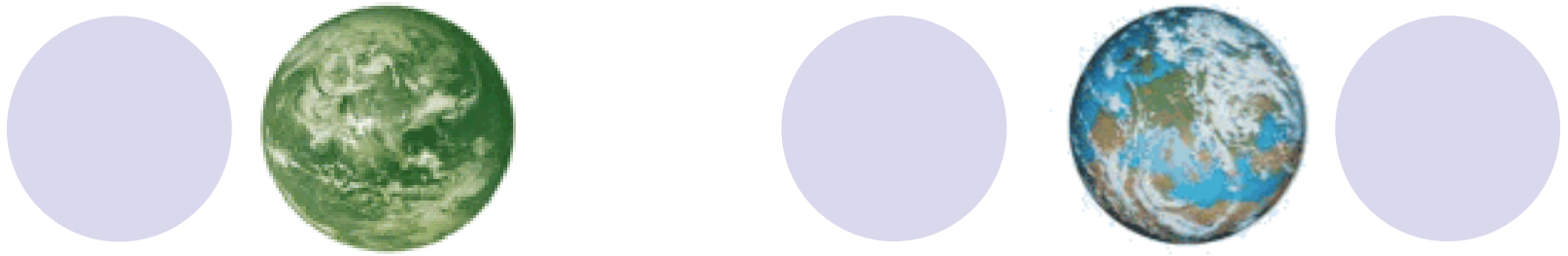
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<http://eprints.rclis.org/handle/10760/16096#.T0-PsHncC2o>
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<http://www.tandfonline.com/doi/abs/10.1080/15420353.2011.629402>  
[Accessed April 8, 2012].