Final Report for Sanikiluaq Sea Ice Project

1 Summary of the data collection

1.1 Provenance

Sanikiluaq is located on the Belcher Islands in southeastern Hudson Bay of Canada. It became hard for residents there to hunt for livings because of climate fickleness. To document these environmental changes, the Sanikiluaq Environmental Committee of ELOKA (Exchange for Local Observations and Knowledge of the Arctic) created Sea Ice Project to make long-term observations and to conduct surveys for this variation. ELOKA dispatched coordinators and researchers to actually conduct interviews and gather data from local hunters ("Sanikiluaq Community | eloka-arctic.org," n.d.). My curation task for Sanikiluaq Sea Ice Project can be classified as Original Ingest aiming for long-term preservation of the raw data and websites with embedded media.

1.2 Composition of data collection

ELOKA has their own websites for this project and the project is also funded by NSIDC (National Snow & Ice Data Center). So NSIDC assigned a unique identifier ELOKA002 for this project, and was responsible for providing access to the original dataset and producing documentation and metadata of it.

Therefore, the data collection consists of three parts from my perspective.

1) Original dataset of interviews, maps and photographs

Maps are in PDF format. Interviews and recorded photographs are in MEPG-4 format. The original dataset contains a map of place names of Belcher Islands, a map of regional references and three individual folders including maps, interviews and photographs of three hunters named Johnassie Ippak, Lucassie Takatak and Peter Kattuk. The original dataset is acquired from the link of NSIDC website.

2) Web pages of ELOKA and NSIDC without embedded media

All the web pages are in HTML format. There are six web pages of ELOKA related to Sanikiluaq Sea Ice Project. The web page of NSIDC is actually a documentation of the project.

3) Embedded images of the websites of ELOKA

Images appearing on the websites of ELOKA have been downloaded manually by myself. They are in PNG, GIF and JPG formats.

2 Changes between the draft and revised curation plan

1) In the draft data curation plan, web pages embedded with multimedia of ELOKA were not considered as important components of the whole collection. But after working with the contact of the project, I realized that the long-term preservation of web pages with embedded media was actually the most critical task for curation purpose. Because texts accompanying with images and videos on the ELOKA websites are actually significant data of the project. So in the revised version, tools for scripting the web pages themselves should be carefully considered. And the embedded images should also be extracted and preserved. The embedded videos are actually inside the original dataset, so there is no need to capture them again.

2) In the draft curation plan, I did not mention the NSIDC web page of the description of this project. The preservation of this web page should also be considered in the revised plan, because the NSIDC web page

is actually a hierarchical documentation of the Sanikiluaq Sea Ice Project. Since all the projects funded by NSIDC have a unified documentation structure of the datasets, it is inevitable to preserve this web page of ELOKA002 project.

3) In the draft curation plan, I did not introduce the detailed metadata standards. Then, I found one XML file of metadata in standalone from the ftp site:

ftp://sidads.colorado.edu/pub/metadata/fgdc/eloka002_fgdc.xml

The metadata file has a comprehensive description and detailed structure, and should be accompanied with the original dataset of the project.

4) Compared to the draft curation plan, a specific tool -- DataConservancy Package is adopted for revision, because it is especially applicable for ELOKA projects funded by NSIDC. The DataConservancy Package software can automatically produce tree structure for a data collection and compress a data collection by bagit with checksums of data files ("Software | Data Conservancy," n.d.).

5) In the draft curation plan, analog preservation was not mentioned. However, original drafts of maps written by hand are valuable objects for archiving. So in the revised plan, this part should be added and NSIDC Analog institution is responsible for archiving these objects.

3 Completed work for curation

3.1 Create folder Original Data_Package

This is a screen shot of the content inside the folder.

Name	Date modified	Type	Size
General maps	5/6/2016 12:36 AM	File folder	
Images on websites	5/6/2016 12:16 AM	File folder	
Johnassie_Ippak	5/6/2016 12:34 AM	File folder	
Lucassie_Takatak	5/6/2016 12:34 AM	File folder	
Peter_Kattuk	5/6/2016 12:35 AM	File folder	
00README.txt	1/24/2016 12:26 AM	Text Document	2 KB
eloka002_metadata.xml	5/4/2016 10:10 PM	XML Document	25 KB

I combine the original dataset and images embedded in the web pages together. The 00README.txt is a documentation of the access and contact information of the original dataset. The eloka002_metadata.xml is the metadata file of both the sea ice project and its original data, and is downloaded from the ftp site mentioned before.

3.2 Create WARC files through wget

I use Bash console to execute commands for extracting scripts of the six web pages of ELOKA and one web page of NSIDC, and saving in WARC (WebArchive) format. These are the relevant Linux commands:

1) Produce **San_index.warc** file for Sanikiluaq Community webpage. The WARC file contains the request and response headers (of the initial redirect and of the Sanikiluaq homepage), while at the same time Wget also created the single website **index.html** without embedded images or others. The command is:

wget "http://eloka-arctic.org/communities/sanikiluaq/index.html" --warc-file="San_index" --no-warc-compression

2) Produce **San_project.warc** file for Sanikiluaq Sea Ice Project webpage, while at the same time Wget also created the single website **seaice_project.html** without embedded media. The command is:

wget "http://eloka-arctic.org/communities/sanikiluaq/seaice_project.html" --warc-file="San_project" --no-warc-compression

3) Produce **San_hunters.warc** file for Hunters in Sanikiluaq webpage, while at the same time Wget also created the single website **seaice_hunters.html** without embedded media. The command is:

wget "http://eloka-arctic.org/communities/sanikiluaq/hunters/index.html" --warc-file="San_hunters" --no-warc-compression

4) Produce **San_ippak.warc** file for Johnassie Ippak: Sea ice observations webpage, while at the same time Wget also created the single website **johnassie_ippak.html** without embedded media. The command is:

wget "http://eloka-arctic.org/communities/sanikiluaq/hunters/johnassie_ippak.html" --warc-file="San_ippak" --no-warc-compression

5) Produce **San_takatak.warc** file for Lucassie Takatak: Sea ice observations webpage, while at the same time Wget also created the single website **lucassie_takatak.html** without embedded media. The command is:

wget "http://eloka-arctic.org/communities/sanikiluaq/hunters/lucassie_takatak.html" --warc-file="San_takatak" --no-warc-compression

6) Produce **San_kattuk.warc** file for Peter Kattuk: Sea ice observations webpage, while at the same time Wget also created the single website **peter_kattuk.html** without embedded media. The command is:

wget "http://eloka-arctic.org/communities/sanikiluaq/hunters/peter_kattuk.html" --warc-file="San_kattuk" --no-warc-compression

7) Produce **San_NSIDC.warc** file of the print version webpage of NSIDC ELOKA002 project. At the same time, Wget created the single website **index_NSIDC.html** without embedded media. The command is:

wget "http://nsidc.org/data/ELOKA002/versions/1/print/" --warc-file="San_NSIDC" --no-warc-compression

3.3 Create folder WARC_Package

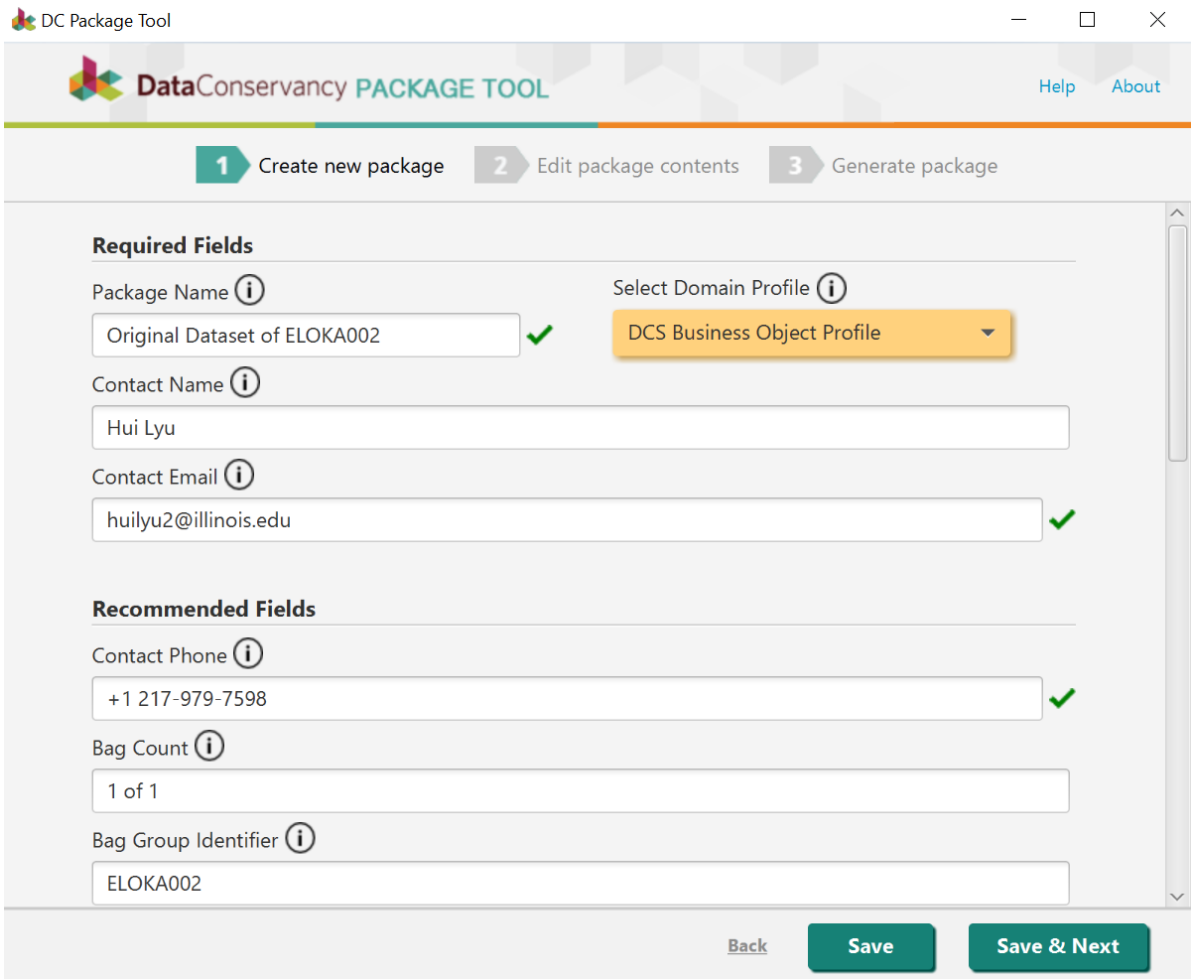
I gather the seven WARC files and corresponding HTML files into one folder. The WARC file and HTML file of NSIDC web page are good documentation of the sea ice project.

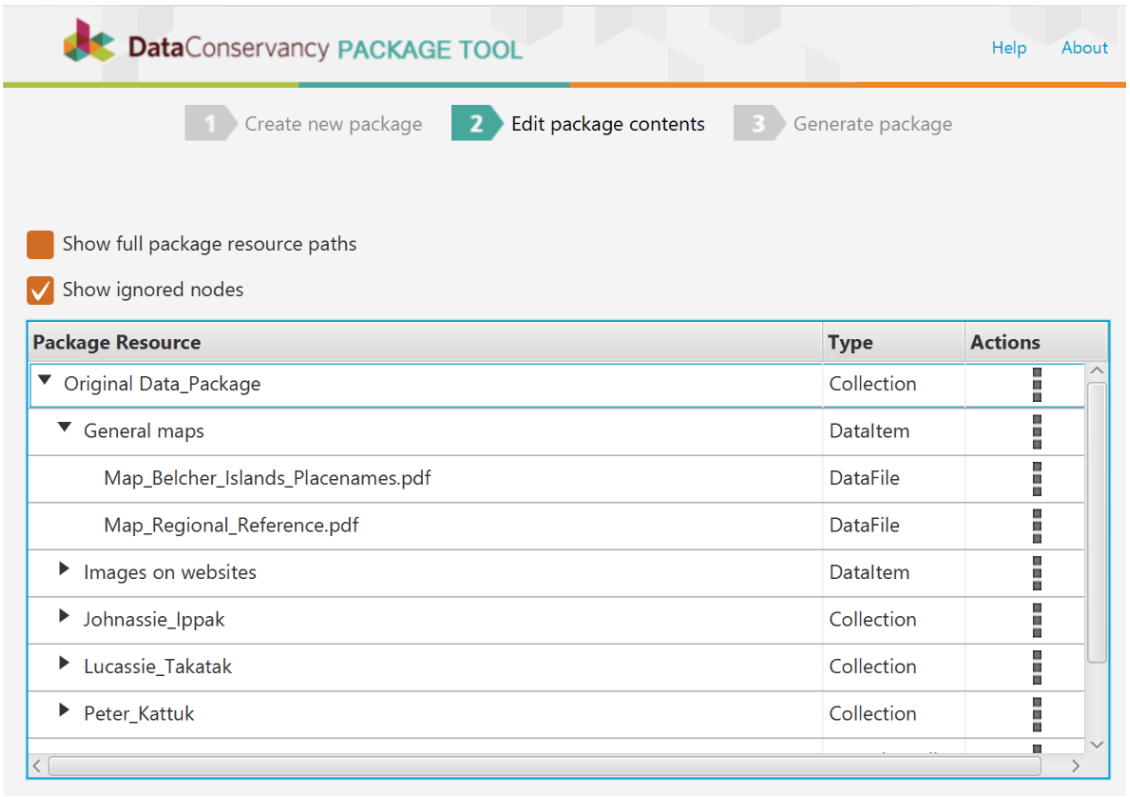
This is a screen shot of the content inside the folder.

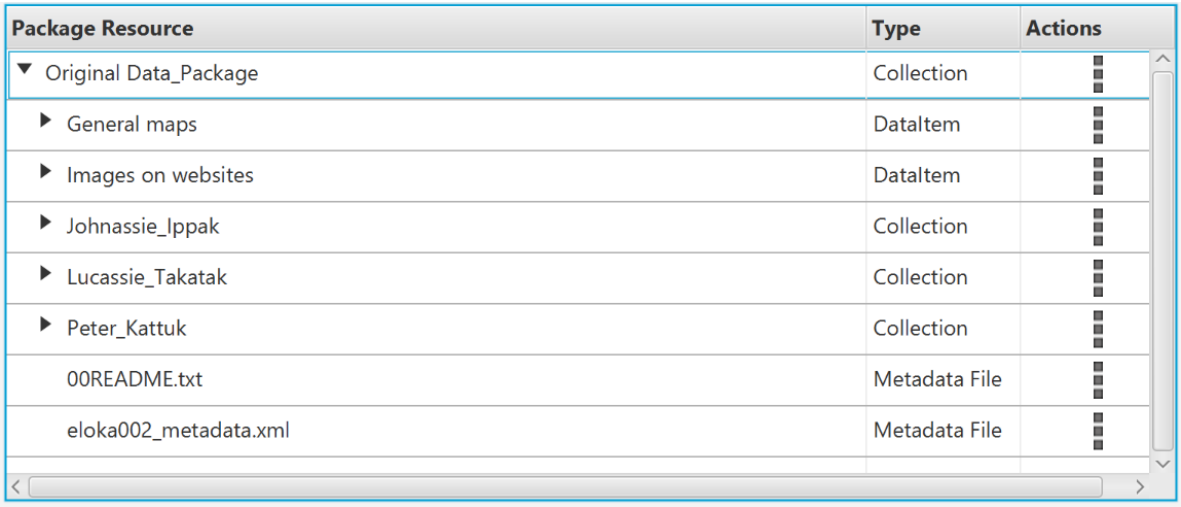
Name	Date modified	Type	Size
index.html	5/6/2016 2:12 PM	Firefox HTML Docum...	16 KB
index_NSIDC.html	5/6/2016 2:12 PM	Firefox HTML Docum...	41 KB
johnassie_ippak.html	5/6/2016 7:32 PM	Firefox HTML Docum...	19 KB
lucassie_takatak.html	5/6/2016 7:32 PM	Firefox HTML Docum...	18 KB
peter_kattuk.html	5/6/2016 7:32 PM	Firefox HTML Docum...	19 KB
San_hunters.warc	5/6/2016 7:32 PM	WARC File	24 KB
San_index.warc	5/6/2016 2:12 PM	WARC File	20 KB
San_ippak.warc	5/6/2016 7:32 PM	WARC File	24 KB
San_kattuk.warc	5/6/2016 7:33 PM	WARC File	24 KB
San_NSIDC.warc	5/6/2016 2:13 PM	WARC File	45 KB
San_project.warc	5/6/2016 7:33 PM	WARC File	28 KB
San_takatak.warc	5/6/2016 7:33 PM	WARC File	23 KB
seaice_hunters.html	5/6/2016 7:33 PM	Firefox HTML Docum...	20 KB
seaice_project.html	5/6/2016 7:33 PM	Firefox HTML Docum...	24 KB

3.4 Create DataConservancy packages for the two folders

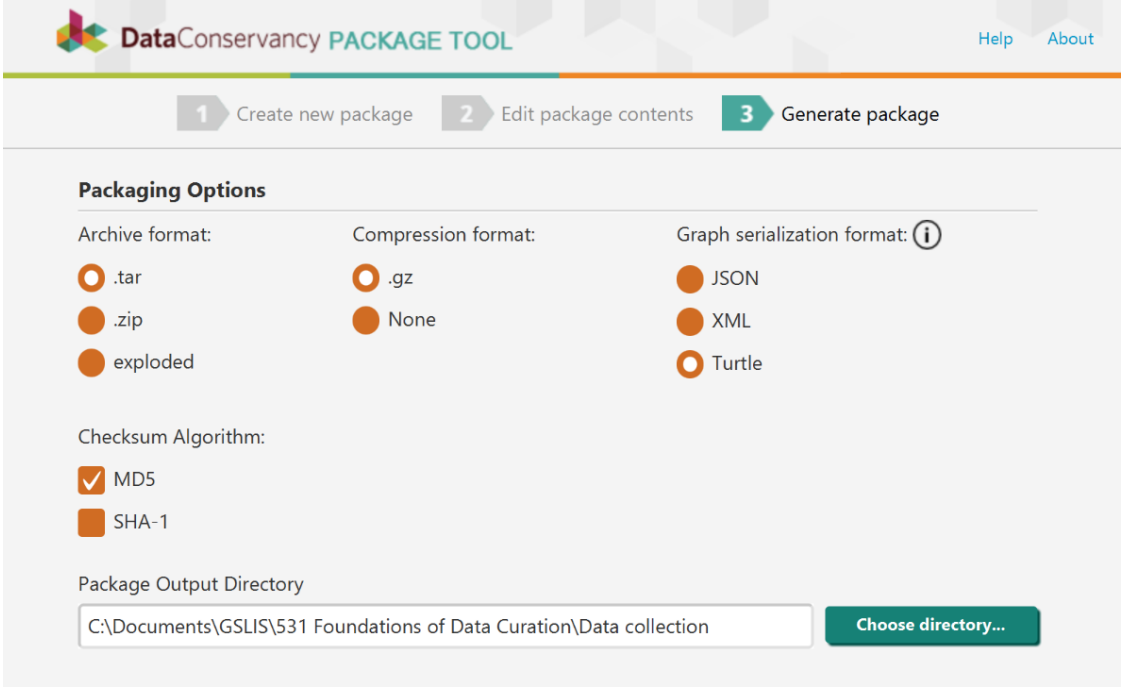
To make long-term preservation of files of the two folders, I adopt DataConservancy Package Tool to establish two tree-structured packages separately for the two folders. Examples of screen shots are shown as follows.







The tree hierarchy is Collection -> DataItem -> DataFile, and MetadataFile. I use Actions button on the right to manually change the hierarchy role if it is wrong.



The DataConservancy Package has bagit function including checksums for digital objects, which is desirable for fixity guarantee and long-term preservation.

After finishing creating two packages for the two folders, these files have been produced:

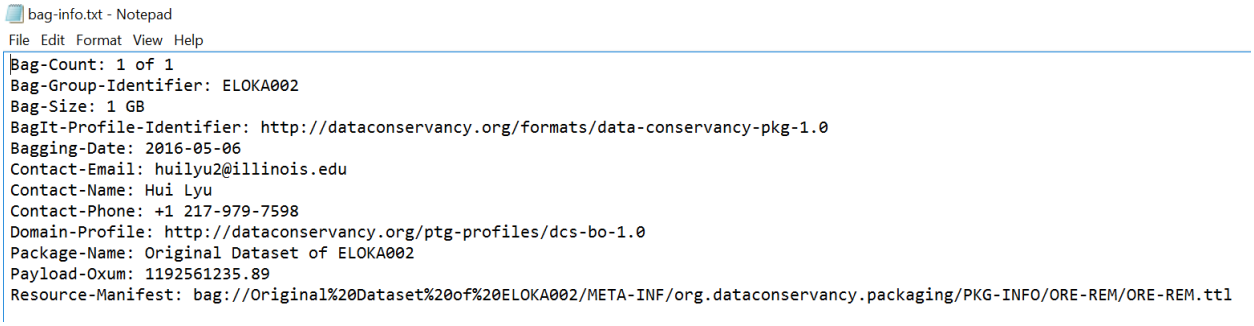
Name	Date modified	Type	Size
Original Dataset of ELOKA002.dcp	5/6/2016 6:39 PM	DCP File	165 KB
Original Dataset of ELOKA002.tar.gz	5/6/2016 6:39 PM	WinRAR archive	801,854 KB
WARC Files of ELOKA002.dcp	5/6/2016 7:44 PM	DCP File	51 KB
WARC Files of ELOKA002.tar.gz	5/6/2016 7:44 PM	WinRAR archive	97 KB

Inside the compressed tar.gz files, data itself, bag information and md5 checksums are included.

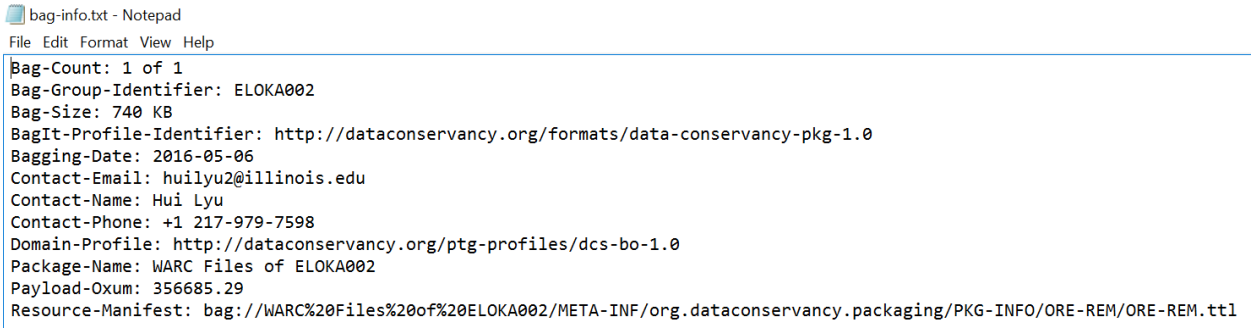
Original Dataset of ELOKA002.tar.gz\Original Dataset of ELOKA002 - TAR+GZIP archive, unpacked size 1,193,109,903 bytes

Name	Size	Packed	Type	Modified	CRC32
..			Local Disk		
data			File folder	5/6/2016 6:38 PM	
META-INF			File folder	5/6/2016 6:38 PM	
bag-info.txt	554	?	Text Docum...	5/6/2016 6:38 PM	
bagit.txt	59	?	Text Docum...	5/6/2016 6:38 PM	
manifest-md5.txt	9,953	?	Text Docum...	5/6/2016 6:38 PM	
tagmanifest-md5.txt	1,569	?	Text Docum...	5/6/2016 6:38 PM	

This is a screen shot of the bag-info.txt of the original dataset folder package.



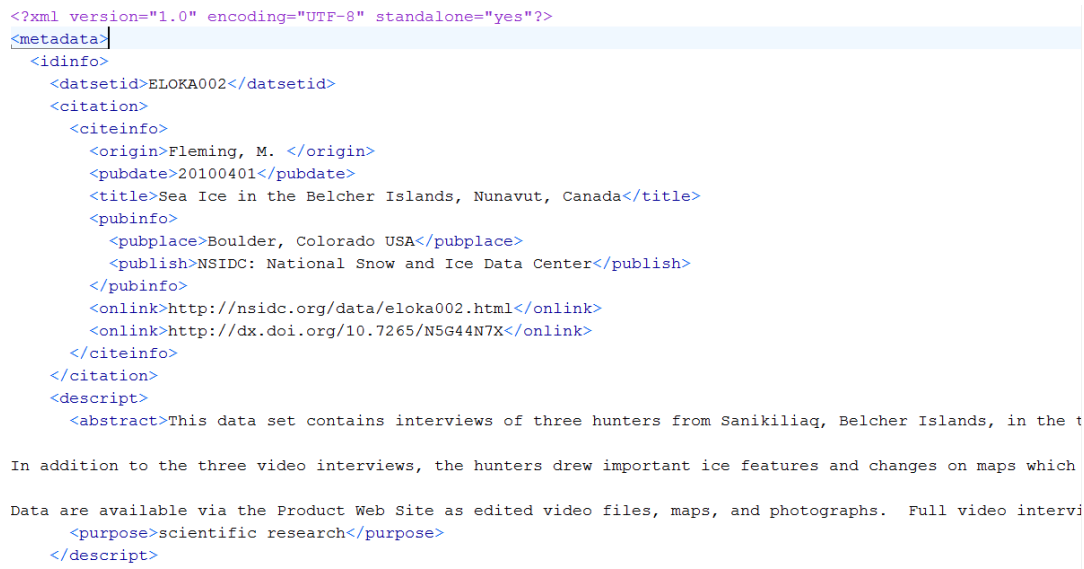
This is a screen shot of the bag-info.txt of the WARC files folder package.



3.5 Metadata and documentation needs and standards

1) Metadata

The metadata has already been produced by NSIDC linking to its web page of ELOKA002 project. The eloka002_metadata.xml has also been included in the Original Data_Package and been preserved using DataConservancy Package Tool. This is a screen shot of the XML file.



It is a standalone version, translated from the web page metadata on NSIDC website http://nsidc.org/data/ELOKA002/versions/1/metadata to an XML format metadata. The structure standard

used is unified applicable to all the datasets of projects funded by NSIDC. So, I did not make any modification to the XML file. During the creation procedure of the DataConservancy Package, I especially make sure that the XML file is regarded as MetadataFile type of the tree structure. In general, the metadata has the following elements for the project:

- Data Set ID: ELOKA002
- Version: 1
- Data Set Supporting Program: ELOKA
- Investigator(s):
- Abstract:
- Location:
- Spatial Coverage: N:, S:, E:, W:
- Temporal Coverage:
- GCMD Parameter(s):
- Platform(s):
- Sensor(s):
- Data Format(s):
- Keyword(s):
- Data Citation:
- Data Creation Date:
- Last Updated:

These elements cover all the necessary information for the metadata record of the sea ice project.

2) Documentation

Documentation of the data collection is mainly the web page of NSIDC which has already been scripted using wget as WARC file. Accessible here: http://nsidc.org/data/ELOKA002/versions/1/print/

More detailed information can be obtained on the ELOKA websites. These websites are comprehensive documentation of the Sanikiluaq Sea Ice Project.

The documentation of the data collection preserved in DataConservancy Packages:

There are two DataConservancy Packages for the Sanikiluaq Sea Ice Project. One package is called Original Dataset of ELOKA002, the other is called WARC Files of ELOKA002. Each package consists of the data, bagit information and checksums. Data of the first package includes raw files of interviews, maps, photographs, images embedded in the ELOKA websites, a txt file about access information documentation and an XML file of the metadata of the project. Data of the second package includes WARC files and corresponding HTML files of six web pages of ELOKA and one page of NSIDC regarding the concise documentation of the project.

4 Remaining work

Referring to the curation stack model, there could some future work in moving the collection to better condition for long-term preservation and curation.

For the storage layer, data is well classified and stored. Access and backup to raw data is also good through ftp site.

For the archiving layer, both analog and digital objects have been good preserved.

For the preservation layer, it might be a good idea to update and replenish metadata with hierarchy, such as to establish a hierarchy for keywords inside the metadata file. Maybe to create documentation for each of all the objects and their relationships is another idea for better detailed documentation.

For the curation layer, it is ideal to transfer and reuse data to knowledge for the climate monitoring and the improvement of hunters' lives.

5 Gains and lessons

Through the curation experience, I have learned how to explore new software DataConservancy Package Tool on my own and how to execute Linux commands using the Bash console. I feel glad to achieve web archiving task to create WARC files, which makes me more familiar with Linux commands. I also got surprised at the amazing performance of DataConservancy Package, which creates the tree structure automatically and incorporates the bagit function with checksums for digital preservation.

References

Sanikiluaq Community | eloka-arctic.org. (n.d.). Retrieved from http://eloka-arctic.org/communities/sanikiluaq/index.html

Software | Data Conservancy. (n.d.). Retrieved from http://dataconservancy.org/software/

Appendices

I. Updated version of the data curation plan

Data Curation Plan for Sanikiluaq Sea Ice Project

1 Description of the collection

1.1 Provenance

Sanikiluaq is located on the Belcher Islands in southeastern Hudson Bay of Canada where residents mainly rely on hunting for food, clothing, and other necessary supplies. In the past, hunters looked for animals based on traditional climate knowledge and experiences. However, climate conditions in Hudson Bay have become fickle over the past few decades. Sea ice conditions are unpredictable and some animals have deteriorated, making it hard for hunting. To document these environmental changes, the Sanikiluaq Environmental Committee created Sea Ice Project to make long-term observations and to conduct surveys of the traditional hunters for this variation. Participants are three hunters who are interviewed and help drawing maps about changing conditions. Besides, collaborators play roles of study leader, research coordinator and translator for the hunters. (“Sanikiluaq Community | eloka-arctic.org,” n.d.)

1.2 Project type and objective

The type of Sanikiluaq Sea Ice Project can be classified as Original Ingest, which belongs to the section between AIP (Archival Information Package) and SIP (Submission Information Package) of the OAIS Reference Model. That means the project has made a preparation for translating information from raw data to archival data. Through a thorough research on the variation rules and reasons for this change, corresponding predictions and strategies can be proposed to reduce the environmental deterioration, to improve the hunters' lives and to make sustainable development.

1.3 Data package

ELOKA has their own websites for this project and the project is also funded by NSIDC (National Snow & Ice Data Center). So NSIDC assigned a unique identifier ELOKA002 for this project, and was responsible for providing access to the original dataset and producing documentation and metadata of it.

Therefore, the data collection consists of three parts from my perspective.

1) Original dataset of interviews, maps and photographs

Maps are in PDF format. Interviews and recorded photographs are in MEPG-4 format. The original dataset contains a map of place names of Belcher Islands, a map of regional references and three individual folders including maps, interviews and photographs of three hunters named Johnassie Ippak, Lucassie Takatak and Peter Kattuk. The original dataset is acquired from the link of NSIDC website.

2) Web pages of ELOKA and NSIDC without embedded media

All the web pages are in HTML format. There are six web pages of ELOKA related to Sanikiluaq Sea Ice Project. The web page of NSIDC is actually a documentation of the project.

3) Embedded images of the websites of ELOKA

Images appearing on the websites of ELOKA have been downloaded manually by myself. They are in PNG, GIF and JPG formats.

2 Functional category

2.1 Resource or community data collection

Sanikiluaq Sea Ice project is a community-based project, belonging to projects of the whole Arctic communities established by ELOKA (Exchange for Local Observations and Knowledge of the Arctic). The primary participants are local hunters in Sanikiluaq Community with collaboration of coordinators and scientists from ELOKA. Therefore, the digital data collection of Sanikiluaq Sea Ice project has characteristics of the category of resource or community data collections. It has a community-level standard with uniform formats and marking rules of maps composed by coordinators and three hunters.

2.2 Implications of the category

Since it is a resource collection, the participants and people to serve are residents in this certain community. Though the character of original ingest of this project may not substantially improve residents' living conditions, the resource data collection can be utilized for further in-depth research of Sanikiluaq Community. While, data management, if designed to serve local community needs as well as broader interests, can help to promote new relationships between local communities and global researchers. The findings in Sanikiluaq Sea Ice project can also be compared and applied to other projects of Arctic communities.

3 Documentation of current state

3.1 Audience

Audience of Sanikiluaq Sea Ice Project are primarily community members (residents, scientists, government officers and general researchers) in Sanikiluaq and other Arctic communities outside Sanikiluaq; even interested global public can also become potential audience. In order to make data useful to the audience, there is a sub-site within the ELOKA website of this project. Community members are able to ask for downloadable maps that could be printed as they are deemed more useful than strictly screen-based maps. Together, these tools on the website provide a unique and customized means to store and present Sanikiluaq's research within and outside of the community.

3.2 Scope

Both of the introduction of the project and access to the data package can be acquired on the ELOKA website and NSIDC (National Snow & Ice Data Center) website, which makes the project global accessible. Sanikiluaq Sea Ice Project is a sub project of ELOKA in the whole Arctic communities, involving both local community residents and coordinators and scientists from ELOKA. That means ELOKA makes the project geographical expanding to adjacent regional researches. Simultaneously, connection to NSIDC makes the research objects and problems of the project materially expanding to general ice issues.

3.3 Standards and compliance

This is a table of attributes of digital objects in this data collection. Files in the package record data before 2010.

Table 1. List of digital objects in the data collection

Hierarchy	Title	Format	Size	Quantity	Description

Package	Map_Belcher_Islands_Placenames	PDF	2.39MB	1	General introduction of place names
Package	Map_Regional_Reference	PDF	3.09MB	1	References of regional character
Package -> Johnassie_Ippak	Map_Belcher_Islands_Sea_Ice_Conditions-Ippak	PDF	2.27MB	1	Sea ice features, sea ice monitoring sites and travel routes in different periods
Package -> Johnassie_Ippak	Map_Ippak_Sea_Ice_Photo_Locations	PDF	2.15MB	1	Descriptions of digital images and their locations
Package -> Johnassie_Ippak -> Ippak_Interview	Ippak1, Ippak2, Ippak3, Ippak4	Mp4	70.6MB, 80.7MB, 79.8MB, 67.5MB	4	Interviews of Johnassie Ippak
Package -> Johnassie_Ippak -> Ippak_Sea_Ice_Narration	Ippak_Photo_Narration1, Ippak_Photo_Narration2, Ippak_Photo_Narration3	Mp4	32.3MB, 35.4MB, 41.0MB	3	Evaluations of digital images taken in different places
Package -> Lucassie_Takatak	Map_Belcher_Islands_Sea_Ice_Conditions-Takatak	PDF	2.43MB	1	Floe edge, tidal movement & currents, areas information
Package -> Lucassie_Takatak -> Takatak_Interview	Takatak1, Takatak2, Takatak3, Takatak4, Takatak5	Mp4	80.4MB, 89.8MB, 81.2MB, 64.0MB, 38.9MB	5	Interviews of Lucassie Takatak
Package -> Peter_Kattuk	Map_Belcher_Islands_Sea_Ice_Features-Kattuk	PDF	3.79MB	1	Sea ice features: 1997-2009
Package -> Peter_Kattuk -> Kattuk_Interview	Kattuk1, Kattuk2, Kattuk3, Kattuk4, Kattuk5	Mp4	77.2MB, 74.7MB, 85.1MB, 71.9MB, 47.5MB	5	Interviews of Peter Kattuk

In addition to files in the data collection, descriptions on the website are also inevitable resources for research of the project. The standards of those descriptions are in HTML structure with embedded images and videos. Projects of ELOKA have basically the same web page structure. Since recording videos are not displayed clearly enough, complementary textual descriptions on the website can articulate the main points. Information obtained from three hunters are interviews under analogous covering methods and maps with the same marking rules. Therefore, it develops a uniform community-level standard shared within local community and similar standards within Arctic communities.

1) Metadata

The metadata has already been produced by NSIDC linking to its web page of ELOKA002 project. The eloka002_metadata.xml has also been included in the Original Data_Package and been preserved using DataConservancy Package Tool. It is a standalone version, translated from the web page metadata on NSIDC website http://nsidc.org/data/ELOKA002/versions/1/metadata to an XML format metadata. The structure standard used is unified applicable to all the datasets of projects funded by NSIDC. So, I did not make any modification to the XML file. During the creation procedure of the DataConservancy Package, I especially make sure that the XML file is regarded as MetadataFile type of the tree structure.

2) Documentation

Documentation of the data collection is mainly the web page of NSIDC which has already been scripted using wget as WARC file. Accessible here: http://nsidc.org/data/ELOKA002/versions/1/print/

More detailed information can be obtained on the ELOKA websites. These websites are comprehensive documentation of the Sanikiluaq Sea Ice Project.

The documentation of the data collection preserved in DataConservancy Packages:

There are two DataConservancy Packages for the Sanikiluaq Sea Ice Project. One package is called Original Dataset of ELOKA002, the other is called WARC Files of ELOKA002. Each package consists of the data, bagit information and checksums. Data of the first package includes raw files of interviews, maps, photographs, images embedded in the ELOKA websites, a txt file about access information documentation and an XML file of the metadata of the project. Data of the second package includes WARC files and corresponding HTML files of six web pages of ELOKA and one page of NSIDC regarding the concise documentation of the project.

3.4 Curation

ELOKA partnered with Sanikiluaq to provide data management for a small subset of their work documenting local observations and knowledge of recent sea ice change. ELOKA's mission is to "facilitates the collection, preservation, exchange, and use of local observations and knowledge of the Arctic." ("About ELOKA | eloka-arctic.org," n.d.). ELOKA was able to provide Sanikiluaq with data management services and in turn, ELOKA had an opportunity to learn about their needs and wants for data preservation, access, visualization, and communication. Data collections of Sanikiluaq Sea Ice Project are combined with web-based representation tools in order to create a system satisfying the needs of the community.

3.5 Maintenance, funding and persistence

The project incorporates participation of the government, the local hunters, climatologists and other scientific collaborators. So this is a cooperation to make sustainable maintenance. Funding primarily comes from ELOKA and the budgets for this kind of resource data collection are intermediate in size. Currently, the project team recognize the importance of building trust between ELOKA and the communities that work with. ELOKA employed a dedicated Knowledge Exchange Coordinator, in the role of "culture broker", who had a deep understanding of indigenous and other ways and focused on working closely with partners to ensure that their needs were well understood. Strong relationships and mutual trust are keys to enlarge its persistence length.

4 Future work

Referring to the curation stack model, there could some future work in moving the collection to better condition for long-term preservation and curation.

- For the storage layer, data is well classified and stored. Access and backup to raw data is also good through ftp site.
- For the archiving layer, both analog and digital objects have been good preserved.
- For the preservation layer, it might be a good idea to update and replenish metadata with hierarchy, such as to establish a hierarchy for keywords inside the metadata file. Maybe to create documentation for each of all the objects and their relationships is another idea for better detailed documentation.
- For the curation layer, it is ideal to transfer and reuse data to knowledge for the climate monitoring and the improvement of hunters' lives.

II. Correspondence summary with data collection contact

Contact person: Ruth Duerr

- **Beginning:**

Ruth advised me to look for information about these data, the project, etc. anywhere that it can be found. The ELOKA websites and the NSIDC website.

The eloka-arctic web site explains the history of the region, and contains the biographies of the participants and summaries of the interviews. I visited the home page of Sanikiluaq Community and learnt that the Sea Ice Project was to make an observation of the environmental changes of Sanikiluaq and to conduct surveys of the traditional hunters for their attitudes and opinions for this variation. The participants are three hunters who provide information and maps about changing conditions.

To document the everyday changes, Sanikiluaq Environment Committee was established and Government of Nunavut incorporated into the project, hoping to form an environmental monitoring system with collaboration between hunters, scientists and experts to provide long-term observation. Hunters express their feelings primarily based on traditional knowledge for hunting animals. Collaborators play roles of study leader, research coordinator and translator for four generations of hunters.

- **Halfway:**

Questions and answers:

- Are the original drafts of maps written by hand still be preserved and saved? Is there any copy of them?
    - yes, and they are in the NSIDC analog archive
- Is there any raw data about the interviews, such as notes? How are they archived?
    - not to my knowledge
- I think for videotaped interviews, MP4 file format is not a good choice for long-term preservation on account of its lossy compression algorithm and media dependency feature. Is there any other digital format of these videos? Can I migrate them to other devices, or record the information as XML output stream?

    - I don't know about other devices; but recommendations for formats are always gratefully appreciated... I'll check on the original format; but you might have to live with what is available
- What information do you most hope to be shared to designated community? And how can it be reused?
    - In this particular case, the issue is not sharing; but curation.
- What's your final objective for this project? How can it be connected to other projects of ELOKA for the Arctic communities?
    - To preserve the data within a Data Conservancy instance at the NSIDC. Front end services provide those connections and they aren't part of this project.

From Ruth:

Though in the long run true curation is the goal. No other ELOKA projects need be considered.

Actually, you should read up on the dataconservancy.org since that is the software system being used for preservation. Since Sanikiluaq is a web site with embedded media, you should look into how to preserve that for the very long term. In other words, how would one be able to make those web pages with their videos, etc. work in 100 years when none of the existing data formats or tools (e.g., Druple) exist. I note that there are communities working on exactly this problem...

- **Final stage:**

NSIDC is the organization that actually preserves the dataset of the project and provides access. NSIDC is also responsible for providing metadata with an identifier for the project. ELOKA dispatches coordinators and researchers to actually conduct interviews and gather the data from local hunters. ELOKA has their own websites for the project and also submitted the description of the project and dataset to NSIDC for preservation and curation.

For my project, files of interviews, maps and photographs in PDF and MEPG-4 formats actually compose the dataset. Besides, the ELOKA websites (change the maps format into JPEG, and contain other images of the hunters in JPEG) embedded with these multimedia files of this project are also need to be preserved by NSIDC. So for my assignment, I need to draw a curation plan at the basis of NSIDC to preserve the ELOKA websites with embedded images and videos, and to preserve the original files of interviews, maps and photographs.

After making a phone call to my contact Ruth, I made a clear framework for my curation plan. There should be at least two packages of Data Conservancy for separate orders.

What to include in the packages:

- original digital objects including videos and photographs in MPEG-4, maps in PDF, and web-based images in JPEG.
- NSIDC's metadata for ELOKA002 project in XML format
- web archiving files (WARC file) of HTML scripts for ELOKA websites
- documentation extracted from ELOKA websites

III. URL to Box of completed curation work

https://uofi.box.com/s/lbmya7di0omeoi783mrtq1nbql3hmumj