Onto Somethin'

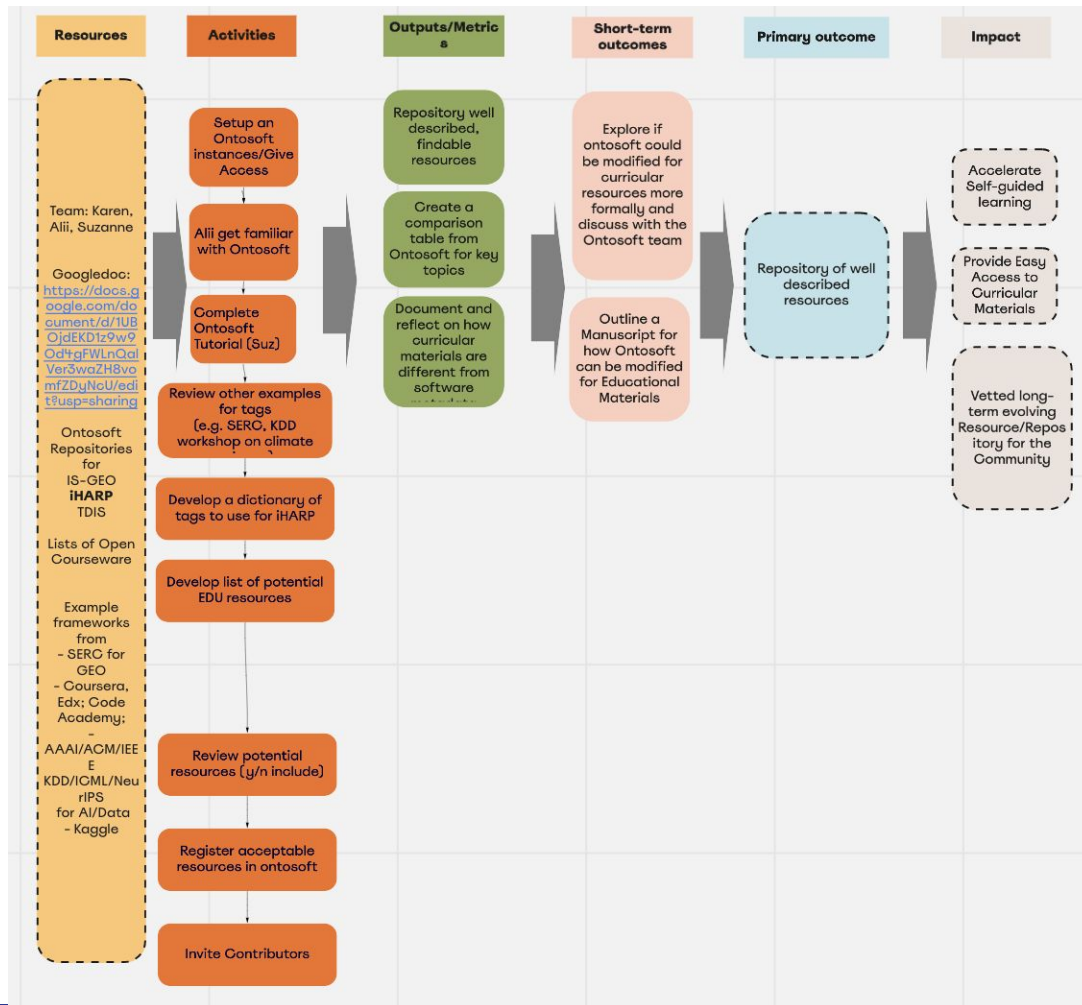**Team Members: Suzanne Pierce, Alii Napoleon, Karen Chen**

Goals:

Identify and describe at least 25 relevant curricular resources to inform the iHARP community.
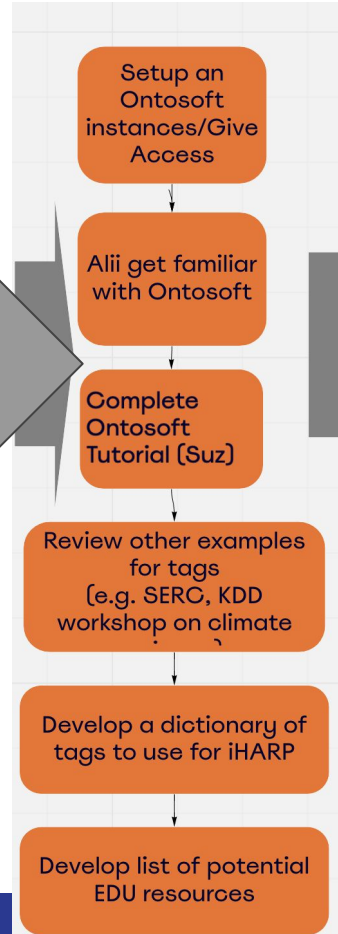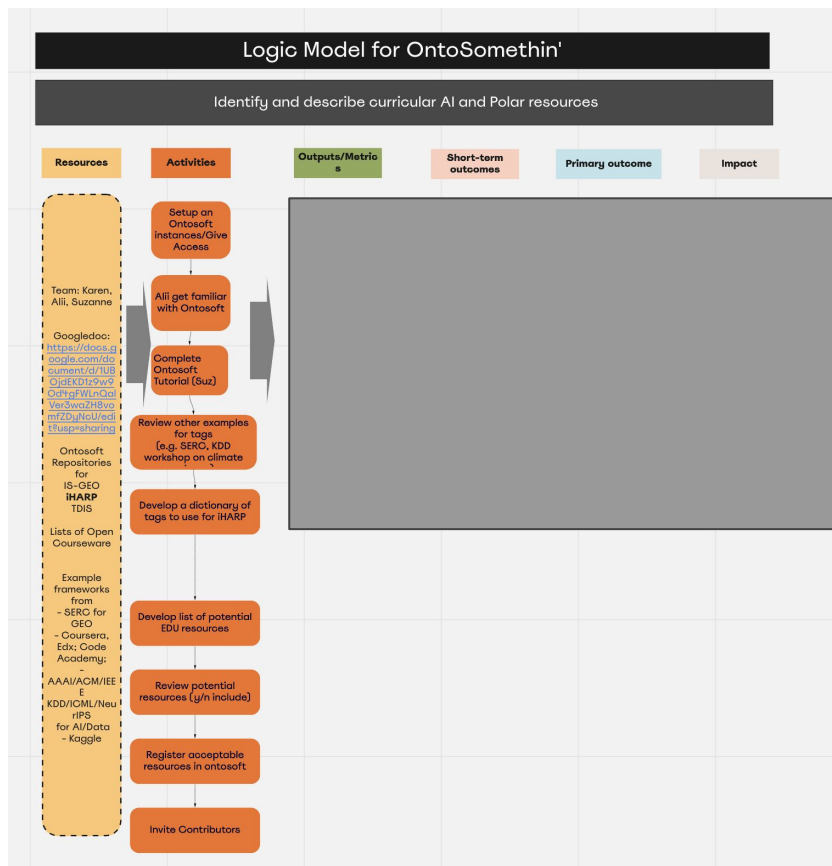
Resources should include domain topics in Data Sciences and Polar Sciences

A Resource list will be produced that describes pedagogical or curricular materials

Logic Model and Priority Activities

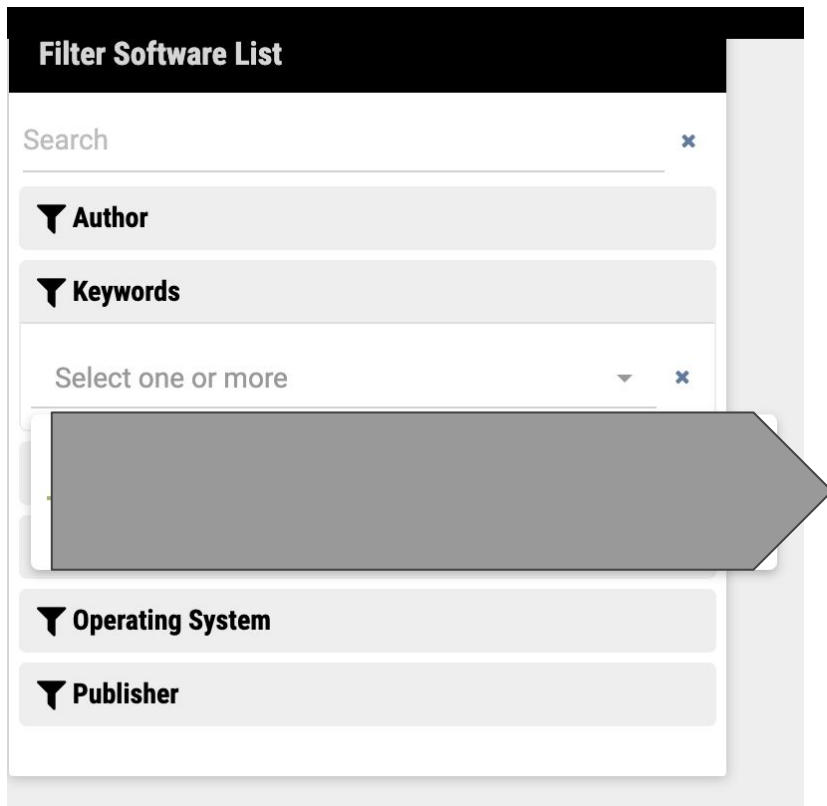# Completed Wednesday, August 18, 2022

Logic Model for OntoSomethin'

Identify and describe curricular AI and Polar resources

| Resources | Activities | Outputs/Metrics | Short-term outcomes | Primary outcome | Impact |

Resources:
Team: Karen, Alii, Suzanne

Googledoc:
https://docs.google.com/document/d/1UBOjdEKDtz9w9Od+gFWLnQaVer3waZH8vamfZDyNcU/edit?usp=sharing

Ontosoft Repositories for IS-GEO iHARP TDIS

Lists of Open Courseware

Example frameworks from
- SERC for GEO
- Coursera, Edx; Code Academy;
- AAAI/ACM/IEEE
- KDD/ICML/NeurIPS for AI/Data
- Kaggle

Activities:
- Setup an Ontosoft instances/Give Access
- Alii get familiar with Ontosoft
- Complete Ontosoft Tutorial (Suz)
- Review other examples for tags (e.g. SERC, KDD workshop on climate
- Develop a dictionary of tags to use for iHARP
- Develop list of potential EDU resources
- Review potential resources (y/n include)
- Register acceptable resources in ontosoft
- Invite Contributors

Issue:
Register for a User but can't edit
So all use admin acct
ACTION - send email to Developer (Suzanne)

Setting up a Framework

Goal is to prioritize spatio-temporal materials to support research and education from the perspective of both Polar and Data Science domains

Keywords or Labels:
- category [tool, teaching material, tutorial]
  - (new category for consideration) research resource
- domain problem [polar science,ai/ml, data science]
- approach/method [examples, quantitative, qualitative]
- foundational Information []
- data [benchmark, observational]
- model [empirical, physics-based]
- Type resource;[dynamic; static]
  - (needs discussion with Tri, Jianwu, Maria) CI Resources
- expertise [novice; intermediate; advanced; expert]
- quality [peer reviewed, non-reviewed]
- tbd (use this keyword for resources we need to revisit)
- exclude (use this keyword and then add the reason/topic)

Collected Initial Resources to Test Framework

iHARP — Software | Community | Training

Software List   COMPARE ☐

Data Modeling Methods - Informal Posts
Posted by: admin at 2022-08-18 09:10   ✖ DELETE   ☑ EDIT

Data Structure - Course Various
Posted by: admin at 2022-08-18 09:20   ✖ DELETE   ☑ EDIT

Data Structure - Courses Various
Posted by: admin at 2022-08-18 09:25   ✖ DELETE   ☑ EDIT

Deep Multi-Task and Meta Learning
Posted by: admin at 2022-08-18 09:14   ✖ DELETE   ☑ EDIT

Full Stack Deep Learning - Course and Tools
Posted by: admin at 2022-08-18 09:28   ✖ DELETE   ☑ EDIT

GAN Tutorial
Posted by: admin at 2022-08-18 09:27   ✖ DELETE   ☑ EDIT

GPT-3 Book
Posted by: admin at 2022-08-18 09:06   ✖ DELETE   ☑ EDIT

Introduction to Machine Learning Problem Framing
Posted by: admin at 2022-08-18 09:08   ✖ DELETE   ☑ EDIT

Learn Linux - Various Resources
Posted by: admin at 2022-08-18 09:19   ✖ DELETE   ☑ EDIT

Mathematics for Machine Learning
Posted by: admin at 2022-08-18 09:13   ✖ DELETE   ☑ EDIT

Public Datasets to practice Machine Learning
Posted by: admin at 2022-08-18 09:22   ✖ DELETE   ☑ EDIT

Publishing Papers with Code
Posted by: admin at 2022-08-18 09:17   ✖ DELETE   ☑ EDIT

SciPy Conference Talks Collection
Posted by: admin at 2022-08-18 09:21   ✖ DELETE   ☑ EDIT

System Design - Various Courses
Posted by: admin at 2022-08-18 09:23   ✖ DELETE   ☑ EDIT

What is sea ice?
Educational content materials providing an introduction to concepts and terminology about sea ice. These materials provide inquiry based learning using the highest educational practices targeting the undergraduate educator, but can be utilized by graduate, as well as K-12 level educators to provi...
Posted by: spierce at 2022-08-17 14:03   ✖ DELETE   ☑ EDIT

1) Identified possible collections of AI and educational materials
2) Began collecting potential resources and adding them to the iHARP instance of OntoSoft

OntoSomethin' Github Repository Created

We created a space to share our work on Github.

https://github.com/helpfultangent/OntoSomethin-

Completed Thursday, August 19, 2022

Logic Model for OntoSomethin'

Identify and describe curricular AI and Polar resources

Resources	Activities	Outputs/Metrics	Short-term outcomes	Primary outcome	Impact
Team: Karen, Alii, Suzanne	Setup an Ontosoft instances/Give Access	Repository well described, findable resources	Explore if ontosoft could be modified for curricular resources more formally and discuss with the Ontosoft team	Repository of well described resources	Accelerate Self-guided learning
Googledoc: https://docs.google.com/document/d/1UBOjdEKDtz9w9OdYgFWLnQaVer3waZH8vamfZDyNcU/edit?usp=sharing	Alii get familiar with Ontosoft	Create a comparison table from Ontosoft for key topics			Provide Easy Access to Curricular Materials
Ontosoft Repositories for IS-GEO iHARP TDIS	Complete Ontosoft Tutorial (Suz)	Document and reflect on how curricular materials are different from software	Outline a Manuscript for how Ontosoft can be modified for Educational Materials		Vetted long-term evolving Resource/Repository for the Community
Lists of Open Courseware	Review other examples for tags (e.g. SERC, KDD workshop on climate				
Example frameworks from - SERC for GEO - Coursera, Edx; Code Academy;	Develop a dictionary of tags to use for iHARP				
AAAI/ACM/IEEE KDD/ICML/NeurIPS for AI/Data - Kaggle	Develop list of potential EDU resources				
	Review potential resources (y/n include)				
	Register acceptable resources in ontosoft				
	Invite Contributors				

Review potential resources (y/n include)

Register acceptable resources in ontosoft

OntoSomethin': Create a Knowledge Management Registry for Polar and Data Science Research Communities

Team Members: Suzanne Pierce, Alii Napoleon, Karen Chen