



IN002-01

# UX Observation Database: Collecting and Managing User Research and Insights Across NASA EOSDIS

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December 7, 2020

AGU 2020 – Virtual



# User Testing

# Feedback & Surveys

# Anecdotal Hallway Musings

# User Working Groups

# Personas & User Journeys



# Over 8 years...



**Across 100s of disciplines,  
use cases, and applications.**



**Too often this research is  
siloed, and not synthesized  
and shared across the  
program.**



# Research is $\frac{1}{2}$ the equation.



# Standardization Curation Insights Application



# Quick Iterations

## Visual

## Linked Tables

## Airtable



airtable.com

EOSDIS UX Observations

HELP ?

Observations

Projects

Samples

Insights

Applications

People

Journeys

Platforms

Instruments

Data Products

SHARE

AUTOMATIONS

APPS

VIEWS

Gallery

Customize cards

Filter

Sort

Color

Share view

Find a view

Grid view

EOSDIS UX Ob...

Gallery

Use a suggested view

Grouped b...

"Magnitud...

"Observati...

Create a view

Grid

Form

Calendar

Gallery

Kanban

ICESat scientists at GSFC routin...

OBSERVATION DATE

February 12, 2020

SENTIMENT

Neutral

MAGNITUDE

Medium

Simplify Earthdata Search (EDS...

OBSERVATION DATE

September 23, 2019

SENTIMENT

Neutral

MAGNITUDE

Medium

Landsat ARD used for spatial an...

OBSERVATION DATE

February 21, 2020

SENTIMENT

Positive

MAGNITUDE

Low

Earthdata Search, GES DISC, an...

OBSERVATION DATE

September 23, 2019

SENTIMENT

Negative

MAGNITUDE

Medium

Reflectance differences introduc...

OBSERVATION DATE

February 21, 2020

SENTIMENT

Negative

MAGNITUDE

Medium

Cloud cover in images poses pro...

OBSERVATION DATE

February 21, 2020

SENTIMENT

Negative

MAGNITUDE

High

EOSDIS data is often linked to yi...

OBSERVATION DATE

February 21, 2020

SENTIMENT

Neutral

MAGNITUDE

Medium

Crop yield analysis: Google Eart...

OBSERVATION DATE

February 21, 2020

SENTIMENT

Neutral

MAGNITUDE

Low

Encourage the submission and p...

OBSERVATION DATE

September 23, 2019

SENTIMENT

Positive

MAGNITUDE

Medium

Worldview is often used to identi...

OBSERVATION DATE

December 20, 2019

SENTIMENT

Neutral

MAGNITUDE

Low

Worldview users would like to be...

OBSERVATION DATE

December 20, 2019

SENTIMENT

Neutral

MAGNITUDE

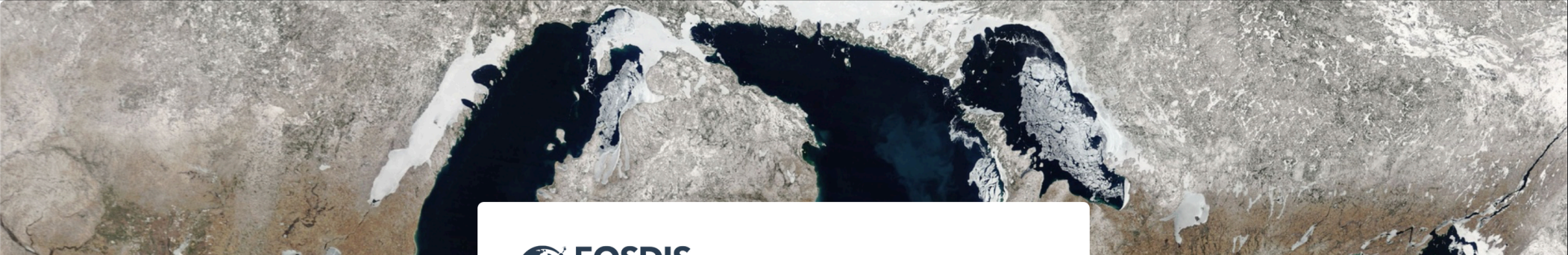
Low


<

>

airtable.com

+





**EOSDIS**  
NASA'S EARTH OBSERVING SYSTEM  
DATA & INFORMATION SYSTEM

## EOSDIS UX Observation

Tell us about a user experience observation while interacting with the EOSDIS ecosystem

Description

Sentiment

Magnitude

airtable.com

EOSDIS UX Observations

HELP ?

Search ▾

Landsat

All records ▾

×

Found 4 records matching in Observations

Landsat ARD used for spatial and temporal variability of crop yield

OBSERVATIO...  
February ...

SENTIMENT  
Positive

MAGNITUDE  
Low

FREQUENCY  
Often

APPLICATIONS  
Earth Explorer

DATA PRODUCTS  
Landsat ARD

PLATFORMS  
Landsat 8

INSTRUMENTS

JOURNEY  
Analysis

PERSONAS

EOSDIS data is often linked to yield data recorded with harvesters equipped with sensors (yield monitor data), drone images, airborne imagery, simulation modeling results, and field measurements about crop ...

OBSERVATIO...  
February ...

SENTIMENT  
Neutral

MAGNITUDE  
Medium

FREQUENCY  
Often

APPLICATIONS

DATA PRODUCTS  
Landsat ARD

PLATFORMS  
Landsat 7 Landsat 8

INSTRUMENTS  
Moderate Resolution

JOURNEY  
Integration Analysis

PERSONAS

Reflectance differences introduce uncertainties when combining Landsat 7 and 8 in crop yield analysis

OBSERVATIO...  
February ...

SENTIMENT  
Negative

MAGNITUDE  
Medium

FREQUENCY  
Often

APPLICATIONS

DATA PRODUCTS

PLATFORMS  
Landsat 7 Landsat 8

INSTRUMENTS

JOURNEY  
Analysis

PERSONAS

Crop yield analysis: Google Earth Engine Landsat 5, 7, and 8 images (30 m resolution) were used between 2010 and 2017 that were consistent with CDL data. The projection of Landsat imagery is dominant UT...

OBSERVATIO...  
February ...

SENTIMENT  
Neutral

MAGNITUDE  
Low

FREQUENCY  
Several times

APPLICATIONS  
Google Earth Engine

DATA PRODUCTS

PLATFORMS  
Landsat 5 Landsat 8

INSTRUMENTS

JOURNEY  
Analysis Subsetting

PERSONAS



# Do we want to build yet another database?

# ...No



# UX Tagging Schema

## SKOS

Simple Knowledge Organization System

## API



Database 1

landsat-ard

sentiment-positive

earthdata-search

persona-pangeo



Database 2

modis

sentiment-neutral

worldview



Database 3

icesat

sentiment-positive

earthdata-search

persona-applied-scientist

Tag Search API



**Any database with user experience data can choose to contribute without harming the integrity of their own data needs.**



# Interested in contributing?



# Partners

UX Observation  
Database

Jeff Siarto

NASA EED-2  
Element 84



This work was supported by NASA/GSFC under Raytheon Technologies contract number **NNG15HZ39C**.





# **EOSDIS**

NASA'S EARTH OBSERVING SYSTEM  
DATA AND INFORMATION SYSTEM

**IN002-01**

# **Thanks!**

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