



'I NEED TO MAKE A MAP - CAN YOU HELP ME?'

STARTING GEOSPATIAL LITERACY AT THE
BEGINNING, AND REACHING LEARNERS ACROSS
DIVERSE SUBJECT AREAS WITH ONLINE AND
OPEN INSTRUCTIONAL VIDEOS

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THE SITUATION

Who's asking for help

- Faculty and students
- For publications or class assignments
- All subject areas, science, social sciences and humanities

Not heavy traffic, but those that need help, need a lot of it

- Fundamentals of geospatial literacy
- Software training (ArcGIS Pro or ArcGIS Online)
- Most begin with 'I need to make a map', only a few looking to do geospatial analysis

The library's GIS team

- 2 people; data services librarian and science & engineering librarian (geography liaison)
- Both with GIS experience and training

INITIAL ATTEMPTS TO HELP

Always glad to work with individuals over email or consultations

Workshops

- After seeing the need for instruction of some kind
- Very low attendance
- Created guides on making maps in ArcGIS Online



LibGuides

- Posted the workshop materials online
- Quickly point people here when they requested help, so they could start before we met with them
- Fulfilled the 'how to use the software' component of the need

Just like reading makes you a better writer,
it's hard to make a map if you haven't seen
and analyzed too many examples

THE UNDERLYING PROBLEM

A NEW APPROACH TO HELPING

Map show-and-tell

Generally talk
through what we
see

Point out
common features

Include map
reading skills

Showcase the
diversity of maps

Explain that
maps are
communication
pieces

Maps should be
tailored to the
intended
audience

WHY YOUTUBE VIDEOS?

Canvas is capable of more robust learning materials...

We tried a set of Canvas modules for easy to use, asynchronous, learning materials for research data management – was not as successful as hoped

Based on feedback from these modules, we aimed for more foundational skills, in an open accessible platform, YouTube - much more success here at Miami and beyond

YouTube also has great usage stats for analysis



Walking someone through a database or a software program isn't the same as talking through a map

SCREEN CAPTURE ISN'T GOING TO HELP,
SO WE NEED A NEW METHOD TO MAKE THESE VIDEOS

VIDEO CREATION PROCESS

Previous method (software or database tutorial)

1. Outline, not script
2. Simultaneously screen capture with voice
 - *Most time intensive*
3. Edit video
4. Add to YouTube
5. Edit captions

New method (map walk-thru – and more)

1. Obtain the map, and other images
2. Write the script
3. Record audio
4. Edit video
 - *Most time intensive*
 - *Need to make what's happening on screen engaging*
5. Add to YouTube
6. Edit captions

OLD METHOD - IN CAMTASIA

TechSmith Camtasia - Flow Charts Google.tscproj

File Edit Modify View Export Help

Record

58%

Export

Flow Charts

Process

Steps: 5

1 Prepare dough
Whatever recipe you like

2 Add sauce
Whatever you like - tomato or homemade

3 Add cheese
Whatever you like - mozzarella, cheddar, ect.

4 Add toppings
Whatever you like - pepperoni, sausage, mushrooms, hamburger, ect.

5 Bake
400 F for 15 minutes

Click an object on the timeline or canvas to show its Properties.

02:26 / 05:16 30 fps

Properties

Track 3

Track 2

Track 1

Rec 07-16

Rec 07-29-21 (Screen)

Rec 07-29-21 (Screen)

Rec 07-29-21 (Screen)

NEW METHOD - IN CAMTASIA

File Edit Modify View Export Help

TechSmith Camtasia - Winding Stair Mountain Equestrain Trails Map 1994.tscproj

Sign In - + X

Record >

69%

Export

★ Favorites

Media

Library

Annotations

Visual Effects

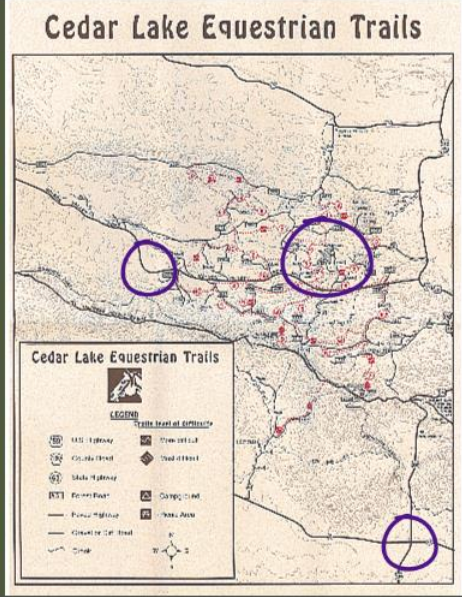
Transitions

Animations

Behaviors

More


Cedar Lake Equestrain Trails



Cedar Lake Equestrain Trails

LEGEND

- US Highway
- County Road
- State Highway
- Forest Road
- Power Highway
- County Road
- State Road
- Trail
- Trail at distance
- Trail at trail
- County Road
- State Road



Modern Satellite Imagery (2024)

Click an object on the timeline or canvas to show its Properties.

01:05 / 03:16 30 fps

Properties

0:00:00:00 0:00:20:00 0:00:40:00 0:01:00:00 0:01:20:00 0:01:40:00 0:02:00:00 0:02:20:00 0:02:40:00 0:03:00:00 0:03:20:00 0:03:40:00

Track 5

Callout

Callout

Callout

Track 4

Sketch Motion

Sketch Motion

Callout

Track 3

Callout

Sketch Motion

Callout

Track 2

horse trail map

horse trail map 1

horse trail map 1

horse trail map 1

Track 1

Intr

Rec 4

Rec 4-5-2024-8-49-03-AM (Audio)

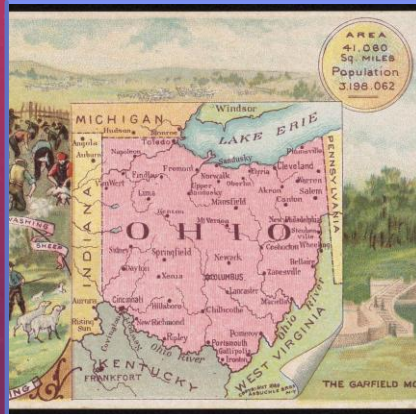
Rec 4-5-2024-8-49-03-AM (Audio)

Rec 6

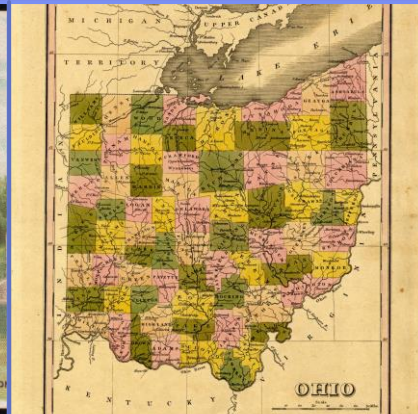
Rec 4-5-2024-8-49-03-AM (Audio)

Rec 4-5-2024-8-49-03-AM (Audio)

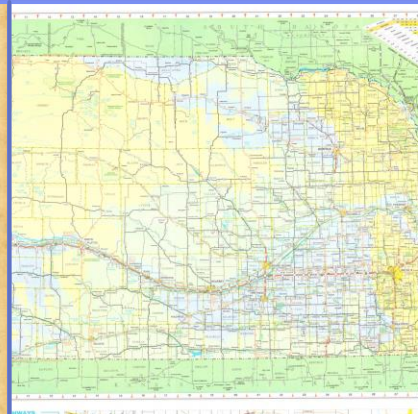
THE SERIES SO FAR...



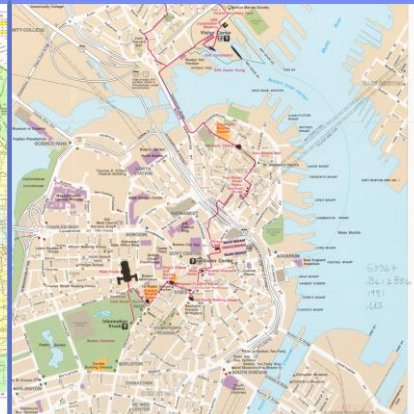
Arisoa Coffee
Trading
Cards of U.S.
States and
Territories



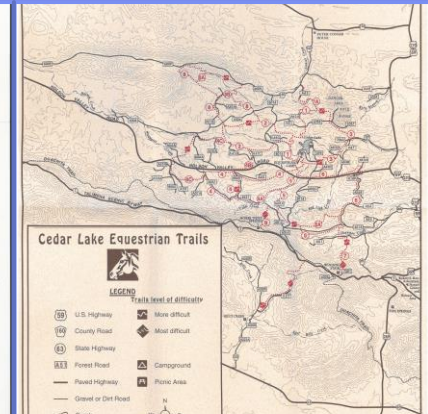
Ohio
Counties
1823



Nebraska
State
Highway Map
1996



National
Historical
Park, Boston,
1991



Winding Stair
Mountain
Equestrian
Trails Map
1994

SOME TAKE-AWAY MESSAGES

Variety of maps, and talking
points, was intentional

Things, and
places, change
over time

Maps should be
tailored to the
intended audience
and need

So many map
maker choices,
even minor ones
make a difference

Standard features
and symbology

Sometimes map
reading involves
some 'detective
work'

Maps can just be
for fun

MORE VIDEOS IN PROGRESS...



Sanborn Fire Insurance Maps



Motor Vehicle Opportunity Map from the Forest Service



Miami Campus Map



USGS Topographic Map



How to read a mileage chart



How to read GPS coordinates

MEASURING SUCCESS

Still too early to
determine, just
created this year

Videos are added
to the Maps
LibGuide

They are open
educational
resources for
anyone to use

While educational,
they are also
entertaining too

THANKS FOR LISTENING

Feel free to reach out to Kristen Adams at adamsk3@miamioh.edu

The video series can be found at: <https://www.youtube.com/@mulibraries>



Miami's Oxford campus at night

Photo credit: Miami University