

# Fieldcasts: A flexible format for fieldwork at a distance

Dr Trevor Collins

Media and Learning Association

*Using media to create virtual field trips*

Thursday 26<sup>th</sup> September 2024

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[sites.google.com/ufl.edu/  
geospace-field-program](https://sites.google.com/ufl.edu/geospace-field-program)

# Overview

*Fieldcasts: A flexible format for fieldwork at a distance*

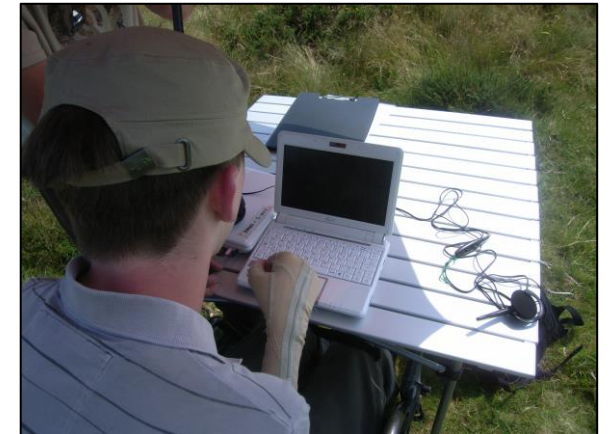
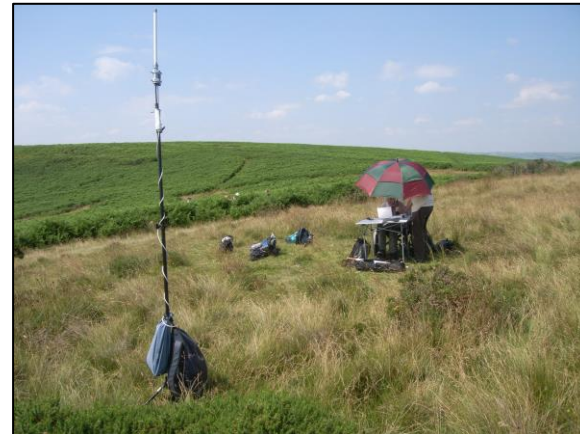
- ▶ Background
  - Enabling Remote Activity
  - Stadium Live Labcasts
- ▶ Flexible fieldwork
  - Fieldcasts
  - Hybrid field courses
- ▶ Technology options
- ▶ Teaching strategies



# Enabling Remote Activity project

*...a portable communications toolkit for remotely accessing field sites*

- ▶ Developed to improve access and inclusion on OU field courses
- ▶ Network in a bag
  - Laptop web and VoIP server
  - Battery powered WiFi routers
  - Photo sharing (WiFi and FTP)
  - Video streaming (RTSP or NDI)
  - VoIP phone calls (Jitsi)
- ▶ IAGD: Library of Inclusive Field Tech ([theiagd.org/lift](http://theiagd.org/lift))



# Stadium Live

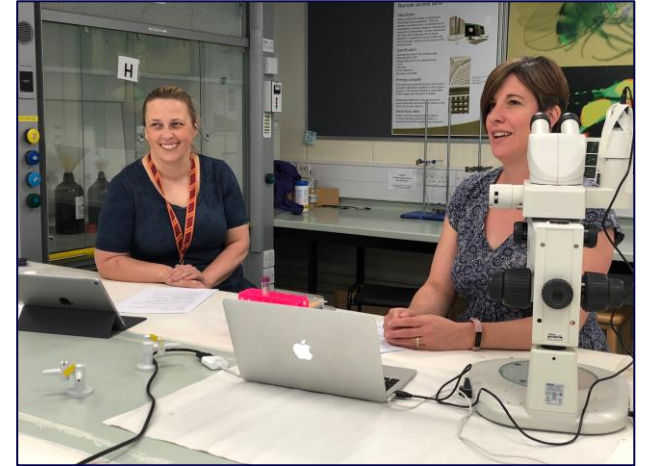
*...making live web broadcasts interactive and scalable*

## ► Interactive web broadcasts

- Live video with text chat and Q&A widgets

## ► Introduced in 2014

- Part of The OpenSTEM Labs
- About 30 events per year
- Produced by OU's Science Web and Interactive Media team



# Fieldcasts

*...webcasting from the field*

## ▶ OU fieldcasts

- Interactive web broadcasts introducing students to fieldwork

## ▶ Introduced in 2016

- Three 30-minute episodes
- Episode 1. Lecturers introduce students to field site; students identify items of interest (word cloud), develop a hypothesis (relationship or difference), select a hypothesis (A, B or C), select a sampling strategy, ...



# Hybrid field courses

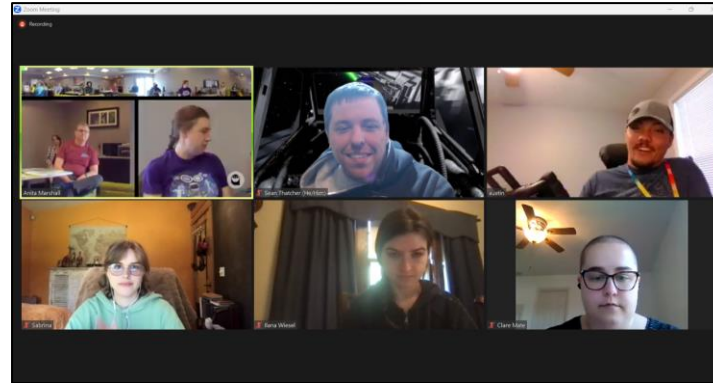
*...orchestrating online and in-person participation*

## ▶ GeoSPACE hybrid field course

- A two-week accessible field course in Northern Arizona

## ▶ Introduced in 2022

- Six students online and 13 students in-person (2024)
- Around half staff and students identified as disabled
- Planetary science course with online mission control and in-person astronaut teams



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# Technology options

*...putting the tools together*

## ▶ Network connections

- Local (Ethernet and WiFi)
- Internet (5G / Starlink)

## ▶ Voice (synchronous)

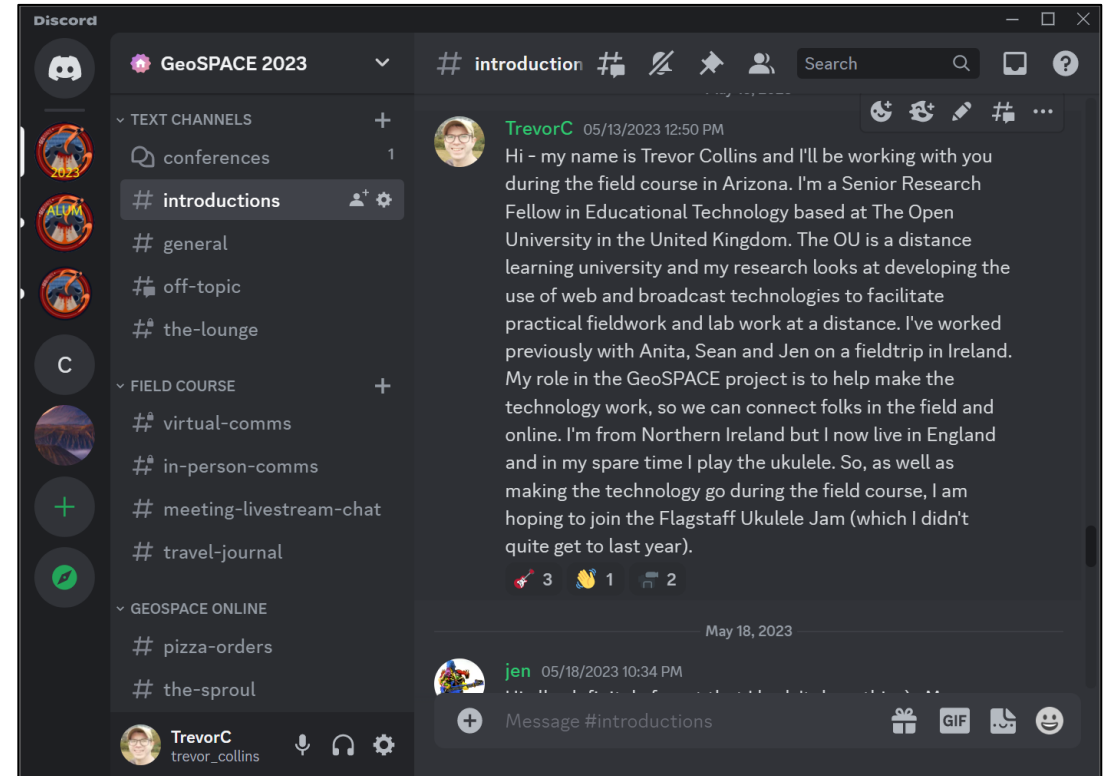
- Two-way radio (line-of-sight)
- VoIP telephony (network)

## ▶ Video

- Zoom video conference (min delay)
- YouTube Live webcast (video buffer)

## ▶ Chat and photos (asynchronous)

- Discord (phones and laptop apps)



# Teaching strategies

*...facilitating learning conversations*

## ▶ ERA's remote access strategies

- Sherpa style: student and tutor directing a colleague
- Remote tutor: tutor in the field working with students
- Student groupwork: students working together (with the tutor as a guide on the side)

## ▶ Fieldcast strategies

- OU fieldcasts: Student-led investigations with lecturers directed by students
- GeoSPACE hybrid field course: Online and in-person students working as mission control and astronauts



# Bibliography

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