**Abstract:**

As the science community advocates for open science to create a more accessible inquiry and discovery process, understanding Indigenous governance in both mining and data policy is vital. Heavy metal mining has negatively impacted many Indigenous communities in Arizona, where 40% of mines are on or bordering Indigenous communities. The mining industry serves as an example that when Indigenous communities do not have the power to protect their own communities and ecosystems, resource extraction dominates, often against a community’s own desires. In this presentation, we will discuss lack of tribal consultation in the General Mining Law and NEPA, the importance of mining reclamation that incorporates Indigenous knowledge, and how calls for open science that don’t consider the CARE Principles may be opening up tribal nations to further intellectual and resource extraction.

**Short bio:**

Lydia (she/her) grew up in Santa Fe, New Mexico (Tewa lands) and is Huichol (Wixáritari) and Pascua Yaqui (Yoeme). Lydia earned her Bachelors of Science from California State University, Monterey Bay in Environmental Science, Technology and Policy. Lydia now resides in Tucson, Arizona (O’odham & Yaqui lands) where she completed her Ph.D. at the University of Arizona in the Department of Environmental Sciences, with a minor in American Indian Policy. Her research interests are in soil health, Indigenous science, mining policy, and environmental data ownership by tribal nations. Lydia is a 2014 University of Arizona NIEHS Superfund Program trainee, a 2015 recipient of National Science Foundation’s Graduate Research Fellowship Program, a 2019 American Geophysical Union “Voices for Science” Fellow, and a 2020 Native Nations Institute Indigenous Data Sovereignty Scholar. Lydia is currently a Postdoctoral Fellow in Community, Environment and Policy at the University of Arizona’s Mel and Enid Zuckerman College of Public Health, and is a Data Sovereignty Fellow and a Data Science Fellow with the Data Science Institute. In addition to her science research, Lydia is a passionate trail runner and advocates for racial equity and environmental stewardship in the outdoor industry. She is the star of Patagonia’s 2021 [Run to Be Visible](https://urldefense.proofpoint.com/v2/url?u=https-3A__www.youtube.com_watch-3Fv-3DxrLTUUPugIc&d=DwMGaQ&c=WO-RGvefibhHBZq3fL85hQ&r=0ODGSEPyyGm-9Kq0ABS7OBJ8T0BkYs1T9WvXTmh6rQjtXp7ml-MEbb7PnbvSHeMt&m=dXmY2cCnnSSME8rezYL1QKnLd5wYrrH0yLCfvCzNEi94KgyTb0dKZAa85uana12m&s=kgEbkrtZxTPiFI41xN6W83RAri0cbMdSGn5YqqfomBU&e=) short film.