Tribal Community Development and Engagement for Digital Agriculture and Big Data

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Midwest Native Stakeholders

- 30% of the Native Population in the US is located in the Midwest

- 20 of the 37 of Tribal Community Colleges and Universities are located in the Midwest.

- MBDH is well-positioned to engage tribal stakeholders on issues related to Data Science Education and Workforce Development.

- This is especially true in the context of Digital Agriculture, where many of these institutions are working with their local tribal governments to extend agricultural programs and educational opportunities to Native farmers.

Data Sovereignty

TNRG will be the data management entity for the information and resources produced by the workshop, which will be managed in accordance with the principles of Data Sovereignty as outlined by the United States Indigenous Data Sovereignty Network
(see - https://usindigenousdata.org/).

    - "Indigenous data sovereignty is the right of a nation to govern the collection, ownership, and application of its own data. It derives from tribes' inherent right to govern their peoples, lands, and resources."

Workshop Objective and Presentations

- Proposed workshop will draw in tribal college and government stakeholders from across Indian country, both regionally and nationally.
- The workshop will focus on communicating:
  - the need for Data Science education and workforce development
  - the use of proper Data Management and Data Sovereignty standards as applied to Digital Agriculture research in tribal governed areas.
- The workshop will accomplish this through presentations by:
  - Tribal Nations Research Group
  - MBDH Digital Ag Community leadership
  - MBDH leadership
  - MBDH Data Carpentry program
  - Grand Farm/Emerging Prairie

Agenda

- Importance of Data Sovereignty and Data Management – TNRG
- NSF Big Data Hubs – MBDH
- Workforce Development – Data Carpentry – MBDH
- Workforce Development – Code Academy –Emerging Prairie
- Digital Agriculture Community – MBDH DAC Leader
- Native Cohort – Emerging Prairie Entrepreneurship Program Panel
- Hemp/Marijuana Agricultural Production – Grand Farm
- Greenhouse Agriculture and IoT – Grand Farm
- NSF Tribal Colleges and Universities Program (TCUP)
  – Data Science and Workforce Development Grant Proposal Discussion

Outcomes and Impacts

1. Greater participation by tribal stakeholders, not only in the MBDH Digital Agriculture Community, but also in BD Hubs activities nationwide.

2. Development of a Data Science Workforce Development and Education proposal for Native communities targeting the NSF TCUP program.
   1. TNRG will coordinate post-workshop proposal development activities.
   2. The workshop organizers will commit to submitting such a proposal to NSF TCUP within six months of the workshop.

Workshop Media

- While workshop sessions will be recorded, some content will be of a culturally sensitive nature.

- Traditional foods, recipes, and growing practices are intimately tied to the culture of Native peoples.

- The availability of workshop recordings will be restricted to private Facebook user groups. TNRG routinely manages such restricted content groups, and will ensure appropriate cultural access.

Tribal Nations Research Group (TNRG)

- TNRG is a federally recognized tribal 501(c)3 organization and was established under the auspices of the Turtle Mountain Band of Chippewa Indians (TMBCI) in 2013.

- TNRG is the designated point of contact for all research on the reservation and is charged by the Tribe with ensuring all research is conducted in a manner that protects the people, respects the culture, and works to reduce any adverse effects of the research and related activities on the tribal community.

- TNRG maintains and manages a data center that ensures Tribal ownership of the research-generated data and information.