

# Data Management Plan

**Project Title:** Applying Game Theory for Improving and Optimizing the US Political Asylum Process

**Types of Data:** There are three main categories of data/information (all in digital format) that will result from this project:

- Qualitative and quantitative data generated through various data collection activities during the project. These data will be primarily in the form of text, numbers, and codes, and these will comprise the "raw" data subject to analysis. The data may take the form of field-notes, recordings (audio/or video) and transcripts of ethnographic fieldwork (e.g., interview, and electronic data from the virtual fieldwork. Summaries derived statistical reports, and visual depictions of select datasets presented as diagrammatic or mapped compositions will likely be generated, along with instruments, interview guides, protocol, analysis codebooks used to collect/capture/analyze project data. In certain communities, some of these data objects are considered *metadata*. However, for this data plan, the term *metadata* refers to library or repository data created for archiving and discovery purposes. In addition to created/collected data, the project may also collect secondary data source such as internal and/or archival Eco-trends documents.
- Blockchain data including the activities of participants in the block, their transactions and block's identities. This information will be store in the cloud and consider all securities involved in the design of Blockchain platform will not be shared into the public.
- Curriculum material in the form of software, content modules, assessments, and related information objects.

**Responsibility:** The PI will have overall responsibility for data management throughout the research project and monitor compliance with the plan. At the end of the project, the PI will ultimately transfer responsibility for data management to the UNT Libraries' Digital Library's Data Repository, named UNT-DL in this plan (<https://library.unt.edu/scholarly-works/data-repository/>).

**Data Storage:** Data and information objects need to be managed during the project and stewarded for long-term access once the project has been completed. During the project, the G. Brint Ryan College of Business at UNT through its Texas Center for Digital Knowledge will provide a web-based platform and virtual environment to support project activities. Project team members will use this system for secure storage and sharing of all project data and resources. Access to this virtual research environment will be by authorized users only, using UNT's authentication credentials. Authorized users will be able to access, analyze, and otherwise work with the data and information objects. All files on this web-based platform are covered by backup processes to ensure no unwarranted loss of project data. This online site provides the first step in data management and curation during the project.

**Designated Archive:** At various points during the project, and especially at the end of the project, various project data and information objects will be deposited with the UNT Data Repository of the UNT-DL to ensure that the research community has long-term access to the data.

**Access and Sharing:** UNT-DL will make the research data from this project available to the broader research community. The data will be separated into two parts, 1) Public-use data files, and 2) Restricted-use data files. In public-use data files, direct and indirect identifiers have been removed to minimize disclosure risk, may be accessed directly through the UNT-DL website. UNT-DL can restrict access to UNT community members (they would need to sign in with their EUID) or can restrict access to computers within Willis Library. UNT-DL can archive the restricted-use data files, but they would not be accessible/discoverable through the Digital Library. When removing potential identifying information would significantly impair the analytic potential of the data, data will save in restricted-use data files. Users must apply for these files, create data security plans, and agree to other access controls.

**Timeliness:** The research data will be supplied to UNT-DL before the end of the project to resolve any

issues surrounding the usability of the data.

**Metadata:** UNT-DL will create substantive metadata in the XML standard for the tagging of content, facilitating the preservation and enabling flexibility in display. These types of metadata will be produced and archived:

- **Study-Level Metadata Record.** A summary Data Documentation Initiative (DDI)-based record will be created for inclusion in the searchable UNT-DL online catalog. This record will be indexed with terms from the UNT-DL Thesaurus to enhance data discovery.
- **Data Citation.** A standard citation will be provided to facilitate attribution. UNT-DL will assign a unique identifier called an Archival Resource Key (Ark ID) to the dataset which will provide permanent identification and discovery.
- **Variable-Level Documentation.** UNT-DL will tag variable-level information in DDI format for inclusion in UNT-DLs Social Science Variables Database (SSVD), allowing users to identify relevant variables and studies of interest.
- **Technical Documentation.** The variable-level files described above will serve as the foundation for the technical documentation or codebook that UNT-DL will prepare and deliver.
- **Related Publications.** Resources permitting, UNT-DL will periodically search for publications based on the data and provide two-way linkages between data and publications. Publications will be deposited in the UNT Scholarly Works repository (<https://library.unt.edu/scholarly-works/>) and linked to the relevant datasets in the Data Repository.

**Ethics and Privacy:**

*Informed consent:* For this project, informed consent statements will not include language that would prohibit the data from being shared with the research community.

*Disclosure risk management:* Before deposition, the data will undergo procedures to protect the confidentiality of individuals whose personal information may be part of archived data. These include (1) rigorous review to assess disclosure risk, (2) modifying data if necessary to protect the confidentiality, (3) limiting access to datasets in which risk of disclosure remains high, and (4) consultation with data producers to manage disclosure risk. PI will assign a qualified data manager certified in disclosure risk management with UNT-DL to act as a steward for the data while they are being processed. The data will be processed and managed in a secure non-networked environment using virtual desktop technology.

**Format**

*Submission:* The data and documentation will be submitted to UNT-DL upon the completion of the project or publication.

*Access and Preservation:* UNT-DL will make the quantitative data files available in several widely used formats, including ASCII, tab-delimited (for use with Excel), and setup files for the statistical software packages and documentation are preserved using XML and PDF/A.

**Archiving and Preservation:** UNT-DL is a data archive with a nearly 50-year archival track record for pre- serving and making data available over several generational shifts in technology. UNT-DL will accept responsibility for the long-term preservation of the research data upon receipt of a signed deposit form. This responsibility includes a commitment to manage successive iterations of the data if new waves or versions are deposited. UNT-DL will ensure that the research data are migrated to new formats, platforms, and storage media as required by good practice in the digital preservation community. Good practice for digital preservation requires that an organization address succession planning for digital assets. UNT-DL commits to designate a successor in the unlikely event that such a need arises.

**Storage and Backup:** Research has shown that multiple locally and geographically distributed copies of digital files are required to keep information safe. Accordingly, UNT-DL will place a master copy of each digital file (i.e., research data files, documentation, and other related files) in UNT-DL's Archival Storage, with several copies stored with partner organizations designated locations and synchronized with the master.