Integrated Mobility Innovation (IMI) Demonstration Program

A Data Management Plan created using DMPTool

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Template: Department of Transportation (DOT)

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Project abstract:

Development of a "Complete Trip" in a demonstration area. Features will include: 1) Stored Value: Allow passengers to store funds on account with EZfare and Transit App. Funds will be added via phone or web-portal and can be used to purchase mobile tickets for all modes of transportation. 2) Mobility Payment Integration: Enable transits/partner agencies (Urban League, DD Board) to sell/distribute smartcards (validator use only). Smartcards can be utilized for those passengers who have no credit or bank accounts. 3) Multi-Transit/Mode Pass: A single multi-transit system pass to allow transit passengers to pay one flat rate to ride multiple transit systems and/or other transportation platforms (Transloc, bikeshare and rideshare). The pass would be accepted across selected EZfare participants (with the goal to expand) and Transit App.

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Copyright information:

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Data description

PLACEHOLDER decription of data that will be gathered in the course of the research project, including whether the data should be preserved for long-term access. Address the nature, scope, and scale of the data that will be collected. Describe the characteristics of the data, their relationship to other data, and provide sufficient detail so that reviewers will understand any disclosure risks that may apply. Discuss value of the data over the long-term.

As general guidance consider addressing the following:

1. Name the data, data collection project, or data producing program.
2. Describe the purpose of the research.
3. Describe the data that will be generated in terms of nature and scale (e.g., numerical data, image data, text sequences, video, audio, database, modeling data, source code, etc.).
4. Describe methods for creating the data (e.g., simulated; observed; experimental; software; physical collections; sensors; satellite; enforcement activities; researcher-generated databases, tables, and/or spreadsheets; instrument generated digital data output such as images and video; etc).
5. Discuss the period of time data will be collected and frequency of update.
6. If using existing data, describe the relationship between the data you are collecting and existing data. List potential users of the data.
7. Discuss the potential value of the data have over the long-term for not only your institution, but also for the public. If you request permission not to make data publicly accessible, explain rationale for lack of public access. Indicate the party responsible for managing the data.
8. Describe how you will check for adherence to this data management plan.

Data format and metadata standards

PLACEHOLDER description of anticipated formats that your data and related files will use. To the maximum extent practicable, and in accordance with generally accepted practices in your field, your DMP should address how you will use platform-independent and non-proprietary formats to ensure maximum utility of the data in the future. If you are unable to use platform-independent and non-proprietary formats, you should specify the standards and formats that will be used and the rationale for using those standards and formats. Identify the metadata standards you will used to describe the data.

As general guidance consider addressing the following:

1. List in what format(s) the data will be collected. Indicate if they are open or proprietary.
2. If you are using proprietary data formats, discuss your rationale for using those standards and formats.
3. Describe how versions of data be signified and/or controlled.
4. If the file format(s) you are using is(are) not standard to your field, describe how you will document the alternative you are using.
5. List what documentation you will be creating in order to make the data understandable by other researchers.
6. Indicate what metadata schema you are using to describe the data. If the metadata schema is not one standard for your field, discuss your rationale for using that scheme.
7. Describe how will the metadata be managed and stored.
8. Indicate what tools or software is required to read or view the data.
9. Describe your quality control measures.

- Project Open Data Metadata Schema v1.1

Policies for access and sharing

PLACEHOLDER discussion of access policies that will apply to the data, so as to protect against the disclosure of identities, confidential business information, national security information, etc. and whether public use files may be generated from the data.

Protecting research participants and guarding against the disclosure of identities and/or confidential business information is an essential norm in scientific research. Your DMP should address these issues and outline the efforts you will take to provide informed consent statements to participants, the steps you will take the protect privacy and confidentiality prior to archiving your data, and any additional concerns (e.g., embargo periods for your data). If necessary, describe any division of responsibilities for stewarding and protecting the data among Principal Investigators or other project staff.

If you will not be able to deidentify the data in a manner that protects privacy and confidentiality while maintaining the utility of the dataset, you should describe the necessary restrictions on access and use. In general, in matters of human subject research, your DMP should describe how your informed consent forms will permit sharing with the research community and whether additional steps, such as an Institutional Review Board (IRB), may be used to protect privacy and confidentiality.

As general guidance you may consider addressing the following:

1. Describe what data will be shared, how data files will be shared, and how others will access them.
2. Indicate whether the data contain private or confidential information. If so: a) Discuss how you will guard against disclosure of

identities and/or confidential business information. b) List what processes you will follow to provide informed consent to participants. c) State the party responsible for protecting the data.
3. Describe what, if any, privacy, ethical, or confidentiality concerns are raised due to data sharing.
4. If applicable, describe how you will deidentify your data before sharing. If not: a) Identify what restrictions on access and use you will place on the data. b) Discuss additional steps, if any, you will use to protect privacy and confidentiality.

Policies for re-use, redistribution, derivatives

PLACEHOLDER policies for re-use, re-distribution and derivative projects.

Describe who will hold the intellectual property rights for the data created by your project. Describe whether you will transfer those rights to a data archive, if appropriate. Identify whether any copyrights apply to the data, as might be the case when using copyrighted instruments. If you will be enforcing terms of use or a requirement for data citation through a license, indicate as much in your DMP. Describe any other legal requirements that might need to be addressed.

"To ensure a consistent approach between intramural and extramural digital research data DOT will use the standards laid out in OMB Memorandum M-13-13, which indicate a strong preference for the use of Creative Commons licenses. To facilitate attribution, DOT will indicate a strong preference for CC-BY or an equivalent license. In the case of intramural research datasets, DOT cannot require attribution of data because those data are a work of the federal government. Therefore, DOT will require such datasets be marked with some public domain dedication to affirmatively waive any attribution requirement to facilitate the widest possible reuse."

The CC-BY license lets others distribute, remix, tweak, and build upon your work, even commercially, as long as they credit you for the original creation.

As general guidance you may address the following:

1. Name who has the right to manage the data.
2. Indicate who holds the intellectual property rights to the data.
3. List any copyrights to the data. If so, indicate who owns them.
4. Discuss any rights be transferred to a data archive.
5. Describe how your data will be licensed for reuse, redistribution, and derivative products.

- National Transportation Library Managing Rights

Plans for archiving and preservation

PLACEHOLDER outline of plans for archiving and preservation, specifying where research data will be deposited, and specify that data will be deposited at the time of initial publication of any related peer-reviewed journal article.

Describe how you intend to archive your data and why you have chosen that particular option. You may select from a variety of options including, but not limited to: use of an institutional repository; use of an archive or other community-accepted data storage facility; self-dissemination.

You must describe the dataset that is being archived with a minimum amount of metadata that ensures its discoverability. Whatever archive option you choose, that archive must support the capture and provision of the US Federal Government "Project Open Data Metadata Schema." In addition, the archive you choose must support the creation and maintenance of persistent identifiers (e.g., DOIs, handles, etc.) and must provide for maintenance of those identifiers throughout the preservation lifecycle of the data. Your plan should address how your archiving and preservation choices meet these requirements.

You must also obtain an ORCID (unique researcher ID) for all project investigators and contributors. You will need to report ORCIDs as part of your final step in complying with the plan; this ID will be associated with all resulting publications, datasets, and other project outputs.

As general guidance you should consider addressing the following:

1. Discuss how you intend to archive your data and where (include URL).
2. Indicate the approximate time period between data collection and submission to the archive.
3. Identify where data will be stored prior to being sent to an archive. You should also:
4. Describe how back-up, disaster recovery, off-site data storage, and other redundant storage strategies will be used to ensure the data's security and integrity.
5. Describe how data will be protected from accidental or malicious modification or deletion prior to receipt by the archive.
6. Discuss your chosen data archive's policies and practices for back-up, disaster recovery, off-site data storage, and other redundant storage strategies to ensure the data's security and integrity for the long-term.
7. Indicate how long the chosen archive will retain the data.
8. Indicate if the chosen archive employs, or allows for the recording of, persistent identifiers linked to the data.
9. Discuss how your chosen data repository meets the criteria outlined on the Guidelines for Evaluating Repositories with the DOT Public Access Plan page.

- National Transportation Library: Guidelines for Evaluating Repositories
- National Transportation Library: Conformant Data Repositories