



Transforming How
Texas Government
Serves Texans

Texas Data Literacy Resource Guide

Texas Data Literacy Program

Office of the Chief Data Officer
Texas Department of Information Resources
<https://dir.texas.gov/tdlp>

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Introduction

One of the five focus areas of the Texas Statewide Data Program (TSDP) is guidance, training, and education in data literacy. The Data Literacy Resource Guide is a part of the ongoing data literacy activities of the TSDP. Many resources related to data management, data sharing, open data, and analytics exist in a variety of accessible, on-demand formats. The intent of this guide is to provide a menu of those resources in a format that makes it easier for data users to find learning opportunities for increasing the data skills most relevant to them, whether they be data producers or data consumers, or anyone wishing to become more data literate.

While not exhaustive, this guide serves as a resource for Texas public entities to increase data literacy among their staff and as a supplement to internal training and education available to staff within each organization. The resource guide exists as a living document and will be modified periodically to reflect changes and additions to available learning opportunities.

Office of the Chief Data Officer website: <https://dir.texas.gov/office-chief-data-officer>

Office of the Chief Data Officer contact: ocdo@dir.texas.gov

Data Management

Texas Department of Information Resources Data Management Fast Start Learning Guide

Description: DAMA International's Data Management Body of Knowledge (second edition) (DMBOK) is considered the standard that Texas organizations can use to build their individual data programs. The DMBOK extensively describes core principles such as data governance, data architecture, metadata management, reference and master data management, data security, data quality, data ethics, and other elements foundational to a successful data program.

To help organizations understand its core components, the Office of Chief Data Officer within the Texas Department of Information Resources (DIR) analyzed the DMBOK and created the abridged Fast Start Learning Guide (FSL). The intent of the FSL is to capture the critical points of each DMBOK chapter so they can be easily used by members of the Texas data community to help develop their plans and communicate the importance of each key principle to the leadership within their organization.

Updated June 2023.

Owner: Texas Department of Information Resources

Location: <https://dir.texas.gov/resource-library-item/dir-texas-data-management-framework-guideaccessible>

Learning Opportunity Format: Document

Appropriate Audience: Business Unit Managers, Business Unit Staff, Constituents/Public, Data Analysts, Data Management Officers, Data Officers, Data Management Staff, Data Scientists, Data Stewards, IT Staff, Legislative Staff, Research Staff and Statisticians, Senior and Executive Leadership

Data Literacy Topics: Artificial Intelligence, Business Intelligence, Communication, Data Architecture, Data Ethics, Data Governance, Data Management, Data Quality, Data Sharing, Data Warehousing, Document and Content Management, Master Data, Metadata, Machine Learning, Privacy, Records Management and Retention, Reference Data, Roles and Responsibilities, Security

Texas Department of Information Resources Data Training Series

Description: The YouTube Chief Data Office Trainings playlist offers several videos on various topics including a ten-part video series describing the Texas Statewide Data Program with overviews on data governance, data architecture management, data quality management, metadata management, reference and master data, data warehousing and business intelligence, document and content management, data security, data privacy and data ethics.

Owner: Texas Department of Information Resources

Location: [Chief Data Office Trainings - YouTube](#)

Learning Opportunity type: Webinar series

Appropriate Audience: Business Unit Managers, Business Unit Staff, Data Analysts, Data Management Officers, Data Officers, Data Management Staff, Data Scientists, Data Stewards, IT Staff, Legislative Staff, Research Staff and Statisticians, Senior and Executive Leadership

Data Literacy Topics: Business Intelligence, Data Architecture, Data Ethics, Data Governance, Data Management, Data Quality, Data Warehousing, Document and Content Management, Master Data, Metadata, Open Data, Open/Closed Data Portals, Privacy, Reference Data, Security, Texas Statewide Data Program

DIR What is Data Governance?

Description: A PowerPoint presentation with speaker notes that describes data governance, the data lifecycle, and certain roles and responsibilities involved. Texas organizations can use the presentation to help build their individual data programs and communicate the importance of data governance and data management to the leadership within their organization.

To request access to the OCDO SharePoint site, complete the request form at <https://qat.dir.texas.gov/request-ocdo-site-access.html>.

Owner: Texas Department of Information Resources

Location: [DIR What Is Data Governance.pptx](#)

Learning Opportunity Format: PowerPoint Presentation

Appropriate Audience: Business Unit Managers, Business Unit Staff, Data Analysts, Data Management Officers, Data Officers, Data Management Staff, Data Scientists, Data Stewards, IT Staff, Legislative Staff, Research Staff and Statisticians, Senior and Executive Leadership

Data Literacy Topics: Data Governance, Data Lifecycle, Roles and Responsibilities

Data Sharing Best Practices

Description: Data sharing helps maximize data as a valuable organizational asset. The benefits of data sharing are many but ultimately include improved decision-making to advance an organization's mission and goals, increased transparency and accountability, cost savings, and increased constituent trust. Data Management Officers and others within the organization who work with data must understand the impact of successful data sharing, as well as the potential challenges that might impede data sharing activities, and how to work with others to overcome those challenges.

Owner: Texas Department of Information Resources

Location: <https://dir.texas.gov/resource-library-item/data-sharing-best-practices>

Learning Opportunity Format: Document

Appropriate Audience: Business Unit Managers, Business Unit Staff, Constituents/Public, Data Analysts, Data Management Officers, Data Officers, Data Management Staff, Data Scientists, Data Stewards, IT Staff, Legislative Staff, Research Staff and Statisticians, Senior and Executive Leadership

Data Literacy Topics: Communication, Data Architecture, Data Ethics, Data Governance, Data Management, Data Sharing, Data Quality, Open Data, Metadata, Privacy, Reference Data, Roles and Responsibilities, Security

Implementing Data Catalogs

Description: Data catalogs are a crucial component in managing data assets, allowing Texas state agencies and institutions of higher education to utilize data strategically and effectively. This paper provides Data Management Officers, and others responsible for the management and governance of data, information needed to effectively select and implement a data catalog. This whitepaper describes some of the major features and benefits of a catalog, suggests steps for implementing a catalog tool that best meets the needs of the organization, and provides some best practices for consideration.

Owner: Texas Department of Information Resources

Location: <https://dir.texas.gov/resource-library-item/implementing-data-catalogs>

Learning Opportunity Format: Document

Appropriate Audience: Business Unit Managers, Business Unit Staff, Data Analysts, Data Management Officers, Data Officers, Data Management Staff, Data Scientists, Data Stewards, IT Staff, Legislative Staff, Research Staff and Statisticians, Senior and Executive Leadership

Data Literacy Topics: Communication, Data Governance, Data Quality, Data Sharing, Metadata, Privacy, Records Management and Retention, Roles and Responsibilities, Security

Data Security Best Practices for the Remote Workforce

Description: Remote working has become a necessity for organizations of all sizes to ensure business continuity, and to recruit and retain talent. Enabling and maintaining remote working for workforces has many challenges, with enhancing security without impeding performance and productivity being a significant challenge. This whitepaper describes the security risks of remote work and best practices to mitigate those risks.

Owner: Texas Department of Information Resources

Location: <https://dir.texas.gov/resource-library-item/data-security-best-practices-remote-workforce>

Learning Opportunity Format: Document

Appropriate Audience: Business Unit Managers, Business Unit Staff, Data Analysts, Data Management Officers, Data Officers, Data Management Staff, Data Scientists, Data Stewards, IT Staff, Research Staff and Statisticians, Senior and Executive Leadership

Data Literacy Topics: Data Governance, Data Management, Privacy, Records Management and Retention, Roles and Responsibilities, Security

Classifying Data with Sensitivity Labels

Description: Data classification describes the process of identifying, categorizing, and protecting data according to its sensitivity or impact level. Classifying data according to its type, sensitivity, and impact to an organization if altered, stolen, or destroyed helps stakeholders understand the value of data, determine risk, and implement appropriate controls to mitigate those risks. This whitepaper describes data classification, and best practices for implementing a sensitivity labeling policy.

Owner: Texas Department of Information Resources

Location: <https://dir.texas.gov/resource-library-item/classifying-data-sensitivity-labels>

Learning Opportunity Format: Document

Appropriate Audience: Business Unit Managers, Business Unit Staff, Data Analysts, Data Management Officers, Data Officers, Data Management Staff, Data Scientists, Data Stewards, IT Staff, Research Staff and Statisticians, Senior and Executive Leadership

Data Literacy Topics: Data Governance, Data Management, Data Sharing, Privacy, Records Management and Retention, Roles and Responsibilities, Security

Data Ethics in Data Management

Description: Data ethics are the norms of behavior that promote appropriate judgments and accountability when creating or acquiring, managing, sharing, using, and disposing of data. Unethical handling of data can result in damage to the organization's reputation, financial loss due to penalties and fines, and loss of customers. As such, data management professionals have an ethical responsibility to manage data in a way that reduces the risk of inappropriate access, use, representation, or understanding. This whitepaper describes the tenets of data ethics and provides steps for establishing an ethical data culture, including the development of a data ethics framework and policy for the organization that goes beyond basic mandated ethics training.

Owner: Texas Department of Information Resources

Location: <https://dir.texas.gov/resource-library-item/data-ethics-data-management>

Learning Opportunity Format: Document

Appropriate Audience: Business Unit Managers, Business Unit Staff, Constituents/Public, Data Analysts, Data Management Officers, Data Officers, Data Management Staff, Data Scientists, Data Stewards, IT Staff, Legislative Staff, Research Staff and Statisticians, Senior and Executive Leadership

Data Literacy Topics: Artificial Intelligence, Business Intelligence, Communication, Data Ethics, Data Governance, Data Management, Data Quality, Data Sharing, Machine Learning, Privacy, Roles and Responsibilities, Security

Data Sharing

Texas Open Data Portal Webinar

Description: This video from the Office of the Chief Data Officer explores the Texas Open Data Portal and how state agencies and institutions of higher education can leverage open data to provide value to their constituents and organization.

Owner: Texas Department of Information Resources

Location: [Texas Open Data Portal Webinar 2021 - YouTube](#)

Learning Opportunity type: Webinar series

Appropriate Audience: Business Unit Managers, Business Unit Staff, Data Analysts, Data Management Officers, Data Officers, Data Management Staff, Data Scientists, Data Stewards, IT Staff, Legislator and Legislative Staff, Research Staff and Statisticians, Senior and Executive Leadership

Data Literacy Topics: Data Governance, Data Sharing, Open Data, Open/Closed Data Portals

Texas Closed Data Portal Webinar

Description: This video from the Office of the Chief Data Officer explores the Closed Data Portals, which are built on the same platform at the Texas Open Data Portal, and how state agencies and institutions of higher education can leverage this tool in data sharing.

Owner: Texas Department of Information Resources

Location: [Texas Closed Data Portal Webinar 2022 - YouTube](#)

Learning Opportunity type: Webinar series

Appropriate Audience: Business Unit Managers, Business Unit Staff, Data Analysts, Data Management Officers, Data Officers, Data Management Staff, Data Scientists, Data Stewards, IT Staff, Legislator and Legislative Staff, Research Staff and Statisticians, Senior and Executive Leadership

Data Literacy Topics: Data Governance, Data Sharing, Open/Closed Data Portals

Texas Data Portals Resource Guide

Description: This resource guide is intended for current and potential customers of the Open Data Portal or Closed Data Portal. It includes information about open and closed data and using the platforms. The guide also provides links to additional educational opportunities (online articles and educational courses) available through the vendor.

Owner: Texas Department of Information Resources

Location: <https://data.texas.gov/dataset/Texas-Data-Portals-Resource-Guide/wxtw-nqep>

Learning Opportunity type: Document

Appropriate Audience: Business Unit Managers, Business Unit Staff, Data Analysts, Data Management Officers, Data Officers, Data Management Staff, Data Scientists, Data Stewards, IT Staff, Legislator and Legislative Staff, Research Staff and Statisticians, Senior and Executive Leadership

Data Literacy Topics: Data Ethics, Data Governance, Data Management, Data Quality, Data Sharing, Metadata, Open Data, Open/Closed Data Portals, Roles and Responsibilities, Texas Statewide Data Program

Texas Data Portals Quick Bytes – Metadata

Description: Quick Bytes are brief educational videos focusing on a specific topic about using the Texas Open and Closed Data Portals. This video discusses the importance of metadata and how to edit the metadata for data assets on the portals.

Owner: Texas Department of Information Resources

Location: [Data Quick Byte: Metadata - YouTube](#)

Learning Opportunity type: Webinar series

Appropriate Audience: Business Unit Managers, Business Unit Staff, Data Analysts, Data Management Officers, Data Officers, Data Management Staff, Data Scientists, Data Stewards, IT Staff, Legislator and Legislative Staff, Research Staff and Statisticians, Senior and Executive Leadership

Data Literacy Topics: Metadata, Open/Closed Data Portals

Texas Data Portals Quick Bytes – Dataset Preparation

Description: Quick Bytes are brief educational videos focusing on a specific topic about using the Texas Open and Closed Data Portals. This video discusses best practices for preparing your data to publish on the Open Data Portal.

Owner: Texas Department of Information Resources

Location: [Quick Byte: Dataset Preparation - YouTube](#)

Learning Opportunity type: Webinar series

Appropriate Audience: Business Unit Managers, Business Unit Staff, Data Analysts, Data Management Officers, Data Officers, Data Management Staff, Data Scientists, Data Stewards, IT Staff, Legislator and Legislative Staff, Research Staff and Statisticians, Senior and Executive Leadership

Data Literacy Topics: Analytic and Statistical Skills, Analytic Tools, Data Sharing, Open Data, Open/Closed Data Portals, Programming Languages

Texas Data Portals Quick Bytes – Geolocation

Description: Quick Bytes are brief educational videos focusing on a specific topic about using the Texas Open and Closed Data Portals. This video discusses the benefits of including a geolocation column on datasets and demonstrates the process.

Owner: Texas Department of Information Resources

Location: [Quick Byte 2022-Geolocation - YouTube](#)

Learning Opportunity type: Webinar series

Appropriate Audience: Business Unit Managers, Business Unit Staff, Data Analysts, Data Management Officers, Data Officers, Data Management Staff, Data Scientists, Data Stewards, IT Staff, Legislator and Legislative Staff, Research Staff and Statisticians, Senior and Executive Leadership

Data Literacy Topics: Business Intelligence, Open Data, Open/Closed Data Portals

Texas Data Portals Quick Bytes – Exporting and APIs

Description: Quick Bytes are brief educational videos focusing on a specific topic about using the Texas Open and Closed Data Portals. This video discusses the limitations of exporting large or complex datasets to spreadsheet software like Microsoft Excel and demonstrates how to use the API to export the data.

Owner: Texas Department of Information Resources

Location: [Quick Byte: APIs - YouTube](#)

Learning Opportunity type: Webinar series

Appropriate Audience: Business Unit Managers, Business Unit Staff, Data Analysts, Data Management Officers, Data Officers, Data Management Staff, Data Scientists, Data Stewards, IT Staff, Legislator and Legislative Staff, Research Staff and Statisticians, Senior and Executive Leadership

Data Literacy Topics: Analytic and Statistical Skills, Analytic Tools, Data Sharing, Open Data, Open/Closed Data Portals, Programming Languages

Data Literacy

DIR Texas Data Literacy Program Learning Series

Description: Data literate organizations and their employees make better informed decisions than their less literate counterparts, leading to improved business outcomes. The Texas Data Literacy Program aims to provide learning opportunities to help data users improve their data

competency, regardless of their role within their organization. The Texas Data Literacy Program learning series consists of course videos related to different topics around data, including data management, data sharing, and data analytics.

Owner: Texas Department of Information Resources

Location: [Texas Data Literacy Program - YouTube](#)

Learning Opportunity Format: Online training series or video

Appropriate Audience: Business Unit Managers, Business Unit Staff, Data Analysts, Data Management Officers, Data Officers, Data Management Staff, Data Scientists, Data Stewards, IT Staff, Legislative Staff, Research Staff and Statisticians, Senior and Executive Leadership

Data Literacy Topics: Artificial Intelligence, Business Intelligence, Communication, Data Architecture, Data Ethics, Data Governance, Data Management, Data Quality, Data Sharing, Data Warehousing, Document and Content Management, Master Data, Metadata, Machine Learning, Privacy, Records Management and Retention, Reference Data, Roles and Responsibilities, Security