UNM | Office of the CIO

UNM Inquiry and Analysis Tools and Support Standard

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Authorized by: UNM President
Responsible Process Office: UNM CIO
Contact: IT Director, Classroom Technologies

Purpose of the Inquiry and Analysis Tools and Support Standard

The purpose of a standard for inquiry and analysis tools and support is to facilitate cost-effective, secure, consistent and manageable computer-assisted surveying and polling using software tools that collect, store, analyze, and report the information collected. The standard intends to reduce total cost of ownership to the institution and to individual departments for the use of survey tools.

What Does Inquiry and Analysis Tools and Support Mean?

Inquiry and Analysis Tools facilitate the collection, organizing, combining, reviewing, and reporting of data and information for purposes such as, but not limited to, customer feedback, (market or other) research, evaluation (faculty), testing, inviting, reminding, management decision-making, polling or elections. The technologies may be locally served or hosted remotely, and designed for web publishing or not. Reporting and analysis may use custom-collected datasets alone or in combination with public or privately-accessible datasets or files.

Support refers to the technical, human and financial resources applied to the effective use of these systems.

> **Service Example**: The UNM Information Technologies department (UNM IT) provides an Inquiry & Analysis Tools & Support service described in the UNM IT Service Catalog. See http://it.unm.edu/servicecatalog/asset_list.php?type=1&a_id=34&dept=26&origin=az.

Who is affected by the Inquiry and Analysis Tools and Support Standard?

This Inquiry and Analysis Tools and Support standard applies to any UNM organizational entity (i.e. division, branch, college, school, department, business unit, or other UNM affiliated organization), hereinafter referred to as a "department", that intends to implement, or has implemented inquiry or analysis tools.

Departments that have existing Inquiry and Analysis Tools and Support systems are not required to adopt the enterprise Inquiry and Analysis Tools and Support system. At time of license or equipment renewal, departments are advised to consider the following:

1) Costs per user, including one-time and recurring costs such as: licensing, security, storage of protected information, and server management, among others.
2) Support expertise required to increase use of the tool
3) Consistency tools and learning curves of additional users
4) Functionality and features of the product. Following is a list of functionality that often are part of this tool set:
   a. Data acquisition, data collection
   b. Various question types

c. Randomization of questions, skip logic, branching, piping to save respondent data entry & for consistency
d. Multilingual capability
e. Multi-media capability
f. Multi-user collaboration in survey development
g. Password security/authentication, https security or anonymous access and invitation. Integration with LDAP and SMTP services.
h. Reminder notices
i. Secure storage of data collected
j. Web forms for design and customization when reporting collected data
k. Data 'cleaning' tools that assist in analysis
l. Utility suites for importing and exporting, analyzing and reformatting data files (invitations or to combine with results data) including integration with email, enterprise databases, or social media.
m. Data charting, visualization and analysis
n. Temporal or time-flow data analysis
o. Network analysis of responses
p. Data reformatters and table creators for searchable tables
q. Online analytical process tools (OLAP)
r. Question repository

Scope of the Inquiry and Analysis Tools and Support Standard

The standard addresses the following Supplemental Services named by the IT Strategic Advisory Committee:

- Elections
- Surveys
- Instructor Course Evaluation

Excluded **from the standard** are the following related services or functionalities. Although some of the meanings may overlap with the list above, these have different specific definitions which might be covered by a Service Level Agreement or contract with a UNM or vendor provider of the service or application.

- Data Warehousing
- Decision Support applications
- Statistical Analysis
- Predictive Analysis
- Big Data analytics
- Social Media Analytics
- Dashboards
- GIS/mapping
- Data Mining
- Digital Analytics (internet traffic business intelligence)
- Business Intelligence or Business Analytics
- Data modeling, Data Science
- General Web and Google Analytics

Responsibilities Concerning the Standard

- **Office of CIO**: Ensure currency, correctness and appropriate periodic review of the standard by facilitating review and update of the standard as needed.
- **Departments that support inquiry or analysis tools**: Comply with the specifications below.
- **Institutional Review Board (IRB)**. Maintain policies and guidance on the ethical handling of human subjects in research surveys. http://irb.unm.edu/.

- **Office of the Vice President for Research**. Oversee research centers and provide support for researchers.

Process for Review of the Standard

The process to update the standard is defined and described on the Standards page of the CIO website at http://cio.unm.edu/standards/standards-development.html:

- Requests for review and update of the standard can be submitted to the Office of the CIO who facilitates the update. The CIO may independently, or upon request of the administration, also determine if review and update is appropriate for the standard.

Compliance

- This standard has been developed under and is subject to all UNM policies, some of which are cited in the References.
- The UNM Administration, Internal Audit, or UNM IT may determine the compliance of departmental support approaches with this standard.

Inquiry and Analysis Tools and Support Standard Specifications

The following comprise minimum specifications for inquiry and analysis tools and support. Specifications are to be ensured or provided either by the UNM department sponsoring use of the tools(s) and/or by vendors.

Inquiry and Analysis Tools and Support in General

- **Selection of systems, tools or software products.** Departments selecting these tools will:
  - Seek broad customer and end-user input on and be a champion for these requirements and criteria to be used in the selection of tools. Publish the criteria or functionality required in the selection of a new tool.
  - Seek to use products that meet functionality requirements and are already installed, available and supported, rather than purchasing or licensing new products.
  - Adhere to Purchasing department requirements and processes.
  - Select tools that are capable of easy integration with enterprise systems for purposes such as, but not limited to, invitation selection (concerning nuances of affiliation with UNM, authentication, protecting information and for administrative processes, such as promotion and tenure).
- **Installation or implementation of tools.** Departments installing these tools will:
  - Refer to the Application Development and Support standard for the **implementation of tools**.
  - **Technical infrastructure**. Ensure the sustainability of the technical infrastructure, either on site or remotely. Refer to the Data Center Standard for the physical security of the data center.
- **Technical support of tools.** Departments supporting these tools will:
  - **Access & Administration**. Ensure initial and ongoing technical expertise to install, load and test software tools.
  - **System monitoring**. Ensure that the tool is monitored for performance.
  - **Backups & disaster recovery**. Ensure that the risk of losing data is mitigated by appropriate backup and recovery planning.
  - **Schedule**. Publish system availability and scheduled unavailability due to system patching, enhancements and maintenance.
  - **Changes**. Ensure that changes are approved, logged, scheduled, notified, and that a backout option is available in case the change cannot be executed. Adhere to maintenance windows for scheduling system unavailability.

- o **Communication**. Provide at least two-week notice to users for changes that require system unavailability, especially outside the maintenance window.
        - o **Train** technical staff on administration and maintenance of the tool.
    - **End-User Support of tools**
        - o **Departments sponsoring these tools will provide end-user support in alignment with the Service Desk standard**, for example:
            - ▪ Publish available hours for support coverage.
            - ▪ Provide access to end-user documentation and FAQs
            - ▪ Log and track service requests and incidents related to the tools, including managerial and technical escalation routes.
            - ▪ Provide end-user training options.
        - o **Entities using these tools will adhere to the Data Governance** (http://data.unm.edu) guidelines regarding permission to access information, capturing, sharing, storing, transmitting and reporting classified data and protected information.
        - o **IRB.** Departments using inquiry tools must comply with criteria established by the IRB for the protection and ethical handling of human subjects. Refer to the Institutional Review Board (IRB or OIRB) http://irb.unm.edu/.
        - o **Surveying**. Departments sponsoring these tools will provide guidelines, training and documentation on appropriate usage of the tool in the development and launching of survey instruments. This includes:
            - ▪ **Survey Best Practice**. Provide or direct users to guidelines and expertise to design survey instruments according to best practice methodology, for example,
                - • **M**easure specific properties of the population,
                - • Protect from bias in query and reporting, that respect survey logic from question to question, or
                - • Make responses easy to render and analyze.
            - ▪ **UNM Identity**. See References for using the UNM identity in survey instruments.
            - ▪ **Tool specifics.** Provide guidance for using the tool appropriately, such as sending invitations, reminders, forming and sequencing question types, layering and branching in surveys, among other features.
            - ▪ **Analyzing**. Provide guidelines, training and documentation on appropriate analysis and reporting of the data collected.
            - ▪ **Re-using data results** Define and document guidelines, permissions and boundaries for the downstream analytics and longitudinal analysis of the data collected.

Specific to Elections

- In addition to the above, see the eSurvey/Opinio Service Level Agreement for appropriate workflow, audit, security and reporting related to student elections.

References

- Purchasing. The Purchasing Department serves as the central purchasing authority for the University of New Mexico. http://purchase.unm.edu/.
- **UNM Policy Manual Section 2500-2599**: Electronic Management Systems, especially 2500, Acceptable Computer Use: http://policy.unm.edu/university-policies/2000/2500.html; 2550 for Information Security: http://policy.unm.edu/university-policies/2000/2550.html; and Security Controls and Access to Sensitive and Protected Information 2520 http://policy.unm.edu/university-policies/2000/2520.html and Social Security Numbers, Policy 2030 https://policy.unm.edu/university-policies/2000/2030.html.
- **Application Evaluation Guide** http://cio.unm.edu/standards/docs/applications-evaluation-0906.pdf.
- **UNM Data Governance** http://data.unm.edu/.
- **Institutional Review Board**. Refer to the IRB for policies and guidance on the ethical handling of human subjects in research surveys. http://irb.unm.edu/.

- **The Department of Math & Statistics.** Academic courses in the evaluation and reporting of data are available at UNM http://www.math.unm.edu/.
- **UNM departments with inquiry, database and data analysis expertise**. Office of Institutional Analytics http://oia.unm.edu/; Bureau of Business and Economic Research (BBER) http://bber.unm.edu/; Office of the Vice President for Research (OVPR) http://research.unm.edu/; among many others.
- **FastInfo** UNM IT's Knowledgebase of frequently asked questions, especially the **Security Review for Purchasing Software** https://unm.custhelp.com/app/answers/detail/a_id/7486/kw/security%20assessment.
- **UNM Identity Standards** https://ucam.unm.edu/marketing/identity-standards.html.
- **Information Security Program,** http://it.unm.edu/security/program.
- **Accessibility/ADA guidelines** are offered by Accessibility Services for students http://as2.unm.edu/, and the Physical Plant https://iss.unm.edu/PCD/university-planning/facility-access-ada.html.
- **FERPA**. Guidance for complying with the Family Educational Rights and Privacy Act (FERPA) are provided by the Registrar: https://registrar.unm.edu/privacy-rights/ferpa.html.
- **IT Standards** and related processes and information cited in this document, including a link to the Application Evaluation Guidelines, can be found on the Chief Information Officer website: http://cio.unm.edu/standards/.
- **National Institute for Computer-Assisted Reporting** (NICAR**) and its library of federal databases:** http://www.ire.org/nicar/.
- **ASQ**. A national quality organization concerned with metrics, data analysis and presentation of data: http://asq.org/learn-about-quality/data-collection-analysis-tools/overview/overview.html.