

Information Architecture Exploration ISTE Technology Domain Model

30 March 2001 ■ Version 1.0

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Overview

The purpose of this document is to present the structure and content architecture for the International Society for Technology in Education (ISTE) technology domain model (TDM) site.

The core architecture of a site is critical as it provides the foundation for design and content development, sets the stage for the overall user experience, and carries long-term effects in the maintenance and growth of the site.

About This Document

This document contains the following information, which should be discussed and lead to a solid foundation for the functional requirements of the site:

- A site architecture, which is represented with a site map that shows the organization of the site.
- An overview and rationale of the architecture.
- User task flows that show user interaction with the site.
- Information and navigation flow diagrams that show the differing site levels as well as differing paths a user may take.
- User-interface schematics that provide a pre-motif layout of possible user experiences.

Next Steps

This review of this exploration document is a critical step in the project process. Verification of the information architecture presented herein will lead to:

- Creation of the Requirements Specification.
- Finalization of the site map, including naming and labeling.
- Identification of the context of individual features, such as the TDM questionnaire.
- Development of a navigational model.
- Identification of a content inventory outline, and the subsequent tracking of content development.
- Development of the design directions.

Information Architecture

The goal of the information architecture is to provide multiple, clear paths for users to access the core content on the TDM site.

Overview

Chip Kimball, in association with ISTE and the Gates Foundation, has developed a technology domain model (TDM) to meet the following objectives: to promote school reform through technology and to embrace technology in education.

The TDM identifies four domains that are used to evaluate school districts and identify where technology improvement is needed. These four domains are: equipment standards, staffing and processes, professional development, and intelligent systems.

By visiting the site, school districts should be able to learn about the TDM and its purpose, print a copy of the TDM matrix, and complete a questionnaire based on the TDM to learn where they need improvement. This questionnaire will profile their school district, provide a score based on a defined scoring logic for the TDM matrix, and provide a technology action plan for improvement.

Audience

The primary audiences for the site are:

- **School District Chief Information Officers (CIOs)** — This audience plans and budgets the technology development strategy for the district.
- **School District Technology Coordinators** — This has a technical background and generally report to someone who is responsible for planning and budgeting the technology development strategy for the district.
- **Certified Personnel (Teachers)** — In addition to their regular duties, this audience also functions as a technology coordinator. While they may not be responsible for strategy planning, they have a technical background (possibly self-taught) and reports to someone who is responsible for planning and budgeting the technology development strategy for the district.
- **Uncertified School Personnel** — This audience includes administrative support staff that may be assisting any of the above audiences.

- **Section D, The Assessment** — This section offers a brief introduction of the overall TDM concept and its four domains. It also includes the TDM questionnaire. Upon completing the questionnaire, users will receive a profile of their school district and recommendations for improvements.

Additional site information is shown in **Section E, Legal**. This includes the site copyright information (may be a single line of text on a page), as well as any privacy and legal information that pertains to using the site or completing the questionnaire.

Benefits

The proposed architecture offers the following benefits:

- **Simplicity** — This information architecture groups contents into three categories to satisfy user’s fundamental needs.
- **Logical Groupings** — The TDM questions are displayed by domain on a single page, allowing users to view all related questions at a single time to better understand their interdependencies and relationships.

The Assessment

This section contains information on the TDM questionnaire (“the assessment”), including the recommended user task flow, navigation flow, and sample page schematics.

User Task Flow

Figure 2 shows the decisions that users will make when accessing the TDM questionnaire on the site.

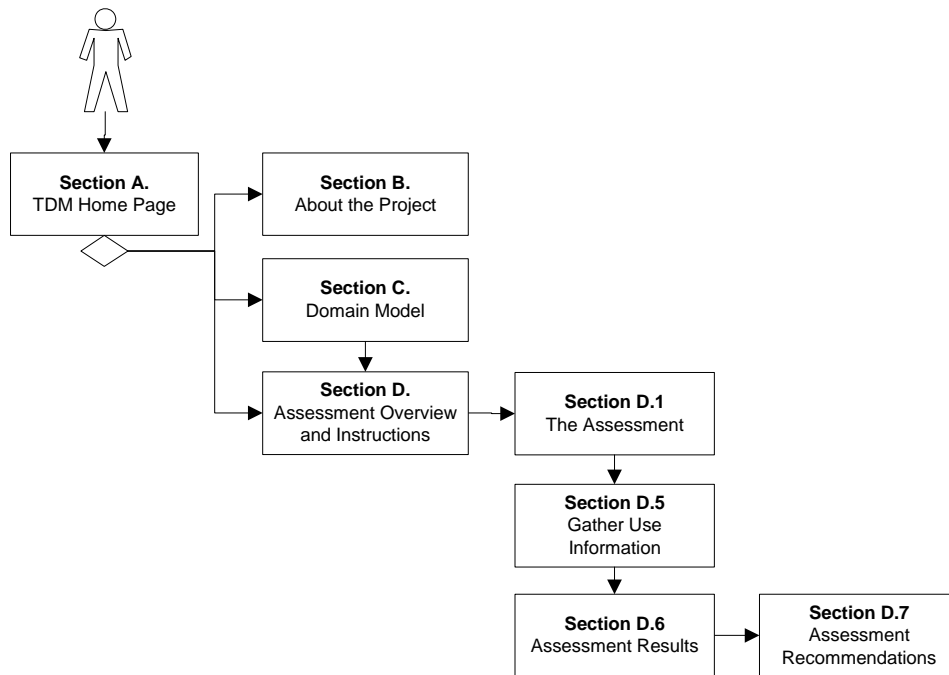


Figure 2. User Task Flow Diagram

Navigation Flow

This section presents the recommended navigational flow for presenting the assessment questions. Saltmine recommends that the assessment process flow is linear; rationale for this presentation is discussed below.

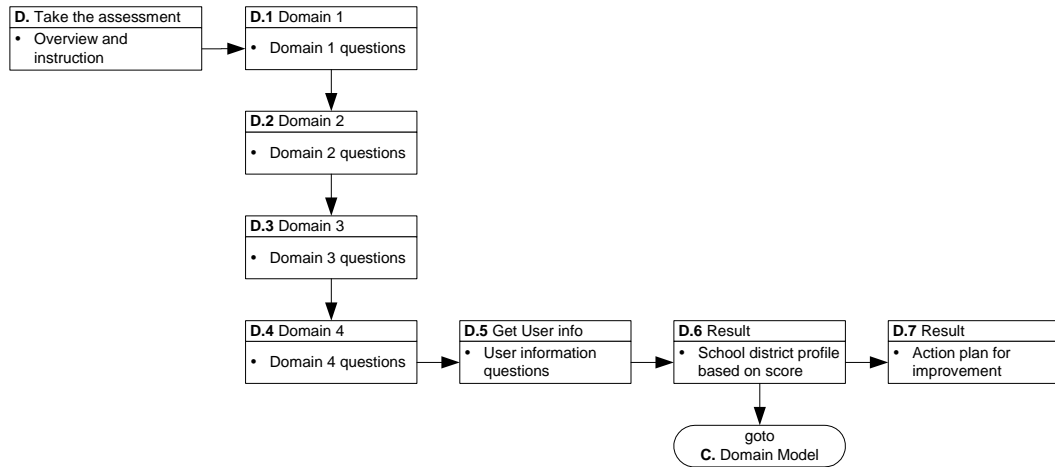


Figure 3. Assessment Process Flow

Rationale

Following is the rationale for the assessment process flow, as presented in Figure 3:

- **Straightforward** — A linear model presents the domain questions in an uncomplicated manner and can clearly identify that there are four (to five) screens to click through before the user receives their results.
- **Less Distraction** — Because the user knows that there are four domains for which they must provide answers, they assume that the survey will be short.
- **Structure and Integrity** — While a rigid structure could appear to be a negative impact, it forces the users to complete questions for each domain before seeing the results, as opposed to seeing the results for each domain upon its completion, and will result in less assessment abandonment. If users were to receive results domain-by-domain, the integrity of the TDM would be in jeopardy, as users would have the option to complete a single domain and instead of the entire TDM.
- **Project Timeline** — It is easier to build a linear model in regards to programming, user interface, and visual design.

Page Schematics

This section provides pre-motif layouts, or page schematics, of possible user experiences. Figure 4 shows how a page could present domain questions, and Figure 5 illustrates how the assessment results could be presented.

Note: These are examples only; actual design directions and user interface layouts will be identified following validation of the site architecture. Actual navigational labels will be established as the site map is finalized.

The schematic for Figure 4 shows a top navigation bar with a 'start assessment' button and links for 'copyrights', 'privacy policy', and 'legal info'. Below this is a secondary navigation bar with 'About the Project', 'Domain Model', and 'Assessment' tabs. The main content area features four tabs: 'Equipment Standards', 'Staffing & Processes', 'Professional Development', and 'Intelligent Systems'. The 'Staffing & Processes' tab is active, displaying three numbered questions. Each question is followed by four radio button options labeled 'Answer 1' through 'Answer 4'. On the left side, there are three buttons: 'Overview', 'Start Assessment', and 'Assessment Results'.

Figure 4. Assessment Page (D.1)

The schematic for Figure 5 shows a top navigation bar with a 'start assessment' button and links for 'copyrights', 'privacy policy', and 'legal info'. Below this is a secondary navigation bar with 'About the Project', 'Domain Model', and 'Assessment' tabs. The main content area features three tabs: 'Equipment Standards', 'Staffing & Processes', and 'Professional Development'. The 'Equipment Standards' tab is active, displaying a table with columns for 'Emergent', 'Islands', 'Integrated', and 'Exemplary'. The table contains three rows of data for 'Standard OS', 'Platform', and 'Application Software Standard'. Below the table, there is a summary section with 'Your score: 55', 'Score range: 1-80', and 'Mean score: 45', followed by 'Analysis' and 'Recommendation' text. On the left side, there are three buttons: 'Overview', 'Start Assessment', and 'Assessment Results'.

Figure 5. Assessment Results Page (D.6)

Rationale

Following is the rationale for the presentation of questions, as shown in Figure 4:

- **User Retention** — If the questions were presented on a single long scrolling page, or one-by-one on click-through screens, the user could be easily distracted, resulting in assessment abandonment.
- **Reduced Time** — Well-written questions reduce the user's time to complete the assessment. If the TDM matrix were presented instead, time to complete the assessment would increase significantly as not all users are technically savvy.
- **Less Distraction** — Because the user knows that there are four domains for which they must provide answers, they assume that the survey will be short.

Potential problems to be aware of for this layout includes the possibility of:

- Introduction of potential question bias with multiple questions per page.
- Potential timeout errors.

Note: Figure 5 shows a possible structure for the assessment results; Saltmine has not yet fully explored the pros and cons behind this and other possible structures. The schematic is presented for conversational purposes only.