



Michael & Susan Dell
FOUNDATION



Scholarship Data Standard

Program Planning Guide

v1

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About This Guide

This guide helps decision makers to understand the key concepts, planning, and resources necessary to use the scholarship data standard to help students access more scholarship funds for education. To use this guide, it is assumed that you have read the Scholarship Data Standard introduction available on the NSPA Web site here: <http://scholarshipproviders.org>. There are downloadable documents and discussion forums on the NSPA Web site where scholarship data standard adopters can get peer help and advice about implementing the standard.

The Problem to Solve

Students spend many hours filling out scholarship applications in an effort to get money for college. Not only does one application require significant time, but each application requires manual data entry regardless of how many questions it shares with a previous application. For example, the student must redundantly enter their name, address, and contact information, and repeat the process for nearly every application. Some students will employ awkward cut and paste mechanisms to try to re-use their information in multiple places. While the requirements of one application are not too much to bear, consider the labor when a student attempts to apply for forty scholarships. Students individually decide when “enough is enough” and they stop applying, mainly based on their threshold for the time investment they are willing to make.

Rightfully so, scholarship providers are selective about which students to whom they award scholarships, but collectively we have created a significant burden upon those we wish to help. When asking for the best candidates for our scholarships, we should employ the best processes and technology where possible. Our goal should be to maximize the ratio of seized student opportunities to student labor expenditure. The Scholarship Data Standard makes it possible to do this with technology.

The Solution

The Scholarship Data Standard lets students apply for a scholarship online and then automatically re-use that information for other scholarship applications. As a result, the student has access to considerably more scholarships with less time and labor investment. The Scholarship Data Standard achieves this without requiring scholarship applications to be aligned with each other or structured in a similar way. Additionally, the Scholarship Data Standard gives scholarship providers a way to package students' answers to an application and send it to another provider, who can then make use of the data without any knowledge of the application from which it was created.

The Scholarship Data Standard defines a flexible data structure for sending a student's answers to scholarship application questions to another location. Additionally, the Scholarship Data Standard is:

- A way to package student information for sharing automatically
- A way to let students take charge of their information and share it at their discretion
- A way to get more from your investment in your online scholarship application

Figure 1 shows how a student could benefit from the Scholarship Data Standard.

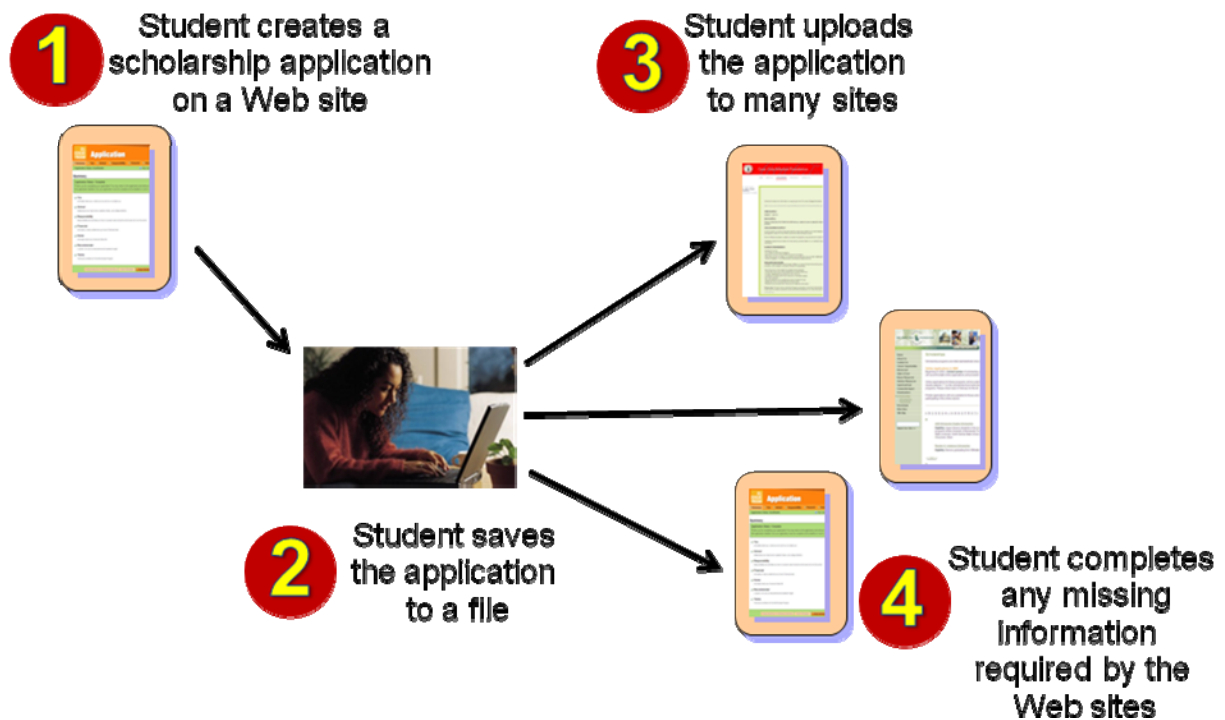


Figure 1

About the Scholarship Data Standard schema

The Scholarship Data Standard was developed with a grant from the Michael & Susan Dell Foundation. A workgroup was formed under the National Scholarship Providers Association (NSPA) with members carefully selected to represent many perspectives from the scholarship industry. Workgroup members at the time the standard was released were:

- Boettcher Foundation
- Canada Millennium Scholarship
- Coca-Cola Scholars Foundation
- FastWeb
- George Snow Scholarship Fund
- Hispanic Scholarship Fund
- Michael & Susan Dell Foundation
- Minnesota Community Foundation/The St. Paul Foundation
- National Scholarship Providers Association
- Oregon Student Assistance Commission
- Scholarship America
- Senator George J. Mitchell Scholarship
- University of Texas at Austin, Student Financial Services

The work was released as a standard so that any organization can automatically read an application by writing software that conforms to the standard file format. The standard calls for a student's answers to be saved to an XML file that conforms to the schema, compressed, and named with the file extension 'SDS'. The standard does not define the business processes or communication mechanisms for transmitting and receiving SDS files, only the structure and contents of the file.

Benefits for Students

There are several distinct benefits that the scholarship data standard provides to students:

- Efficiency benefits, e.g. scholar accesses 30 scholarships with the labor previously spent on three
- Cross-over benefits, e.g. scholar wins an unknown scholarship thanks to easy application sharing
- Filtering benefits, e.g. automatic filtering prevents spending labor on scholarships for which they are ineligible

Benefits for Organizations

Beyond the positive impact to students, there are several distinct benefits an organization to adopt the scholarship data standard:

- Paper-free source of potential scholars
- Automatic processing, e.g. quantitative selection and eligibility filtering is possible up front
- Quicker route to focus labor on qualitative selection processes instead
- Easier access to tools written by others due to the standard
- Efficiency benefits, e.g. org saves labor managing different scholarship programs

Considerations for various organization types

The scholarship data standard is applicable to many organizations that server various scholarship industry functions.

Scholarship providers with a single scholarship application

Let us take for example a scholarship provider with the following qualities. The organization:

- Has a single scholarship application
- Sources scholarship applications without external help
- Does not plan to forward applications to other organizations
- May be a public or private non-profit, a university, or association

Scholarship application sourcing

For this example organization, the scholarship data standard provides new options for receiving scholarship applications:

- From a scholar through the file upload process
- From a related organization by the application forwarding process
- From a clearinghouse by polling and searching the database

Considerations for application internal processing

There are several considerations for the example organization when streamlining their internal application processing pipeline.

- Processing application data for database storage or deletion
- Detecting and filtering out duplicate applications or allowing scholar to view, modify, or choose which application is authoritative
- Automatically or manually completing missing information or update existing information either immediately or over a period of research time
- Filtering eligibility and verifying data provided when applicable

- If scholar matches certain criteria, based on agreements with other organizations, ask scholar for permission to share the application with those organizations from a blind or targeted filter list. It is assumed that the example organization would inform the scholar that further communication regarding forwarded applications will come from the target organization.
- Automated responses to the scholar based on certain events, e.g. application received, missing information, accepted to semifinalist stage, etc.

Considerations for application external sharing

There are several considerations for the example organization when sharing student information.

- Define agreements with other organizations to share applications that dictate data sharing terms, privacy policies, and any other security policies/practices for data use. This includes email opt-in processes. Opt-out lists to let a student revoke sharing permissions. After being revoked, from that point forward the organization would no longer send copies of the application anywhere.
- Build a mechanism to determine with whom the student gave permission to share their information and to track the source of the application which affects its criteria for sharing.
- Determine any security policies such as file locations, data transfer processes, usernames/passwords/ encryption mechanisms, frequency of data upload/download, etc.
- Use the “createdby” and “updated by” fields provided in the standard to determine whether the application has already been forwarded to avoid endless forwarding chains.

Scholarship providers with multiple scholarship applications

Let us take for example a scholarship provider with the following qualities. The organization:

- Has multiple scholarship applications
- Sources scholarship applications without external help
- Does not plan to forward applications to other organizations
- May be a public or private non-profit, a university, or association

Considerations

Given the considerations for the previous example organization that has a single application, the same considerations apply, but additionally:

- Provide screens to allow the student to select one or more scholarship programs for which they are applying. This information is needed to determine the eligibility or other programs that the organization might recommended to them.
- Segment data for matching scholar applications to the program(s) for which they are intended.
- Provide opportunity to “opt in” to other programs (meaning those not already suggested or offered to the scholar) for which they might be eligible.
- Track data about the origin of applications segmented by donor, program, etc. to understand the impact of the standard.
- As a scholar progresses through the pipelines of multiple programs, maintain status and communication threads with the scholar for each program independently. Drive the communication mechanism based on the scholar’s indicated “preferred communication method” field in the data standard.
- When dealing with multiple scholarship programs and applications, use the most detailed application as the basis for creating a file that the student saves to their local computer for use elsewhere.

Scholarship management organizations with a single application

Let us take for example a scholarship provider with the following qualities. The organization:

- Has a one or more scholarship application
- Has many donors or clients with differing needs
- Provides scholarship administration services from end to end
- May be a community foundation or service provider

Considerations

For this example organization, the only differences between it and the previous example of an organization with multiple applications would be driven by the differing needs of the donors/clients.

- Segment data reporting and application tracking/communication for the different donor/clients
- Differing the process steps based on the varying depth of the services provided
- Accommodate processes that have external phases completed by other organizations, for example when scholar selection is conducted by an external board, but afterwards the scholarship administrative services continue through the remaining process steps.

Scholarship listing, matching, or referral services

Let us take for example a scholarship provider with the following qualities. The organization:

- Hosts many scholarship applications or simply refers applicants to other locations
- Has many clients with differing needs

Considerations

For this example organization, the only differences between it and the previous example of an organization with multiple applications would be driven by the differing nature of the engagement with partners.

- Seize the opportunity to host the students application file and automatically forward to target organizations with scholar simply providing permission
- Provide the ability to “one click apply” to many different organizations and manage the collection of data for target organizations
- Provide statistics to clients about the demographics of their applicants

How to adopt the Standard

This section explains the general prerequisites and process to adopt the standard in your organization.

Prerequisites

To immediately adopt the scholarship data standard, you must have the following:

- A copy of the scholarship data standard with accompanying documentation
- An online/Web scholarship application
- Access to technical staff with Web, XML, and database programming skills (either on staff or vendor/contractor)
- A desire to help students access more funds for college

Multiple Levels of Adoption

Scholarship data standard adoption can be done at many levels and represents a continuum of capabilities. The following describes the various levels at which you can adopt the standard from lowest to highest.

Level 1 – Minimal adoption

When you decide to make your Web site conform to the scholarship data standard, there are implied assumptions regarding how your Web site will perform. Specifically, it is expected that once completed, your Web site will be able to:

Receive an application from a scholar

- When starting a scholarship application, your Web site will prompt the student upload an existing application file as opposed to manually entering their data if they choose.
- Once uploaded, your application will automatically fill its fields from the available contents of the student file.
- The student will be prompted to review the information and provide any missing information if applicable.

Save a new application to the scholar's computer

- When a student finishes an application, the Web site will prompt the student to save their information to a file on their computer.
- The Web site will read all of the information provided by the student and will package it into a file that conforms to the scholarship data standard.
- The Web site will allow the student to download this file to their computer to a file location that they specify, so that they may easily find the file later

As you may notice, it is absolutely critical that any files written by your application conform to the scholarship data standard so that other Web sites can read the file without ambiguity. Proper testing of your solution is the key. Your vendor or technical resource must demonstrate that the files written by the application conform to the standard before you can be confident to deploy the updates to your Web site.

Level 2 – Cross-organizational data sharing

This level represents being able to share scholarship applications with other organizations under certain conditions that you define. For example, you may decide to share all ineligible applications from a certain region with another scholarship organization that services students from the region.

Level 3 – Clearinghouse integration

This level represents being able to share scholarship applications with scholarship clearinghouse or matching service from which thousands of scholarship organizations may access the application. The goal is to expand the scholar's access to scholarships in general. While the student may not fit your criteria, they might be a perfect fit for another organization and

your act of forwarding the application might be the deciding factor of the student getting more funds for college. Additionally, you could do this to improve your operations and target your demographics with analysis from the clearinghouse data.

Adoption Process

The following information outlines a process that an organization can use to implement the scholarship data standard.

1. Determine if you will allow students to upload applications to you and/or if you will share received applications with other organizations.
2. Define the process by which you will collect scholar permission to share their information (e.g. providing an opt-in list on your Web site)
3. Identify the partners with which you will automatically forward applications for students that are not be eligible for your scholarship program
4. Define the privacy policy between data sharing partners.
5. Define the email notification that you will send to all applicants to confirm that you received their application.
6. If you do not have technical resources on staff, select a vendor/contractor using an RFP/bidding process
7. Synchronize your technical resources with your partner to determine the mechanism by which you will share scholar files (FTP, secure Web site upload, email, etc.)
8. Cost and schedule to implement the standard will vary depending on your circumstances, but an estimate for using a contractor to implement is \$20k-\$40k for 4-8 weeks of technical work.
9. Conduct careful testing of technical solution. Do not sign-off on any technical solution unless it is proven to adhere to the standard exactly.
10. Analyze the demographics of new inbound scholarship applications and seek new partners with whom to share scholar information over time

Acknowledge received scholarship applications

It is important to send at minimum an email notification in response to any scholarship application received automatically via the scholar data standard. There are many reasons for doing this, but primarily it involves:

- Let the student know what organizations have received their application so far
- Ensuring that the student meant for you to receive the information and giving them the option to delete the application if not
- Prevent redundant work on the student's part and redundant data processing on yours in the event that the student accidentally applies to your program more than once

Forwarding applications to other organizations

It is important when receiving a scholarship application from another organization that you do not re-forward that information without obtaining student permission, regardless of whether they already gave permission to the organization before you. This prevents both the unchecked wide distribution of their data, but also technical problems that arise when the application is accidentally forwarded in a configuration where organization A forwards to B, B forwards to C, then C forwards to A. A problematic endless loop would occur.

Data privacy with vendors and partners

Your assumptions about how a vendor or partner will deal with private information and how it is even identified may not match that of the company that you work with. When working with vendors and partners, you should write contracts or agreements that contain very specific data privacy language to explain your expectations and requirements for your data. You should also ensure that any privacy policy that you communicate to students or customers also matches this

contract/agreement language. For more information about privacy policies, see http://www.ehow.com/how_2049739_create-privacy-policy-business-website.html

Frequently Asked Questions

This section lists common questions posed by the community and provides the answers to the questions.

What is this scholarship data standard in simple terms?

The scholarship data standard is a way to wrap up a scholar's application and send it to another place where a computer can automatically fill out different scholarship applications based on common data, such as scholar name, contact information, GPA, etc. A scholar can fill out one application and send it to many scholarship providers and only have to manually provide missing information.

What is the purpose of a scholarship data standard? What current problems does it solve?

It allows students to create a scholarship application at one Web site and then easily transmit copies of their application data to other organizations without retyping their information each time. Additionally, it allows organizations to share student scholarship applications with each other. Moreover, it provides a bridge between existing software tools to let them share data, even if they were not originally designed to do that.

How would I provide this capability to students that use my online application?

You would add a module to your Web site that lets the student upload their data file, reads the contents, and puts the data into the fields of your existing application for the student. The module would allow students to save their application on their computer so that they can reuse it elsewhere. It is important to note that the data standard makes these scenarios possible, but there is additional software work required on behalf of those who choose these options in order to make it happen.

Does the standard change over time as new needs are identified? How do I keep up with any changes?

The standard may be updated to address new needs, but any changes will be released under a new version number to clearly identify it versus the original version. Thanks to the way XML works, a computer can receive an application based on the original or new version and tell them apart. As a result, a new standard coming into existence does not automatically invalidate your investment to implement the original standard on your Web site. You will always have a choice whether to make any changes on your Web site to accommodate applications based on the new standard or to simply continue to accept applications that are based on the original version of the standard only.

Are there minimum requirements needed to implement the data standard?

There are two basic requirements.

1. You must be able to receive a scholarship application file and fill out your application with the information in the file.
2. You must be able to save a student's application to a file that conforms to the scholarship data standard.

To provide this application upload capability to students that use my online application, do I have to change the look and feel of my site?

No, your existing online application does not change in appearance, with the exception of a screen that asks the scholar where to save or retrieve their application file. Most changes are invisible to the scholar and represent work done "under the hood" to make it happen.

Does the standard require me to have the same application questions or the same question text as other organizations? Is this a common application?

No, the standard defines answers to application questions, but does not define the questions or the order in which they appear. For example, regardless of how, where, and when you ask the question, "What community service work have you performed?" there is a "community service essay" field in the standard to accommodate it. Therefore, organizations can use custom question text presented in any order they wish on their own applications. Then, another organization can look in the scholar file for the "community service essay" field to extract the information and use it to automatically fill out that part of their application.

Can the standard handle scholarship application file attachments, such as scanned High School transcript images, Student Aid Reports, etc.?

Yes, the standard allows for unlimited file attachments in a scholarship application file in the same way that you attach files to an email (in MIME/Base64 encoded format).

Where can I as a scholarship provider get information or assistance to build the necessary software module for my Web site to use the standard?

There are many ways to implement the standard depending upon your needs and the technical expertise available to you. Generally, an important early decision is whether you plan to write the software modules yourself or hire a vendor to do this for you. Implementing the standard requires a person with programming skills in XML, Web technologies, such as JavaScript, PHP, and/or ASP.NET, and database skills such as SQL/Oracle, depending upon those technologies used in your Web site. For more information about the data standard, including a list of organizations that can assist others with planning and implementing the standard, please refer to the NSPA Web site <http://scholarshipproviders.org>

To share scholarship applications with other organizations, how would I know what questions they ask to make sure they get the correct information?

You would not have to determine that at all. After getting student permission, you simply put whatever student data you currently have into the data package and send it to another organization. At the destination, they would automatically read the file and determine what data is available and what is not, depending on the needs of their organization. The target organization would gather the data from the student for anything that is missing.

Does the scholarship data standard help me protect student private information?

The data standard does not provide any new protection beyond the processes that you already use to protect private data. However, the standard does provide some new information, such as a way to determine if a student gave permission to share their information with others. For more information, please refer to the Scholarship Data Standard Implementation Guide.

How do I keep a scholars information from falling into the wrong hands?

Even though the scholarship data standard gives you the means to share information much more easily than ever before, you are still in complete control about where you send the data. As with any sensitive information, do not share the information with any organization that you do not trust. It is expected that most information sharing will occur between scholarship providers and/or scholarship matching services.

What does the data standard do for people that use paper applications?

Organizations that use paper today, but have future plans to upgrade to electronic applications will benefit in several ways by having a data standard available. For example, the standard provides a clear migration target and reduces ambiguity about data formats when planning the upgrade process and is especially helpful when working with vendors to narrow the scope of work. However, you need to process most of your scholarship applications electronically to realize all the scholarship data standard benefits.

Can I employ a mix of paper-based and online processes?

Yes. Many aspects of the scholarship application process can be automated while using paper in various stages. For example, you may collect electronic applications, but manually verify faxed/physical transcripts. You may use an automatic quantitative algorithm to select semifinalists, yet print out your scholarship applications for qualitative reading and scoring and then conduct data entry back into a system. While many paper-based processes are not very efficient, most organizations, even those with advanced online/electronic workflows continue to use paper for some parts of their process. Additionally, upgrading to new electronic processes is best done in a layered/phased fashion in an effort to manage change over time, which implies a mixed solution at many points along the way.

Glossary

This section defines common terms used when discussing the Scholarship Data Standard.

Clearinghouse - A central repository for scholarship applications from which scholarship providers can locate eligible scholars and from which statistics can be mined

Online application - A Web site that lets students apply for a scholarship electronically

Schema - A defined structure for a set of information

Paper-based process - A scholarship application process where the student fills out a paper for and then mails it to a scholarship provider

Related Web sites

- National Scholarship Providers Association Web site
<http://scholarshipproviders.org>