

## VIRTUAL REFERENCE SERVICE TOOLS AND APPS: FEATURES OF LIBANSWERS AND TAWK.TO

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### ABSTRACT

Like any other software type, the Virtual Reference Service (VRS) solutions or applications can be classified as proprietary and free, free being very few meeting the VRS requirements comprehensively. Among the proprietary Software Altarama, Mosio for libraries, LibraryH3lp, LibAnswers etc. are more popular with wider adoption. They all facilitate chat, IM, SMS and web form based communications, with a few offering additional features like professional backup staff and consortia-ready. They intend to provide a complete and integrated reference management system for users support and assistance. Free tools do not over run integrated approach but a library may choose a combination of several free tools or apps for implementing VRS. The paper discusses the features of LibAnswers (paid) and tawk.to as the free VRS tools which may enables the libraries to initiate VRS without any financial implications.

**Keywords:** Virtual Reference Service (VRS), Digital Reference Service (DRS), LibAnswers, tawk.to

### Introduction

Virtual Reference Service (VRS) or Digital Reference Service (DRS) is possible through effective application of ICT for establishing or facilitating communication between the users and reference librarian without any geographical restriction (and time barrier in case of collaborative VRS depending on staff availability in collaborative VRS). ICT infrastructure for providing VRS include as hardware and software, hardware in the present case being standard PC or tablet PC or even mobile phone. Most of the VRS application or solutions are web-based with additional features (in few cases) of downloading and installing the software on standard PC without having any server requirements.

### Background of the Study

E-resources play a very crucial role in e-learning as they are available in abundance in both paid and free format. Publishers are offering the libraries the premium subscription based e-resources in the form of e-journals, e-books and online databases. Users also have the freedom of accessing open access content without any financial implication. However, users need guidance and support from the libraries for better utilization of these valuable e-resources along with the print collection. Timely, relevant and accurate assistance from the library not only maximizes the utilization of the library resources but it results in the qualitative and quantitative improvement in teaching-learning and research. Virtual reference service (VRS) can help in achieving this goal. Traditionally, reference service involves in-person desk-based reference but the current electronic era demands 24/7 reference through innovative use of technology. VRS can not only strengthen e-learning but it also impacts distance education positively. While traditional reference mandates users to visit the library physically, VRS can offer online assistance remotely with several value added service as discussed in this paper.

### LibAnswers

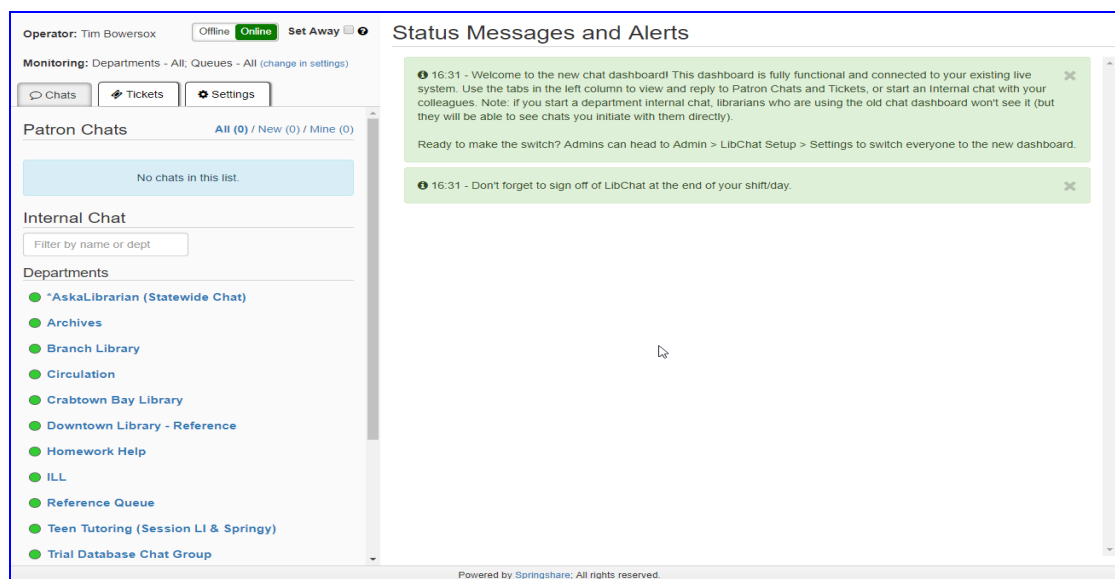
LibAnswers is an innovative product developed by the vendor Springshare aiming to help libraries engage with their community online and deepen relationships with users. LibAnswers empower librarians to curate relevant resources and share knowledge, provide answers to patron questions, manage and promote library events, spaces, and equipment, analyze the use of library services, and more. LibAnswers is SaaS platform and is used by over 1,400 libraries in more than 80 countries around the world. LibAnswers offers a searchable knowledge base of frequently-asked questions (FAQ) with built-in facility for asking questions or seeking assistance online without any time and location barrier. It offers LibChat widget, knowledge base, FAQ builder and social media based library communications.

## Features:

### LibChat for Real-Time Conversations

LibChat is comprehensive chat reference tool with embedding options, and “integrated reference and helpdesk workflows”. It is an online chat platform that's built into LibAnswers system. The chat widgets (using our easy widget builder) can be embedded into LibGuides, library website, or other webpages, which patrons can use to chat with library staff. LibChat Widgets are monitored by individual staff, or entire reference section staff could monitor all chats coming from a specific widget.

- Reference staff can monitor incoming tickets, SMS messages, and Facebook messages.
- Chats can easily be transferred to other online staff members or departments matching with the right expert to answer their question.
- Fellow colleagues can communicate amongst each other internally through chat.



- It provides fully customizable skins (look and feel) and embeddable widgets
- Chat widget can be embedded in library website page or pop-out widget.
- Staff can customized the first interaction presented to the user as soon as he/she joins the chat. First interaction could be simple question “how may I help you today” or a simple greeting.
- LibChat gives the user the choice of remaining anonymous or disclose their identity.

### Proactive Chat via Pop Up Widgets:

- LibChat widget automatically pop on the screen prompting users to interact with the reference staff. Widget pop-up is triggered whenever user stays on a library webpage for certain specified duration.
- Built-in customizable-timers and facility for assigning separate for different webpage and/or LibChat-widget

### Seamless Conversation Flow:

- Chats continues even users shift from one page to other through "Follow me" feature.
- Facility of Electronic Document Delivery Service (EDDS) through Chat-widget.
- Built-in "We're still working on your question!" to keep the user engaged.

### Transcript Management and User Privacy

By default, the chat transcripts are saved automatically or they can be removed as per the VRS policy of the library. LibAnswers facilitates user-anonymization through removal of patron-identifying data from saved transcripts.

- Fully-searchable chat transcripts.
- Timestamp for each sent and received message.
- Privacy controls and data cleansing.
- Quality control and ratings included.

### Chat Ratings

Patron can comment on and rate the conversation on the basis of the kind of assistance and information they have received from the reference staff. Four-scale rating system is available for the user to rate the chat quality.

The screenshot displays the LibAnswers LibChat Administration dashboard. A modal window titled "Thanks for chatting!" is overlaid on the page, prompting the user to rate the chat. The modal includes a "Please rate this chat:" section with four radio button options: "Great" (smiley face), "Good" (neutral face), "So-so" (frowny face), and "Bad" (very frowny face). Below the ratings is a text input field for "Any comments?" and a blue "Submit Feedback" button. A link for "View/Email Transcript" is also present. The background dashboard shows the "Chat Ratings" tab selected, with filters for "Name (Patron or Librarian)", "Rating", and "Widget". It also includes a "Filter Records" section and a "Ratings Summary" section at the bottom.

### Reference Staff/Transfers

- Large volumes of chats can be handled.
- Transfer chats to other chat operators.
- Chat with colleague or partner staff to collaborate on answers.

### Universal Inbox with Ticketing System

No restrictions on number of emails being assignment to LibAnswers enabling user queries to appear/become visible in the LibAnswers dashboard. The email ticketing functionality is fully integrated with the rest of the communication channels.

- Email replies with Rich Text Editor
- Threaded conversations prevent creation of duplicate tickets.
- Ticket tagging and status notifications.
- Internal Notes enhance collaboration.
- Include links and attachments
- Patrons receive highly satisfactory answers quickly through the LibAnswers Ticketing system.

### FAQ Builder for Self-Help

Create an online knowledge base of questions and answers that patrons can access 24/7. Within LibAnswers, FAQs are organized in one or more groups. Each group can then be further organized by topic and keyword, which allows patrons to more easily browse and search for the most relevant FAQs. The system enables librarians to build a "community knowledge base portal comprising of FAQs entries (Q/A) containing "videos, rich media, documents, and any relevant and contextual information". This is of immense help to the users as they can search or browse and obtain the relevant answers they need. The FAQ KnowledgeBase is available 24/7 ensuring patron service when reference staff are offline leading to user-satisfaction.

## II. FAQ Groups:

LibAnswers staff interface will have a default FAQ group, which actually serves as the homepage for entire library system. However, library can create as many groups as needed. This can help in organizing the FAQs by department or service, such as:

- General research & reference questions
- Citation questions
- Tech support questions
- Library policy questions
- Electronic resources questions & how-to's

Groups access levels can be public or private facilitating an internal staff knowledge base, with FAQs that are only accessible to logged-in staff members. This can really come in handy for things like internal policies, passwords, ready reference resources, etc. Control which staff users can view, edit, and manage FAQs in each

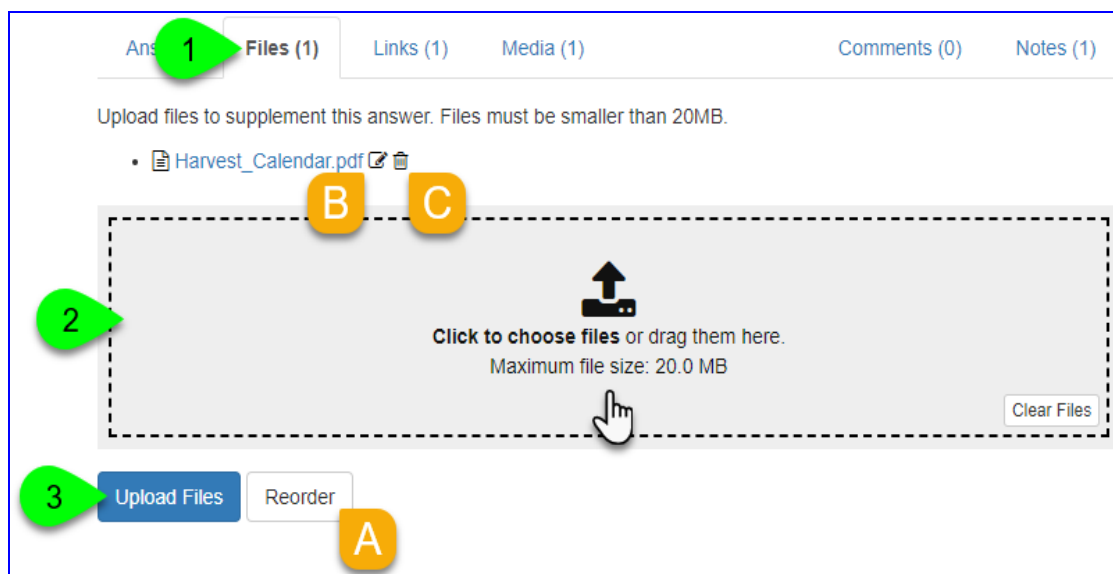
group. This can help in delegating the responsibility for maintaining each group to the appropriate departments or individuals.

### Create and publish an FAQ

### FAQ's answer

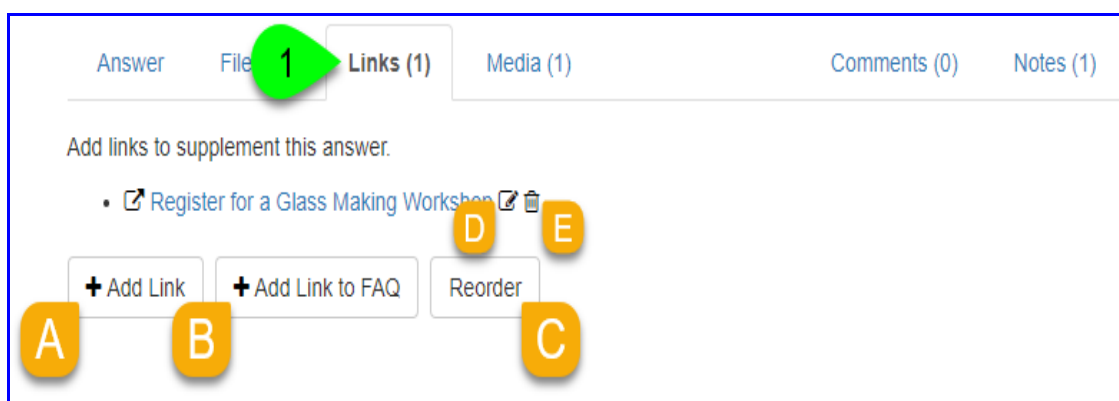
#### Add files, links, and media

Along with the answer text, staff can also add related files, links, and embedded media content (e.g. videos) to the FAQ.



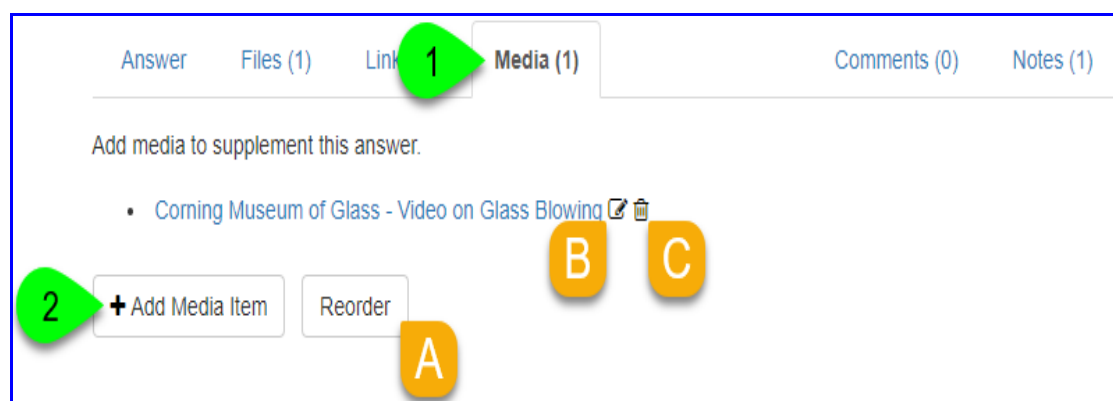
### Adding links

Staff can add links to other sites, or even to other FAQs in the LibAnswers groups. Links will display on under the Links & Files section on the FAQ's public page.



### Embedding media

Staff can embed media, such as YouTube or Vimeo videos, directly into FAQ by copy-pasting the HTML embed code provided by the service. Embedded content will display under the Media section on the FAQ's public page.



### Facebook and FB Messenger Integration

LibAnswers can be integrated with Facebook and Messenger app so that staff can effectively and efficiently communicate with the users and answer users' questions directly from there. Through FB Messenger, reference

staff can easily reach out to the users for effective communication pertaining to any library or research-related questions.

### **Pre-scheduling Social Posts**

LibAnswers allows scheduling of social posts in advance to actively engage the user community with steady stream of library events and activities. This is quite effective when the library is closed during after-service hours and holidays and helps in the promotion of the library services.

### **Query Spy for Reviewing and Improving FAQ Accuracy**

Query-Spy acts as the “Search Query Analyzer” for improving the quality and accuracy of Query-Spy is the LibAnswers’ search analysis tool indicating the recall and precision of the retrieved results by the user so as to understand to what extent the user was successful in reaching to the most appropriate FAQ entry satisfying his/her information need. The uniqueness and usefulness of Query-Spy can be ascertained from the fact that it create new and suitable FAQ entries tweaking the existing FAQ KB and ensuring accurate matches in future.

### **Product-specific Help-Widgets**

Staff can help-widgets for various library services and position them at appropriate places. Users can get instant assistance depending upon the service they are currently availing. If they are accessing library OPAC, they can click on the chat-widget dedicated for OPAC related information only. This feature ensures one-click live help at the “point-of-need”.

### **Feedback & Ideas Manager**

This LibAnswers functionality enables libraries to obtain user-feedback regarding library products and services. User can submit any “product-enhancement ideas” for later consideration and adoption.

### **In-Depth Statistics & Reference Analytics**

LibAnswers provides a tangible qualitative data about library's communications and reference activity. Engagement Analytics provides information regarding library social media followers, their interests, etc. Statistical reports include:

#### **Real-Time Activity Reports:**

Measure Real-Time usage activity reports on everything in the system including FAQ growth over time, hits on FAQs, total tickets for all the reference communication channels, LibChat and SMS stats, and total number of search queries.

#### **Detailed Chat Statistics:**

Identify peak-hours with the daily/weekly/monthly trends. LibAnswers generates report on user web-browser, operating system information and additionally mobile analysis.

#### **Reference Analytics**

Detailed reference report on all reference transactions (online or in person).

#### **Integrated READ Scale**

LibAnswers provides qualitative assessment of reference quality with the help of READ scale fully integrated into Reference Analytics. It provides the “READ score” on a 6-point scale for every reference transaction.<sup>1</sup> The metrics is used by the library for the improvement and enhancement of the VRS quality.

#### **Social Media Activity Statistics**

Measure & report on library's social media activity in all channels. Run aggregate statistics or drill down to individual channel engagement statistics.

<sup>1</sup> READ Scale (Reference Effort Assessment Data) was developed by Dr. Bella Karr Gerlich at Carnegie Mellon University. It is a 6-point scale tool providing qualitative statistics regarding skills, knowledge, techniques and tools utilized by the librarian during a reference transaction.

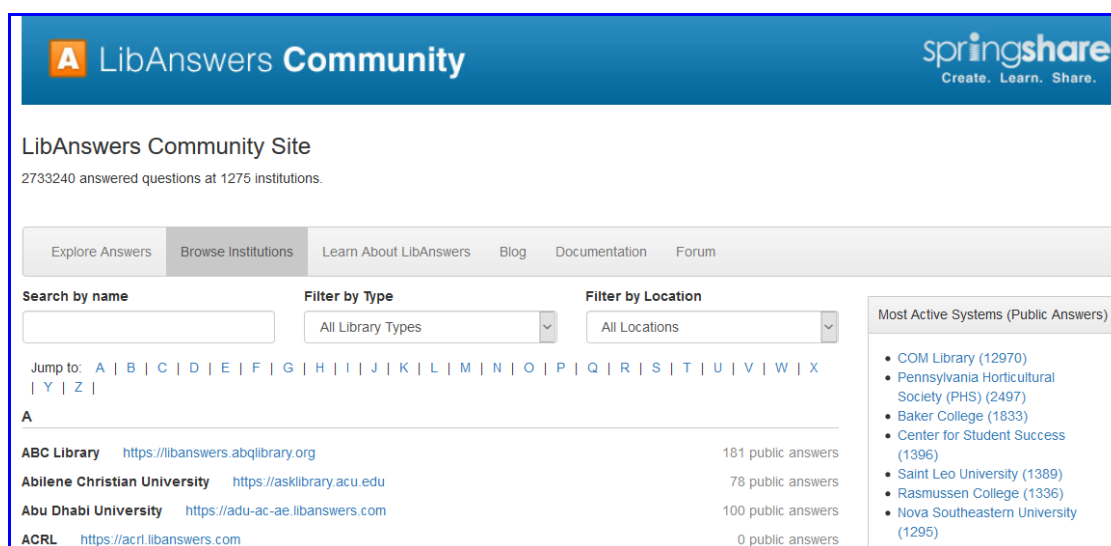


### FAQ Access Statistics

This include detailed statistics on FAQ pages, including users' comments and rating. Query-Spy reports helps in identifying the gaps in the content and creating new FAQs.

### Integration Other Springshare Products

Effective integration of LibAnswers with other Springshare tools makes it a powerful platform. Such integration include FAQ KB with LibGuides, Embed LibChat widgets inside LibGuides, etc.

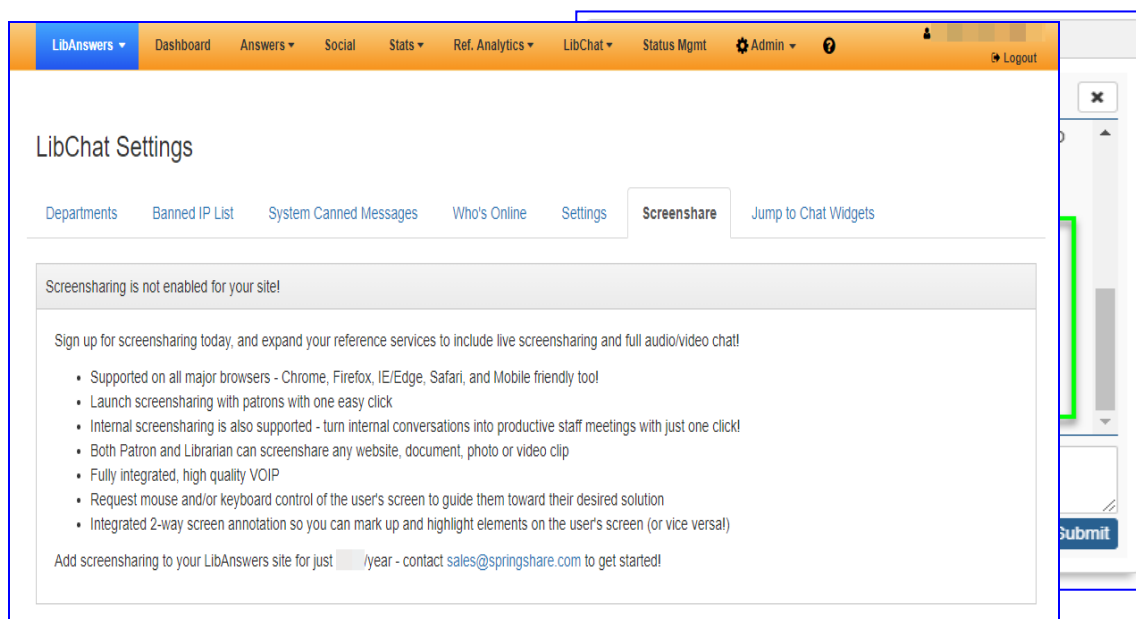


### Social Media Management & Engagement

- Fully Integrated Communication Workflows: Unify all library communication channels into one platform. Integrate social media with reference and outreach services and make it part of library communication workflows.
- All Social Activity in One Place: Activity from Twitter, Facebook, and Pinterest in one place enables staff to efficiently monitor and engage all social channels at once.
- Respond/Post to Any Social Channel: It's as easy as answering a ticket or a question in LibAnswers - all point-and-click operations.
- Filter and Organize Channel Activity: Apply Filters across any social channels for effective monitoring of social channels.
- Become Social Media Experts: LibAnswers enables librarians of any skill level to use the social media channels to their full advantage. Our easy-to-use and easy-to-understand social media functionality guides library through everything it need to know to master the social media strategy.
- SMS / Twitter / Facebook Alerts in LibChat: These new message alerts had been displayed in the Tickets tab since, well, they're technically tickets. These are all near-instantaneous interactions, much like chats. Users expect faster replies via these channels, and appreciate getting them. Now that these interactions have moved over to the Chats tab offering more streamlined workflow.

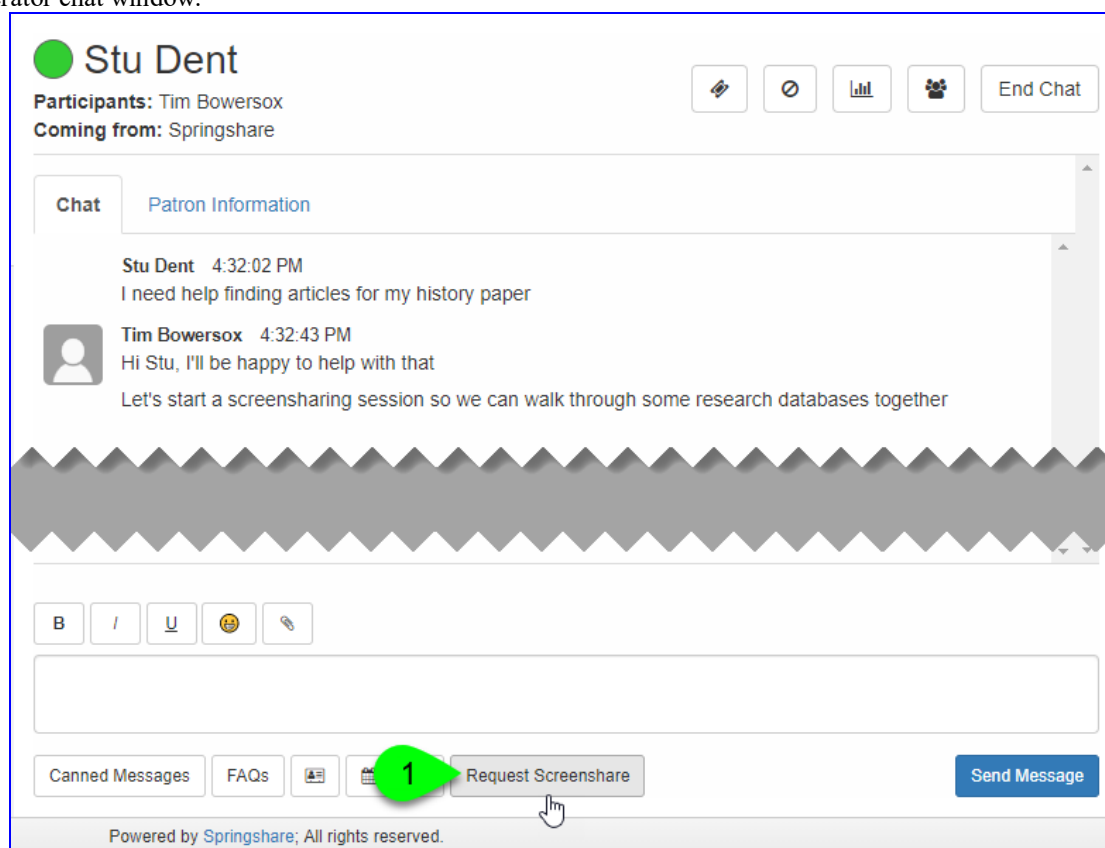
### Screenshare:

LibChat enables libraries to provide online support to their patrons with answers, info, and links in real time, with built-in options for following up after each chat session. However, with certain types of research or technical support questions, it can be incredibly helpful if both the staff operator and patron user are able to look at the same screen. Not only can this help staff better understand the patron's question or problem, but it also allows staff to better demonstrate how to find the answer or resolve the issue. It allows the reference staff to start 2-way screensharing sessions during any chat. Either the operator or the patron can share their screen with the other person. Features includes:



### How to start a screensharing session

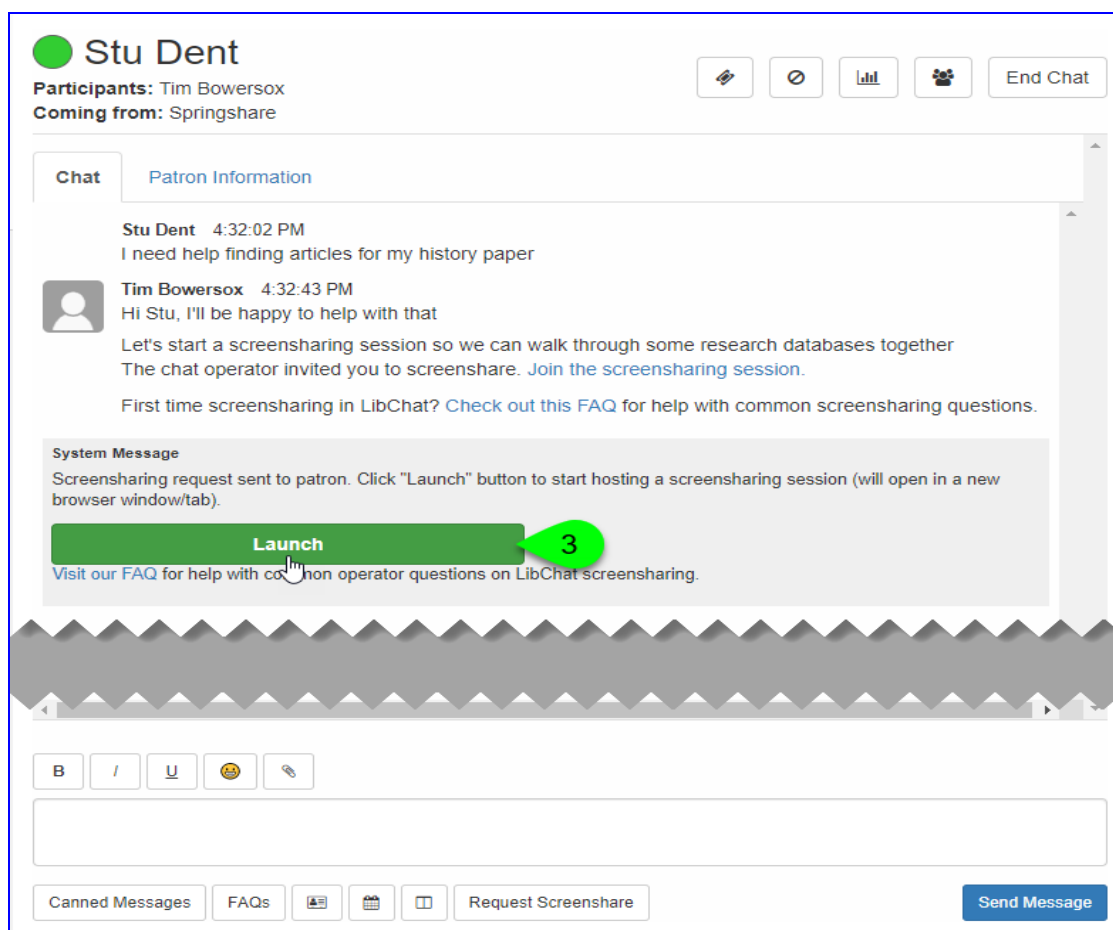
1. While chatting with a patron, department, or operator, click on the **Request Screenshare** button in the operator chat window.



2. In the chat widget, the patron will receive a message containing a **Join the Screensharing Session** link. When they click this link, they will be able to join the session.

3. In the chat history, staff will see a **System** message appear, which includes a button for starting the screensharing session as the host. Click that green **Launch** button to begin the session as a host.





### QuestionPoint (OCLC) Acquisition by LibAnswers (Springshare)

OCLC has entered into an agreement to sell the “QuestionPoint 24/7 Reference Cooperative” and active QuestionPoint (QP) subscriptions to Springshare, provider of the LibAnswers Platform. OCLC has commenced the transfer of QuestionPoint 24/7 Reference Cooperative, subscriptions to LibAnswers. This was announced on 31<sup>st</sup> May 2019. QP will extend LibAnswers virtual reference software to include the comprehensive “QuestionPoint 24/7 Reference Cooperative” and all present QuestionPoint subscriptions to Springshare. QuestionPoint’s team of reference librarians will become part of Springshare and will continue to work from their current locations around the world. This acquisition is expected to ensure these users access to high-quality assistance from professional librarians, anytime, anywhere. Springshare has committed to further invest in enhancing the Cooperative by hiring more co-op librarian staffers to shorten the patron wait times, providing additional training to the co-op librarians, and devising more effective workflows to share knowledge and information to be better informed about local library content and local information. The best of both is aiming to provide member libraries with the best possible virtual reference tools to meet users’ needs through the full-featured, state-of-the-art reference software and unparalleled professional reference service .

Current QuestionPoint subscribers will maintain uninterrupted use of QuestionPoint prior to software upgrades/transition and service migration. QuestionPoint subscribers can request a LibAnswers Platform system to learn and interact with the system and can attend free and unlimited training to learn the LibAnswers Platform. Springshare will modify its LibAnswers software to include functionality required to support all QuestionPoint subscribers. Springshare anticipates completing this project by June/July 2019. All QuestionPoint customers will move to LibAnswers by year-end.

### Free Software/Web tool: Tawk.to

Tawk.to is an easy, fast and reliable live chat support and messaging application focusing on effective and useful communication bridging the communication gap between organizations and their patrons. The platform allows to reach users directly from the website, mobile app, or from a customized page. Setting up takes only a minute, so that library can immediately add their patrons. Apart from its live chat reference service, tawk.to offers a bundle of other features that allow online visitors to have a personalized assistance. It is a free live chat app to deliver personalized and real time reference service and be available at the time of user requirement.

Patrons can initiate a chat from library website or tawk.to mobile apps while librarians can answer questions from the dashboard or app. tawk.to is easy to setup, free forever and secure web-based platform to message library users instantly.

### Features:

Success of a library depends on the quality of the information products and services they provide and their efficiency in satisfying the information needs of their users. Communication plays a vital role in user acceptance and satisfaction towards library services and libraries do not miss any opportunity to utilize every possible communication available linking the library and the users. Tawk.to helps libraries achieving this goal by providing a platform for professional virtual reference service to assist the library users in fulfilling their information needs meeting their information seeking behaviour (ISB). Libraries can make it completely coherent to their mission and objectives by allowing active user engagement with full attention during chats. Tawk.to is compatible with collaborative model of VRS thus facilitating the depth, reach and quality of VRS with automated triggers, and canned shortcuts. It facilitates monitoring visitor traffic and attending multiple visitors at a time even when library don't has that many staff active. Collaborative partners can easily join on live chats to make sure that patrons are given the timely help they need. Tawk.to provides multilingual UI (user interface) available in 100+ languages and works seamlessly with Android, iOS, Windows and MacOS so libraries/professionals can have the option to use any of the available smart devices.

Table: Features of tawk.to

SN	Feature	Description
1.	Pre-chat form	setup Pre-chat form to ask required contact details of the visitor.
2.	Predefined Shortcuts (canned responses)	Shortcuts are the predefined messages coded for answering frequently asked questions (FAQs) by simply typing "/" followed by a keyword to respond quickly and readily to patron' queries. Staff can create and respond quickly with predefined shortcuts. For example typing /hello quickly sends the visitor the text: "Hello how can we help you today?". Specific URLs can also be added to direct the user to a specific e-resource or database. Shortcuts can be used both in a live chat, and when replying to a ticket. <ul style="list-style-type: none"> <li>■ Staff can create/Add new shortcuts and use it for answering commonly asked questions by simply typing "/" followed by a keyword. For example- type /t to quickly send the visitor the text: "Thank you for contacting. Wish you all the very best."</li> <li>■ Edit existing ones</li> <li>■ Searching in existing shortcuts</li> <li>■ Import from CSV.</li> </ul>
3.	Setup and Manage Departments	In case of collaborative/cooperative VRS may be functional in university library system or in a consortium environment, number of departments/subject/institution specific department can be created. User will have the freedom to select any of them as per their information need.
4.	Concurrent chats	Staff can answer as many concurrent chats as they can manage. There are no limits.
5.	Knowledge Base (KB)	Internal Knowledge Base (KB) for quick reference by staff without leaving the conversation. KB allows to build rich and comprehensive custom content with categorization accessible instantly by staff for dealing with the online users. This helps in improving user satisfaction and reducing support requests.
6.	Staff to Staff Chat	Staff to Staff Chat (direct message) with the option to add additional librarians to the chat for a group discussion directly in the dashboard or via our mobile apps without leaving the application.
7.	Powerful Ticketing System	A Ticket is a communication thread between a user and a library staff. Tickets store emails, chat conversations, internal notes, or other data related to a single user issue at one place. If a query can't be resolved in one conversation, it can be converted into a ticket to deal with it later. Tawk.to built-in live chat along with a fully-fledged, multi-site ticketing system.
8.	Track User Satisfaction	Every time a staff answer a chat, a visitor has the option to like or dislike the conversation, and each of those events are recorded in the Reporting section. This goes a long way to determine how users feel about the online

		support and assistance offered by the library. Users have the option to give their feedback in the scale ranging from Negative, Neutral or Positive. The report thus generated can be filtered by Date Range, Librarians, Department and even Tags to narrow down exactly where the problems are that need to be solved.
9.	Chat history	Chat history is kept forever until deleted.
10.	Track Progress	<ul style="list-style-type: none"> <li>■ Monitor and track VRS (individual or collaborative) progress over a period of time.</li> <li>■ Chat history</li> <li>■ Performance monitoring via Analytics function.</li> </ul>
11.	Scalable	<ul style="list-style-type: none"> <li>■ There are no limits to the number of librarians that can be added for providing VRS.</li> <li>■ Each librarian can have own account linked to unlimited sites so they could communicate with online visitors without any limitations.</li> </ul>
12.	Control chat provenance with Domain Restriction	By default, a chat widget code will work on all the domains where it has been inserted - this is great for flexibility of simply adding the widget to all of your websites, however sometimes (often for security purposes) you may want to ensure the chats can only be initiated from a specific URL or site.
13.	Ban list	<ul style="list-style-type: none"> <li>■ Particular IP address can be blocked</li> <li>■ Reason for blocking or banning can be recorded.</li> </ul>
14.	Data Security & Privacy	<ul style="list-style-type: none"> <li>■ Staff-user communication: 128 bit Secure Socket Layer (SSL)</li> <li>■ Data hosting: Encrypted servers for data safety.</li> <li>■ Privacy Settings: Visitor IP Tracking - Off/On</li> </ul>
15.	Subscription Cost	Nil. Zero subscription cost for both desktop and mobile app.
16.	Ads support	tawk.to interfaces (both librarian's and users') don't have any ads as well as no spam.
17.	Mobile App	<p>tawk.to mobile apps (both Android and iOS) enables answering chats or reply to tickets from staff mobile device to offer fast and personal service even if staff are not at the reference desk (on the go). Features of the mobile app:</p> <ul style="list-style-type: none"> <li>■ receive push-notifications about new visitors on library website, new chat requests and new messages from visitors or librarian colleagues;</li> <li>■ monitor visitors movement on your websites and initiating chat with them;</li> <li>■ invite librarians into tawk.to, speak with them in direct messages or group chats;</li> <li>■ work with existing tickets or create new tickets right in the app;</li> <li>■ view chat history, convert them into tickets, copy or send chats transcript via email.</li> <li>■ Updated regularly</li> <li>■ More than 100,000+ installs</li> </ul>

1.	<b>Forthcoming features</b>	<p><b>Translation</b> Automatically translate chats in real time.</p> <p><b>In-Chat Payments</b> Accept payments from visitors right in the chat window which can be used to receive library membership fee, fine and other relevant payments.</p> <p><b>SMS Integration</b> Select a local number, and send and receive text-messaging from the dashboard.</p>
2.	<b>Paid Features</b>	<p><b>Remove tawk.to branding</b> With the Remove Branding add-on libraries can customize their visitor experience to suit their USP. This add-on helps to:</p> <ul style="list-style-type: none"> <li>• Remove/Customize widget-branding .</li> <li>• Remove/Customize branding in email-tickets and chat</li> </ul>

		transcripts. • Custom support-email.
		<b>Screen Sharing, Voice Calls and group Video Chat</b> Staff can share a link to invite 3 participants instantly on all browsers like Chrome, Opera, Firefox, Edge or Safari and on on tawk.to mobile apps. <ul style="list-style-type: none"> <li>■ Speak with up to 3 people at at time.</li> <li>■ 2-way screen sharing with 1 click.</li> <li>■ Works on Mobile Devices.</li> <li>■ Private, Secure &amp; Reliable.</li> <li>■ Nothing to install.</li> </ul>

Tawk.to is a free innovative, cutting-edge, versatile online communication tool suitable for implementing VRS in any type of libraries.

### Conclusion

It would not be an over statement to say that we are living in an era of social media with people relying heavily on it for communication. In a library setup, any particular social media service can not be used for providing VRS as libraries are dealing with a heterogeneous group with diverse social media preferences. Social media based communication poses the problem of security and lack of control. Moreover, social media platform do not provide the features and facility as available with the dedicated VRS tools and platforms.

While, any commercial may be adopted by the library, it is recommended that library may take the three months (90 days) free trial of the proprietary S/W, LibraryH3lp for familiarity and user response. Library having financial limitations/restrictions are recommended to try twak.to with a combination of free screen sharing software (if desired) for providing VRS to their users community free of cost. Whatever may be the case, free or proprietary, libraries must adopt & adhere to VRS guidelines for successful and sustainable VRS.

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