LibX - an Open Source, Community Platform for Delivering Library Services

Access 2008

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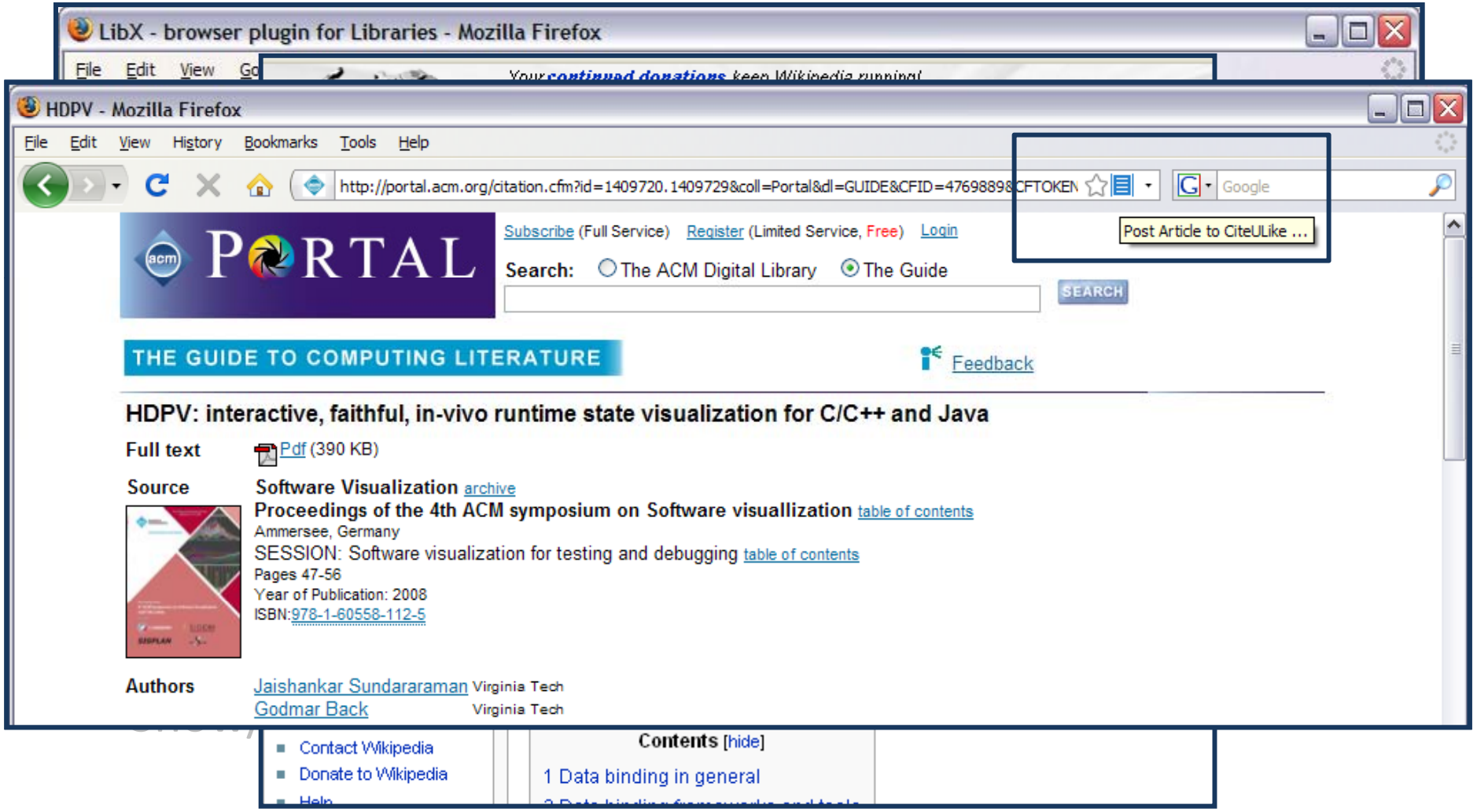
Where it all began…

- Motivation
  - Users are increasingly bypassing library when doing research
- Idea: a “library tool”
  - Put the library back in the picture!
- A “virtual librarian” that guides users to library resources while they use the Web
  - integrates access to library resources into the users’ “webflow”
  - no matter which page a user visits ($\Rightarrow$ needs client-side presence!)

LibX Features

- Toolbar and right-click context menu
- Adaptive and user-configurable context menus
- OpenURL support
- Magic Button (Google Scholar support)
- Web Localization via Embedded Cues
- Autolinking
- Off-campus access via EZProxy or WAM
- Support for CiteULike
- Support for COinS
- Support for xISBN
- Show/Hide Hotkey

LibX Features



LibX Timeline

- 2005
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Edition Builder Motivation

- Librarians responsible for customizing LibX for their institution
  - Customized version of LibX = LibX edition
- Manually configuring LibX requires knowledge about:
  - Underlying LibX implementation
  - XML syntax
  - Running scripts
  - Many different OPAC settings (> 140)
- Developers of LibX manually created 150 editions
  - Demand was more than supply!

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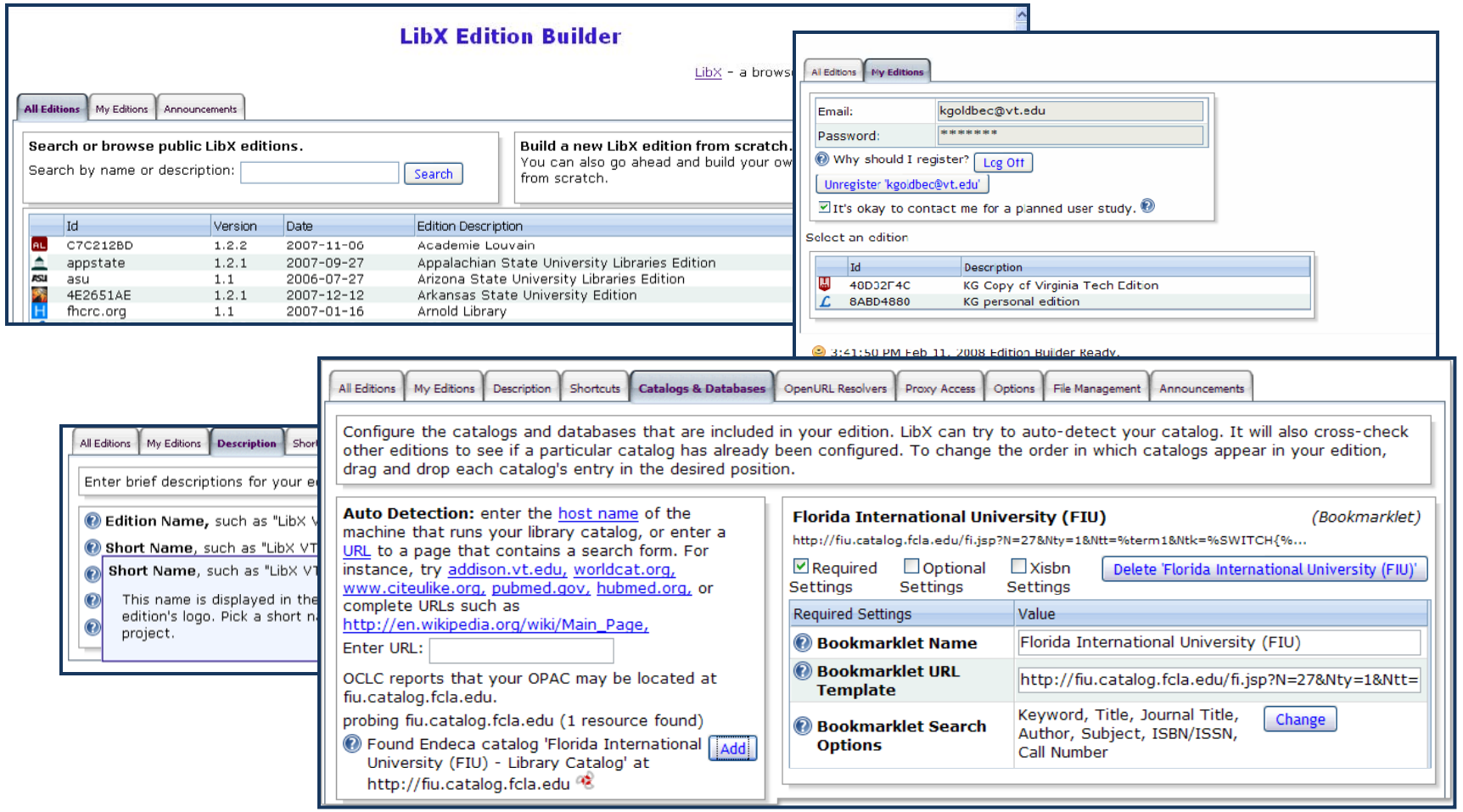
LibX Edition Builder

- Interactive Web application that allows the creation and maintenance of LibX editions
  - Provides step-by-step instruction to librarians to customize LibX
  - Outputs ready-made, customized LibX edition
  - Hosting environment for LibX configurations and downloads

EDITION BUILDER DEMO

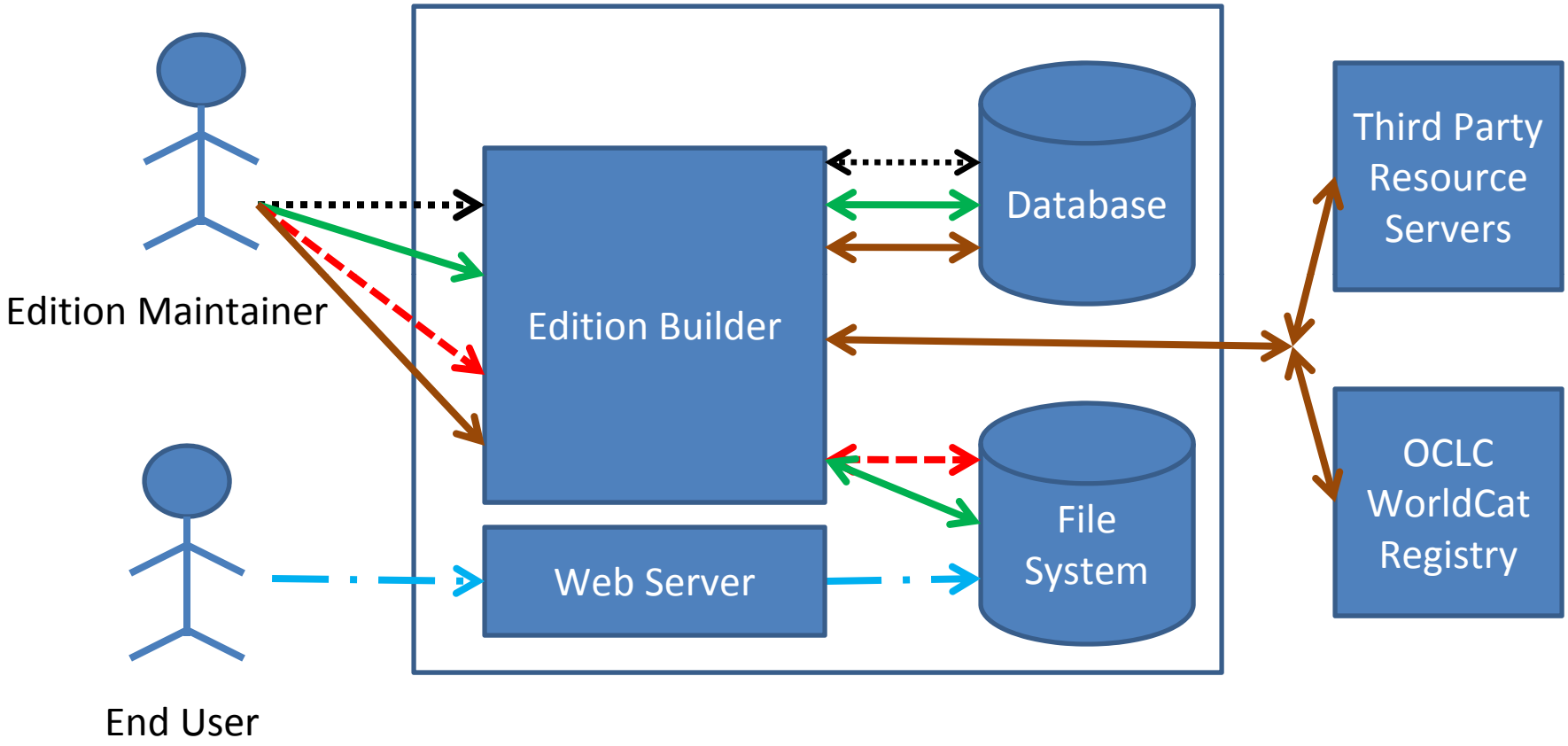
Demo Backup Slide



Edition Builder Internals

- Uses ZK (www.zkoss.org)
  - Server-centric Rich Internet Application (RIA) Framework
  - 100% Java servlet-based environment, minimal use of JavaScript
- Runs on server side, but look and feel is comparable to desktop applications
  - No state kept on client side

Architecture



Login	Edition and Revision Management	Changes to Configuration	Auto-discovery	Download customized LibX

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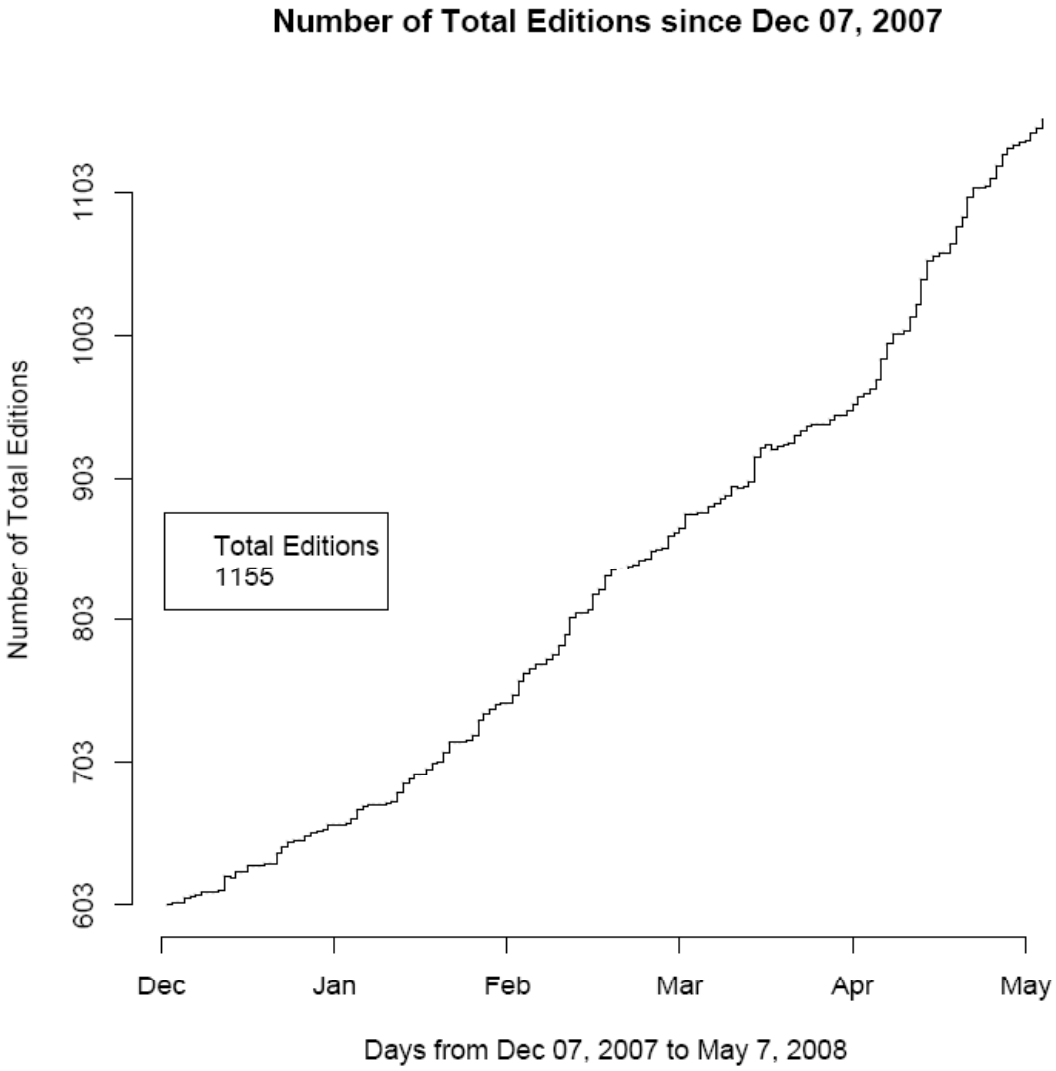
Log Data – Adoption of Edition Builder

- 1155 total editions present by May 2008
- As of Oct 2008, 1600 total editions
  - 460 were made public
- New editions are being made public at a rate of ~20/month



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  - Released Edition Builder
- 2008
  - Edition Builder Study

EDITION BUILDER STUDY

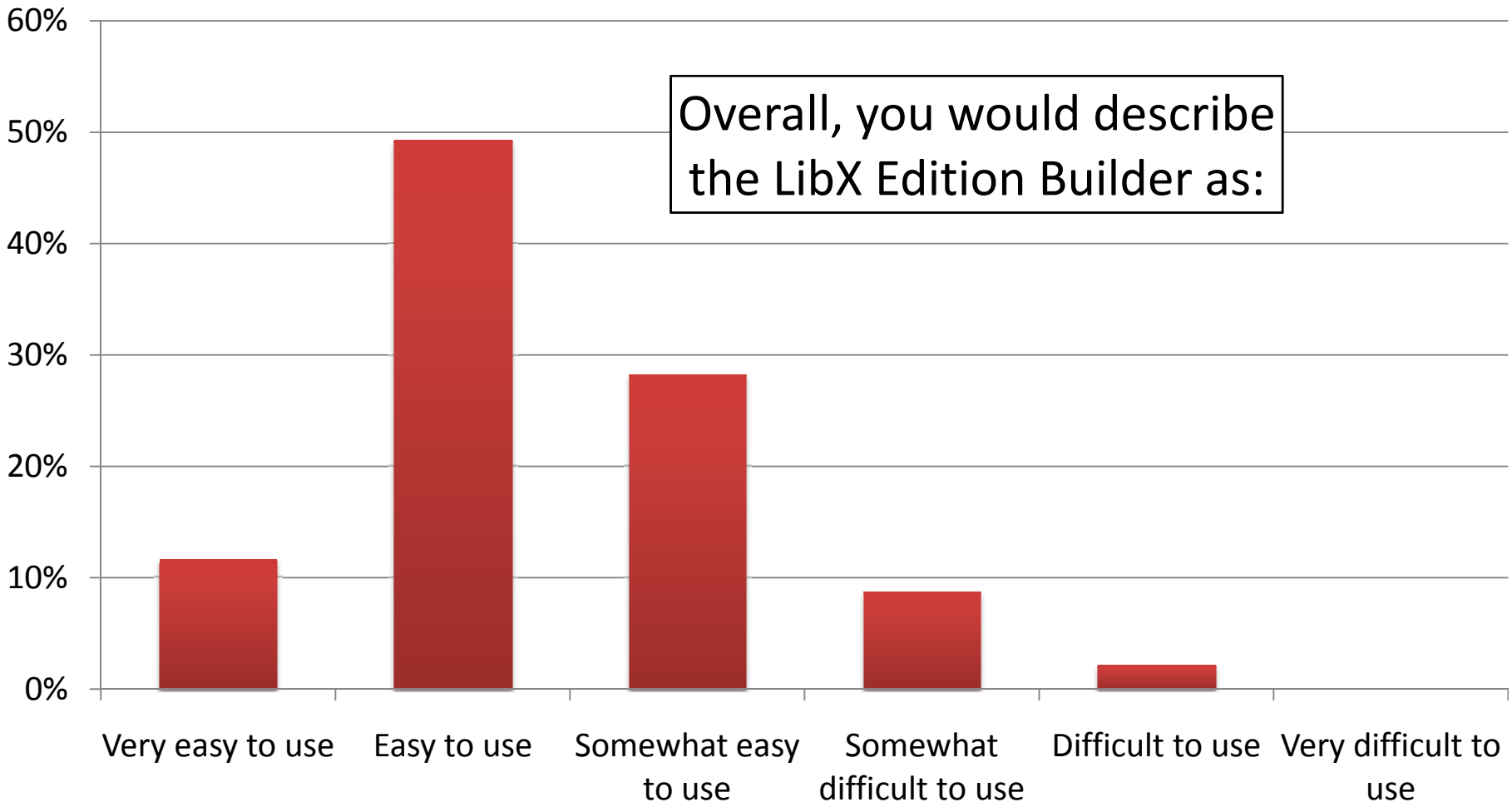
LibX Edition Builder Study Facts

- Log-based usability evaluation
  - Interactions with Edition Builder logged
- User Survey
  - Contacted edition maintainers by email
  - 139 participants
  - June 20, 2008 – July 14, 2008
  - 33 questions

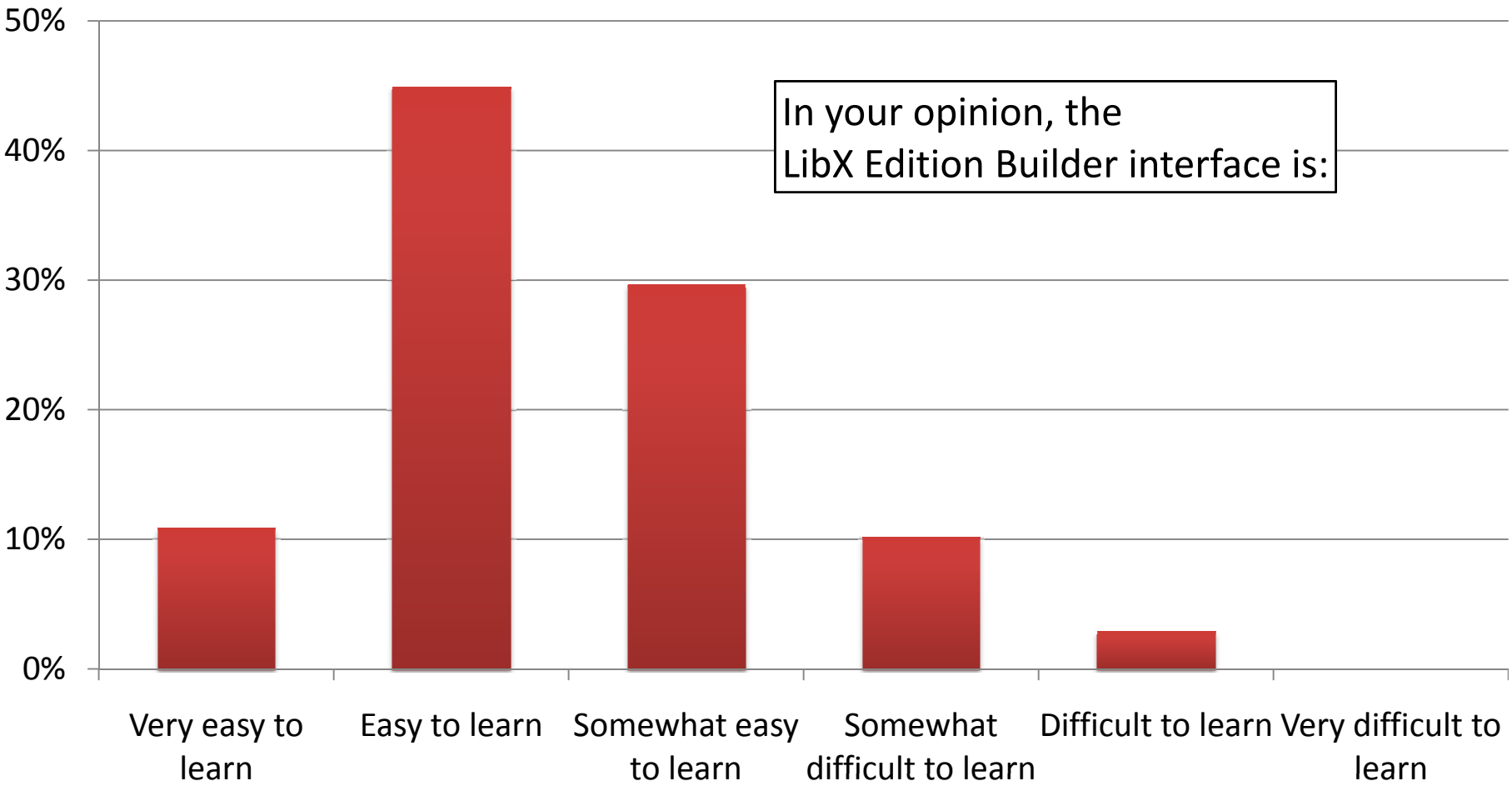
Key Study Goals

- Is the interface easy to learn and use?
- How successful are edition maintainers in creating LibX editions?
- Is the auto-discovery effective?

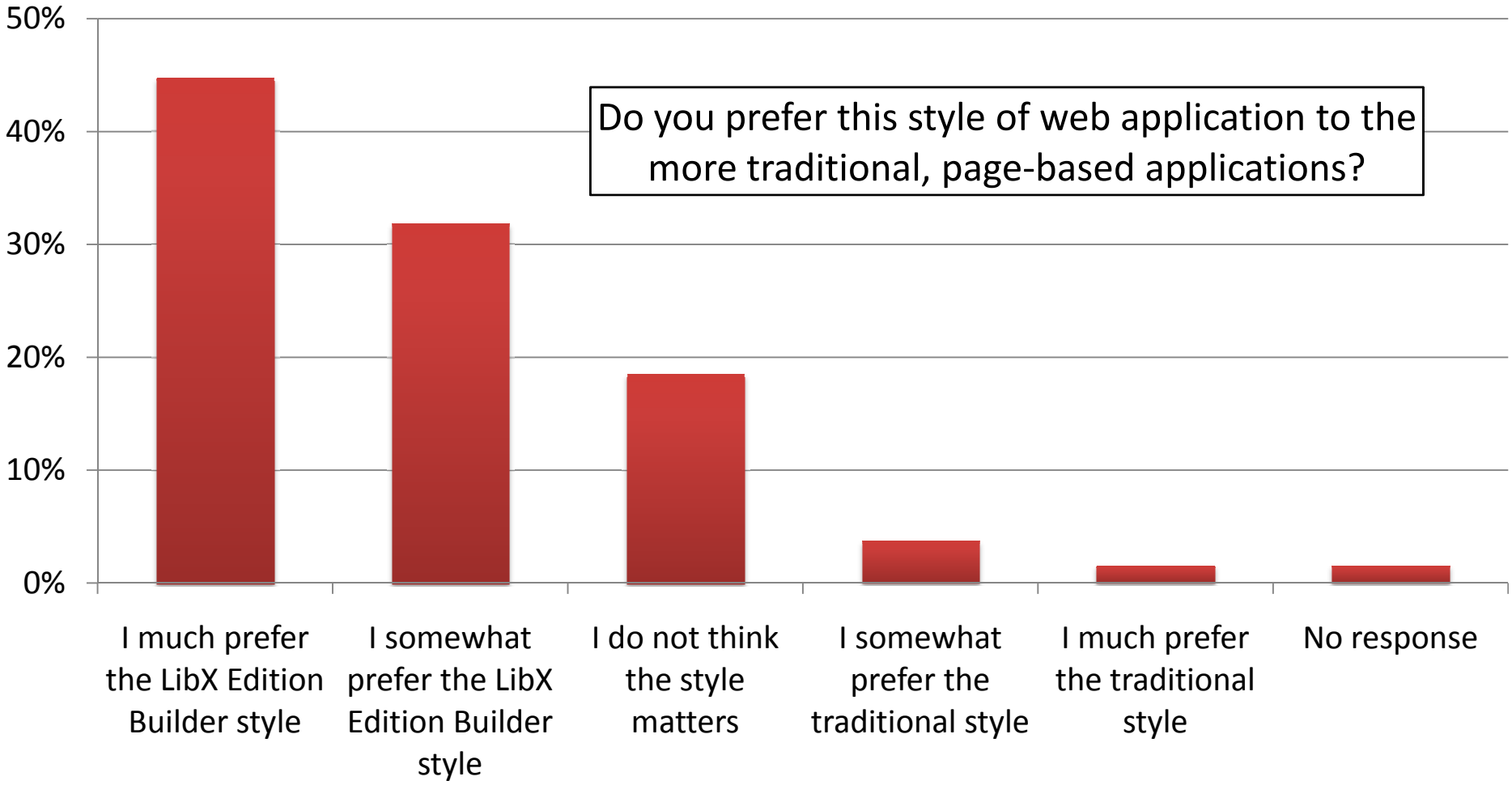
Overall Perceived Ease of Use



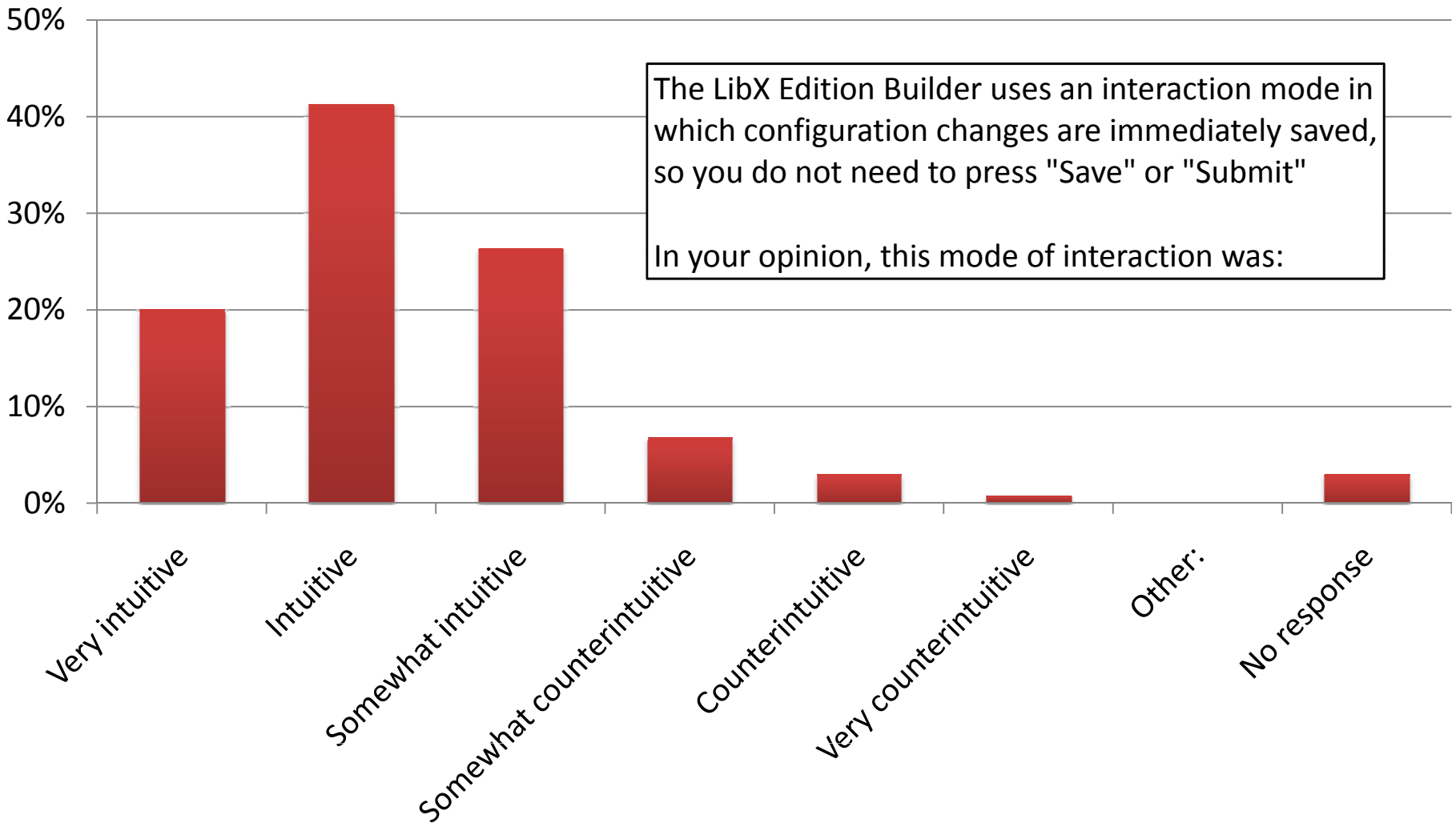
Perceived Learning Curve



Style of Application

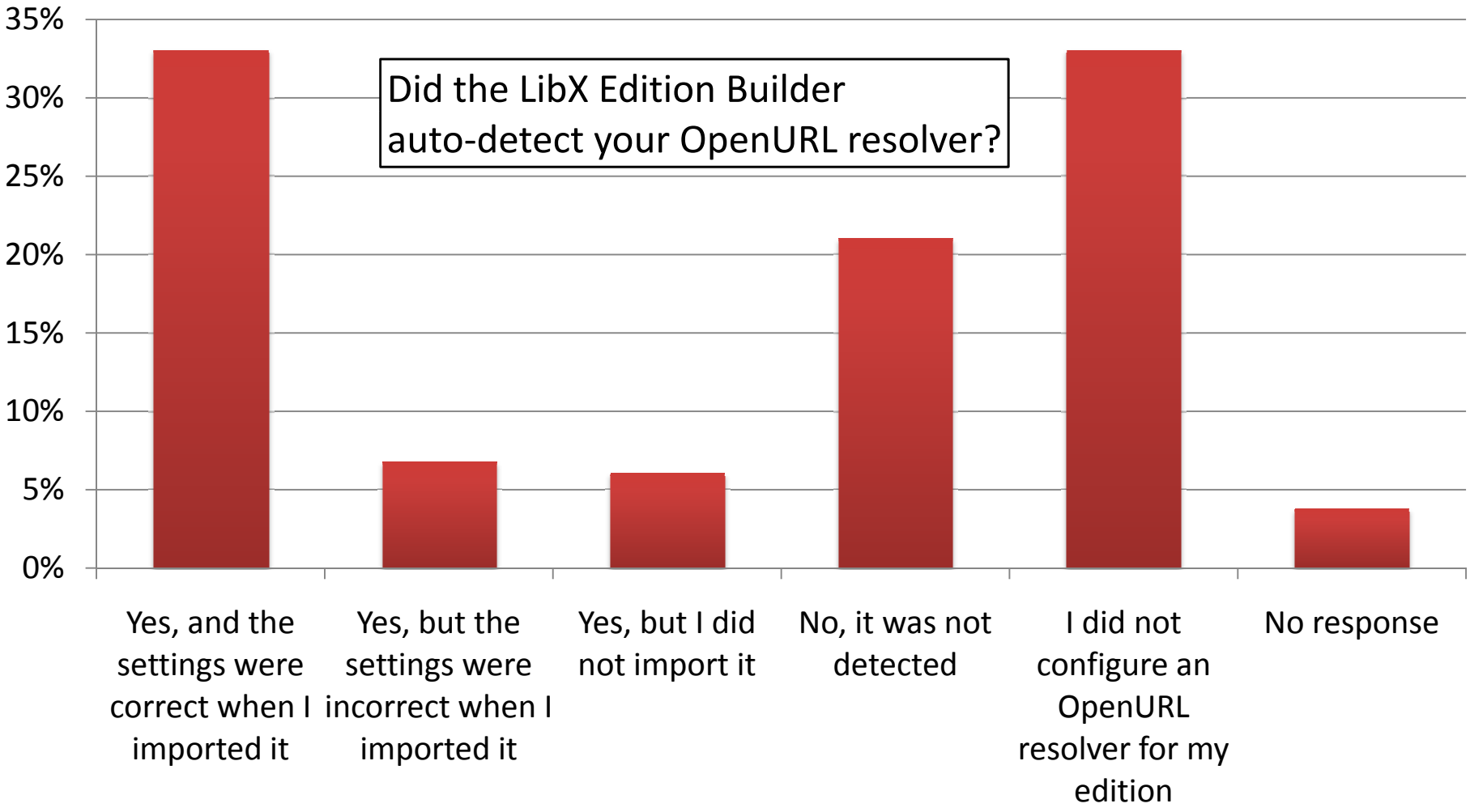


Saving of Changes



AUTODETECTION

Autodetection of OpenURL Resolver

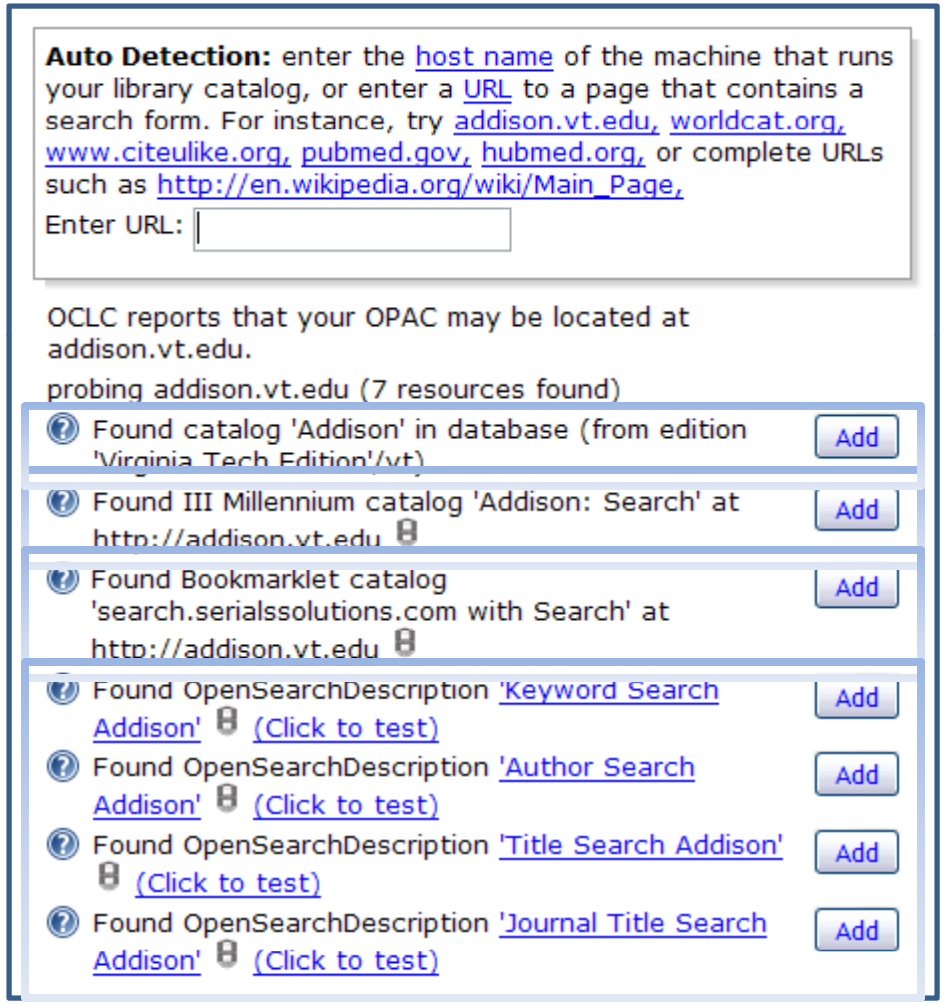


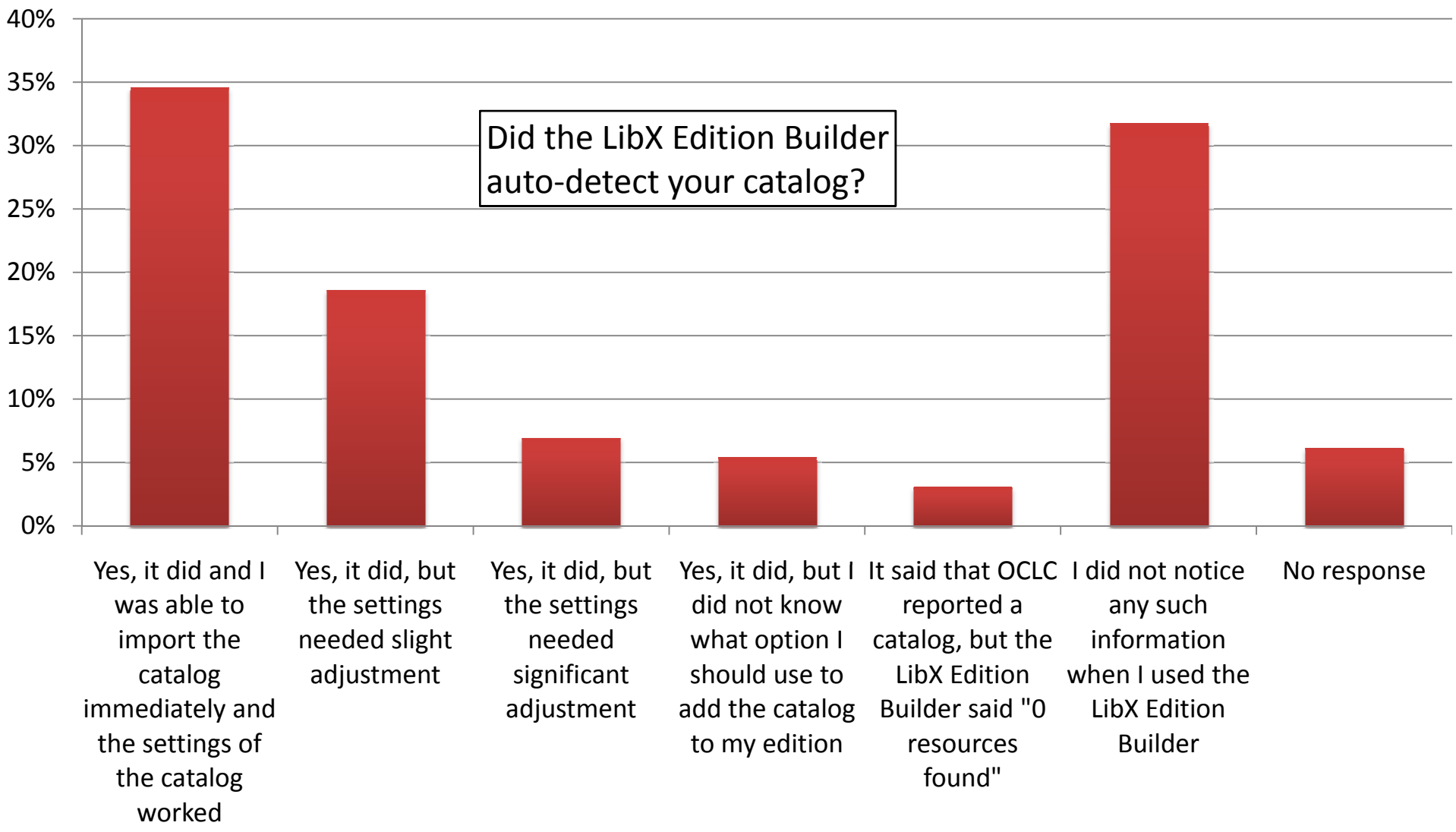
Catalog Auto-Detection

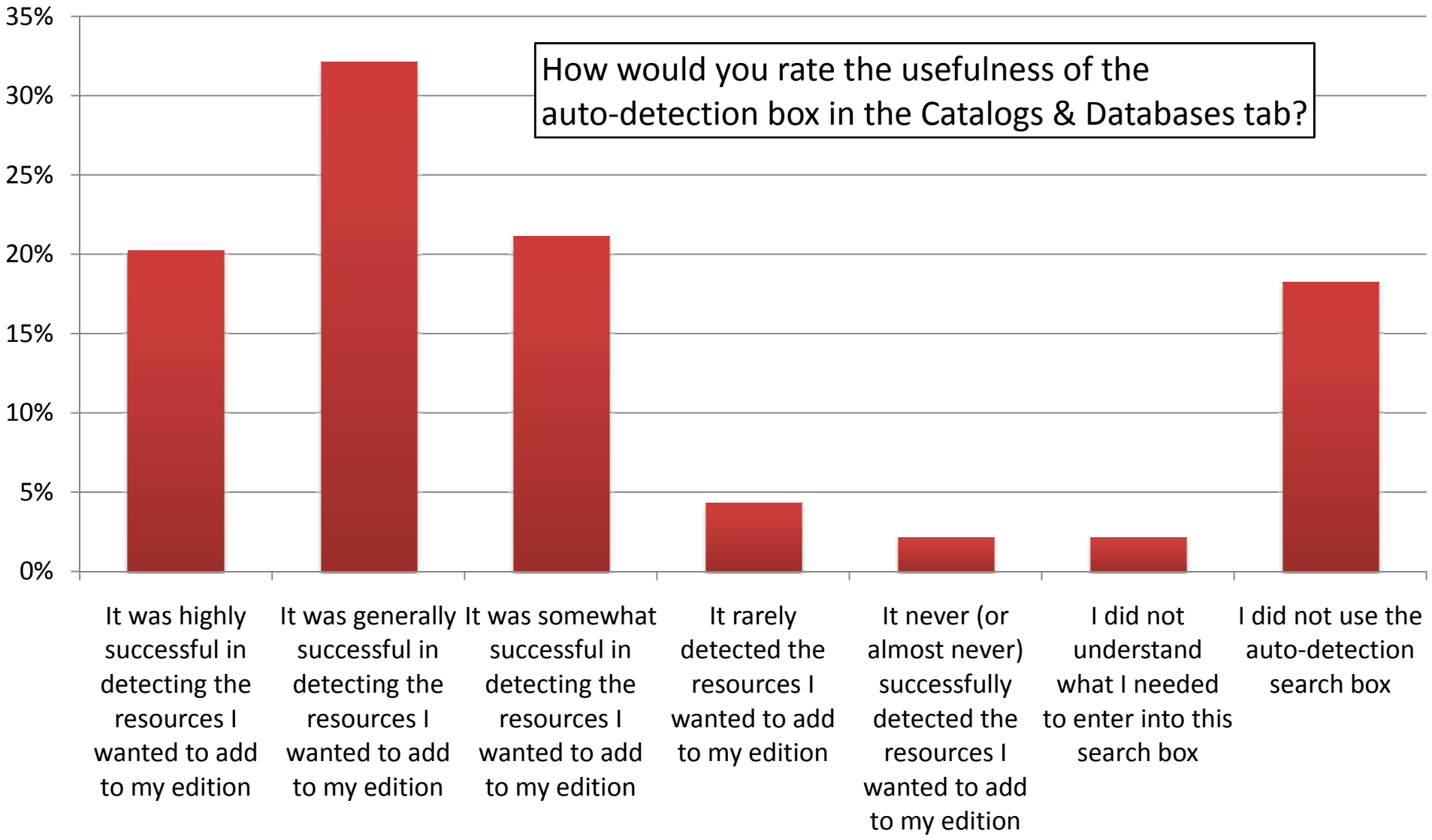
Auto-detection based on

Direct scraping of HTML forms

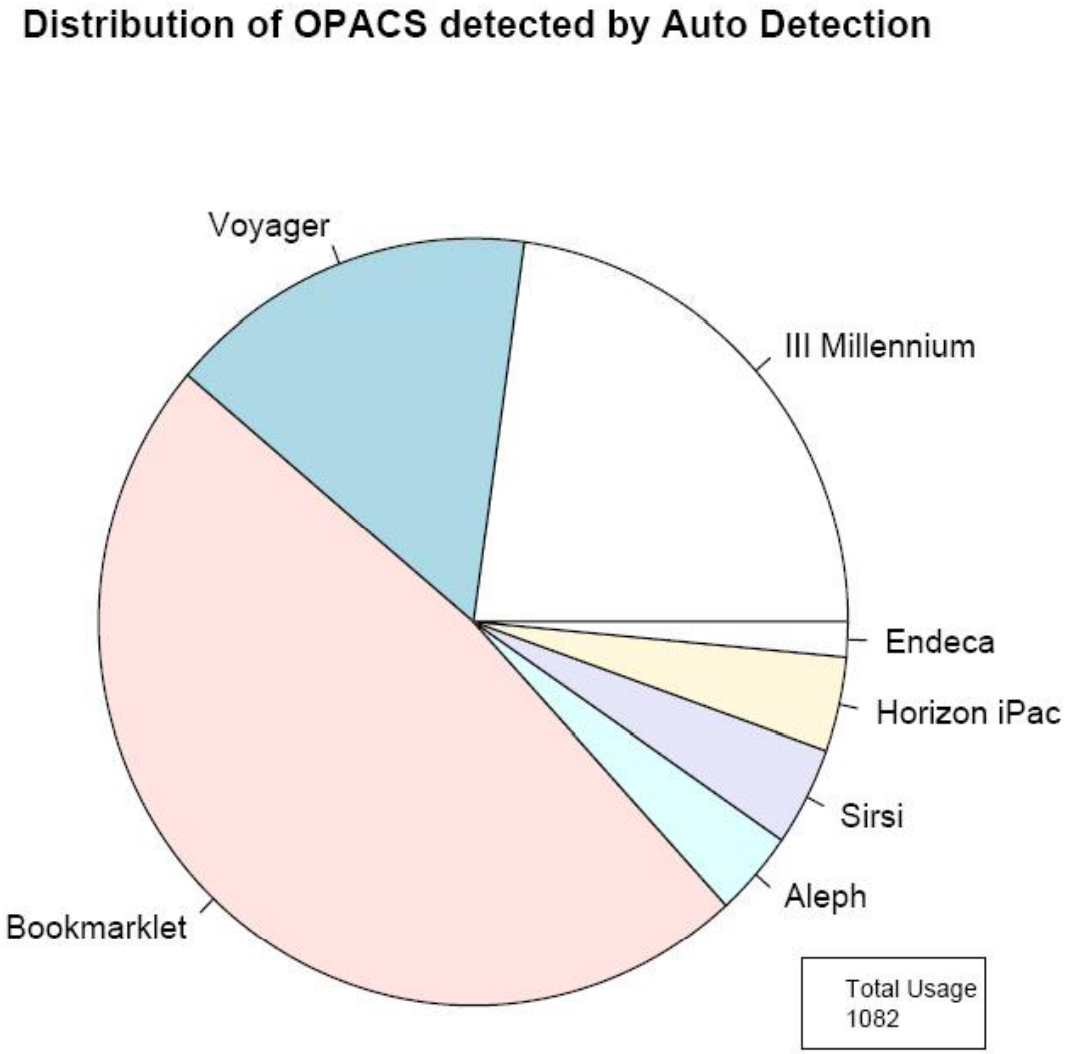
OpenSearch descriptions (where advertised)




Did the LibX Edition Builder auto-detect your catalog?
40%
35%
30%
25%
20%
15%
10%
5%
0%
Yes, it did and I was able to import the catalog immediately and the settings of the catalog worked
Yes, it did, but the settings needed slight adjustment
Yes, it did, but the settings needed significant adjustment
Yes, it did, but I did not know what option I should use to add the catalog to my edition
It said that OCLC reported a catalog, but the LibX Edition Builder said "0 resources found"
I did not notice any such information when I used the LibX Edition Builder
No response

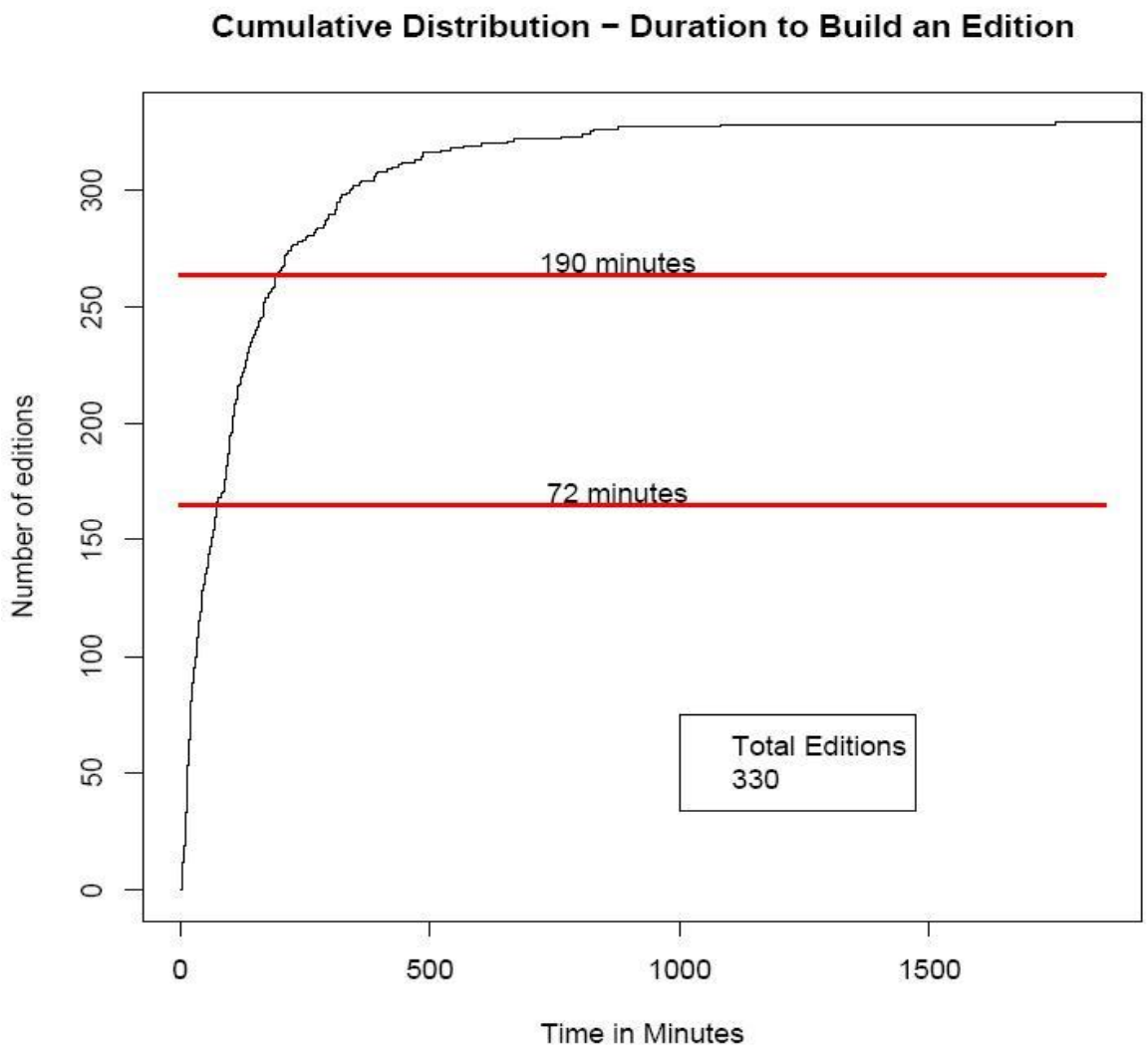

How would you rate the usefulness of the auto-detection box in the Catalogs & Databases tab?
35%
30%
25%
20%
15%
10%
5%
0%
It was highly successful in detecting the resources I wanted to add to my edition
It was generally successful in detecting the resources I wanted to add to my edition
It was somewhat successful in detecting the resources I wanted to add to my edition
It rarely detected the resources I wanted to add to my edition
It never (or almost never) successfully detected the resources I wanted to add to my edition
I did not understand what I needed to enter into this search box
I did not use the auto-detection search box

Log Data Results



Log Data Results (cont'd)

- 50% editions built in 72 minutes or less
- 80% editions built in 190 minutes or less



Study Findings

- The LibX Edition Builder
  - is easy to use and learn
  - auto-detection is effective at configuring resources
- Created a community
- Open source spirit
  - Anybody can create, share, publish, copy and adapt editions

LIBX 2.0

Motivation

- Libraries are creating new, digital services and content
- Technology
  - Service-oriented architectures, web services interfaces
  - Support mashups; provide HTML widgets
- Librarians, educators, and users create
  - Online tutorials, subject guides, visualizations
  - Social OPACs: tagging, reviews, recommender services
- How can we provide those services at the point of need?

LIBX 1.5 DEMOS

Demonstrations

- Enhanced COinS service
  - Link 360 XML interface
- Catalog searches from Google
- Holdings + availability in Amazon
- OCLC Identities

Demo 1: Enhanced COinS Handling

- **On-line estimation of hidden Markov model parameters based on the Kullback-Leibler information measure**
  Signal Processing, IEEE Transactions on [see also Acoustics, Speech, and Signal Processing, IEEE Transactions on], Vol. 41, No. 8. (1993), pp. 2557-2573.
  by V Krishnamurthy, JB Moore
  posted to p-fb hmm by jford on 2008-10-02 02:10:31 as ★★ along with 3 people and 2 groups

↓ LibX Standard COinS Processing

- **On-line estimation of hidden Markov model parameters based on the Kullback-Leibler information measure**
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↓ LibX + Link/360 Integration

- (VT Subscription via IEEE/IET Electronic Library (IEL)) **On-line estimation of hidden Markov model parameters based on the Kullback-Leibler information measure**
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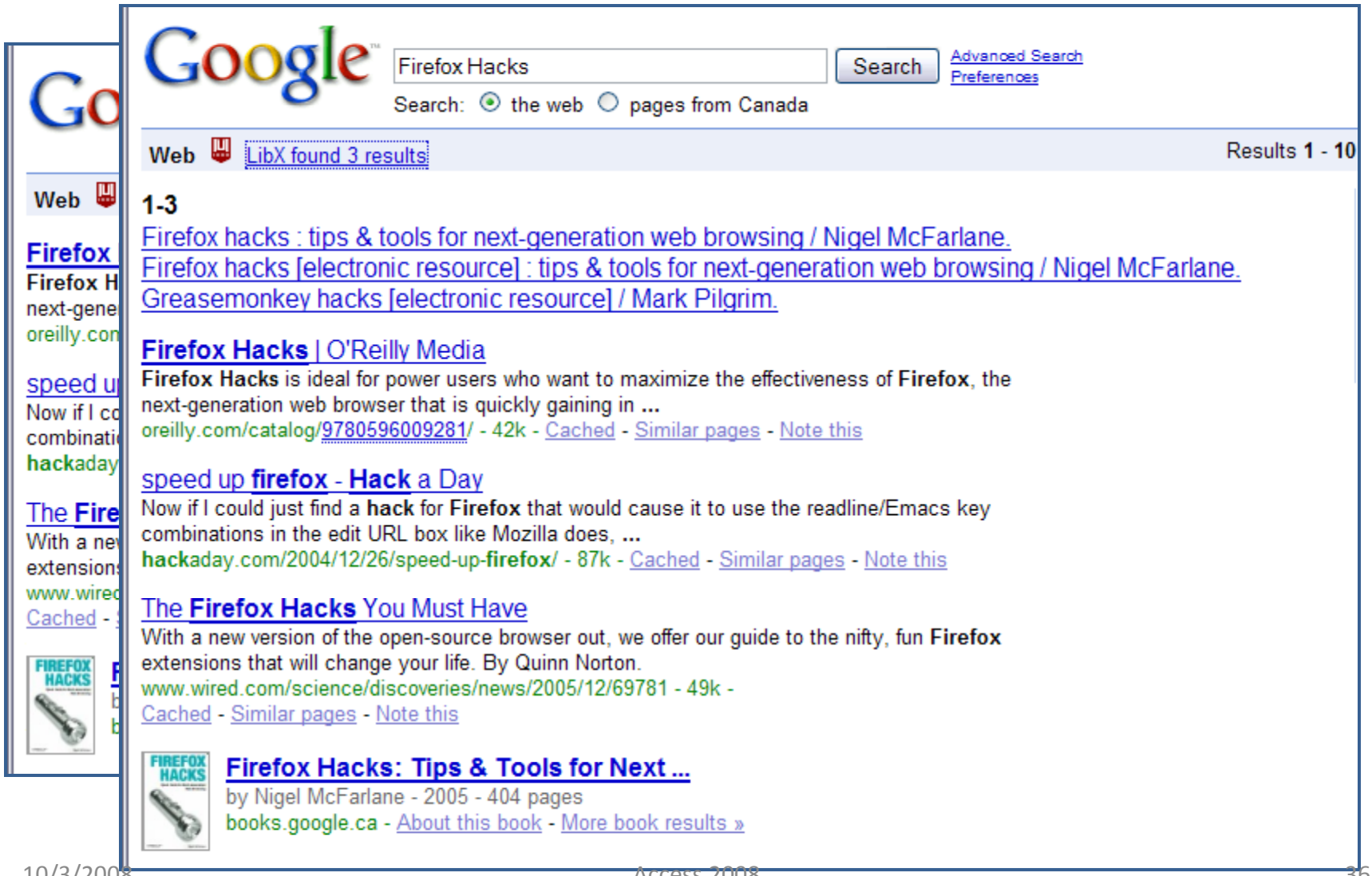
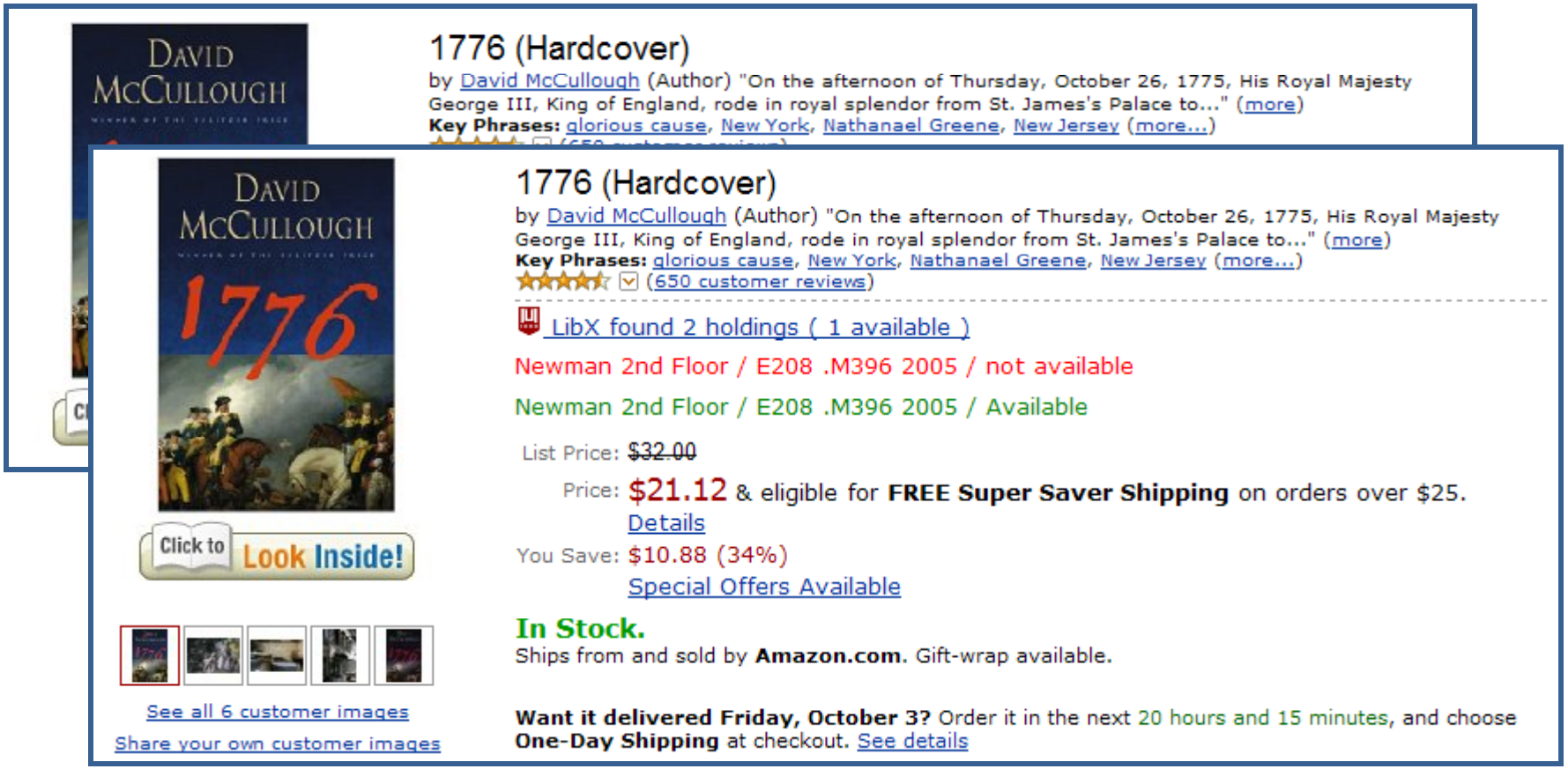
Demo 2: Addison in Google



Demo 3: Addison in Amazon



WorldCat Identities : Smith, Liz 1923- - Mozilla Firefox
File Edit View History Bookmarks Tools Help
http://orlabs.oclc.org/identities/lccn-n78-2522
Google
WorldCat® Identities
Beta
Search Identities
Name:
Go
Jump To: Overview | Publication Timeline | Works About | Works By | Audience Level | Related Names | Useful Links | Fast Headings
Smith, Liz 1923-
Overview
Works: 20 works in 27 publications in 1 language and 5,713 library holdings
Subject Headings: Gossip columnists--United States
Roles: Reporter, Interviewer, Host, Speaker
Classifications: pn4874.s563, 070.92
Publication Timeline
1970
2010
Key
Publications about Liz Smith
Publications by Liz Smith
LIZ SMITH
Natural Blonde
Alternative Names
Smith, Mary Elizabeth 1923-
Languages
English (35)
Covers

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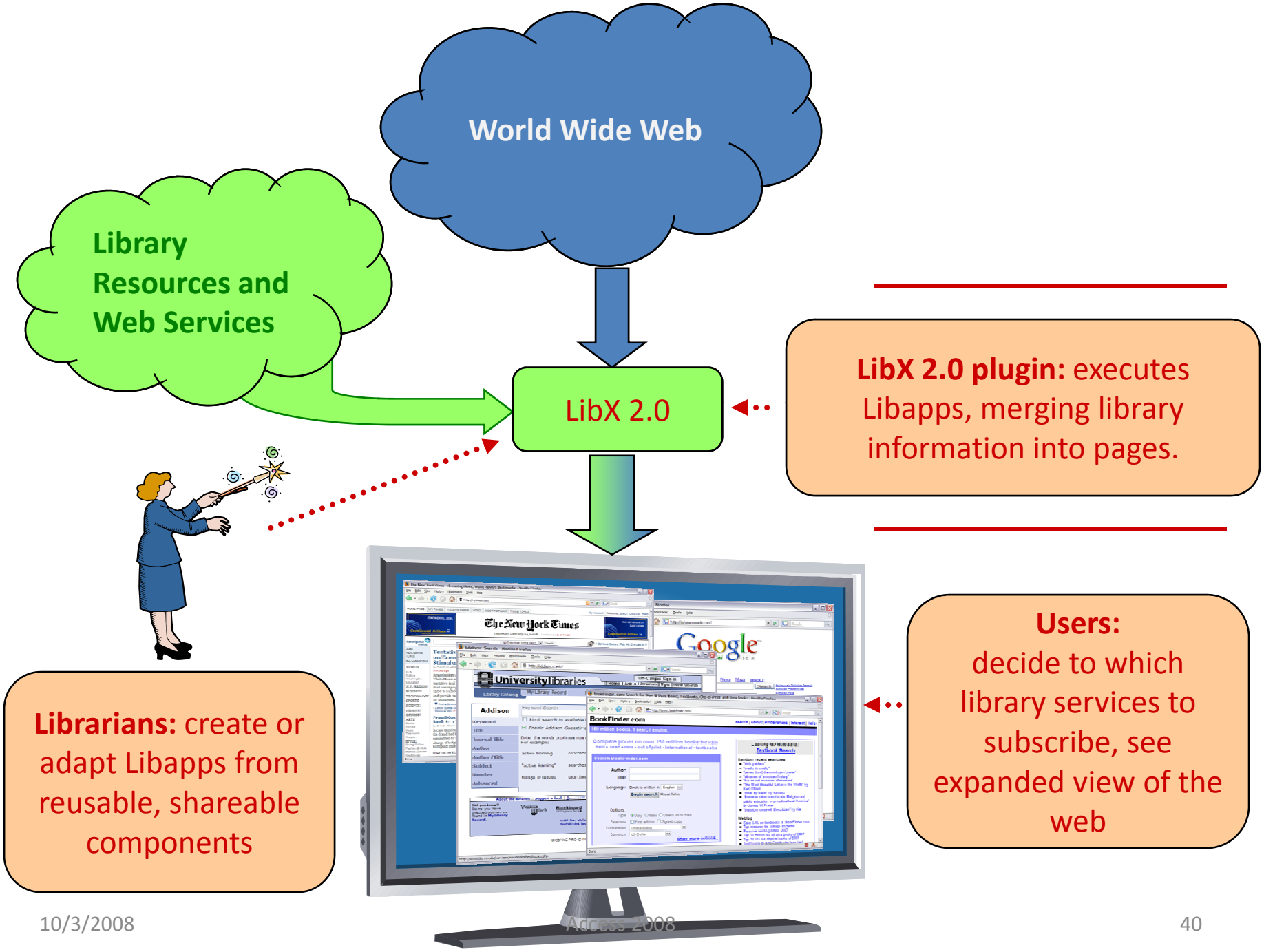
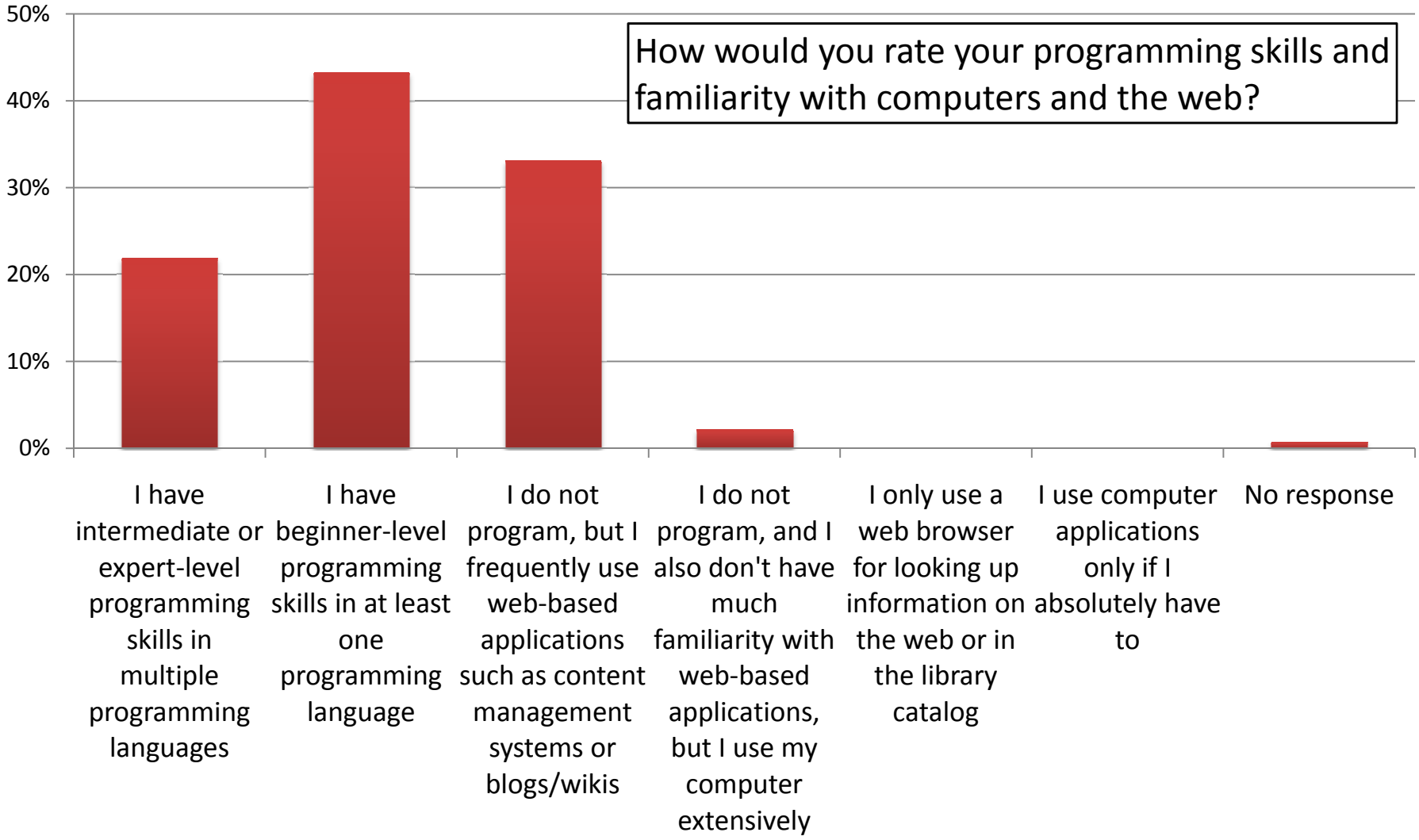
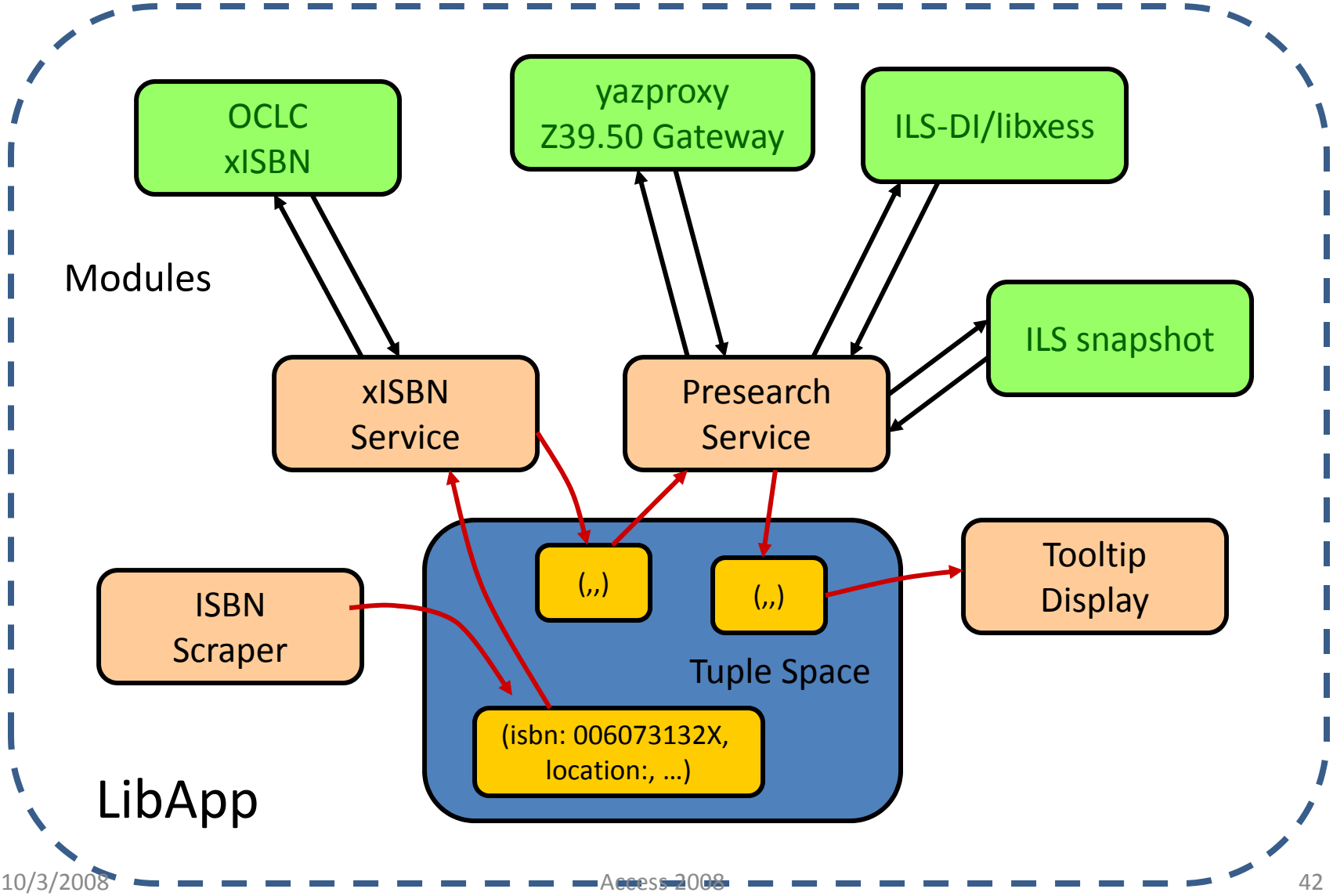
  - Released Edition Builder
- 2008
  - Edition Builder Study
  - NLG grant for LibX 2.0 community platform


World Wide Web
Library Resources and Web Services
LibX 2.0
LibX 2.0 plugin: executes Libapps, merging library information into pages.
Librarians: create or adapt Libapps from reusable, shareable components
Users: decide to which library services to subscribe, see expanded view of the web

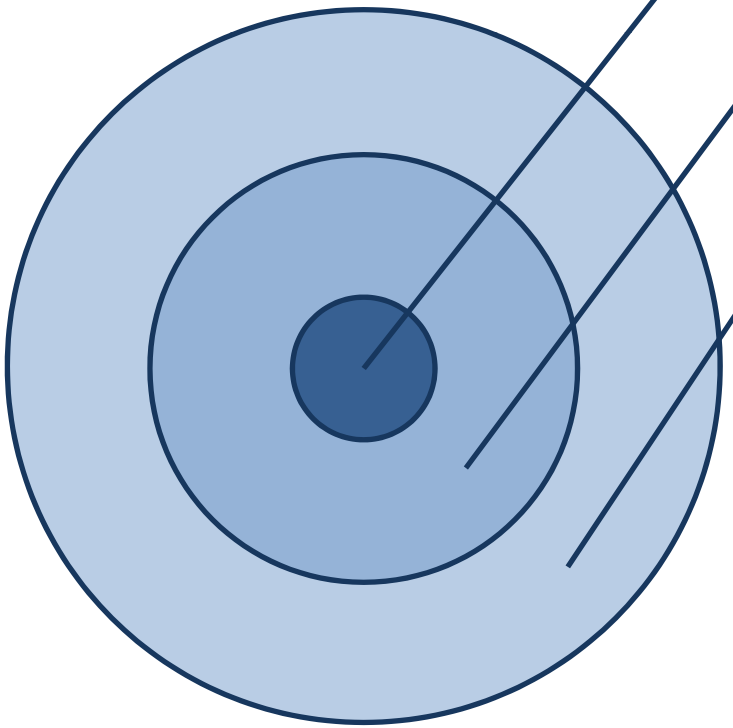
Edition Builder Survey: Programming Skills



LibApp Example



LibX 2.0 - Target Audiences



LibX 2.0 Developers – make services available and write modules and libapps

LibX 2.0 Adapters – adapt, combine, reuse, and share services

LibX 2.0 User Community - subscribes to services they like

LibX 2.0 Developers

- Write “modules” – small pieces of code that
  - Scrape a page
  - Interact with services
  - Process and combine results
- Modules have access to all LibX configuration information via API
- Can use JavaScript libraries (e.g., jQuery)
- Browser-independent platform: Firefox and IE
- Fully decentralized infrastructure

LibX 2.0 Adapters

- Web-savvy librarians
  - *Not programmers*
- Edition Builder will become a repository to manage LibX modules and libapps
  - Adapters can add, combine, share, adapt, customize libapps
- Create localized services for their users
- Provide feedback to developers

LibX 2.0 Users

- Subscribe to services recommended by their edition maintainers using local settings
  - Stay connected to their libraries
- Decide which services they like
  - Fine-grained control and preferences
- Marketing
  - Will help adapters by providing marketing kit
  - Users must see benefits

LibX Team

- Annette Bailey
- Godmar Back
- Kyrille Goldbeck
- Arif Khokar
- Mike Doyle
- Alumni
  - Nathan Baker
  - Tilottama Gaat
  - Tobias Wieschnowsky