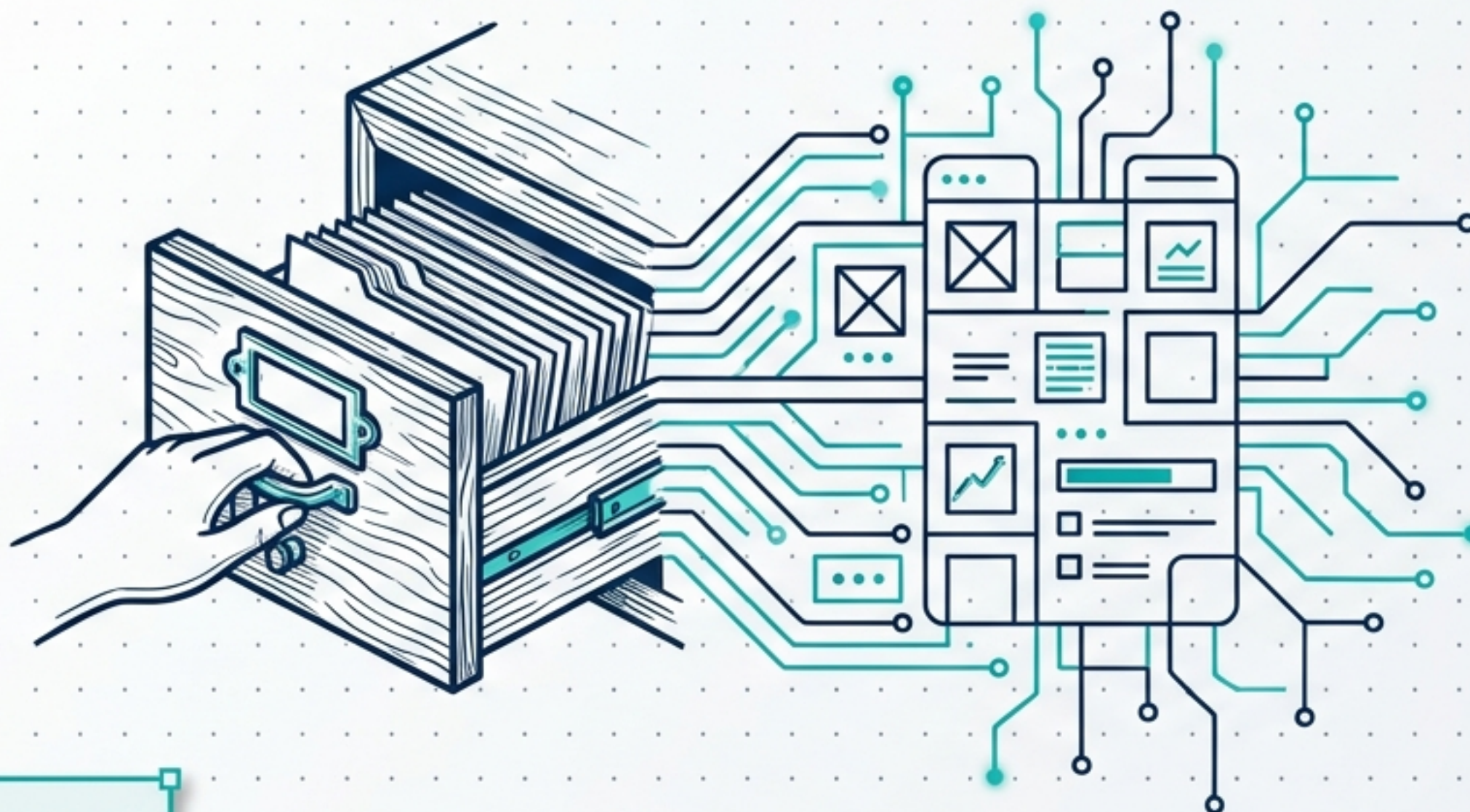


The Digital Librarian's Toolkit

A Field Guide to Application Software in Library & Information Services

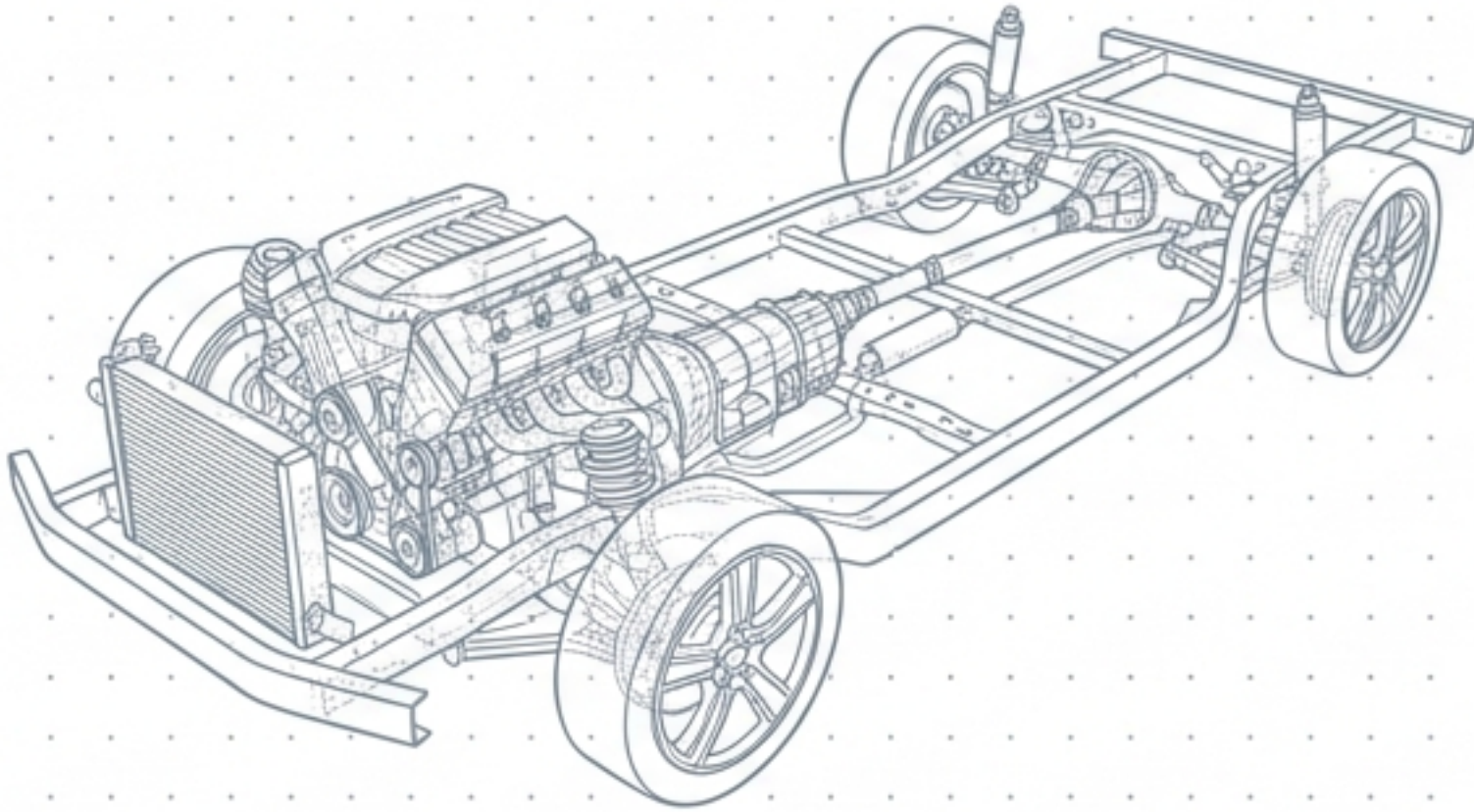


INTENDED LEARNING OUTCOME:

Demonstrate proficiency in computer operations by selecting appropriate application software for library tasks.

System vs. Application Software

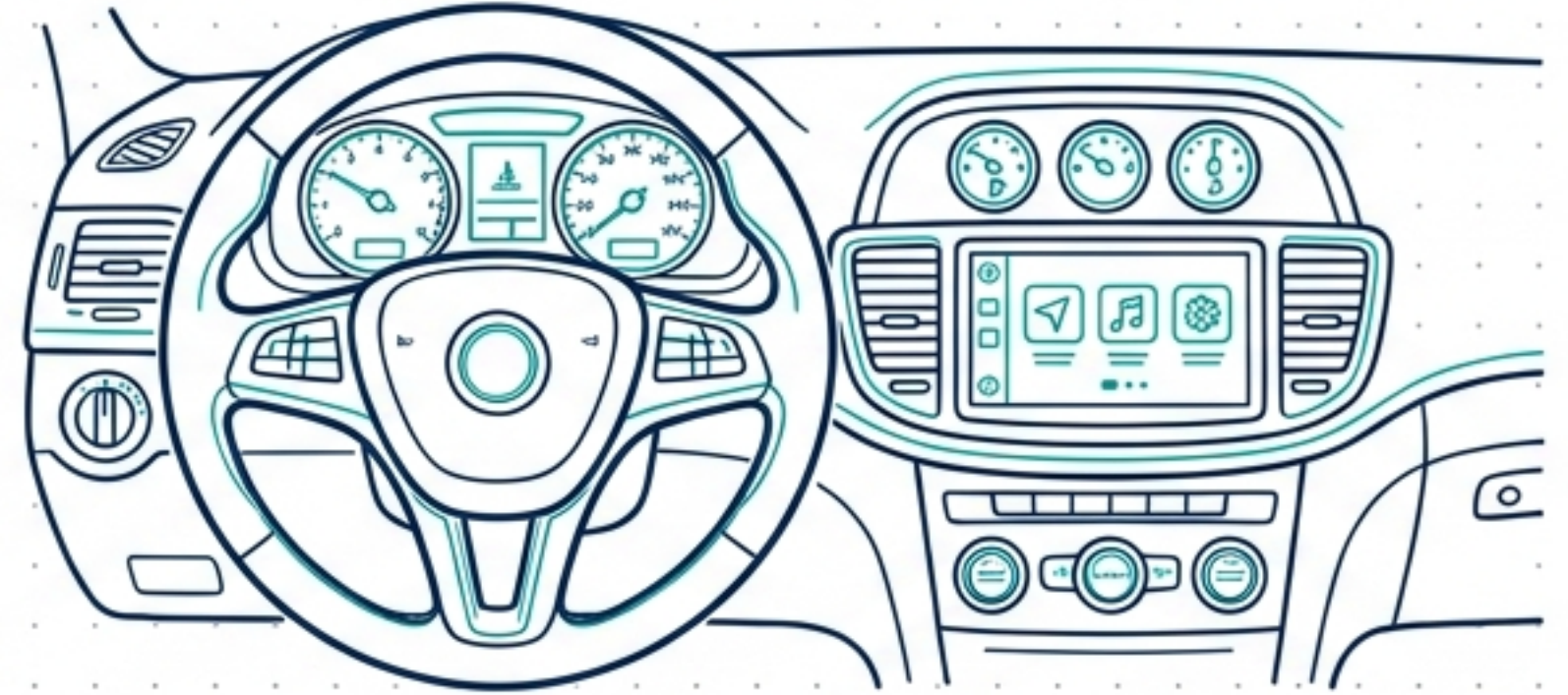
System Software



The Invisible Engine

Programs that manage the computer hardware in the background.

Application Software



The Driver's Dashboard

Programs designed to help users perform specific tasks such as writing documents, analyzing data, or communicating.

System software runs the computer. Application software helps you run the library.

Software Empowers the Modern Librarian



The Software Taxonomy Map

Application Software

By Development

How the software is built

Off-the-Shelf

Custom /
Bespoke

By Licensing

How the software is sold & accessed

Proprietary

Open-Source

Freeware

Shareware

By Function

What the software actually does



Productivity,
Specialized, & LMS

Software Development Approaches



Off-the-Shelf (Commercial)

Developed for the general public and distributed to many users without modification.

- ✓ Ready to install instantly
- ✓ Standardized features
- ✓ Regular developer updates
- ✓ Cost-effective for common needs



Custom (Bespoke)

Designed specifically for one organization to meet its unique operational requirements.

- ✓ Organization-specific customized features
- ✓ Superior workflow integration
- ✓ Higher initial development cost
- ✓ Requires dedicated maintenance

Development Models in Practice

Off-the-Shelf



Generating
reports



Writing official
letters



Analyzing
spreadsheets



Building
presentations

Patron
communication

Custom



Custom Library
Management
Systems (LMS)



Institutional
Repositories

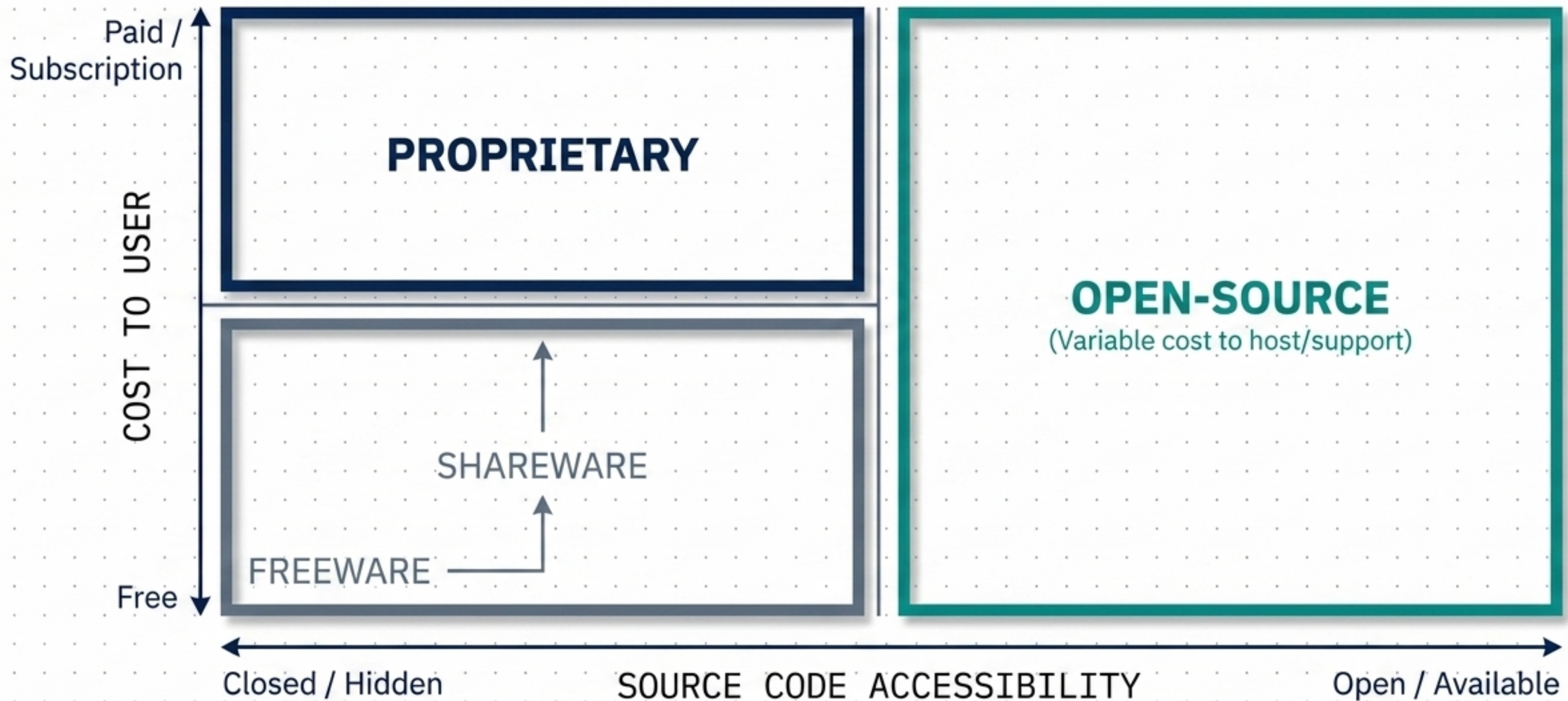


Specialized
Circulation
Systems



Localized
Digital
Archives

The Software Licensing Matrix



Licensing Categories Defined



Proprietary

Requires a license or subscription. Source code is restricted.

MS Office, Adobe Photoshop, SPSS



Open-Source

Source code is freely available to modify and redistribute under its license.

Koha, LibreOffice, GIMP, Firefox



Freeware

Free to use entirely, but the underlying source code remains closed and unavailable.

Acrobat Reader, Skype, Zoom Basic



Shareware

Free trial offering limited features or time. **Payment is required for the full version.**

WinRAR, Internet Download Manager

Core Productivity Capabilities



Word Processing

Create, edit, and format text documents.

EXAMPLES: Microsoft Word, Google Docs



Spreadsheets

Perform data analysis and mathematical calculations.

EXAMPLES: Microsoft Excel, Google Sheets



Presentations

Design visual slide decks for instruction and outreach.

EXAMPLES: Microsoft PowerPoint, Google Slides



Database Management

Store, query, and manage structured institutional records.

EXAMPLES: Microsoft Access, MySQL

Specialized & Operational Tools



Graphics

Design posters.

EXAMPLES: Canva, Photoshop



Multimedia

A/V playback.

EXAMPLES: VLC, Audacity



Communication

Online meetings.

EXAMPLES: Zoom, Teams



Web & PDF

Accessing info.

EXAMPLES: Chrome, Acrobat



Library Management Systems (LMS)

The operational nerve center of the modern library. Manages cataloging, circulation, OPAC, and patron databases.

EXAMPLES: Koha, Evergreen

The Library Operations Tech Stack

PATRON FACING



RESEARCH & ACCESS LAYER

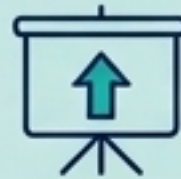


Reading e-books
(Acrobat Reader)



Online Searching
(Chrome / Firefox)

OUTREACH & SERVICES LAYER



Library orientation
(PowerPoint)



Promotional posters
(Canva)

BASE OPERATIONS LAYER



Cataloging books & Managing patron records
(Koha / Custom LMS)

ADMINISTRATIVE FOUNDATION LAYER



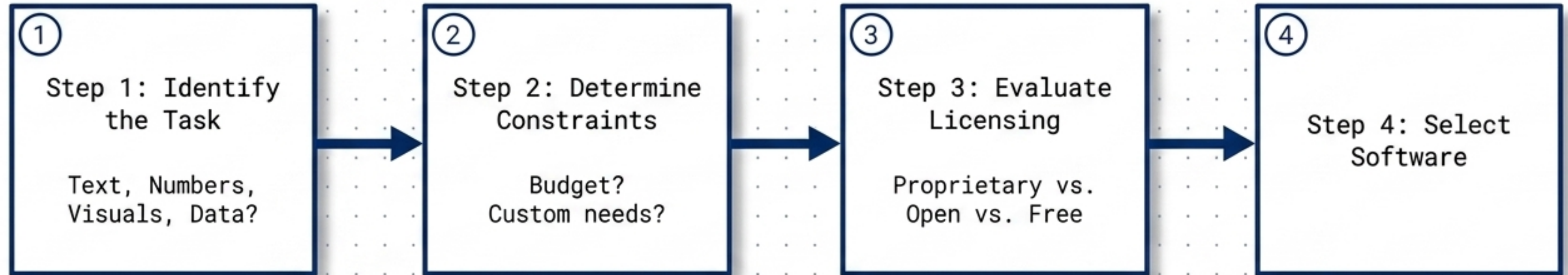
Preparing memoranda
(Word)



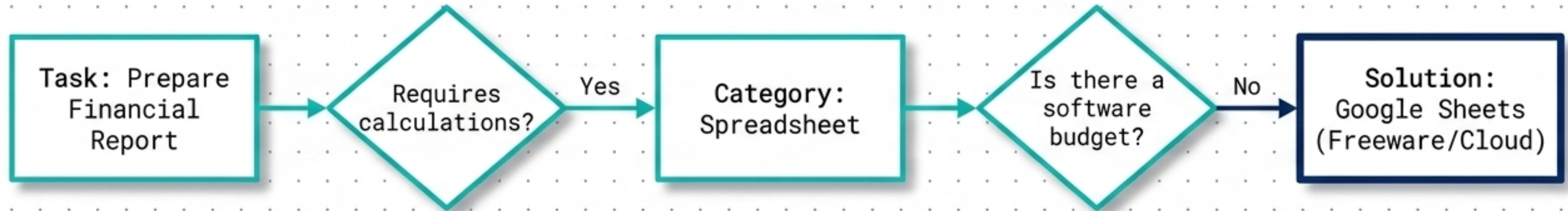
Budget preparation
(Excel)

BACKEND ADMIN

The Software Selection Framework



Applied Example Path



Scenario Diagnostics

Prepare monthly circulation report.



Spreadsheet
(Excel / Sheets)

Store borrower records securely.



Database / LMS
(MySQL / Koha)

Design a National Book Week poster.



Graphics Software
(Canva)

Present library rules to first-year students.



Presentation
(PowerPoint)

Search for scholarly journal articles.



Web Browser
(Chrome / Firefox)

Prepare an official library memorandum.



Word Processing
(Word / Docs)

The Professional Imperative: Ethical Use

Licensing Compliance

Respect proprietary boundaries.

Avoid unauthorized distribution, circumvention, or piracy of commercial software.



Attribution

Honor open-source licenses.

Responsibly credit community-developed tools (like Koha) that support the library ecosystem.

Data Stewardship

Utilize secure databases properly to protect patron privacy. Ensure confidential borrower records are never exposed via unvetted applications.

The Information Manager's Cheat Sheet

1. DEVELOPMENT

Off-the-shelf:

- Standardized & fast to deploy
- Cost-effective for basic tasks

Custom / Bespoke:

- Expensive & takes time to build
- Highly tailored to library workflows

2. LICENSING MODELS

- Proprietary: Closed Code, Paid
- Open-Source: Open Code, Free (Usually)
- Freeware: Closed Code, Free to Use
- Shareware: Closed Code, Free Trial

3. SELECTION PRINCIPLE

Software choice must directly align with operational goals.

- Use Spreadsheets for data analysis.
- Use Graphics apps for visual outreach.
- Rely on Library Management Systems (LMS) for patron and catalog administration.

Always prioritize the functionality required to serve the library patron efficiently.