

**FINAL DELIVERABLE**

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Technical Solutions Evaluation

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Tech Evaluation  
Computing Foundations Fall 2021  
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## **Preface**

Due to the larger scope of this project and the needs outlined by the Jackson County Historical Society, we have approached this evaluation from a hybrid standpoint. The technical solutions to this need involve both a CMS as well as the scaffolding with which to support it. For this reason, we have divided our suggestions into 5 categories: scanning hardware, OCR software, cloud and hardware storage, CMS, and plug-ins.

### **1. Identify an information need or multiple needs.**

- A. "Guidance for selecting and implementing a platform on which to build an online Compendium of Jackson County Iowa History"
  - a. Can accommodate short or long text articles, lists, photos, and other media
  - b. Preferably indexed
  - c. alpha by article title, categorized/ability to apply a metadata schema would be a plus, keyword searchable, tag-able
  - d. Preferably that allows us to use our organization's branding. Some degree of control over visual design would be a plus. Meets standard web accessibility and usability guidelines.
  - e. A data-entry interface that is user-friendly/easily teachable -- much of the data entry will be done by volunteers, some with limited technology expertise
  - f. Relying on staff and volunteers to transcribe; may be able to encourage the community to read and transcribe

### **2. Identify a user group or multiple user groups.**

Users of this platform will include:

- A. Staff/Volunteers
  - a. Volunteers are not necessarily tech-proficient and will need instruction
- A. Patrons vary general public
  - a. Skews slightly older, the average age of 45
  - b. poverty level 15%; may impact users' access to devices
  - c. public may be accessing on mobile devices in addition to onsite or home computers
  - d. The county has a total population of 20k; rural with the city center.

**3. Identify five or more technological solutions, which may simply be software applications or platforms. "Presently, there are three leading genealogical databases, plus a fourth, free option."**

**A. Scanning Hardware**

a. [Epson Sheetfed Document Scanner](#)

- i. Pros
  - 1. affordable (currently \$99)
  - 2. Portable
  - 3. includes Nuance OCR Software
  - 4. user friendly
- ii. Cons
  - 1. restricted by size
  - 2. have to hand-feed each document

b. [Epson Duplex Desktop Scanner](#)

- i. Pros
  - 1. also relatively portable
  - 2. includes OCR
  - 3. user friendly
  - 4. multi-document/auto feed
  - 5. can buy additional Epson flatbed add-on for larger files and thicker media
- ii. Cons
  - 1. more expensive (between \$300-400)
  - 2. takes up slightly more space
  - 3. still restricted document sizing (without additional flatbed add-on)

c. [Canon CanoScan LiDE 300](#)

- i. Pros
  - 1. cheapest (\$70)
  - 2. User-friendly
  - 3. includes OCR software
- ii. Cons
  - 1. Flatbed
  - 2. more labor-intensive
  - 3. more restricted on document size

**B. OCR**

a. [Adobe Acrobat Pro](#)

- i. \$14.99/mo (Free through [TechSoup](#))
- ii. Has powerful OCR capabilities
- iii. MAC and Windows

b. [Simple OCR](#)

- i. Free version
- ii. Good for simple scans

c. [Google OCR](#)

- i. (link above leads to an article explaining how to use Google OCR)
- ii. free

- iii. Built into Google Drive
- iv. Limited capabilities

**C. Cloud & Hardware Storage**

- a. [Google Drive](#)
  - i. 9.99 per month or \$99.99 annually (2 TB)
- b. External Hard Drive
  - i. [8 TB External USB Hard Drive](#) \$199.99

**D. CMS**

- a. Omeka.org (Free)
  - i. Pros:
    1. free & robust
    2. Highly customizable
    3. No storage cap
  - ii. Cons:
    1. Difficult to manage & make changes
    2. Maintenance requires attention
    3. Requires hosting data in another space (google drive, etc)
- b. Omeka.net (Paid)
  - i. Pros:
    1. Pricing models give you more flexibility
    2. Easy to manage
    3. Easy to update and maintain (Omeka updates the site for you as updated versions of the software are released)
  - ii. Cons:
    1. Appearance and functionality are relatively limited
    2. Storage cap makes certain kinds of content difficult to work with (large video & audio files)
- c. WordPress
  - i. Pros:
    1. Has free option
    2. Customizable
    3. Can host several format types
    4. Go Daddy or other website hosts may have cap on data storage
  - ii. Cons:
    1. Requires more knowledge to customize
- d. Google Sites
  - i. Pros:
    1. One ecosystem
    2. Extremely easy to use
    3. Free
  - ii. Cons:
    1. Not as customizable; has limited templates
- e. Collectionspace.org
  - i. Pros:
    1. Free
    2. Associated with Lyrasis
    3. Claims ability to interact with Omeka

- ii. Cons:
  1. New; uncertain longevity
  2. New; not everything rolled out yet?
  3. Difficult to find current information
  4. Unable to access to evaluate ease of use
  5. No current sites available to evaluate

**E. Plug-ins:**

- a. Scripto
  - i. Pros:
    1. Free to use and access
    2. Comes with sample guidelines
    3. Compatible with Omeka Classic and Omeka S
    4. Maintained and designed for universities, libraries, museums, archives etc.
  - ii. Cons:
    1. Only compatible with Omeka
    2. Somewhat of a learning curve
- b. DIYHistory's engine is up on github here: <https://github.com/ui-libraries/DIYHistory-transcribe> [contains a fork of the Scripto plugin customized to their engine]
  - i. Pros:
    1. Free to use and access
    2. Compatible with Omeka
    3. Customizable
    4. Example: <https://diyhistory.lib.uiowa.edu/>
  - ii. Cons
    1. Only compatible with Omeka
    2. Somewhat of a learning curve

**4. Devise standardized, user-based criteria for evaluating each solution.**

We evaluated each of the five categories based on the criteria listed below:

- Price
- Ease of learning platform, especially for non-tech savvy
- Ease to maintain
- Patron accessibility
- Flexibility to interact software
- Storage scaled appropriately to needs

**5. Develop an evaluation that includes a recommendation for the best solution.**

Based on the criteria and the information the Jackson County Historical Society provided, our recommendation from each category is as follows:

**A. Scanning Hardware**

- i. If the Historical Society has access to a copier with a scanner bed we recommend purchasing the [Epson Duplex Desktop Scanner](#) for ease and efficiency of scanning multiple documents, as this scanner has an auto-feed function. If the Historical Society doesn't have access to a copier with a scanner bed we recommend purchasing an add-on [Epson flatbed](#) for the above scanner.
- ii. Evaluation
  - 1. Price
    - a. Current price of the Epson Duplex Desktop Scanner is \$269.99 and the flatbed attachment is \$109.99. Software included.
  - 2. Ease of learning platform, especially for non-tech savvy
    - a. Epson software requires minimal prior knowledge, making it very user friendly for those operating the hardware and software. Additionally, tech support is available through the Epson website.
  - 3. Ease to maintain
    - a. Little to no maintenance required outside of the occasional software update on the user's computer.
  - 4. Patron accessibility
    - a. N/A
  - 5. Flexibility to interact with software
    - a. Can be set up to route scans into specified folders. If set up correctly, this can make it easier to upload documents to a server.
  - 6. Storage scaled appropriately to needs
  - 7. N/A, storage is dependent upon the user's computer and/or website server where files are ultimately housed.

## **B. OCR**

- i. if the above scanner is purchased, OCR software is included. However, if needed can be supplemented or replaced by Google OCR. OCR is beneficial for searching documents for written or typed text.
- ii. Evaluation:
  - 1. Price
    - a. Included in cost of recommended printer
    - b. Or also free if using alternate recommendation of Google OCR
  - 2. Ease of learning platform, especially for non-tech savvy
    - a. Have not evaluated OCR with printer
    - b. Google OCR with types text fairly accurate; uncertain with written texts
    - c. Google OCR built into google drive, easy to access, very easy to use
  - 3. Ease to maintain
    - a. Unable to evaluate with printer OCR
    - b. For google OCR, maintained by google
  - 4. Patron accessibility

- a. N/A
- 5. Flexibility to interact with software
  - a. Assuming ease of interaction between printer & included OCR
  - b. Google OCR
- 6. Storage scaled appropriately to needs

**C. Cloud & Hardware Storage**

- i. For cloud storage we recommend [Google Drive](#) and purchasing 2 TB of storage. This is easy to integrate since the Historical Society is already using Google Workspace for other aspects. Regarding having a physical backup of the collection we recommend purchasing an 8 TB [External USB Hard Drive](#). The brand linked here, WD, is extremely reliable, and 8 TB should be more than enough for long-term storage.
- ii. Evaluation:
  - 1. Price
    - a. For 2 TB of cloud storage there are two options for purchasing. First is paying a monthly fee of \$9.99 per month or \$99.99 annually where you would save 17% on the price.
    - b. The 8 TB External USB Hard Drive is \$199.99. There are smaller ones for cheaper however, this offers room to grow for the future and not having to transfer/upgrade later.
  - 2. Ease of learning platform, especially for non-tech savvy
    - a. Easy - Google Drive is extremely user friendly and requires very little technical background.
  - 3. Ease to maintain
    - a. Easy - There is little maintenance once everything has been uploaded and there is plenty of technical support from Google if needed.
  - 4. Patron accessibility
    - a. N/A
  - 5. Flexibility to interact with software
    - a. Easy - You can interact from an array of devices (i.e. computer, tablet, or phone) and can even set it up to have offline access.
  - 6. Storage scaled appropriately to needs
    - a. 2 TB of cloud storage makes the most sense, the level below is 200 GB but we're assuming with the different media types they will need at least 2 TB.

**D. CMS**

- i. We recommend Omeka.net, because it offers features such as Dublin Core metadata standards, CSV import, Exhibit Builder, and more. Omeka is designed to share cultural collections, display documents and oral histories, and/or create digital archives with user-generated content.
- ii. Evaluation:
  - 1. Price



- a. Omeka offers 4 paid plans, ranging from \$35 - \$1,000/per year.
- 2. Ease of learning platform, especially for non-tech savvy
  - a. Easy - Requires very little technical expertise
- 3. Ease to maintain
  - a. Easy - Omeka updates the site for you as updated versions of the software is released
- 4. Patron accessibility
  - a. Easy - W3C and 508 compliant
- 5. Flexibility to interact with software
  - a. Omeka's plugin API makes development of plugins to suit the needs of your project quick and easy
- 6. Storage scaled appropriately to needs
  - a. N/A - Storage depends on the plan chosen (ranges from 2 GB - 50 GB)

#### **E. DIY History**

- i. DIY History's engine is open access and free to use. It is designed for use with Omeka and uses an adapted version of the Scriptor transcription plugin to generate an intuitive interface for crowdsourced transcription of scanned documents, lessening the burden on volunteers. The team behind DIY History works at the Studio, within the University of Iowa Libraries.
- ii. Evaluation:
  - 1. Price
    - a. Free
  - 2. Ease of learning platform, especially for non-tech savvy
    - a. There is a learning curve, but the team that developed it still works at the University of Iowa Libraries and maintains the code
  - 3. Ease to maintain
    - a. Easy
  - 4. Patron accessibility
    - a. Easy--patrons create accounts and can contribute to the transcription of scanned documents that have been uploaded
  - 5. Flexibility to interact with software
    - a. only compatible with Omeka
  - 6. Storage scaled appropriately to needs
    - a. N/A--depends on hosting