Falvey Memorial Library Digital Scholarship Project
Sustainability & Hosting Agreement

This preliminary agreement applies to digital scholarship projects hosted and maintained by Falvey Memorial Library. Outlined below are the responsibilities of both project owners and library staff and the timelines for hosting digital projects created by Villanova faculty, students, and/or staff.

*Please note this document is subject to change depending on the scope and deliverables of the project.

Hosting Agreement

This is an agreement between Villanova University’s Falvey Memorial Library (“Falvey”) and ____________________ (“Project Owner”). Project Owner wishes for Villanova to publish the project (“Project”) on Villanova’s web-hosting server, and Villanova wishes to accept it in accordance with this Agreement.

I. Falvey Responsibilities:

   In connection with hosting the digital project, Falvey agrees to do the following:

   a. Strive, in the absence of unforeseen technical difficulties and routine maintenance, to provide 24/7 access to the Project.

   b. Install upgrades in a timely manner as they become available.

   c. Provide the Project Owner with hosting services as applicable, in accordance with Technology Development's policies on hosting (i.e. approved software installation types, server space allocation, etc.)

   d. Provide access to the contents for so long as the resource is hosted on the Falvey Library servers.

   e. In the event of a decision to discontinue hosting services, provide the Project Owner with 6 months’ prior written notice of its intention to do so.

II. Project Owner Responsibilities:

   In connection with hosting and publishing the digital project, the Project owner agrees to do the following:
a) Obtain all necessary consents from authors and other creators for publishing the Digital Project in an online format.

b) Ensure the project follows all applicable copyright laws.

c) Acknowledge that Villanova is providing these hosting services as an accommodation to the Project Owner, and that Villanova shall not be liable for any damages, costs or losses whatsoever arising in any circumstances from these services, including, without limitation, damages arising from the breakdown of the technology, the failure to install upgrades and difficulties with access.

d) In the event of a decision to discontinue the hosting arrangement, provide Falvey Library with 6 months prior written notice of its intention to do so.

III. Intellectual Property:

The Project Owner will allow the public and the scholarly community to use the Project Content under a Creative Commons Attribution-Non-Commercial-NoDerivatives 4.0 International license. Villanova is not responsible for the violation of this copyright by third parties.

The Project Owner represents and warrants: that he/she/it is the sole owner of the digital content, including without limitation all copyrights, trademarks and other proprietary and intellectual property (“IP Rights”) in connection therewith and has full power to make this Agreement; that the Content does not infringe upon the IP Rights of any other person or entity; that all necessary permissions to use third-party materials have been secured, including specifically permissions to publish the materials electronically and distribute them to the public via the internet; that the Content has not been previously published by anyone other than Project Owner except as Project Owner has advised Villanova in writing; and that the Content contains no libelous or other unlawful matter and makes no improper invasion of the privacy or proprietary right of any person.

The Project Owner agrees to release and hold Villanova harmless from any claim or proceeding arising from the content or dissemination of the Content or from any other aspect of hosting or distributing the Project, including but not limited to such claims as are instituted on the grounds that the Content infringes upon third party IP rights, contains harmful matter or otherwise breaches the representations and warranties set forth above, and to indemnify Villanova for reasonable expenses, including reasonable attorney's fees, that may be incurred in defense against such claim or proceeding. These warranties and obligations shall survive any termination of this Agreement.

Falvey reserves the right to remove any of the Content and its associated metadata from Falvey servers on the World Wide Web at any time after notifying the Project Owner in writing.
IV. Hosting Timelines/Hours of Support:

Falvey will cover hosting services, maintenance, and technology support from ________ (date) until __________(date). Please see the following list for our timeline policies on hosting and supporting digital projects for faculty, staff, and student projects.

1. **Villanova faculty grant-funded digital projects**
   Falvey will host grant-funded digital projects for up to five years, six months after faculty departure from Villanova, or for the length of time as specified in the grant, whichever is shortest. The hosting timeline can be extended with joint agreement.

2. **Villanova faculty digital projects without funding**
   Falvey will host non-funded digital projects by faculty for up to five years or six months after faculty departure from Villanova. The hosting timeline can be extended with joint agreement.

3. **Villanova faculty classroom digital projects**
   Falvey will host faculty classroom digital projects for up to two years as discussed at the start of the project. Falvey will provide faculty with an archived copy of the classroom digital project for self-hosting or portfolio. The hosting timeline can be extended with joint agreement.

4. **Villanova Student Projects**
   Falvey will host student digital projects for up to two years as discussed at the start of the project. Falvey will provide faculty with an archived copy of the student digital project for self-hosting or portfolio. The hosting timeline can be extended with joint agreement.

5. **Library/Staff/Campus Initiative Projects**
   Falvey will host Library, Staff, and Campus Initiative digital projects with joint agreement on the timeline at the beginning of the project.

V. Contingency Plan for staff turnover, faculty departure from Villanova, or student graduates:

1. **Faculty and Staff turnover**
   - When an individual leaves Villanova they will have a 6-month grace period to find a new hosting solution for their project.
   - By the end of the grace period, provided we have received all necessary materials from the Project Owner, we will provide either an archive of the project materials and existing documentation to the new hosting institution, or we will provide a roadmap of our plans to complete these steps.
   - If the Project Owner chooses to host their project independently, Falvey will provide all necessary project materials and documentation to redeploy the project.
● The Project Owner can request consultations with Falvey staff for advice, but Falvey staff will not fix or migrate projects that are not hosted on Villanova infrastructure.
● If the Project Owner wants to keep hosting the project at Villanova, they must designate a current Villanova Project Owner as the new project contact, and an updated Agreement must be signed between the new contact and Falvey.
● If the Project Owner retires and receives emeritus status, they must designate a co-contact person from the current Villanova Project Owner, modify the project’s Agreement, and re-sign with Falvey and the co-contact.
● If the Project Owner leaves Villanova or can no longer manage the project without designating a new contact person or finding a new hosting solution for the project, Falvey reserves the right to assign a new Project Owner or will archive a snapshot of the project and offer a copy of the snapshot to the Project Owner. As long as the project works normally it will run on Villanova servers unless otherwise requested, but when it breaks or becomes a security risk, as determined by Falvey, the application will be turned off and the project URLs will redirect to the digital scholarship website.
● Falvey will make a best faith effort to notify the Project Owner when the project is taken offline.
● Any extensions to this deadline must be approved by Falvey no later than one month prior to the end of the grace period.

2. Student projects and departure:

● Student projects will remain available for two calendar years following their graduation date or departure from Villanova University. The Project Owner may request a copy of their website prior to their departure or an archived version (which may not be fully functional) of the website while the project is still available.

VI. Acknowledgements and credit:

A contributorship model should be implemented in any and all presentations, publications, websites, or printed materials that promote or publicize the Project in any way. See CRediT (Contributor Roles Taxonomy) to appropriately credit all significant contributors.

VII. Sunsetting or archiving digital project & possible options we will take:

A. Projects hosted by Falvey

Falvey may maintain, archive, or sunset any digital projects at their discretion. Possible actions are outlined in Appendix I: Sunsetting Strategies. Archived digital projects
must be reviewed and approved by Falvey’s Preservation and Digital Archivist, the Institutional Repository Manager, and the Library Technology Department.

B. Projects hosted by Third Parties

There are a variety of third-party sites that can be used for archiving your digital project listed below with free storage available and options for purchasing additional storage if needed. Please note if a third-party site is used for archiving a digital project, Falvey will not be held liable if the third-party site shuts down. All additional storage must be purchased and paid for by the Project Owner.

VIII. Agreement Signatures:

Project Owner Signature ____________________________

Project Owner Email ______________________________

Project Owner Email Department _____________________

Falvey Memorial Library Signature ______________________

Date: ______________________________________________
Appendix I: Sunsetting Strategies

In creating a new digital project, most mental effort at the beginning is afforded to the planning and development of the project -- but consider that the project spends much more time in the maintenance phase of its lifecycle than it does in development, planning or analysis. As well, in the excitement of a new project, most project managers do not think about the end of life of the project. As time goes on, technology updates, and costs to maintain a project go up. As such, it is worth considering project sunsetting and archiving strategies early in the project development so that the project manager is ready to make the decision to end a project when appropriate, and what form the end of life will take.

Why and When to Sunset or Archive a Project

Projects do not end when development ends – often project maintenance can take up more effort than the actual development (albeit over a longer period of time). Because of this, project managers must constantly weigh the costs of project maintenance with the value of keeping a project alive in its current state. Some of the reasons to consider sunsetting a project are as follows:

- **Technology updates**
  As technology and project server technology advance, digital projects will need to evolve with them. Often this takes little effort to keep things up-to-date, but occasionally a big jump in technology will cause a big effort to be needed to keep a project running, and depending on staff time, monetary costs and project age, this effort may not be worth the time.

- **Staff issues**
  Often new projects will take up a project manager's time, and the effort to keep the old project up will not be worth cutting into the time of developing a new project. Additionally, due to staff turnover, it can be possible that the technological knowledge needed to maintain a project will leave with a specific staff member.

- **Project value over time**
  The value of projects changes over time (especially for projects working with real-time data sources at the time of creation). Because of this, project managers may weigh the value of the project with the time that has passed and decide the costs to keep the project running are not worth it considering current metrics of project value.
● **Fall in user count**

Often projects have large user counts at the launch of the project, but user engagement will drop over time. If user engagement drops below a certain point, the cost to maintain the project may no longer be worth the returns given by the user base.

### Sunsetting and Archiving Strategies

Making the decision to sunset a project does not necessarily mean a complete termination of the project. There are many strategies that can keep a project partially alive or archived for future use if interest in the project resurfaces. Here is a list of sunsetting and archiving strategies in no particular order:

#### Sunsetting Options

**Abandonment**

One option is to abandon your digital project entirely. This would include no further updates, bug fixes, or maintenance. When your contract with your host or domain name register runs out, the project will disappear from the web altogether. If your project is hosted at a university or similar sponsoring institution and you decide to abandon it, you should talk to a system administrator about removing it. Otherwise, your project could be discoverable on the internet for an undetermined amount of time. An opportunity to prolong the life of a project in abandonment is to put the files and instructions for the project on GitHub or some other such service for hosting code.

**Limited Project Functionality**

The digital project will maintain some of its original functionality, but other parts of the project (usually the technically expensive portions) will shut down, close, or otherwise go offline. For example, a project that collected data from users or researchers could stop the data collection, but continue to allow for searching collected data, or allow for interactive maps or data manipulation of collected data. This form of sunsetting tries to boil down the project to the basic components that can most easily be replicated in order to retrieve the information contained within them.

**Static websites**

Another option is to create a static version of the website, breaking down a site into its most basic format. This would eliminate any dynamic portions of the site (interactive maps, search capabilities, etc.) and in its place leave simple HTML pages that need extremely little maintenance.
Archiving and Storage Options

Third Party Archiving

There are a variety of third-party sites that can be used for archiving your digital project listed below with free storage available and options for purchasing additional storage if need be. Please note if a third-party site is used for archiving a digital project, Falvey will not be held liable if the third-party site shuts down. All additional storage must be purchased and paid for by the Project Owner.

Internet Archive and the Wayback Machine

The Internet Archive and WayBack Machine already make backups of websites and online resources without a project manager having to do anything, save making sure the project is indexed to search engines. Although not perfect, and dependent again on there being resources like electricity and funding to keep the company running, this is an easy way to have a static copy of a web project. The Wayback Machine and the Internet Archive are not a guarantee of complete emulation, but are the most comprehensive tool for storing a copy of the web project.

Webrecorder

Webrecorder is another option that seeks to video capture the dynamic bits of a project and bundle all the resources into a reusable package. Webrecorder is a manual crawl of your website and does not create scoping rules or crawls of your site automatically. Using Webrecorder requires a lot of time investment and is only recommended for small sites with limited navigation. Currently (January 2021), Webrecorder provides only 5GB of storage per account, with options for purchasing additional storage. All additional storage must be paid for by the Project Owner.

GitHub Pages

This option includes migrating the site to a distributed repository like (but not limited to) Github, where people can access the project code and replicate the project themselves. It is generally recommended that you use Github for one storage location and a local copy as backup.

Containerization/Docker

This option includes migrating the digital project into a container. In general, containerization involves creating a virtual computer or server system with only the bare necessities needed to run the project, all packaged up in a small container. This has the added benefit that when the underlying software needed to run a container is in place, then this containerized version of the project can be run anywhere. Of these container platforms, Docker is the most common and widely known program for utilizing containers.
Self-contained storage (such as Raspberry Pi)

This option would include putting the digital project on a small form factor computer like a Raspberry Pi. In many cases, if the project does not rely on third-party sources that cannot be localized, this can provide a way to encapsulate a project into one sustainable unit. This allows for a complete system on which a user can render and view the project. The software at the correct versions can be pre-installed. All that is needed to access the project is a power source and a monitor, and the project could be stored indefinitely this way, as one would store a book or manuscript. This is a good option for access but is not a long-term storage solution. It is highly inadvisable to store projects with too many physical dependencies and physical equipment degradation.

Storage in conjunction with University Archives

All projects hosted by Falvey Library and the Digital Scholarship Lab, whether internal library projects or hosted digital projects, are currently (February 2021) stored digitally in conjunction with the University Archivist. This archive is only accessible by library staff, but depending on the project, this might serve as an acceptable end of life solution to the project if the project itself doesn’t need to be discoverable in any way and does not have any software dependencies.

University Repository

Most (if not all) universities have some sort of academic repository in which to place digital objects. When Falvey Memorial Library implements an institutional repository (currently in the planning phase), the digital project code and data can be stored here, allowing for possible limited site functionality and making the project code and data findable and accessible for users to download as they wish and explore locally.