



## Establishing an Open Access Repository for Doctor of Nursing Practice Projects



Meaghan Heselden<sup>a,\*,1</sup>, Kate Driscoll Malliarakis<sup>b,2</sup>, Beverly Lunsford<sup>b,3</sup>, Anne Linton<sup>c,4</sup>, Elaine Sullo<sup>c,5</sup>, Deborah Cardenas<sup>d,6</sup>, Michael LeGal<sup>e,7</sup>, Cathie E. Guzzetta<sup>b,8</sup>

<sup>a</sup> 10301 Strathmore Hall St., Apt. 219, Rockville, MD 20852, USA

<sup>b</sup> School of Nursing, George Washington University, 1919 Pennsylvania Avenue, NW, Suite 500, Washington, DC 20006, USA

<sup>c</sup> Himmelfarb Health Sciences Library, George Washington University, 2300 Eye St., Washington, DC 20057, USA

<sup>d</sup> Milton S. Hershey Medical Center, 90 Hope Drive, Hershey, PA 17033, USA

<sup>e</sup> Banner University Medical Center – Phoenix, 1111 E. McDowell Road, Phoenix, AZ 85006, USA

### ARTICLE INFO

#### Keywords:

Doctor of Nursing Practice  
DNP projects  
DNP project repository  
Digital repository  
Institutional repositories  
Open access  
Copyright

### ABSTRACT

The Doctor of Nursing Practice (DNP) faculty at the George Washington University (GW) decided to create a digital DNP Project Repository for our students in 2016 based on the American Association of Colleges of Nursing (AACN) 2015 recommendations to do so. We describe the two-year process during which the DNP faculty and the GW librarians at our Health Sciences Library collaborated to create the DNP project repository. This article contains important information that was learned about digital institutional repositories, the criteria used in deciding to make the GW library's Health Sciences Research Commons the home for the repository, along with questions and concerns that arose during the process. Our library internally collaborated to customize the digital collection to meet the needs of DNP students and their project teams. Development included creating the URL for the collection, customizing digital metadata fields, developing submission forms and guidelines, and adding embargo options for projects. A pilot collection of six DNP projects was completed in 2017; and in 2018, the first cohort of 34 students submitted their projects to our repository. Outcomes are reported of the repository launch, lessons learned, and repository submission experiences of two DNP students. We believe our journey may guide others.

In 2016, the Doctor of Nursing Practice (DNP) faculty at the George Washington University (GW) decided to create a digital DNP project repository based on the American Association of Colleges of Nursing 2015 recommendations that DNP programs develop, archive, and share students' final DNP projects in a digital repository as a strategy for advancing nursing practice (AACN, 2015). The DNP project presents an opportunity for students to synthesize their newly acquired DNP skills,

knowledge, and competencies so they can integrate them into practice. These practice-based projects are designed for students to address a practice issue affecting groups of patients, health care organizations, or health care systems (AACN, 2015). Furthermore, dissemination of the DNP project results is considered a critical component of the project process and a digital repository for DNP final projects is recommended as well (AACN, 2015). Because the DNP projects are often unique to the

\* Corresponding author.

E-mail addresses: [meaghan.corbett@gmail.com](mailto:meaghan.corbett@gmail.com) (M. Heselden), [katemall@gwu.edu](mailto:katemall@gwu.edu) (K.D. Malliarakis), [bklunsfo@gwu.edu](mailto:bklunsfo@gwu.edu) (B. Lunsford), [alinton@gwu.edu](mailto:alinton@gwu.edu) (A. Linton), [elainej@gwu.edu](mailto:elainej@gwu.edu) (E. Sullo), [dcardenas@gwu.edu](mailto:dcardenas@gwu.edu) (D. Cardenas), [Michael.legal@bannerhealth.com](mailto:Michael.legal@bannerhealth.com) (M. LeGal).

<sup>1</sup> MLIS, formerly Metadata & Scholarly Publishing Librarian, Himmelfarb Health Sciences Library, George Washington University, Washington DC.

<sup>2</sup> Policy, Populations and Systems Community; Director, DNP Executive Leader Program & MSN NLM Program, School of Nursing, George Washington University Washington, DC.

<sup>3</sup> Center for Aging, Health and Humanities, School of Nursing, George Washington University Washington, DC.

<sup>4</sup> Himmelfarb Health Sciences Library, George Washington University, Washington DC.

<sup>5</sup> Information and Instructional Services, Himmelfarb Health Sciences Library, George Washington University, Washington DC.

<sup>6</sup> 2018 DNP Graduate from George Washington University, Washington, DC; Program Manager Quality and Safety Outcomes, Medical Group, Milton S. Hershey Medical Center, Hershey, PA.

<sup>7</sup> CCRN-K, 2018, DNP Graduate from George Washington University, Washington, DC; System Clinical Education Specialist, Banner Health, Phoenix, AZ.

<sup>8</sup> School of Nursing, George Washington University, Washington, DC.

<https://doi.org/10.1016/j.profnurs.2019.06.001>

Received 1 November 2018; Received in revised form 24 May 2019; Accepted 3 June 2019

8755-7223/ © 2019 Elsevier Inc. All rights reserved.

particular institution, the challenge for dissemination is to identify appropriate audiences to ensure maximum impact. The digital repository serves as a focal point for such dissemination.

While each institution's DNP program has the latitude to develop their own repository based on their goals and needs, we found little information in the literature about the steps or guidelines for establishing a repository. This article describes our two-year journey in exploring the digital repository literature, finding a home for our DNP project collection, setting up guidelines for repository submission, and taking steps to pilot and launch our DNP project repository. Outcomes and lessons learned are included as well as repository submission experiences of two DNP students.

### Getting educated about digital repositories

Repositories are used to disseminate or archive scholarship, promote e-scholarship and digital publications, and document scholarly output for an institution (Crow, 2002). Together with the GW librarians, our DNP repository development team searched for information on the process and structure for building repositories used by others. For our initial review in 2016, we searched the internet to locate DNP programs that already had established online repositories. Of 15 nursing schools identified, we assessed whether these schools deposited DNP projects in the larger university repository or maintained a DNP specific repository. Of the 15 schools reviewed, only six maintained specific DNP repositories. Also as part of this initial review, two other repositories containing DNP projects from many different institutions were explored, i.e., Sigma Theta Tau International (STTI) Virginia Henderson Global Nursing e-Repository (<https://www.nursingrepository.org/handle/10755/624008>) and the DNP Doctoral Project Repository (<https://www.doctorsofnursingpractice.org/project-repository/>).

In 2017, another search was conducted of the internet and specific websites for the top 15 DNP programs listed in *U.S. News & World Report's Best Nursing Schools* (U.S. News & World Report, 2017) to determine whether they had established DNP project repositories. Of these top 15 DNP programs in 2017, two had a specific DNP project repository (although one had no projects in their collection) and seven had digital theses or dissertation collections in which DNP projects were incorporated into the larger institutional collection of doctoral projects that included works from other departments. Six schools did not have DNP project repositories.

For those schools with DNP specific repositories, there were a variety of organizational formats for these repositories with some organized by year, some alphabetically by author name, and some by project topic. Also the content of these collections varied with some that contained only abstracts, others contained only posters, and some contained the complete DNP project. These institutions also employed a variety of repository platforms, such as DSpace (<https://duraspacespace.org/registry/>), Digital Commons (<https://www.bepress.com/categories/wdc/all-institutions/>), Eprints (<http://roar.eprints.org/>), Islandora (<https://islandora.ca/>), Fedora (<https://docs.fedoraproject.org/en-US/project/>), and CONTENTdm (<https://www.oclc.org/en/contentdm/collections.html>). Some institutions simply provided a list of PDFs on the institutional website.

Next, the digital repository platforms were compared for the management, infrastructure, and organization that they provided. Many established repository collections were identified, and they were labeled as digital repository/archives, digital commons, eRepository, virtual archives, open access repository, and institutional repository. A number of larger academic institutions whose repositories cover a broad spectrum of scholarly output simply call their overall collections "ScholarWorks" even though they use a variety of institutional repository software platforms. Digital institutional repositories (first established in 2002) consist of scholarly content that is controlled or disseminated by a university through licensing agreements for digital

content, created by faculty, research staff, and students, and available to those both within and outside the university (Crow, 2002; Lynch, 2003).

Institutional repositories employ a variety of configurations. They can be hosted by a third party, or locally; the software can be open source or proprietary; and the various platforms can offer numerous options for customizing digital collections, reporting and metrics, and preservation. Bankier and Gleason (2014) recommend features in establishing a strong institutional repository. For example, content should be easily discoverable, allow for social media interactions such as sharing, provide strong backend tools for tasks such as document importing and administrative reports, accommodate formats beyond print such as images, and ensure long-term preservation or archiving of documents. Additional features may include publishing tools and customizable front-end designs (Bankier & Gleason, 2014).

### Issues to be considered

As a result of our exploration, several issues were identified that needed to be discussed before establishing a DNP project repository. For example, we wondered why more DNP programs did not have repositories and whether the limited number of searchable DNP project repositories was a reflection that other schools had not yet developed their own. Another question was whether other schools opted to house their DNP project repositories within the confines of the university readership, but not through an open access source. Is it possible that DNP programs were concerned about sharing undesirable findings from a project or from its data collection site in an open access forum or were the data collection sites unwilling to allow findings to be published? It was unclear why some repositories only made the abstract or poster available, but not the full project. There also was a question as to why some programs aggregated their DNP projects within the larger university collection of doctoral projects that included works from other departments. We noted that some repositories had only a few DNP projects in their collection and wondered whether this was because of the small DNP class size or because submitting projects to the repository was optional for students rather than required. These were some of the critical issues our DNP repository development team considered in our decision-making steps.

### Choosing a home for our DNP project repository: Health Sciences Research Commons

Following this exploration, the chief administrator was contacted for our Health Sciences Research Commons (HSRC) digital archive, who was responsible for metadata entry and curation, to explore developing a DNP project repository within our university. Our HSRC open access digital repository, established in 2012, is hosted on the Digital Commons platform by Berkeley Electronic Press (Bepress). With Digital Commons repositories, Bepress handles the information technology, archiving, and backup of content, avoiding duplication of effort and freeing library staff to collect and curate scholarship (Crow, 2002). Over 500 institutions, among them research universities, law schools, professional schools, medical schools, health care networks, societies, research institutes, and public libraries, use Digital Commons to manage, publish, and showcase their work. The hosted service, combined with customizable metadata and a robust suite of metrics and analytics, make Digital Commons a popular choice for many institutions to showcase their scholarship.

Our HSRC supports the research interests and output of GW's three health sciences schools: (a) the School of Medicine and Health Sciences, (b) School of Public Health, and the (c) School of Nursing. The HSRC contains an array of scholarship produced by the health sciences faculty, students, and staff. Major collections include a range of clinical and research activities; global health initiatives; faculty publications; grey literature such as health policy white papers, issue briefs, and

congressional testimonies; open access teaching materials; conference posters; student capstone projects; historical collections; journals; and newsletters (Himmelfarb Library, n.d.). Bepress works closely with Google to optimize discoverability of the content hosted on their platform, and subsequently, our HSRC content routinely appears at the top of Google Scholar searches on certain topics. HSRC also embeds metrics for scholars to gauge the impact and reach of their research. The PlumX widget, which appears for each full-text work uploaded to the HSRC, tracks the number of downloads, mentions of the work in news and other media, shares, and citations on academic platforms such as Mendeley, and appearances in citation indexes that an article receives.

Our DNP development team eventually was able to articulate our desired repository criteria. The optimum site needed: (a) a flexible repository platform with established infrastructure and organization, (b) editorial quality and professional layout of the platform, (c) visibility in online search rankings, (d) long-term archival stability, (e) reasonable costs, and (f) ease of submission (Crow, 2002; Lynch, 2003). The HSRC met our criteria for a-d above. We learned there would be no additional cost to the GW School of Nursing or to students for developing, maintaining, and submitting projects to the repository beyond the library's annual subscription. Moreover, the DNP development team could customize the repository submission guidelines for students, which was an important consideration. With our criteria met, the DNP faculty adopted HSRC as the home for our DNP project repository.

### Developing our DNP project repository

Having found a repository home, the next step was to develop guidelines for repository submission. Three documents were created: (a) a license granting our library the right to archive a digital copy of the project in HSRC, (b) a workplace/study site permission form to publish the DNP project, and (c) the student guidelines for which documents needed to be submitted to the HSRC repository.

#### *Non-exclusive distribution license*

First, a non-exclusive distribution license was created that grants our HSRC the right to archive these projects in perpetuity. The DNP-specific license details the benefits of submission, the author agreement regarding licensure, the option to embargo the project, and the agreement to submit the required documents to the library (Appendix A, Table A.1).

Our team discussed the level of copyright protection to assign to the DNP projects. HSRC offers a range of copyright options to fit authors' needs, from the more traditional and restrictive "All Rights Reserved" language, to the Creative Commons licenses that offer varying degrees of flexibility regarding what others may and may not do with a published work (<https://creativecommons.org/licenses/>). Creative Commons licenses are based on choices made in the following categories:

- **Attribution (BY):** Others who use the work must give you credit as the source.
- **Share Alike (SA):** Others may copy, display, distribute, perform, or modify your work, as long as they distribute the modified work under the same terms.
- **Non Commercial (NC):** Others may copy, display, distribute, perform, and modify your work, as long as the use is not commercial.
- **No Derivative Works (ND):** Others may copy, display, distribute, and perform your work in its original form. Permission must be sought from the creator to modify the work. (Creative Commons Licensing Types, n.d.)

The default copyright option in HSRC is "All Rights Reserved", which permits others to access and quote the work and reproduce in limited circumstances under Fair Use Guidelines for purposes of

teaching and learning, but it does not allow wholesale reproduction of the work or derivative works to be created and distributed (Copyright Law of the United States, 2016). Ultimately, we wanted to provide students with the highest level of protection regarding the rights to their published works. Because the Creative Commons licenses are a fairly new development in the publishing world, we believed that students are more likely to be familiar with the copyright symbol and "All Rights Reserved" message and understand its implications. Therefore, the All Rights Reserved copyright standard was added to the author agreement.

Finally, the team explored how to accommodate students who planned to publish their DNP project in a scholarly journal after graduation. Our library does not provide any formal publication assistance to HSRC authors such as typesetting, copyediting, or peer review; nevertheless, the act of archiving the full DNP project with a copyright in a repository is considered publishing the work. There was a concern that archiving the DNP projects in an open access repository might constitute "prior publication," which is prohibited by most peer-reviewed professional journals (i.e., an author may not submit a manuscript for publication that has already been published or is being considered for publication elsewhere).

Because this topic was an area of concern for some of the DNP students, we offered students the opportunity to embargo their DNP projects for a time period of their choosing, between 6 months to 2 years. The embargo function has long been a popular feature of Digital Commons repositories and is used by many institutions that archive dissertations and theses. An embargo is a restriction placed on a work during a limited period of time. During the embargo, no one may view or download the work, besides HSRC administrators and members of the DNP faculty upon request. Embargoing is an option for those who plan to publish in the future and do not wish to immediately make their data publicly available. If students wished to embargo their work, they designated the embargo period on the Non-Exclusive Distribution License (Appendix A, Table A.1).

Before archiving a DNP project in the repository, there was a need to ensure that the work was in compliance with several regulatory issues. Therefore, the last section of the Non-Exclusive Distribution License included a checklist regarding whether the student had obtained GW Institutional Review Board (IRB) approval, a HIPAA (Health Insurance Portability and Accountability Act of 1996) waiver, and workplace/study site permission to publish their DNP project in the repository.

If a student's project involved human subjects research, he/she needed to document the written determination from GW IRB. If not, the student needed to document a written statement from the IRB that the project did not meet the criteria for human subjects research. Moreover, some student projects collect protected health information (PHI) that is governed by HIPAA. It was important to ensure students were in full compliance with HIPAA regulations. Students with projects that accessed PHI needed to document a copy of their IRB HIPAA waiver and written permission from the institution's privacy officer for data use.

#### *Workplace permission form to publish DNP project*

The majority of DNP students collect data for their projects from their workplace, which includes hospitals, clinics, long-term care agencies, private practice physician offices, government agencies, and others. There were concerns about making proprietary workplace data available in a publicly-accessible repository, especially if the findings from the project might reflect poorly on the student's workplace institution. While there was an additional concern that obtaining workplace permission might present obstacles for students that could prevent them from submitting to the repository, it was believed that such permission was needed for the benefit and protection of the workplace to ensure they supported the dissemination of the findings.

Because of these concerns, it was decided that our DNP students needed to secure written permission from the appropriate authority at

their workplace (e.g., nursing research director, chief nursing or medical officer, or a division or clinic director) to use and publish the data collected at the workplace in our open access repository. In developing this workplace permission form (Appendix A, Table B.2), students were directed to have their final DNP project reviewed by the appropriate authority at their workplace and obtain the signed workplace permission form. They were cautioned that securing such permission could take significant time to obtain and, therefore, they should start early and plan ahead.

#### *Guidelines for submitting to the DNP project repository*

Once the supplementary forms were finalized, the student guidelines were developed for repository submission. However, first, the DNP faculty agreed that all DNP students were expected to submit their projects to the repository before graduation. Exceptions to this requirement based on individual or unforeseen circumstances, however, could be made in consultation with the DNP project team and DNP Director.

In the submission guidelines (Appendix A, Table C.3), several terms were defined for students (e.g., “DNP project submission,” “distribution license,” “DNP project advisor approval page,” “IRB determination,” “HIPAA waiver,” and “workplace permission form”). Students were given instructions about obtaining final approval from the DNP project team prior to submission and the steps involved in submitting their project and the requested forms, which were archived for each student by the library.

#### *Repository pilot phase (2017)*

As a next step, the GW HSRC librarians set up the DNP project repository URL ([https://hsrc.himmelfarb.gwu.edu/son\\_dnp/](https://hsrc.himmelfarb.gwu.edu/son_dnp/)) and the metadata fields for the record attached to the project. Metadata is usually defined as data about data (Riley, 2017). Careful development of a metadata scheme is an important step in creating a successful repository (Marsh, Wackerman, & Stubbs, 2017). Good metadata provides key information about the project and promotes the project's findability on search engines such as Google Scholar. The metadata selected for our repository included the DNP project title, author, department, document type (“DNP project”), date of degree, name of degree, primary advisors, abstract (including background, objectives, methods, results, conclusions), keywords, copyright notice, and recommended citation followed by the full final DNP project report.

We then invited a small group of DNP students who had already graduated in 2017 to submit their DNP projects to the repository as a pilot collection. Six 2017 graduates responded to the invitation to submit their projects along with the supplementary forms to HSRC. When a project was received, the HSRC librarians created a record for the project, applied metadata tags, appended the “All Rights Reserved” copyright message, generated a unique URL for each project, and sent the final URL to the graduate.

The feedback received from the 2017 graduates about the pilot collection was positive. Students were excited to have the opportunity to permanently archive their projects and have a shareable link to include on their resume, curriculum vitae, and job applications. They reported that they did not have difficulty in obtaining workplace permission to submit to the repository and they did not have questions about submitting the required forms.

#### *Repository launch phase (2018)*

Based on the success of the pilot DNP project collection, we moved forward in requiring DNP project repository submission for our upcoming 2018 graduating DNP student cohort. The submission and supplementary forms were made available in the students' DNP Blackboard course. At the beginning of the graduating semester, a

student webinar was hosted that described the archiving process, outlined the benefits of archiving their projects in HSRC, clarified what forms were needed for submission and where those could be located on Blackboard, and addressed any questions or concerns they might have. Every attempt was made to anticipate questions, such as whether archiving their projects in HSRC would adversely affect their chances of getting published elsewhere and options available if a student's workplace refused to grant permission for repository submission.

As part of the DNP project final course, all DNP projects were submitted to plagiarism-detecting software. Instructions were provided to complete spelling, formatting, and reference checks of their final paper. Students were advised to remove any copyrighted materials such as surveys, figures, or appendices unless they had written permission to do so. Students also were advised not to submit to the repository until the DNP project team had approved the final report.

The deadline for repository submission was a month before the 2018 graduation date to ensure that library staff had enough time to upload the project, apply metadata tags, and generate the unique URL for each project. Students then submitted their unique URL to their DNP project advisor as documentation they had completed this requirement before graduation.

#### **Outcomes of repository launch and lessons learned**

Out of 36 DNP graduates in 2018, 34 DNP projects were successfully submitted to our DNP project repository. However, several students were able to obtain workplace permission only after they de-identified the data collection institution throughout the report. As a result, we now advise students to de-identify the workplace institution throughout the final project report. Seven students elected to apply an embargo. Two students did not submit to the repository because they were unable to obtain workplace permission. These two projects were instead archived in a private folder within the DNP program where they would remain available to faculty but not the public. Once the collection was launched, the DNP project repository was publicized within our school, on school and library social media channels, and in external communications.

A readership map can be found at the bottom of our DNP project repository main page URL ([https://hsrc.himmelfarb.gwu.edu/son\\_dnp/](https://hsrc.himmelfarb.gwu.edu/son_dnp/)). The readership map indicates the geographic location of the reader, which project has been downloaded, and the total number of downloads for the year. For example, our student DNP projects have been downloaded around the world at a rate of over 200 downloads per week, which reflects the degree of global networking occurring after launching the repository.

The response from the official launch of the 2018 DNP collection was mostly positive from DNP students, the DNP faculty, and HSRC staff. Also, the repository submission deadline seemed to work well and students indicated that, with enough lead time, the DNP project deposit process was logical and manageable.

However, there were some issues in the submission process that are now being addressed. Some students were unsure which supplementary forms were required for their projects. Not every project required every form. For example, if a project did not contain PHI, a HIPAA waiver was not needed. If a project did not involve any workplace data, a workplace permission form was not needed. In most cases, HSRC staff was not equipped to answer student questions but referred them back to their DNP project team. The DNP faculty also emphasized the necessity that the DNP project team must provide final approval before submission and the DNP primary advisor direct the repository submission process. Because this did not happen in a few cases, a requirement has been added on the Non-exclusive Distribution License that all DNP project team members approve the final project before repository submission.

## Two DNP student experiences in submitting to the DNP project repository

Two of the 2018 DNP graduates were willing to describe their experience in submitting their DNP projects during the launch phase of the repository. Both students attended a live webinar describing the DNP project repository submission requirements and guidelines at the start of their graduating semester. Their initial thoughts were much like any typical DNP student, “Another task, easy assignment!” In retrospect, they realized there was much more involved. For the repository submission, they were tasked with documenting that they had obtained IRB project approval, a HIPAA waiver, and acquired written permission to publish the data in our open access repository from the respective facilities where the data were collected. One academic medical center promptly granted permission, while the other academic medical center took a few weeks since it was the first time such a request was encountered.

One of the students chose a two year project embargo to prevent copyright infringement prior to possible publication in a peer-reviewed journal. The other chose not to embargo primarily because of his excitement in disseminating the results and conclusions of the research. In the latter's case, not fully understanding the implications of embargoing his work may have been a factor in his decision. This student experience led to the conclusion that understanding the repository requirements early in a student's program would allow the student to become more comfortable with the process as the program progressed.

Being a copyright owner and seeing the URL link on a professional-appearing website within the repository was rewarding for the students. They felt a sense of accomplishment and success. They also felt empowered when they were able to share their unique project URL with colleagues at the local, state, national, and international level. As part of the pioneering group submitting to the DNP project repository, they were motivated to prepare a manuscript for publication so the results of their DNP project could be further disseminated.

The students noted that the projects found in the repository have the opportunity to influence global nursing care as evidenced by viewing the readership world map at the bottom of the repository page. They felt inspired knowing that their research findings could be accessed, referenced, and applied to practice worldwide.

### Joint authorship

The comments from the two 2018 DNP graduates illustrate how they are seizing the opportunity to publish, which demonstrates advanced nursing practice and leadership for evidence-based practice. Their enthusiasm can be particularly validating for the DNP faculty who have invested several semesters of work and substantial mentoring and guidance of the student and his/her project. For those students who may be interested in publishing, we offer a student and faculty webinar about transforming a DNP project into a manuscript for publication. Students are encouraged to first consult with their DNP project team to determine whether the project is appropriate for pursuing publication. We recommend, but do not require, that students include their DNP project team as coauthors on the manuscript if each team member meets criteria for authorship as outlined by the International Committee of Medical Journal Editors (ICMJE) (<http://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html>). Students are asked to read the International Academy of Nursing Editors (INANE) survey on student papers submitted to nursing journals that describes many of the problems and issues editors have identified associated with publishing student projects (Kennedy, Newland, & Owens, 2017). Authorship criteria, authorship order with the student being the principal author, approaches for identifying a target journal, and exploring author guidelines from various journals are discussed. Also included in the webinar are strategies for transforming the full DNP project report into

a 12–14 page manuscript, the journal submission process, and interpreting the editor's publishing decision.

In addition, students are advised to investigate the SHERPA/RoMEO database (<http://www.sherpa.ac.uk/romeo/index.php>) to review copyright and self-archiving policies of specific journals. Although many journals grant permission to submit an article to a journal based on work already submitted to an institutional repository, it is the author's responsibility to determine what is permitted. If in doubt, students considering publishing their projects in a peer-reviewed journal should contact the target journal editor to discuss the acceptability of submitting the full DNP project report to their digital institutional repository prior to journal submission.

Faculty also may find benefit in the joint authorship of the DNP project beyond the institutional repository, which provides recognition and may contribute to the success of gaining eventual publication elsewhere (Becker, Johnson, Rucker, & Finnell, 2017). However, DNP faculty may be concerned that after advising on the project itself, they need to devote additional time in providing guidance on scholarly writing, navigating the process of placing work in the repository, and assisting students to prepare manuscripts for publication.

### Conclusions

This article traces the evolution of an idea about sharing DNP projects to the successful development of our university-based HSRC DNP project repository. The initial driving force for the repository was the recommendation from AACN 2015 to archive DNP projects in a digital repository. However, our DNP repository development team soon saw additional advantages of the repository beyond AACN compliance. DNP graduates now have an opportunity to globally showcase their work in an accessible venue. Our school is able to highlight the breadth of nursing research undertaken by our students and further promote scholarship in the nursing profession. This article describes how a DNP project repository was established, the discovery that was needed, the issues that were considered, the decision making process, and the outcomes of launching the repository. The examination of this journey may guide others embarking on a similar path.

### Declaration of Competing Interest

None.

### Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.profnurs.2019.06.001>.

### References

- American Association of Colleges of Nursing. The Doctor of Nursing Practice: Current issues and clarifying recommendations. (2015). <https://www.aacnnursing.org/Portals/42/DNP/DNP-Implementation.pdf> Accessed 3 August 2018.
- Bankier, J.G., & Gleason, K.: UNESCO. Institutional repository software comparison. (2014). <http://unesdoc.unesco.org/images/0022/002271/227115e.pdf> Accessed 27 July 2018.
- Becker, K., Johnson, S., Rucker, D., & Finnell, D. (2017). Dissemination of scholarship across eight cohorts of doctor of nursing practice graduates. *Journal of Clinical Nursing*, 27, e1395–e1401. <https://doi.org/10.1111/jocn.14237>.
- Copyright Law of the United States (2016, December). Limitations on exclusive rights: Fair use. <https://www.copyright.gov/title17/92chap1.html#107>, Accessed date: 7 August 2018.
- Creative Commons Licensing types (n.d.) <https://creativecommons.org/share-your-work/licensing-types-examples/>, Accessed date: 24 July 2018.
- Crow, R. (2002, August). The case for institutional repositories: A SPARC position paper. Association of Research Libraries. <http://www.sparc.arl.org/resources/papers-guides/the-case-for-institutional-repositories> Accessed 3 July 2018.
- Himmelfarb Health Sciences Library Vision statement (n.d.) <http://himmelfarb.gwu.edu/about/mission.cfm>, Accessed date: 19 July 2018.
- Kennedy, M., Newland, J., & Owens, J. (2017). Findings from the INANE Survey on student papers submitted to nursing journals. *Journal of Professional Nursing*, 33(3), 175–183. <https://doi.org/10.1016/j.profnurs.2016.09.001>.

- Lynch, C. A. (2003, February). *Institutional repositories: Essential infrastructure for scholarship in the digital age*. Association of Research Libraries (ARL) <http://old.arl.org/resources/pubs/br/br226/br226ir~print.shtml>, Accessed date: 1 July 2018.
- Marsh, C., Wackerman, D., & Stubbs, J. A. W. (2017). Creating an institutional repository: Elements for success!. *The Serials Librarian*, 72, 3–6. <https://doi.org/10.1080/0361526X.2017.1297587>.
- Riley, J. (2017). *Understanding metadata: What is metadata and what is it for?* Baltimore: National Information Standards Organization (NISO). [https://groups.niso.org/apps/group\\_public/download.php/17446/Understanding%20Metadata.pdf](https://groups.niso.org/apps/group_public/download.php/17446/Understanding%20Metadata.pdf), Accessed date: 22 October 2018.
- U.S. News & World Report (2017). Best nursing schools: Doctor of nursing practice. <https://www.usnews.com/best-graduate-schools/top-nursing-schools/dnp-rankings>, Accessed date: 20 July 2018.