

This Spencer Foundation Small Research Grant seeks 50,000 to support the #CheckOutMyDomain project, which will improve digital literacy and civic education by allowing patrons to check out website URLs from their local library.

Problem

The domination of the web by[MJG1] social media giants has dark implications for society and children. The rise of algorithmic news feeds, which prioritize or diminish content based on automated decisions whose logic is rarely apparent to users (Eslami et al., 2015) has contributed to the rise of fake news with over 70% of all misinformation arising on just seven websites (Knight Foundation, 2018). Youth now have friendships determined in media environments supported using business models predicated on platforms' capacities to aggregate and commodify users' participation (Cohen, 2013) through likes and reshares.

Yet more and more communities benefit from the networking possibilities provided by social media. How can we have a robust local web that supports rather undermines democracy? We believe you begin by encouraging a local web. History has taught us this requires a digitally literate society and a local library.

We believe establishing the local library as a place to onboard patrons to the web will help overcome issues we face in education (Leu et al., 2015), economics (Introna, 2014), and politics (Pariser, 2012). This proposal would create a system for local library patrons to check out a domain, a web address (url), and storage. Using a Deweyian lens of democratic education, we believe our libraries should be designed as anchors of the local web.

We believe encouraging people to have their own website allows them to[MJG2] own their content, control their data and to build their networks as they in turn support the local web with their growing skills. If funded this grant will allow participants to build digital literacy skills by contributing to public knowledge, preserving culture, and connecting with each other.

Theoretical Perspective

As educators we must shape the spaces of learning to meet ideals of democratic education (Dewey 1934). For Dewey democracy is a way of being, of experiencing the best collective action humans could muster. The web is no different. Building a better web builds a better democracy.

Dewey (1927) noted, '[a] Great Community can only occur with free and full intercommunication' (p. 211). In terms of fighting fake news and wresting back control of from powerful search engine and social media companies, we must build a shared experience around common goals with elements of experimentation and criticality (Bruce

& Bishop, 2005). Such community inquiry allows people to construct knowledge from both the personal and the collective (Shore et al., 1996).

Accordingly based on Dewey (1934) that thinking occurs in "forked road situations" where we are presented with problems and must work through proposed alternatives. Dewey argued that through training we can transform learners' natural capacities to project future outcomes into the habits of critical inquiry.

Research Plan

This grant will utilize formative experiments (Cobb, Confrey, diSessa, Lehrer, & Schauble, 2003; Reinking & Bradley, 2008) to ask what *could be* from a mixed-methods perspective. This project will use four to meet our goals: 1:) Collect Baseline Data, 2:) Develop Intervention. 3:) Implement Intervention, and 4:) Retrospective Analysis.

We begin our study with the pedagogical goals of improving the digital literacy skills of the participants while also supporting the quality of the local web.

Specifically:

- Does the ability to check out a domain from a library lead to an increase in local content and civic engagement on the web?
- Do library patrons who check out a domain show improvement in digital literacy skills?

Recruitment Plan

In year one we will work with libraries to recruit participants. In year one we will have 30 participants at two libraries for a total of 60 patrons. Participants will be recruited from existing tech programs and participants who attend adult literacy programs. This approach should hopefully lead to pool of candidates that is multi-generational and have a variety of technical abilities.

In year two the recruitment plan will rely heavily on year one participants to encourage people in their existing local networks to join. We will allow up to 100 participants at each library and rely on year one participants to serve as leads.

Phase 1: Baseline Data

The project will begin with a brief snapshot of the digital landscape of communities and partnerships. Baseline data for participants will be conducted in one to one interviews about how they use the web. Semi structured interview questions will ask about past social media experience, computer experience, website building, social media, and HTML ability.

Social media will be examined to see if there are popular local hashtags. All data from social media will only be reported in the aggregate. Only artifacts, like posts to social media, will be included for participants with explicit permission.

Phase 1: Data Analysis

In order to understand the local context in which we will iterate on our design, the quantitative and qualitative data collected prior to the study will be triangulated using thematic network analysis (Attride-Sterling, 2001).

We will then use persona design (Klein, 2015) as a method of case study analysis. In persona design you create fictional representations of users. By empathizing with user needs we will be able to customize our interventions for our participants.

Phase 1: Expected Outcomes

By the end of phase 1 we will have an understanding of the users and local communities and will know how to adapt our pre-existing training programs/.

Phase 2: Develop Interventions

In year one and two, phase 2 will begin with iterating on training sessions. Dr. McVerry and the graduate student will use the persona and community data to plan the two day institutes. We will draw on a decade of experience in developing production-based learning camps (Celik, 2008). The principal investigator has organized many conferences and events using unconference pedagogies found in edcamps and barcamps.

The institutes will involve instruction in the morning for group sessions and then participant lead sessions in the afternoon. The second day will be a design studio. The day will conclude with demos of websites or tools built during the meeting.

The first institute will cover what can be done from your own domain, our responsibilities to each other online, how to build a basic blog and website. The second session will focus on building your most credible self and will encourage participants to document something they learn or an activity to make the world a better place.

Phase 2 Data Analysis

Data analysis on phase two will focus on feasibility and ecological validity [MJG3]. Field notes and reflections from the designers will be analyzed to our pedagogical goal in terms of audience needs that emerged from phase one. We will differentiate instructional routines accordingly.

Phase 2: Expected Outcomes

A plan and developed sessions for face to face and online meetings.

Phase 3: Intervention Implementation

In years one and two the implementation of interventions will follow roughly the same schedule developed in phase two (See the timeline in Appendix). Participants will attend two face to face sessions and be required to complete online training to keep their domain.

Phase 3 Data Analysis

To measure the progress of our pedagogical goals, both qualitative and quantitative data will be collected throughout the study. We will use two measures for digital literacy skills.

Participant HTML ability will be used as a proxy measure for overall digital literacies skills. Blog post and/or website pages will be collected **as** set intervals. HTML parsers, which can separate pieces of websites based on specific tags, will be used to quantify the use of HTML and to track changes to websites over time.

We will also develop a reflection based badging system^[MJG4] to track digital literacies skills. A series of badges (see Appendix for example) will be developed from the NCTE Framework for 21st Century Curriculum and Assessment (2017). Participants will submit reflections explaining how different media they create meets the criteria for competency.

To track network effect, a variety of tools will be used. First a feed of all user websites and comments will be collected. Second, local hashtags will be monitored for frequency of growth. Finally, webmentions.io will be used to capture whenever a website receives a mention across the web. A webmention is a link between two websites where website A lets website B know, "I linked to your site," and then website A can display that mention. To analyze this data dimensions of tie strength, how well people and community are connected, will be measured in on three scales trust, enjoying socializing, or discussing important matters (Marin & Hampton,2007) across a media (Jaimeson, Bose, & Kobayashi, 2018).

In terms of qualitative data, we will also take extensive field notes and write weekly reflections as participant observers in the study. We will also conduct content analysis of **users'** post to identify explicit mention of their own improving digital literacy skills or the overall health of the local web.

Phase 3: Expected Outcomes

After phase three in year two up to 60 participants will be trained. If they attend three of the online sessions and the second training participants can check out their domain for a second year.

After phase three in year two, additional participants will complete the training. This will allow us to measure the impact of the network and the digital literacy skills of participants at numerous timepoints.

Phase Four: Retrospective Analysis

Tashakkori and Teddlie (1998) called for “theoretical triangulation” (p. 41), which will align with experiencing democracy education for the web. We will be conducting an analysis of all the data to push our theoretical understandings forward, so we can make recommendations for making the public library the keystone of the local web.

By employing “a variant of Glaser and Strauss’s (1967) “constant comparative method” (p. 38) we will identify key moments that illustrate how the intervention either enhanced or inhibited the pedagogical goal.

The data collected by the badging platform will be invaluable. We will have descriptive statistics to examine for patterns. We can also perform content analysis on user artifacts submitted in badge applications.

Given the smaller sample size we may only be able to report descriptive or difference in means testing of HTML skills. However, if we meet the power assumptions, We will compare growth of digital literacy skills, by building growth curve models.

We will also utilize social network analysis to understand the infrastructures, human and nonhuman relationships, affordances (Introna, 2014) through our continued measure of tie strength along trust, enjoying socializing, or discussing important matters

Conclusion

#CheckoutMyDomain Project seeks to build social problem-based learning around shared goals. In conjunction with local libraries we provide users a place to live online and help build this infrastructure.

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Notes:

The final framing and methodological techniques included in this study design would not have been possible without Jack Jamieson and his contributions to this project:

<https://github.com/jgmac1106/bloggingme>

Timeline

Timeline August 2019-August 2021

8/19-11/19

Curriculum Development. Dr. McVerry and the student worker will finalize the sessions for the institutes. These sessions will borrow heavily from the design of barcamps, edcamps, and indiewebcamp. They will be production based lessons around both shared and individual goals.

9/19-11/19

Dr. McVerry will work with libraries to recruit participants. Two populations will be targeted those who attend existing tech programs and patrons who attend adult or young adult literacy programs

10/19-11/19

Collect Baseline data. Interview local stakeholders about state of local web. Focus Group and interviews with participants. Participant social media logs.

11/19

Training One: What should the local web look like? Develop Code of Conduct. Learn basic website features. Launch Blog

12/19-2/20

Three weeks of online digital coaching. We will run a minicourse and have online design studios where participants can receive help

2/20

Training Two: Building Your Most Credible Self. Create home page, about me page.

3/20-6/20

Four weeks of online digital coaching. We will run a minicourse and have online design studios where participants can receive help

5/20-7/20

Data Analysis. Identify factors that enhanced our pedagogical goals of improving digital literacy and the local web

6/20-8/20

Curriculum Revision. Based on the results of data analysis we will revise the training materials and courses for the second cohort of patrons

7/20-9/20

Patron recruitment. First year cohort will reach out to peers and we will advertise widely in participating libraries

10/20

Training One: What should the local web look like? Develop Code of Conduct. Learn basic website features. Launch Blog

10/20-12/20

Three weeks of online digital coaching. We will run a minicourse and have online design studios where participants can receive help

2/21

Training Two: Building Your Most Credible Self. Create home page, about me page.

3/21-6/21

Four weeks of online digital coaching. We will run a minicourse and have online design studios where participants can receive help

5/21-8/21

Data Analysis. Reflect on how well we improved digital literacy skills of participants and the effect on the local web

Key Personnel

Dr. J Gregory McVerry will dedicate 4.2% of his efforts over the lifetime of the grant at a cost \$27,809.43. This rate is calculated using contracted agreements with the State of Connecticut. As Principal Investigator Dr. McVerry will be responsible for research design and analysis. Dr. McVerry will also facilitate in person sessions at local library branches.

Dr. McVerry will charge the grant X dollars in fringe as calculated by Y.

Graduate Student Work a graduate student worker will be hired for 20 hours a week for the lifetime of the grant at a cost of \$15.00 for a total of \$19,200. The graduate student will be responsible for all data collection and will also organize both physical and online events. The graduate student will charge the grant X dollars in fringe as calculated by Y.

Non-Personnel

Travel

Two thousand dollars annually is built into the grant to cover the cost of site visits. 1,000 reserved annually to Dr. McVerry to visit out of states for events. Or conferences. The remaining 1,000 is for in-state travel by the graduate assistant at a cost of \$0.53 a mile.

Consultants

Alan Levine, an international expert of online pedagogy. He will provide 8 weeks of instruction each year at a rate of two teaching and two prep hours per week for \$400.00 per week.

Subscriptions

Shared hosting will be provided by Reclaim Hosting at a cost of \$30 per account annually. 60 accounts for a cost of 900 in the first year. In the second year up to 200 accounts will be made available. The total cost shared hosting will be \$7,400. Any unspent accounts will be donated to participating libraries to continue the programs in following years and to archive sites locally.

Appendix: Example Badge File.

The badging platform will be based on the NCTE Framework for 21st Century curriculum and assessment. A participant will complete a task as part of CheckOutMyDomain. They will then send a reply post to the project website that provides a link to the project and reflection as to how the criteria were met. The project leaders would then send this badge file back as a reply to the application.

```
<title>Digital Hygeine Badge</title>

<body>

  <div class="h-entry">

    <div class="u-author h-card">
<!--This denotes who issued the badge-->

      

      <a href="https://edu522.networkedlearningcollaborative.com" class="u-url
p-name">J. Gregory McVerry, PhD</a>

    </div>
<!--This denotes the link to the application post submitted by learner-->

    <p>in reply to: <a class="u-in-reply-to"
href="https://mrkean.com/uncategorized/daily-ponderance-8-2/">Daily
Ponderance</a></p>
<!--This is the badge that is displayed-->

    <p class="summary">

      
```

You earned the `Digital Hygiene Level One Badge` badge as part of #CheckOutMyDomain

`</p>`

`<p class="e-content">`To earn the `Week Zero`: Digital Hygiene LVL 1 Badge you had to get a domain, launch a website, set up a blog, make a post and send your first webmention.`</p>`

`<p>`

`<!--Denotes Issue Date -->`

``

`<time class="dt-published" datetime="2018-08-04T17:15:00-0700">`August 8th, 2018`</time>`

``

`</p>`

`</div>`

`</body>`