Algorithm Literacy Initiative
2019 ENDOWED TEACHING CHAIR APPLICATION FORM

Please complete and submit the following application form and return it with your proposal. Please provide all requested information in typed form, and adhere to length guidelines indicated. Submit the application form along with the proposal to: Brianne Hutchinson, IRSC Foundation Office (A-135) or bhutchin@irsc.edu.

Please indicate one: ☐ Dr. ☐ Mr. ☐ Mrs. ☑ Ms.

Name: Kendra Auberry Phone Ext.: 6268

Current Professional Rank and/or Position Title: Assistant Professor

Department: Library Campus/Location: Pruitt

Signature: Kendra Auberry Date: 2/20/19

Dean/Supervisor Signature: Ahn Delaney Date: 2/20/19

Please check which of the following you are applying for (you may check more than one):

Endowed Teaching Chairs:

☑ Community Endowed Teaching Chair in Fine Arts
☑ Gladys Williams Wolf Endowed Teaching Chair in Communications
☑ J. Douglas Stephens Endowed Teaching Chair (any discipline)
☑ John and Marilyn McConnell Endowed Teaching Chair (any discipline)
Abstract

Algorithm Literacy Initiative

In a screen-based world where a limitless quantity of information is obtained with the tap of a finger, what gets lost is where that information is coming from as well as who is making the information easy to find via a smartphone. In a world where algorithms increasingly influence the decision-making processes of humans, it is critical that Indian River State College arm its students and faculty members with the ability to understand the implications of the code they come into contact with and question how and why that information is collected and manipulated. This project is an opportunity for students, faculty, and community members to discuss, research, reflect, and modify their behaviors in online environments to align with their true desires.

This project seeks to make a substantive impact on students by way of their participation in lessons designed and implemented by faculty across disciplines which push students to consider the impact of algorithms.

A sample of potential lessons include:
ENC1101 Search Results Comparison Activity: Database vs. Google
POS1041 The Role of Social Media Algorithms in the Election Process
BSC 4910 Google Scholar: The Role of Algorithms in Scientific Writing Impact Factor
WOH2040 How Do I Get Information? The Role of Algorithms in News Media Distribution
LIS1002 Examining the Google Search Result: What is REALLY Happening?

In addition to these classroom-based exercises facilitated by IRSC teaching faculty, instructional research sessions will be developed and offered which teach students basic algorithm literacy concepts in a one-shot instruction session taught by a librarian.

Library programming will complement these classroom lessons and offer the opportunity to connect to a wider audience on this important topic with events open to students, staff, and community members. Targeted discussions on the effect of algorithms in media consumption are also planned for the Fielden Institute of Lifelong Learning to build on previous programs taught by IRSC librarians.

Working titles of programs to be hosted by IRSC Libraries include:

Algorithms & Apps Workshops
Algorithms of Oppression
What’s Possible in Online Privacy Discussion Groups
Panel Discussion: Using Algorithm Literacy Lessons in the Classroom
A. Describe the problem or need to be addressed
Despite the fact that digital natives may feel comfortable using technology for social purposes, their ability to discern quality information in the online environment is “bleak,” according to a recent Stanford study measuring students’ ability to evaluate online information\(^1\). This large-scale and often-cited study found that college students had difficulty deciding which online websites could be trusted; had problems researching a claim made online; and found trouble in determining the partisan nature of some websites, discerning the benefits and disadvantages of online videos, and explaining the usefulness of social media posts in research.

The results of this study align with librarians’ personal experiences in helping students at IRSC with research projects across disciplines at the school. These are also the concerns of faculty across disciplines. Information comes across the screen of the smartphone of students, and they often have little to no knowledge of how it got there, who made it show up there, why it is showing to them specifically at that moment, and what the consequences of trusting that information might be.

There is significant research being conducted in the field of digital humanities on the issue of algorithms and the effects on students’ ability to discern quality information. This is the focus of Kendra Auberry’s research as a doctoral student at the University of Central Florida. This project will allow students and faculty to become aware of and take full advantage of the latest research on this topic and teach course concepts in a way that recognizes the impact of code on information retrieval and use.

B. Describe the goals and purpose of your proposed project/solution
The Algorithm Literacy Initiative project will require students, faculty, and community members to interact with the code that shapes their online experiences daily and to learn how to question the information with which they are bombarded. They will then use this reflection to make better informed decisions, in more educated ways, on how to use information that comes their way.

Its relation to the college mission
The college is committed to “sustain a learning environment that stimulates the intellect and inspires the imagination.” Students are often asked to turn off their phones when they enter the classroom. Both students and professors alike readily admit that smartphone use in the classroom is a point of contention. There is often not enough time for professors to get into why this tension occurs. Through their phones, students can find community and relate to others in

ways they have not figured out how to do in the face-to-face environment. Finding community in the online environment makes them more willing to trust information without question, even if they are not fully informed of the consequences or the scope of how information is being delivered to them via algorithms. Taking the initial step to broaden the information literacy skills to help students understand how information is coming to them will allow them to make more educated decisions in the classroom on which information to trust and which to question.

**Its relation to your department/division planning objectives**
The program learning outcome for IRSC libraries is that the information-literate student will be able to recognize an information need, conduct successful searches to fulfill the information need, evaluate the information gathered, and use information ethically. This program not only meets all of this criteria but also brings additional relevancy for the student by helping them to better understand how information is being delivered by way of their smartphone or search engine result list.

**Identification of the population to be served**
As a result of participating in this project through class lessons, **students** will better be able to:
- Identify the effect of algorithms in search results
- Explain how algorithms impact the way decisions are made
- Recognize inherent biases of popular search engines and information sources
- Manipulate settings of popular search engines and social media platforms to increase privacy
- Recognize the risks of online social media activity
- Discuss opportunities associated with opting into various algorithms
- Manipulate browser settings to limit the suggestive nature of online marketing to minimize temptation and distraction
- Identify ways to manage the collection and tracking of online data
- Utilize apps to manipulate the way information is consumed on a smartphone instead of relying on default settings
- Describe the role of bots in social media feeds and the civic implications of such activity
- Teach peers and community members basic algorithm literacy skills

As a result of participating in this project, **teaching faculty** will better be able to:
- Lead classroom discussions about the role of algorithms within their disciplines
- Design or utilize a lesson plan which incorporates algorithm literacy

As a result of participating in this project, all those who attend an associated IRSC Libraries Algorithms in Action Event (open to **community members**) will learn how to:
- Articulate the role of algorithms in obtaining and using information
- Manipulate browser and search engine settings to better manage the way personal information is collected and used
- Discover what apps are available to monitor and control the time spent on a smartphone
- Discuss controversial cases of algorithm manipulation
As a result of supporting this project, Indian River State College will:

- Provide meaningful connection points to information literacy for students, which is a component of the General Education Learning Outcomes (GELOs)
- Host meaningful dialogue on the role of algorithms in students’ lives

**Potential of project to improve instruction**

While not all instructors will be touched by this instructional opportunity, the greatest need right now in classes is to connect with students in meaningful ways. Lesson planning takes time. By rewarding an instructor with a small monetary incentive, they will not only update and improve lessons in their own class to include content specific to relevant algorithms which impact their career field, but they will also share that lesson with others who, as a result, may be more willing to try a new concept or lesson if all of the kinks have been worked out and a colleague is readily available to ask questions of as they try a new technique or approach.

**Potential of project to improve professional development**

The faculty information and training sessions about algorithms across the disciplines will take place in the Institute for Academic Excellence (IAE) as well as one-on-one sessions with a librarian, as time allows. Lesson designs will utilize teaching strategies shared through the IAE such as groupwork and active learning strategies where appropriate.

**Overall benefit to IRSC, students and the community**

As a result of this project, a greater awareness of algorithms and their influence will be had by students, staff, and community members.

**Impact and collaboration with other departments/divisions within the college or businesses or organizations in the community**

IRSC Libraries is a department which collaborates routinely with other departments and divisions, since its overarching goal is to increase the information literacy skills of the students, staff, and community members that it serves. Focusing its efforts via instruction and programming to algorithm literacy provides a platform for meaningful conversations as well the skill building that is required to better understand the complexities of algorithm literacy.
## ENDOwed Teaching Chair Project Outcomes

<table>
<thead>
<tr>
<th>Project Details</th>
<th>Tasks</th>
<th>Evaluation Methods</th>
<th>Timeline</th>
<th>Sustainability beyond 3 years</th>
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<tbody>
<tr>
<td><strong>Year 1</strong> Classroom</td>
<td>Recruit faculty members to create lesson plans. Implement algorithm lesson in LIS1002. Design &amp; implement one-shot instructional session.</td>
<td>Faculty questionnaire. LIS1002 lesson will include a graded assessment. Surveys will be distributed at one-shot sessions.</td>
<td>Faculty recruitment in and training sessions in IAE in year 1. LIS1002 and one-shot lesson implementation in year 1.</td>
<td>Record sessions and make training available via a Library LibGuide for future use. Include LIS1002 and one-shot lesson materials.</td>
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<tr>
<td><strong>Year 1</strong> Events</td>
<td>Algorithms &amp; Apps (Student and Staff Campus Events) Algorithms of Oppression (Fielden Institute of Lifelong Learning OR community offering)</td>
<td>Program evaluation survey</td>
<td>Work with librarians to plan and implement hands-on sessions at all campuses in year 1</td>
<td>Algorithms &amp; Apps LibGuide with additional resources created</td>
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<tr>
<td><strong>Year 2</strong> Classroom</td>
<td>Obtain finalized lesson plans from faculty and collect spring semester implementation information.</td>
<td>Completed lesson plan template. Classroom survey</td>
<td>Start collecting results of algorithm literacy lesson implementation</td>
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<tr>
<td><strong>Year 2</strong> Events</td>
<td>Online Privacy: What’s Possible? Discussions</td>
<td>Program evaluation survey</td>
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<tr>
<td><strong>Year 3</strong> Classroom implementation</td>
<td>Upload tested lesson plans to college repository</td>
<td></td>
<td>Collect all outstanding information about lessons and finalize payouts in year 3</td>
<td>Repository to hold lesson plans, handouts for future use</td>
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<tr>
<td><strong>Year 3</strong> Events</td>
<td>Panel Discussion: Using Algorithm Literacy Lessons in the Classroom</td>
<td>Program evaluation survey</td>
<td>Host Panel event in year 3.</td>
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**ENDOWED TEACHING CHAIR PROPOSAL BUDGET**

$4,000 per year can be used to implement the proposed plan.  
***Please discuss the budget with your dean/supervisor.***

<table>
<thead>
<tr>
<th>Budget Item (Salaries/Equipment/Expenses)</th>
<th>Cost (List amount and source of figures)</th>
<th>Justification</th>
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</table>
| **Year 1**  
10 iPad Minis | $399 each  
(https://www.apple.com/shop/buy-ipad/ipad-mini-4) | While the spirit of the Apps & Algorithms events will be “bring your own device,” the reality is that not everyone has a tablet or smartphone and it is difficult to teach sessions across multiple platforms. These iPad minis will be used to facilitate small group presentations in addition to supplementing existing technology of participants. |
| **Year 2**  
15 Faculty stipends for lesson plan development and implementation | $250 each faculty stipends  
$250 refreshments for Online Privacy events | Participating faculty will spend extra time to modify or change a current lesson. In exchange, they will receive a stipend upon submission of a completed Lesson Plan Template, administering the student satisfaction survey at the conclusion of the lesson, and sharing of any handouts and presentation documents necessary for other instructors to utilize the lesson. Light refreshments (bottled water and cookies) are appropriate for conversation-based library programs. |
| **Year 3**  
Travel funds for 2-3 faculty to present project at relevant conference | $4,000 | Traveling as an IRSC group to a relevant conference focusing on topics of algorithms and information literacy will keep momentum going to maintain the initiative beyond the 3-year project window as well as offer a chance for faculty to present about their project experiences. Number of faculty will depend on location of specific conference identified. |
Kendra W. Auberry
7229 SE Hobe Terrace ● Hobe Sound, FL 33455 ● (772) 634-4961 ● kauberry@irsc.edu

WORK EXPERIENCE

Indian River State College  July 2013–Present
Port St. Lucie, FL
Reference Librarian/Assistant Professor
- Support the Science, Technology, Engineering, and Math (STEM) functions of the College with library materials and resources.
- Teach credit and non-credit classes using a variety of teaching methods.
- Develop curriculum and learning objectives for library instruction classes.
- Participate in departmental projects and programs.
- Support the library's collection by performing acquisition and weeding tasks.
- Perform regular reference work in a joint-use library.
- Raise awareness and use of library materials and services to students and faculty.

Martin County Library System  March 2012–July 2013
Stuart, FL
Adult Services and Programming Manager
- Planned and directed adult services goals, activities and events for the Library.
- Developed tools and classes that help patrons learn how to use the technology that connects them to the Library and its resources.
- Collaborated with the Community Libraries Manager and the Youth Services Manager to design and implement public services that align with library priorities.
- Communicated adult services goals to all library staff and mobilizes and coaches the appropriate staff to carry out those goals.
- Supervised and assisted in the selection of public services staff that work with adults.
- Participated in the budget process and monitored budget in area of specialization.
- Assessed the service needs of the community and recommended strategies and programs to meet those needs.
- Assisted in promoting community awareness of library services and programs by communicating with community members, community organizations, and local businesses.
- Reviewed and prepared performance evaluations, recommends disciplinary action; handles employee complaints and grievances.

Greenwood Public Library  March 2011–March 2012
Greenwood, IN
Head of Adult Reference & Marketing
- Managed 11-person adult reference department comprising reference librarians, para-professionals, student clerks, interns, and library pages; scheduled and staffed reference desk; instructed computer classes; planned and presented informational programs for adults.
- Coordinated interdepartmental support with Young Adult and Children’s department heads.
- Planned, coordinated, and executed large community-wide all-age events including Summer Reading, Starlight Movie Nights, and Monster Mash.
- Conducted fund raising events; managed donors’ information and preferences using the eTapestry system.
- Directed library’s publicity and promotion plan, including overseeing entire and creating and maintaining portions of library website; writing, editing, producing and distributing monthly e-newsletters and printed materials promoting library programs and events; writing and distributing press releases and conducting media relations; coordinating library’s social media presence; managing digital signage within library.
- Provided community outreach and awareness by leading mission-based tours, performed post-tour follow up.
- Oversaw collection of 60,000 volumes and annual materials purchasing budget of $45,000.
Harrison College  
Indianapolis, IN  
December 2010–August 2013
Instructor, Information Literacy
- Provide online instruction for two credit Information Literacy course
- Teach students how to locate and retrieve authoritative materials, formulate research strategies, evaluate sources, and master plagiarism and copyright concepts

Greenwood Public Library  
Greenwood, IN  
March 2007–March 2011
Assistant Head of Adult Reference
- Supervised library pages; staffed reference desk; instructed computer classes; planned and presented programs
- Provided interdepartmental support by leading teen programs
- Planned, coordinated, and executed large community-wide all-age events
- Managed sections of collection through acquisition and deletion
- Conducted fund raising events; managed current, future, and potential donors’ information and preferences
- Coordinated multiple aspects of library’s publicity and promotion plan
- Provided community outreach and awareness by leading mission based tours and performing post-tour follow up

Suburban Landscape Nursery  
Newburgh, IN  
May 2001–July 2006
- Designed creative landscapes for residential and commercial clients and developments
- Coordinated work crew members on-site
- Increased sales consistently over tenure
- Produced after-sales materials for clients

EDUCATION

University of Central Florida  
Orlando, FL  
expected graduation date: 2021
Ph.D. in Texts and Technology

Indiana University  
Indianapolis, IN  
July 2008
Master in Library Science

Purdue University  
West Lafayette, IN  
May 2001
Bachelor of Science in Landscape Horticulture and Design

PUBLICATIONS


AWARDS

2016 Engaged Scholarship Research Award, Florida Campus Compact

PROFESSIONAL & COMMUNITY INVOLVEMENT

Big Brothers Big Sisters Mentor, 2014-Current
Association of Florida Colleges Member, 2013 - Present
Sunshine State Leadership Program Mentor, 2013
Florida Library Association, 2012 - Present
American Library Association, 2011 - Present