### Proposal for Creating a Minor in Digital Culture and Information

An interdisciplinary program in Digital Culture and Information (DCI) allows students to deeply explore how the digital age impacts knowledge and society. Students will discover how software transforms information into valuable resources as well as the dangerous potential of algorithmically biased tools. Through courses that integrate theory with handson practice, students will develop creative projects that demonstrate their emerging expertise in digital media. The program is designed to teach students concepts and methods that will enhance their academic success within any major. Students participating in the program will gain significant experience with technological platforms, complex information resources, and visual design. The course of study nurtures critical reflection on the underlying structure of information and not merely technical proficiency. A minor in Digital Culture and Information provides the foundation for a career in any field and for life as an informed citizen in a digital society.

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#### 1. Background and rationale

#### What is the impetus for the proposed curricular modification?

The DCI minor originates from the Digital Humanities (DH) initiatives that have developed at W&L since 2012. Unlike DH programs at many institutions where faculty research is prioritized in such digital endeavors, DH at W&L has centered on the curriculum. [http://www.academiccommons.org/2014/07/24/launching-the-digital-humanities-movement-at-washington-and-lee-university-a-case-study/]. A major grant from the Andrew W. Mellon Foundation has enriched pedagogy through incentives for developing creative assignments and projects built on digital methods for interpreting scholarship and primary resources. The grant also has funded a variety of faculty-led research projects, most of which involve W&L students in hands-on learning and original research.

Over the last five years, we have developed thirteen new courses that form a substantial and cohesive approach to studying the impact of digital information on disciplinary knowledge

and also on contemporary life. Library faculty have taught or co-taught nine of these courses. The Mellon DH grant has thus transformed the library. In 2014 the library adopted a strategic direction [http://library.wlu.edu/about/strategic-directions/2014-2015-report/] that defined the library's perspective on DH:

"Digital Humanities is less a unified field than an array of convergent practices that explore a universe in which print is no longer the primary medium in which knowledge is produced and disseminated." (*Digital\_Humanities*, Anne Burdick, et al.)

Knowledge production and dissemination is not limited to the humanities, obviously. And the demise of print as the primary medium for information is not limited to scholarship. Digital media is now a primary form of communication and touches on all aspects of knowledge and society. We live and work in a digital culture infused with an enormous quantity of information.

Considering that these issues extend beyond the humanities, we sought a name for the minor that encompassed a multidisciplinary perspective. While no term is perfect, Digital Culture and Information captures the essence of the pedagogical goals and proposed course of study.

It has now been more than two decades since computer skills were expected only of those entering technical fields. The professional and academic landscape has changed such that digital skills are expected in nearly all careers as well as graduate and professional programs. The oft-repeated myth that 21st century students are "digital natives" requiring little or no instruction in understanding or using technology has been widely debunked. [Refer to Selwyn, Neil. "The Digital Native - Myth and Reality." Aslib Proceedings; Bradford 61, no. 4 (2009): 364–79. doi:http://dx.doi.org/10.1108/00012530910973776. Thompson, Penny. "How Digital Native Learners Describe Themselves." Education and Information Technologies 20, no. 3 (September 1, 2015): 467–84. doi:10.1007/s10639-013-9295-3.]

Students need digital skills and competencies for the workplace, professional development, and graduate study. These digital skills are deeper than simply knowing how to use the Web or consumer software such as Excel or PowerPoint. Students cannot be expected to develop this depth of knowledge without explicit instruction and academic framing.

In addition to the demand for digital aptitude from employers and graduate programs, students also face a wide range of challenges associated with contemporary online life, from privacy concerns to how to effectively enter public discourse to understanding their own lives and self-conceptions in relation to an increasingly complex digital environment.

Digital information is the dominant means through we organize our lives and express ourselves. The culture of the 21st century is largely conveyed through digital media, with all its flaws and biases. But digital culture also presents opportunities for students to develop engaging lives for the social good. The DCI curriculum critically examines the problematic aspects of digital society and prepares students to graduate from W&L and enter their careers with the confidence and technical foundation needed for tackling the inevitable technological changes of the next decades.

A minor in DCI will provide students with both technological skills and a critical mindset. The former is a necessity for professional success; the latter is a necessity for engaged citizenship. A minor in DCI allows students to extend the work in their major course of study as they develop a portfolio of professional, public-facing work that both highlights their work in their major and demonstrates their technical and critical accomplishments. In this way, we expect the DCI minor to support and enhance the curriculum of departments throughout the University.

#### Provide information about student demand for the new curriculum.

Enrollment in DH courses has increased steadily since the first offering in 2014. Courses that are central to the DCI minor—DH 102: Data in the Humanities and DH 110: Programming for Non-programmers—have consistently filled and expanded capacity to meet demand. DH 102 enrolled 16 students in 2016 and 19 students in 2017. DH 110 enrolled 24 students in both 2016 and 2017. DH 110 also has had students on the waitlist each time the course was offered.

Student interest in this curriculum can also be attributed to the Mellon Digital Humanities Undergraduate Fellowship program. Since 2016, this Mellon-funded program has given students an opportunity to learn technological skills and develop their own projects with structure and mentoring from library faculty. The program began with two students and now serves 11 students working on independent projects and five distinct faculty research projects. Students complete a basic curriculum in digital humanities best practices that could easily be folded into a Digital Scholarship seminar or directed individual study. The fellowship program is often a gateway to other DH courses, digital scholarship conference presentations, and in the case of one student, a graduate program in Digital Humanities. In turn, DH courses and summer research experiences on DH projects feed the fellowship program with students interested in taking their skills to a more advanced level.

# What other schools with similar majors, minors, or other programs have you consulted?

We conducted a survey of universities with Digital Humanities, Digital Studies, Digital Media and other interdisciplinary digital or computational programs. In developing our course of study, we paid particular attention to the Digital Humanities minor at Bucknell and the Digital Studies minors at Davidson and the University of Mary Washington. These programs provided models for the portfolio requirement as well as the balance between technical and critical coursework. For a comprehensive analysis of Anglophone Digital Humanities programs, see Sula, Hackney and Cunningham, "A Survey of Digital Humanities Programs." [https://jitp.commons.gc.cuny.edu/a-survey-of-digital-humanities-programs/] In addition, consult the list of digital humanities and digital studies programs in the appendix.

## What graduate programs or professional programs or work environments have you reviewed to determine their expectations?

Our collaboration over the past five years with the University of Virginia's Scholars' Lab has provided insights into best practices for preparing emerging scholars in the humanities. Brandon Walsh, who served as the Mellon Digital Humanities Fellow at W&L from late Fall 2015 to early Spring 2017, was a key voice in defining the structure of the proposed course of study in DCI. Walsh is now Head of Graduate Programs for the Scholars' Lab. The input, encouragement, and support of the Scholars' Lab have been instrumental for the success of W&L's curricular initiatives in the digital realm.

The DCI minor is especially well suited for students intending to pursue graduate work in the humanities. Many professional organizations in the humanities have developed guidelines for the evaluation of digital scholarship. (See appendix for listing of guidelines.)

Since mid-2015 our Mellon grant in DH has brought in noted scholars from across the country to speak at W&L. A component of these visits has been the advice received by these experts on W&L's efforts to incorporate DH into the curriculum. Former University of Richmond President Ed Ayers, a pioneer in digital scholarship, talked to us about the broad role of digital initiatives beyond the label of DH. A 2013 statement by Ayers in the EDUCAUSE Review captures how "the digital"—whether it's known as DH, digital scholarship, digital culture or another term—extends beyond the academy:

"As we try to foster digital scholarship in the years ahead, we need to begin by understanding the cultural, economic, personal, and institutional world in which the new scholarship will live. That scholarly world defines a problem within a meaningful conversation, it arrays evidence to address the problem, it makes the clearest case for a solution to the problem, and it conveys that case to every relevant audience. Digital scholarship must assume all of those responsibilities if it is to take its place as academic scholarship and if it is to align the core purpose of higher education with the possibilities of our time." [https://er.educause.edu/articles/2013/8/does-digital-scholarship-have-a-future]

A minor in DCI encourages students to explore the core purpose of their careers within the context and possibilities of the dominant technology of this century. Through integration with any major field of study, students in DCI are equipped with new skills, experiences, and knowledge that provide a vista on how their education enables opportunities in the contemporary professional workplace, which is both knowledge-based and technology-based.

Today's workplace requires people who are adept at navigating and identifying challenges posed by complex digital information. Crafting solutions in collaboration with more experienced colleagues is a learned skill highly valued by employers. [See William Pannapacker's "No More Digitally Challenged Liberal-Arts Majors" https://www.chronicle.com/article/No-More-Digitally-Challenged/143079]

DCI goes beyond instilling merely digital competencies in graduates. DCI is an outlook, a preparation for thriving in a digitally mediated society and workplace. DCI also opens pathways to careers and professional programs in the technology sector that often are not on the radar of humanities undergraduates. While students often feel compelled to learn coding, DCI equally emphasizes the importance of design as an integral skill and way of thinking.

Analyzing and envisioning the user experience (UX) of any digital encounter (whether it's an app, e-book, website, or an interactive installation in a museum) is recognized as an essential career in technology-based organizations. Students in art studio, creative writing, film studies, and strategic communications typically possess the creative aptitude and imagination needed to excel in design fields. DCI provides a foundation for students to pursue an MFA degree in design, interactive media, and new media. [See appendix for a list of MFA design programs consulted.]

Of course, students minoring in DCI will also find professional programs in information studies a perfect fit. The field of informatics/information science/information studies (sometimes still called library science) is a robust area that offers opportunities in academia, government, non-profit, and corporate positions. [See appendix for a list of information-based professional programs.]

Likewise, students in the social sciences interested in research in graduate programs or professional programs will benefit from the rigorous examination of digital information, which is an essential component of policy analysis. While DCI is designed with the humanities student in mind, the curriculum can fit smoothly with the interest of a student pursuing any career.

#### How does the proposed serve W&L's mission?

In a society characterized by a glut of poorly differentiated information, critical thinking requires the ability to effectively evaluate information in a digital environment by assessing sources, uses, and interpretations. The value of honor, integrity, and civility are most challenged in the online social media environment of our era. The minor in DCI prepares students to more fully embody the values cultivated at W&L as they participate in civil discourse. A minor in DCI teaches students the ways that online spaces, through digital media and computer networks, make possible the growth of global economies as well as global societies. A specialized understanding of the complex and interconnected nature of global digital culture prepares students to function more fully as engaged citizens and responsible leaders.

#### 2. Goals of the minor

#### What are the pedagogical goals served by a minor in DCI?

The DCI minor assists students in developing their capacity for rigorous intellectual engagement through the application of interdisciplinary methods, tools, digital media and data analysis. Students will

- 1. Develop critical capacities for analyzing the role of technology and digital media in contemporary culture, and apply those capacities to a range of disciplinary and interdisciplinary inquiries.
- 2. Develop the technical skills necessary for academic and professional success, with an emphasis on online communication and information.
- 3. Demonstrate the ability to communicate across different media and to both academic and general audiences.
- 4. Engage in collaborative, interdisciplinary, project-based learning.
- 5. Develop digital projects that contribute to the scholarly conversation in the student's field of study and demonstrate an awareness of the technological and critical needs of the discipline.
- 6. Develop an online professional identity and a portfolio of work in the minor.

#### Assessment of the goals

The pedagogical goals of the minor will be assessed through standardized course evaluations, exit surveys conducted with all graduating seniors, and formal assessment by the DCI faculty of the public capstone presentations and online portfolios produced by each senior DCI minor. In addition, the DCI program will conduct a longitudinal assessment of the minor by tracking students' professional and career accomplishments following graduation and by administering periodic surveys of DCI alumni.

# Why would the proposed new program of study be more beneficial to students than an already-established major or program?

DCI fills a significant gap in the curriculum. Presently, there is no course of study grounded in the study of information as the core concept. Obviously, though, every discipline is comprised of knowledge built on layers of information. The DCI curriculum recognizes digital information as data that has inherent properties that can be analyzed, manipulated, structured, and transformed through software. The resulting transformation of digital information results in a variety of resources such as databases, e-books, digital storytelling, and websites.

Several disciplines strongly align with DCI but take distinctly different approaches. The DCI minor complements any major by providing students with a perspective based on the role of information in a digital society. Through DCI, students experience the learning of

technology differently than through disciplines such as Business Administration, Computer Science, and Journalism.

Business Administration requires an Information Technology Literacy course (INTR 201) and offers several courses that could conceivably count as electives within the DCI minor. A distinction with DCI is the emphasis on the societal rather than the commercial aspects of information technology.

In a statement provided by Sara Sprenkle, Associate Professor of Computer Science: "Computer Science offers general-purpose introductory programming courses, primarily meant as introductions to the computer science major. DCI courses will provide a lower-barrier of entry to introductory programming, motivated within the context of information used to answer humanistic questions. If a DCI student shows an affinity for programming and more technical topics, she could follow up with taking computer science courses. Since students are having difficulty enrolling in introductory computer science courses (a situation that may not change for a few years until staffing catches up with demand), it is helpful for non-majors to have more accessible, technical courses available."

Most often, DCI deals with data that is textual or image-based (including digital video). Numeric data is an aspect of DCI but many uses of numeric data also will fall under the emerging Data Science curriculum. We expect that there could be a set of courses that could count for either the DCI or Data Science minors.

#### 3.a. Course of study

A minor in digital culture and information requires completion of 18 credits, as follows. In meeting the requirements of this interdisciplinary minor, a student may not use more than nine credits (including capstone) that are also used to meet the requirements of other majors or minors.

- 1. DCI 102, 108
- 2. At least six credits chosen from DCI 110, 175, 190, 393, 403; HIST 211; JOUR 341
- 3. At least three credits chosen from BUS 321, 306, 310, 3215, 317; CLAS 343; any CSCI course; DCI 180; ENGL 453; GERM 347, 349; SOAN 265, 266; and, when approved in advance, DCI-designated courses.
- 4. Capstone project: Three credits chosen from DCI 393, 403 (not used above), or a capstone or honors thesis in the major field of study, of sustained intellectual engagement using digital tools or methods and approved one term in advance of beginning by the core faculty of the minor
- 5. *Portfolio*: at least three projects or assignments, in addition to the capstone, from courses in the minor which demonstrate attention to design, used experience, awareness of audience, and professional or academic context, and including both reflection on and analysis of each work in the portfolio.

#### 3.b. Courses in the minor

#### Required courses

DCI 102: Data in the Humanities (Brooks & Kiser) [each Fall]

DCI 108: Communication through the Web (Mickel & Brooks) [each Fall]

#### **Electives**

DCI 110: Web Programming for Non-Programmers (Mickel) [each Winter]

DCI 175: Innovations in Publishing (Barry) [alternating Spring]

DCI 190: DH Studio (1-credit) [offered as needed]

DCI 393: Creating Digital Scholarship [planned for Winter 2019; each Winter]

DCI 403: Directed Individual Study (3-credit)

JOUR 341: Multimedia Storytelling Design (Barry/Locy) [each Winter]

HIST 211: 19th C Scandal, Crime, Spectacle (Horowitz)

DCI 180: Born Digital (Brooks) [alternating Winter]

DCI 180: Black Mirrors and Digital Life (Abdoney/Teaff) [to be offered starting Fall 18, each Fall]

Any Computer Science course

BUS 321 (Multimedia Design and Development)\*

BUS 306 (Seminar in Management Information Systems)\*

BUS 310 (Management Information Systems)\*

BUS 315 (Database Management for Business)\*

BUS 317 (Data Mining for Sales, Marketing and Customer Relationship Management)\*

ENGL 453 (Internship in Literary Editing with Shenandoah)

GERM 347 (Goethe: Sentimentality to Sturm und Drang)

GERM 349 (Digital Goethe)

CLAS 343 (Classics in the Digital Age)

Journalism/Strategic Communication courses designated as DCI interdisciplinary types.

SOAN 265: Exploring Social Networks (Eastwood)

SOAN 266: Neighborhoods, Culture and Poverty (Eastwood)

Other courses not listed as DCI but that earn a DCI interdisciplinary course type designation.

\*Only open on a space available basis for non-business majors

#### 4. Capstone experience

Students in the Digital Culture and Information minor must complete a capstone project that produces a work of sustained intellectual engagement using digital tools or methods.

Students may fulfill the capstone requirement in several ways:

- A capstone or honors thesis in their major field of study. Students must petition the DCI faculty to approve their capstone or honors thesis the semester prior to undertaking the work
- An independent project undertaken and executed through directed individual study with DCI faculty (DCI 403)
- DCI 393: Creating Digital Scholarship Seminar. DCI 393 will provide structure, peer collaboration and extended faculty support in a seminar environment.

Eligible projects must meet the following requirements:

- Demonstrate intellectual engagement with an academic discipline or field of study. Such engagement could be scholarly or creative in nature.
- Demonstrate project planning and problem solving.
- Create a digital product appropriate to the focus of intellectual inquiry.
- Be primarily public facing and demonstrate an awareness of audience.
- Be presented publicly at a DCI capstone presentation.

#### DCI 393 (Creating Digital Scholarship Seminar)

The Creating Digital Scholarship Seminar will provide students with the tools, theoretical background and methodological support to transform a work of traditional scholarship within their discipline into a public-facing work of digital scholarship. The product of the course will be a digital project, the form of which is to be decided by the student in consultation with classmates and the instructor. One major part of the course will be

surveying and analyzing examples of digital scholarship to determine what form each student's own project should take.

## What capstone experience will be evaluated in terms of the stated learning objectives?

All DCI minors will present their capstone work at a public capstone presentation. DCI faculty will assess how well the presentations meet the following learning objectives:

- Demonstrate intellectual engagement with an academic discipline or field of study. Such engagement could be scholarly, creative, or journalistic in nature.
- Demonstrate project planning and problem solving.
- Create a digital product appropriate to the focus of intellectual inquiry.
- Be primarily public facing and demonstrate an awareness of audience.

In addition, a member of the DCI core faculty will evaluate all capstone projects. Students taking the Creating Digital Scholarship Seminar will have their projects evaluated by both the course instructor and a second reader in the student's field of study. Students producing a digital project as part of a thesis or capstone for their major course of study will have their projects evaluated by two members of the DCI core faculty. Students producing a capstone project through directed individual study will have their projects evaluated by the DCI faculty member directing their project and a second faculty member in the student's major field of study.

#### **Portfolio**

In addition to a substantive, public-facing digital project, students also will produce a web-based portfolio of the work they have accomplished in the DCI minor. This portfolio, the initial development of which will be a component of DCI 108, should be public facing and demonstrate reflective evaluation of the work presented.

#### Portfolio requirements:

- Feature at least 3 projects or assignments from courses in the minor, as well as the capstone project
- Demonstrate attention to design and user experience
- Demonstrate awareness of audience and professional or academic context
- Include both reflection on and analysis of each work in the portfolio

#### 5. Personnel

# What W&L faculty have the appropriate professional credentials to participate in curricular development and teach within the major or program?

- Jeff Barry, Associate Professor and Associate University Librarian
- Mackenzie Brooks, Assistant Professor and Digital Humanities Librarian
- Sydney Bufkin, Mellon Digital Humanities Fellow and Visiting Assistant Professor of English
- Sarah Horowitz, Associate Professor of History
- Moataz Khalifa, [starting June 1, 2018: Assistant Professor and Director of Data Education]
- Steve McCormick, Assistant Professor of French
- Jason Mickel, Assistant Professor and Director of Library Technology
- Paula Kiser, Assistant Professor and Digital Scholarship Librarian
- Paul Youngman, Professor and Chair, Department of German, Russian, and Arabic

Faculty affiliated with Digital Culture and Information:

- Mary Abdoney, Associate Professor and Instruction Coordinator
- Jon Eastwood, Professor of Sociology
- Julie Kane, Associate Professor and Head of Collection Services
- Sara Sprenkle, Associate Professor of Computer Science
- Elizabeth Teaff, Associate Professor and Head, Access Services

If the minor is approved, Jeff Barry will serve as the initial program head for a 4-year term.

### 6. Projected schedule and course availability

\* DCI 102 & 108 are required courses for minor

* DCI 102 & 108 are required courses for minor		
2018 - 2019		
Fall	Winter	Spring
DCI 102* (Brooks)	DCI 110 (Mickel)	DCI 175 (Barry)
DCI 108* (Mickel)	JOUR 341 (Barry/Locy)	
DCI 180 FS: Black Mirrors	DCI 180 (Brooks)	
(Abdoney/Teaff)		
	ENGLxyz/DCI xyz (Bufkin)	
	DCI 393: Creating DS (team)	
	Writ 100 Barry	
2019 – 2020		
Fall	Winter	Spring
DCI 102* (Brooks)	DCI 110 (Barry)	
DCI 108* (Mickel)	JOUR 341 (Barry/Locy)	
DCI 180 FS: Black Mirrors	Writ 100 Abdoney	
	DCI 393: Creating DS	
2020 - 2021		
Fall	Winter	Spring
DCI 102* (Kiser)	DCI 110 (Mickel)	DCI 175 (Barry)
DCI 108* (Brooks)	JOUR 341 (Barry/Locy)	7/
DCI 220 (Mickel)	DCI 180 (Brooks)	
DCI 180 FS: Black Mirrors	DCI 393: Creating DS	
	Writ 100 (Abdoney)	
	Writ 100 (Barry)	
2021 - 2022		
Fall	Winter	Spring
DCI 102* (Brooks)	DCI 110 (Barry)	op.m8
DCI 108* (Mickel)	JOUR 341 (Barry/Locy)	
DCI 180 FS: Black Mirrors	DCI 393: Creating DS	
2 31 100 1 5. Diack Hillions	Writ 100 (Abdoney)	
	"The roo (ribdoney)	
2022 - 2023		
Fall	Winter	Spring
DCI 102* (Kiser)	DCI 110 (Mickel)	DCI 175 (Barry)
DCI 102* (Riser) DCI 108* (Brooks)	JOUR 341 (Barry/Locy)	DOI 1/3 (Daily)
DCI 100" (Brooks)  DCI 180 FS: Black Mirrors	DCI 180 (Brooks)	
DCI 100 FS: DIACK IVIITTOTS	\ /	
	DCI 393: Creating DS	
	Writ 100 (Abdoney)	
	Writ 100 (Barry)	

See appendix for letter of support from the University Librarian indicating availability of faculty to teach core courses over the next five years.

#### 7. Ancillary resources

#### Appropriateness of current library holdings for supporting the DCI minor

Library materials required for the DCI minor are routinely acquired as standard practice to support academic departments, interdisciplinary programs, and the library and information science collection. Additionally, the library has acquired several archives of primary and secondary sources that are well suited for textual analysis and other research techniques common within the digital humanities. The library's strategic plan states its intention to continue to acquire archival collections that will broaden the disciplinary scope of such digital scholarship.

# Implications for the allocation of space to accommodate faculty, student projects, and equipment

Planning for the space and equipment needed to advance digital scholarship on campus has been part of the University Library's strategic thinking for several years. In 2016, the library established the Digital Humanities Librarian's office to provide meeting and project development space to assist faculty and students in developing digital projects. In 2017, funds were used to establish collaboration space outside the DH office to support the collaborative nature of digital projects. For 2018, capital budget requests were submitted to continue developing the collaborative spaces needed for increasing numbers of digital projects. These improvements together with the proposed capital improvements for Telford Library to support quantitative projects will continue to be part of the University Library's planning process as it seeks to meet the changing research needs of the University.

# What new faculty positions, classroom space, or technology will be required to fully realize the proposal's goals?

Current faculty, classrooms and technology should be sufficient to realize DCI goals. Since 2013, all faculty hiring decisions in the University Library have been made in the effort to provide greater support for digital research and scholarship. Current library faculty, together with recent hires of the Digital Scholarship Librarian and the Data Education Director, form the majority of the core faculty identified for the DCI minor. Joining the core faculty in the library will be faculty in other departments and programs with existing courses and scholarly interests founded on digital research methods.

### Budgeting to provide appropriate support for meeting the goals of the DCI minor

Effectively, the DCI minor is cost neutral to the College. The proposal for the DCI minor grows out of the University Library's existing instructional program. The University Library Administrative Assistant will provide administrative support for DCI. Budget planning for DCI will be part of the library's existing Library Research-Instruction operating budget and overseen by the University Librarian.

To supplement these operating funds, grant funding will be sought following the conclusion of the Mellon Digital Humanities grant.

### **Appendix**

#### Guidelines for the evaluation of digital scholarship by academic field

American Historical Association. Guidelines for the Professional Evaluation of Digital Scholarship by Historians, June 2015 (https://www.historians.org/teaching-and-learning/digital-history-resources/evaluation-of-digital-scholarship-in-history/guidelines-for-the-professional-evaluation-of-digital-scholarship-by-historians)

College Art Association and the Society of Architectural Historians. Guidelines for the Evaluation of Digital Scholarship in Art and Architectural History, January 2016 (http://www.collegeart.org/pdf/evaluating-digital-scholarship-in-art-and-architectural-history.pdf)

Middle East Studies Association. MESA Guidelines for Evaluating Digital Scholarship (http://mesana.org/resources/digital-scholarship.html)

Modern Language Association. Guidelines for Evaluating Work in Digital Humanities and Digital Media, February 2012 (https://www.mla.org/About-

Us/Governance/Committees/Committee-Listings/Professional-Issues/Committee-on-Information-Technology/Guidelines-for-Evaluating-Work-in-Digital-Humanities-and-Digital-Media)

#### Graduate and professional programs consulted

The minor in DCI prepares students to enter a variety of graduate and professional programs. Any student pursuing a graduate degree in the humanities definitely would be prepared to tackle the broad scope of the digital humanities at the graduate level after completing a DCI minor. DCI also exposes students to a set of career possibilities and professional programs that students do not normally encounter as an undergraduate in a liberal arts college. Specifically, minors in DCI will be very well suited to pursue professional programs centered on some aspect of design, such as those offered in the following programs. There are a number of master's level programs (usually MFAs) in the area of design (e.g., graphic design, communication design, visual communications, interaction design, multimedia design) that are developed purposefully for people without undergraduate degrees in design.

- MFA in Interactive Media, University of Miami. https://interactive.miami.edu/
- MFA Digital + Media, Rhode Island School of Design. http://www.risd.edu/academics/digital-media/graduate/
- NYU offers several graduate programs that would engage the interests of a DCI minor, e.g., PhD in Educational Communication and Technology; MFA in Game Design; MS in Integrated Digital Media; MA in Media, Culture, and Communication. https://www.nyu.edu/academics/academic-programs/emerging-media.html

- MFA in Design and Technology, MS in Data Visualization, The New School/Parsons. https://www.newschool.edu/parsons/mfa-design-technology/
- MFA Interaction Design, School of Visual Arts, http://www.sva.edu/admissions/graduate/department-requirements
- MFA Digital Arts New Media, University of California, Santa Cruz. http://danm.ucsc.edu/
- MFA in Emergent Digital Practices, University of Denver. https://www.du.edu/ahss/edp/degree/mfa.html
- MFA Integrated Media Arts, Hunter College. http://catalog.hunter.cuny.edu/preview\_program.php?catoid=33&poid=6681 &returnto=8420
- MA in Design, Carnegie Mellon. https://design.cmu.edu/content/master-arts-design
- School of the Art Institute of Chicago offers a number of graduate programs that could be of interest to a DCI minor: MA in Visual and Critical Studies, http://www.saic.edu/academics/departments/visual-and-criticalstudies/master-arts-visual-and-critical-studies
- MFA Communications Design, Pratt
   Institute. https://www.pratt.edu/academics/school-of-design/graduate-school-of-design/grad-communications-design/communications-design-mfa/
- MFA Design Media Arts, UCLA. http://dma.ucla.edu/

Another route into graduate studies and professional programs for DCI minors is in the range of programs offered through what are now called iSchools (http://ischools.org/). Among the programs for which a DCI minor is well-suited:

- Master of Human-Computer Interaction, University of Maryland. https://ischool.umd.edu/hcim
- MS in Information Management; MS in Library and Information Science; MS in Applied Data Science; Syracuse University. https://ischool.syr.edu/academics/graduate/masters-degrees/
- Master of Information Management and Systems, UC Berkeley School of Information. https://www.ischool.berkeley.edu/
- MS in Information. University of Michigan. https://www.si.umich.edu/content/programs
- MS in Information Management; Master of Library & Information Science. University of Washington. https://ischool.uw.edu/
- MS in Information Studies, University of Texas. https://www.ischool.utexas.edu/programs/masters
- MS in Library Science or Information Science, UNC Chapel Hill. https://sils.unc.edu/programs
- MS in Information Sciences and Technology, Penn State. https://ist.psu.edu/education/degree/ms
- MS in Information Sciences, University of Illinois. http://ischool.illinois.edu/academics/degrees
- MS in Information Science and MS in Library and Information Science, University of Pittsburgh. http://sci.pitt.edu/academics/masters-degrees/

- Master of Information, University of Toronto. https://ischool.utoronto.ca/future-students/programs-of-study/
- M.A. in Media and Information, Michigan State. http://comartsci.msu.edu/media-and-information#
- MS in Information Sciences, University of Tennessee. http://www.sis.utk.edu/

Students desiring to pursue additional study in digital culture will find many opportunities, often at European institutions through English-language programs like the following:

- Master's in Digital Culture, University of Bergen. http://www.uib.no/en/studyprogramme/MAHF-DIKUL
- Master's in New Media and Digital Culture, University of Amsterdam. http://gsh.uva.nl/content/masters/new-media-and-digital-culture-media-studies/new-media-and-digital-culture.html
- Master's in New Media and Digital Culture, Utrecht University. https://www.uu.nl/masters/en/new-media-digital-culture
- Master's in Media Studies: Digital Culture, Maastricht
   University. https://www.maastrichtuniversity.nl/education/master/master-media culture
- MA in Digital Media, Culture and Education. University College London. https://www.ucl.ac.uk/prospective-students/graduate/taught/degrees/digital-media-culture-education-ma

# List of similar undergraduate programs (with a variety of names) in the United States [adapted from a crowd-sourced list]

Bard College, Experimental Humanities: "The Experimental Humanities (EH) concentration is Bard's liberal arts—driven answer to the Digital Humanities. Digital Humanities is an evolving field that typically employs digital tools and research methods to investigate humanities subjects. In addition, EH engages with media and technology forms from across historical periods, combining experimental research methods with critical thinking about how such forms function as a part of cultural, social, and political inquiry. We encourage the reconsideration of older media in light of today's technologies and look ahead to the developments on the horizon."

Bates College, Digital and Computational Studies: "The faculty established a new interdisciplinary program in digital and computational studies in 2015-16. The program's goals are to advance learning and scholarship across multiple disciplines informed by concepts, methods, and tools of computer science and digital studies. Specifically the program aims to interrogate the values and assumptions of a digitized world; increase understanding of the power and limitations of computers in solving problems; advance understanding of the theory and logic of computation; promote proficiency in the assessment, analysis, and visualization of data; build competency in the analysis of complex

relationships among data sources; promote creative and competent use of algorithms in problem solving; and foster connections across disciplines."

Brigham Young University -- The Digital Humanities extends the traditional Humanities in two ways. First, it employs traditional Humanities methods to examine and present new media—from movies and television to text messages and twitter feeds—alongside traditional Humanities content. Second, it uses new, technology-based approaches to re-examine and re-present traditional Humanities content.

Bucknell University -- Students who minor in Digital Humanities will develop critical skills in the interpretation, analysis, and evaluation of humanistic research questions and the methodologies of the Digital Humanities, such as textual analysis, geo-spatial visualization, network visualization, and new media.

Carnegie Mellon University -- Humanities Analytics (HumAn for short and for the course catalogue) is a six-class minor based in the Department of English with classes across the university. It will provide technical training to humanities students — e.g. classes like "Machine Learning in Practice"— and humanistic training to technical students — e.g. "Intro to Critical Reading"— in the growing field of digital humanities.

Christopher Newport University -- Provide students with the knowledge and skills necessary to prepare them for careers where digital media and technology enrich approaches to traditional humanities oriented fields and projects such as education, library science, museum curation, non-profits, political campaigns, graduate research, design, fine art, and music/film/theater/dance production, as well as related fields like mass communication, journalism, and marketing.

Creighton University -- Digital humanities applies technology to the big questions surrounding the nature of the human condition that have long been the focus of the humanities. This interdisciplinary program embraces perspectives from history, English, archaeology, communication studies, and computer science.

Davidson College, Digital Studies: "The digital studies interdisciplinary minor provides a framework for studying the digital tools, cultures, and practices that permeate everyday life. These tools, cultures, and practices shape how we work, play, communicate and learn. Understanding the social and historical contexts of these technologies is a fundamental part of digital studies. Digital Studies courses range across three broad areas: digital creativity, which includes digital art and digital storytelling, transmedia production, and programming; digital culture, which focuses on the communities, practices, and counter-practices that digital technology has given rise to; and digital methodology, in which digital tools are used to quantitatively or qualitatively analyze, map, and share text or data."

Fairleigh Dickinson University -- This 15-credit minor is designed for students interested in learning the essentials of digital production (e.g., graphic design, web design, photography, and film) as well as digital studies (media studies, the impact of technology on society). As technology becomes increasingly intertwined with our everyday lives, it has become increasingly important to possess not only an understanding of computing but to learn how to effectively utilize computer technologies in our professional and personal lives as well as to understand how these same technologies can help shape our lives for better or worse.

Georgia Southern University -- The Digital Humanities Minor at Georgia Southern offers you a chance to hone skills and create projects in the humanities, liberal arts and social sciences that have an explicitly digital component. Video and audio projects, website development, digital mapping, visualizing information, 3D design and printing, virtual reality, big data analysis, board games and video games are all aspects of the burgeoning field of digital humanities.

Indiana University -- The Digital Arts & Humanities program offers both a certificate and a minor that signal competencies and expertise to potential academic (teacher, lecturer, professor, librarian) and non-academic (administrator, scholar in digital humanities centers, libraries, museums, and other cultural heritage institutions) employers. Our certificate and minor align arts & humanities graduate training at IU with an increasing emphasis on public scholarship and put graduate students in dialogue with the broader public via interdisciplinary digital methods and the enhanced accessibility afforded by digital scholarship and creative activity.

Indiana University - Purdue University Indianapolis -- The Digital Humanities minor is for students whose interests encompass the arts and humanities, social sciences, and computing. As such, it is offered jointly by the Indiana University School of Liberal Arts, School of Informatics and Computing, and Herron School of Art and Design. The minor guides students in employing visual communication and informatics in the arts, social sciences, and humanities. Students will learn to work with large datasets and perform data analysis on texts. The minor prepares students to understand the technologies they use as objects of humanistic and artistic design, laden with historical and cultural perspectives that interact with political and economic systems.

Marshall University -- At Marshall University, Digital Humanities allows us to explore and deepen the relationship between humanities disciplines and digital tools and technologies. Students develop their technical and critical thinking skills by using, creating, and reflecting on humanities data projects.

Messiah College -- The digital public humanities minor at Messiah College combines the application of digital technologies with discovery, construction and dissemination of knowledge in the humanities. Students in this minor will reflect on the intersections of their disciplines with digital culture and participate in public humanities projects like the Digital Harrisburg Initiative. Most importantly, students will gain practical and extensive experiences working on digital projects that tell significant human stories for public audiences.

Michigan State University -- In the Digital Humanities Minor, we invite you to EXPLORE, RESEARCH, ANALYZE, AND CRITIQUE the ways in which digital tools, technologies, and spaces have transformed work in the humanities. CREATE, DESIGN, MASH, MIX, AND PRODUCE using digital tools, technologies, and spaces.

The New School -- Through the minor in Digital Humanities, students will explore the intellectual and creative activities that emerge at the intersection of design, technology and the liberal arts. Digital Humanities practice presumes that technology and human are smarter

together than separately, making computers (and even more importantly, internet applications and creative data analysis) integral components of collaborative projects.

Northeastern University -- (offers joint degrees that are effectively DH, though not in name). Two examples: BS Computer Science/History -- The CS and History combined major offers students the opportunity to gain both historical knowledge and a broad range of related analytical skills in both the humanities and computer science. You'll define a history course cluster according to a thematic principle, with a focus on quantitative analysis in the field, complementing your foundation in programming. BS Computer Science/English -- The CS and English combined major focuses on the increasingly interdisciplinary processes of creating, interpreting, and analyzing texts and programs. You'll combine communication and critical judgement, gaining the creativity and adaptability necessary to utilize technology in literary studies and apply humanities skills to solve programming problems.

Pepperdine University -- The digital humanities minor focuses on technologically enabled methodological approaches to the humanistic inquiry that expand research and dissemination of art, artifacts, and documentary and literary texts. The minor prepares students for graduate study in art history, history, literature, religion, or library sciences as well as any of the fields which serve public humanities, including cultural art centers and museums.

Rutgers University-Camden, Digital Studies: "Digital Studies is an interdisciplinary program that offers both a joint B.A. and a minor. The Digital Studies program aims to link disciplines from across Arts and Sciences to digital tools and methods, and the program provides students with an opportunity to understand how the digital is changing how we read, write, think, work, and play."

St. Catherine University -- Digital Humanities are a newly emerging area of study with a growing application of digital media and technology in the traditional humanities studies and arts. The digital humanities minor is created for students in any majors at St. Kate's but especially intended for those with majors in the liberal arts and social sciences. The goal is to help students enhance digital literacy and information technology skills grounded in a broad liberal arts foundation and be able to utilize these skills in their primary area of study and professional careers.

Stanford University -- Digital Humanities, one of Stanford's newest minors, applies digital methods and tools to humanistic inquiry to generate new questions and to foster innovative research. Students will develop critical skills that are applicable within and beyond an academic setting.

SUNY Oswego -- Broadly defined as a multidisciplinary, collaborative academic field that applies modern computational tools and information science to the arts, linguistics, cultural studies and others, digital humanities as a minor launched this fall. Computer science faculty member David Vampola developed and now coordinates the new minor, with instructional support from faculty members teaching courses in such majors as English, history, linguistics, cognitive science and others.

Texas Christian University -- The Digital Culture and Data Analytics Minor (DCDA) is an interdisciplinary program designed for students with an interest in how digital technologies shape, analyze and articulate contemporary culture. Students select one of two tracks within the minor: Digital Culture, with coursework chosen from English, writing, fine arts and communication or Data Analytics, with coursework chosen from criminal justice, economics, geography, political science and mathematics.

University of California, Los Angeles -- The Digital Humanities minor is an interdisciplinary minor that studies the foundations and futures of the digital world. Digital humanities interprets the cultural and social impact of the new information age as well as creates and applies new technologies to answer cultural, social, and historical questions, both those traditionally conceived and those enabled by new technologies.

University of Central Florida -- A minor in Digital Humanities prepares one to deal with our changing world and "technology" from an interdisciplinary perspective. It provides students with a contextual and methodological understanding of the Internet, new media tools, and the emergence of digital information relative to database and social networking developments.

University of Connecticut -- The Digital Humanities Minor within the Digital Media and Design Department/School of Fine Arts provides undergraduates majoring in humanities disciplines from across the University with a grounding in the digital methods and approaches relevant to humanities scholarship.

University of Mary Washington, Digital Studies: "The Minor in Digital Studies is an interdisciplinary program designed to give students from any major an opportunity to pursue related coursework inflected by digital tools, cultures, and practices."

University of Nebraska-Lincoln -- The minor in digital humanities offers a wide range of courses that allow students to explore how digital technologies alter our understanding of ourselves, our art, our history, and our culture. Students learn how to critically engage with digital media, and many courses introduce students to digital techniques for research, analysis, and publication.

University of North Florida -- The interdisciplinary minor in Digital Humanities provides students at UNF with a foundation in technologies and methodologies used in digital scholarship, as well as in a variety of professional fields. Students in this minor will acquire knowledge and skills that will prepare them for graduate coursework in traditional Humanities, Social Science and Fine Arts fields, as well as in specialized Digital Humanities or Information Science programs.

University of Oregon -- What happens when literary culture meets technology? How might new digital publishing platforms or the creation of digital maps help us to understand or preserve rare copies of Salman Rushdie's novels or Emily Dickinson's poetry? This new minor in Digital Humanities, also known as "DH," will integrate methods of studying literature with new technologies. [Within English Department]

University of Pennsylvania -- The Undergraduate Minor in Digital Humanities is offered by the School of Arts and Sciences at the University of Pennsylvania. It has been designed for students who want to augment their disciplinary studies in the humanities or humanistic social sciences with advanced digital research techniques and in-depth engagement with theoretical and practical questions raised by digital humanities. Students who are not majoring in humanities fields are also welcome to complete the minor.

University of Pittsburgh, Greensburg -- This certificate program combines digital media design, coding for the web, and applied research in the digital humanities. In pursuing the certificate, students will learn to make optimal design decisions for effective display on the multiple platforms and devices that access the World Wide Web. Students will design digital art and narrative, build digital research tools for public access, and gain certification in computer skills documented on their diplomas.

University of Wisconsin, Green Bay -- has an undergraduate humanities major with an emphasis on Digital and Public Humanities.

Washington University in Saint Louis – We offer a Data Science in the Humanities minor (DASH) combining traditional humanities inquiry with digital methods and analysis. Computational approaches to questions in the humanities are slowly migrating from the methodological fringes of the disciplines of cultural, artistic, and historical inquiry; students in the minor will have the opportunity to engage with the emerging future of their fields—and to help shape that future. We also offer an analogous program for graduate students. Any humanities student will feel at home in this minor and in its research community.

Wheaton College -- The Digital Humanities (DH) minor provides students with an interdisciplinary program of inquiry that merges computational thinking and information technology with the humanities. By engaging computing and humanities skills, the program seeks to empower students to be technologically capable, bringing diverse sets of methodologies and perspectives to the study and communication of human culture and production.

### WASHINGTON AND LEE UNIVERSITY

#### UNIVERSITY LIBRARY

To: The Curriculum and Degrees Committee

From: John Tombarge, University Librarian

Date: February 19, 2018

Subject: Availability of library faculty to teach courses in the DCI minor

The depth of expertise among library faculty is sufficient to allow courses in the Digital Culture and Information minor to be offered as appropriate regardless of sabbaticals or other faculty activities.

Eight members of the library faculty are either core or affiliate faculty with the proposed minor, and at least two members are qualified to teach each of the required courses and many of the elective courses. This should ensure that sufficient faculty are available to teach courses as scheduled.

This depth of expertise is the result of strategic use of the *DH Studio: A Digital Humanities Pedagogical Innovation* grant funds, which was awarded by the Mellon Foundation in 2015. As the grant proposal stated, the long-term sustainability of pedagogical innovations was to be secured by the "redistribution of key library staffing toward the DH curricular and research initiatives." Thus, current library faculty positions were redefined and open faculty appointments were filled with candidates selected not only for their ability to perform required job functions, but also their ability to contribute expertise in digital scholarship and their knowledge of digital research methods.

The Mellon grant initiatives and the resulting redistribution of library faculty have formed the basis of the proposal for the Digital Culture and Information minor, and ensured faculty availability.