USVI LIBRARY/COMMUNITY COLLABORATION: TRAINING AND TECHNOLOGY INNOVATIONS

Empowering the USVI: Libraries and Community Unite

Nicole Hatfield, Director of Libraries

Judith Daley, Education Technology Specialist

University of the Virgin Islands

nicole.hatfield@uvi.edu

judith.daley@uvi.edu

Authors' Note

Abstract

Across the globe, the COVID-19 pandemic brought gaps in both digital literacy and information seeking behaviors into sharp focus. These deficiencies were especially prevalent in the United States Virgin Islands (USVI), where citizens struggled to rebuild from two Category 5 hurricanes in 2017. As a leader in innovative programming, The University of the Virgin Islands (UVI) Libraries and its community partners applied and were awarded over $240,000 through a National Leadership Grant from the Institute of Museum and Library Services (IMLS). The grant funds were used to establish the *USVI Library/Community Collaboration: Training & Technology Innovations* initiative focused on developing technology skills for information-seeking purposes in the Virgin Islands' community by capitalizing on partnerships with community organizations. Program goals included participants demonstrating improved knowledge and competency in basic computing, accessing tele-health services, and various other digital skills.

The project engaged the services of Northstar Digital Literacy (Northstar), a digital literacy platform that offers pre- and post-testing, customized self-directed lessons, and various reporting options. The community partners were responsible for identifying a trainer and enrolling participants, who met in-person and virtually, to work through Northstar modules. These modules are tailored to individual pre-test results and range from basic computer skills to advanced Microsoft programs. Upon completion of pre-assessments and self-directed learning, trainers proctored post-tests, with participants who earned 85% or higher awarded certificates of completion. UVI librarians developed a marketing plan, conducted Train the Trainer sessions, offered both in-person and virtual support, and convened a bi-monthly advisory board comprising of a representative from each community partner. The UVI team and the advisory board recommended yearly objectives focused on skills gained. Each partner received two $1,000 stipends upon successful attainment of the goals.

Most community partners achieved their yearly objectives; however, they encountered challenges in procuring qualified trainers, acquiring necessary equipment, and securing adequate training facilities.

UVI Libraries addressed these obstacles by opening computer labs in campus libraries and offering personalized support for trainers, in addition to more targeted interventions.

The initiative resulted in the UVI administration and Human Resources department recognizing the value of the Northstar program, which is now incorporated as part of the onboarding process for new employees. New hires are now required to complete specific modules and earn certificates to ensure they possess necessary digital literacy skills. Additionally, the program will continue to be available to community partners.

To evaluate the initiative's effectiveness, external evaluators will employ a multi-method approach, incorporating data from the online digital literacy platform and conducting assessments with both community partners and UVI team members.

UVI's program has the potential to be replicated across the Caribbean with ease. Northstar and other digital literacy programs are cost-effective, and existing community partnerships provide a solid foundation for organizing training sessions. Additionally, the established community partnerships would help ensure that the training sessions are well-attended and effective in meeting the needs of the local population. This would result in increased digital literacy and job readiness for individuals in the region, and a more skilled and productive workforce.

Introduction

The academic libraries at the University of the Virgin Islands (UVI) serve approximately 1750 students and faculty within the UVI community and 87,000 people within the greater Virgin Islands (VI) population, located on the islands of St. Thomas, St. Croix, and St. John. UVI is a unique institution with two campuses, and it holds the distinction of being the only higher learning institution in the territory, as well as the only Historically Black College and University in the Caribbean. Furthermore, the libraries partner with government agencies and community groups who rely on UVI facilities and resources for support. The libraries offer a wide variety of services including Internet access, computer labs, printing

services, access to the general and special collections, reference help, and a conducive environment for research and recreational reading. In addition to the physical offerings, the libraries have a digital collection, institutional repository, and have partnered with the Digital Library of the Caribbean (DLOC) to digitize, provide access to, and publicize important Caribbean resources. They play an integral role in the development of and support for scholarship in the territory due to the limited hours and resources provided by the public libraries. The UVI Libraries and their collections are available to both faculty and staff, as well as the wider community through the Preferred User Program (PUP), through which, for a nominal fee, community members can access the Internet and library collections. Therefore, UVI's libraries are not only a critical resource for the University but play a significant role in addressing needs in the greater community.

The University of the Virgin Islands was established March 16, 1962, with a mission to foster the "stimulation and utilization of the intellectual resources of the people of the Virgin Islands and the development of a center of higher learning whereby and wherefrom the benefits of culture and education may be extended throughout the Virgin Islands" (University of the Virgin Islands). The National Leadership grant awarded by the Institute of Museum and Library Services (IMLS) to UVI Libraries and its community partners addresses this directive. UVI Libraries collaborated with ten community partners of diverse populations: healthcare providers and social support networks including faith-based services, recreational, and personal development groups. The groups reported challenges for youth and senior members to pivot effectively to digital platforms during COVID-19 conditions. Healthcare providers reported patient reluctance to engage with health professionals virtually due to patient inexperience with technology; social support organizations reported additional youth behavioral challenges after lockdown due to limited extra-curricular stimulation and violent encounters in their surroundings; and faith-based organizations used digital media for socialization of members with mixed results starkly illuminating digital disparities. The ***USVI Library/Community Collaboration: Training & Technology Innovations***

(hereby referred to as Community Collaboration) initiative focused on addressing these disparities and developing technology skills for information-seeking purposes within the VI community.

Digital Literacy

The meaning of *digital literacy* and the skills it encompasses has been a topic of ongoing discussion and debate, making it challenging to establish a clear and concise definition. However, several scholars and organizations have attempted to clarify its meaning. Ba et al (2002) proposed that digital literacy should be viewed as a set of habits that children use when interacting with information technologies for learning, work, and leisure. In contrast, Spires and Bartlett (2012) defined digital literacy as having three main components: locating and consuming digital content, creating digital content, and communicating digital content.

The American Library Association (ALA) launched DigitalLearn.org in 2013 and defined digital literacy as "the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills" (para. 1). ALA also created a digital literacy clearinghouse that includes podcasts, online learning, and other resources. In 2018, Spires et al emphasized the importance of digital citizenship, stating that it involves not only the ability to use technology intelligently but also an understanding of cultural and societal issues related to technology (p. 2239). Overall, digital literacy is a multifaceted concept that encompasses various skills and competencies related to the use of technology, including both technical and cognitive abilities.

The UVI Libraries and its community partners recognize that one of the most significant benefits of digital literacy is that it opens a world of knowledge and information. In today's rapidly changing society, digital literacy is becoming increasingly important, as almost every aspect of modern life involves digital technologies. Digital literacy skills are essential for individuals to participate fully in society, to access education and employment opportunities, and to communicate effectively with others. Digital literacy is also essential for success in the modern workforce. Basic proficiencies like typing,

using email, and using common software applications are essential in many industries, yet many in the VI community have not acquired these skills.

The Divide

Benjamin Compaine (2002) refers to a common definition of the digital divide as the "perceived gap between those who have access to the latest information technologies and those who do not" (xi). UNICEF's Global Development Commons takes the definition further and includes those who lack "the training and skills required to navigate...technology" (UNICEF Global Development Commons, para. 5). Therefore, the UVI Libraries identified two main components of the digital divide. The first is *access* to information (high-speed Internet at home). According to a 2021 report issued by U. S. Congress Joint Economic Committee, the distribution of home broadband subscriptions (high speed internet access) is strongly linked to income, education, age, and race. The report, focused on statistics from the 50 United States, concludes: fewer than 50% of households earning less than $20,000 annually have a broadband subscription. In addition, there is a significant disparity in broadband adoption rates based on education level, with less than 10% of people with a bachelor's degree lacking a subscription, compared to 40% of individuals who did not complete high school. Older Americans are less likely to have broadband in their homes, with over one-third of those over 65 years old reporting not having broadband, compared to less than one-fifth of those under 65 years old. There are also notable racial disparities in home broadband subscriptions, with 82% of white residents having a subscription, compared to 70% of black residents, and 74% of Hispanic residents. Income, education, age, and race are all factors that contribute to these disparities in broadband adoption rates among different racial groups. In the Virgin Islands, this disparity is significantly less prevalent. According to the 2020 Census, 71.4 % of the population identify as Black or African American, 18.6% of USVI families live in poverty, and only 22.3% hold a bachelor's degree or higher; based on the 2021 report, these statistics should indicate a lack of broadband access. However, because of initiatives like the United States Treasury's Affordability Connectivity Program, the Digital Equity Act Program, and Connect USVI Fund, the United States Census reports that 79.2% of homes

have broadband access effectively finding the access needed to close the divide (The Virgin Islands Consortium, 2022; The St. Thomas Source, 2021).

Unfortunately, these important broadband initiatives do not address the second component of the digital divide: the skills individual VI citizens need beyond access; skills that will allow them to navigate and appropriately discern digital content. Libraries throughout the world have modeled efficient ways to support patrons in digital learning and mitigating the digital divide. At the Richmond Public Library in California, librarians created the Literacy for Every Adult Program (LEAP) offering free volunteer-led tutoring sessions focused on helping participants build confidence and achieve individual goals (Castek et al, 2019). Flinner et al. (2019) highlight the importance of library digital literacy programming and the library as a place for people to learn digital literacy skills with the understanding that programming varies widely. They also encourage libraries to partner with community-based organizations to the mutual benefit of both, stating "community organizations and libraries alike enjoy increased capacity, and members of the community get access to better services and resources" (Flinner et al., 2019). In the Virgin Islands, according to community participants' self-reporting, most (54%) identified limited knowledge or skill as a barrier in using digital technology. Thirty-six percent (36%) identified limited time or resources, while 34% claimed fear of making mistakes or breaking something was a deterrent. Only 16% identified lack of access to technology as a barrier. See Appendix A for selected survey responses.

UVI librarians and their community partners designed the Community Collaboration project to address the lack of skills necessary beyond access.

Program Description

The Community Collaboration project embraced the IMLS goal to promote lifelong learning, through an innovative project for digital and information literacy development. To this end, UVI established a project team dedicated to establishing the program. The team consisted of a full-time

librarian serving as project director, a health services librarian, a librarian-educator, and a helpdesk technician. Because of UVI's unique location, the project team had a librarian on each island's campus. To capitalize on relationships already established, the project team partnered with community organizations (SEE COMPLETE LIST HERE) already established. Each organization nominated an advisor to serve on the Advisory Committee and at least one trainer to facilitate group training. At times, the advisory and the trainer roles were fulfilled by the same person. Community groups earned two annual $1000 stipends for meeting program goals. Partners and the Director of UVI Libraries signed an agreement outlining basic commitments. See Appendix B. Once partnerships had been established, the first advisory committee meeting was scheduled.

Project Objectives

- Develop the capacity for at least 200 clientele of targeted community groups to use technology as a resource for retrieving information and for receiving tele-health care
- Provide resource support through university and community organizations
- Address the need for effective remote communication for at least 1,000 persons (including students and community users)

The first advisory meeting focused on explaining the parameters set by IMLS and the grant's narrative. Community advisors had an opportunity to ask questions and offer strategic input. During this meeting, the advisory committee decided that the project team would investigate online digital literacy platforms and compare offerings available to educational materials that could be created specifically for the program. The committee agreed to meet bi-monthly to offer guidance and recommendations, share information, and address issues as they arose. Train the trainer sessions would also be established once the project team established the digital learning curriculum.

Following the initial meeting, the project team began investigating online digital learning platforms and digital literacy programs at other institutions. UNESCO's Digital Literacy Framework

(See Appendix C) provided a foundation for better understanding the complexities facing our community participants. In addition, the project team carefully compared several digital literacy platforms and eventually decided to contract with Northstar Digital Literacy. Northstar offers fifteen digital literacy modules with pre- and post- assessments. Thirteen of Northstar's modules also offer self-directed lessons based on individual participant's pre-assessment results. Because the advanced Northstar features, including the many reports and the ability to proctor tests, are not offered with the free version, the project team modified the grant budget and included two-year access to the Northstar platform. See Appendix D for a complete list of Northstar modules.

Subsequent advisory committee meetings focused on mastering the Northstar platform, developing the project website: Community Collaboration, articulating community group requirements to earn the first stipend, and planning *Train the Trainer* sessions. The project team developed individualized flyers for each group to use in marketing the program to their members and offered several training sessions. Trainers registered as proctors in the Northstar program. Community participants who complete a proctored post-test with a score above 85% earn a certificate of completion from Northstar. The certificates earned allow the project team to quantify and measure achievable goals and the community members tangible evidence of completion to add to portfolios or resumes. Community trainers registered members and, after receiving training, began to offer digital literacy instruction using the Northstar platform.

Throughout the first year, the project team met with community members as needed for support. Computer labs on both campuses were opened to interested groups. Librarians met with trainers and individual group members to offer targeted assistance. All members of the UVI Helpdesk team were trained in using the Northstar platform and were able to answer any questions addressed to the UVI Helpdesk.

Year One Requirements: August 2021-July 2022

- Identify Trainer and Advisory Committee Member

- Minimum of 20 learners registered in Northstar

- Minimum of 20 learners earned a certificate on the module: *Basic Computer Skills*

Of the ten community groups participating, eight earned the stipend for the first year. The last two groups continued with the program throughout the second year in hopes of earning the second-year stipend.

The second year began with continued advisory meetings and training sessions. Advisory sessions focused on answering any questions and building out the program through its completion. The team finalized the requirements for community groups earning the second stipend.

Year Two Requirements: August 2022-July2023

In addition to the Year One Requirements

Minimum of 20 Certificates earned for each of the following:

- Internet Basics

- Email

- Telehealth

- 20 Additional Certificates (Any Module)

80 Total Certificates

Training sessions allowed the project team to offer in-depth guidance on the Northstar system. The project team also underwent staffing changes during the second year. The health-services librarian retired and a new UVI employee (previously a community trainer) took her place. The original helpdesk technician also left and was replaced.

In addition, the project team continued to connect with community participants and other interested parties. The Community First! Homeless Center on St. Croix expressed interest, and the project technician traveled to their location to establish a computer lab on site. Another community

group, the Career and Technical Education High School on St. Croix joined as a partner, quickly offering the digital literacy program to students preparing to enter the workforce.

The project team began a new initiative, marketing the digital literacy program within UVI. Three *Freshmen Development Seminar* courses required their students to complete the Career Search Skills module. The Human Resources team added the program to the required training for all incoming employees. Finally, the project team, in partnership with the Physical Plant administration offered the training to all employees on both campuses. Because of the combined success of the community groups and the UVI staff, UVI has agreed to continue offering the program beyond the grant's established time.

Discussion

As the project progressed, the UVI team and its community partners overcame several obstacles. From these, the team learned important lessons. One major obstacle was Northstar's incompatibility with some devices. The program did not work properly outside of computers; therefore, finding computer labs for participants became increasingly important. UVI librarians and technicians ensured log-in credentials and computer labs on both campuses were available. Additionally, many of the community trainers lacked familiarity and comfort with the technology used, so the project team provided individualized assistance to help them become more proficient.

As the trainers began working with community members, they encountered specific issues related to the diverse backgrounds and needs of the participants. For instance, elderly members required more support, and language barriers caused complications. Some trainers had to start with basic skills such as logging in and using a mouse, and younger community members sometimes helped older ones in mixed-age groups. To address language challenges, one trainer created a Spanish-language flyer and utilized the limited Spanish curriculum available in Northstar.

To assess the program's impact, the project team enlisted an external evaluation team consisting of professionals with diverse backgrounds. The Evaluation Team will complete their evaluation in August

2023. Preliminary results (April 2023) show that 638 community participants have registered with Northstar. Of those registered, 349 (55%) are active participants and 187 (29%) have used the platform for at least one hour. Community participants took 2,847 assessments (both proctored and not) and earned 1,050 certificates (proctored assessments with a minimum score of 85%). Although the deadline for completing Year Two requirements is not until July 31, 2023, four community groups have already finished.

Conclusion

Libraries have long been vital community resources, providing free access to information for all members of society. They serve as a crucial equalizer, ensuring that citizens have an equitable opportunity to learn and grow. Over time, libraries have adapted to changing technology and societal needs, but their fundamental purpose remains unchanged. While in the past patrons would search for information in printed books using card catalogs, today's libraries offer online catalogs and websites as well, expanding the range of accessible resources and further supporting the mission of equal access to knowledge. In the Virgin Islands, already struggling to rebuild from two Category 5 hurricanes, the COVID-19 pandemic's impact was especially isolating. The local government, in response to the digital gap, pursued infrastructure projects with the goal of providing vital and accessible technology (high speed internet) services throughout the islands. The lack of digital literacy skills and knowledge needed to utilize the new technologies were not fully addressed.

In response, UVI Libraries, in collaboration with community partners, developed the USVI Library/Community Collaboration: Training & Technology Innovations program to provide the community with the skills and resources needed to navigate the rapidly changing technological landscape. Through this program, participants gained not only the ability to use digital tools effectively and efficiently but also the confidence to pursue new career opportunities and expand their personal use of technology. By partnering with the community, UVI Libraries are ensuring that the benefits of digital literacy are accessible to everyone, regardless of background or circumstance.

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Appendix A

Digital Literacy Survey (Pre-Assessment) Selected Results

Figure A1

Participants' Age Range

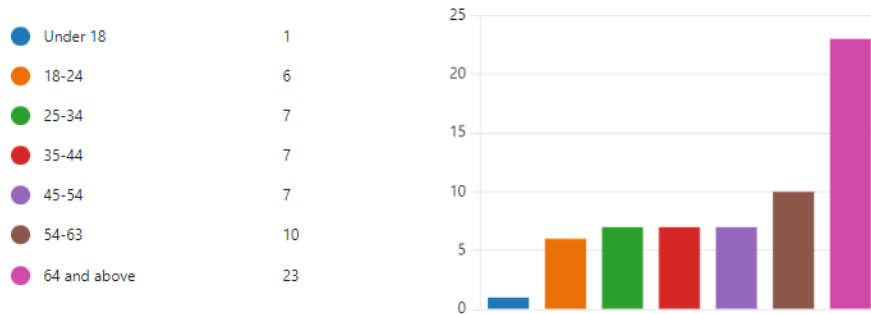|		
● Under 18	1	
● 18-24	6	
● 25-34	7	
● 35-44	7	
● 45-54	7	
● 54-63	10	
● 64 and above	23	

Figure A2

Participants' comfort level with digital literacy: 5 stars is EXPERT
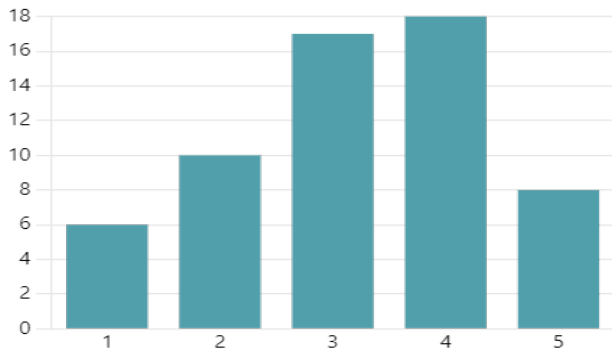
Average Rating 3.20

Figure A3

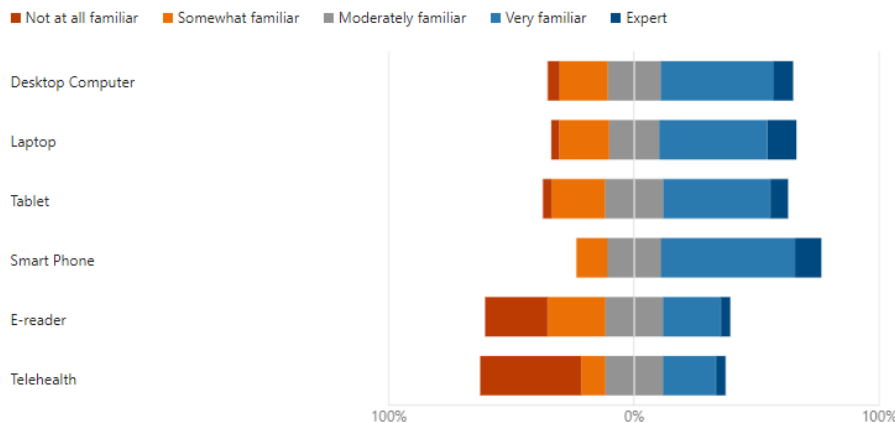*Participants' familiarity with the following types of digital technology*

Figure A4

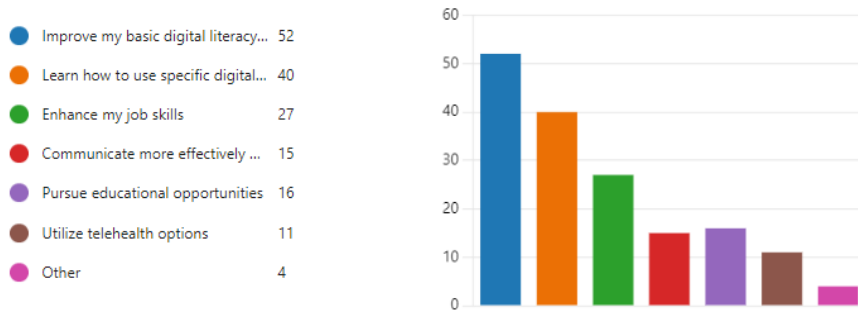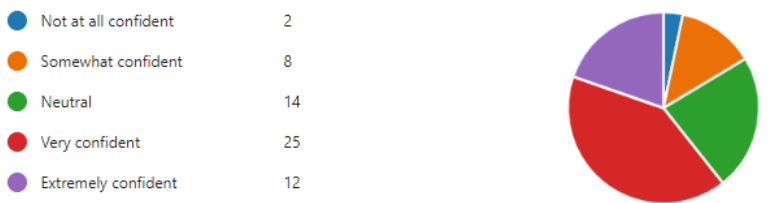*Participants' goals for participating in this digital literacy program*

🔵 Improve my basic digital literacy...	52	
🟠 Learn how to use specific digital...	40	
🟢 Enhance my job skills	27	
🔴 Communicate more effectively ...	15	
🟣 Pursue educational opportunities	16	
🟤 Utilize telehealth options	11	
🔴 Other	4	

Figure A5

Participants' challenges using digital technology in the past

🔵 Lack of access to technology	10
🟠 Limited knowledge or skills	33
🟢 Fear of making mistakes or brea...	21
🔴 Limited time or resources	22
🟣 Other	6

FigureA6

Participants' confidence in learning new digital skills

More Details

🔵 Not at all confident	2
🟠 Somewhat confident	8
🟢 Neutral	14
🔴 Very confident	25
🟣 Extremely confident	12

Appendix B

UNIVERSITY OF THE VIRGIN ISLANDS

Historically American   Uniquely Caribbean   Globally Interactive

Information Services & Institutional Assessment

USVI Library/Community Collaboration: Training & Technology Innovations
Partner Agreement

December 7, 2021

The UVI Libraries and Community Partners aim to build effective technology skills for telehealth and information access within our communities.

UVI Libraries agree to:

- Facilitate bi-monthly advisory panel meetings via Zoom
- Create pre and post assessments for distribution to Community Partners
- Convene a minimum of five virtual training sessions for community trainers
- Create training and reporting materials for dissemination to Community Partners
- Offer orientation sessions and IT support through the UVI Helpdesk
- Generate interim and final reports for Institute of Museum and Library Services (IMLS)
- Provide $2000 stipends ($1000 yearly) to community partners

Community Partners agree to:
- Nominate an advisory panel member to attend virtual meetings
- Identify a trainer for community members (trainer can also serve as the advisory panel member)
- Provide assessment data
- Document training challenges and solutions
- Attend a minimum of five UVI training sessions
- Provide a minimum of five training sessions to a minimum of 20 community members
- Complete interim and final reports

Nicole Hatfield

Nicole Hatfield
Project Director

Print Name and Title

"Providing Technology Service, Solutions and Information Resources"
Library Second Floor #2 John Brewer's Bay, St. Thomas, VI 00802
Tel: (340) 693-1460, Fax: (340) 693-1545

Appendix C

UNESCO's Proposed Digital Literacy Competence Areas and Competences

Competence area	Competences
0. Fundamentals of hardware and software	0.1 Basic knowledge of hardware such as turning on/off and charging, locking devices 0.2 Basic knowledge of software such as user account and password management, login, and how to do privacy settings, etc.
1. Information and data literacy	1.1 Browsing, searching and filtering data, information and digital content 1.2 Evaluating data, information and digital content 1.3 Managing data, information and digital content
2. Communication and collaboration	2.1 Interacting through digital technologies 2.2 Sharing through digital technologies 2.3 Engaging in citizenship through digital technologies 2.4 Collaborating through digital technologies 2.5 Netiquette 2.6 Managing digital identity
3. Digital content creation	3.1 Developing digital content 3.2 Integrating and re-elaborating digital content 3.3 Copyright and licenses 3.4 Programming
4. Safety	4.1 Protecting devices 4.2 Protecting personal data and privacy 4.3 Protecting health and well-being 4.4 Protecting the environment
5. Problem solving	5.1 Solving technical problems 5.2 Identifying needs and technological responses 5.3 Creatively using digital technologies 5.4 Identifying digital competence gaps 5.5 Computational thinking
6. Career-related competences	6. Career-related competences refers to the knowledge and skills required to operate specialized hardware/software for a particular field, such as engineering design software and hardware tools, or the use of learning management systems to deliver fully online or blended courses.

Note. Underscored competence areas and competences are proposed additions to the existing DigComp 2.1 competences.

Appendix D

Northstar Modules

Essential Computer Skills
- Basic Computer Skills*
- Internet Basics*
- Email*
- Windows*

Essential Software Skills
- Mac OS*
- MS Word*
- MS Excel*
- MS PowerPoint*
- Docs*

Using Technology in Daily Life
- Social Media *
- Information Literacy*
- Career Search Skills*
- Your Digital Footprint*
- k-12 Distance Learning
- Telehealth

*Modules offer self-directed lessons