new DIGITAL alliance

2019-20 ANNUAL report

ADVANCING COLLABORATION EFFORTS THAT PROMOTE TECH HEALTH OF THE REGION

Established in 2017

Celebrating 3 Years

NOTE FROM DIRECTOR

Welcome to our first annual report! I'm excited to share the progress we have made since our start in 2016 as well as provide an update on the organization and our key initiatives.

We have seen a lot of changes in the Alliance this year. At the beginning of 2020, recognizing that IT skills are needed in more than just the IT department, we took a step back and reexamined our mission and branding. We settled on a new mission, expanded our core set of pillars, and changed our name in early March. The rebranding from the NEW IT Alliance to the NEW Digital Alliance allowed us to better align with the expanded pillars.

Shortly after, Covid-19 hit, showing the importance of digital technologies and the expanded scope of the Alliance. Despite the upheaval in every aspect of society, digital technologies remain vitally important to business, non-profits, government, education, and individuals. We continue to advocate and work to expand the pipeline of IT talent and increase the digital skill level of everyone.

> **"Despite the upheaval in every aspect of society, digital technologies remain vitally important to business, non-profits, government, education, and individuals."**

Since the NEW Digital Alliance was created, we have developed numerous initiatives and partnerships across the region. Inside this annual report you can learn more about our initiatives – efforts such as the NEW Connect IT event which aims to educate high school students about digital careers. On our Moving Forward page, you can learn more about our pillars and where we are headed.

While we've accomplished a lot in the past three years, there is still more to do. We are excited about the future – and working with you to make it happen!

Contact us at info@newdigitalalliance.org to learn more about how you can help make a difference in Northeast Wisconsin.

Kim Iversen

WHY A DIGITAL ALLIANCE?

The Northeast Wisconsin Digital Alliance was created as a result of local business leaders voicing concern about a widening gap between supply and demand for technology talent.

As a result, the Northeast Wisconsin Educational Resource Alliance (NEW ERA) conducted an economic study in June 2015 involving 40 employers and 93 school districts in the 18-county northeast Wisconsin region known as the NEW North. The study found:

Shortage of IT talent in 2016 of 1,300 professionals in Northeast

Gap expected to grow to 3,000 by 2021 (not including retirements)

Estimated lost wages to region is $200,000,000 (does not factor income multiplier effect)

86%

86 percent of high school students surveyed are **not interested** in technology careers

Only 20 percent of IT graduates from local colleges **are female**

Founding companies quickly realized that the gap was too big for any one of them to solve alone and could only be solved by working together regionally. They therefore pooled resources and created the NEW IT Alliance, now known as the NEW Digital Alliance, in November 2016.

MISSION STATEMENT:

Advance collaboration efforts that promote tech health of the region.

STRATEGIC IMPERATIVES

- Inspire people of all ages to pursue IT as a career pathway

- Inspire people within organizations to pursue IT education to build their skills & capabilities

- Inspire IT professionals to move or "come home" to Northeast Wisconsin

TRENDS IN IT

Despite a small increase, unemployment in the tech field continues to be low. IT workers continue to be in high demand despite a challenging national job market. In January 2020, the national unemployment rate hovered around 4.1% while IT unemployment sat at 3% according to a Forbes article referencing Bureau of Labor Statistics (BLS) data. In early August, CompTia reported July's BLS unemployment data, citing national unemployment at 10.2% with tech unemployment at 4.4%.

TECH VS. NATIONAL UNEMPLOYMENT
DURING COVID-19 2020 OUTBREAK

National Unemployment
Tech Unemployment
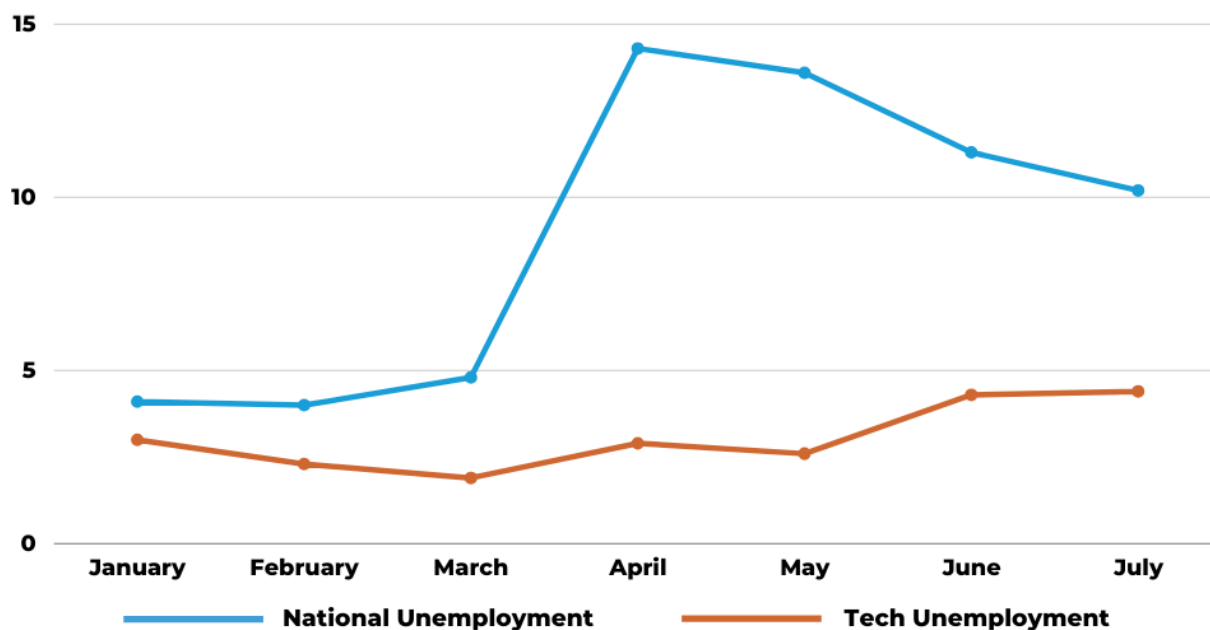
A BRIEF HISTORY OF
ALLIANCE COLLABORATION

2015 Oshkosh Survey
WIT

Amplify
NEW IT Survey

2016

NEW IT Alliance
start in fall-
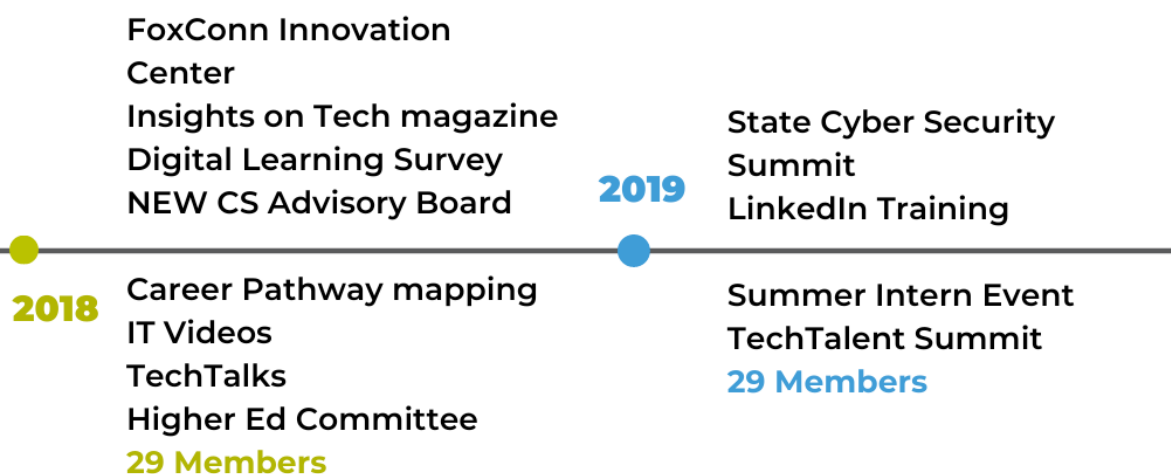**8 members**

2017

TEALS
TechSpark
Titletown Tech
Youth Apprenticeship
IT Clubs
Summer Camps

NEW Connect IT
Tech Upload Newsletter
IT Job Board
Tech Community
14 Members

Local companies continue to struggle to find the digital talent needed to support their needs, and several NEW Digital Alliance members such as Smart IS International report they are continuing to hire. CompTIA and Dice report an increase in national demand for cyber security analysts, likely attributed to an ongoing increase in cyber threats. CompTia also indicate an increase in demand for Systems Analysts as a work from home position, while Dice indicates an increase in demand for certain types of developers.

In order to help meet the needs of local organizations, reskilling efforts are critical. To help with this effort, organizations throughout Northeast Wisconsin are working together to provide information and opportunities for displaced workers. The NEW Digital Alliance has launched a Digital Careers and Pathways page to help displaced workers navigate the digital career field and associated educational pathways. Microsoft launched their LinkedIn Learning Pathways, and in collaboration with gBeta, the first cohort of reskilled workers has graduated with certificates in a number of programs. New North is working with gBeta and NEW ERA to connect cohort graduates with continuing education opportunities within our local colleges.
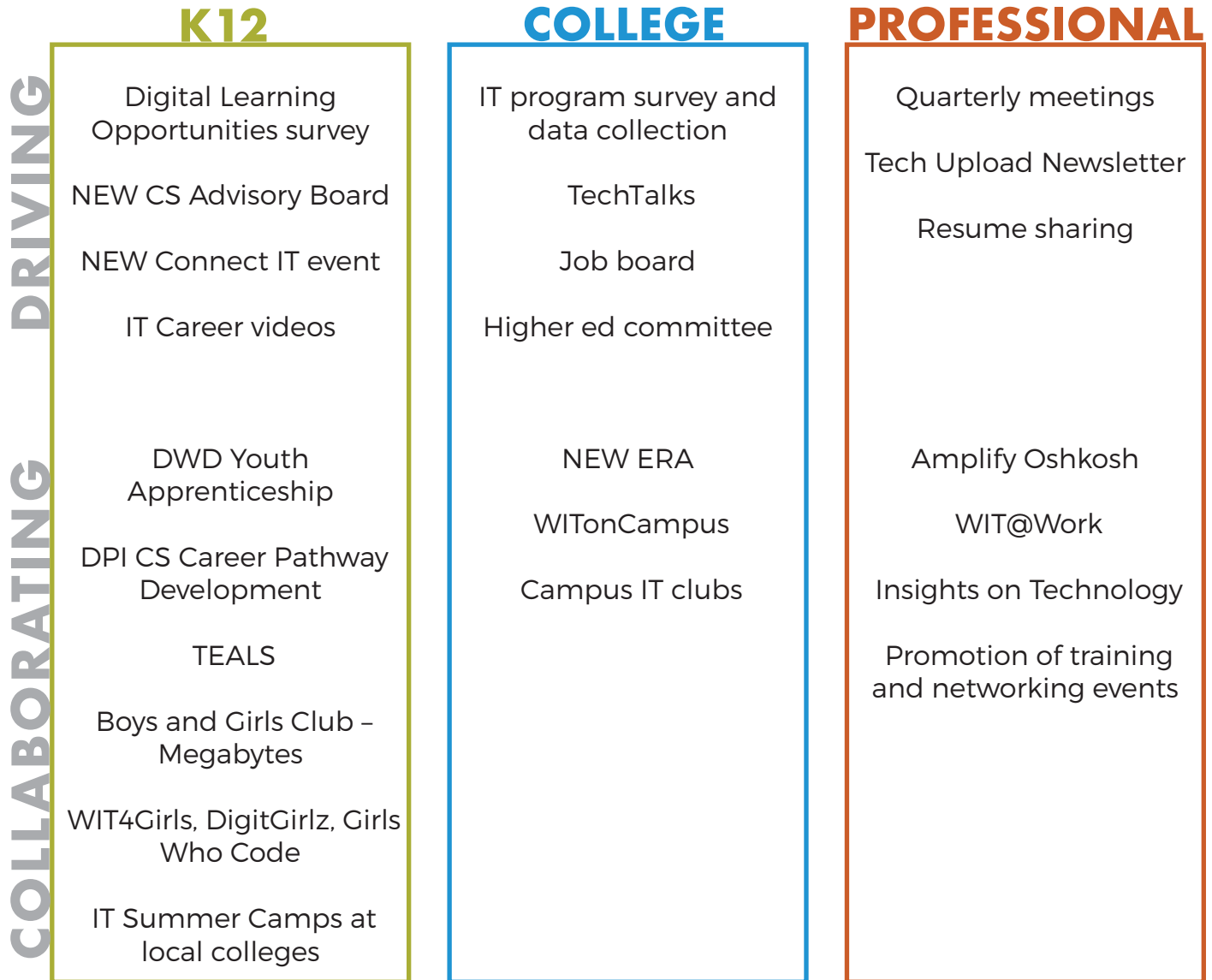
The NEW Digital Alliance is also working with NEW ERA on a grant to develop flexible learning pathways that will help further upskilling and re-skilling opportunities in the region. We also continue to share with our member organizations resumes of job seekers looking for opportunities in the digital space.

FoxConn Innovation Center
Insights on Tech magazine
Digital Learning Survey
NEW CS Advisory Board

2019

State Cyber Security Summit
LinkedIn Training

2018

Career Pathway mapping
IT Videos
TechTalks
Higher Ed Committee
29 Members

Summer Intern Event
TechTalent Summit
29 Members

KEY SEGMENTS

The NEW Digital Alliance is driving initiatives across all age groups to increase IT and digital talent in Northeast Wisconsin.

Our efforts fall into three broad categories where the NEW Digital Alliance is driving some efforts and collaborating with other organizations elsewhere.

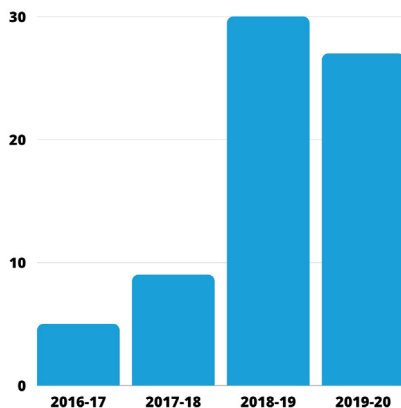| K12	COLLEGE	PROFESSIONAL
DRIVING		
Digital Learning Opportunities survey	IT program survey and data collection	Quarterly meetings
NEW CS Advisory Board	TechTalks	Tech Upload Newsletter
NEW Connect IT event	Job board	Resume sharing
IT Career videos	Higher ed committee	
COLLABORATING		
DWD Youth Apprenticeship	NEW ERA	Amplify Oshkosh
DPI CS Career Pathway Development	WITonCampus	WIT@Work
TEALS	Campus IT clubs	Insights on Technology
Boys and Girls Club – Megabytes		Promotion of training and networking events
WIT4Girls, DigitGirlz, Girls Who Code		
IT Summer Camps at local colleges		

In Year-1 the Alliance's focus was on the k12 sector in order to enact change in the longest lead space, and engage students as they are looking to make career and post-secondary education choices. During Year-2 we began efforts within the colleges to increase program retention rates, and connect college students with regional employers. Throughout the past three years we have shared professional resumes with member organizations in order to retain talent in region, and promoted tech education and networking events to help upskill existing tech talent.

PROFESSIONAL

JOB BOARD
NEW Digital Alliance hosts a job board for our member companies, and promotes open positions via social media and through our area colleges. To date we average 74 views per month.

RESUMES SHARED

RESUMES
We regularly receive unsolicited resumes from college students and seasoned IT professionals which are shared with our corporate sponsors. As the Alliance has grown, the number off resumes we are able to share with our sponsors has also grown.

IT PROFESSIONALS WEBPAGE
In response to a regional CIO who stated they were unaware of networking opportunities for their IT professionals, we created and maintain a listing of professional networking organizations in Northeast Wisconsin that includes organization descriptions and links to their meeting information. This page can be found at https://newdigitalalliance.org/it-professionals/.

UPSKILLING AND RESKILLING
In response to the Covid-19 impact on our workforce and the increased need for upskilling and reskilling regional workers, the Alliance worked with regional educators to develop the Digital Careers and Pathways webpage (https://newdigitalalliance.org/digital-careers/). This page includes a listing of common digital careers. Clicking on a career opens a page with more information, including a listing of educational programs in the region, and links to learn more about each program.

NEW CONNECT IT
The NEW Connect IT event provides professionals the opportunity for career development in a fun environment. Professionals can share their own learning and career pathways with students in small group conversations building mentoring skills, as well as practice presentation and facilitation skills as a panelist, panel moderator, or as a keynote speaker. While building their professional skills, they are engaging with tomorrow's workforce.
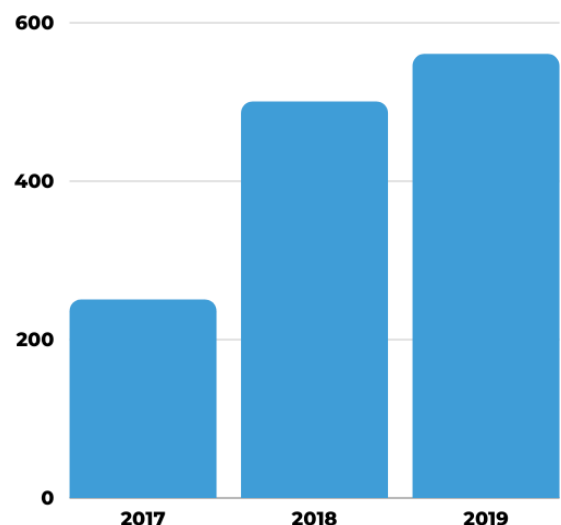
NEW CONNECT IT

NEW Connect IT is the premier Career and Job Fair in the region focused exclusively on careers in IT. It is all about connecting students to IT career pathways, and connecting employers to immediate and future employees.
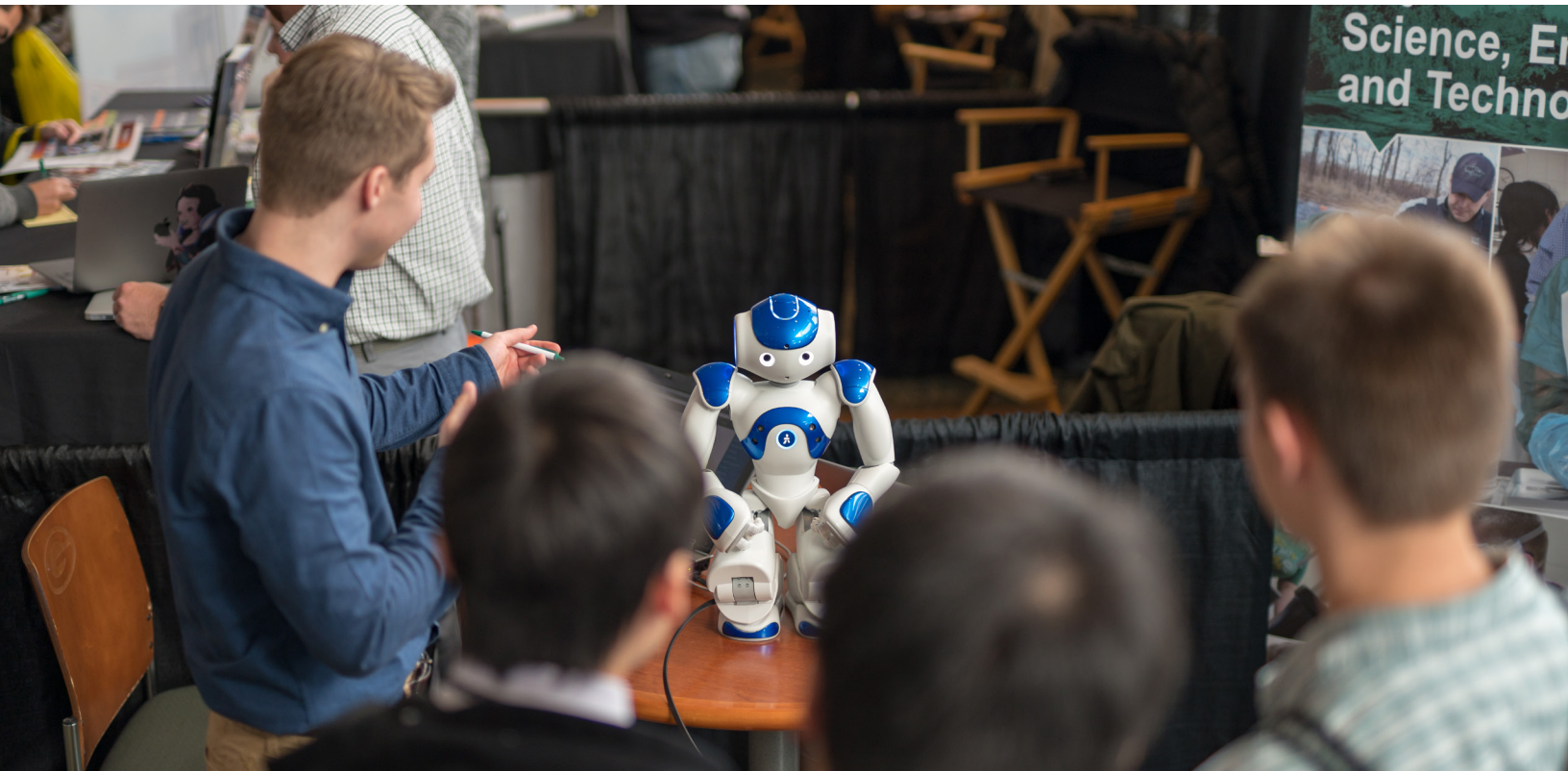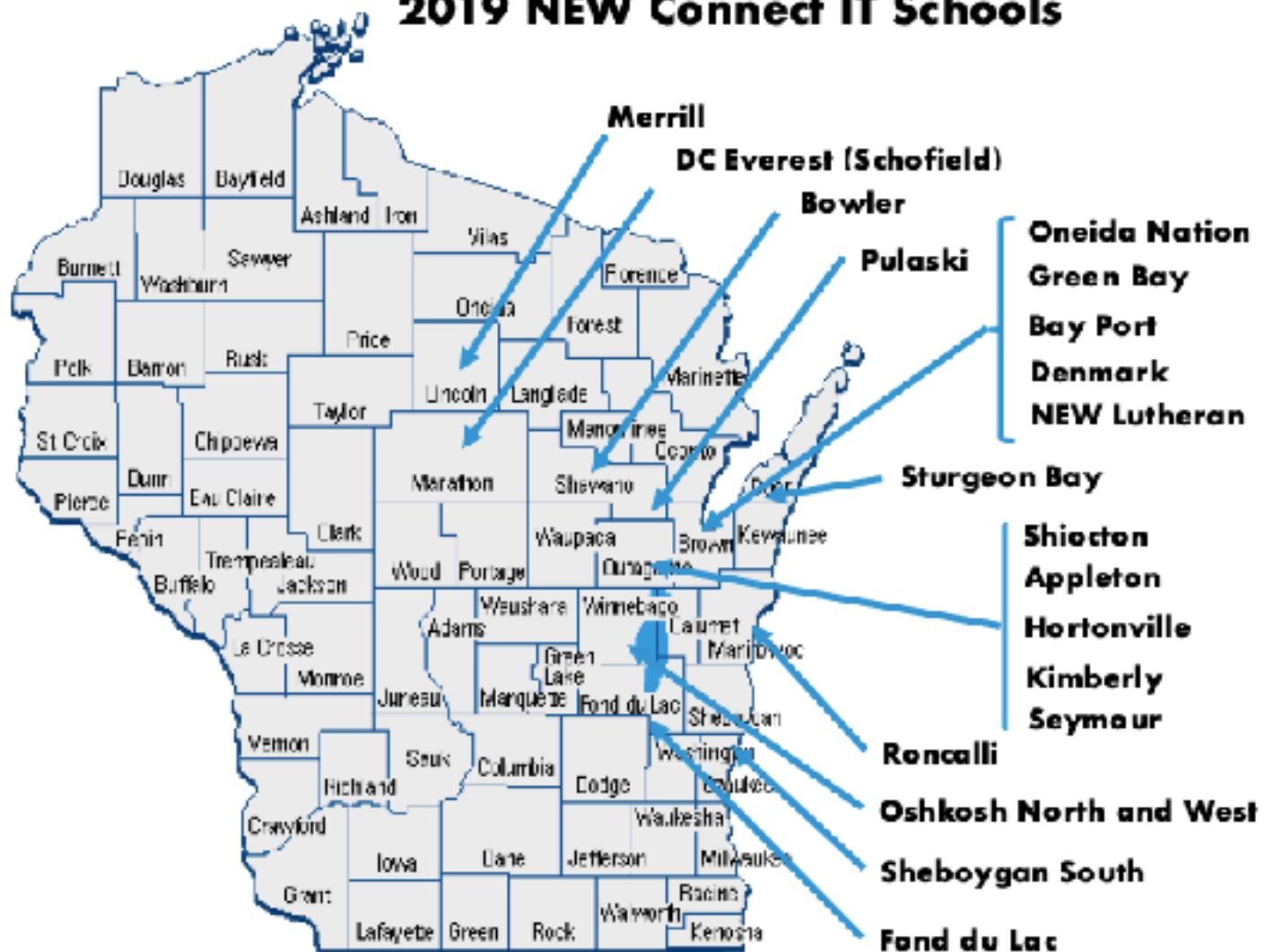

This annual career fair is designed to help educate high school students about the IT and digital career field and the companies looking for IT and digital talent.

We have experienced significant growth in the number of students looking to learn about digital careers, who hires them, and where they can go to get a degree in a digital field.

NEW CONNECT IT
HIGH SCHOOL STUDENTS
ATTENDING

2019 NEW Connect IT Schools

Merrill

DC Everest (Schofield)

Bowler

Pulaski

Oneida Nation

Green Bay

Bay Port

Denmark

NEW Lutheran

Sturgeon Bay

Shiocton

Appleton

Hortonville

Kimberly

Seymour

Roncalli

Oshkosh North and West

Sheboygan South

Fond du Lac

> **Thank you so much to you and your teams for coordinating one of the best and most diverse tech career fairs. Not only did students learn and communicate, their futures now have an extra spark to motivate them to do well in HS and graduate confidently. You showed them a bright light to begin their independent life as successful young adults. As chaperones, we were highly impressed with the professional engagement and time devoted to assist us and bring more opportunities back to our schools, staff, and students. Thank you is not enough to express my gratitude!**

-Michelle Gibson, Sturgeon Bay High School Business and Information Technology Educator

K12 COMPUTER SCIENCE

The NEW Computer Science (CS) Advisory Board relies on annual survey results from Northeast Wisconsin school districts to help districts implement and grow their computer science offerings. The Advisory Board meets quarterly and includes K-12 teachers and administrators, college faculty and IT professionals, allowing for a community approach to support computer science education throughout Northeast Wisconsin.

The trends below are based on data received from the 2018-19 and 2019-20 school years.

TOP CS COURSES BY ENROLLMENT
IN THE 2019-20 SCHOOL YEAR

1 HOME GROWN COMPUTER SCIENCE

2 INTRO TO COMPUTER SCIENCE
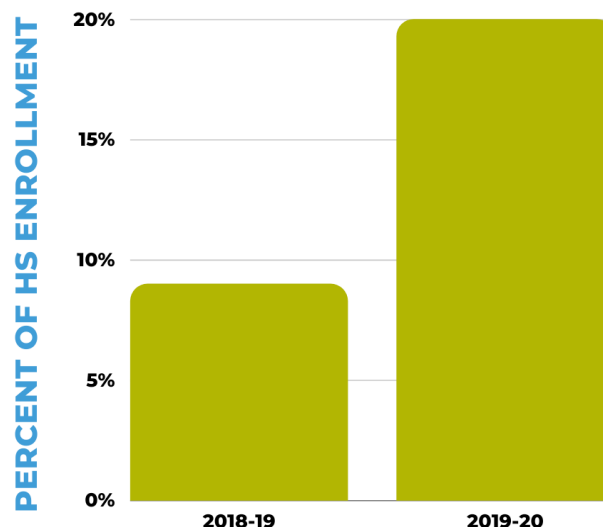
3 GAME DEVELOPMENT

4 WEB DESIGN

5 MEDIA DESIGN

33%

ENROLLMENT INCREASE IN HS COMPUTER SCIENCE COURSES

FROM 2018-19 TO 2019-20 SCHOOL YEAR

PERCENT OF HS ENROLLMENT

|	2018-19	2019-20
Percent of HS Enrollment	~9%	20%

GENDER IN HIGH SCHOOL COMPUTER SCIENCE CLASSES

Enrollments in computer science courses in high school mirror gender trends in college and the industry at large; however, not all schools reported enrollments broken out by gender making it difficult to compare year to year. It is clear that male students vastly outnumber female students in computer science classrooms. While it appears the percentage of male students is dropping, it is difficult to say anything definitive.

2018-19

UNKNOWN/OTHER
8.9%

FEMALE
20.8%

MALE
70.3%

2019-20

UNKNOWN/OTHER
25%

MALE
54%

FEMALE
21%
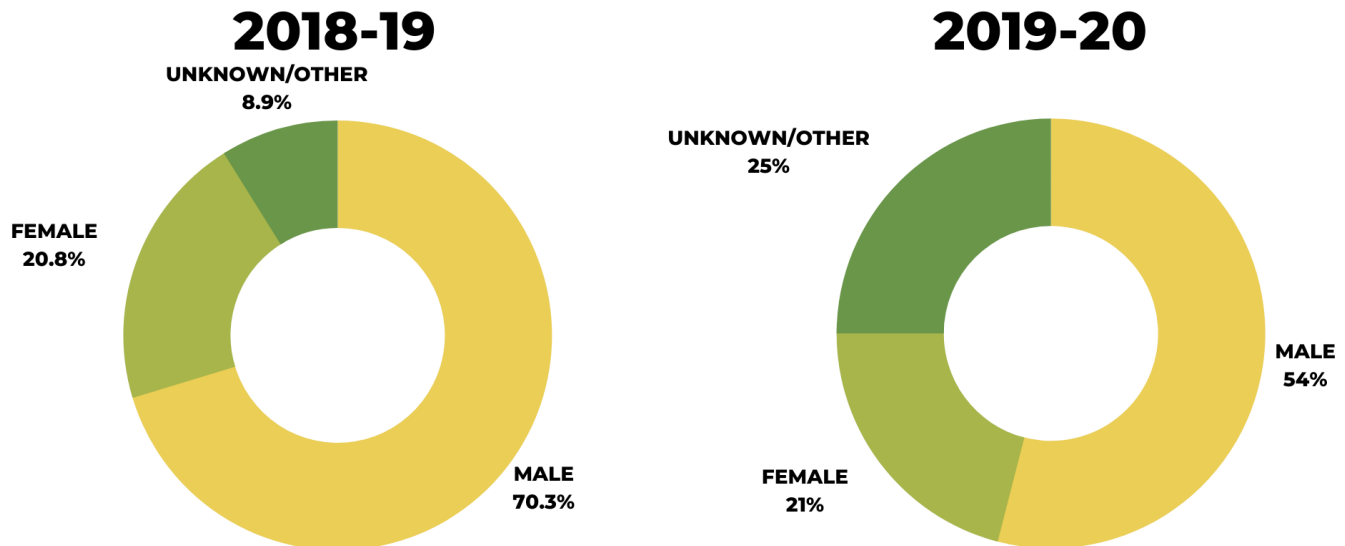
Assuming the unknown/other category is primarily male, the gender percentages reflect national averages, and are unchanged during the two-year reporting period.

2018-19

FEMALE
20.9%

MALE
79.1%

2019-20

FEMALE
21%

MALE
79%
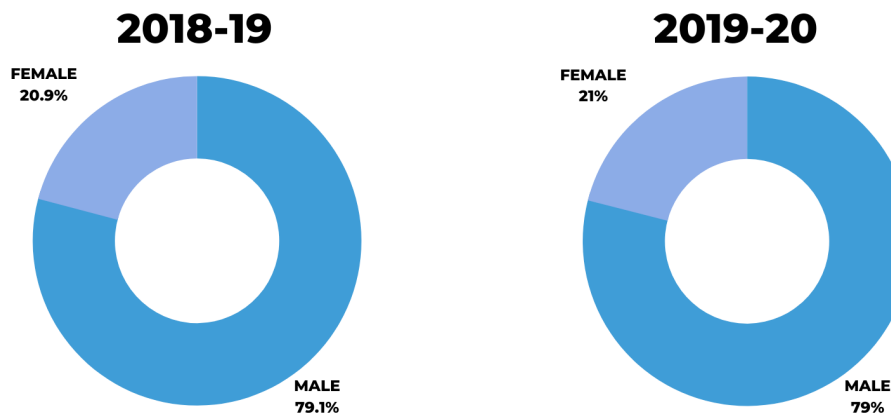
SIGNIFICANT OBSTACLES FACING SCHOOLS

Schools face two significant obstacles to growing their offerings in Computer Science:
- -Lack of qualified teachers
- -Lack of student interest

The NEW Digital Alliance supports schools in making progress with both challenges through our NEW Connect IT event, partnership with TEALS and other initiatives.

VIEW FULL REPORT ON OUR WEBSITE AT
WWW.NEWDIGITALALLIANCE.ORG/NEW-IT-ALLIANCE-FACTSHEET/

COLLEGE

The NEW Digital Alliance has partnered with universities in the region on several initiatives and considers faculty and administrators as valuable participants on a number of initiatives and committees. This collaboration is crucial as we need to work together to increase the number of graduates in IT fields to help meet regional demands for talent.

58%

ENROLLMENT INCREASE IN COLLEGE IT PROGRAMS
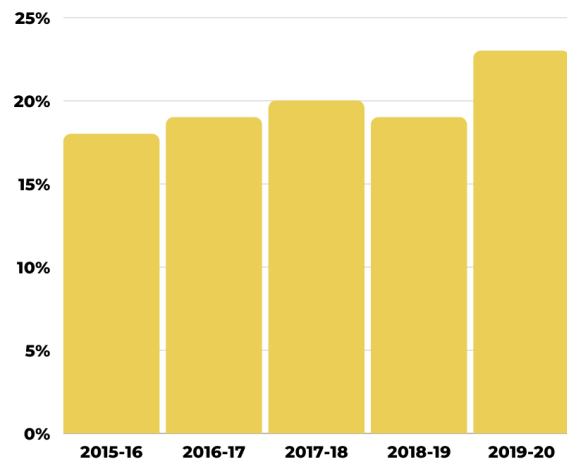OVER THE PAST 5 YEARS

The gender balance in college programs is skewed towards male. Around 20% of students are female.

Among 4-year colleges, Computer Science is by far the largest program by enrollment with Information Systems the second-most popular program. At the master's level, the fully online Master's in Data Science program has grown rapidly. The most popular programs at technical colleges are Software Developer and Network Specialist.

TOTAL IT PROGRAM ENROLLMENT

Year	Enrollment
2015-16	1695
2016-17	2039
2017-18	2240
2018-19	2532
2019-20	2684
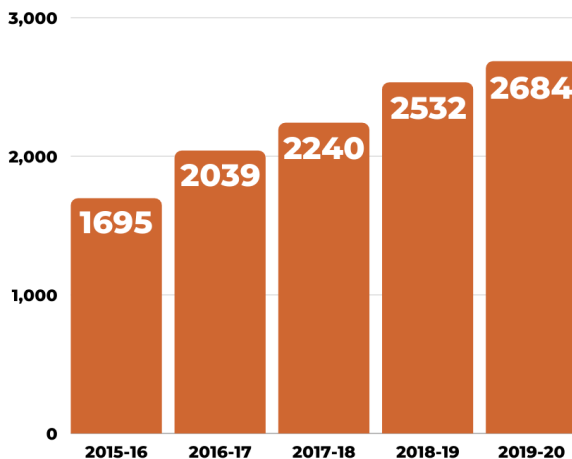
PERCENT FEMALE STUDENTS

Year	Percent
2015-16	18%
2016-17	19%
2017-18	20%
2018-19	19%
2019-20	23%

Enrollments in information technology programs in regional colleges mirror national gender trends in collegiate IT programs and the industry at large.

MOST POPULAR PROGRAMS 2019-20

TOP 4-YEAR MAJORS BY ENROLLMENT

Program	Enrollment
COMPUTER SCIENCE	525
DATA SCIENCE (MS)	181
INFORMATION SYSTEMS	107
INTERACTIVE WEB MANAGEMENT	45
INFORMATION SCIENCE	43
APPLIED COMPUTING	7

TOP 2-YEAR PROGRAMS BY ENROLLMENT

Program	Enrollment
SOFTWARE DEVELOPER	439
NETWORK SPECIALIST	399
COMPUTER SUPPORT	292
WEB DEVELOPER	274
INFORMATION SECURITY	197
GRAPHIC COMMUNICATIONS	57
INTERACTIVE MEDIA DESIGN	44
MOBILE APP DEVELOPER	28
BUSINESS ANALYST	21
MANUFACTURING IT	9

INITIATIVES

HIGHER ED COMMITTEE
Deans and Associate Deans overseeing IT programs from the region's universities and technical colleges meet monthly to discuss how to collaborate and improve IT education in the region.

TECHTALKS
TED-style talks are delivered by local companies on college campuses to help students see how companies in Northeast Wisconsin are using innovative and leading-edge technology to solve business challenges. Topics have included areas such as digital animation, digital agriculture, robotics, AI, data analytics, and virtual reality.

NEW COLLABORATIVE INTERN EVENT
This event connected 29 interns from member companies with non-profits in the community. The goal was to allow the intern to give back to the community by helping on a small project while also connecting with local chambers and young professional organizations, receiving insight on living in Northeast Wisconsin and the numerous opportunities they can take advantage of.

> **Thank you for this opportunity! I'm paying a lot of money for my degree, and this was a great opportunity to apply what I'm learning and give back to the community at the same time.**

PARTNER COLLEGES

UNIVERSITY of WISCONSIN GREEN BAY

Fox Valley TECHNICAL COLLEGE — Knowledge That Works

NORTHEAST WI Technical College

LTC LAKESHORE TECHNICAL COLLEGE

MORAINE PARK TECHNICAL COLLEGE

LU LAKELAND UNIVERSITY

UWO UNIVERSITY OF WISCONSIN OSHKOSH

REGIONAL EXPOSURE

NEWSLETTER AND MEMBER SPOTLIGHT
We produce a monthly e-newsletter which is sent to over 500 subscribers sharing NEW Digital Alliance updates as well as regional tech news submitted by the community. Starting in May we have been highlighting one member a month with a spotlight article which they are encouraged to write and submit. Articles are intended to educate the region about and highlight the company as an exciting place to work.

NEWSLETTER AND WEBSITE TRAFFIC GROWTH OVER TIME

Website Traffic   Newsletter Views
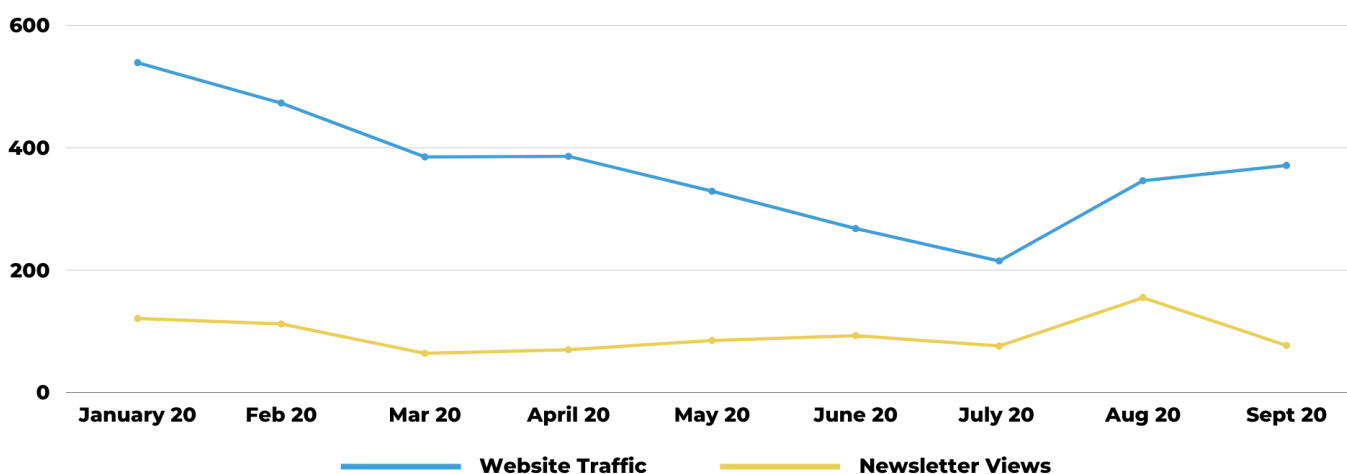
SOCIAL MEDIA GROWTH OVER TIME

Facebook   Twitter   Instagram   LinkedIn   YouTube
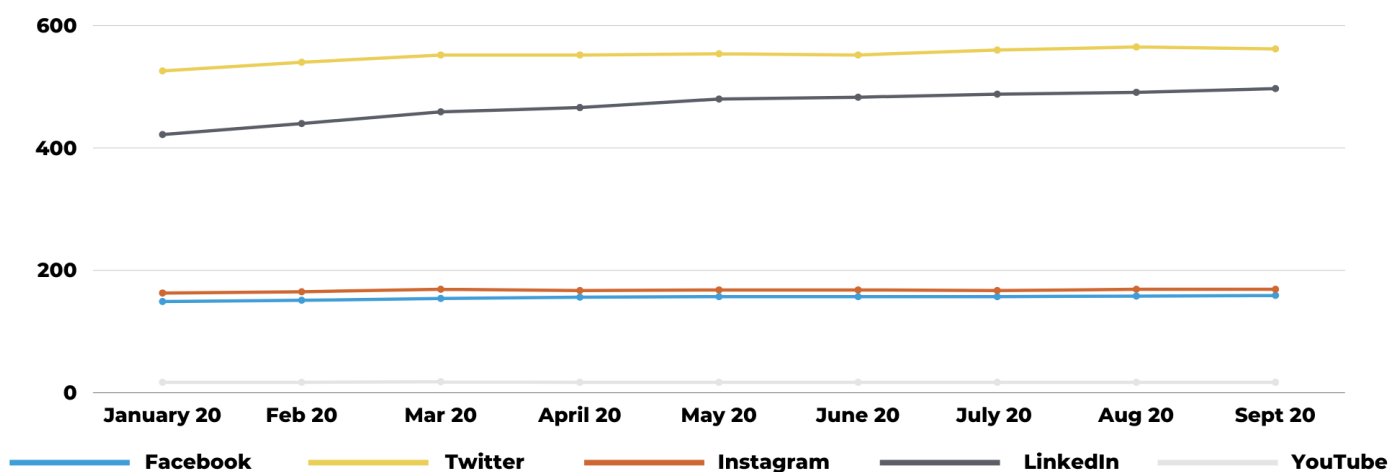
MEMBER BENEFIT
Events, opportunities, or articles about IT happenings in the NE Wisconsin area are welcome in our monthly newsletter. As a member, there are more advertising opportunities available: spotlight blog post, member welcome on newsletter, logo on website, and a booth at our annual NEW Connect IT Job and Career Fair.

EXECUTIVE COMMITTEE

The NEW Digital Alliance Executive Steering Committee is responsible for helping set the NEW Digital Alliance strategy and direction.

Todd Whitenack
CIO, Cellcom
Chair

Gary King
VP of IT, Bemis Corp.
Vice-Chair

Sarah Jansen
CIO, Thrivent

Barb LaMue
Exec Director, New
North

Paul Schwartz
VP of Technology
Solutions, J.J. Keller
& Associates

Pat Rothe
CIO, Plexus

Javad Ahmad
President,
Smart-IS

Scott Steinfort
CIO, Community
First

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EXECUTIVE LEVEL

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amcor

new north

SMART IS INTERNATIONAL

thrivent

TECHNOLOGY ADVISORY LEVEL

Microsoft

STRATEGIC LEVEL

SECURA INSURANCE COMPANIES

SADOFF E-RECYCLING & DATA DESTRUCTION
A SADOFF IRON & METAL COMPANY

GENERAL LEVEL

Ariens
Breakthrough
EDCi
Investors Community Bank
Heartland Business Systems

Faith Technologies
Fox Valley Technical College
Great Northern Corporation
Krueger International, Inc. (KI)
Loyality

Nature's Way
New Horizons
NWTC
Stellar Blue Technologies
TEK Systems

**Go to our website to learn how you can support the NEW Digital Alliance:
https://newdigitalalliance.org/member-fees-benefits/**

MOVING FORWARD

WHERE DO WE GO FROM HERE?

With the rebranding to the NEW Digital Alliance, we also took a step back to develop a set of 6 strategic pillars aligned with our new mission. In 2020-21 our focus will be on increasing collaboration in the region, while continuing our efforts in the other areas. With the impact of Covid-19 on the region, progress has been slowed somewhat as we have adapted to working virtually. We are looking forward to sharing our progress in next year's annual report.

PROMOTE

Showcase and promote regional high-tech organizations at a national stage
Provide a platform for small tech companies to be exposed to regional and national businesses

ADVOCATE

Evangelize and promote IT/Digital disciplines and careers
Advocate with Local, State and Federal legislature to promote policies and regulations favoring local IT/Digital needs
Advocate with Financial Institutes to develop funding sources for startup businesses

RESEARCH

Act as a reporting agency by collecting and reporting on regional datasets relevant to Digital space

COLLABORATE

Work with and connect regional Higher Education Institutes and Businesses to increase collaboration
Offer a platform for businesses to come together and partner in developing solutions
Work with Local organizations to improve their access to the region

ADVISE

Work in Advisory capacity to directly work with area Universities, Tech Colleges and K-12 institutions to develop programs and curriculum that is in line with the business demands and needs of today and tomorrow

SERVICE

Develop programs to offer services to members such as recruitment, business expos, and hard/soft skill development

your digital future in
northeast wisconsin

new
DIGITAL
alliance

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