INTRODUCTION TO THE CITY OF MILWAUKEE

THE DIGITAL COUNTY

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Advancing AI Wisconsin

A grassroots initiative to increase awareness of a set of technologies often referred to as "Digital Disruption Technologies" and their impact on Wisconsin businesses, workforce needs, educational programming and the State overall.

Our Mission

We enable Wisconsin stakeholders to successfully adapt to the imminent impact of Artificial Intelligence and other Digital Disruption Technologies in the context of the Fourth Industrial Revolution

To be informed: Join the newsletter from our website and follow us on Twitter

To get involved: Send a note of interest to email address
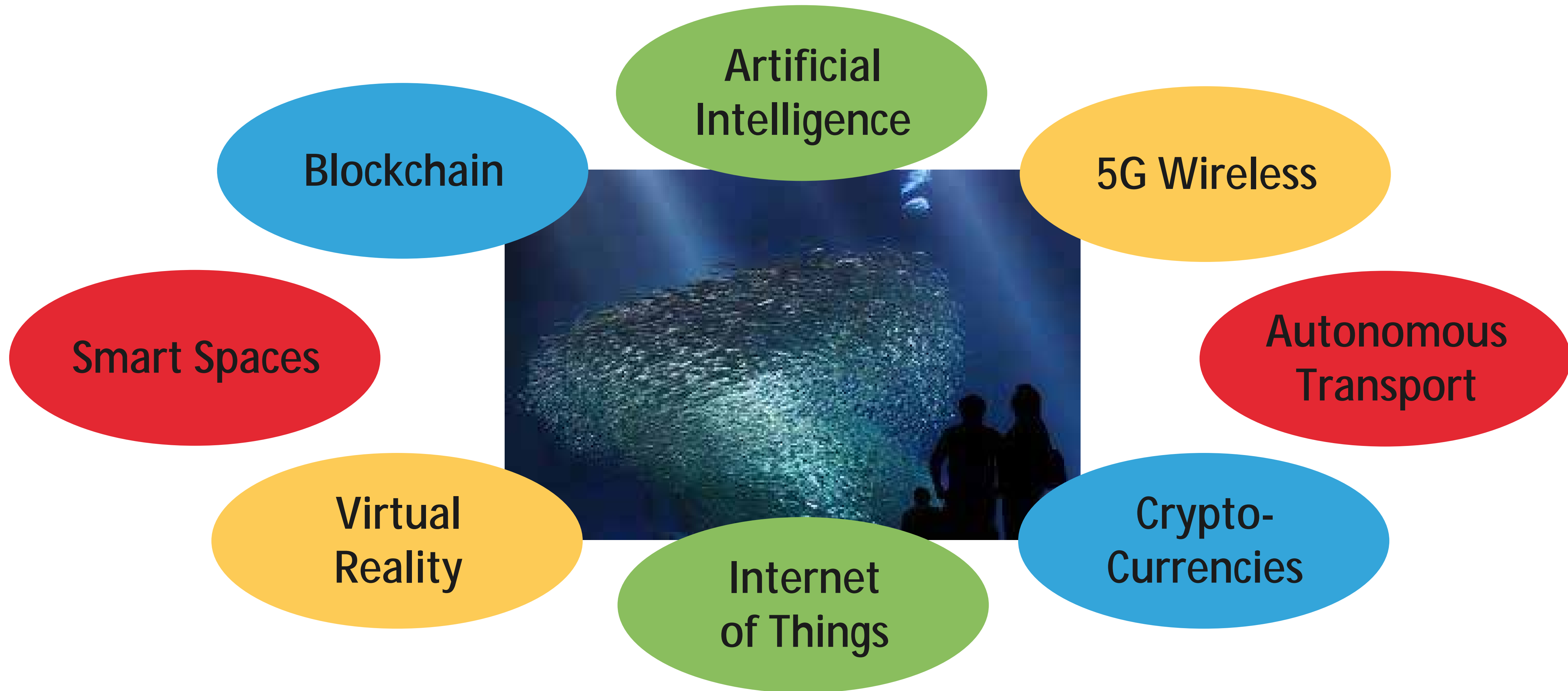
WE ARE GOOD AT WHAT WE DO

AND WE TEND TO GET BETTER OVER TIME

WE MAY NOT BE PREPARED FOR THIS

WIDE RANGE OF DISRUPTION ELEMENTS

Artificial Intelligence

Blockchain

5G Wireless

Smart Spaces

Autonomous Transport

Virtual Reality

Internet of Things

Crypto-Currencies
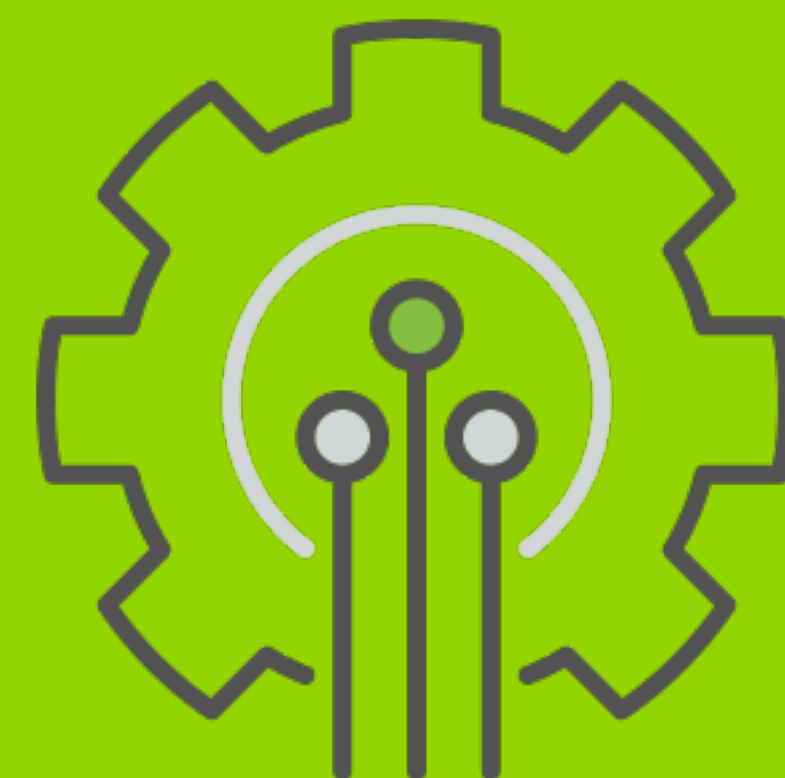
WHILE MANY ARE GETTING READY

THE PATHWAYS ARE OFTEN NOT CLEAR
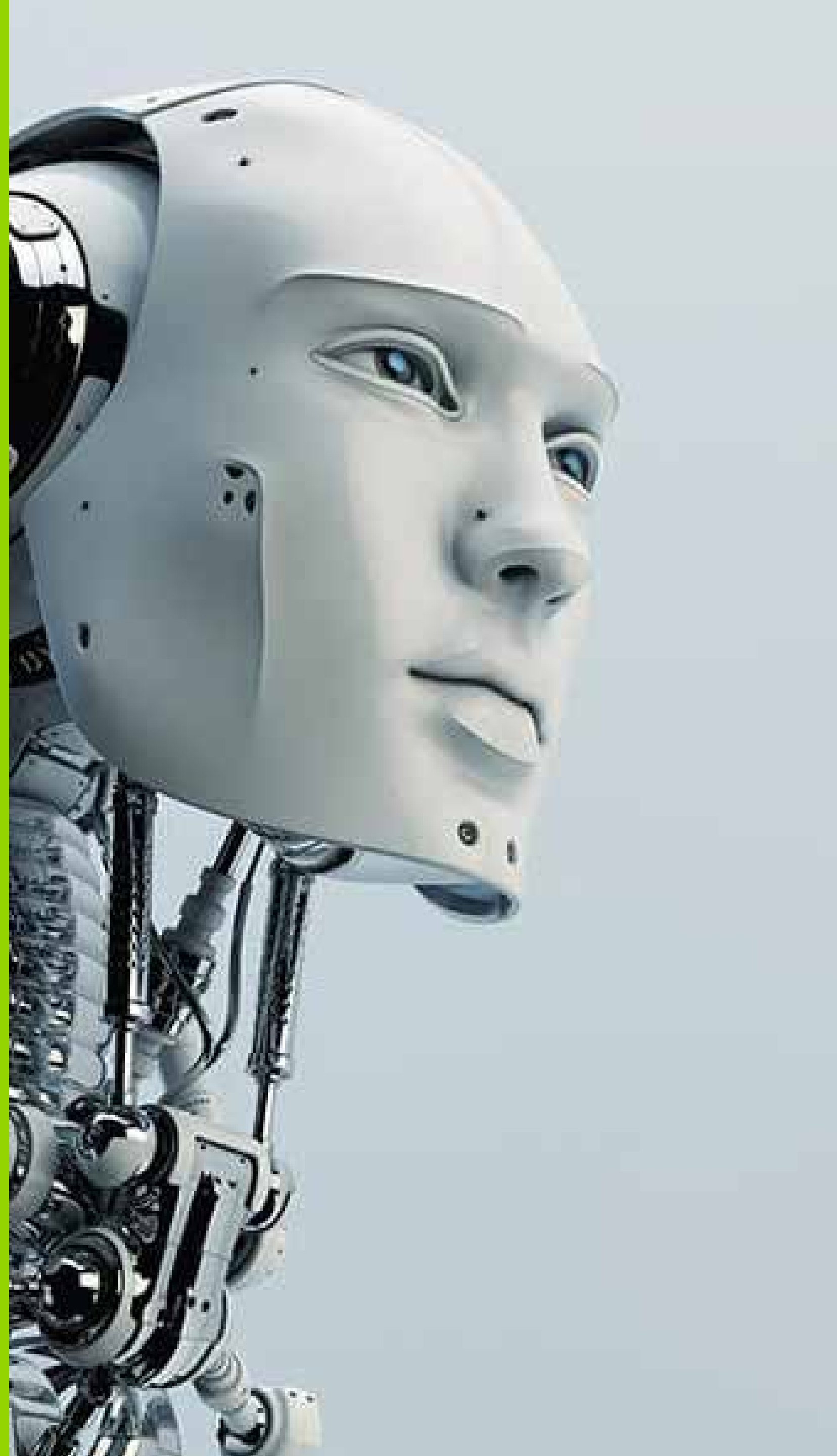
WHAT IS THE DIGITAL COUNTY?

COLLABORATE TO REIMAGINE

- Advancing AI Wisconsin is a grassroots collaborative to bring awareness and collaboration around Digital Disruption to various stakeholders in Wisconsin
- With generous support of The Wisconsin Counties Association, a growing group of Wisconsin Counties have embraced the challenge to reimagine how they can use advanced technologies such as Artificial Intelligence, Blockchain, and the Internet of Things to better serve their constituents, create the infrastructure needed for tomorrow, and support economic growth in the State.
- "The Commons" is a collaboration between 24 southeast Wisconsin colleges and universities, the local business community and the region's entrepreneurs, facilitating innovation and real world problem solving through various formats, including Hack-it-brackets, a unique form of a hack-a-thon.
- Kinnektor is an innovation focused networking organization with deep event experience.

Together, we are organizing the Digital County events. These include
- A Hack-it-bracket innovation event in Milwaukee, April 7th 2018, hosted by The Commons
- An Artificial Intelligence symposium, July 20th, 2018, hosted by Eau Claire County and Chippewa Valley Technical College
- An Internet of Things and AI symposium in Green Bay, August 3rd, 2018, hosted by Brown County
- A Blockchain and AI symposium in Cedarburg, August 15th, 2018, hosted by Ozaukee County

- Additional events may follow contingent on the outcomes of our initial efforts

WHAT TOPICS WILL BE DISCUSSED?

ARTIFICIAL INTELLIGENCE SYMPOSIUM

When

July 20th, 9:00 am -5:00 pm

Where

Chippewa Valley Technical College, Eau Claire

Who

200 participants by invitation
Mix of County representatives, Technology experts, State and Community stakeholders, winning student teams, facilitators

What

Foundational education on Artificial Intelligence
Creative exploration of 5 specific use cases

Planning Team:

Dave Hayden, Jane Klekamp, Christi Haun, Amy Kaup, Lauren Sullivan, Sadie Kirbie, Thomas Lange, others to be added/confirmed

911 OPTIMIZATION

What

- The County is responsible for operating the 911 call center. During 911 calls there is often a high degree of emotional tension within the caller and the agent has to make potentially life critical decisions based on the information that can be collected

- How can we collect additional information and make it available to the agent (e.g. voice recognition, emotional mapping)
- How can we capture caller information more effectively
- Under which circumstances could a 911 call lead to an automated dispatch (AI assisted)
- How can we help navigate the agents the complexity of the decisions they need to make

Who

County subject matter experts could include (and others are welcome)

- Employees working directly in/with 911 operations
- Employees in law enforcement, rescue services, etc. interacting with 911
- Experts setting 911 policies and procedures
- Lean/process optimization experts

Technology experts could include (and others are welcome)

- Experts in 911 processes
- Experts in speech recognition, language recognition, emotion recognition systems
- Experts in decision support systems
- Experts in data integration and analysis

OPTIMIZED JAIL EXIT GUIDANCE

What

- Prior to release from jail exit interviews are conducted to collect relevant data points and identify the need for required services
- Based on the findings, information and referrals are provided to the person being released. A correct assessment and adequate information support can help reduce the chance of recidivism

- How can we support/inform the interview and data collection process, how can external data sources be effectively leveraged
- How can the decision logic for identification of required services be enhanced, how can errors and omissions be minimized
- How could capacity shortfalls for exit interviews be mitigated with higher degree of automation

Who

County subject matter experts could include (and others are welcome)

- Employees working in the Correctional System
- Employees working with inmates during their time in the system, helping them exit or post exit
- Employees working in social services, other areas frequently required after release from the Correctional System
- Lean/process optimization experts

Technology experts could include (and others are welcome)

- Experts in data collection from multiple sources, data analysis, predictive analytics
- Experts in decision support systems
- Experts in natural language recognition,

APPLICATION FOR ECONOMIC SUPPORT

What

- Economic support programs (Caretaker Supplement, Child Care Assistance, Energy Assistance, FoodShare, Health Care, Fraud Investigation Services) are designed to assist people in meeting basic living and health care needs. Each program may have income and asset limits which can vary with family size. There are also non-financial elements which need to be verified at the time of application.

- How can the application process be streamlined
- How can decision support be provided based on the large number of criteria and combinations

Who

County subject matter experts could include (and others are welcome)

- Employees working in various areas which provide economic support services
- Experts defining policies and procedures, developing forms and guidelines
- Experts for county mobile and online resources
- Lean/process optimization experts

Technology experts could include (and others are welcome)

- Experts in data collection, data analysis, including outside sources
- Experts in identify verification
- Experts in decision support systems

CHILD SUPPORT CASE MANAGEMENT

What

- When the entitlement to receive child support has been established, the County may assist in the enforcement of the collection from the payor
- Case management may involve a lot of data entry, long histories of individual cases, a lot of documentation
- Brown County has run a state-wide pilot on lean processes applied this service

- How can we further enhance access and searchability of information?
- How can we optimize the retrieval of relevant information from external sources?

Who

County subject matter experts could include (and others are welcome)

- Employees working in child support or similar/ comparable services
- Data management experts
- Legal/policy experts
- Lean/process optimization experts

Technology experts could include (and others are welcome)

- Experts in data collection, data analysis, including outside sources
- Experts in identify verification
- Experts in decision support systems

EMERGENCY MEDICAL DETENTIONS

What

- In a mental health crisis situation an individual may be detained to ensure their own safety and that of others.
- Placement in an adequate facility can be challenging as available capacities fluctuate and are not always known in advance of transporting the individual
- Life critical decisions may be made by individuals with limited access to qualifying information

- How can we create a real time inventory of capacity across facilities (across Counties)
- How can the decision about the need for and nature of the recommended detention be supported, how can decision risk be mitigated

Who

County subject matter experts could include (and others are welcome)

- Employees working in law enforcement
- Employees working in mental health facilities
- Experts developing policies and procedures for Emergency Medical Detentions

Technology experts could include (and others are welcome)

- Experts in real time data collection/aggregation
- Experts in risk assessment
- Experts in facility capacity management

BLOCKCHAIN AND AI SYMPOSIUM

When

August 15th, 9:00 am -5:00 pm

Where

Ozaukee Pavillion and
Columbia St. Mary's Center in Cedarburg

Who

200 participants by invitation
Mix of County representatives, Technology experts, State and Community stakeholders, winning student teams, facilitators

What

Foundational education on Blockchain and AI
Creative exploration of 5 specific use cases

Planning Team:

Jason Dzwinel, Kristin Bendlin, Eric Peterson, Vicki Pratt, others to be added/confirmed

CHILD PROTECTIVE SERVICES

What

- Child Protective Services is intended to protect children from abuse and neglect. Referrals are screened through legal criteria based on risk assessments.
- Assessments involve a lot of criteria and a very high complexity of decision trees/logics

- How can we ensure the highest level of confidentiality of the individual case while (if warranted and allowed) share information about the case with other service providers
- How can we support the information gathering and decision process
- How can we validate recommendations and identify potential decision risks

Who

County subject matter experts could include (and others are welcome)

- Employees working in Health and Human Services, either directly with Child Protective Services or in related areas
- Employees developing the procedures, criteria, forms, etc. that are the basis for making these decisions
- County experts on security and identity or risk management

Technology experts could include (and others are welcome)

- Experts in Blockchain, in particular for uses of identity verification
- Experts in other secure identity solutions, biometrics
- Risk/Fraud experts
- Decision Support System experts
- Security experts

ALTERNATIVE COURTS

What

- In certain legal cases (e.g. Drug abuse) an alternative pathway through the court system may be available
- Case workers typically track the information related to a case, pass it on to the DA and recommend the court path

- How can we inform and support the collection of information and preparation of recommendations
- How can information securely be passed along the court path

Who

County subject matter experts could include (and others are welcome)

- Employees working in the Court system, specifically dealing with Alternative Courts
- Employees developing the procedures, criteria, forms, etc. that are the basis for making these decisions
- County experts on security and identity or risk management

Technology experts could include (and others are welcome)

- Experts in Blockchain, in particular for uses of tracking cases/files/items along a chain of events
- Risk/Fraud experts
- Decision Support System experts
- Security experts

ACCESS TO PUBLIC INFORMATION

What

- Requests for birth certificates, marriage licenses, titles, property deeds, etc. comprise a meaningful portion of in-person interactions

- How can we securely identify an individual making a request for an information document
- How can we minimize or eliminate the need for human interaction to obtain this information
- What value added information can we collect during the interaction and how can we use this information to direct the requestors to related/ancillary/likely additional services

Who

County subject matter experts could include (and others are welcome)

- Employees working with the information categories referenced above
- Employees working on secure document/file management, access, storage, etc.
- County experts on security and identity or risk management
- County experts on online/mobile/virtual channel access

Technology experts could include (and others are welcome)

- Experts in Blockchain, in particular for uses of tracking cases/files/items along a chain of events
- Experts in other secure identity solutions, biometrics
- Risk/Fraud experts
- Decision Support System experts
- Security experts

SECURE INFORMATION PROFILE

What

- An individual may interact with various services of the County over time. Technological and legal barriers (e.g. HIPPA) prevent the aggregation and sharing of collected information between the agencies (in many cases)
- The individual currently does not have an opportunity to securely obtain and store, and decide to share the relevant information with various agencies

- How could we create a secure online ID for County service users that collects information in various categories
- How can this information be governed to allow the individual to make informed decisions on sharing information
- How can this information be utilized to inform service recommendations to the individual (short term and long term prediction)

Who

County subject matter experts could include (and others are welcome)

- Employees working in various areas of the County who often encounter the challenge of sharing information with other departments
- Employees working on secure document/file management, access, storage, etc.
- County experts on security and identity or risk management

Technology experts could include (and others are welcome)

- Experts in Blockchain, in particular for uses of creating a secure online identity
- Experts in other secure identity solutions, biometrics
- Experts in secure online profiles
- Risk/Fraud experts

EVIDENCE TRACKING

What

- When evidence is collected by the Sheriff, it has to be documented and tracked as it is passed through potentially several stages of the Court system
- Partial solutions for evidence tracking exist, but no solution exists across the entire process

- How can we create a unique and non-corruptable identifier for a unique piece of evidence
- How can the piece of evidence be tracked physically and virtually to determine its entire path as well as current location and responsibility for custody
- How can we analyze information from the pathway tracking to optimize overall evidence management

Who

County subject matter experts could include (and others are welcome)

- Employees working in law enforcement or the Court system
- Employees working specifically with evidence
- County experts on security or risk management

Technology experts could include (and others are welcome)

- Experts in tracking technologies (sensors, radio frequency tags, etc.) and IoT
- Experts in Blockchain, in particular for uses of tracking items in a chain of events
- Risk/Fraud experts

INTERNET OF THINGS AND AI SYMPOSIUM

When

August 3rd, 9:00 am -5:00 pm

Where

Brown County Central Library, Green Bay

Who

250 participants by invitation
Mix of County representatives, Technology experts, State and Community stakeholders, winning student teams, facilitators

What

Foundational education on The Internet of Things and AI
Creative exploration of 5 specific use cases

Planning Team:

August Neverman, Jeff Flynt, Lori Holtz, Paige Funkhouser, others to be added/confirmed

OPTIMIZED SHERIFF'S PATROLS

What

- Sheriff units are out on patrol for significant amount of time, creating personnel expense and vehicle wear and tear
- Patrols are based primarily on the experience of individuals and general understanding of risk areas
- There are no prior lean histories or value stream maps available for this process

- How can patrol routes generally be optimized
- How can we generate real-time information about risk factors to help direct patrols
- What role can various sensors play in helping collect relevant information

Who

County subject matter experts could include (and others are welcome)

- Employees working in law enforcement, crime prevention, community liaisons
- Employees with experience in route scheduling, risk analytics
- Employees with data management and analysis experience

Technology experts could include (and others are welcome)

- Experts in data collection from multiple sources, data aggregation and analysis
- Experts in sensor technology and distributed sensor networks
- Experts in mapping, geolocation
- Experts in predictive analytics

DRONES IN PUBLIC SAFETY

What

- Assessment and documentation of crash sites is a time consuming effort. 3D modeling tools have already cut down the time to collect information dramatically
- Currently drones are not being utilized in the process

- What role could drones play in gathering information about traffic, accidents, or other public safety risks
- How could drones be used specifically in crisis situations
- How would the drones be deployed and directed, how would the information flow between drones and deployed units

Who

County subject matter experts could include (and others are welcome)

- Employees working in law enforcement, public safety
- Employees working in rescue services
- Employee familiar with analysis of traffic accidents, other site analysis, 3D modeling tools
- Experts in public policy (specifically relating to drones)
- Experts in traffic control management systems

Technology experts could include (and others are welcome)

- Experts in drone technology, remote operation of drones
- Experts in capturing and analyzing data from drones, could include facial recognition
- Risk and safety experts
- Data management experts

SENSOR BASED WINTER MAINTENANCE

What

- During winter maintenance roads are cleared by the snow plows and salt is applied based on the judgment of the driver
- The total amount of salt used over the winter season is a significant expense to the County

- How could we equip our vehicles with sensors to detect road temperature, road conditions, how can we use stationary sensors to provide information
- How can that information be combined with information about the weather, forecasted conditions, likelihood and timing of re-plowing this section, etc.
- How can the amount of salt deployed be optimized based on the information collected and adjusted to the local needs

Who

County subject matter experts could include (and others are welcome)

- Employees experienced with winter maintenance, scheduling and deployment
- Vehicle experts
- Employees working on weather related topics, forecasting, alerts, etc.

Technology experts could include (and others are welcome)

- Experts in weather prediction
- Experts in precipitation and weather sensors
- Experts in vehicle based technology/sensors
- Experts in real time data aggregation and predictive analytics

SENSOR BASED ROAD MAINTENANCE

What

- Road maintenance and repair is a very significant cost item for the Counties
- Roads are prioritized for maintenance and repair based on history and visual inspection of repair need

- How can we utilize stationary sensors or information collected from moving sensors (e.g. cameras on service vehicles) to assess road conditions and maintenance/ repair needs
- How can we optimize the maintenance and repair schedule based on the information that has been collected and the actions that have been identified

Who

County subject matter experts could include (and others are welcome)

- Employees working on assessing road conditions and creating plans for road maintenance
- Employees working directly on road maintenance or similar maintenance areas (e.g., parks, irrigation)

Technology experts could include (and others are welcome)

- Experts in sensor technologies, specifically related to quality of infrastructure, roads
- Experts in collecting information through mobile devices
- Mapping experts, geolocation experts
- Experts in vehicle based technologies/sensors

DISTRIBUTED SENSOR NETWORK

What

- Counties are responsible for a large network of roads, many of which also require illumination. The use of lights is typically scheduled based on certain times, not based on actual traffic on the streets.
- The existing infrastructure of light poles throughout the county could potentially be a valuable asset in terms of utilizing it for various sensors (e.g. weather) or for other technologies (e.g. micro towers for telecom).

- How can we design a smart sensor network throughout the county to help us collect relevant information (e.g. weather, traffic)
- What types of sensors have the highest value for the county (e.g. light management, flow controls)?
- Which other entities have an interest in utilizing county infrastructure, how can these interests be aligned to help fund a distributed sensor network?

Who

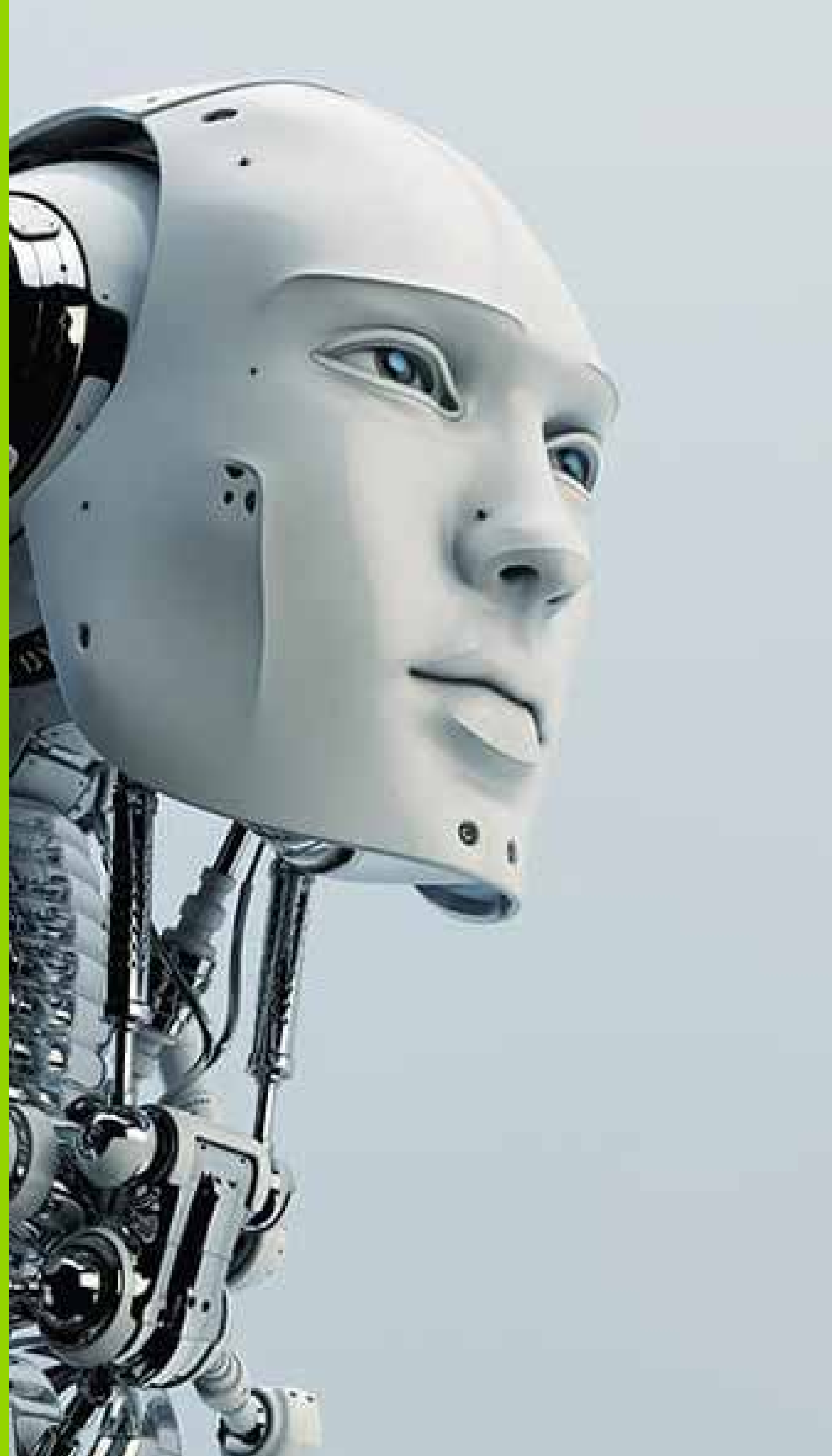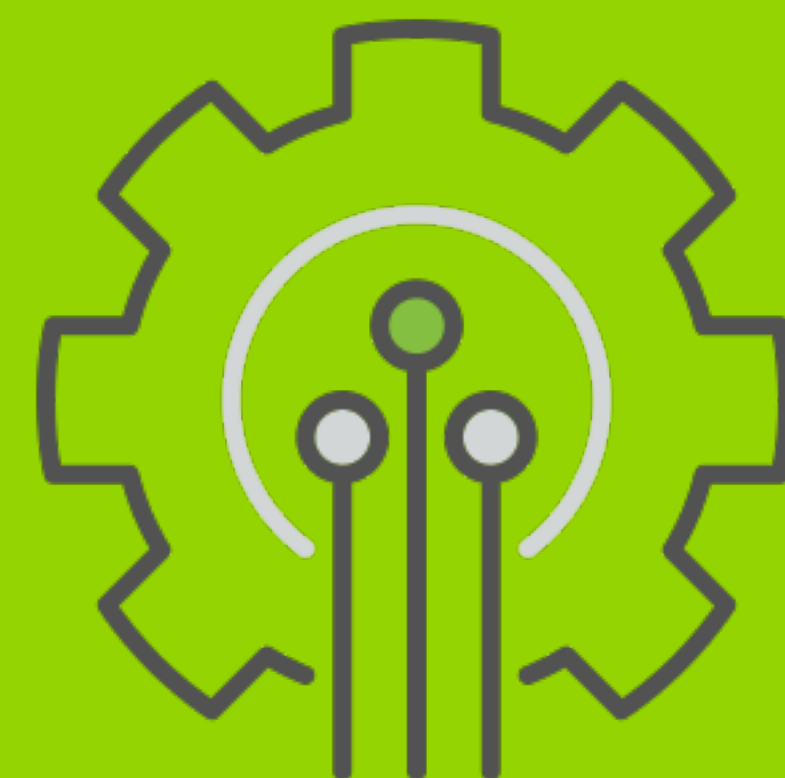**County subject matter experts could include (and others are welcome)**

- Employees working in various areas of the county (e.g. electrical grid. Lighting, water management, services contingent on weather
- Policy experts on telecom and other distributed technology usage

Technology experts could include (and others are welcome)

- Experts in sensor technologies
- Experts in resource management, flood control, etc.
- Telecom representatives
- Experts in data aggregation and analysis (IoT, AI)

CITY OF MILWAUKEE PARTICIPATION

WHY SUPPORT THE DIGITAL COUNTY?

The Digital County event is not a "mass event" that will draw large crowds. It is a conference of Local Government and Technology leaders, coming together to envision the future.

But it is a signal event in the journey of Wisconsin towards higher preparedness. We are coming together to reimagine the future through the lens of disruptive technologies.

We are confident that the outcomes of the symposium will set in motion a dynamic change process impacting the Government sector in Wisconsin and beyond.   We hope to publish our findings after the event to help accelerate that momentum.

You have the opportunity to help initiate that movement and be recognized for doing so.

TENTATIVE SYMPOSIUM AGENDA

Time	Topic	Location	Comments
8:00-9:00	Registration and networking	Foyer, plenary	
9:00	Welcome and overview	Plenary	Set up in tables
9:20	Keynote AI	Plenary	
10:00	Keynote 2 (varies by Symposium)	Plenary	
10:45	Break and working group formation		
11:00-12:00	Problem definition by use case	Break-out rooms	2 facilitators per room
12:00-1:00	Lunch	Plenary	Buffet
1:00-3:00	Solutions brainstorming by use case	Break-out rooms	2 facilitators per room
3:00-3:15	Break		
3:15-4:45	Read-outs from each working group	Plenary	
4:45-5:00	Closing comments and next steps		

SPONSORSHIPS

We have simplified the support options and combined them with participant passes to minimize administrative headaches related to reimbursement.

Platinum Sponsor
$5,000

- Recognition as a leading member of the Digital County collaborative
- Address the symposium.
- 50 passes total to the three symposia (made available through online codes) for employees or other community stakeholders

Gold Sponsor
$2,000

- Recognition as a member of the Digital County collaborative
- 30 passes total to the three symposia (made available through online codes) for employees or other community stakeholders

Silver Sponsor
$1,000

- Recognition as a member of the Digital County collaborative
- 15 passes total to the three symposia (made available through online codes) for employees or other community stakeholders

EXPANDED OPTIONS

To accommodate the needs of smaller groups, we have created two additional options

Individual or Small Groups

- If only a small group of representatives plan on attending, you can sign up as individual participants @$50 per participant.

Financial Assistance

- If you are interested in sending a larger group of participants, but the sponsorship levels are not aligned with your available budget, please contact oliver@mystrategysource.com to discuss how we can help.
- We are utilizing some of the sponsorship funds from the Wisconsin Counties Association to help create access to the events.