ICKM 2020

16th International Conference on Knowledge Management

Virtual via Cisco Webex and NC Central University
December 3-5, Durham, NC, USA

Knowledge Commons in the City of Medicine

PROGRAM

"Durham, NC Skyline (contact https://www.discoverdurham.com/)

Welcome Message

Welcome to our first *virtual* International Conference on Knowledge Management (ICKM). My hope is that all of you are healthy and safe in 2020 as our world experiences a global pandemic with Covid-19. The ICKM International Advisory Board and conference planning committee decided early that we should go virtual and use Webex for presentations and audience participation. In many ways, going virtual has made it easier to attend and present at ICKM 2020.

We have an inspiring lineup of keynote speakers, panels, community representatives, and research presenters including a high school data scientist from Durham. This year's theme—"Knowledge Commons in the City of Medicine"—healthcare. Keynote talks on "Mobilizing Computable Biomedical Knowledge" (MCBK) will describe knowledge sharing and validating data, software and algorithms. KM research features impact on a learning healh system of MCBK, data analytics, health informatics and KM in many forms. We did not know about Covid-19 when the theme was chosen, but now see medical knowledge sharing as a global issue.

The conference proceedings will be published in the University of North Texas (UNT) Digital Library. In addition, selected papers will be included in a special issue of the *Journal of Information and Knowledge Management*. Also, recordings of the virtual conference sessions will be available. Refer to www.ickm.net webpage for details.

We want to thank our sponsors and supporting organizations—listed at the end of this program---including NC Central University for IT Services and support with Webex broadcasting that makes this event possible. We will have virtual tours of Durham and the RTP with a digital view of the thriving biotechnology, medical, software, and higher education area. Special breaks will feature yoga suggestions when you have sat too long and lunch breaks with supporting speakers from Cisco, SAS, and small businesses. It is our "digital exhibit hall."

We invite you to our knowledge café with NCHICA speaker Friday and to our internatonal breakfast with the ICKM Advisory Board and council on Saturday.

The Planning Committee, KIPA, track chairs/moderators, and sponsors like MMCI at Duke University, thank you for attending. Enjoy our 16th conference this year and through recordings later!

Deborah Swain

ICKM 2020 Conference Chair

ICKM 2020 Program Snapshot (EST time)

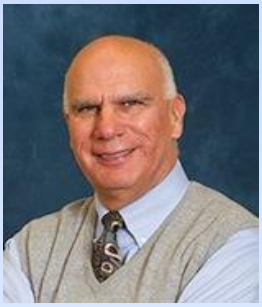
Time	Thursday, December 3 Webex EVENT			Time	Friday, December 4 Webex EVENT	
8:00 am	**Opening & Welcoming Remarks** ***Chair Deborah Swain*** ***Shannon Groff, "Discover Durham"***			**8:00 am**	**Announcements & Welcoming Remarks** ***Chair Deborah Swain*** ***Randy Sears, Duke MMCI Program***	
8:30 am	**Keynote Address** "Mobilizing Computable Biomedical Knowledge" by Dr. Charles Friedman, University of Michigan Medical School, LHS Chair **(p. 5)**			**9:30 am**	**Keynote Address** "Making Knowledge Work for Health" by Dr. W.Ed Hammond, Duke University Center for Health Informatics **(p. 17)**	
10:00 am	**Break (Yoga Tips from Dianne Reid) (p. 5)**					
10:30 am	**Session 1 (*Webex Meeting*):** Knowledge Commons and Data Moderator: Roberto Pacheco ***(p. 6)***	**Session 2 (*Webex Meeting*):** Health Related Topics Moderator: Carrie Chang ***(p. 7)***		**10:30 am**	**Session 6 (*Webex Meeting*):** MCBK and Medical Care Moderator: Anwarul Islam ***(p. 18)***	**Session 7 (*Webex Meeting*):** KM and Education Moderator: Naresh Agarwal ***(p. 20)***
12:15 pm	**Lunch Break with University of North Texas Supporters**			**12:15 pm**	**Lunch Break with Small Business Entrepreneurs Veronica Joyner and Kristi Tally (p. 22)**	
1:00 pm	**Journal Editor's Panel:** The Inside "Dirt" and Gold Nuggets – Moderator, Jay Liebowitz (p. 9)			**1:00 pm**	**MCBK Research Panel:** Examples and Challenges for Applying Knowledge in Healthcare Settings – Moderator, Rachel Richesson **(p. 22)**	
2:30 pm	**Break: Meet Sponsors: Cisco (Neal Tilley) and NC Central University (Leah Kraus, CIO)** (p. 10)			**2:30 pm**	**Break (Recorded Yoga Tips from Dianne Reid)**	
3:30 pm	**Session 3 (*Webex Meeting*):** Q&A with Presenters of Posters and Works in Progress (Pre-Recordings in virtural exhibit hall) Moderator- Jeff Allen ***(p. 10)***	**Session 4 (*Webex Meeting*):** Health and KM Moderator: Asim Qayyum ***(p. 13)***	**Session 5 (*Webex Meeting*):** Projects and Organizations Moderator: Naresh Agarwal ***(p. 15)***	**3:00 pm**	**Session 8 (*Webex Meeting*):** Innovative Governance Moderator: Carrie Chang ***(p. 23)***	**Session 9 (*Webex Meeting*):** Technical Innovations Moderator: Tereza (Raquel) Merlo ***(p. 24)***
5:15 pm	**Dinner Break: "Discover Durham" (The City of Medicine) Video Tour**			**4:45pm pm**	**Break with Professional Organization Supporters (*ASIS&T and SLA*) (p. 22)**	
7:00 pm	**Have good evening worldwide**			**5:30 pm**	**Knowledge Café with Jennifer Anderson (NCHICA) and Jeff Allen Moderating (Virtual AWARDS)**	

Time	Saturday, December 5 Webex EVENT	
8:00 am	**International Breakfast:** **Open Advisory Board Meeting (online)** **(p. 26)**	
9:00 am	**Session 10 (Plenary *Webex EVENT*):** Finale - A Global View of KM Moderator: Asim Qayyum ***(p. 26)***	**Session 11 (*Webex Meeting*):** Q&A with Presenters of Posters and Works in Progress RESCHEDULED (Pre-Recordings in virtual exhibit hall) Moderator- Jeff Allen ***(p. 10)***
10:45 am	**Virtual Tour of Research Triangle Park**	
11:15 am	**Lunch Break at SAS Headquarters, Cary, NC with Hiwot Tesfaye and Josh Morgan Speaking** (p. 27)	
1:00 pm	**CLOSING: Deborah Swain, Conference Chair, and Suliman Hawamdeh, General Chair**	

Presentations and Presenters

December 3, Thursday

Plenary Session - Keynote (8:30 am – 10:00 am EST)



Charles P. Friedman, PhD
Department Chair of Learning Health Sciences
Josiah Macy Jr. Professor of Medical Education
Collaborative Lead for Infrastructure
Professor of Information
Professor of Public Health
cpfried@umich.edu

Charles “Chuck” Friedman is the Chair of the Department of Learning Health Sciences and the Josiah Macy Jr. Professor of Medical Education at the University of Michigan Medical School, as well as a professor of information and of public health. Dr. Friedman is focused on building a Learning Health System, a health system that can continuously study and improve itself, at the University of Michigan and in the state. Dr. Friedman first explored the concept of Learning Health Systems in 2010 through the Institute of Medicine while at the Office of the National Coordinator for Health IT (ONC).

Dr. Friedman holds a Bachelor’s and Master’s of Science in physics from the Massachusetts Institute of Technology, a Ph.D. in education from the University of North Carolina-Chapel Hill and has done post-graduate studies in medical information science at Stanford University. He is former professor, assistant dean for medical education and informatics, and director of the Office of the Educational Development at the University of North Carolina at Chapel Hill. He is currently Editor in Chief of the journal *Learning Health Systems*.

Under Dr. Friedman’s leadership, the department of Medical Education transformed into the Department of Learning Health Sciences, a “first in the nation” medical school academic department dedicated to the sciences of learning at all levels from learning by individuals, to learning by teams and organizations, and learning by ultra-large scale systems, such as entire nations.

He will discuss “Mobilizing Computable Biomedical Knowledge: An Imperative for Learning Health Systems.” (Use chat to enter questions.)

10:00 – 10:30am: Break with Yoga Tips (live) - Dianne Reid

Dianne Reid has been teaching yoga since 2016. Prior to that, she was Section Chief for the Water Sciences Section of the Division of Water Resources and worked in state government for 33 years. Dianne's main yoga focus has been chair yoga for the 55 and older crowd through You Call This Yoga, a non-profit dedicated to bringing yoga to underserved and physically challenged communities. In addition to chair yoga, Dianne teaches flow, prenatal and yin yoga and has her own consulting business specializing in presentation management and administration. People living lives they love is her inspiration and driving force.

Dianne is going to provide some thoughts, breathing techniques, and movements to help you prevent and recover from the mental and physical fatigue that constantly being online in Zoom and WebEx meetings and presentations can bring on. Get ready to breath and move!

10:30 am - 12:*15pm: Session 1 Knowledge Commons and Data (Track 1 plus) Moderator: Roberto Pacheco*

Franz Barachini and Christian Stary - The Dance on the Volcano: A Knowledge Management Perspective on Capacity Building in Times of Systemic Crises

The goal is to identify support from Knowledge Management (KM) frameworks and Risk Management to build collective intelligence for handling systemic crises, triggered by the Corona virus disease 2019 (Covid-19)
Methodology involved conceptual analysis of frameworks and their operationalization to handle crises and risks embodying findings from dealing with Covid-19; extraction of methodological guidelines to initialize capacity building.A stakeholder-centered framework application for building collective intelligence on handling Covid-19 as an example of systemic crisis
Limitations of the research: Critical examination of learning frameworks and multi-layered framework application requiring further empirical studies
Practical implications (if applicable): Learning framework embodying risk management can be put to practice through applying KM methods
Social implications (if applicable): Stakeholders can demonstrate social responsibility by starting to collect Covid-19 intelligence in a KM-structured way. Triggering double loop learning enables capturing future Covid-19 waves through reflected action patterns from the first wave.
Originality / value: So far, KM frameworks have not been considered as core elements for collective learning processes to handle systemic including risk management

Abidemi atolagbe-Olaoye - Exploring Knowledge Creation From Project Management Processes Using an Analytics Approach: A First Look

Organizations struggle to harness tacit knowledge – the knowledge that resides in the heads of knowledge workers, whereas there are always opportunities to capture knowledge during project management activities. This study aims at capturing knowledge from all project phases; at the same time, minimizing knowledge loss during project management activities. This paper shows the relationships among knowledge management, project management, and analytics, and presents an opportunity for project managers to introduce knowledge management to their project teams and organizations.
Approach: The study explored and reviewed KM and PM literature to understand the underlying concepts that support lessons learned and knowledge creation. In addition, an in-house analytics tool in an IT organization – ServiceNow Performance Analytics was selected to investigate how it can support knowledge creation from PM activities. Discussion with IT stakeholders was also captured to gain practical experiences regarding the scope of this paper. The study aimed to understand how knowledge can be extracted from all PM phases, the types of knowledge exist in the PM phases and the effectiveness of analytics tool for knowledge capturing and knowledge creation from PM processes.
Limitation: The IT organization has never used ServiceNow Performance Analytics for lessons learned mining and analysis, and there is limited data to address some anticipated areas in this study.
Originality/value: A gap in both KM and PM practice was identified, and interestingly, a common concept of lessons learned is an intersection between KM and PM. Therefore, there is a research opportunity to explore further the effective process of knowledge creation from PM processes and investigate suitable tools that can support this initiative.

Asim Qayyum, Arif Khan and Sarah Redshaw - Wisdom as it exists in a professional's life

Various studies have attempted to measure the complex concept of wisdom and this study extends those efforts by developing and putting into practice a qualitative measure of wisdom. Thus, the purpose of this research was to investigate the key characteristics of wisdom for professionals working in the GLAM (Galleries, Libraries, Archives, and Museums) sector.
Methodology: Qualitative approach was used to conduct this research using the Wise Action Model (WAM) to measure the complex and elusive nature of wisdom. Data was collected from information professionals working in managerial positions in the GLAM (galleries, libraries, archives, and museums) sector using the in-depth interviewing technique. Thematic analysis technique was used to analyse the data.
Results: The findings indicate that while most participants exhibit some elements of wisdom, there are gaps that need

to be addressed before wise functioning is deemed applicable in their roles. So, while knowledgeable information acquisition and community engagement was very visible, more emphasis on values and stakeholder wellbeing will lead to wiser considerations.
Originality/value: Study of wisdom certainly deserves more attention in knowledge management research as previous studies have indicated. With increasing stresses in the lives of professionals, it is now more important than ever to gain an understanding of how much wisdom prevails in organisational settings to improve the lives of individuals, and consequently the wellbeing of impacted communities.

Md. Atikuzzaman - Role of Social Media in spreading Fake News during COVID-19 Pandemic: A survey among university students of Bangladesh

Arising in China in December 2019, the novel coronavirus (COVID-19) soon spread to other countries worldwide including Bangladesh. Mass media and social media platforms played an important role in providing Coronavirus related information and news as they enable people to share news as well as personal experiences with one another rapidly. Since little is known about COVID-19, various fake news spread across social media that panicked people into making panic decisions.
Objective: The primary objective of this study is to examine how social media is spreading fake or unauthentic news during the time of COVID-19 pandemic. This study also focuses on how the university students of Bangladesh are playing their roles in the spread of fake news in social media.
Methodology: An online survey was conducted to reach a wide number of university students who own at least one social media account. A well-structured questionnaire was designed containing both open and close ended questions. Google forms was used to build the survey instrument. The questionnaire was distributed to the students using different social media platforms. Collected data were analyzed using SPSS version 20 and MS Excel.
Findings: The study showed that the students sometimes received COVID-19 related fake news. The main reason behind the spread of fake news is that people usually do not check the authenticity and reliability of any news before sharing and different social media groups are acting as the birthplace of fake news. The study also showed that most of the students check the authenticity and reliability and they critically evaluate each news before sharing. Majority of the students are fairly confident in detecting fake news in social media.
Originality/ Value: This is the first known attempt in Bangladesh to identify the role of social media in spreading fake news during COVID-19 pandemic. Students, researchers and policymakers would be benefitted from this study.

Adriana Falcão Loth, Luana Siewert Pretto, Marcos Henrique de Almeida Pires and Patricia Freire - The Impact of Social Isolation Arising From Covid-19 Pandemic on the Use of Customer Service Channels

The new coronavirus COVID-19 pandemic forced the population to adapt routines, create new habits and adapt to the new reality. A significant change resulting from social isolation was the way that consumers began to seek the provision of services and purchase of products. What was previously done predominantly in physical stores, started to be carried out by digital channels, according to the customers' preference. Because it provides essential services, Companhia Águas de Joinville (CAJ) also needed to adapt, creating conditions for digital service for 100% of customer demands. However, the simple availability does not mean immediate adhesion by the population, as customers have their preferences. This article intends to demonstrate how the migration of face-to-face service to other channels in Basic Sanitation behaved in Joinville and what the consumer preferred during the quarantine.
Methodology: Experience report of service channels alternative to face-to-face, for the relationship with the customer. With the analysis of the data obtained, we found that the expectation in relation to the migration of customers from on-site service to other service channels did not materialize. This work was written in the midst of the pandemic, showing partial results. Every day new actions are taken and at the end of the pandemic it will be possible to obtain final results from the actions taken.

10:30 am - 12:15pm: Session 2 Health Related Topics (Track 5 plus) Moderator: Carrie Chang

Laura Haak Marcial, Silas Santini, Caroline Kery, Stephen Brown, Rob Chew and Barry Blumenfeld - Using Query Expansion to Improve Findability of Resources Addressing Multiple Chronic Conditions

With advances in natural language processing (NLP), machine learning (ML) and artificial intelligence (AI), there are new opportunities for improving findability among existing public-facing resources. This project seeks to inform findability, especially for multiple chronic condition (MCC) resources, by describing current search capabilities and limitations across several of AHRQ's publicly available domains and by identifying and piloting a novel NLP/ML approach to make suggested improvements. This work intentionally engages with the overlap of numerous disciplines including information extraction, information retrieval, data and text mining, knowledge management, and best practices in health care. We are looking to apply this work across all domains but will start by focusing on specific AHRQ domains.

Given limited API access, we scraped the content of digital.ahrq.gov and the patient centered medical home (PCMH) resources and performed automated search using a set of related terms that align with an MCC scenario: hypertension, osteoarthritis, and chronic kidney disease. We obtained results confirming the limitations of existing search. We then utilized a three-pronged approach to investigate the application of NLP to search:

1. Find existing terminologies and hierarchies to assist with improving and providing word associations for MCCs
2. Use NLP to help find relevant semantic associations across resources
3. Identify how this process informs result set refinement and improves findability by establishing relevant MCC findings

Pranathy Enamela - A case study on wearable devices to improve health in the elderly

This paper discusses the relationship between wearable technology and an older adult's inclination towards having it as an aid to monitor the physical activity. This study is an effort to understand a person's perception of a wearable's influence on their eating habits and possible prevention of chronic disease. It is a longitudinal qualitative study that involves a male working professor, at the University of North Texas, who is over 75 years. He finds that mobile health applications are complicated by technology issues even among those that appear technologically sophisticated. He is a unique subject to study because of his strong pre-conceived notions about wearable technology and an existing health schedule. He wore a Fitbit Charge 2 for 42 days. The professor had a steady physical activity even in the absence of the wearable. His movements were mostly sedentary except for the time he played racquetball. He was self-aware and practiced healthy habits to burn calories. The fitness device helped him to see how much he walked and how his heart rate was.
As the study progressed, the professor was beginning to become conscious of his physical activity and heart rate because of the tracker. He was intrigued but not fascinated with the details that the tracker was recording. He did not wish to change the food habits that would help him lose weight.

The proposed model in this study is an adaptation of the 'Health belief model' (Rosenstock, 1974) which builds a strong case that an individual will take action to reduce being affected by a disease/condition only when they identify that they are susceptible to the disease. A close examination reveals that although an individual is aware of his/her physical activity and calorie intake through their meals, they lack the motivation to change their routine to fit a health requirement. A wearable would only act as a driver and a visual report of their daily physical activity but cannot influence the behavior. The goal of this study was to monitor a person's motivation to wear a fitness tracker at all times to record the physical activity. The study revealed that wearables and mobile health applications can only be facilitators and are not the right measure to healthy living, especially in the elderly for whom technology adaption is often difficult.

Manar Alsaid, Tara Zimmerman, Nayana Puramadali and Suliman Hawamdeh - COVID19 Mask Misinformation and Social Noise

The challenge faced by social media and Internet platforms is their ability to identify factual information from fake news and doctored narratives. Technical solutions such as artificial intelligence and recommendation systems could

indirectly promote fake news and misinformation as such tools group users based on their shared interests. Other mechanisms used to combine human and artificial intelligence include displaying potential misleading content and asking users to rate content as trustworthy. It is also the user's responsibility to question content presented to them and rely more on reliable sources of information. However, social circles affect the way we receive and interpret information. Relationships and psychological needs impact a user's ability to separate fact from fiction most of the time.

Zimmerman (2020) introduced the concept of Social Noise to understand user information behavior in social media. She defines Social Noise as being made up of four constructs that could help in explaining the spread of misinformation. The four constructs are: Image Curation, Relationship Management, Cultural Agency, and Conflict Engagement. Image Curation is defined as the attempt by social media users to consciously or unconsciously craft their online identity and create a personal exhibition that satisfies them (Hogan, 2010). Relationship Management refers to a user's desire to build community with individuals or groups with deep importance or high social value to them. This can be driven by a desire to be included as a member of a particular group (whether formal or informal) or to connect with and maintain good relationships with other people (Lin & Lu, 2011).

Within the context of Zimmerman's Social Noise framework, the Cultural Agency encompasses a user's understanding of their roles and responsibilities within social institutions as well as their public engagement with issues of personal importance. Cultural Agency is characterized by civic participation and is exhibited by individuals who believe in their own power to be heard and to shape culture and beliefs (Garry, 2014). Conflict Engagement on the other hand refers to the level of social conflict with which a user is comfortable. In this paper, we examine the impact of masks misinformation and related conspiracies on social media users in the context of Social Noise by answering the following questions: What are the factors that motivate social media users to participate in misinformation activities? What are the relationships between these factors and social noise?

Thiago Zschornack, Adriana Falcão Loth, Luana Siewert Pretto and Patricia de Sá Freire - COVID-19 and the Risk Management in the Basic Sanitation: Action For Mitigation of the Decurrent Impacts of the Pandemic

The COVID-19 pandemic (coronavirus) has presented us a new world-wide reality. In a short time, huge changes had been necessary. In the sanitation it has not been different. For handle with essential services, in the majority through public concessions, the rendering of services has been strongly influenced for the chaotic economic situation. Thus, risk management becomes an essential activity, as the impacts of wrong decisions can lead to huge losses. Starting from the hypothesis that the better risk management within organizations, the better the decision-making process will be, this article aims to present the importance of risk management for mitigation and contingency in the face of the impacts caused by the pandemic of COVID-19.
Methodology: The methodology used was the bibliographic review associated with a case study. The case study it involved the Water Company of Joinville, concessionaire of the water services and sewer in the city of Joinville/SC - Brazil.
Results: By means of the study it was possible to evidence that in comparison to other companies of the city and Brazil, the Company has been able to face adversity well. Most of the investments were kept and the employees had continued their works, according to the standards established. Limitations of the research: The present work was written in the middle of the pandemic, presenting partial results.

Tresia Eaves, Amy Rosellini, Jeff Allen, Tara Zimmerman, Milli Njeri and Malak Khader - Wisdom and Veterans: Enhance the Perspective, Experience, and Resilience of the Workforce

Wisdom is defined as "a uniquely human quality demonstrated through an ability to apply self-insight, experience, and sound judgment in conjunction with applicable data, information, and knowledge to create a course of action leading to beneficial and productive decisions for both individuals and society" (Allen et al., 2020, p. 159). Using this definition as a foundation, this research explores how veterans bring wisdom to enhance the workforce through perspective, experience, and resilience.

12:15 – 1:00pm: Lunch break with Supporters from the University of North Texas

1:00 – 2:30pm: Journal Editors Panel - The Inside "Dirt" and Gold Nuggets (plenary)

Moderator: Jay Liebowitz, Founding EIC, Expert Systems With Applications: An Int. Journal (Elsevier)

Panelists:

Suliman Hawamdeh, EIC, Journal of Information & Knowledge Management (World Scientific)

Denise Bedford, Series Editor, Working Methods for Knowledge Management and also Representing the Journal of Knowledge Management (Emerald Publishing)

Javed Mostafa, EIC, Journal of the Association for Information Science and Technology (JASIST, John Wiley)

Kathleen Young, Editorial Assistant to Dr. Charles Friedman, EIC, Learning Health Systems journal (John Wiley)

2:30 – 3:30pm: Meet Supporters from Cisco (Neal Tilley) and NC Central University (Leah Kraus, CIO)

Neal Tilley is a Strategic Advisor and Education Business Development Manager within the US Public Sector at Cisco Systems. With over 26 years of experience in the IT Communication industry, Neal brings insight into how and why technology can make a difference to any organization.

On top of his Business Development duties, Neal is coordinator of the Cisco Higher Education Advisory Council which currently includes over 42 top universities' CIOs.

Before joining Cisco, Neal worked across the world, Neal has been involved in many organizations digital transformations and brings invaluable experience to any institutions mission. His present role at Cisco is focused on helping Educators understand the impact of emerging infrastructure & collaboration technologies on their teaching environment, their students success, their faculty's development, as well as how to maximize partnerships and associated eco systems.

Leah Kraus is responsible for providing innovative vision, strategy, and leadership for the coordination of technology policy and planning and for the management of technology systems in the instructional, research, and administrative functions of the university. Over the course of her tenure, Ms. Kraus has enhanced the institution's technological capabilities. She has upgraded the technology infrastructure and business systems to provide first-class support that continues to enhance teaching, learning, and research and improve the operational effectiveness and efficiency of NC Central University through the use of technology. Ms. Kraus came to NCCU with more than 20 years of experience in education and technology. She served at the University of North Carolina Wilmington (UNCW) as associate vice chancellor for services for seven years and as interim chief information officer for three years.

Ms. Kraus earned a bachelor of science in office systems administration from the University of North Carolina at Greensboro (UNCG) and a master of education, supervision, and instructional technology, also from UNCG.

3:30 – 5:15pm: Session 3 Q& A on Posters and WIPs (Pre-recorded) Moderator: Jeff Allen

See Exhibit Hall for pre-recordings of posters and research.

Aisha Johnson-Jones and Siobahn Grady - Women Breaking Barriers in Libraries and Technology (Work in-Progress)

The underrepresentation of women in information science is not often explored among scholars in Library and Information Science (LIS). Such limited discussions can be expanded to the impact women and minorities have when granted the exposure to careers in the information world. Promoting and increasing women's roles in libraries and technology allows for the advance development of future generations and a nation. These advancements yield results applicable to the LIS workforce in both industry and academia. In order to address this issue, we must address the lack of LIS curriculum for the support of women and minorities, embedded field disparities, and promote the excellent work of women standing on the soapbox of diversity and inclusion innovatively.

The project-in-progress seeks to advance educational opportunities, scholarship, and media platforms focused on the disparities of women in LIS. In addition, the funding of educational opportunities in library science and information science programs at Historically Black Colleges and Universities. This project, Women Breaking Barriers in Libraries and Technology, acknowledges such disparities in the profession and curriculum.

The four-part project, led by Dr. Siobahn Grady and Dr. Aisha Johnson, seeks to reverse these disadvantages through the creation and development of a podcast for open discussion on challenges faced by women in information-based fields, curriculum development, faculty-student research and publication, digital humanities workshops for K-12, a website to host/archive the podcast, scholarly publications, and teaching materials. The project will offer students an opportunity to develop research skills and publish scholarly content at the doctoral level.

Rebecca Meehan - Mitigating Usability Issues in Legacy EHR Systems to Improve Patient Safety: A Learning Health System Approach (Poster)

Not all electronic health record (EHR) issues that arise can be addressed by waiting for the next software release. So how do stakeholders adapt and create the safest environment for patients while using imperfect software? This paper describes an on-going research project examining currently used processes in both hospitals and EHR vendor companies for identifying, prioritizing, and mitigating electronic health record (EHR) software issues, and usability issues, that may compromise patient safety as they arise in the implemented or legacy EHR system. The project can be considered as part of a learning health system (LHS) approach in that it seeks to identify best practices in terms of the process for addressing these EHR issues. The LHS approach seeks to improve long term outcomes in health care by identifying optimal delivery processes and to do so in a systematic, rather than a haphazard way. (Friedman & Rigby, 2013). Thus far, only preliminary qualitative data has been collected during one-on-one interviews with 3 hospital chief medical information officers and 3 vendor representatives working in clinician experience. This data is being used to design an email survey to both hospitals and EHR vendors to determine best practices and to share them back to those stakeholders to improve outcomes. Steps to examine how errors and usability issues in legacy or currently used EHR systems are resolved include the following:
Step 1 How are issues identified: who reports the issue and to whom
Step 2 How are issues prioritized: what is the process for collecting the list of issues and assigning them with high or low priority
Step 3 How are issues mitigated: who addresses the issues, how long does it typically take and what is the process for getting the fix implemented into the system, and communicating the fix to stakeholders

Aaron Bowen-Ziecheck - Exploring Patient Healthcare Data Ownership (Work in-Progress)

Data management challenges in healthcare are important to address amid a pandemic. Data is generated about the patient and used for patient care. However, data is often siloed within healthcare organizations. Often, the data is treated as a commodity. The dichotomy between the owner (medical organization) and the subject (patient) of the data leads to issues such as lack of inter and intra-organizational interoperability, low patient knowledge and engagement, and poor data management. Patients with more information and involvement in their data management

are more knowledgeable about managing their health.

Data ownership to empower patients is discussed in a diverse body of literature, from information systems to patient-centered care to health information management. Yet, the concept is spoken about in disparate ways. Some authors discuss patient data in terms of the right to control who accesses their data. Some suggest a much more substantial level of patient control that incorporates patient engagement, notifications, and integration. The researcher analyzed and consolidated literature to create a holistic framework which incorporates the explicit and implicit commonalities among the various disciplines.

The next step is to conduct a case study of a hospital system to discover how patient data is treated, what factors of the framework are being implemented, discuss the framework and concept of data ownership with the primary users, and update the framework accordingly. By soliciting answers from the users, a common understanding can be synthesized. Thereby, patient data can become an un-siloed, managed collaboratively, and lead to better patient health outcomes.

Jay Liebowitz - Knowledge Management in the Technical information Center/Library of a Navy Lab and as a Whole, as well as Metrics to Measure the Scientific Health of a R&D Center (Poster)

The first part of my research project focused on examining the role of knowledge management (KM) in the TIC/Library at a Navy Lab and also proposing an enterprise KM strategy for the Lab. For research data triangulation, three key sources of data were used: (1) a survey was developed for external and internal feedback of Library Directors in the Navy and universities/government agencies; (2) Literature Review and Industry Best Practices; and (3) Interviews with the Navy Lab officials. An enterprise-wide knowledge management strategy for the Lab was developed, focusing on knowledge retention, sharing, and transfer. The second phase of my research was on determining appropriate metrics to measure the scientific and technical health of an R&D Center. Various bibliometrics and altmetrics were cited to respond to the specific questions from the sponsor.

Waltraut Ritter and Thomas Menkhoff - Loss of Knowledge in Remote Collaboration (Work in-Progress)

The ongoing global experiment in working from home (WFH) is mostly seen as a successful example of digitalisation of organizational work. Numerous articles about the end of office work predict a future of digitally connected, spatially dispersed knowledge workers who seamlessly check in and out of online meetings.

Does on-site and in-person knowledge sharing no longer matter for organisations?

For decades, organizational management insisted on the importance of physical space for knowledge creation, direct peer-to-peer interaction and physical group meetings which “spark” ideas. At business schools, methods such as “management by walking round” were used as examples of modern leadership. Spatial aspects of knowledge also led to new forms of office design with various types of settings conducive to different types knowledge work. A Harvard Business Review article on “Why Office Design Matters” from 2005 explained how critically important the physical work environment is for the performance of knowledge workers.

Has the pandemic made our insights on spatial and physical aspects of knowledge obsolete? Have functions of managing organizational knowledge become redundant? One of the classics in management literature on this topic, is the “Social Life of Information” (2000) by John Seeley Brown and Paul Duguid, who discussed the social dimensions of knowledge creating and sharing. Interestingly, their insights on what gives meaning to human work are relevant than ever, and the 2017 edition of their book shows that the importance of social learning, working and innovating continue to be at the heart of organizational performance. Digital tools for online collaboration and co-creation remain tools, even though the usefulness of today’s tools has vastly improved.

How can knowledge managers facilitate the ongoing transition to increasingly digital forms of interactions within the

organisation? This work in progress is based on interviews with knowledge practitioners working in large organisations.

Deborah Swain and Patrick Roughen - Applying Tacit Knowledge and the SECI Model as an Educational Pedagogy (Work in-Progress)

In both information science and library science, education involves students integrating knowledge into experience and thoughts. Although business and management studies for over 25 years have looked at the impact (Adesina & Ocholla, 2019), little research has been done on the application of the SECI (Socialization, Externalization, Combination, and Internalization) model and the importance of tacit knowledge to learning.

Our research is designed to explore student efforts to convert tacit knowledge into explicit knowledge during graduate courses. Semi-structured interviews have been designed to explore students' awareness of tacit knowledge related to the management of an information system or a library as part of a pilot study. They are asked to estimate conversions and describe learning during socialization as part of a class, the externalization of ideas in assignments, any efforts to combine types of knowledge, and the possible internalization of new ideas into new, tacit knowledge. Early evidence suggests that the SECI model illustrates a path to explicit knowledge and understanding from innovative tacit knowledge.

The aims for this pilot study include 1) examining the SECI process as an educational pedagogy and 2) estimating the importance of tacit and explicit knowledge conversion when doing problem solving and creative work. The SECI model illustrates a repeating spiral of innovation from tacit to explicit knowledge (Nonaka and Takeuchi, 1995). Data are being analyzed using social research, descriptive statistics, qualitative analysis, and SECI modeling. The researchers have found examples of creativity and innovation when students work in accordance with the SECI model.

Neil Auroni - Global Sentiment towards COVID-19 on Twitter (Poster)

With over 330 million users across the globe, Twitter provides insights into global sentiments on many topics. One goal of our project was to use social media and NLP to find sentiment scores for Tweets relating to COVID-19 over a specific period. One can estimate global sentiments towards certain events relating to COVID-19 by analyzing the most common phrases and their related sentiment scores from Twitter API data. This project has compiled the most used trigrams in tweets relating to COVID-19 to calculate sentiment scores for the period from March 22 to August 7, 2020. We have created a plot showing both the most used phrases and average sentiment score per day against time. Twitter limits access to tweet contents to 900 requests per 15 minutes for unpaid API users. For student data scientists, paying for increased API usage is financially infeasible. So, to deal with the rate limit, the project has written functions using the Tweepy python library to collect Twitter API data. The Pandas library has also been used to sample 139000 tweets from over 300 million to reduce computing time. The Pearson correlation coefficient between the full dataset and sample equal to 0.84 indicating that the sample is representative of the population. Our research can be applied to learn public sentiments towards major world events concerning COVID-19 and to explain human behavior during the current pandemic.

Andrey Soares, Lisa Schilling and Brian Alper - Interoperable and Computable Evidence-Based Medicine (EBM) on FHIR (Work in-Progress)

The Health Level Seven International (HL7) EBMonFHIR working group has been extending the HL7 Fast Healthcare Interoperability Resources (FHIR) infrastructure to provide standards for interoperable data exchange to express biomedical evidence and statistics in a machine readable and executable format. The EBMonFHIR group has outlined FHIR resources for Evidence, Evidence Variables, Statistics and Order Distribution of Statistics. In light of the COVID-19 pandemic, where scientists and physicians need timely results and evidence, and with the difficulties and challenges of disseminating evidence, the working group has expanded to focus on COVID-19 with the creation of the COVID-19 Knowledge Accelerator Project (COKA) (https://www.gps.health/covid19_knowledge_accelerator.html). COKA is a virtual organization with collaborators from more than 25 organizations in 7 countries working across 10 active working groups to develop and advance

interoperability standards for COVID-19 knowledge. The group has also developed additional FHIR resources to express Evidence Reports, which are representation of research studies, and Citations. Examples of clinical outcomes results extracted from randomized controlled trials and represented with FHIR resources can be found at https://www.gps.health/COVID19TrialResults in both human and machine readable formats. Computable evidence can support relaying EBM components in a manner that is interoperable and consumable by downstream tools and health IT systems to support evidence users (i.e., creators of Biomedical Knowledge Bases, Clinical Practice Guidelines, Clinical Decision Support tools and Systematic Review). A global standard for data exchange has not been previously developed to bring scientific results to the interconnected computable era.

3:30 – 5:15pm: Session 4 Health and KM Topics (Track 2 plus) Moderator: Asim Qayyum

Keshava Pallavi Gone and Colin Conrad - An investigation of differences in sentiment from tweets related to COVID-19 between Canada and US residents

This study aims to understand how individuals communicated and acknowledged to COVID-19 pandemic on Twitter. It mainly focused on identifying and demonstrating the differences in the perspective of United States and Canadian residents. Methodology: We performed sentiment analysis on a sample of 1 005 358 tweets from the states and provinces most affected by COVID-19 in USA and Canada between 23 March 2020 to 24 April 2020. To accomplish this, we used the Valence Aware Dictionary and sEntiment Reasoner (VADER), which is based on a dictionary of a set of words with positive or negative sentiment scores (Hutto & Gilbert, 2014). We also compared differences in word frequencies between the two countries and compared the sentiments trends over 1 month and analyzed frequent words from the tweets of both the countries to give a clear picture on the gap between the sentiment and how differently people of two countries expressed their emotions on Twitter.

The project revealed the differences between the attitudes of people in USA and Canada on COVID-19 outbreak. The study highlighted two major differences. First, it revealed differences in positive and negative sentiment, as well as how it changed and each day of the given period. Second, it provided differences in how general public in two countries responded and reacted to the outbreak by analyzing the frequent words used on the social media platform.

The study is limited in its scope to focus only on the twitter data generated by US and Canadian residents. It also uses the VADER approach, which is classifies tweets into three discrete sentiments (positive, negative, neutral), which may not capture all possible sentiments. We demonstrate a technique which could be implemented by policy makers to determine public sentiment to a particular emerging topic on social media. Specifically, policy makers could use this approach to complement traditional methods to determine public opinion about COVID-19. While other research has explored sentiment on Twitter related to COVID-19, to the best of our knowledge, no research has specifically focused on the differences between Canada and the United States during the formative period of policy responses specifically.

Fariba Sadeghinaeenifard and Suliman Hawamdeh - Leveraging Geographical Disparities of Socio-Economic Factors To Predict Vulnerable Teenagers To Teen Birth: Chicago As A Case Study

Teen birth (TB) imposes serious health and economic burdens to both individuals and government. Various attempts have been made to overcome TB such as teen pregnancy prevention evidence-based programs. However, these programs might have declined teen birth rate (TBR), most of which do not address the influencing socio-economic factors linked to areas where teenagers live. This study is aimed at investigating socio-economic factors contributing to TB and identify their geographical disparities. The methodology was developed using the vulnerability theory to examine the complex relationship between TB and socio-economic factors. Principal Component Analysis (PCA) and Geographically Weighted Regression (GWR) were employed to analyze census data. Findings suggest that socio-economically disadvantaged minorities, including unemployed black and uneducated Hispanic, are more vulnerable to TB. Additionally, geographic locations of communities where such teenager live are recognized. The outcomes verified the utility of the vulnerability theory to predict the geographical locations of vulnerable teens that can be

leveraged by policymakers to allocate more health resources and perform place-specific interventions to effectively reduce TBR.

Zelalem Asfaw and Daniel Gelaw Alemneh - Speaker independent, Continuous Speech Recognizer for Kafi Noonoo, Afro-Asiatic language in Ethiopia

It is a well-accepted fact that emerging trends in technology are changing or influencing humans' day-to-day activities in general. As a means to extend man's reach, technology creates unique experience in the use of language and disseminating knowledge. Despite the vital role technology in promoting culture and indigenous knowledge, most of the languages in the world are less resourced in technology.
This poster will report on a research to develop Speaker Independent, Continuous Speech Recognizer for Kafi Noonoo (Afro-Asiatic language that belongs to North Omotic sub family in Ethiopia) using Hidden Markov Modeling technique. The portable and open source toolkit called Hidden Markov Model (HMM) Toolkit is used to perform the experiment. The development of HMM) based Automatic Speech Recognition (ASR) requires both text and speech corpus for training and testing the HMM. In order to have a model that incorporates different features of the language, we included the different dialects of Kafi Noonoo in the corpus and then prepared the training and test corpus from the scratch, and after preprocessing we have sampled and performed feature extraction using Mel Frequency Cepstral Coefficients (MFCC) feature extraction technique.
Using the text corpus and the extracted feature vector representation, we have developed speaker independent and speaker dependent recognizers using the recognition units: monophone based context independent and triphone based context dependent. We have analyzed the performance of the developed recognizers using accuracy metrics: word correct rate, memory requirement and speed. The performance of our model tested against by using two groups of speakers: one who is involved both in training and testing and the other who are involved only in testing.
We have achieved word recognition accuracy of 60.88% and 46.09% for context dependent triphone based and context independent monophone based speaker independent model respectively and 75.96% and 62.71% word recognition accuracy respectively for context dependent triphone based and context independent monophone based speaker independent model. Both the systems are similar with regard to their speed and memory requirement. Among the different reasons that lead recognizer's in reduction of recognition performance, we investigated that pauses longer than 0.5 microseconds at the begging and end of utterance have their own negative impact on recognition and should be critically controlled. Finally, based on the result of the research, the recommendations are drawn and forwarded for future research in the area.

Jeyarajan Siva - Knowledge Management based Best Practices of Higher Educational institutes

Recognition of Higher Educational Institutes to survey or succeed out of competition found on articles, advertisements, and news items of newspapers. The recognition showed threats to the quality of courses in Higher Educational Institutes. As such, a Postgraduate study developed a research question that bases evidence of solutions to such issues as whether Knowledge Management Practices are existed in its context and accordingly, the question added discovery of reason behind the existences. Meanwhile, the present study questioned as are the confirmed practices of the Postgraduate study Best Practices of Higher Educational Institutes? Besides, the Oxford dictionary specifies that practice becomes Best Practice if "commercial or professional procedures that are accepted or prescribed as being correct or most effective". Accordingly, confirmed practices of Higher Educational Institutes became Best Practices due to the practices that are accepted by the industry of the Postgraduate research. Besides, the discovered practices are out of the qualitative study, which enumerated presented practices of reputed literate. As such, present research proposes resulting practices of the Postgraduate study as Knowledge Management based Best Practices of Higher Educational Institutes.

Zachery Beaver - Culture and Crisis

Culture is often shifting without organizations knowing how to address and describe this change. Understanding this shift may allow organizations to guide culture development for work, workers, and the workplace. This study aims to understand the impact of the 2020 pandemic on workplace culture. The research seeks to know if the COVID-19

pandemic has created culture change by measuring the criteria of work outputs and actions of organization members. As a part of this research, a survey was developed to identify how and to what extent workplace culture has been impacted. 111 professional services staff from a North Texas business were surveyed. We identified three factors for criteria of work outputs and behavior that indicates the current level of change of the culture. The three factors are identified as, Expectations (α= 0.786), Accuracy (α= 0.603), and Timeliness (α= 0.552). Factor analysis and descriptive statistics are used to analyze the result from the survey. This study found it was possible to measure culture by criteria of work outputs and behavior through a survey, but the organization sampled did not currently show culture change as a result of the current crisis. The application of this survey may include better crisis planning and response for organizations.

3:30 – 5:15pm: Session 5 Projects and Organizations (Track 3 plus) Moderator: Naresh Agarwal

Moneerah Alboulayan and Suliman Hawamdeh - The Impact of Cyber Addiction on information Overload and Workplace Performance

Cyber addiction is an area of growing concern to both individuals and organizations. Cyber addiction refers to the excessive use of internet and cyber application leading to adverse outcomes such as stress, distractions, reduced motivation levels, and challenges in task orientation. Uncontrolled consumption of the internet could significantly increase information overload and in return affect workplace performance. In this study we investigate the relationship between cyber addiction in the context of workplace and job performance using information overload and information use as mediating variables. Studies have shown a direct relationship between information overload and workplace performance and job satisfaction. There is a need to investigate the relationships among cyber addiction, information overload and information use and their effect on workplace and job performance.

Abidemi atolagbe-Olaoye - Agile Practices in Data Science and Data Analytics Projects: A Research Agenda

The digital age comes digital transformation activities in emerging fields and technologies, such as data science and analytics, cybersecurity, cloud computing, blockchain, cryptocurrency, and nanotechnology, which helps organizations stay current and transform initiates into valuable outcomes. This paper focuses on agile frameworks that support the delivery of data science/analytics projects to ensure organizations rapidly deliver analytics products and services to their customers and remain competitive.
Approach: The study used a systematic literature review, following two stages to collect data from agile-specific literature, then, agile and data science/analytics related literature. The study was conducted using three research questions to understand the agile frameworks used to implement data science/analytics projects, the industries and regions are using agile frameworks to implement data science/analytics projects, and the models and frameworks supporting agile practices in data science/analytics projects implementation.
Results: The results show that the popular agile frameworks (Scrum and Kanban) used in software development projects have been experimented in data science projects, mainly in the academic environment among students; however, there is limited research in this area, and there is no evidence that organizations have adopted any particular agile framework or principles for data science projects.
Limitation: There is an absence of empirical data to show the industrial experiences of information professionals in the context of this study. Therefore, this study could not analyze any industrial experiences in this context, thus relied on findings in the literature.
Originality/value: There are currently a few studies on agile practices in data science/analytics projects. The literature examined shows no evidence of the adoption of a standard agile framework for data science/analytics projects implementation. Hence, this study identifies the gaps and potential research opportunities for information professionals and researchers such that appropriate agile frameworks and practices that support rapid delivery data science/analytics products and services could be established.

Marta Silva Neves, Patrícia de Sá Freire and Talita Caetano Silva - The Corporate Education System in A Financial institution in Southern Brazil: Maturity Diagnosis

Corporate universities make up a strategic umbrella for developing the organizational ecosystem with a high impact on business goals. A mature organization in educational activities necessarily creates lasting and sustainable mechanisms for human and organizational development. Thus, we sought to identify the maturity level of a corporate

education system and the necessary actions for its evolution based on the Kraemer model (2018).
Approach: The case study was developed qualitatively by means of questionnaires and interviews in the light of descriptive analyzes, applied to a public banking organization
Results: The application instrumentalized the educational actions and enabled the characterization of the present stage and the elements to be managed to attain the evolution at the next stage. In order to reach the most contemporary stage of literature – the Corporate University in Network – it is necessary to expand the offerings of courses that develop dynamic capabilities and include interested parties in educational activities.
Research limitations: It was noticed the need for further details on the guidelines generated by the tool, since in the early stages of maturity the criteria are simpler and in the latter they are more complex.
Originality/value: The study reveals significant gains in the application of the Kraemer tool, expanding the possibility of data collection and favoring more adherent diagnoses to the organizational reality. It is suggested to apply the questionnaire in other contexts so that it can be moved with continuous improvements. The theme is emerging and is a research and application agenda for professionals in the field.

William Edgar and Kendra Albright - Human Knowledge Problems, Knowledge Activities, and the Activities' Effects

Knowledge is the central component of knowledge management (KM); it comes into existence, is managed, and has effects through the activities performed upon it and the results of those activities. Much of the foundational KM literature identifies and classifies these activities (Baskerville, Dulipovici, 2006; Becerra-Fernandez, 2005; Evans, Ali, 2013; Evans, Dalkir, Bidian, 2014; Girard, Girard, 2015; Pee, Kankanhalli, 2009; Mohajan, 2016; Sajeva, 2010). We propose an extension of these activity classifications.

Our extension of these activity classifications will discuss activities that address five perennial human problems with regard to knowledge. These include:

1. People's relatively limited attention or intellectual capacity to absorb the vast amount of existing or potential knowledge
2. People's difficulties in understanding knowledge as they absorb it
3. People's limitations as to accessing knowledge over time
4. People's limitations as to accessing knowledge over physical space
5. People's need for results, or consequences, from knowledge

More specifically, we propose that six broad areas of activities (i.e., knowledge change, formalization, consideration, mediation, conveyance, and application) address the problems identified above. Our presentation will provide examples of how this occurs. This classification of knowledge activities and their results can advance researchers and managers understanding and use of social phenomena so essential to effective knowledge management.

Junaid Rehman, Igor Hawryszkiewycz, Osama Sohaib and Fatuma Namisango - Intellectual Capital Creates Value for the Organization: What About Other Stakeholders?

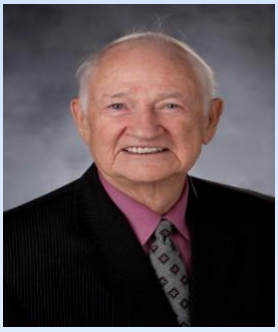
The ever-increasing market turbulence has turned today's corporate landscape more competitive and complex. Particularly during the last two decades, the increased utilization of ICT systems and technologies globally transformed the services sector in terms of ease of business processes and improved client service delivery. However, in the current knowledge-based era, ICT-enabled systems and tools would only be meaningful if these are appropriately utilized by the knowledgeable and skilled workforce. However, leveraging these necessitates a knowledge-enabled work culture and recognizing that people are crucial to building a robust Intellectual Capital (IC) that is central to achieving long-term market competitiveness. IC comprising of intangible assets and knowledge resources is central to value creation for the firm as evident from the growth of the knowledge-based industries. Nevertheless, the true potential of IC for deriving value advantage for diverse organizational stakeholders has not been fully utilized. Hence, by conducting 12 face2face interviews with the senior executives within Australian Professional Service Firms (PSFs), this study offers renewed approach to IC valuation by introducing 'Triple Value Bottom-line' perspective in PSFs. The results highlight that the IC offers enormous potential towards deriving broader value outcomes for multiple organizational stakeholders.

5:15 - 7pm: Dinner: Durham tour video ("Discover Durham")

December 4, Friday

8:00- 9:30 am: Welcome and announcements (Chair Deborah Swain) and Meet the Sponsor: Randy Sears, Operations Director, Duke University Masters of Management in Clinical Informatics (MMCi)

Plenary Session - Keynote (9:30 am – 10:30 am EST)



W. Ed Hammond, PhD, FACMI, FAIMBE, FIMIA, FDHL7,

Director, Duke Center for Health Informatics, Duke Translational Medicine Institute
Director, Applied Informatics Research, Duke Health Technology Solutions
Associate Director, Bioinformatics Core, Duke Translational Medicine Institute
Professor, Department of Community and Family Medicine, School of Medicine
Professor Emeritus, Department of Biomedical Engineering, Pratt School of Engineering
Adjunct Professor, Health Sector Management, Fuqua School of Business

Research Professor, Duke School of Nursing
Director, Academic Affairs, MMCi

W. Ed Hammond is a pioneer in the design and implementation of electronic health records and standards, and a distinguished leader in the field of health informatics. His career began as a student at Duke University where he graduated with a BS and PhD in electrical engineering. He completed a post-doctoral program at Duke that included select preclinical courses in the School of Medicine. He joined the faculty of Community and Family Medicine and Pratt School of Engineering after graduation. He also has an appointment as Adjunct Professor in the Fuqua School of Business, and has been a faculty member at Duke for 45 years.
Dr. Hammond's interest in electronic health records began in 1969 when he began the foundation of one of the first electronic health records, The Medical Record, or TMR. The system included medical histories of patients, a data dictionary, and administrative characteristics, and supported both ambulatory and inpatient care. Dr. Hammond and his team also developed a computer-programming language called GEMIsCH (Generalized Medical Information System for Community Health), a high level interactive database management language used with the TMR. The TMR was one of the first systems using a hierarchical data structure. Its use was nationwide with 44 facilities implementing the system.

Dr. Hammond is a founding member of Health Level Seven International (HL7) and a Fellow. He has been HL7 Chair three times, a member of the Board of Directors, Treasurer, and has served as the Co-chair of several HL7 committees and councils.
He will be discussing "Making Knowledge Work for Health." (Use chat to enter questions.)

10:30 – 12:15pm: Session 6 MCBK and Medical Care (Tracks 1, 3, 6) Moderator: Md. Anwarul Islam

Olateju Jumoke Ajanaku - The influence of information technology support on knowledge management process of nurses in patient care

Recent concerns about the issue of nursing care delivery have accentuated the need for more improved health services. The importance of knowledge management in improving performance has been strongly highlighted in the existing literature. A paucity of studies exists in information technology-based knowledge management of nurses in Nigeria. The current study investigated the influence of information technology support on the knowledge management process of nurses in patient care. A quantitative approach comprising of a descriptive survey design was used. Proportionate stratified sampling was used to select registered nurses from the teaching hospitals under study. Only registered nurses on duty were included in the study and sample size consisted of 320 registered nurses. SPSS version 22 and AMOS was used analyze the collected data. The structural models were developed to test the

hypothesized relationships. The researchers adhered to the principles of trustworthiness and ethical principles. The results affirmed that information technology support influences knowledge management process in nursing care roles. Based on our findings, information technology is required to promote knowledge management process coupled with appropriate coordination to develop a knowledge-friendly environment for nurses.

Dorcas Ibinaiye and G. V. Jiyane - Overcoming Prevalence of Hbv and Hcv: the Role of Libraries in Knowledge Management and Artificial intelligence Technologies in the Health information Management

Hepatitis B and C disease constituted major health problems globally, and many are still living with chronic HBV and HCV diseases today. The role of health libraries and artificial intelligence technologies have been acknowledged in the provision of accurate relevant information resources, however, lack of knowledge and proper view of the management of hepatitis B and C disease-related information persist. This abstract seeks to examine the role of libraries and artificial intelligence technologies in information management, access and use, as well as strategies for overcoming the challenges with the prevalence of chronic hepatitis B and C.
Methodology: This paper performs a comprehensive literature review between 1972 and 2020, using thematic analysis and descriptive narratives. The database searched include, Health Science Databases, Web of Science, Scopus, Library and Information Science and Technology Abstract, Applied Science and Technology Source Ultimate. Inclusive criteria consist of articles focusing on themes in titles and abstract such as; library management, information resources, information access, information use, artificial intelligence, health management, knowledge management and knowledge sharing, while few eligible articles were selected and added from reference list of included articles.
Result: The database searched identified 10,930 articles and reviewed papers, 119 met criteria for eligibility, while 26 articles were included in the review.
Study Limitations: The study is limited to the role of libraries, artificial intelligence technologies, information and knowledge management, as strategies for overcoming the challenges of information access and use by hepatitis B and C patients.
Practical Implication: The results of this review can be used by Health librarians and information specialists, healthcare managers and policymakers to develop guidelines for information provision and use to address the prevalence of chronic diseases specifically hepatitis B and C patients information related challenges, or to bridge the information gap
Originality: The originality of this study was derived from a comprehensive search of literature focusing on the role of health libraries, experts in artificial intelligence technologies and strategies to overcoming challenges of the prevalence of the diseases as well as to inform the improvement in the quality life of patients.

Carey Estes and Thomas McCoy - Factors Affecting Late Medication Administration in the Hospital Setting

Nurses have historically played a key role in the safe administration of medications and relied on rules of thumb such as the 5 rights to prevent errors. Yet, medication errors persist. This pilot study extends nursing's historical efforts to prevent medication errors by using a database research approach to better understand why medication errors persist in acute care settings.

Medication errors cause harm to hospitalized patients. Errors have been studied for years without reduction. Evidence shows three types of factors contribute to errors: nurse, patient care unit, and organization. Each factor alone has been evaluated, but little research has been done to understand how they interact to either prevent errors or lead to increased errors. Medication errors also are hard to quantify due to variations in reporting. This project focuses on nurse and patient care unit factors that contribute to errors and chose to study late medication administrations because they are a form of medication error that can be mined electronically from patient records.

Aims for this pilot study included examining 1) the relationship between registered nurse characteristics and number of late medication administrations per shift, 2) the relationship among registered nurse characteristics and the amount of late medication administrations, and 3) the relationship among registered nurse characteristics, patient care unit characteristics, and the occurrence of late medication administrations. Late medication administration is defined as a medication administered greater than 60 minutes from the scheduled administration time.

The pilot study was conducted on two step-down units and one medical-surgical unit. The three units were selected because they had similar patient populations but varied based on other characteristics that have been shown to influence medication errors (staff turnover rates, nurse manager characteristics, patient acuity, and prior medication error rates). A database for the study was created from the following institutional data: one month of pharmacy department daily reports of late medication administrations, human resource records of nurse characteristics, and staff satisfaction report from NDNQI data. Nurse managers were surveyed to obtain patient care unit characteristics and nurse manager characteristics; these were incorporated into the database. Data were analyzed using descriptive statistics and multilevel regression modeling.

Descriptive analyses have been completed and reveal that during one month on three units 6182 (17% of total) medications were administered late (M=257 minutes), with a range of 140-380 late medications (M=192) a day. A total of 556 medications were administered late, with five medications accounting for 17.6% of late medications; two of these medications were dependent on external factors (e.g., food intake). Medications most frequently administered late were Humalog insulin, protonix, heparin SQ, potassium chloride and renagal tablets. Inferential analyses to address the three study aims are underway and will be reported in the poster. Data collection issues were identified, including difficulty in obtaining accurate nurse characteristics and staffing data. These barriers will need to be addressed prior to future research.

Gavin Goodwin - Social Media, Grindr, and PrEP: Sexual health literacy for men who have sex with men in the internet age

Despite continued improvements to HIV/AIDS treatment and awareness, HIV transmission rates remain high among men who have sex with men (MSM). Online consumer health information targeting high risk MSM through social media and geosocial networking (GSN) apps have shown to be successful HIV intervention strategies. This review article addresses (1) the efficacy and acceptance of delivering consumer health information about pre-exposure prophylaxis (PrEP) and HIV prevention through GSN apps, (2) the impact of online and social media communities in the discussion and delivery of information about PrEP and HIV interventions, and (3) on-going and possible future research and the role of information professionals.

10:30 – 12:15pm: Session 7 KM and Education (Tracks 1, 3 plus) Moderator: Naresh Agarwal

Abigail Goben, Rebecca Raszewski, Martha Bergren, Catherine Ryan, Krista Jones, Susan Vonderheid and Alana Steffen - Meeting the Demand: integrating Data Management Education in Nursing Doctoral Programs

Having doctorally trained nurses educated in data management (DM) is critical to the healthcare enterprises that rely upon them to manage, create, and navigate complex data sets for quality improvement and reproducible research. Yet, there has been little examination into DM instruction to identify strengths, weakness, and opportunities for comprehensive program improvement. A team of library and nursing faculty collaborated to determine how DM is taught and integrated into the nursing doctoral curriculum, with the goal of developing guidance for nursing doctoral program directors.

Our preliminary investigation, a survey of nursing doctoral program directors, revealed that DM was taught in an ad hoc fashion, with many programs reporting reliance on faculty mentorship or a single class session to provide DM education. Further, instruction focused on collection and primary analysis of data and frequently failed to address aspects of data preservation and reuse or the ongoing challenges of sharing data sets. The survey also revealed that over 60% of the responding programs did not require for students to capture code or supplemental documentation. Additional investigation into DNP and PhD student handbooks supported these findings, with handbooks mostly providing guidance on data collection and analysis, and few examples where students were appropriately guided throughout the data lifecycle.

Our current project investigates techniques for implementing DM education changes at the program level. Using a data lifecycle as a foundation, it is our hope to identify recommendations, current best practices, and effective interventions which will operationalize DM across nursing education in the United States.

Petros Dlamini - The Use of Social Media Tools to Support Scholarly Knowledge Among Students at the University of Zululand

This article addressed the use and types of social media tools to share scholarly knowledge among students in the Department of Information Studies, University of Zululand. The study was guided by four research objectives: to determine the types of social media tools used to share scholarly knowledge; to understand how social media tools add positively to academic performance; to identify the factors that motivate students to use social media tools for scholarly knowledge sharing; and to find out the barriers to using social media tools for the sharing of scholarly knowledge. The theoretical basis for this study was informed by technology acceptance model (TAM). This study adopted positivism research paradigm to enable quantitative research approach. A total of 35 questionnaires were distributed to second year students in the Department of Information Studies and all the questionnaires were returned. The data was analysed using descriptive statistics with the support of statistical package of social sciences (SPSS). The study found that the availability of social media tools has transformed the lives of students academically and showed that the advent of social media tools provides a good platform for sharing scholarly knowledge. It was found that WhatsApp, Facebook, email, etc. were media tools used to share scholarly knowledge. The study also revealed that a large number of students were using social media tools to share scholarly knowledge. However, the study found that there are barriers that hinder the effective use of social media tools among students. These barriers include lack of trust, lack of money to purchase data bundles when students operate from home, and lack of privacy. One of the recommendations of the study is that the University of Zululand needs to have departmental trainings aimed at making students aware of all social media tools that can be used to share scholarly knowledge.

Kris Helge and Daniel Alemneh - Development of Micro and Pilot Projects: Case of Academic institutions

Successful organizations are continuously looking for better ways to improve efficiency. Knowledge management (KM) in institutions is essentially based on an understanding of knowledge creation and knowledge transfer. At Tarrant County College, we are currently developing a District-wide knowledge management (KM) program. This KM process is implemented via micro pilot projects and processes, technology, structure, and culture are implemented from the beginning. We carefully try to anticipate challenges we will encounter as the project is executed (geographical distance during a pandemic, cultural barriers, dealing with tacit knowledge…). Next, we carefully begin to create a road map for the KM process including: Establishing objectives, preparing culture change, creating a high-level process, identifying KM/communication/knowledge dissemination gaps, selecting appropriate technology, and deciphering the current status of KM throughout the District. Then, we attempt to implement our KM process via micro pilot projects. We will soon develop methods for evaluating our KM workflow.

Samgeeta Roy, A. K. M. Eamin Ali Akanda, Md Nazmul Hasan, Md. Mahbubul Islam, Md. Armanul Haque, Partha Biplob Roy, Mohammad Habibul Islam and Parveen Sultana - Trends of Knowledge Sharing in Communities of Practice (COP) in University Libraries: Library and information Science Professionals' Perspectives

This study considers Communities of Practice as a group of library and information science professionals who share their common interests and problems on a topic in order to exchange their expertise and knowledge on that topic. The study sheds lights on the ways of knowledge sharing, and assess the reasons of knowledge sharing of LIS professionals through Communities of Practice in the context of university libraries in Bangladesh. The study adopted survey as research strategy. Twenty one LIS professionals were selected purposively as sample for this study from the seven private university libraries. The study utilized a quantitative research approach in the data collection process.

The findings reveal that LIS professional strongly believe that Communities of Practice provide a means to exchange

data, information and knowledge. They considered workshop, seminar and large forum as a ways of knowledge sharing in Communities of Practice. Facebook and e-mail are often used media in order to share their knowledge in COP. They find collaboration as an important factor for sharing knowledge in COP. Hearing about new knowledge and experiences from other community members and developing standards, methods and best practices seem somewhat important reasons to the LIS professionals to engage in COP for sharing knowledge. Dissimilarity of the experiences or knowledge level among the professionals, and inadequate organizational structures are some significant identified factors that inhibit knowledge sharing.

The study would be helpful for the library practitioner to get a better understanding about knowledge sharing in COP. The study focuses a new insight on the contribution of COP in knowledge sharing in the university libraries of Bangladesh.

Khandakar Kamrul Hasan, Debarshi Mukherjee, Roslina Othman and Sk Mamun Mostofa - Blended Learning During Pandemic Through Knowledge Management: An Analytical Study

Blended learning (BL) assimilates the best digital high-tech learning and traditional methods that involve students in network learning transcending physical boundaries. It has been embraced as a possibility so that knowledge can be distributed through time and space. KM-based approaches may be used to collect, coordinate and transmit intelligence to control processes that can be utilized efficiently to recognize and share the most important details to address customer needs. This study aims to explain how to apply KM techniques in the BL environment in order to increase educational excellence and quality during pandemic situations. Specific consequences of BL actions are also stated in this paper. The methodology that is being implemented in this study is analytical, where BL through KM have been explored by searching relations between BL and KM. Findings of the study show that KM can be used with BL during COVID-19 pandemic, including integrated tasks, classroom instruction, online and e-learning.

12:15pm - 1pm: Lunch break with Sponsors/Supporters – Entrepreneurs Managing Knowledge (Veronica Joyner and Kristi Tally)

Kristi D Tally is a servant leader who greatly embodies integrity and passion and is on a consistent mission to bring about social action and change starting with her community. Kristi's diverse professional career includes serving as: a middle grades science educator in the Wake County Public School System, an international education consultant to create science curriculum for students/teachers in Benin, West Africa and program manager in a former NC Governor's education policy office. The combination of these experiences ignited her entrepreneurial spirit and led her to form **KD7 Enterprises, Inc,** the small business she currently owns and operates. KD7's guiding mission is focused on community engagement and outreachserving as the catalyst to build relational bridges between members of the community and the businesses that serve them. Kristi is a proud graduate of North Carolina Central University and serves her community as the Chair of the Small Business Caucus-NCDP; member of the newly formed NC Black Entrepreneurship Council, Vice Chair of the Raleigh Hall of Fame and member of the Board of Directors for Wake County Smart Start.

Veronica Joyner is a health technology consultant who owns her own entrepreneurial business. She has worked in Health IT over 20 years. Her consulting has involved healthcare technology training and support internationally including Canada, United Arab Emirates, Quatar, and the US. With an MIS degree from NCCU, she plans to work on global Health Information Exchanges (HIEs). Plus, she sees AI impacting healthcare and wants to be involved. Finally, her vision includes continuing to volunteer and support access to education and technology for girls and women in many countries.

1 – 2:30pm: MCBK Research panel – plenary session: Mobilizing Computable Biomedical Knowledge (MCBK) in Action – Examples and Challenges

Moderator: Rachel Richesson, PhD, University of Michigan Medical School

Panelists:

Juan M. Banda
Georgia State University;
OHDSI (Observational Health Data Sciences & Informatics)

Vignesh Subbian, PhD

The University of Arizona College of Engineering

Tina Hernandez-Broussard, PhD

Stanford University School of Medicine

2:30 – 3:00pm: Break with Yoga Tips (Dianne Reid recorded)

3:00- 4:45: Session 8 innovative Governance (Tracks 4, 5) Moderator: Carrie Chang

Márcia Aparecida Prim, Thiago Zschornack, Adriana Felipe Dos Santos Santos and Adriana Falcão Loth - Collaborative Governance and Social innovation as Subsidies to Public Governance

It is understood that Social Innovation (SI) is at the service of society, building a positive social value. Collaborative governance favors the government, with characteristics for a better form of applicability of its theories. Therefore, this article aims to identify how collaborative governance and social innovation collaborate for better governance in the public sector.
Methodology: To achieve the proposed goal, a qualitative and exploratory research was carried out in the Scopus and Google Scholar databases, with the terms collaborative governance, social innovation and the public sector. As for the search criteria, the inclusion and exclusion criteria (filters) were adopted, considering the articles that brought the relationship between SI and collaborative governance and the public sector. In the Scopus database, 16 articles were found, with the combined constructs and only seven that were directly related to the topic were considered valid for the research.
Results: With this study it was observed that the characteristics: mutual communication, multilateral and inclusive decision-making process, sharing of responsibilities, long-term commitment, and cyclic interactivity, can be used as subsidies to public governance, where various services can be implemented based on SI trends and co-creation. Some examples are participatory budgets, co-creation between public agents and society to solve problems in

neighborhoods, public-private partnerships in infrastructure works, etc.
Originality/value: Value refers to the importance of creating innovations that transcend the unique and exclusive vision of generating profit, but that are capable of breaking out of social problems in a lasting way.

Kleiton Reis and Maria Jose Baldessar - Innovation process based on customer development in a large mature company

The Customer Development process, widely used by startups, is designed with the aim that, at the end of a process of development of an innovation, the customer can see the maximum value in the product. But how this process can be applied in a mature company? Based on this question, it was decided to conduct a case study in a big mature firm of the health sector, aiming to assess whether it is possible to apply this methodology in this kind of organization. The study was carried out through interviews with the Innovation Manager and a UX Designer of the corporation. Based on the data collected, it was found that the company partially applies the Customer Development process, since its basic premise is to involve a customer in its processes of ideation and implementation of innovations, but it does not fully apply the process.

André Bernard and Gertrudes Dandolini - Innovation indicators for Companies: A Systematic Review

This paper aims to compile organizational innovation management indicators of papers that included some empirical step in the research and were published in the last 5 years (2015-2019). Based on PRISMA protocol, a systematic review was conducted and 356 indicators were extracted. They were categorized in 11 dimensions, following Dziallas & Blind (2019) previous literature research. The results make it possible to update the studies of innovation indicators at the organizational-level, filling an existing time gap in the research field. As for future research, we recommend the unification of similar indicators, the establishment of objective criteria for indicators categorization, and the development of an innovation indicator framework containing relevant indicators based on scholars' and practitioners' opinions, their description and measurement/evaluation methods.

Adriana Falcão Loth, Thiago Zschornack, Ariane Espíndola and Patricia Freire - Corporate Governance in Public and Private institutions: Differences and Similarities

Emerged in the early 1990's, governance in a construct which enables to broaden the management focus to a more comprehensive view, assessing efficiency capacity from different perspectives, such as social and political. Among its application, Corporate Governance is the most known. In the private sector, governance has become a mandatory practice for companies aiming at increasing their market value or maintaining it high, due to the credibility earned by companies with good governance practices. In the public sector governance is a major challenge, once it concerns itself with generating value for society, in addition to the need for transparency and credibility in the management of public affairs.In this context, the objective of this article is to identify the differences and similarities between Corporate Governance in Private Companies and Public Administration.

Methodology: Qualitative study, for which an exploratory research was carried out, with the purpose of gathering information and describing the how the investigated phenomenon occurs, that is, to identify the similarities and differences between Corporate Governance in private companies and public companies.

Result: Although there are significant differences between private and public companies, the main governance tools are very similar.

Session 9 Technical innovations (Track 4 plus) Moderator: Tereza (Raquel) Merlo

Jordan Bernot and Hsia-Ching Chang - Knowlege Management in Cybersecurity Education Using Concept Maps

The purpose of this research is to explore concept maps as a viable and effective knowledge management tool for cybersecurity education. Concept maps serve as a visual representation of knowledge. They are commonly utilized to support the teaching and learning process or as a student learning evaluation tool. This paper reviews relevant research related to the applications of concept maps in numerous knowledge domains. The aim is to leverage previous research applications to garner support for concept maps as a useful knowledge management tool in cybersecurity. This is accomplished by highlighting successful applications of concept maps in related fields. While the focus of education research is on tools specific to cybersecurity such as learning management systems and cyber ranges, there is little dedicated to understanding how concept maps can be applied as an effective element within the security education. Concept maps are poised to be extremely helpful with complex subjects such as information and cyber security where understanding the subject depends on the application of disparate but interrelated designs.

Marina Pluzhenskaya - The Impact of Cognitive Styles on Different Stages of Knowledge Management Cycle

While explicit knowledge can be separated from human brain and stored in more and more sophisticated ways in organizations due to advances in information technologies, tacit knowledge cannot be separated from the individuals who possess it, so its management cannot rely primarily on technologies. This situation calls for knowledge-worker centered approach. It's important to understand that individuals with different cognitive styles process information differently and use a variety of reasoning patterns for building their personal knowledge bases.
Goal: The goal of the paper is two-fold. First, it analyzes how understanding cognitive styles of the employees can help improve and enhance different KM processes in organizations, including knowledge acquisition, discovery, sharing, transfer, and often overlooked process of unlearning. Second, it presents a visual model that shows what impact different cognitive styles may have on the basic knowledge management processes. The model demonstrates how such cognitive styles as filed-dependence- field-independence, abstractness-concreteness, impulsivity-reflectivity, leveling-sharpening, and convergence-divergence might manifest themselves at different stages of KM cycle.
Design / Methodology / Approach: Exploratory study, Content analysis, Modeling
Results: A visual representation of cognitive styles' impact on different stages of KN cycle
Limitations of the research: Only 5 major pairs of cognitive styles are considered.
Practical implications: The visual model can help managers to build more successful teams of knowledge workers with complementary cognitive styles
Originality / value: The visual model offers a new perspective on the impact of cognitive styles on KM processes.

Saleh Aljalahmah and Oksana Zavalina - Information Representation and Knowledge Organization in Cultural Heritage Organizations in Arab Gulf Counties: A case study of Alqabas Archive

Exploring how information is currently organized in digital cultural heritage collections in Arabian Gulf countries
Methodology: Case study (a pilot for a large-scale project) focused on Alqabas – a Kuwaiti institution with a strong reputation of early adopter of digital archiving and developer of major digital collections in Arab Gulf counties, accumulated experience in knowledge management. The mixed-methods study combined semi-structured interview of the Alqabas archive manager and in-depth content analysis of a sample of metadata records that represent items in Alqabas digital collections for accuracy, completeness, consistency, use of knowledge organization systems.
Results: Study reveals high metadata quality overall but lack of consistency for many metadata fields, explained in part by the absence of metadata creation guidelines and professional training for metadata creators. This indicates potential barriers to metadata interoperability in an aggregated environment for future projects similar to DPLA or Europeana.
Research Limitations: Small sample size produced results that are not statistically generalizable but provided rich qualitative data to inform larger study.
Practical Implications: Results indicate the need for metadata training, developing and documenting metadata creation guidelines, feedback collection from archive users and knowledge management professionals. Results also

provide insights into possible ways to achieve interoperability in metadata for a future aggregation of cultural heritage digital collections across Arabian Gulf countries.
Originality / value: This is the first study to evaluate information representation and knowledge organization in digital cultural heritage collections of Arab Gulf countries . It has not been published or submitted for publication elsewhere.

Tereza Merlo and Joyline Makani - Using Operative Data Governance Roadmaps For Business Process Managemement Success: the Role of Leadership and the Impact of information Technology Adoption

The unquestionable demand for data generation and consumption in organizations in this century prompt an increasingly notion of data as a valuable asset, provoking the urgency for reliable analysis and reporting of complex data assets towards a critical business decision making process. Computing languages like SQL, Sequential Query Language, Data Mining and Warehouse, and data visualization tools are some examples of how information technology is being applied to the problem solving strategy related to data governance and management. The objective of this article is to provide an overall framework for effective data governance, through the examination of the hierarchy data-wisdom, that can be applied to business processes improvement and business intelligence approaches. Its purpose is to present roadmaps that will lead to superior management decisions impacting the pipeline and the relationship between leaders, staffs, stakeholders, and the corporate governance in terms of data processing and consumption. This literature review work presents the argument that effective use of information technologies, the consolidation of a learning culture, and the fostering of a technological framework that is insightful and enabler of a responsible and steward data management process have decisive impact in the business processes operations and strategies in which leadership plays a pivotal role.

4:45 – 5:30pm: Professional Organization Supporters share information (ASIS&T and SLA)

5:30 - 8pm: Knowledge Cafe / (virtual: awards presentation) – invited speaker is Jennifer Anderson, Executive Director of NC Healthcare and Information Alliance (NCHICA); Jeff Allen, moderator

December 5, Saturday

8:00- 9 am: International Breakfast and Open Advisory Board Meeting (online)

9:00 – 10:45 am: Session 10 = A Global View (Tracks 3, 5) Moderator: Asim Qayyum

Chris Stary and Antonia Baum - Towards Knowledge Co-Creation For Effective Study Counseling

Stakeholder-centered knowledge elicitation and acquisition for study counseling and informed decision making on the selection of study programs and study locations
Design / Methodology / Approach: Design-Based Research embodying Value Network Analysis and Repertory Grids
Results: A stakeholder-centered methodology for co-creating value networks; prototypical elicitation of organizational knowledge and individual value systems
Limitations of the research: Although the feasibility could be demonstrated – first results are available for applying Value Network Analysis, and Repertory Grids – a use case in the field is still in progress
Practical implications (if applicable): Both, study counselors, and potential students can be addressed for knowledge co-creation and informed decision-making
Social implications (if applicable): Study (location) selection can be redefined as collaborative process. Well informed and sustainable relations can be built upon aligned value systems and transactions.

Originality / value: So far, (pre-)academic relationship management has neither been discussed from a knowledge management nor from a design science perspective.

Charleen Musonza and Ndakasharwa Muchaonyerwa - Artificial Intelligence and Knowledge Management in South African Automotive industries

Automotive industries in the developed world have striven to improve performance and productivity by incorporating Knowledge Management (KM) practices in their manufacturing processes. This has been attributed to the use of upgraded technological capabilities in the acquisition, sharing, and retention of organisational knowledge. Literature has unpacked that as much as automotive industries need ICTs in their KM strategy, they should also include aspects of Artificial Intelligence (AI) in order to facilitate and share knowledge. More so, they recognized the limitations of ICTs with respect to the management of tacit knowledge, which is intangible and difficult to share, as it plays a crucial role in the KM process. Despite the interest of many authors toward KM in automotive industries, there is a lack of studies aimed at investigating AI as a KM enabler in the South African automotive industry. This is a relevant issue as knowledge in the automotive industries tend to manifest itself in a tacit way. This realization has spawned a growing interest in incorporating advanced technologies like artificial intelligence into KM practices to overcome knowledge loss and bringing in innovation in automotive industries. It is against this backdrop, the study seeks to investigate AI as a KM enabler in automotive industries of South Africa. This study proposes the use of an interpretivist research paradigm and will make use of qualitative research methods since the researcher wants to explore the use of AI as a KM enabler in South African automotive industries.

Tijani Hussen, Melkamu Beyene and Daniel Gelaw Alemneh - An Ontology Approach to Tourism Destinations in Ethiopia

Knowledge is awareness or familiarity gained by experiences of facts, data, and situations. Knowledge management includes techniques and processes to represent, store, search, integrate, and analyse knowledge that is available in digital form. Ontology is a formal explicit specification of a shared conceptualization of a domain of interest and it is a building block of the semantic web and formal description of knowledge. Ontologies capture the structure and knowledge about some domain of interest by describing the concepts in the domain and also the relationships that hold between those concepts. Even though Ethiopia has potential tourist destinations, the country is not benefited from its resources due to misperception about image of the country; lack of promoting the potential tourism resources of the country to the world; problems with sharing, searching and retrieval of tourist information. Thus, the country is forced to accept smaller number of tourists and not getting the benefits it deserves. The objective of this paper is to build ontology for Ethiopian Tourism so that it makes Ethiopian tourism destinations visible to international visitors. We use OWL language implemented in Protégé with other ontology development activities proposed in METHONTOLOGY to build Ethiopian tourism ontology. We also use OWL reasoners and SPARQL for inference and querying respectively.

Andreici Daiani Vedovatto, Luciana Hervoso, Sergio Luiz Gargioni, Eduardo Moreira da Costa, Jamile Sabatini Marques, Rafael Rath and Adriana Karam-Koleski - Relationship Between Jobs and Soft Skills in the Technology Sector: A Case Study in the City of Florianópolis

The Soft Skills theme has been presented and discussed by several academic and professional players: researchers, consultants, entrepreneurs and technicians in Human Resources. These are personal skills that go beyond technical competence, absolutely determining the performance of any organization. Understanding what they will be and how to develop these skills has been the challenge of the World Economic Forum (WEF), which periodically publishes reports mapping areas, professions and skills that will be trending in the coming years. So, this article seeks to answer which skills are requested in advertisements and job vacancies in the area of ICT in the region of Florianópolis? with a double objective: [i] Identify whether companies in the creative economy segment, specifically technology, in the city of Florianópolis / SC are looking for soft skills in their job advertisements; and in this way [ii] Understand whether they are aligned with the trends presented by the WEF. For this, it carried out a qualitative

research, classified as descriptive with an exploratory stage of analysis of the vacancies published in the LinkedIn and ACATE platforms, making it possible to conclude the importance of soft skills for the profile of technology professionals. It was also evident the difficulty in identifying these skills, and consequently requesting them in advertisements. Apparently, a weakness in the Human Resources sector that does not find a clear definition of the organizational culture from which to extract the necessary skills

10:45 am – 1pm: Virtual Tour of RTP and SAS headquarters in Cary (Video and Chat with SAS Representatives, including Hiwot Tesfaye and Josh Morgan)

Hiwot Tesfaye, *Data Scientist*

Hiwot is an analytics professional well versed in data manipulation, visualization and statistical modeling. She enjoys problem solving and converting data into insights that drive change.

Before joining the Health and Life Sciences Industry Solutions team as SAS, Hiwot worked in SAS's consulting division serving as the point of contact to customers and leading incident/change management activities for their hosted analytics solutions. During her time in the consulting division, Hiwot put her analytics expertise to use by developing visualizations and predictive models to address the division's pressing business challenges.

Prior to joining SAS, Hiwot was a graduate student at North Carolina State University's Institute for Advanced Analytics. As part of her Master's practicum, Hiwot lead a team of students in developing a model to predict patients' risk of sub-optimal diabetes management for UNC Healthcare.

Hiwot holds a MSc. in Analytics from North Carolina State University's Institute for Advanced Analytics and a BSc. in Economics and Nutritional Sciences from University of Toronto.

Josh Morgan

As SAS' National Director of Behavioral Health and Whole Person Care, Dr. Josh Morgan helps health and human services agencies use data and analytics to support a person-centered approach to improving health outcomes. A licensed psychologist, Dr. Morgan was previously San Bernardino County Department of Behavioral Health's Chief of Behavioral Health Informatics and is a member of the Board of Directors of Mental Health Services, a large non-profit community behavioral health provider in California. His clinical work includes adolescent self-injury, partial hospitalization, and intensive outpatient programs, psychiatric inpatient units and university counseling centers. Dr. Morgan earned his Bachelor of Arts in Religious Studies from the University of

California, Berkeley, and a PsyD (Doctor of Psychology) in Clinical Psychology with an emphasis in Family Psychology from Azusa Pacific University, and is trained in Dialectical Behavior Therapy.

1:00pm: Closing

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