Thursday, 1 March	
07:45-08:45	**Conference Registration Desk Open**
08:45-09:15	**Conference Opening, Daniel Araya, CG Blockchain, 2018 Technology, Knowledge & Society Conference Chair, USA**
09:15-09:45	**Plenary Session - Hamza Choudhry, Co-Founder, Team Lead, XiWATT**
	"The Future of Renewable Energy Ownership"
09:45-10:15	**Plenary Session - Phillip Kalantzis-Cope, Common Ground Research Networks, USA**
	"Regeneration, Autonomy, and Sustainability: Whose Property?"
10:15-10:45	**Garden Conversation**
10:45-11:30	**Talking Circles**
	Room 1 - 2018 Special Focus: Regeneration, Autonomy, and Sustainability—Productive Technologies and the Green Economy; Technologies in Society **Room 2 - Technologies and Human Usability** **Room 3 - Technologies in Knowledge Sharing** **Room 4 - Ubiquitous Learning** **Room 5 - Spanish-language Talking Circle**
11:30-12:45	**Parallel Sessions**
Room 1	**Design Implications**

Machines and Minds

Creighton Rosental, Mercer University, Macon, GA, United States

Alan Turing's famous imitation game, proposed in 1950, both provided a clear test for evaluating machine intelligence and inspired theories of computer intelligence that are still prominent today. Lesser known is Descartes' test proposed in 1637, which was also designed to provide a clear test for distinguishing between true (i.e. human) thinking and those mere imitations of automata (man-made machines designed to emulate living beings in particular ways). There is a long tradition in philosophy of mind of understanding thinking by comparing and contrasting the thinking that humans do with that of machines. This paper examines four cases in which machines helped develop theories of thinking: Descartes and automata in 1637, Leibniz and clockwork in 1714, C. S. Peirce and logic machines in 1887, and Turing and computers in 1950. This paper argues that the resulting theories of thinking and of mind depends in part on which machine is being compared to the human mind, and how that machine's functions are characterized in comparison to human thought.

Technologies in Society

Artificial Intelligence and Humanity

Jennifer Keating-Miller, Carnegie Mellon University, Pittsburgh, PA, United States
Illah Nourbakhsh, Carnegie Mellon University, Pittsburgh, PA, United States

In a time when human-machine relations are being radically redefined due to inexorable advances in Artificial Intelligence technology, we believe critical inquiry regarding autonomy technology and its ramifications on society are an essential foundation for every undergraduate education. During the autumn of 2017, the Carnegie Mellon Dietrich College of Humanities and Social Sciences and the School of Computer Science collaborated on an experimental freshman seminar that brought humanities and computer science first-year students together to study historical human negotiations of power, starting with slavery; critical practices for interrogating power relationships and societal ramifications, including keyword-based analysis and conceptual mapping; and futuring based on present-day and hypothetical human-machine relations, using documentaries, written narratives, scripts and cinema. Using human-to-human relationships throughout western history as examples, we will explore contemporary anxieties and utopian visions of human-to-machine relationships associated with artificial intelligence and automated systems. In this paper, we will remark on the perceived need for such transdisciplinary education on technology and society in the modern Academy, and we will describe this first-year freshman seminar in terms of both designed structure, course content and the experiences of the first offering in the preceding semester. We will describe the keywords approach to organizing inquiry in terms of the semantics of critical terminology, and the conceptual mapping exercises that tie stakeholders and conceptualizations of each assigned work together, as well as student team exercises used to create culminating thematic conceptual diagrams.

Technologies and Human Usability

Thursday, 1 March	
11:30-12:45	**Parrallel Sessions**
	Heidegger and the Question Concerning Technology Karen Seubert, Edinboro University of Pennsylvania, Edinboro, PA, United States Heidegger decried the crisis he saw enveloping Western civilization which had its roots in a 2,000 year old "forgetting of Being", his definition of nihilism. This "forgetting" began when we "turned away from the gates of Truth" to which the Pre-Socratics, primarily Heraclitus and Parmenides, led us and engaged in a way of thinking by the end of Plato which was highly mathematical and calculative. He sees this turn taking place in Plato's later dialogues, on to Aristotle's logic, Descartes' analytical problem solving method which helped drive the sciences onward so rapidly. This way of thinking created machine and is in danger of making man machine. But man's being is not machine. Man is a being meant to relate to Being-Itself, but we no longer know what that is. Therefore, we no longer know what we are since we are human beings. This paper tries to trace this decline and why it's important to try to get back to another way of thinking that thinks Being and tries to point a pathway to what Being is. I shall also draw some parallels to Eastern thought which Heidegger once said was "...what I'm talking about." Terrorism is an outgrowth of active nihilism (the forgetting of Being). Technology, with its machination of man, has affected all aspects of our being-there: Environmentally, politically, financially, socially. In "The Turning," Heidegger says, "...in order that there may be found an essential relationship between technology and man in respect to their essence, modern man must first and above all find his way back to the full breadth of the space proper to his essence...as one who is needed and used by Being..." The way back to that essence of man's being is worked out in "Being and Time" which deals with man's being. *Technologies in Society*
Room 2	**Impacts of New Technologies** **Technology as a Concept of Design** Fabian Neuhaus, University College London, London, UK Technology is designed by humans. It is always an act of doing and deciding. We will, therefore, argue here that technology is design practice. All the design disciplines have a highly developed practice knowledge. The decision and development cycles in design have been discussed extensively in the past ten or so years based on Michael Polanyi or Nigel Cross. With the presented research projects we attempt to link this discussion of the practical design knowledge to the discussion of technology its meaning and application. The aim is to retake ownership of technology and engage with it developing tacit knowledge for with practical application. Architecture serves as an example of how technology and practice knowledge are linked. In the discussed research projects we explore this with practical workshops where participants are asked to invent and construct solutions to solve practical problems. The talk will link the observations and conclusions back to help bridge the perceived gap between technology and design practice. *Technologies in Society* **Synergy between Sustainability and Technology** Sanem Odabasi, Anadolu University, Eskiehir, Yunus Emre Kampüsü, Turkey Fashion is perceived as variable and ephemeral, and often associated with disposable quality. Due to the basic need for change in fashion, the innovations and originality created to antiquate the existing result in increasing concerns in the present status of the fashion cycle. There are a number of threats to sustainability in the textile and fashion industry that produce several environmental adverse effects including the range from raw materials to the finished product. In response, 21st century fashion aims to demonstrate the ability to produce clothes with the awareness for the need for ethically developed marketing strategies and desires to be remembered as a synonym to sustainability. With advances in technology and science, the range of efforts that could be spend for sustainable fashion has increased and technology became an indispensable field for sustainable fashion. This has created a multi-disciplinary realm that combines engineering, biology, chemistry, fashion design and product design. Fashion design is transformed into a field where the system is examined for the reconstruction of the processes of creating value and meaning. In the present study, the design products that emerged as a result of the concepts of technology and sustainability were examined. The aim of the study was to examine how the design studies scrutinized the product design process that could endanger sustainability and the topic of technological advances and sustainability. In the conclusion section, new technological developments for sustainable fashion were discussed. *2018 Special Focus: Regeneration, Autonomy, and Sustainability - Productive Technologies and the Green Economy*

Thursday, 1 March	
11:30-12:45	**Parallel Sessions**
	Issues and Consultation Platform in Contemporary Smart or ANI Environments Katalin Feher, Budapest Business School, Budapest, Buzogany, Hungary The goal of the paper is to share the results of a work-in-progress research concerning the most popular contemporary key issues and an innovative consultation platform of smart environments. The analysis is based on a carefully selected international corpus of knowledge sharing from the last three years by public executive summaries, white papers, trend reports, strategic plans, governmental and business reports using global search engine rankings. Applying quantitative text analysis and visualisation of text networks via WORDij, Gephi, Quadratic Assignment Procedure, Pearson's correlation and Force Atlas, frequencies and thematic networks of smart environments were drawn with their nodes and ties. To sum the research results up briefly, sustainability, open or big data, mobilisation, project- and service-oriented approaches, public issues, research and development, the energy sector and the productive technologies have become the most focused principles (Feher 2018, in print). In parallel, the synopsis draw attention for the consolidation movement of academic sources on this field. After the wide spectrum of social-technological utopias and dystopias, the spotlight has been moving to general public and its role in debates, living labs and collaborations. Smartmentality (Aldairi 2017 and Vanolo 2014) and triggered civic engagement to smart environments and the artificial narrow intelligence (Burgess 2018 and Cath 2017). Scholarly articles have emphasised the responsibility of governments, private sector and research communities regarding the future welfare societies. In order to understand the role of these academic and research results in knowledge sharing, the conference paper also presents a case study in a nutshell as a best practice of consultation platforms in context of regeneration. The Earth 2050 (Kaspersky Lab 2017) went to public as a top-notch project with well-defined questions targeting engineers, designers, architects, future lovers and futurists. Art and science, dreams and innovations, visions and predictions are collected and presented on the open platform to to social dialogue. The ultimate goal of the presentation is to summarise these three pillars of knowledge sharing concerning the cutting-edge technologies with impacts, consequences and controversial issues to support the governmental and business policy making. *Technologies in Knowledge Sharing*
Room 3	**Machine and Humankind** **Intelligent Device to Ensure Safety in Use of Cooking Gas in Cylinder** Brailson Mansingh, Sri Ramakrishna Engineering College, Coimbatore, Tamilnadu, India Mayuranath Suresh Kumar, Sri Ramakrishna Engineering College, Coimbatore, Tamilnadu, India Monica Ranganathan, Sri Ramakrishna Engineering College, Coimbatore, Tamilnadu, India Aparna Prabakaran, Sri Ramakrishna Engineering College, Coimbatore, Tamilnadu, India This paper portrays a technology that ensures safe use of cooking gas for domestic and commercial purpose using Internet of things technology. The arrangement utilizes a servo motor to actuate the gas regulator knob of cooking gas cylinder. The ON and OFF position of the gas regulator knob is controlled by the codes in the Arduino through the servo motor. Safety is ensured in two ways by this device. In the case of gas leak, MQ6 sensor in the arrangement provides a signal to the Arduino which is coded accordingly to operate the gas regulator knob using servo motor to OFF position and alerts the user through a LED display. The OFF position of the gas regulator knob is ensured using a proximity sensor. Another way is to prevent the gas leak by ensuring the OFF position of gas regulator knob. This can be done even from remote location using a customized Android application and Internet of Things technology. Based on the signal from proximity sensor, the position of knob can be identified in the Android application. Now by interacting with the Android application, knob can be brought to OFF position and thus safety is ensured. *Technologies and Human Usability* **Use of Mobile Technology in News Coverage and its Impact to Citizen Journalism** Renalyn Valdez, University of the Philippines Manila, Manila, National Capital Region, Philippines Guillermo Santos, University of the Philippines Manila, Manila, National Capital Region, Philippines Knowing how mobile technologies are used in TV news coverage and reporting will lead to possible new insights, perspectives, and approaches in the field of broadcast journalism. Continuing advances in technology may lead to both positive and negative changes in an organization. An analysis then of the dangers and opportunities presented by technologies becomes important to study—to maximize potentials of technology in media and minimize its dangers. With news rapidly changing in a news technological environment, how do traditional news organizations react? Does the multiplication of information outlets affect news gathering routines and standard definition of news? In the context of business and organizational pressures, technologies contribute to redefining occupational roles in newsrooms. From all these changes, who is a journalist? Are common divisions (print, broadcast, online) still relevant? (Waisbord, 2001, p. 173) These are some of the questions that this paper will address—mainly the developments of broadcast journalism with the advent of mobile technologies: innovations in interactive communication and changes in news business brought about by digital technology in particular mobile technology. The study will be grounded on the Diffusion of Innovation of Everette Rogers (1971) and Uses and Gratifications of Katz, Blumler and Gurevitz (1974). Mobile technology will be studied on two counts: its adoption and usage in TV news reporting and coverage and as an alternative and new form of broadcast journalism. The study will use both quantitative and qualitative design to probe on the problems of the study. Content analysis will be used to look into practices, functions, and approaches in the use of mobile technologies in news reporting and citizen journalism as shown in news programs, both on TV and online. After which, in- depth interviews will be conducted to examine and investigate on these mobile usage and developments. *Technologies in Society*

Thursday, 1 March

11:30-12:45	**Parallel Sessions**
	Mobile Technology Adoption towards Improved Employee Training and Education Anastasia Tracy Biggs, Capella University, Minneaoplis, MN, United States The purpose of this qualitative case study is to explore why and how mobile training can be adopted by corporate training managers towards improved employee training and education.The case study method explores the learning processes to determine if a learning model is appropriate for the use of mobile technology as a training tool (De Zan, De Toni, Fornasier, & Battistella, 2015, p.341). This qualitative case study utilizes interviews, and observations to explore how the use of mobile technology can be adopted to train employees. The use of interviews and observations will explore the degree of employee growth and learn from mobile training (Alberghini, Cricelli, & Grimaldi, 2014, p.260). Case study methodology will answer how mobile technology through cause-effect relationships explores the lack of mobile technology adoption interventions between Corporate Training Managers and the organization (De Zan et al, 2015, p.335) (Tsang, 2013, p.197). *Technologies in Knowledge Sharing*
Room 4	**Technology Connections** **Contemporary IT Knowledge as a Tool for Learning** Alireza Ebrahimi, SUNY Old Westbury, Old Westbury, NY, United States It is important for society to stay informed with contemporary technological advances to ensure efficacy and remains successful, regardless of the individual being self-employed or as an employee of an organization. The information systems should be designed in a manner which improves the effectiveness and efficiency of the task(s). Individual who are knowledgeable and IT competent with tools such as programming issues, webpage view source, databases, spreadsheets, ethics, and privacy and security, are prepared to prevent and mitigate potential risks. IT knowledge available will aid in decision-making. Individuals and organizations need to be proactive in obtaining the necessary IT knowledge and skills to ensure that they will achieve their strategic goals. The results our survey confirm that there is a limited contemporary of IT knowledge. We encourage institutions of higher education and organizations to provide training for all parties to ensure that there is an understanding and proficiency in the understanding and skills proficiency . Training can be accomplished through workshops and seminars. Proficiency of contemporary IT knowledge will alleviate many of the existing concerns, facilitate communications, and encourage strategic thinking. Contemporary IT design should be regarded as a learning tool for these task(s) and not vice versa. *Ubiquitous Learning* **Descriptions of Online Learning Experiences in Female-authored Social Media** Debbie Ritter Williams, University of Phoenix, Tempe, AZ, United States Armando Paladino, University of Phoenix, Tempe, AZ, United States Gwendolyn Dooley,University of Phoenix, Tempe, AZ, United States Research indicates virtual classrooms are particularly beneficial for female students; social media messages could be a powerful force in persuading or dissuading them to pursue education online. The lack of empirical studies focused on females' social media messages about online learning presented an opportunity to understand the success factors they deem most important. The purpose of this study was to respond to the research question: What descriptions of online learning experiences are offered by female college students via social media? Unlike other researcher provoked data such as interview transcripts and survey responses, social media content constitutes a novel form of data that has not been evoked or biased by researcher intervention. Qualitative content analysis was conducted on a collection of 42 blogs, YouTube videos, and Facebook sites written by female college students. Emerging themes indicated that successful online learning experiences may be related more to learner qualities and awareness than to faculty attributes or behaviors, curriculum, or the virtual environment itself. The knowledge about female student's perceptions of the most important success factors for successful online learning may be valuable to higher education leaders responsible for marketing online education and academic advisors who may enroll students in online classes. *Technologies and Human Usability* **Self-regulated Learning and Effective Time Management in Academic Success in Part-time Adult Science Students** Anwar U Chaudhry, National University, Fresno, CA, United States The investigator used convenience sampling of 20 students (n=20) at a National University. The findings indicated that major factors interfering with the learning process in part-time adult science students were found to be personal, family and job responsibilities. Significant improvement was observed in terms of perception, cognition and understanding with Ubiquitous learning intervention therapies. Based on Paul R. Pintrich's conceptual framework; Motivated Strategies for Learning Questionnaire (MSLQ) was used as instrument for collecting data both pre and post interventions.The Motivated Strategies for Learning Questionnaire (MSLQ), is an 81-item, self-report instrument consisting of 6 motivation subscales and 9 learning strategies scales The study showed that Ubiquitous learning intervention strategies(self regulation, time management) helped in terms of enhanced perception, cognition and learning skills. *Ubiquitous Learning*
	Parallel Sessions
Room 5	**Spanish-language Session**
12:45-13:25	**Lunch**

Thursday, 1 March

13:25-15:05 **Parallel Sessions**

Room 1

Assistance and Support

App for Teenagers with Mathematics Learning Disabilities

Samuel E. Moskowitz, The Hebrew University of Jerusalem, Jerusalem, Israel

Learning disability is an abnormal — when compared with an educational standard — mental disorder that interferes with learning. The youngster otherwise appears to be physically healthy and active, has no problem learning, perhaps even mastering, remaining scholastic disciplines such as comprehensive literature and creative writing. Parenthetically, these same students may have no difficulty appreciating a Rothko abstract expressionist painting. Hence, lack of imagination is presumably not the issue. Typically, the teenager has difficulty understanding or has only a casual interest in natural processes and their applications. Remedial action taken by parents to avoid failure at school is to hire a human tutor. A better alternative is to replace the tutor with a smartphone equipped with special software or app. Application software is designed to run on smartphones and tablet computers. We shall discuss apps tailored for teenagers with mathematics learning disabilities. Here, a family of apps is formulated consisting of serialized lessons each a little more difficult than the preceding frame. The degree of difficulty depends on the age of the teen and evaluated nature of disability. Along with interactive exercises designed to strengthen mathematical skills, the repetitive operation of the smartphone exposes the student to a cognitive tutoring process.

Technologies in Society

Digital Safety in the Deaf Community

Ana Stajminger, Norwegian University of Science and Technology, Trondheim, Norway

The scope of the matter is anything but narrow: deaf people are most similar to non-native speakers, have high unemployment rate and deaf women are 1.5 times more likely to be victims of relationship violence. Even though technology is swift in advancement and availability, there are few papers dealing with this issue. The paper is based on several years of research, but also experience of a sign language interpreter.

Technologies in Society

Reproductive Technologies

Cassandra Rivais, Albany Medical College, Albany, NY, United States

This paper seeks to examine the impact increased use of assisted reproductive technologies (“ART”) has on society as a whole by using the theoretical framework of traditional functionalism theory. Some examples of ART include in vitro fertilization, cryopreservation, blastocyst transfer, and preimplantation genetic diagnosis. This normative theory argues that the family unit in society is supposed to achieve certain functions in order to be a productive unit for society. The paper will focus on five specific functions articulated from this theory that should be achieved by the family unit: provide economic support for its members, provide emotional support for its member, reproduce, transfer social norms, tradition, and values, and provide stability (or certainty) in society. The paper will then analyze whether or not these traditional family functions have been impacted by reproductive technologies and if not, what changed these functions prior to the development of ART. The paper will conclude by stating ART has impacted three of these five functions.

Technologies in Society

Technology as a Tool to Support Risk Prenatal Care in Primary Health Care

Teixeira Rossetti, Social Health Organization Viva Rio, Rio de Janeiro, Brazil
Mauricio Rodrigues Castro, Social Health Organization Viva Rio, Rio de Janeiro, Brazil
Guilherme Braga De Matos, Social Health Organization Viva Rio, Rio de Janeiro, Brazil
Jessica Oliveira De Souza, Social Health Organization Viva Rio, Rio de Janeiro, Brazil
Beatriz Machado Rodrigues, Social Health Organization Viva Rio, Rio de Janeiro, Brazil

This article is a descriptive experience report, based on the creation and implementation of the Monitoring Program for Pregnant Women in Risk in July 2015 in a program area in city of Rio de Janeiro, Brazil. Its aims to use a soft technology to seek the qualification of prenatal care at risk and strengthen the attachment between the user and the primary care. The program consists in monitoring and guiding the pregnant women at risk by the Active Call Center, composed of health professionals / nursing students, which enables qualified and differentiated listening. The telephone contacts are intends to detect failures in prenatal care, difficulties in accessing outpatient and/or hospital services and identify possible complications during pregnancy and then send e-mail alerts to the Primary Health team seeking the intervention in great time next to the health care network and avoiding complications that can progress to death. Since the implementation of the program, in addition to the quantitative results, there was a 50% reduction in the number of maternal deaths in this area, the increase in the number of pregnant women monitored jointly by the PHC and the hospital network and the increase in the number of prenatal consultations per pregnant woman, significant qualitative results were also obtained, such as the change in the perception of the professionals involved in prenatal care and the strengthening of the pregnant woman's relationship with the caregiver team, resulting in a better adherence to prenatal care. The active call center proved to be an efficient risk-prenatal surveillance and care tool, providing care and management support to PHC professionals for a rapid and effective intervention in the identified complications.

2018 Special Focus: Regeneration, Autonomy, and Sustainability - Productive Technologies and the Green Economy

Thursday, 1 March

13:25-15:05 **Parallel Sessions**

Room 2

The New Classroom

Digital Storytelling in the Writing Classroom

Shoba Bandi-Rao, Borough of Manhattan Community College, CUNY, New York, NY, United States

The use of multimodal resources among students today has led to the emergence of new literacies which are changing the way students access information and learn. Digital Storytelling, the art of combining narratives with multimodal media such as images, sound, video and text, allows writers to create a short story in interesting ways. Multimedia projects create “communicative comfort zones” for writers and give them a “sense of freedom.” This paper will cover designing, planning, implementing and evaluating digital storytelling projects and discuss how instructors can harness the power of digital storytelling to motivate students in the writing class. When teachers use technology in meaningful ways in the classroom, they are not only able to engage students better in “authentic learning,” but also develop a deeper understanding of curricular content and make meaningful changes to their pedagogy. Digital stories are ideal to use in a language classroom, especially to engage students who labor with traditional forms of writing. Students also feel a sense of accomplishment because have a final product--a digital story--at the end of the project.

Technologies and Human Usability

Tapping into Student Learning Styles with Technology Based Tools

Elizabeth Conner, University of Colorado, Denver, Denver, CO, United States

How do today’s tech savvy students learn? Our research suggests that students today are true multi-modal learners. They need content delivered in multiple ways- VARK (visual, aural, read/write, kinesthetic,). Our research is supported by data from 185 students over a two-semester period who completed the VARK Questionnaire: How Do I Learn Best? Our evidence shows that not only do students learn best with multiple methods of content delivery, they also have a strong preference for the use of multi-media tools. We discuss our research results using VARK and share three powerful multi-media tools that we currently use in our online and in our traditional in-class courses. These tools are very effective in communicating with our students and addressing their learning styles.

Technologies in Knowledge Sharing

Students and Their Relationship with Internet and Science

Silvia Domínguez-Gutiérrez, Universidad de Guadalajara, Guadalajara, Jalisco, Mexico
Enrique Ernesto Sánchez-Ruiz, Universidad de Guadalajara, Guadalajara, Jalisco, Mexico

How do students approach the Internet to locate and use different web pages to approximate to scientific journals, and scientific knowledge in general? In this preliminary study, 297 undergraduate students from the University of Guadalajara participated answering an open-ended questionnaire. We assume that although the students have skills to explore different sources in Internet, to get reliable information on science through this source is not yet an easy task for them. They barely distinguish scientific research journals from those that offer just short scientific information on some aspect. Thus, we conclude that more than inhabiting a knowledge society, according to Lash (2005) our students are immersed in a "technological culture of information," and therefore there is an urgent need to use the Technology of Critical Thinking Development approach (Kayumova & Morozova, 2016).

Technologies and Human Usability

Do Students in e-Learning Environments Have an Unfair Advantage?

Christine Rine, Edinboro University of Pennsylvania, Edinboro, PA, United States
William Jackson Koehler, Edinboro University of Pennsylvania, Edinboro, PA, United States

Although debate over the credibility of e-learning has diminished, parity between online and campus-based programs remains elusive. Uniformity between program delivery methods is a moving target; technologies continuously evolve thus drastically augment e-learning environments that campus-based settings may not realize. While it is easy to accept that both settings have advantages and disadvantages, it may be more difficult to consider if integrative technologies in e-learning have surpassed campus-based capabilities. This brings new challenges to parity; where once e-learning programs were obliged to prove themselves as equal to traditional settings, they may now be expected to prove they do not have an unfair advantage akin to debate over carbon- fiber blade prostheses creating "cyberathletes." This study explores parity among e-learning and campus/ hybrid cohorts in a large Master of Social Work (MSW) Program using standardized student learning outcome measures that identify program variables including: pedagogy, curriculum content, skill acquisition, infrastructure, professional support, and interpersonal factors. Data were collected via program reaffirmation processes prescribed by accreditation standards of the Council on Social Work Education. Resulting assessment of implicit and explicit curriculum components indicate parity and disparity among program variables by cohort. Implications inform parity in an era of technologically enhanced e-learning MSW programs.

Technologies in Knowledge Sharing

Thursday, 1 March

13:25-15:05	**Parallel Sessions**
Room 3	**Innovations and Ecosystems**

Hacking Poverty through Technology Innovations

Payal Arora, Erasmus University Rotterdam, Rotterdam, Netherlands

Governments and businesses recognize the poor as innovators who transform scarcity into an opportunity using new digital technologies. The poor are viewed as natural entrepreneurial collectives that when strategically harnessed, can become key players in the digital economy. Poverty hackathons collaborate with the poor to create grassroots technology innovations that aid in their development. However, in the process of improvising, the poor often break the law, disrupt institutional arrangements and defy social norms. Innovation is their survival skill as they pioneer parallel market systems to cater to their needs. Hacking the system can be creative but not sustainable and can even be dangerous to the poor's well-being. Furthermore, there is a thin line between collaboration and commodification of the poor as technology companies harness their data. As we discover the spectrum of innovation among the poor, we enter into a moral conundrum of glorifying poverty as an avenue for innovation. States in their momentum to legitimize their collective industriousness are in the same vein transferring responsibility back to them. In framing the poor as entrepreneurial, the State and the market conjure strategies to sideline the subversive acts of the gray economy and commodify the poor in the name of inclusivity.

Technologies in Society

Technology Innovation within Digital Ecosystems

Arthur Taylor, Rider University, Lawrenceville, NJ, United States

Business ecosystems, collections of cooperating synergistic enterprises, ostensibly create environments which promote innovation. But it is often unclear what is meant by innovation in this context. Business institutions often imply or state that they are technology innovators, but there is evidence to the contrary. It is unclear whether business ecosystems actually foster technology innovation or hinder it. This paper will examine business ecosystems in relation to information technology, specifically examining what is heralded as technology innovation associated with these ecosystems.

Technologies in Society

Designing Library Instruction for Organic Learning

Kanu A. Nagra, Borough of Manhattan Community College, New York, NY, United States

Bernadette López-Fitzsimmons, Manhattan College, Bronx, NY, United States

When students are engaged in learning, they are accountable for their own academic success and enjoy a positive educational experience. Blended learning methods have been globally implemented in instructional design by many educational institutions to promote reflective teaching and integrated learning practices. Organic learning builds students' self-confidence about their own learning in a comfortable, supported, and self-directed learning environment in which students feel free to inquire, are guided in self-reflection about their knowledge--past and present, and finally recognize that they have acquired new knowledge. In this paper, we will demonstrate pedagogical strategies, instruction design for incorporating blended learning methods in a library's one-shot session and credit courses for organic learning environment. Among these strategies are flipped classroom learning, collaborative learning, turn and talk, think pair share, scholarly communication, small group work, peer evaluation, integrated learning, embedded librarian, writing slips in anticipation, case scenarios and more. We will demonstrate applications of blended learning methods in instructional design such as concept mapping, digital storytelling, digital story boarding; use of special library software, databases, videos, mobile applications, incorporating the vast amount of digital resources available on the web for student–centered learning to enhance student engagement. In addition, they will describe how organic learning in library instruction can prompt students to develop inquiry-based research abilities and critical thinking skills necessary for success in the 21st-century.

Ubiquitous Learning

Room 4	**Workshops**

Cyber Weapons and Internet Safety

Chris Lombardozzi, The National Computer Forensics Institute, Hoover, AL, United States

The Internet has drastically changed the way our children interact with the world. It provides them with seemingly infinite opportunities to discover new things, ways to express themselves, the ability to communicate globally and to make new connections with just the click of a button. Yet along with offering rapidly emerging and fascinating ways to connect with the world, technology also brings new risks. This workshop will explore techniques for monitoring child Internet activities as well as the unique threats that exist while using computers, mobile devices, and the Internet: popular social media applications; sexual predators and child sexual exploitation; the dangers of public Wi-Fi; cyberbullying; online impersonation; pornography; sexting and other high-risk behaviors.

Technologies in Society

Room 5	**Spanish-language Session**
15:05-15:15	**Coffee Break**

Thursday, 1 March	
15:15-16:30	**Parallel Sessions**
Room 1	**Stakeholders**

Framework for Evaluating IT Based Risk

Laura Lally, Hofstra University, Hempstead, NY, United States

For the last 25 years, I have been studying the role of IT in Risk. My work has encompassed: IT based systems as a source of risk, wider scale impacts of these risks on organizations, countries, and the world, IT as a means of preventing risk, IT as a means of mitigating the impact of crises that do occur, and 5) IT as a means of rebuilding and renewal after a crisis has passed. I developed and expanded the concept of Crisis Compliance in dealing with IT based risks. Crisis Compliance argues that if appropriate technologies are used and best practices are followed, then individuals, organizations and governments will have fulfilled their obligations to their stakeholders and will be free from unfair criticisms and potential lawsuits. The goal of my research is to develop a comprehensive decision making framework for governments, organizations and other stakeholders in evaluating the five aspects of IT based risk. I will draw on my own and other case studies of the role of IT based risk and apply the model to emerging aspects of IT risks such as Positive Train Technology and Cyber Security.

Technologies in Society

Public Demands and Technological Response

Jameson Doig, Dartmouth College, Hanover, NH, United States

This essay will tell the history of how the world's first monitoring system for jet aircraft was created. In the 1950s, when residents living near major airports in the New York region (and beyond) complained about greater decibel levels from jet aircraft, the Port Authority, which owned Idlewild Airport -- now JFK -- held several community meetings. Facing strong local complaints, the PA urged the FAA and the airline industry to develop flight paths that minimize flights over residential areas and to develop quieter engines; he threatened to forbid noisy aircraft from using the New York airports. Meeting resistance from the aircraft industry, the PA's leader, Austin Tobin, made contact with a leading firm that worked on acoustics --Bolt Beranek and Newman. Commissioned by the Port Authority, BBN developed an engine design that sharply reduced noise levels on take-off, landing, and in the air. The result soon was quieter planes and far fewer community complaints. The system for monitoring aircraft noise that was devised for the New York airports was, in a few years, employed around the world. This story is based substantially on records from BBN files that have not previously been available.

Technologies in Society

Analyzing Competing Stakeholder Frames of Reference in the Open Source Software Policy Formation Process

Samuel Muwanguzi, The East African Diaspora Watch (EADM), Dallas, TX, United States

George Musambira, University of Central Florida, Orlando, FL, United States

This paper investigated the frames of reference of the Information and Communication Technology (ICT) stakeholders in Uganda who initiated and proposed the development of an Open Source Software (OSS) policy that recognizes and adopts OSS as a viable alternative to proprietary software in the country. In order to better understand empirically and theoretically this policy formation process, in-depth interviews and focus groups of a purposeful sample drawn from Uganda's diverse ICT sector were conducted. The paper concludes that Uganda epitomizes how information policy formation processes for adoption of a new technology are riddled with value-laden problems, questions, concerns, and multiple conflicts. It therefore confirms that information policy development for any technology does not exist in a vacuum, is not ahistoric, cannot exist in some innocuous exterior world, and is profoundly influenced by inherent political, cultural, and economic values. The paper contributes towards understanding of stakeholder frames as an initial step in developing communication strategies for adopting new ICTs, such as OSS. The findings also offer ideas to scholars and African countries to draw important applicable lessons.

Technologies in Society

Room 2

Industry Implications

Assessment of Companıes in the Scope of Industry 4.0

Aylin Goztas, Ege University, İzmir, Turkey

Ozlem Cosan, Ege University, İzmir, Turkey

Mehmet Karanfiloğlu, Mustafa Kemal Üniversitesi, Antakya, Turkey

The term of Industry 4.0; has come into question rapidly in the world and in our country since it was introduced in the fair held in Hannover, Germany in 2011. Notion of Industry 4.0; seems to have gained currency in Turkey with a corporate point of view and political discourse. However, it seems that a comprehensive study about industry 4.0 has not been finalized about how the implementation affects the firms, whether there are initiatives upon the subject, and whether a regulation is existed regarding industry 4.0 for knowledge levels of firms. With this study it is aimed to understand the perspectives of firms in Turkey, to estimate an idea of the level of awareness, to show how the works reflects the Turkish firms at different levels and sizes, and to delineate whether these studies are beneficial. To this end, it will be handled a self-assessment for Industry 4.0 of local companies in the industrial zone based in Izmir, Turkey as a descriptive study. The findings will be obtained through interviews to be done with employees, managers and owners of the companies and evaluated accordingly. In the scope of the analysis, a further research on the issue is expected.

Technologies in Society

Thursday, 1 March	
15:15-16:30	**Parallel Sessions**
	Games the Dust Particles Play Mytreya Venkata Urukram Pattaswamy, Safety is an indispensable faculty in manufacturing sector as it impacts on health, hygiene and often survival of the biome. Nevertheless, its complex and multidisciplinary nature did not allow for mathematical treatment. To the other extreme it may not be right strategy to express it mathematically, since it requires to work with novices in shop floor. Instead a shallow level treatment which aids in the development of human reflexes is desirable. Thus, we propose a new paradigm of understanding safety through gamification taking dust explosions as a specific case. By gamification, it is easier to enter into the psyche of the individual compared to mathematization. Thus, using proper level designing, the art of safety and its prevention can be made as human reflexes independent of age, IQ, EQ, gender. *Ubiquitous Learning* **Role of Technology in Sharing and Maintaining Construction Project Knowledge between Construction Organisations** Touria Bouazza, Northumbria University, Tyne, UK David Greenwood, Northumbria University, Tyne, UK Knowledge has always been seen as an important factor for the success and innovation of any construction organisation, through leveraging its assets in the construction market and contributing to the competitiveness between organisations. However, sharing and maintaining knowledge has never been an easy task to achieve especially the tacit knowledge that resides in people's minds. Construction organisations seek to find new ways to create value for their potential and existing clients. One of the technology tools that allow them to create value within the supply chain is Building information modelling (BIM). In the UK, BIM is increasingly being seen not just as a technical process to determine the likely performance of projects but a valuable tool between many associated stakeholders with different visions, and a valuable process to promoting learning and managing knowledge. This research aims to develop a BIM-KM, Building information modelling-Knowledge Management system that uses BIM processes to help sharing knowledge among stakeholders. This work focuses on the role of BIM in managing and sharing knowledge in a construction project delivery. The paper will discuss the research interest, problems, and questions, and will also discuss the strategy undertaken, and conclude with future works to be carried out. *Technologies in Knowledge Sharing, 2018 Special Focus: Regeneration, Autonomy, and Sustainability - Productive Technologies and the Green Economy*
Room 3	**Learning Online** **Ghost in the Wishing Well** Mitchell Kase, LIM College, New York, NY, United States Belle Gironda, Adelphi University, Garden City, NY, United States From the earliest research on social presence in online learning (Swan et al, 2003) it has been demonstrated that feelings of immediacy and social presence are significant factors in student satisfaction and performance, and can be effectively fostered, in asynchronous online courses, even in purely text-based discussions. With Web 2.0 in full swing (and before Web 3.0 replaces all human interaction with the internet of things) the possibilities for cultivating presence are greatly expanded, while the challenge of capturing and retaining students' attention has also grown. In this paper we will demonstrate examples of assignments, activities and pedagogical approaches that foster social presence in online courses, with the goal of increased engagement, retention and overall student performance in online courses. Preliminary data has been collected through course evaluations and individual faculty-generated tools. Initial impressions indicate greater satisfaction amongst students taking online courses with regular opportunities for interaction. Implications may lead to more collaborative, project-based approaches to assignment/assessment design in order to facilitate ongoing and consistent communication between students in online courses. The need for increased presence may indirectly influence the emergence of more advanced web-based and app-based programs that would improve access, flexibility, sharing of resources and dynamic modes of communication. *Technologies and Human Usability* **Hybrid, Hybrid Flexible, and Fully Online Learning through Students's Eyes** Dolapo Adeniji-Neill, Adelphi University, Garden City, NY, United States This qualitative research aims to investigate the perceptions of students participating in asynchronous blended courses or online learning in a school of education. "Online learning is the contemporary version of distance education, also called "distance learning" or "open learning." In this educational modality, the majority of interactions between students and instructor, among the student themselves and with the content of the subject matter, occur in the virtual environment of a course management system. The factors we seek to uncover in our study are: students' satisfaction, students' participation, students' perceptions and course design (Swan 2001) in undergraduate and graduate Education majors classes and faculty satisfaction with online teaching and learning in higher education. We hypothesize that blended courses have unique advantages as opposed to traditional brick and mortar classroom and solely online classroom. These advantages include the social context of face-to face interactions as well as the freedom of individual to fully participate without the constraints of time and space that is evident in face-to-face classroom. Also, when students wear the "technology mask" they feel more comfortable discussing the sensitive issues on race and diversity. Moore (1989) highlighted three kinds of interactions that may not be at play on online courses; these are interaction with content, interaction with instructor, and interaction with classmates. In a blended or hybrid courses, these mitigating "negative" factors should be lessened because of the physical connection of the student at least 33 percent to 66 percent of the time as in the case in the courses which were subjects of this research. Swan (2001, p. 307) noted, that if we take a deeper look at the "Community of inquiry model of online learning," by Rouke et.al 2000, there is no disconnect on online learning with the three types of interactions as suggested by Moore. *Technologies in Knowledge Sharing*

Thursday, 1 March	
15:15-16:30	**Parallel Sessions**
Room 4	**Thinking beyond the Scope** **Antithesis of Cruel Angorithms** Marcus Breen, Boston College, Newton, MA, United States In the Internet Bubble days of the late 1990s, “boosterism” was a short hand reference for digital optimism, in which communication technology marked a step toward utopia. Perhaps nothing typified this more than the libertarian politics of John Perry Barlow, captured most effectively in a 1996 essay, “A Declaration of the Independence of Cyberspace.” Barlow was the most public member of the US anti-regulationist school of theorists who promoted human communication free of constraints from government while reimaging the laws of physics. Also known as cyber utopians, these men ushered in a popular ideology built on a theory of computer science whose goal was to create utopian algorithmic capacity and with it free societies. Such capacity would be fluid, global and enriching for humanity. While such capacity has been to some extent achieved in the developed world, the networked society is increasingly confronted with cruelty in cyberspace with an analog in everyday life. As algorithms have become capable of organizing, sorting and predicting human behavior and emotions, their constructive capacity has taken on anti-human characteristics capable of acting without attention to knowledge or history, generating related affect. They take scientific invention within technologies and systematize them for everyday use allowing the irrational excesses of anti-human action to dominate. The stage was set for this scenario with the greedy algorithm, where a computer processing patterns were structured to over-ride the human values of consideration, generosity, empathy and care. *2018 Special Focus: Regeneration, Autonomy, and Sustainability - Productive Technologies and the Green Economy* **The Role of the Quintuple-helix Model for Inclusive Sustainable Technological Diffusion** Adrian Solomon, South-East European Research Center, Thessaloniki, Greece Sustainability technologies (ST) enable the achievement of the UN Sustainable Goals but require a true multi-stakeholder approach (Govindan et al., 2015) by bridging eco-innovators, policy makers, businesses that incorporate the technologies, and the environment and society which act as core influencers. As a response, Carayannis, Barth & Campbell (2012) proposed and formalized the “Quintuple Helix Model (QHM)” for sustainable growth which aims at providing means for bridging the five types of stakeholders in co-creation to achieve enhanced environmental sustainability. Potential ways to leverage society in the process of eco-modernising nowadays’ communities and business operations could be tailored around the concept of responsible research and technological innovation (RRTI) which is growing in importance in Europe. RRTI argues for the need of open science, open access, gender-equality, environmental sustainability and society engagement as a key responsible growth component of nowadays’ technology transfer mechanism (EU, 2017). To this end, the QHM could build upon the RRTI approach in order to achieve the mission of properly diffusing innovative environmental technologies in a true bottom-up approach (society drive), ensuring thus full societal support and co-involvement in this process. Nevertheless, there is no evidence that such an approach is debated so far. In this context, this research bridges the QHM with RRTI by relying on four case studies (focus groups) from Europe aiming to understand how to better engage society environmental technology diffusion (as well as research & development). The results show that quintuple helix co-creation (around RRTI) positively influences ST practice adoption by properly relying on market dynamics (i.e. eco-innovation adoption, competitive pressures, societal pressures, etc). However, the actual implementation of RRTI poses substantial challenges and require massive policy and regulatory framework changes across all the quintuple helix stakeholders. *2018 Special Focus: Regeneration, Autonomy, and Sustainability - Productive Technologies and the Green Economy* **Questioning the Anthropocene** Gil Germain, University of Prince Edward Island, Charlottetown, Prince Edward Island, Canada The Anthropocene denotes our entry into an anthropogenic age, where the course of various earth system processes are impacted profoundly by the influence of human behavior, most notably manifested through the proliferation of wide-reaching technologies and technological practices. The assumption here is that our powers of control over natural processes have reached a critical point where it no longer makes sense to consider "nature" and "the natural" as distinct from the human and technology-driven human action. The notion implied in the assumption that nature has been folded into the realm of human influence and control in the Anthropocene is challenged here. With the aid of insights gleaned from Jean Baudrillard's trenchant analysis of technology, the suggestion that we have entered an era where the fate of the planet lies within human hands will be complemented by a narrative that subverts the prevailing view that privileges humanity's role in its interaction with the natural order. *Technologies in Society*
Room 5	**Spanish-language Session**

Friday, 2 March

08:00-09:00	**Conference Registration Desk Open**
09:00-09:20	**Welcome from St John's University**
	Michael Sampson, Dean, College of Education, Professor, St John's University, USA
09:20-10:20	**Plenary Panel Discussion**
	Fran Blumberg, Professor, Counseling Psychology, Graduate School of Education, Fordham University, USA **Tom Liam Lynch, Assistant Professor, Educational Technology, Pace University, USA** **Karen Miner-Romanoff, Assistant Dean, Academic Quality, NYU School of Professional Studies, USA**
10:20-10:50	**Garden Conversation**
10:50-11:35	**Parallel Sessions**

Room 1

Focused Discussion

Building Knowledge through Literacy and Technology in Cross-community Interaction

Barbara Vokatis, SUNY Oneonta, Oneonta, NY, United States
Jianwei Zhang, University at Albany, SUNY, Albany, New York, USA

This research intends to provide the description of an example of knowledge building in science contexts to inform implementation of new learning standards and to inform researchers and practitioners about the connections of literacy and building knowledge, within innovative knowledge building designs. We analyzed data from the cross-community interaction of two grade 5/6 classrooms that studied human body systems using a collaborative platform, Knowledge Forum. Participants were two teachers and thirty-nine students. Data sources included videos of classroom discussions, student interviews, and students' research syntheses. We employed grounded theory analysis (Strauss & Corbin, 1998). Reading other students' research synthesis in cross-classroom interaction led students to developing sophisticated literate thinking about the reading, writing, and knowledge building connection. Children built understanding of how knowledge in the world is built over time, discovered connections across their research syntheses, thus learning more about the human body systems, learned about other teams' thinking processes, and found inspirations for further research. This research shows that situating knowledge building as a cross-community endeavor, where students continually advance collective understanding through idea-transforming discourse, can result in developing complex literate and scientific practices and thinking, a goal of new standards, to support knowledge building and children's literacy development.

2018 Special Focus: Regeneration, Autonomy, and Sustainability - Productive Technologies and the Green Economy

Mindful Design to Accommodate Mental Health Disability

Sharon Rosenblatt, Accessibility Partners, Silver Spring, MD, United States

Unplugging from technology is supposed to relax us, but what if you cut off a critical mode of contact? How can you tell someone with a disability to turn off their device when it turns off a critical lifeline? Enter mindful design. Mindfulness is tenet of Eastern philosophies for centuries, now it's a comprehensive inclusion in therapeutic arsenals. Using mindfulness allows for awareness of the present moment through attention and non-judgement. But now, mindfulness technology is used as an accommodation for people with disabilities when fused with conventional accessibility. Our presentation show how people with disabilities fuse with technology and vice versa. This can be done as a great boon for a person's mental health and wellness. This paper will be focused around user empowerment, but also be a call to action for developers. Through case studies with actual data and user feedback, we argue that being aware is crucial for technology, especially accessibility. To find a compromise with potential inaccessibility issues found in technology and business practices, our poster presentation would include the premise of promoting a dialogue with people, their employer, and technology through mindful adoption.

Technologies and Human Usability

Room 2

Workshop

COILing across the World

Nicole Simon, Nassau Community College, Garden City, New York, United States

COIL has developed an approach to fostering cross-cultural student competence through development of multicultural learning environments that link university or college classes in different countries. In the COIL model, students from different cultures enroll in shared courses with faculty members from each country co-teaching and managing coursework. Students will learn the enriching benefits of international education to a broader spectrum of students. Students and faculty will demonstrate, encourage, and support the development of courses incorporating international collaborations, which have a significant online component. Students and faculty will foster the sustainability of online international scholarship, by promoting the "bottom-up" culture of individuality, entrepreneurship and creativity inherent in the academic community. The workshop will teach the fundamental principles of how to create a COIL course and begin a multicultural module. Experienced faculty will assist in the development of a course model to create a multicultural model based on instructional design processes. Interactive demonstrations with attendees will help facilitate learning about the COIL process. At the end of the workshop, attendees will have a basic model to share and begin seeking out new partners for their courses. They will also design a framework for their course with learning outcomes and course expectations. Attendees will additionally begin work on assignments to be used in COIL modules.

Technologies in Knowledge Sharing

	Friday, 2 March
10:50-11:35	**Parallel Sessions**
Room 3	**Virtual Lightning Talks**

Technological Childrearing Practices

Angela Cazel-Jahn, Arizona State University, Tempe, AZ, United States

Childrearing requires investments of energy and resources, to develop mature adult members of society. Over time, these inputs have shifted from human-to-human investments in small communities and rural societies, toward the use of technologies that mediate interactions among children and caregivers in contemporary urban environments. The home, the community, and educational settings all contribute to the overall process of developing future generations. This paper brings together seminal works in sustainability literature and child development theory, historical and anthropological examples of technological childrearing practices, and recent literature on socio-technological co-evolution to suggest that technological childrearing practices originate from decisions made by individual and institutional agents, resulting in impacts that are measured on a much broader scale by economic, environmental and social indicators. The relative sustainability and resilience of communities, cities, and nations are defined in part by these indicators, which are in turn subject to changing values and societal norms as generations evolve. Thus technological childrearing practices contradict some definitions of a “sustainable” society, while supporting others. This is an opportunity to explore zones of congruence and zones of mutual oblivion among multiple disciplines.

Technologies and Human Usability

Room 4	**e-Learning Workshop: Source Analysis, Credibility, and Fake News**
Room 5	**Spanish-language Session**
11:35-12:35	**Lunch**
12:35-13:50	**Parallel Sessions**
Room 1	**New Thinking**

Influence of Technological Innovations on Nineteenth-Century European and Western American Constitutions

Silvana R. Siddali, Saint Louis University, St. Louis, MO, United States

In the 1830s and 1840s, democratic revolutions swept across Europe, triggered, in part, by the rapid development of information and transportation technologies. The steam-driven printing press, telegraphic links, and railroads distributed, accelerated, and shaped the process of political revolt. As a result, conceptions of democratic self-governance and rights profoundly influenced the creation of new national constitutions. The relationship between European technological innovations and constitutionalism becomes more salient in contrast to the coeval American context, particularly in the west. During those explosive decades, every western American state ratified or revised its constitution. In contrast to European national constituent assemblies, however, the U.S. conventions were hardly revolutionary. Yet the effort to construct state governments also depended on, and in turn engendered support for new technologies and raised new questions about the expansion of democratic citizenship. Such problems, many of the drafters of both European and American constitutions believed, required rational, modern, and scientific solutions. Accordingly, they emphasized the carefully balanced, even mechanical nature of the constitution-building process; many also enshrined provisions for scientific education and support for transportation and communication infrastructure. My paper examines, in a comparative context, how finely-tuned constitutional mechanisms, which created order from revolutionary or (in the American west) frontier chaos, may also have entrenched existing hierarchies and create fresh inequalities.

Technologies in Society

Emergent Sports Surveillance Apparatus

Adam Rugg, Fairfield University, Bridgeport, CT, United States

The purpose of this paper is to examine how the rise of body and performance monitoring technologies in professional sport has created tension within the conventional discourses and narratives that dominate sport management, analysis, and consumption. Using dialogical discourse analysis on the words of sports executives, commentators, and fans, I show how the implementation of these technologies has upended understandings about sport related to abstract concepts such as "clutchness," "heart," and "chemistry" and has created new conversations about a player or team's ability to perform outside their quantified limits. The results demonstrate that sport's historical value has partially been rooted in the enjoyment of the seemingly unquantifiable and unpredictable. However, the influx of these technologies has reduced sports capacity for the unexplained, the unpredictable, and the "magical." The dissatisfaction many have with this outcome is not only illustrative for better understanding the cultural and societal value of sport, but for also understanding broader concerns with the quantification, measurement, and surveillance of everyday cultural activities.

Technologies in Society

Role of Universities in a Knowledge Economy

Farideh A. Farazmand Frida, Lynn University, Boca Raton, FL, United States

The knowledge economy incorporates intellectual capital and human knowledge into new technology, information processing and decision support systems, machines, automation and digitalization to generate economic value. Human capital and talents are the drivers of innovations, new superior products and sustainable competitive edge. The roles of educational institutions can be summarized in investing in research and development and training the workforce. It is the partnership between government, businesses and educational leaders for a comprehensive approach to local and a regional economic and job growth model that has resulted in the growth of cities such as Albany, Pittsburgh, Akron, Columbus, Buffalo, Phoenix, Allentown, and many more. Knowledge, innovation, and technology are now recognized as the drivers of productivity and economic growth. The tight clusters of knowledge and diverse talented people in dense places drive economic progress, for instance Silicon Valley that brings billions of dollars in venture capital to San Francisco every year. In a knowledge economy, production is based on knowledge-intensive activities and highly skilled workers with a college degree, high productivity, and consequently high wages. Statistics on the economic characteristics of the cities with the significant role of universities in their recent success in transforming their economy to growth and prosperity will be analyzed. Implications of the study will be to enhance the environment for university-public-private partnerships to bring research, innovation, entrepreneurship, jobs and economic growth to big and small cities.

Technologies in Society

Friday, 2 March	
12:35-13:50	**Parallel Sessions**
Room 2	**Normalizing, Critiquing, Deconstructing** **Heart on Your Sleeve** Jessica Hoare, Cardiff University, Cardiff, Wales The paper will describe the methods behind a collaboration between Cardiff University, National Museums Wales and the Economic and Social Research Council, UK. The project involved monitoring movement, heart rate, and skin conductive responses via wearable sensors to detect emotional arousal and intensity within a range of museum environments. The paper discusses the challenges of working with bio-data and finishes by looking at some of the implications this technology presents for the social sciences and society. The analysis investigates the implications of technologies that can record, visualize and share some of our most personal and intimate data. Such devices allow one to collect data at every scale of our lives, from the corporeal Quantified Self, the domestic intervention of devices like Amazon's Alexa, through to the level of infrastructure represented by the Smart City. Data collected across each of the spheres described is shared, regurgitated redeployed, and resold between environments as determined by the End User Agreements we all read so dutifully. Whether research grade or commercial, these devices come packaged as part of a technologically glossed future where our quotidian events run like clockwork, efficiency has been achieved to the nth degree and control is algorithmic. The paper explores this and asks: as technologies are normalized, how should they be used, critiqued and deconstructed? The paper warns against viewing measures of affect as a solution and calls instead for an acknowledgment of the potential of these technologies to enable facilitation and discussion rather than instruction and measurement. This approach is intended to route the research towards praxis driven exploration of the relationship between society and technology that goes beyond a commercially driven targeting, tracking and locating rhetoric. It calls for forms of investigation that are necessarily transdisciplinary, that embrace playful experimental approaches and accepting the risk that accompanies working in such a way. *2018 Special Focus: Regeneration, Autonomy, and Sustainability - Productive Technologies and the Green Economy* **Addressing the Anthropocene** Robert Daniel, Saint Joseph's University, Philadelphia, PA, United States A number of recent works in anthropology and history have focused on the particular characteristics of our species, Homo sapiens (or, in some renderings, Homo sapiens sapiens), that have conferred on us significant evolutionary advantages (see, for example, Harari, 2015, Henrik, 2016). Indeed, hominid evolution has allowed our species as a whole to develop in a way that impacts most other life forms on Earth to the point that we must acknowledge ourselves as dominant across the planet. Humans have a significant biomass (via extreme population growth), a distinct and high-stakes biological influence (through habitat destruction, resource depletion, plant and animal domestication, gene manipulation and extensive pollution) and vast, nearly irreversible climate impact (primarily through industrial and agricultural processes that contribute to global warming). We are, as a species, world-changers. Indeed, the impact of human evolution is such that many biologists, climate scientists, geologists, anthropologists, historians and others subscribe to the idea that that have now entered a new age, a new geological epoch, the Anthropocene. In 2016 the Working Group on the Anthropocene (WGA) made a formal proposal to the body that governs geological chronology, the International Commission on Stratigraphy, that it consider acknowledging this shift (Voosen, 2016). Members of the WGA are now gathering and evaluating formal evidence in support of the proposed change. What gives humans a distinct advantage in this time of world-shaping human influence is not just our advanced cognition and our opposable thumbs, but also culture (language, symbolic writing, diverse tools and technologies, large-scale social cooperation and, most of all, the knowledge that we develop, archive and disseminate in systematic ways). I intend to argue that we have reached a critical inflection point that requires radical change. One pathway forward would be for us to more thoughtfully and deliberately control our evolutionary pathways by using our best tools (technology, research, knowledge development, learning systems, cooperation) to guide humankind toward a more sustainable and productive version of human thriving. This idea has important ethical and cultural implications. *Technologies in Knowledge Sharing, 2018 Special Focus: Regeneration, Autonomy, and Sustainability - Productive Technologies and the Green Economy* **Language and Identity in Bilingual Networked Communities** Julianne Bryant, Biola University, La Mirada, California, United States Melissa Moreno, Biola University, La Mirada, California, United States This paper explores the inter-related phenomena of language and identity in the networked lives of bilingual college students and will present the findings of a social media ethnography that was conducted with ten bilingual Spanish-English Hispanic heritage students from a small Christian liberal arts university in southern California. Data was collected through participant observation on Facebook, Instagram, SnapChat and Twitter as well as through two Skype interviews and analyzed for patterns of bilingual/bicultural identity negotiation in and through these social media platforms. The data analysis is framed by the post-modernist notion that identities are multiple and change through time and space as individuals interact with each other and their social environment. Research questions addressed in this study are: How do these bicultural/bilingual emerging adults utilize the Internet to negotiate their identities?, How do they use language to negotiate these identities?, and How do they incorporate their languages and cultures into a sense of who they are? *Technologies in Knowledge Sharing*
Room 3	**e-Learning Conference Session: Literacies**
Room 4	**e-Learing Conference Session: Curricular Applications**
Room 5	**Spanish-language Session**
13:50-14:05	**Coffee Break**

	Friday, 2 March
14:05-15:45	**Parallel Sessions**
Room 1	**e-Learning Conference Session: Creative Learning**
Room 2	**Classroom Networks** **Classroom as a Community** Orit Yeret, Yale University, New Haven, Connecticut, United States In recent years the use of digital tools in classrooms has become an integral part of teaching in various schools and universities worldwide. And though in many institutes the basic culture of teaching has not changed, many of them still claim that it is difficult to sustain a modern education system today which does not partake in adopting even the basic means of technology (Golonka et al, 2014). The use of digital tools in teaching is not considered as a goal by itself, but as a way to develop the learning process and cultivate other skills (Yunus et al, 2012). Therefore, any integration of a digital tool has to emerge from a deep thought-process, of both the instructors and the educational system. Without such a process the inception of knowledge, its exercise and use might miss their target. The paper will discuss the following questions – What is the added value of the use of technological tools in teaching? How do these tools assist in developing the learning process? Why is it important to guide the learners how to use the specific tools? And, how can we build a community of learners through the use of digital tools? Through a number of digital tools, that I have used in the past and currently use, I will demonstrate how one can create "a community of learners", within and outside the classroom, in a way that enriches the classroom experience and becomes a vital component of the course curriculum. *Technologies in Knowledge Sharing* **World's Water Story** Bethany Stayer, Ball State University, Muncie, IN, United States Billi Mac Tighe, Ball State University, Muncie, IN, United States Emily Thornburg, Ball State University, Muncie, IN, United States Nitya Venkataraman, Ball State University, Muncie, IN, United States Technology offers users a unique opportunity to engage in global conversations. Through the use of user-generated storytelling, virtual communities can be created around personalized content and a common interest, engaging an active reader. When it comes to issues of politics and sustainability, the diversity of user-generated storytelling can be utilized to unite and inform. Graduate students at Ball State University have partnered with the organization Circle of Blue to create The World's Water Story website. This website, focused on educating the public about the water crisis, serves to display over 800 user-generated stories from around the world. These stories share the submitters' experiences with water. Through this global storytelling, the website informs the public of the fragility of their own water realities, and challenges a wider audience to engage in water issues. The website's interactive globe displays the stories by location, allowing the user to explore stories from diverse perspectives. Each story consists of media (e.g. photos, videos, art) along with text. Users are encouraged to view stories non-linearly, allowing them to reimagine the stories into personalized narratives about the water crisis. By submitting their own story to the globe, the user is joining a worldwide, virtual conversation. *2018 Special Focus: Regeneration, Autonomy, and Sustainability - Productive Technologies and the Green Economy* **Non-Moving Image** Zhanna Yablokova, Borough of Manhattan Community College, New York, NY, United States Teaching students how to understand and analyze film is the main objective in a film appreciation course. In order to become proficient readers of film imagery and skilled film critics, students in a film appreciation course need to be provided with an ample opportunity to engage in close image analysis. One of the main challenges of analyzing a film, as opposed to, for example, a literary work, a sculpture, or a painting, is that the viewer is bombarded by many thousands of images and rarely has a chance to analyze them closely. My presentation focuses on how learning management systems such as Blackbord and open online sources such as Wordpress, can be used to address this issue. My paper will show how students use Blackboard and Wordpress to link film images of their choice to the discussion board, analyze the selected images, and share their analysis with the class. I will show how my approach allows students to participate in in-depth discussions of individual film images and to extend their knowledge and understanding of cinematic language. *2018 Special Focus: Regeneration, Autonomy, and Sustainability - Productive Technologies and the Green Economy* **The ItsLearning Platform at the State University of Sonora** Lilian Salado, Universidad Estatal De Sonora, Hermosillo, Mexico From 2012, the ItsLearning educational platform is an indispensable educational resource in the academic life of the Sonora State University, since a restructuring of the curricular design is carried out in all educational programs, reducing the number of face to face sessions and assigning "platform hours" instead. Although the use of the platform is mandatory, it has not been used with the same enthusiasm and regularity by all teachers. In this study, focus groups were held in the five academic units of the university with professors from different disciplinary areas to gain in-depth knowledge of what the use of the tool has implied for them and to know what challenges they have had to face and how they overcome. The aim of the research is to go beyond the dichotomies about the use of technology and its benefits, teachers are aware of the need to incorporate digital tools, however, they have expressed that there are no optimal conditions to work in the scheme that the university has proposed and reflect on their teaching practices around the use of the platform as a strategy that they consider mostly administrative than educational. *Technologies in Knowledge Sharing*
Room 3	**e-Learning Conference Session: Communities of Learning**
Room 4	**e-Learning Conference Session: Resources and Demand**
Room 5	**Spanish-language Session**
15:45-16:15	**Conference Closing and Award Ceremony**

Friday, 2 March	
16:15-17:30	**Parallel Sessions**
Foyer	**Closing Reception and Poster Session**

Privacy Concerns about UAS Missions

Daniel A. Marte, Embry-Riddle Aeronautical University, Daytona Beach, FL, United States
Nathan Walters, Embry-Riddle Aeronautical University, Daytona Beach, FL, United States
Mattie Milner, Embry-Riddle Aeronautical University, Daytona Beach, FL, United States
Emily C. Anania, Embry-Riddle Aeronautical University, Daytona Beach, FL, United States
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Unmanned aerial systems (UAS), also known casually as drones, have changed the ways in which many industries conduct business. One prevalent example would be their use by police organizations (local patrols, SWAT, etc.) to revolutionize their surveillance capabilities. Many major city police commissioners have stated their interests in welcoming the use of UAS. Past studies have analyzed citizen's emotions in regard to privacy concerns focusing on the amount of time the drones spent patrolling--either twenty-four hours a day or in mission-only conditions. The purpose of this study was to determine what variables predict privacy concerns. In other words, do political affiliations, location, or gender affect a participant's emotions toward their privacy? Two hundred participants were surveyed through Amazon's Mechanical Turk (MTurk). They were presented with hypothetical scenarios involving police issued UAS patrols occurring near their residence. Following the scenario, they were asked to rate statements from a validated UAS privacy scale and then complete a set of demographic questions that served as potential predictors. A linear regression analysis revealed two significant predictors. First, females were more likely to express privacy concerns during the UAS missions compared to their male counterparts (B = .31). Second, people who rated themselves are more conservative also expressed more privacy concerns compared to people who rated themselves as more liberal (B = .30). These two variables accounted for 19% of the variance in the data. When conducting UAS missions in public or near housing residences, it is important to take note of the privacy concerns raised by residents and other citizens in the area. These findings reveal that females and conservative-leaning people tend to have more privacy concerns about UAS missions than male, liberal-leaning people.

Technologies in Knowledge Sharing

Changes in Pre-service Teachers' Awareness and Perspective toward an Online Mathematics Methods Course

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This study investigated the phenomena of how the online teaching mode (ASSURE model) impacted 13 pre-service teachers' (PSTs) awareness and perspectives toward mathematics instruction. To examine PSTs experience, this study first conducted a pre-reflection at the very beginning of an online mathematics methods course and then a post-reflection at the end of the course. This study found that a well-designed online curriculum not only changed PSTs' awareness and perspectives toward an online mathematics methods course, but also impacted the PSTs' pedagogical and content knowledge in mathematics teaching. Furthermore, it provides PSTs opportunities to develop their TPACK knowledge for them to transform mathematics teaching in the classroom.

Ubiquitous Learning

Technology in the Service of the "Health Knowledge Society"

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Exploring concepts from the field of consumer health informatics, a combination of healthcare, communication, and information technology, might point to solid reasons to celebrate advancements in the US becoming a health knowledge society. For some characteristics of the American population, eHealth education rates have significantly improved over time. Responses from over thirty-three thousand adult participants in the 2015 National Health Interview Survey conducted by the Centers for Disease Control and Prevention provided data about Internet search rates of the general US population. Those participants were asked if they looked up Internet health information on a computer in the previous year. That data was compared to a baseline of over one hundred thousand adults asked the same question, surveyed in the years between 2009 and 2013. Improvement in online health-information-seeking was significant for most groups. The characteristics of the groups whose rates improved were women, all ages by decades, those with less than college degrees, those with incomes under $50,000, the employed, all races and ethnicities, and all levels of self-reported health status. On the other hand, four groups did not experience increased rates. Internet search rates for men, those with college and post-graduate degrees, those earning higher incomes (over $50,000), and residents geographically located in the Midwest did not significantly grow over those baseline years. This research supports celebrating the successes of professionals in the field of consumer health informatics who have paid attention to helping Internet searchers find answers to their health education questions.

Technologies in Society