Fifteenth International Conference on

Technology, Knowledge & Society

The Social Impact of AI: Policies and New Governance Models for Social Change

11–12 March 2019
CosmoCaixa Barcelona
Barcelona, Spain

TechAndSoc.com

XV Congreso Internacional de

Tecnología, Conocimiento y Sociedad

El impacto social de la Inteligencia Artificial: Políticas y nuevos modelos de gobierno para el cambio social

11–12 de marzo de 2019
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ELISAVA
Barcelona School of
Design and Engineering

COMMON GROUND

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www.techandsoc.com

First published in 2019 in Champaign, Illinois, USA
by Common Ground Research Networks, NFP
www.cgnetworks.org

Designed by Ebony Jackson and Brittani Musgrove

XV Congreso Internacional de Tecnología, Conocimiento y Sociedad
www.tecno-soc.com

Publicado por la primera vez en Champaign, Illinois, EE.UU.
por Common Ground Research Networks, NFP
www.cgespanol.org

Dear Technology, Knowledge & Society Conference Delegates,

Welcome to Barcelona and to the Fifteenth International Conference on Technology, Knowledge & Society. My colleagues and I from Common Ground Research Networks are honored to have you join us for this year's conference.

Over the course of three and a half decades, Common Ground has given voice to many thousands of scholars—speakers and authors with things to say about the world and who are saying them in order to change the world.

Common Ground has a strong commitment to providing opportunities for people like you to meet, share, and learn from each other. Across its range of research networks, Common Ground is deeply concerned with the critical issues of our time including, among other things, the nature of social change, the relationships of the human species to nature, the process of knowledge creation, the changing shape of organizations, and the dynamics of learning. These raise big-picture questions which in turn demand an interdisciplinary perspective, something that is often neglected in discipline-based conference, journal, and institutional structures.

Throughout its history, Common Ground has worked to develop new approaches to knowledge community building, including interactive conference formats, criterion-referenced peer review, and online social knowledge media. As a media innovator, we are creating the spaces and technical conditions in which, collectively, we can explore the meaning and purpose of technology and its role in society.

While conference inspiration may fade with time, Common Ground offers a means for keeping inspiration alive through CG Scholar, an online environment for knowledge working and learning. We encourage all conference participants to explore CG Scholar—an internet venue for intellectual interaction and imagination.

I am grateful to all of you for sharing your work at this conference. Additionally, I thank my colleagues Rachael Arcario, Kim Kendall, and Tatiana Portnova, who have helped organize and produce this meeting with great dedication and expertise.

We wish you all the best for this conference, and we hope it will provide you every opportunity for dialogue with colleagues from around the corner and around the globe.

Best wishes,

Dr. Phillip Kalantzis-Cope
Chief Social Scientist
Common Ground Research Networks

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Estimados delegados de Tecnología, Conocimiento y Sociedad:

Les damos la bienvenida a Barcelona y al XV Congreso Internacional de Tecnología, Conocimiento y Sociedad. Mis colegas de Common Ground Research Networks y yo nos sentimos muy honrados de que se una a nosotros en el Congreso de este año.

Durante el transcurso de tres décadas y media, Common Ground ha dado voz a varios miles de académicos —autores y oradores que tenían cosas que decir acerca del mundo y con el propósito de cambiarlo—.

Common Ground asume el firme compromiso de ofrecer a personas como usted la oportunidad de reunirse, compartir y aprender de otras personas. A través de sus diversas redes de investigación, Common Ground manifiesta un profundo interés por las cuestiones fundamentales propias de nuestro tiempo; incluyendo —entre otras— la naturaleza del cambio social, la relación de la especie humana con la naturaleza, los procesos que generan el conocimiento, la mutabilidad de las organizaciones y las dinámicas que operan en el aprendizaje. Estas cuestiones, de carácter holístico, requieren abordarse desde un enfoque interdisciplinar, con frecuencia desatendido en aquellos congresos, revistas o estructuras institucionales fundamentadas sobre la base de una única disciplina.

Common Ground ha trabajado en el desarrollo de nuevos planteamientos concernientes a la construcción de conocimiento comunitario; entre los que se incluyen formatos de conferencia interactiva, revisión por pares basada en criterios y medios de divulgación sociales online. Como innovadores en medios de difusión, estamos creando los espacios y las condiciones técnicas mediante las cuales podamos, colectivamente, explorar el significado y la finalidad de la tecnología, así como el papel que esta desempeña en la sociedad.

Debido a que la inspiración que infunde la experiencia del Congreso puede desvanecerse con el tiempo, Common Ground estimula su perdurabilidad mediante la plataforma CG Scholar; un entorno online diseñado para el trabajo, el conocimiento y el aprendizaje. Animamos a todos los participantes del Congreso a explorar CG Scholar: un punto de encuentro en internet donde se promueve la interacción intelectual y la creatividad.

Mi agradecimiento a todos ustedes por compartir sus trabajos en este Congreso. Asimismo, quiero expresar mi gratitud a mis compañeras Rachael Arcario, Kim Kendall, Dionisio Moral Ruiz y Tatiana Portnova, quienes han contribuido a la organización de este encuentro con gran dedicación y destreza.

Les deseamos la mejor de las experiencias durante la celebración de este Congreso, y esperamos que constituya una magnífica oportunidad para dialogar con colegas provenientes de todas las partes del mundo.

Con mis mejores deseos,

Dr. Phillip Kalantzis-Cope
Jefe de Ciencias Sociales
Common Ground Research Networks

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COMMON GROUND

Founded in 1984, we are committed to building new kinds of knowledge communities, innovative in their media and forward thinking in their messages.

Heritage knowledge systems are characterized by vertical separations—of discipline, professional association, institution, and country. Common Ground Research Networks takes some of the pivotal challenges of our time and curates research networks which cut horizontally across legacy knowledge structures. Sustainability, diversity, learning, the future of humanities, the nature of interdisciplinarity, the place of the arts in society, technology's connections with knowledge, the changing role of the university—these are deeply important questions of our time which require interdisciplinary thinking, global conversations, and cross-institutional intellectual collaborations.

Common Ground Research Networks are meeting places for people, ideas, and dialogue. However, the strength of ideas does not come from finding common denominators. Rather, the power and resilience of these ideas is that they are presented and tested in a shared space where differences can meet and safely connect—differences of perspective, experience, knowledge base, methodology, geographical or cultural origins, and institutional affiliation. These are the kinds of vigorous and sympathetic academic milieus in which the most productive deliberations about the future can be held. We strive to create places of intellectual interaction and imagination that our future deserves.

Common Ground Research Networks offer integrated programs of action: international conferences, scholarly journals, book imprints, and online dialogue spaces using our path-breaking social knowledge software, *CGScholar.com*

- Aging & Social Change Research Network
- The Arts in Society Research Network
- Books, Publishing & Libraries Research Network
- Climate Change: Impacts & Responses Research Network
- Communication and Media Studies Research Network
- Constructed Environment Research Network
- Design Principles & Practices Research Network
- Diversity in Organizations, Communities & Nations Research Network
- e-Learning & Innovative Pedagogies Research Network
- Food Studies Research Network
- Global Studies Research Network
- Health, Wellness & Society Research Network
- The Image Research Network
- The Inclusive Museum Research Network
- Interdisciplinary Social Sciences Research Network
- The Learner Research Network
- New Directions in the Humanities Research Network
- On Sustainability Research Network
- Organization Studies Research Network
- Religion in Society Research Network
- Spaces & Flows Research Network
- Sports & Society Research Network
- Technology, Knowledge & Society Research Network
- Tourism and Leisure Research Network

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Nuestra misión

Common Ground Research Networks tiene como objetivo animar a todas las personas a participar en la creación de conocimiento colaborativo y a compartir ese conocimiento con el mundo entero. A través de nuestros congresos académicos y revistas revisadas por pares, construimos Redes de Investigación y proporcionamos plataformas para interactuar a través de diversos canales.

Nuestro mensaje

Los sistemas de patrimonio del conocimiento se caracterizan por sus separaciones verticales: de disciplina, asociación profesional, institución y país. Common Ground Research Networks asume algunos de los retos fundamentales de nuestro tiempo y construye Redes de Investigación que cortan de manera transversal las estructuras de conocimiento existentes. La sostenibilidad, la diversidad, el aprendizaje, el futuro de las humanidades, la naturaleza de la interdisciplinariedad, el lugar de las artes en la sociedad, las conexiones de la tecnología con el conocimiento, el papel cambiante de la universidad, todas estas son preguntas profundamente importantes de nuestro tiempo que requieren un pensamiento interdisciplinar, debate global y colaboraciones intelectuales e interinstitucionales.

Common Ground es un lugar de encuentro para las personas, las ideas y el diálogo. Sin embargo, la fuerza de estas ideas no consiste en encontrar denominadores comunes. Al contrario, el poder y la resistencia de estas ideas es que se presentan y se examinan en un ámbito compartido donde tienen lugar las diferencias: diferencia de perspectiva, de experiencia, de conocimientos, de metodología, de orígenes geográficos o culturales o de afiliación institucional. Estos son los tipos de entornos académicos, vigorosos y solidarios, en los que se llevarán a cabo las deliberaciones más productivas sobre el futuro. Nos esforzamos en crear los lugares de imaginación e interacción intelectual que nuestro futuro merece.

Nuestros medios de comunicación

Common Ground Research Networks crea Redes de Investigación que se reúnen en congresos anuales. Entre congreso y congreso, los miembros de cada red también se mantienen en contacto durante el año mediante Redes de Investigación online, a través de procesos formales de publicación académica—revistas arbitradas mediante revisión por pares—, o a través de conversaciones informales en blogs. Los congresos fomentan el más amplio espectro de discursos posibles, animando a todos y a cada uno de los participantes a aportar sus conocimientos y perspectivas al debate común.

Technology, Knowledge & Society Research Network

Exploring innovative theories and practices that relate technology to society

Founded in 2005, the Technology, Knowledge & Society Research Network comes together around a common concern for, and a shared interest to explore a range of critically important themes in the various fields that address the complex and subtle relationships between technology, knowledge, and society.

Conference

The annual conference is built upon three key features: Internationalism, Interdisciplinarity, and Inclusiveness. Conference delegates include leaders in the field, as well as emerging artists and scholars, who travel to the conference from all corners of the globe and represent a broad range of disciplines and perspectives. A variety of presentation options and session types offer delegates multiple opportunities to engage, to discuss key issues in the field, and to build relationships with scholars from other cultures and disciplines.

You have already begun your engagement in the Technology, Knowledge & Society Research Network by attending the conference, presenting your work, and interacting face-to-face with other members. We hope this experience provides a valuable source of feedback for your current work and the possible seeds for future individual and collaborative projects, as well as the start of a conversation with research network colleagues that will continue well into the future.

Publishing

The Research Network enables members to publish through two media. First, network members can enter a world of journal publication, unlike the traditional academic publishing forums—a result of the responsive, non-hierarchical, and constructive nature of our member based peer review process. *The International Journal of Technology, Knowledge, and Society* provides a framework for member based double-blind peer review, enabling authors to publish into an academic journal of the highest standard, but also to participate in the validation of knowledge that is produced by the research network. The second publication medium is through the Technology, Knowledge & Society Book Imprint, where we publishing cutting edge books in print and electronic formats.

We encourage you to submit an article for review and possible publication in the collection. In this way, you may share the finished outcome of your presentation with other participants and members of the network. As a member, you will also be invited to review others' work and contribute to the development of the research network knowledge base as a Reviewer. As part of your active membership in the network, you also have online access to the complete works (current and previous volumes) of journal and to the book imprint. We also invite you to consider submitting a proposal for the book imprint.

Membership

As a Technology, Knowledge & Society Research Network member you have access to a broad range of benefits, tools, and resources:

- Digital subscription to *The International Journal of Technology, Knowledge, and Society* for one year.
- Digital subscription to the book imprint for one year.
- One article publication per year (pending peer review).
- Participation as a reviewer in the peer review process, with the opportunity to be listed as a Reviewer.
- Subscription to the e-newsletter, providing access to news and announcements for and from the Research Network.
- Option to add a video presentation to the research network YouTube channel.
- Free access to the Scholar social knowledge platform, including:
  - ◊ Personal profile and publication portfolio page;
  - ◊ Ability to interact and form communities with peers away from the clutter and commercialism of other social media;
  - ◊ Optional feeds to Facebook and Twitter;
  - ◊ Complimentary use of Scholar in your classes—for class interactions in its Community space, multimodal student writing in its Creator space, and managing student peer review, assessment, and sharing of published work.

On human uses of technologies, human uses, and the social impacts of technologies

Theme 1: Technologies and Human Usability

- Technology, knowledge, and society: re-examining the connections
- Human-technology interaction, interfaces, and usability
- Cybernetics, informatics, systemics, and distributed networks
- New media, new communications channels: broadcasting, to narrowcasting, to pointcasting
- Open computing: the theory and practice of open source and free software
- Creative Commons
- Copyright and digital rights management
- Proprietary software and its human influences
- Data and metadata: meanings, boundaries, functions
- Open standards and the logistics of communicability and interoperability
- Structure and semantics in information
- The semantic web
- Markup languages, new markup practices, new literacies
- Wireless and mobile information and communications technologies
- Multilingualism, Unicode, and machine translation
- Artificial intelligence, intelligent systems, intelligent agents
- Human-machine interfaces

On the roles of technologies in community formation, maintenance and change

Theme 2: Technologies in Knowledge Sharing

- Communities of practice and knowledge-creating communities
- Virtual communities
- Technologies for participatory citizenship
- Technology in capacity development
- Digital development: bridging the digital divide
- E-government, e-democracy, and cyber-civics
- Participatory systems
- The politics of information
- Globalization and technology
- Multilingualism and cultural diversity in the digital age
- Technological meets social transformation
- Technical and social systems of sustainability
- The wild world of the Web: regulation and its discontents
- Communities as publishers
- Communities as networks: the dynamics of collaboration and community building
- Information architectures: scaffolds for autonomy or restrictive straight-jackets?
- Multi-channel publishing
- Digital repositories, archives, and libraries
- Disability and access
- Differences of sensibility and access: gender, language, culture
- Cyber-identities
- Creative sources: the technologies of art and the arts of technology
- Cyber-ethics and cyber-law

On learning through and about technologies

Theme 3: Ubiquitous Learning

- Learning by design: curriculum and instruction in the era of networked computing
- Edutainment: gaming as pedagogy
- Perception, cognition, and interactivity
- Children of the digital era: learning styles and the challenges of engagement
- Interactive and collaborative learning
- Digital meanings, multimodal communications, and multiliteracies
- Lifelong and lifewide learning
- E-learning on the job and in work-related training
- E-learning in the professions
- Organizational learning and the learning organization
- Formal and informal learning
- Help menus and user-guides: website and software-integrated learning
- The virtual university

On the use of technologies in knowledge creation and access

Theme 4: Technologies in Society

- Technology in the service of the 'knowledge society'
- Data, information, knowledge, wisdom: re-examining core concepts
- Knowledge management: nurturing personal and common knowledge
- Information systems and people in organizations
- Research infrastructures
- Participatory design
- Intellectual property: approaches digital rights management
- Creative Commons and commercial realities: what are the economic conditions for knowledge and innovation?
- E-commerce, open markets, and open knowledge: contradictions or complementarities?
- Collaborations: from personal to interpersonal computing
- Technologies for development
- Information and communications technologies and development
- ICTs: how the poor benefit or does not benefit
- Situating ICTs in development policies and strategies
- Global interactions: technologies, development, and globalization

Technologies

How do we understand and evaluate the workings of these technologies?

Over the past quarter century, digital technologies have become signature change agents in all aspects of our domestic, working, and public lives. Whether it is our awareness of the world through the media, formal or informal learning, shopping, banking, traveling, or communicating, digital technologies are everywhere. The hardware is getting less expensive relative to the power of the technology. Meanwhile, a battle is being fought in the domain of intellectual property between software that is proprietary and sometimes closed, and software that is open and sometimes free.

How do we understand and evaluate the workings of these technologies? To answer this question we need to recruit the disciplines of computer science, software engineering, communications systems, and applied linguistics. We need to develop and apply the conceptual tools of cybernetics, informatics, systemics, and the theory of distributed networks. And how do we understand their effects? Here we may consider the impact of the new media, intelligent systems, or human-machine interfaces.

Communities

How do communities form?

In earlier modern times, information and communications technologies centralized power, knowledge, and culture. They were built with heavy plant and physical infrastructure—the printing presses, the transmission stations, the transport and distribution systems that only the larger corporation or the state could afford. They were centralized, driven by economies of (large) scale and dominated on a day-to-day basis by those with economic resources, political power, and elite cultural networks.

The new digital technologies are free or cheap. They are instantaneous and global. They are decentralized and distributed. And so, it is argued that they open out and provide broader access to the means of production and communication of meaning. They are the bases for an electronic democracy, participatory design, and communities of practice. They allow a myriad of cultures, interests, and knowledge communities to flourish.

Or, at least, this is one interpretation. In bleaker views, they add a digital divide to older historical cleavages of inequality. They daze us into passivity, They place our every movement under surveillance. They enforce a sedentary compliance.

Learners

How do technologies transform learning relationships?

There is little doubt that ‘e-learning’ is destined to become a larger part of the experience of learning at school, in universities, on the job, at home—indeed, lifelong, and lifewide learning. Technology is now a central concern of education, not only from the point of view of preparing students for a world of work where networked computers are pervasive, but also from the point of view of community participation and citizenship. Learners who are excluded from the new information spaces, will clearly be economically, socially, and culturally disadvantaged.

At its best, e-learning is a refreshingly new medium with a pedagogically new message. However, as the critics of e-learning rightly point out, much of what passes for e-learning is lock-step, mechanical, and individualized (one user/one screen), reflecting and reproducing pedagogies that are best dubious and at worst regressive.

On the other hand, a more optimistic view notes the capacity of the new information and communication technologies to transform learning relationships. Instead of being the recipients of transmitted knowledge (syllabuses, textbooks, ‘information’ resources), institutions of learning might become places where teachers and learners develop knowledge banks, and where traditional classrooms, dominated by teacher talk, are replaced by open learning in which groups of students work autonomously and collaboratively on knowledge projects within a structured ‘content management’ environment. By these means, the role of the learner is transformed from knowledge consumer to knowledge producer.

Knowledge

How is knowledge shared and transformed?

The world is moving into a phase that is widely, and perhaps too glibly at times, referred to as a 'knowledge economy' or 'knowledge society'. Information and communications technologies, and their human effects, play a central part in this development.

These digital technologies allow new, bottom-up structures of knowledge to emerge, building from the collaborative endeavors of knowledge creating communities—in, for instance, workplaces, schools, and associations of common interest. In each case, they provide the means by which personal knowledge may be shared and transformed into common knowledge. From being receptors of knowledge, persons, organizations, and communities become makers and publishers of knowledge, reversing at least in part the fundamental epistemic flows of modernity and replacing this with a new 'dialogics' of knowledge.

This conference, journal, book imprint, and online media provide a forum for discussion of the connections between technology and society. The perspectives presented range from big picture analyses which address global and universal concerns, to detailed case studies which speak of localized applications of technology. Conference presentations and publications traverse a broad terrain, sometimes technically and other times socially oriented, sometimes theoretical and other times practical in their perspective, and sometimes reflecting dispassionate analysis while at other times suggesting interested strategies for action.

Technology, Knowledge & Society | Advisory Board

The principal role of the Advisory Board is to drive the overall intellectual direction of the Technology, Knowledge & Society Research Network and to consult on our foundational themes as they evolve along with the currents of the field. Board members are invited to attend the annual conference and provide important insights on conference development, including suggestions for speakers, venues, and special themes. We also encourage board members to submit articles for publication consideration to *The International Journal of Technology, Knowledge, and Society* as well as proposals or completed manuscripts to the Technology, Knowledge & Society Book Imprint.

We are grateful for the continued service and support of the following world-class scholars and practitioners.

- **Payal Arora**, Erasmus University Rotterdam, Rotterdam, The Netherlands
- **Marcus Breen**, Boston College, Boston, USA
- **Simon Cooper**, Monash University, Melbourne, Australia
- **Bill Cope**, University of Illinois, Urbana-Champaign, USA
- **William Dutton**, Michigan State University, East Lansing, USA
- **David Hakken**, Indiana University, Bloomington, USA
- **Nigel Jacob**, Mayor's Office of New Urban Mechanics, Boston, USA
- **David Karpf**, George Washington University, Washington, DC, USA
- **Michele Knobel**, Montclair State University, Montclair, USA
- **Anand Kumar**, MS Engineering College, Bangalore, India
- **Christiane Paul**, The New School, New York City, USA
- **Alfonso Unceta**, Universidad del País Vasco, Bilbao, Spain
- **Telle Whitney**, Anita Borg Institute for Women and Technology, Palo Alto, USA
- **Nicola Yelland**, Victoria University, Melbourne, Australia

Scholar

A Social Knowledge Platform

Create Your Academic Profile and Connect to Peers

Developed by our brilliant Common Ground software team, **Scholar** connects academic peers from around the world in a space that is modulated for serious discourse and the presentation of knowledge works.

Utilize Your Free Scholar Membership Today through

- Building your *academic profile* and list of published works.
- Joining a community with a *thematic or disciplinary focus.*
- Establishing a new Research Network *relevant to your field.*
- Creating *new academic work* in our innovative publishing space.
- Building a *peer review network* around your work or courses.

Scholar Quick Start Guide

1. Navigate to http://cgscholar.com. Select [**Sign Up**] below 'Create an Account'.
2. Enter a "**blip**" (a very brief one-sentence description of yourself).
3. Click on the "**Find and join communities**" link located under the YOUR COMMUNITIES heading (On the left hand navigation bar).
4. Search for a community to join or create your own.

Scholar Next Steps – Build Your Academic Profile

- **About**: Include information about yourself, including a linked CV in the top, dark blue bar.
- **Interests**: Create searchable information so others with similar interests can locate you.
- **Peers**: Invite others to connect as a peer and keep up with their work.
- **Shares**: Make your page a comprehensive portfolio of your work by adding publications in the Shares area - be these full text copies of works in cases where you have permission, or a link to a bookstore, library or publisher listing. If you choose Common Ground's hybrid open access option, you may post the final version of your work here, available to anyone on the web if you select the 'make my site public' option.
- **Image**: Add a photograph of yourself to this page; hover over the avatar and click the pencil/edit icon to select.
- **Publisher**: All Common Ground community members have free access to our peer review space for their courses. Here they can arrange for students to write multimodal essays or reports in the Creator space (including image, video, audio, dataset or any other file), manage student peer review, co-ordinate assessments, and share students' works by publishing them to the Community space.

Scholar

A Digital Learning Platform

Use **Scholar** to Support Your Teaching

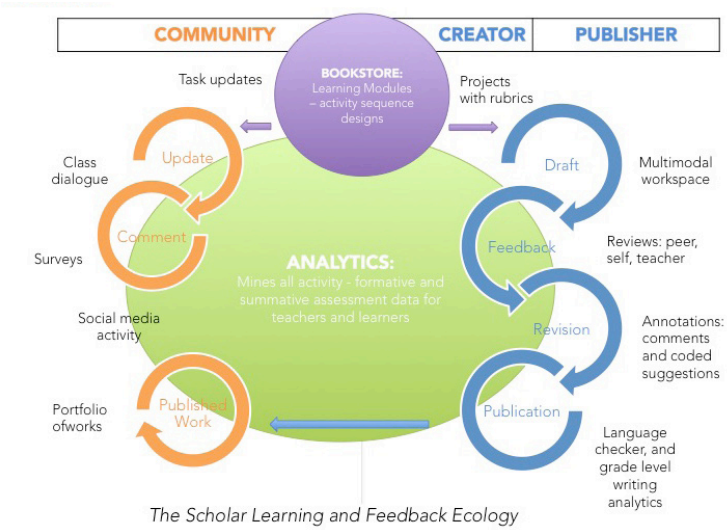
Scholar is a social knowledge platform that *transforms the patterns of interaction in learning by putting students first,* positioning them as knowledge producers instead of passive knowledge consumers. **Scholar** provides scaffolding to encourage making and sharing knowledge drawing from multiple sources rather than memorizing knowledge that has been presented to them.

Scholar also answers one of the most fundamental questions students and instructors have of their performance, "How am I doing?" Typical modes of assessment often answer this question either too late to matter or in a way that is not clear or comprehensive enough to meaningfully contribute to better performance.

A collaborative research and development project between Common Ground and the College of Education at the University of Illinois, **Scholar** contains a Research Network space, a multimedia web writing space, a formative assessment environment that facilitates peer review, and a dashboard with aggregated machine and human formative and summative writing assessment data.

The following **Scholar** features are only available to Common Ground Research Network members as part of their membership. Please email us at *support@cgscholar.com* if you would like the complimentary educator account that comes with participation in a Common Ground conference.

- Create projects for groups of students, involving draft, peer review, revision, and publication.
- Publish student works to each student's personal portfolio space, accessible through the web for class discussion.
- Create and distribute surveys.
- Evaluate student work using a variety of measures in the assessment dashboard.



The Scholar Learning and Feedback Ecology

Scholar is a generation beyond learning management systems. It is what we term a *Digital Learning Platform*—it transforms learning by engaging students in powerfully horizontal "social knowledge" relationships. **For more information, visit: http://knowledge.cgscholar.com.**

Red de Investigación de Tecnología, Conocimiento y Sociedad

Explorando teorías innovadoras y prácticas que relacionan la tecnología con la sociedad

Fundada en 2005, la Red de Investigación de Tecnología, Conocimiento y Sociedad se reúne en torno a un interés común por las complejas y sutiles interrelaciones que sostienen la tecnología, el conocimiento y la sociedad.

El Congreso Internacional de Tecnología, Conocimiento y Sociedad se fundamenta en cuatro pilares clave: internacionalismo, interdisciplinariedad, inclusión e interacción. Concurren a la sede desde insignes eruditos hasta académicos emergentes, provenientes desde todos los rincones del planeta y representantes de una heterogeneidad de disciplinas y perspectivas que abarcan un amplio espectro. La gran variedad, en cuanto a tipos de sesión y modalidades de presentación que pone a su alcance, ofrece múltiples oportunidades para estimular el debate sobre las cuestiones fundamentales y consustanciales a este ámbito de estudio, y propicia el establecimiento de relaciones con académicos que proceden de culturas y áreas temáticas de diversa índole.

Publicaciones

Al participar en el congreso, los miembros de la Red de Investigación de Tecnología, Conocimiento y Sociedad tienen la posibilidad de publicar en la *Revista Internacional de Tecnología, Conocimiento y Sociedad*, en cuyo proceso de edición se concibe la revisión por pares desde una perspectiva constructiva e integradora.

Beneficios de la afiliación

Como miembro de la Red de Investigación, tiene acceso a una amplia diversidad de herramientas y recursos para su propio trabajo:

- Suscripción digital a las revistas en español y en inglés de la Red durante un año.
- Suscripción digital a la librería durante un año.
- Publicación de un artículo al año (previa revisión por pares).
- Participación como revisor en el proceso de revisión por pares.
- Suscripción al boletín digital de la comunidad, con noticias de la Red de Investigación.
- Opción de añadir un vídeo de presentación al canal de YouTube de la Red de Investigación.
- Acceso gratuito a la red social Scholar, incluyendo:
  - ◊ Perfil personal y portafolio de publicaciones.
  - ◊ Interacción y creación de comunidades académicas.
  - ◊ Facebook y Twitter opcional.
  - ◊ Uso complementario de la red en sus clases mediante la interacción con la comunidad Scholar, asistencia y asesoría en la revisión por pares y puesta en común de obras publicadas.

El uso humano de las tecnologías, los usos humanos y los impactos sociales de las tecnologías

Tema 1: Tecnologías y uso humano

- Tecnología, conocimiento y sociedad: reexaminar sus conexiones
- Interacción humano-tecnología, interfaces y usabilidad
- Cibernética, informática, sistémicos y redes distribuidas
- Nuevos medios, nuevos canales de comunicación: radiodifusión, "narrowcasting", "pointcasting"
- Abrir la informática: la teoría y la práctica de código abierto y el software libre
- "Creative Commons"
- Derechos de autor y gestión de derechos digitales
- Software propietario y sus influencias humanas
- Los datos y metadatos: significados, límites, funciones
- Los estándares abiertos y la logística de la comunicabilidad y la interoperabilidad
- Estructura y semántica de la información
- La web semántica
- Lenguajes de marcas, nuevas prácticas de marcado, nuevas alfabetizaciones
- Tecnologías de la información y de las comunicaciones inalámbricas y móviles
- Multilingüismo, "unicode" y traducción automática
- La inteligencia artificial, sistemas inteligentes, agentes inteligentes
- Interfaces hombre-máquina

Papel de las tecnologías en la formación de la sociedad, conservación y cambio

Tema 2: Tecnologías en el intercambio de conocimientos

- Comunidades de práctica y de creación de conocimiento
- Comunidades virtuales
- Tecnologías para la participación ciudadana
- La tecnología para el desarrollo de las capacidades
- Desarrollo digital: reducir la brecha digital
- E-gobierno, e-democracia y cibergrupos
- Sistemas participativos
- La política de la información
- La globalización y la tecnología
- El multilingüismo y la diversidad cultural en la era digital
- La tecnología cumple la transformación social
- Sistemas técnicos y sociales de la sostenibilidad
- El mundo salvaje de la Web: regulación y sus descontentos
- Comunidades como editores
- Comunidades como redes: la dinámica de colaboración y construcción de la comunidad
- Arquitecturas de información
- Publicación multicanal
- Repositorios digitales, archivos y bibliotecas
- Discapacidad y acceso
- Las diferencias de sensibilidad y el acceso: el género, el idioma, la cultura
- Ciber-identidades
- Fuentes creativas: las tecnologías de última generación y las artes de la tecnología
- Ciber-ética y la ciber-ley

El aprendizaje acerca y a través de la tecnología

Tema 3: Aprendizaje virtual

- Aprendizaje a través del diseño: currículo e instrucción en la era de la computación en red
- Entretenimiento educativo: juegos como pedagogía
- La percepción, la cognición y la interactividad
- Los niños de la era digital: estilos de aprendizaje y los retos de la participación
- El aprendizaje interactivo y de colaboración
- Significados digitales, comunicaciones multimodales y multialfabetización
- El aprendizaje permanente y nuevo
- E-learning en el trabajo y en la formación relacionada con el trabajo
- E-learning en las profesiones
- El aprendizaje organizacional y la organización del aprendizaje
- El aprendizaje formal e informal
- Menús de ayuda y guías de usuario: página web y aprendizaje de software integrado
- La universidad virtual

El uso de las tecnologías para la creación y acceso al conocimiento

Tema 4: Tecnologías en la sociedad

- Tecnología al servicio de la 'sociedad del conocimiento'
- Datos, información, conocimiento, sabiduría: reexaminar conceptos básicos
- La gestión del conocimiento: desarrollo de los conocimientos personales y comunes
- Los sistemas de información y las personas en las organizaciones
- Las infraestructuras de investigación
- Diseño participativo
- Propiedad intelectual: acercamiento a la gestión de los derechos digitales
- "Creative Commons" y realidades comerciales: ¿cuáles son las condiciones económicas para el conocimiento y la innovación?
- El comercio electrónico, mercados abiertos y conocimiento abierto: ¿contradicciones o complementariedad?
- Colaboraciones: desde lo personal a la computación interpersonal
- Tecnologías para el desarrollo
- Tecnologías y el desarrollo de la información y comunicaciones
- TIC: pocos beneficios o no beneficiarse
- Situar las TIC en las políticas y estrategias para el desarrollo
- Interacciones globales: tecnologías, desarrollo y globalización

Tecnologías

¿Cómo entendemos y evaluamos el funcionamiento de las tecnologías digitales?

Durante los últimos 25 años, las tecnologías digitales han llegado a ser factores de cambio característicos en todos los aspectos de nuestra vida doméstica, laboral y pública. Debido a nuestro afán por mantenernos informados a través de los medios de comunicación, de aprender tanto de manera formal como informal, realizar compras u operaciones bancarias, viajar o comunicarnos, las tecnologías digitales están en todas partes. Los equipos son cada vez menos costosos con respecto al poder de la tecnología. Entretanto, hay una batalla en el terreno de la propiedad intelectual entre los programas patentados y a veces cerrados, y los que son abiertos y en ocasiones gratuitos.

¿Cómo entendemos y evaluamos el funcionamiento de estas tecnologías? Para responder esta pregunta, necesitamos acudir a las disciplinas de la computación o informática, la ingeniería de programas, los sistemas de comunicación y la lingüística aplicada. Tenemos que desarrollar y aplicar las herramientas conceptuales de la cibernética, la informática, la sistémica y la teoría de redes distribuidas. ¿Y cómo entendemos sus efectos? Al respecto, podemos considerar el impacto de los nuevos medios de comunicación, los sistemas inteligentes o las interfaces persona-máquina.

Comunidades

¿Cómo se forman las comunidades?

En los albores de la era moderna, las tecnologías de la información y las comunicaciones centralizaban el poder, el conocimiento y la cultura. Estaban construidas con una infraestructura física e industrial pesada: imprentas, estaciones de transmisión y sistemas de transporte y distribución que solo las empresas más grandes o el Estado podían adquirir. Estaban centralizadas y eran impulsadas por economías a gran escala y dominadas en su quehacer cotidiano por quienes tenían recursos económicos, por el poder político y redes culturales elitistas.

Las nuevas tecnologías digitales son gratuitas o baratas, instantáneas y de ámbito mundial. Están descentralizadas y distribuidas. Por eso se afirma que están abiertas y proporcionan un acceso más amplio a los medios de producción y comunicación de significados. Son las bases de una democracia electrónica, un diseño y comunidades de práctica participativos. Permiten el florecimiento de una miríada de culturas, intereses y redes de investigación.

O esta es, por lo menos, una interpretación. Según puntos de vista más lúgubres, agregan una división digital a las viejas brechas de la desigualdad. Nos aturden hasta el punto de la pasividad; someten a vigilancia todos nuestros movimientos e imponen una sumisión sedentaria.

Estudiantes

¿Cómo transforman las tecnologías las relaciones de aprendizaje?

Hay pocas dudas de que el "aprendizaje electrónico" está destinado a ocupar una mayor parte de la experiencia de aprendizaje en escuelas, universidades, en el trabajo y en casa; de hecho, un aprendizaje "extenso y permanente" durante toda la vida. Hoy en día, la tecnología es una preocupación central de la educación, no solo desde el punto de vista de la preparación de los estudiantes para un mundo de trabajo dominado por las computadoras integradas en redes, sino desde la perspectiva de la participación comunitaria y la ciudadanía. Los estudiantes a quienes se excluye de los nuevos espacios de información evidentemente serán personas desfavorecidas económica, social y culturalmente.

En el mejor de los casos, el aprendizaje electrónico es una herramienta de una novedad reconfortante, que transmite un nuevo mensaje pedagógico. Sin embargo, como correctamente señalan los críticos de este aprendizaje, buena parte de lo que sucede con el aprendizaje electrónico es rígido, mecánico e individualizado (un usuario/una pantalla), lo que refleja y reproduce las pedagogías que son, a lo sumo, dudosas, y, en el peor de los casos, regresivas.

Por otra parte, un punto de vista más optimista advierte de la capacidad inherente de las nuevas tecnologías de la información y las comunicaciones para transformar las relaciones de aprendizaje. En lugar de ser las depositarias del conocimiento transmitido (planes de estudios, libros de texto, recursos de información), las instituciones de aprendizaje podrían convertirse en lugares donde los maestros y estudiantes desarrollen bancos de conocimientos y donde las aulas tradicionales, dominadas por el discurso del maestro, se sustituyan por un aprendizaje abierto en el que grupos de estudiantes trabajan de manera autónoma y colaborativa en proyectos de investigación, dentro de un entorno estructurado de "administración de contenidos". A través de estos medios, el papel del estudiante se transforma de consumidor en productor de conocimiento.

Conocimiento

¿Cómo se comparte y transforma el conocimiento?

El mundo avanza hacia una fase a la que vagamente y quizá con demasiada ligereza se conoce como "economía del conocimiento" o "sociedad del conocimiento". Las tecnologías de la información y las comunicaciones, y sus efectos humanos, desempeñan un papel decisivo en este acontecimiento. Estas tecnologías digitales permiten el surgimiento de nuevas estructuras no jerárquicas de conocimiento, formadas a partir de los esfuerzos colaborativos de comunidades creadoras de conocimiento; por ejemplo, en lugares de trabajo, escuelas y asociaciones de intereses comunes. En cada caso, proporcionan los medios por los que el conocimiento personal se puede compartir y transformar en conocimiento común. De meras receptoras de conocimiento, las personas, organizaciones y comunidades, se convierten en creadoras y publicadoras de conocimiento, lo que invierte —al menos en parte— los flujos epistémicos fundamentales de la modernidad y los reemplaza con una nueva "dialógica" del conocimiento.

Este congreso, la revista, el sello editorial y los medios en línea ofrecen un foro para discutir las relaciones entre la tecnología y la sociedad. Las perspectivas presentadas van desde análisis panorámicos que abordan asuntos mundiales y universales hasta estudios detallados de casos particulares que muestran las aplicaciones localizadas de la tecnología. Las presentaciones y publicaciones del congreso abarcan un amplio espectro, desde perspectivas técnicas o sociales, teóricas o prácticas, que unas veces reflejan un análisis imparcial, mientras que otras indican estrategias de acción interesadas.

La función principal del Comité Científico es establecer la dirección intelectual general de la Red de Investigación de Tecnología, Conocimiento y Sociedad y dar asesoría en cuanto a nuestros temas fundamentales a medida que evolucionan con las tendencias del campo. Los miembros del comité están invitados a asistir al congreso anual y aportar sus ideas sobre el desarrollo del congreso, incluidas sugerencias para los conferencistas, sedes y temas destacados. También los animamos a enviar artículos para su posible publicación en la *Revista Internacional de Tecnología, Conocimiento y Sociedad*.

La Red de Investigación de Tecnología, Conocimiento y Sociedad agradece la colaboración y el apoyo continuos de los siguientes académicos y profesionales de categoría mundial.

- **Fernando Trujillo Sáez**, Universidad de Granada, España
- **Patricia Arnáiz Castro**, Universidad de Las Palmas de Gran Canaria, España
- **Marcelo Careaga Butter**, Universidad Católica de Santísima Concepción, Chile
- **Laura Jiménez Pérez**, Universidad Católica de Santísima Concepción, Chile
- **Edgar Serna**, Universidad Autónoma Latinoamericana, Colombia
- **Ana María Delgado García**, Universitat Oberta de Catalunya, España
- **Blanca Torrubia Chalmeta**, Universitat Oberta de Catalunya, España
- **Emerita Sara Bañados Santana**, Universidad de Concepción, Chile
- **Javier Gil Quintana**, Universidad Católica de Ávila, España
- **Carmen Marta Lazo**, Universidad de Zaragoza, España
- **Carlos Ferrás Sexto**, Universidad de Santiago de Compostela, España
- **Yolanda García Vázquez**, Universidad de Santiago de Compostela, España

Scholar

Una red social de conocimiento e información.

Cree su perfil académico.

Desarrollado por el equipo de software de Common Ground, **Scholar** conecta a investigadores de todo el mundo en un espacio adecuado para el discurso académico y la presentación de obras científicas.

Utilice su membresía gratuita a Scholar:

- Diseñe su *perfil académico* y una lista de obras publicadas.
- Únase a una comunidad con especialidad temática o *disciplinar*.
- Establezca una nueva Red de Instigación *relevante para su área*.
- Desarrolle una *nueva obra académica* en nuestro innovador espacio de publicaciones.
- Construya una *red de revisión por pares* en torno a su obra o sus cursos.

Guía Rápida Scholar

1. Entre en http://cgscholar.com. Seleccione [**Sign Up**] (Conectarse) debajo de 'Create an Account' ('Crear una cuenta').
2. Introduzca un "**blip**" (Una frase muy breve para describirse a sí mismo).
3. Haga clic en el enlace de "**Find and join communities**" ("Buscar y unirse a una comunidad") situado bajo YOUR COMMUNITIES (SUS COMUNIDADES) en la barra de navegación de la izquierda.
4. Busque una comunidad a la que unirse o cree una propia.

Siguiente paso en Scholar – Complete su perfil académico

- **About (Sobre)**: Incluye información sobre usted mismo, además de un CV adjunto en la barra superior azul oscuro.
- **Interests (Intereses)**: Proporciona información de búsqueda de manera que otras personas con intereses similares puedan localizarle.
- **Peers (Pares)**: Invite a otros a conectarse como pares y a seguir su trabajo.
- **Compartir**: Convierta su página en un portafolios de su trabajo añadiendo publicaciones aquí. Pueden ser copias del texto completo de la obra cuando tenga permiso para ello, o un enlace a la librería, biblioteca o editorial. Si selecciona la opción de acceso abierto híbrido de Common Ground, puede colgar la versión final de su trabajo aquí, permitiendo el acceso a cualquiera si selecciona la opción "Hacer público".
- **Image (Imagen)**: Añada una fotografía propia aquí. Coloque el cursor sobre el avatar y haga clic en el icono lápiz/editar.
- **Publisher (Editor)**: Todos los miembros de la comunidad de Common Ground tienen libre acceso a nuestro espacio de revisión por pares para sus cursos. Aquí pueden organizarlo para que los estudiantes escriban ensayos multimodales o trabajos en la página Creator (incluyendo archivos de imagen, vídeo, audio, datos u otros tipos), gestionar la revisión por pares de los estudiantes, coordinar la evaluación y compartir los trabajos de los estudiantes publicándolos en la zona de Comunidad.

Scholar

Una plataforma de aprendizaje digital.

Use **Scholar** como soporte docente

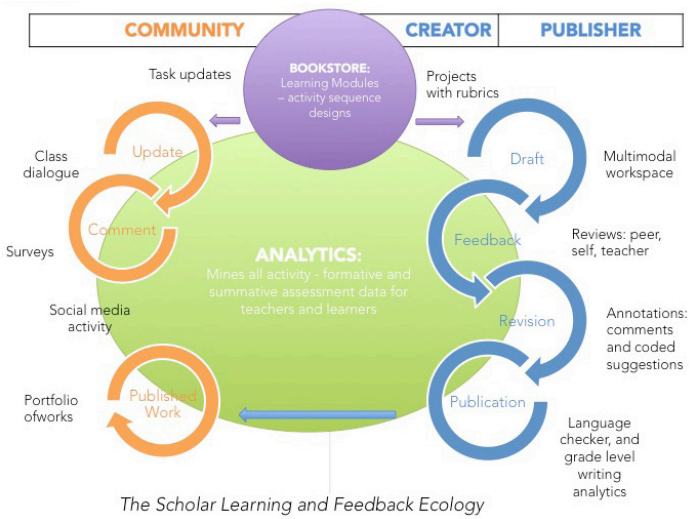
Scholar es una plataforma social de conocimiento que *transforma los patrones de interacción en aprendizaje posicionando a los estudiantes* como productores de conocimiento en lugar de consumidores pasivos del mismo. **Scholar** provee de estructuras para facilitar la creación y puesta en común del conocimiento obtenido de diversas fuentes, en lugar de memorizar el conocimiento que les ha sido presentado pasivamente.

Scholar también da respuesta a una de las preguntas fundamentales que los estudiantes e instructores suelen hacer: "¿Lo estoy haciendo bien?". Los modelos típicos de evaluación suelen responder a esta pregunta demasiado tarde o bien de una manera que no resulta lo suficientemente clara para contribuir significativamente a una mejora en la enseñanza.

Como resultado de un proyecto colaborativo de investigación entre Common Ground y la Facultad de Educación de la Universidad de Illinois, **Scholar** tiene un espacio de Red de Investigación, una zona multimedia de escritura digital, un entorno de evaluación formativo que facilita la revisión por pares y una zona de evaluación de datos.

Las siguientes opciones de **Scholar** sólo están disponibles para miembros de la Red de Investigación de Common Ground. Póngase en contacto con nosotros en *support@cgscholar.com* si desea tener la cuenta complementaria de educador que viene incluida con la participación en un congreso de Common Ground.

- Cree proyectos para grupos de estudiantes, incluyendo revisión por pares, borradores, revisión y publicación.
- Publique el trabajo de cada estudiante en el portafolio personal, accesible en la web de discusión para la clase.
- Cree y realice estudios y encuestas.
- Evalúe el trabajo de un estudiante empleando diversos medidores en la zona de evaluación.



The Scholar Learning and Feedback Ecology

Scholar es la siguiente generación en los sistemas de gestión de aprendizaje. Es una *Plataforma Digital de Aprendizaje* que transforma el conocimiento involucrando a los estudiantes en relaciones sociales de conocimiento de corte horizontal.

Para más información, visite: http://knowledge.cgscholar.com.

Technology, Knowledge & Society Journal

Aiming to create an intellectual frame of reference for an interdisciplinary conversation on the relationships between technology, knowledge, and society

The International Journal of Technology, Knowledge, and Society explores innovative theories and practices relating technology to society. The journal is cross-disciplinary in its scope, offering a meeting point for technologists with a concern for the social and social scientists with a concern for the technological. The focus is primarily, but not exclusively, on information and communications technologies.

Equally interested in the mechanics of social technologies and the social impact of technologies, the journal is guided by the ideals of an open society, where technology is used to address human needs and serve community interests. These concerns are grounded in the values of creativity, innovation, access, equity, and personal and community autonomy. In this space, commercial and community interests at times complement each other; at other times they appear to be at odds. The journal examines the nature of new technologies, their connection with communities, their use as tools for learning, and their place in a "knowledge society."

The perspectives presented in the journal range from big picture analyses which address global and universal concerns, to detailed case studies which speak of localized social applications of technology. The papers traverse a broad terrain, sometimes technically and other times socially oriented, sometimes theoretical and other times practical in their perspective, and sometimes reflecting dispassionate analysis whilst at other times suggesting interested strategies for action.

The journal covers the fields of informatics, computer science, history and philosophy of science, sociology of knowledge, sociology of technology, education, management and the humanities. Its contributors include research students, technology developers and trainers, and industry consultants.

The International Journal of Technology, Knowledge, and Society is a peer-reviewed, scholarly journal.

Editor

Marcus Breen, Boston College, Boston, USA

Reviewers

Articles published in *The International Journal of Technology, Knowledge, and Society* are peer reviewed by scholars who are active members of the Organization Studies Research Network. Reviewers may be past or present conference delegates, fellow submitters to the collection, or scholars who have volunteered to review papers (and have been screened by Common Ground's editorial team). This engagement with the Research Network, as well as Common Ground's synergistic and criterion-based evaluation system, distinguishes the peer review process from journals that have a more top-down approach to refereeing. Reviewers are assigned to papers based on their academic interests and scholarly expertise. In recognition of the valuable feedback and publication recommendations that they provide, reviewers are acknowledged as Reviewers in the volume that includes the paper(s) they reviewed. Thus, in addition to *The International Journal of Technology, Knowledge, and Society*'s Editors and Advisory Board, the Reviewers contribute significantly to the overall editorial quality and content of the journal.

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STM Source (EBSCO)
The Australian Research Council (ERA)
Ulrich's Periodicals Directory

DOI:
10.18848/1832-3669/CGP

Founded:
1993

Publication Frequency:
Quarterly (March, June, September, December)

Acceptance Rate:
27% (2017)

ISSN:
1832-3669 (Print)

Network Website:
organization-studies.com

The Publication Process

Our long-time authors are no-doubt familiar with using our CGPublisher system to submit and track the progress of articles for publication. After fifteen years of dependable service, we are making preparations to give CGPublisher a well-deserved retirement. As we preparing for this exciting change, some of the familiar processes will be changing. Authors will still receive messages throughout each phase of the publication process and can contact support@cgnetworks.org with any questions or concerns.

Step 1: Review the Requirements

All article submissions must meet the Article Requirements listed on our Author Guidelines page: http://cgnetworks.org/support/author-guidelines. Before submitting your article, please thoroughly review these requirements, and revise your article to follow these rules. Initial submissions that do not meet these requirements will be returned to the author(s) for revision.

Step 2: Upload the Submission

Once you have revised your initial submission to meet the article requirements, please visit our Article Submission page: http://cgnetworks.org/support/submit.

Step 3: Checking Progress

Once your article is received, you will receive updates on the status of its progress. During this time, legacy submissions will continue to be managed in CGPublisher while newer submissions will be managed internally by the editorial staff. Authors of both newer and legacy submissions will continue to receive status updates on the progress of their article.

- CGPublisher users can see the status an article by logging into CGPublisher at www.cgpublisher.com and status updates will be sent via email from cgpublisher.com.
- Authors of newer submissions can learn the status an article by contacting articlestatus@cgnetworks.org and status updates will be sent via email from articlestatus@cgnetworks.org.

Step 4: Initial Submission Accepted for Peer Review

Submitted articles are then verified against the Article Requirements (listed in the Author Guidelines). If your article satisfies these requirements, your identity and contact details are then removed, and the article is matched to two appropriate referees and sent for review. Please note, during this time authors are eligible to be selected as a reviewer for other articles in this same stage. Full details regarding the rules, expectations, and policies on peer review can be found on our Publication Ethics page listed under the Peer Review Policies section and our Publication Ethics and Malpractice Statement section: http://cgnetworks.org/journals/publication-ethics.

Step 5: Peer Review Decision

When both referee reports are returned, and after the referees' identities have been removed, you will be notified by email and provided with the reviewer reports. Articles that have been rejected once in the peer review process are allowed a second opportunity to be reviewed by two new reviewers. To be reviewed by two new reviewers, you will need to make revisions based on the comments and feedback of the first round of review, and these changes must be detailed using a change note: http://cgnetworks.org/support/change-note-journal-article. If an article is not accepted by peer review after this second opportunity, it will be withdrawn from consideration.

Step 6: Membership Confirmation

If your article has been accepted or accepted with revisions, it will enter the membership confirmation stage. We require at least one author associated with the article to have a unique Network Membership or Conference registration: http://cgnetworks.org/support/register-for-a-membership. Please note, a paid conference registration includes a complimentary Research Network Membership, which will allow you to skip this step.

Step 7: Publication Agreement

Next you will be asked to accept the Publishing Agreement. If you are interested in Hybrid Open Access, this step is the best time to register for Open Access Publication: http://cgnetworks.org/journals/hybrid-open-access.

Step 8: Prepare the Final Submission
After the publication agreement is final, you will have thirty days to complete any revisions to your final submission and return your article. Please ensure your final submission meets the Final Submission Requirements before returning your article: http://cgnetworks.org/support/final-submission-downloads-and-guides. This includes such criteria as the correct the use of the Chicago Manual of Style (seventeenth edition) and the other listed requirements: http://cgnetworks.org/support/chicago-manual-of-style-citations-quick-guide. Articles that have been accepted with revisions will require a change note to be included with the final submission. Articles that do not meet these requirements will be returned for revision until these requirements are satisfied.

Step 9: Final Checks ("Ready for Typesetting" in CGPublisher)
Once we have received the final submission of your article, our Publishing Department will give your article a final review. During this step, CGPublisher users will see a workflow status listed as "Ready for Typesetting," indicating that the final submission is ready for inspection.

Step 10: Copy Editing and Proof Inspection
If the final submission meets the Final Submission Requirements, the article will enter Copy Editing. During Copy Editing, our editorial staff will note minor problems with citations, references, grammar, spelling, or formatting. The author(s) will be responsible for correcting these noted problems. Careful adherence to the article template and the citation style guide will greatly minimize the need for corrections. After all copy editing notes have been resolved, we will create a typeset proof for the author(s) to inspect.

Step 11: Article Publication
Individual articles are published "Web First" to our CG Scholar DOI: https://cgscholar.com/bookstore. After web-first publication, complete journal issues follow annually, biannually, or quarterly depending on the journal. Web-first published articles include a full citation and a registered DOI permalink. Be sure to keep your CG Scholar profile up-to-date (https://cgscholar.com/identity) and add your ORCID iD (https://orcid.org/register) to maximize your article visibility.

Submission Timeline

You may submit your article for publication to the journal at any time throughout the year. The rolling submission deadlines are as follows:

- Submission Round One – 15 January
- Submission Round Two – 15 April
- Submission Round Three – 15 July
- Submission Round Four – 15 October

Note: If your article is submitted after the final deadline for the volume, it will be considered for the following year's volume. The sooner you submit, the sooner your article will begin the peer review process. Also, because we publish "Web First," early submission means that your article will published with a full citation as soon as it is ready, even if that is before the full issue is published.

International Award for Excellence

The International Journal of Technology, Knowledge, and Society presents an annual International Award for Excellence for new research or thinking in the area of the changing social dynamics of aging. All articles submitted for publication in *The International Journal of Technology, Knowledge, and Society* are entered into consideration for this award. The review committee for the award is selected from the International Advisory Board for the journal and the annual Technology, Knowledge & Society Conference. The committee selects the winning article from the ten highest-ranked articles emerging from the review process and according to the selection criteria outlined in the reviewer guidelines.

Award Winners, Volume No. 14

Christopher Alex Hooton, Chief Economist, Internet Association, Washington D.C., USA
Davin Kaing, Graduate Student, Department of Statistics, Columbia University, Washington D.C., USA

For the Article

"Exploring Machine Learning's Contributions to Economic Productivity and Innovation," *The International Journal of Technology, Knowledge, and Society*, Volume 14, Issue 3

DOI: 10.18848/1832-3669/CGP/v14i03/1-25

Abstract

What role does computational power play in economic productivity and innovation? How will machine learning and AI change this? Building off previous work quantifying historical computational power levels, the paper explores the relationship of metrics for computing power with US GDP and US internet sector GDP from 1960 to today. The paper develops forecast scenarios incorporating machine learning development using internet data production volumes and forecasted growth of computational power. The goal of the research is not to build a full model of productivity that incorporates computational power, but to begin to get a sense of potential role and impacts of artificial intelligence on the economy. The research has three main findings. First, the paper finds a modest but statistically significant relationship between computational power and economic productivity, linked to approximately 0.3–0.7 percent of GDP per capita and to approximately 2–3 percent of internet sector GDP per capita. Second, and as expected, the relationship is stronger for internet sector GDP per capita, which is linked more closely to AI. Third, and as expected, when the paper narrows its window of analysis to more recent windows of analysis in the regressions and in robustness tests, it sees a strengthening of the relationship between computational power and GDP per capita.

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Comprometida a ser un recurso definitivo de las nuevas posibilidades en la gestión de conocimiento, la cultura y el cambio dentro del contexto más general de la naturaleza y el futuro de las organizaciones y su impacto en la sociedad moderna

Identificador digital:
10.18848/2474-588X/CGP

Fundación:
2012

Frecuencia de publicación:
semestral

ISSN:
2474-588X (versión impresa)
2174-8985 (versión electrónica)

http://tecno-soc.com/

La *Revista Internacional de Tecnología, Conocimiento y Sociedad* explora teorías y prácticas innovadoras que relacionan la tecnología con la sociedad. La atención se centra principalmente, pero no exclusivamente, en las tecnologías de la información y la comunicación.

Igualmente interesada en la dinámica de las tecnologías sociales y en el impacto social de las tecnologías, la revista se guía según los ideales de una sociedad abierta en la que la tecnología se usa para satisfacer las necesidades humanas y servir los intereses comunitarios. Estas preocupaciones se basan en los valores de creatividad, innovación, acceso, igualdad y autonomía comunitaria. En este espacio, los intereses comerciales y comunitarios se complementan entre sí, y en otros casos parecen estar en desacuerdo. La revista examina la naturaleza de las nuevas tecnologías, sus conexiones con la comunidad, sus usos como herramientas para el aprendizaje y su lugar en una 'sociedad del conocimiento'.

La perspectiva de los análisis presentados alcanza un panorama que se refiere tanto a las preocupaciones globales y universales como a los estudios de casos que hablan de las aplicaciones sociales y locales de la tecnología. Los artículos abarcan un terreno amplio, algunas veces de orientación técnica y otras de orientación social, unas veces incluyen una perspectiva teórica y otras una aproximación práctica, unas veces reflejan un análisis objetivo y desapasionado, y en otras ocasiones sugieren estrategias para la acción.

La revista es pertinente para académicos pertenecientes a los campos de la informática, la historia y filosofía de las ciencias, la sociología de conocimiento, la sociología de tecnología, la educación, la gestión y las humanidades. La revista está abierta a estudiantes investigadores, desarrolladores y formadores de tecnologías, y consultores de la industria.

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Nota: Si el artículo se envía después de la fecha límite para el volumen de la revista, se tendrá en cuenta para su publicación en el siguiente volumen. Cuanto antes lo envíe, más rápidamente pasará a fase de revisión por pares. Además, puesto que publicamos primero online, un pronto envío permite que su artículo sea publicado con citación completa tan pronto como esté listo, incluso antes de que el número de la revista se publique.

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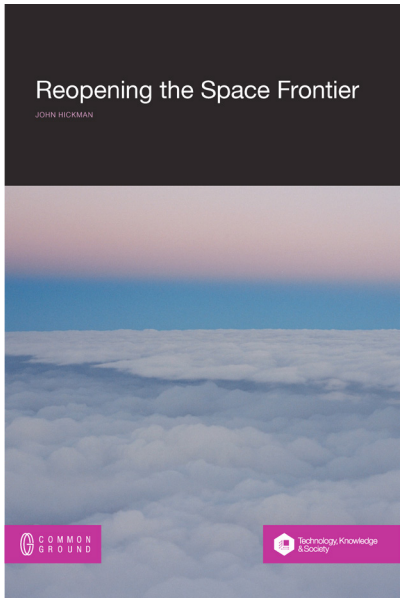
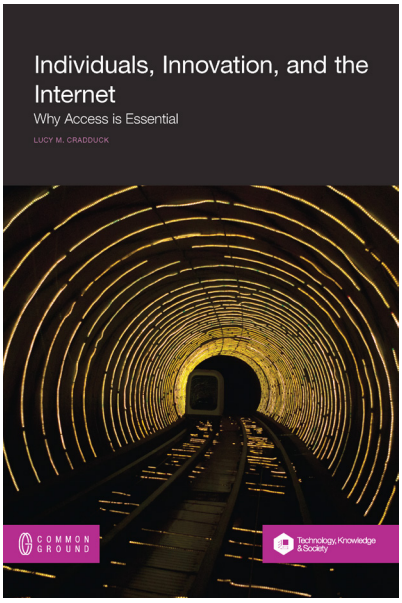


Reopening the Space Frontier

John Hickman

DOI:
10.18848/978-1-86335-801-9/CGP

Reopening the Space Frontier escapes the usual arc of space policy analysis focused on technological choice and instead explains the international legal and political economic barriers to the renewed exploration, development and settlement of celestial bodies like the Moon and Mars.

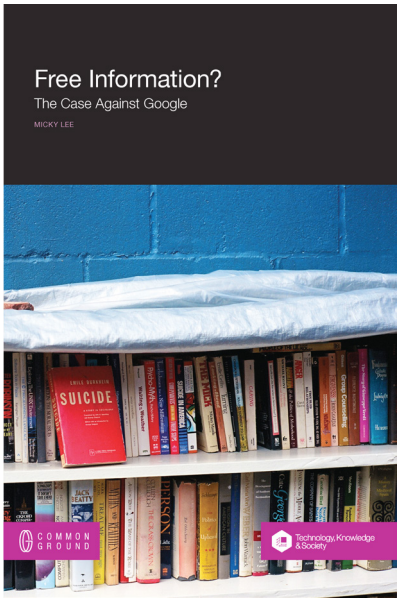


Individuals, Innovation, and the Internet: Why Access is Essential

Lucy M. Cradduck

DOI:
10.18848/978-1-61229-695-1/CGP

The interrelationship/overlap between why access is essential, how it can be achieved, and the central role of the individual to the internet economy is explored and translated into the concept of connectedness. From this, solutions for ensuring connectedness for all individuals are developed in this book.



Free Information?: The Case Against Google

Micky Lee

DOI:
10.18848/978-1-86335-817-0/CGP

This book is written to respond to the often heard but erroneous statement: "You can find everything online now!" Internet users assume that information is free. They do not question if free (in the sense of gratis) information fetters the freedom (in the sense of liber) of information.

International Conference on Technology, Knowledge & Society

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Explorando teorías innovadoras y prácticas que relacionan la tecnología con la sociedad

Conference History

Founded in 2005, the International Conference on Technology, Knowledge & Society provides a forum for addressing a range of critically important themes in the various fields that address the complex and subtle relationships between technology, knowledge, and society.

The International Conference on Technology, Knowledge & Society is built upon four key features: Internationalism, Interdisciplinarity, Inclusiveness, and Interaction. Conference delegates include leaders in the field as well as emerging scholars, who travel to the conference from all corners of the globe and represent a broad range of disciplines and perspectives. A variety of presentation options and session types offer delegates multiple opportunities to engage, to discuss key issues in the field, and to build relationships with scholars from other cultures and disciplines.

Past Conferences

- 2005 - University of California, Berkeley, USA
- 2006 - Hyderabad, India
- 2006 - McGill University, Montreal, Canada
- 2007 - Cambridge University, Cambridge, UK
- 2008 - Northeastern University, Boston, USA
- 2009 - Von Braun Center, Huntsville, Alabama, USA
- 2010 - Free University, Berlin, Germany
- 2011 - Universidad del País Vasco – Euskal Herriko Unibertsitatea Bilbao, Spain
- 2012 - University of California, Los Angeles, USA
- 2013 – UBC Robeson Square, Vancouver, Canada
- 2014 - Facultad de Ciencias de la Información, Universidad Complutense, Madrid, Spain
- 2015 - University of California, Berkeley, USA
- 2016 - Universidad de Buenos Aires, Buenos Aires, Argentina
- 2017 - University of Toronto, Toronto, Canada
- 2018 - St John's University, Manhattan Campus, New York, USA

Plenary Speaker Highlights

The International Conference on Technology, Knowledge & Society has a rich history of featuring leading voices from the field, including:

- **William Dutton**, Founding Director, Oxford Internet Institute, University of Oxford, Oxford, UK (2005)
- **Susana Finquelievich**, Principal Researcher, National Council for Scientific and Technical Research, Argentina (2016)
- **Henry Jenkins**, Provost Professor, University of Southern California, Los Angeles, USA (2012)
- **David Karpf**, Assistant Professor, School of Media and Public Affairs, George Washington University, USA (2013)
- **Tim Luke**, University Distinguished Professor, Virginia Polytechnic Institute & State University, Blacksburg, USA (2005)
- **David Lyon**, Professor, Queen's University, Kingston, Canada (2006)
- **Robin Mansell**, Professor, London School of Economics & Political Science, London, UK (2007)
- **Christiane Paul**, Associate Professor, The New School, New York, USA (2012)
- **Saskia Sassen**, Professor, Columbia University, New York, USA (2006)
- **McKenzie Wark**, Professor, The New School, New York, USA (2008)

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The International Conference on Technology, Knowledge and Society has had the pleasure of working with the following organizations:

International Institute for the Inclusive Museum (iiiM), Hyderabad, India & Sydney, Australia (Network Partner)

St John's University School of Education, New York City, USA (2018)

University of Buenos Aires, Buenos Aires, Argentina (2016)

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Conference Principles and Features

The structure of the conference is based on four core principles that pervade all aspects of the research network:

International

This conference travels around the world to provide opportunities for delegates to see and experience different countries and locations. But more importantly, the International Conference on Technology, Knowledge, and Society offers a tangible and meaningful opportunity to engage with scholars from a diversity of cultures and perspectives. This year, delegates from over 25 countries are in attendance, offering a unique and unparalleled opportunity to engage directly with colleagues from all corners of the globe.

Interdisciplinary

Unlike association conferences attended by delegates with similar backgrounds and specialties, this conference brings together researchers, practitioners, and scholars from a wide range of disciplines who have a shared interest in the themes and concerns of this network. As a result, topics are broached from a variety of perspectives, interdisciplinary methods are applauded, and mutual respect and collaboration are encouraged.

Inclusive

Anyone whose scholarly work is sound and relevant is welcome to participate in this network and conference, regardless of discipline, culture, institution, or career path. Whether an emeritus professor, graduate student, researcher, teacher, policymaker, practitioner, or administrator, your work and your voice can contribute to the collective body of knowledge that is created and shared by this network.

Interactive

To take full advantage of the rich diversity of cultures, backgrounds, and perspectives represented at the conference, there must be ample opportunities to speak, listen, engage, and interact. A variety of session formats, from more to less structured, are offered throughout the conference to provide these opportunities.

Principios y características del congreso

La estructura del congreso se basa en cuatro principios básicos que impregnan todos los aspectos de la Red de Investigación:

Internacional

El congreso se celebra en diferentes lugares del mundo para proporcionar oportunidades de que los ponentes vean y experimenten diferentes países y ubicaciones. Pero, aún más importante, es el hecho de que el Congreso Internacional de Tecnología, Conocimiento y Sociedad ofrece una oportunidad tangible y significativa para tomar contacto con académicos de diversidad de culturas y perspectivas. Este año asistirán ponentes de 25 países, ofreciendo una oportunidad única y sin igual de tener trato directo con colegas de todos los rincones del mundo.

Interdisciplinario

A diferencia de congresos de asociaciones en que asisten delegados con experiencias y especialidades similares, estos congresos reúnen a investigadores, profesionales y académicos de una amplia gama de disciplinas, que comparten su interés en los temas y las preocupaciones de esta red. Como resultado, los temas se abordan desde una variedad de perspectivas, se elogian los métodos interdisciplinarios y se anima el respeto mutuo y la colaboración.

Incluyente

Se da la bienvenida a cualquiera cuyo trabajo académico sea sólido y competente tanto en las redes como en los congresos, sin importar su disciplina, cultura, institución o carrera. Ya sea un profesor emérito, un estudiante graduado, investigador, docente, político, profesional o administrador, su trabajo y su voz pueden contribuir a la base colectiva de conocimiento que se crea y se comparte en estas redes.

Interactivo

Para aprovechar completamente la rica diversidad de culturas, antecedentes y perspectivas representadas en estos congresos, debe haber amplias oportunidades de hablar, escuchar, participar e interactuar. Se ofrece una variedad de formatos de sesión más o menos estructuradas a través de ambos congresos para proporcionar estas oportunidades.

Plenary

Plenary speakers, chosen from among the world's leading thinkers, offer formal presentations on topics of broad interest to the network and conference delegation. One or more speakers are scheduled into a plenary session, most often the first session of the day. As a general rule, there are no questions or discussion during these sessions. Instead, plenary speakers answer questions and participate in informal, extended discussions during their Garden Conversations.

Garden Conversation

Garden Conversations are informal, unstructured sessions that allow delegates a chance to meet plenary speakers and talk with them at length about the issues arising from their presentation. When the venue and weather allow, we try to arrange for a circle of chairs to be placed outdoors.

Talking Circles

Held on the first day of the conference, Talking Circles offer an early opportunity to meet other delegates with similar interests and concerns. Delegates self-select into groups based on broad thematic areas and then engage in extended discussion about the issues and concerns they feel are of utmost importance to that segment of the community. Questions like "Who are we?", "What is our common ground?", "What are the current challenges facing society in this area?", "What challenges do we face in constructing knowledge and effecting meaningful change in this area?" may guide the conversation. When possible, a second Talking Circle is held on the final day of the conference, for the original group to reconvene and discuss changes in their perspectives and understandings as a result of the conference experience. Reports from the Talking Circles provide a framework for the delegates' final discussions during the Closing Session.

Themed Paper Presentations

Paper presentations are grouped by general themes or topics into sessions comprised of three or four presentations followed by group discussion. Each presenter in the session makes a formal twenty-minute presentation of their work; Q&A and group discussion follow after all have presented. Session Chairs introduce the speakers, keep time on the presentations, and facilitate the discussion. Each presenter's formal, written paper will be available to participants if accepted to the journal.

Colloquium

Colloquium sessions are organized by a group of colleagues who wish to present various dimensions of a project or perspectives on an issue. Four or five short formal presentations are followed by a moderator. A single article or multiple articles may be submitted to the journal based on the content of a colloquium session.

Poster Sessions

Poster sessions present preliminary results of works in progress or projects that lend themselves to visual displays and representations. These sessions allow for engagement in informal discussions about the work with interested delegates throughout the session.

Ponencias plenarias

Los ponentes plenarios, elegidos de entre los más destacados pensadores del mundo, ofrecen ponencias formales sobre temas de amplio interés para la Red de Investigación y los participantes del congreso. Por regla general no hay preguntas ni conversación durante estas sesiones. Los ponentes plenarios responden preguntas y participan en charlas informales y prolongadas durante sus charlas de jardín.

Charlas de jardín

Las conversaciones en el jardín son sesiones informales no estructuradas que brindan a los delegados la oportunidad de reunirse con ponentes plenarios y conversar tranquilamente sobre temas derivados de su ponencia. Cuando el lugar y el clima lo permiten tratamos de acomodar sillas en círculo en el exterior.

Mesas redondas

Celebradas el primer día del congreso, las Mesas redondas constituyen una de las primeras oportunidades para conocer a otros participantes con intereses y preocupaciones similares. Los participantes eligen los grupos que prefieren según grandes áreas temáticas y se sumergen en largas conversaciones sobre los asuntos y preocupaciones que les parecen de mayor relevancia para ese segmento de la red de investigación. Quizá guíen la conversación preguntas como "¿Quiénes somos?", "¿Qué tenemos en común?", "¿Qué retos enfrenta hoy la sociedad en esta materia?", "¿Qué desafíos afrontamos para construir conocimiento y operar cambios significativos en este asunto?" Cuando es posible, se lleva a cabo una segunda Mesa redonda el último día del congreso, para que el grupo original vuelva a reunirse y discuta sus cambios de puntos de vista y opiniones a raíz de la experiencia del congreso. Los informes de las Mesas redondas dan a los participantes un marco para sus últimas conversaciones durante la sesión de clausura.

Ponencias temáticas

Las ponencias temáticas se agrupan por temas generales en sesiones compuestas por tres o cuatro ponencias, seguidas de una discusión grupal. Cada ponente de la sesión realiza una ponencia formal de su trabajo, que dura 20 minutos; una vez presentados todos, sigue una sesión de preguntas y respuestas, y una de discusión grupal. Los moderadores de la sesión presentan a los ponentes, miden el tiempo de las ponencias y facilitan la discusión.

Coloquios

Los coloquios son organizados por un grupo de colegas que desean presentar varias dimensiones de un proyecto o perspectivas sobre un asunto. A cuatro o cinco ponencias formales breves siguen comentarios, discusiones grupales o ambos. Se puede presentar a la revista uno solo o múltiples artículos con base en el contenido de un coloquio.

Sesiones de pósteres

Las sesiones de pósteres presentan los resultados preliminares en progreso o proyectos que se prestan a proyecciones y representaciones visuales. Estas sesiones permiten participar en discusiones informales con delegados interesados acerca del trabajo.

Focused Discussion

For work that is best discussed or debated, rather than reported on through a formal presentation, these sessions provide a forum for an extended "roundtable" conversation between an author and a small group of interested colleagues. Several such discussions occur simultaneously in a specified area, with each author's table designated by a number corresponding to the title and topic listed in the program schedule. Summaries of the author's key ideas, or points of discussion, are used to stimulate and guide the discourse. A single article, based on the scholarly work and informed by the focused discussion as appropriate, may be submitted to the journal.

Workshop/Interactive Session

Workshop sessions involve extensive interaction between presenters and participants around an idea or hands-on experience of a practice. These sessions may also take the form of a crafted panel, staged conversation, dialogue or debate—all involving substantial interaction with the audience. A single article (jointly authored, if appropriate) may be submitted to the journal based on a workshop session.

Innovation Showcase

Researchers and innovators present products or research and development. All presentations should be grounded in presenters research experience. Promotional conversations are permissible, however, products or services may not be sold at the conference venue.

Virtual Lightning Talk

Lightning talks are 5-minute "flash" video presentations. Authors present summaries or overviews of their work, describing the essential features (related to purpose, procedures, outcomes, or product). Like Paper Presentations, Lightning Talks are grouped according to topic or perspective into themed sessions. Authors are welcome to submit traditional "lecture style" videos or videos that use visual supports like PowerPoint. Final videos must be submitted at least one month prior to the conference start date. After the conference, videos are then presented on the research network YouTube channel. Full papers can based in the virtual poster can also be submitted for consideration in the journal.

Virtual Poster

This format is ideal for presenting preliminary results of work in progress or for projects that lend themselves to visual displays and representations. Each poster should include a brief abstract of the purpose and procedures of the work. After acceptance, presenters are provided with a template and Virtual Posters are submitted as a PDF. Final posters must be submitted at least one month prior to the conference start date. Full papers based on the virtual poster can also be submitted for consideration in the journal.

Discusiones enfocadas

Para un trabajo que se presta más a la discusión o el debate, mejor que exponerlo mediante una ponencia formal, estas sesiones proporcionan un foro para una conversación de mesa redonda extendida entre un autor y un pequeño grupo de colegas interesados. Varias de dichas discusiones ocurren simultáneamente en un área especificada, con cada mesa de autor designada por un número correspondiente al título y tema enumerado en el programa previsto. Se usan resúmenes de las ideas principales del autor o de puntos de discusión para estimular y guiar el discurso. Se puede enviar a la revista un solo artículo con base en el trabajo académico e informado por la discusión centrada como corresponda.

Talleres

Los talleres implican una amplia interacción entre ponentes y participantes en torno a una idea o una experiencia práctica de una disciplina aplicada. Estas sesiones también pueden adoptar formato de panel, conversación, diálogo o debate preparados, todos con una considerable participación del público. En un taller puede someterse a aprobación para la revista un solo artículo (de varios autores, si se considera oportuno).

Exposición de innovaciones

Investigadores e innovadores muestran sus productos o sus ideas en lo concerniente a I+D. Todas las presentaciones deben basarse en la experiencia investigadora de los ponentes. Se permite la promoción de productos o servicios, pero no su venta en la sede del Congreso.

Ponencia virtual breve

La ponencia virtual breve es una presentación rápida en vídeos de 5 minutos. Los autores presentan resúmenes o perspectivas generales sobre su trabajo, describiendo las características principales (como propósito, procedimiento y resultado). De la misma manera que las ponencias de artículos, las charlas rápidas se agrupan de acuerdo con los temas o perspectivas en sesiones temáticas. Animamos a los autores a enviar vídeos en el tradicional estilo de conferencia o vídeos que empleen apoyo visual como PowerPoint. El vídeo final debe enviarse con un mes de antelación a la fecha de inicio del congreso. Después del congreso, los vídeos se subirán al canal de YouTube de la Red de Investigación. Los artículos completos basados en ponencias virtuales breves también se pueden enviar para considerarlos para la revista.

Póster virtual

Este formato es ideal para presentar los resultados preliminares de trabajo en progreso o proyectos que se prestan a proyecciones y representaciones visuales. Cada póster debe incluir un breve resumen del objetivo y procedimientos del trabajo. Después de la aceptación, se les brinda una plantilla a los presentadores y los pósteres virtuales se envían como un PDF o un PowerPoint. Los pósteres finales se deben enviar al menos un mes antes de la fecha de inicio del congreso. Los artículos completos basados en un póster virtual también se pueden enviar para considerarlos para la revista.

Monday, 11 March / lunes, 11 de marzo

8:00–9:00	Conference Registration Desk Open / Mesa de inscripción abierta
9:00–9:30	Conference Opening / Inauguración del Congreso—Dr. Phillip Kalantzis-Cope, Chief Social Scientist, Common Ground Research Networks, Champaign, United States; Dr. Ramon Sanguesa, Head of Technology Research, ELISAVA School of Design and Engineering, Barcelona, Spain
9:30–10:05	Plenary Session / Sesión plenaria (en inglés)—Anna Meroni, Associate Professor of Design, Politecnico di Milano, Italy *"What Humans Want: Design as a Strategy to Deal with Imperfection"*
10:05–10:35	Garden Conversation / Charlas de jardín
10:35–11:20	Talking Circles / Mesas redondas Plenary Room - 2019 Special Focus: The Social Impact of AI: Policies and New Governance Models for Social Change Room 1 - Designing Technologies for Human Usability Room 2 - Enabling Technologies in Knowledge Sharing / Thinking Technologies for Society Room 3 - Learning Technologies in Education Room 4 – Tema destacado 2019: El impacto social de la Inteligencia Artificial: Políticas y nuevos modelos de gobierno para el cambio social (en español)
11:20–11:25	Transition Break / Pausa
11:25–13:05	Parallel Sessions / Sesiones paralelas
13:05–13:55	Lunch / Almuerzo
13:55–15:10	Parallel Sessions / Sesiones paralelas
15:10–15:25	Coffee Break / Pausa para el café
15:25–17:05	Parallel Sessions / Sesiones paralelas

Tuesday, 12 March / martes, 12 de marzo

8:30–9:00	Conference Registration Desk Open / Mesa de inscripción abierta
9:00–9:20	Daily Update / Noticias del día—Dr. Phillip Kalantzis-Cope, Chief Social Scientist, Common Ground Research Networks, Champaign, United States
9:20–9:55	Plenary Session / Sesión plenaria (en inglés)—Ronda Zelezny-Green, Honorary Research Associate, Royal Holloway, University of London, United Kingdom *"Okay Google: Considering Policies to Address Racial and Gender Bias Echoes in AI Systems"*
9:55–10:25	Garden Conversation / Charlas de jardín
10:25–10:30	Transition Break / Pausa
10:30–12:10	Parallel Sessions / Sesiones paralelas
12:10–13:00	Lunch / Almuerzo
13:00–13:45	Parallel Sessions / Sesiones paralelas
13:45–14:00	Coffee Break / Pausa para el café
14:00–15:15	Parallel Sessions / Sesiones paralelas
15:15–15:30	Break / Pausa
15:30–16:15	Talking Circles / Mesas redondas Room 1 - Designing Technologies for Human Usability Room 2 - Enabling Technologies in Knowledge Sharing / Thinking Technologies for Society Room 3 - Learning Technologies in Education Room 4 – Tema destacado 2019: El impacto social de la Inteligencia Artificial: Políticas y nuevos modelos de gobierno para el cambio social (en español)
16:15–16:45	Conference Closing Reception and Award Ceremony / Clausura del Congreso

Dinner – La Despensa de Mitre

Monday, 11 March | Time: 9:30 PM | Cost: US$65.00

Join other conference delegates, plenary speakers, and our local organizing committee at ELISAVA for a conference dinner at La Despensa de Mitre. The conference has organized a set menu, so join us and savor local cuisine. The dinner is just over a 20 minute walk from the conference hotel (or a 6 minute cab ride).

Set Menu

The below menu is set for all participants, should you have any dietary concerns or allergies, please contact us and we will do our best to accommodate you.

Starters - Toasted bread with tomato, oil, and salt; Burrata cheese, basil pesto, and Monte Rosa tomato; Salmon "Tiradito", wakame seaweed and ponzu sauce; Roasted chicken cannelloni, Rossinyol mushrooms, cream, and pistachio

Entree - Your choice of Spinach ravioli, parmesan, candied pears, and pine nuts; Roasted croaker fish, roasted vegetables, dry tomato, and nuts; or Sirloin steak, morel sauce and roasted potato

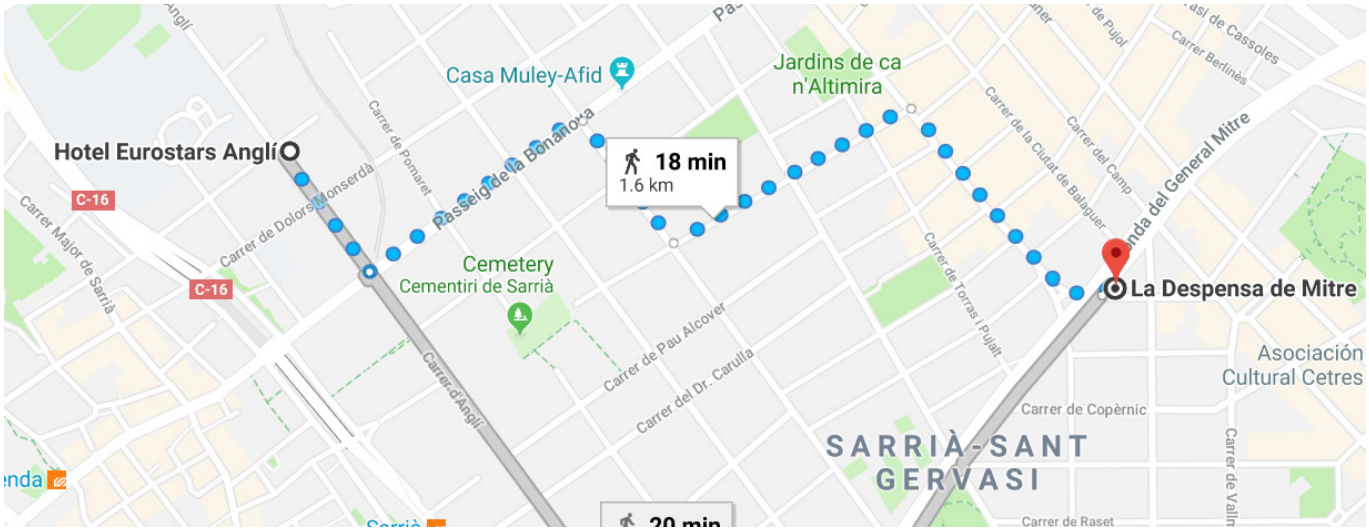
Dessert - Spongy warm bread pudding "torrija", cinnamon ice cream, and crumble

Beverage - Soft drinks or beer included; white or red wine; coffee

Booking Information

Space is limited, see the conference registration desk to confirm your booking or for availability.

Map from Hotel Eurostars Anglí to La Despensa de Mitre



Conference Closing Reception

Common Ground Research Networks, ELISAVA Barcelona School of Design and Engineering, and the Technology, Knowledge & Society Conference will be hosting a closing reception including the conference award ceremony at the conference venue, CosmoCaixa Barcelona. The reception will be held directly following the last parallel session of the second day, **Tuesday, 12 March 2019**. Join other conference delegates and plenary speakers for drinks, light hor d'oeuvres, and a chance to converse.

We look forward to hosting you!

Cena – La Despensa de Mitre

Lunes, 11 de marzo | Hora: 9:30 PM | Precio: US$65.00

Únase al Comité Organizador Local de ELISAVA, junto con otros participantes y ponentes plenarios, a la cena que tendrá lugar, con motivo del congreso, en "La despensa de Mitre". Le ofrecemos un menú selecto para que disfrute de la cocina autóctona. El recinto donde tendrá lugar la cena se encuentra a menos de 20 minutos a pie del hotel del congreso (6 minutos de trayecto en taxi).

Menú elegido

Se ha optado por el siguiente menú, con el objeto de complacer al mayor número de participantes. Si padece de alergias o presenta incompatibilidades dietéticas o nutricionales, póngase en contacto con nosotros; haremos todo lo posible por adecuarnos a sus necesidades.

Entrantes - A escoger entre: pan tostado con tomate, aceite y sal; queso burrata, pesto de albahaca y tomate Monte Rosa; "tiradito" de salmón marinado, alga wakame y salsa ponzu; canelones de pollo asado, salsa de setas rossinyol y pistachos.

Plato principal - A escoger entre: raviolis de ricotta y espinacas, queso parmesano y piñones; corvina asada con escalivada y picada de frutos secos; solomillo de ternera, salsa de colmenillas y patatas asadas.

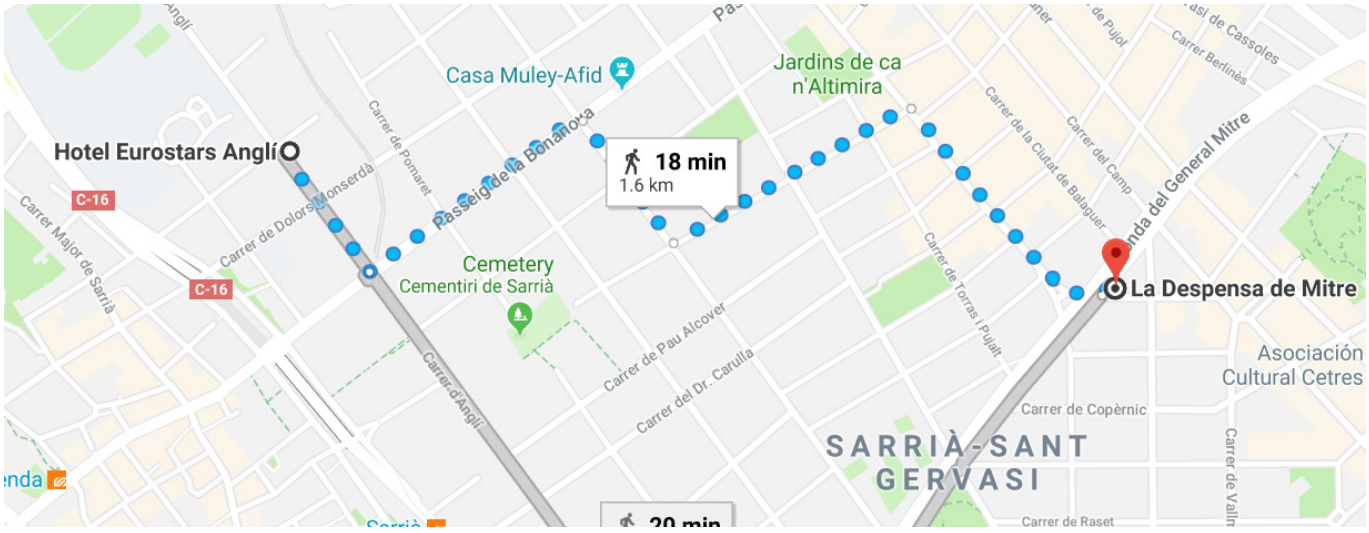
Postre - Torrija de brioche, helado de canela y crumble.

Bebida - refrescos o cerveza; vino tinto o blanco; café.

Reservas

Las plazas son limitadas, acuda a la mesa de inscripciones del Congreso para confirmar la reserva o para consultar la disponibilidad.

Mapa de la ruta desde el hotel Eurostars Anglí hasta La Despensa de Mitre



Cóctel de despedida del Congreso

Common Ground Research Networks y el Congreso Internacional de Tecnología, Conocimiento y Sociedad llevarán a cabo una clausura con un cóctel de despedida, que incluirá la ceremonia de entrega de reconocimientos, en la sede del Congreso, CosmoCaixa Barcelona. El acto tendrá lugar justo después de la última sesión del segundo día, martes 12 de marzo de 2019. Se invita a todos los delegados a asistir y disfrutar de bebidas de cortesía y entremeses. Esta es una excelente oportunidad de conocer a otros participantes del Congreso y crear nuevos contactos.

¡Le esperamos!

Ramon Sanguesa, Coordinator of the Data Transparency Lab (DTL) a joint initiative by MIT, Mozilla and Telefónica I+D

Conference Chair

DTL articulates a community of researchers, designers, community leaders, business people, and policy makers to develop tools that can help users to know which use their personal is put to and by who and why. Organized as a distributed lab, it supports research and innovation in collaboration with world-class universities through the annual DTL grants programme. Ramon holds a PhD in Artificial Intelligence and a postgraduate in Science Communication. He is a Professor of the Technical University of Catalonia, Affiliate Researcher at the Sociology Department of Columbia University (New York) and Senior Fellow of the Strategic Innovation Lab (Ontario Colleg of Art and Design, Toronto).

Ronda Zelezny-Green

"Okay Google: Considering Policies to Address Racial and Gender Bias Echoes in AI System"

Ronda is a mobile technologist, educator, and researcher, whose professional experience spans the public, private, and civil society sectors. She specializes in educational technology (especially mobile learning), gender, teaching and training, and policy advice. She has provided quantitative and qualitative market insight and analysis as well as project implementation leadership for a wide range of stakeholders including schools, mobile network operators, governments, and international NGOs. Ronda regularly publishes in academic forums and is globally recognized as the world's foremost expert in gender and mobile learning. She holds a PhD in Human Geography with an ICT4D focus at Royal Holloway, University of London, where she is also an Honorary Research Associate, and is a Co-Founder and Director of Panoply Digital. Dr Zelezny-Green currently works as a director at the GSMA, the global trade association for the mobile industry.

Anna Meroni

"What Humans Want: Design as a Strategy to Deal with Imperfection"

Architect and PhD in Design, Anna Meroni is Associate Professor of Design in the Department of Design at the Politecnico di Milano. Her research focus is on service and strategic design for sustainability to foster social innovation, participation, and local development. A specific expertise has been developed in co-design methods and tools. She is the head of the international Master of Science program in Product Service System Design and coordinator of the POLIMI-DESIS Lab, the Milan based research laboratory of the DESIS-Design for Social Innovation and Sustainability Network. Anna is on the board of the PhD program in Design, principal investigator of national and international research projects, chair of conferences, author of several publications, and visiting lecturer in international universities.

Cristián Castillo Olea

Doctora ingeniera con experiencia en plataformas integradas de salud y telemedicina. Especialista en implementación de proyectos en el área de cardiología, cáncer de colon y cáncer de mama, así como proyecto para rehabilitación en usuarios con esclerosis múltiple. Originaria de la ciudad de Zongolica, Veracruz, México y actualmente trabaja como investigadora en la Universidad de Deusto en el Grupo eVIDA. Proyectos en lo que ha participado: Solución tecnológica para mejorar el seguimiento y adecuación de la calidad de la colonoscopia en el cribado de cáncer colorrectal (Colonograma);EBIHOTZA: algoritmos de procesamiento digital de sensores múltiples asociados con enfermedades cardiovasculares para el monitoreo y análisis de técnicas de aprendizaje automático; Smartxa-Basic: solución tecnológica para el control de la marcha como parámetro de medición del estado de salud de las personas con problemas de movilidad.

Ferran Herraiz Faixó

Economista, profesor asociado Departamento de Economía y Organización de Empresas de la Universidad de Barcelona. MBR & MBA por la UB, ha cursado diversos programas relacionados con la Economía Digital y las TIC en el MIT. Actualmente está involucrado en las áreas de investigación relacionadas con la transformación digital, la economía programable, la dirección estratégica y las smart cities habiendo publicado diversos artículos académicos y participado en diversas conferencias. Directivo y asesor para diversas multinacionales del sector gran consumo, combina sus responsabilidades profesionales con una permanente pasión por el aprendizaje continuo.

María del Pilar Gómez Mondino

Investigadora en formación del Programa de Equidad e innovación en educación, línea de investigación en educación mediática y competencia digital de la Escuela de Doctorado de la Universidad de Cantabria. Educadora infantil, diplomada en educación social y licenciada en pedagogía. Máster Universitario en Formación del profesorado de Educación Secundaria Obligatoria y Bachillerato, Formación profesional y Enseñanzas de idiomas en la especialidad Orientación educativa por la Universidad Internacional de La Rioja. Máster en educación y comunicación en red, especialidad en Educación digital (finalizando) Universidad Nacional de educación a distancia (UNED). Experta universitaria en animación sociocultural (UNED). Experta universitaria en Malos tratos y Violencia de género: una visión multidisciplinar (UNED).

Renata Dezso-Dinnyes

Renata is an assistant lecturer at Moholy-Nagy University of Art and Design in Budapest. Her studies question traditional and normative understandings of the human individual. The fast-changing field of disability studies is almost emblematic of the post-human predicament. Disability affirms interdependent connections with other humans, technologies, non-human entities, communication streams and networks of humans and AI. Renata is looking forward to exploring these connections through organised workshops, courses, and research activities.

Melina Katende

Melina is an active academic researcher and avid IT professional with an insatiable passion and curiosity for emerging technologies. She has a passion for implementing innovative IT solutions to solve pertinent problems in developing nations. She holds a Bachelor's degree in IT Management, a BCom Honours in Informatics and recently completed her Master's degree in Blockchain and IT Governance. While furthering her studies, Melina worked as an IT Business analyst and is well versed in the electronic payment and collections space. Her experience ranges from African remittance systems, KYC, fintech, payments to customs clearing and enterprise resource planning.

Brandie Nonnecke

Brandie Nonnecke, PhD is Director of the CITRIS Policy Lab and CITRIS Tech for Social Good Program at UC Berkeley and a Fellow at the World Economic Forum (https://nonnecke.com/). Brandie researches human rights at the intersection of law, policy, and emerging technologies. Her research focuses on the human rights impacts of AI-enabled decision-making, addressing issues of fairness, accountability, and appropriate governance mechanisms. She received the 2015 IEEE Global Humanitarian Tech Best Paper Award for development of an open source platform that streamlines public feedback on complex societal issues. She was named a 2018 RightsCon Young Leader in Human Rights in Tech and her research has been featured in the BBC News, PC Mag, Mashable, and the Stanford Social Innovation Review.

Stefania Savva

Dr. Stefania Savva is a Postdoctoral Research Fellow at Cyprus University of Technology, after securing €120,000 funding for two years awarded by the Cyprus Research Promotion Foundation, under the RESTART Didaktor Program 2016-2020. Her post-doctoral research is titled, "Museum Affinity Spaces (MAS): Re-imagining Museum-School Partnerships for the 21st century through a Multiliteracies Lens". Stefania has completed a PhD in Museum Studies at the University of Leicester, UK in 2016, with a focus on developing innovative museum-school partnerships to support diversity and multiliteracies-based pedagogy for the 21st century. Following on from her undergraduate studies in Primary Education in Greece, she completed an MA in Art, Craft, and Design Education in London in 2009, focusing on art education curriculum for social change and inclusion. Since 2012, Stefania has been working as a Research Associate of the Art and Design e-learning Lab at Cyprus University of Technology, supervised by Dr Nicos Souleles. Among her work there is a focus on projects and EU funded projects on Design for Social Change, Innovation, and Entrepreneurship, where she has conducted research on the instructional use of iPads in Art & Design Education. Concurrently, she has been working with diverse children and adults since 2009, as part of her work as a primary teacher and museum educator. Stefania has a number of presentations in international conferences following Scholar Grants received, while her work is featured in several academic peer-reviewed journals and edited volumes. She has also three chapter manuscript publications on the way and three conference papers accepted, to be published in 2019. She is particularly fascinated by work in the field of inclusive museum learning, design thinking, technology-enhanced learning, and social change.

Monday, 11 March	
08:00-09:00	**Conference Registration Desk Open / Mesa de inscripción abierta**
09:00-09:30	**Conference Opening / Inauguración del Congreso**
	Dr. Phillip Kalantzis-Cope, Chief Social Scientist, Common Ground Research Networks, Champaign, United States, Dr. Ramon Sanguesa, Head of Technology Research. Elisava School of Design and Engineering, Barcelona, Spain
09:30-10:05	**Plenary Session / Sesión plenaria (en inglés)—Anna Meroni, Associate Professor of Design, Politecnico di Milano, Italy**
	"What Humans Want: Design as a Strategy to Deal with Imperfection" **Architect and PhD in Design, Anna Meroni is Associate Professor of Design in the Department of Design at the Politecnico di Milano. Her research focus is on service and strategic design for sustainability to foster social innovation, participation, and local development. A specific expertise has been developed in co-design methods and tools.** **She is the head of the international Master of Science program in Product Service System Design and coordinator of the POLIMI-DESIS Lab, the Milan based research laboratory of the DESIS-Design for Social Innovation and Sustainability Network.** **Anna is on the board of the PhD program in Design, principal investigator of national and international research projects, chair of conferences, author of several publications, and visiting lecturer in international universities.**
10:05-10:35	**Garden Conversation / Charlas de jardín**
	Garden Conversations are informal, unstructured sessions that allow delegates a chance to meet plenary speakers and talk with them at length about the issues arising from their presentation. When the venue and weather allow, we try to arrange for a circle of chairs to be placed outdoors. **Las charlas de jardín son sesiones informales no estructuradas que permiten reunirse con ponentes plenarios y conversar tranquilamente sobre temas derivados de su ponencia. Cuando el lugar y el clima lo permiten, se realizan en el exterior.**
10:35-11:20	**Talking Circles / Mesas redondas**
	Held on the first day of the conference, Talking Circles offer an early opportunity to meet other delegates with similar interests and concerns. Delegates self-select into groups based on broad thematic areas and introduce themselves and their research interests to one another. **Celebradas el primer día del congreso, las mesas redondas constituyen una de las primeras oportunidades para conocer a otros participantes con intereses y preocupaciones similares. Los participantes eligen los grupos que prefieren según grandes áreas temáticas y se sumergen en grandes debates sobre los temas y problemáticas para el área correspondiente de la Red de Investigación.** **Plenary Room - 2019 Special Focus: The Social Impact of AI: Policies and New Governance Models for Social Change Room 1 - Designing Technologies for Human Usability Room 2 - Enabling Technologies in Knowledge Sharing / Thinking Technologies for Society Room 3 - Learning Technologies in Education Room 4 - Tema destacado 2019: El impacto social de la Inteligencia Artificial: Políticas y nuevos modelos de gobierno para el cambio social (en español)**
11:20-11:25	**Transition Break / Pausa**
11:25-13:05	**PARALLEL SESSIONS**

Monday, 11 March	
11:25-13:05	**PARALLEL SESSIONS**
Room 1	**Living in Digital Times**

Learning through Unlearning: What People Need to Re-learn about Using Digital Technologies

Dr. Miquel Colobran, Autonomous University of Barcelona, Barcelona, Spain
Dr. Stephen Cheskiewicz, Assistant Professor, School of Industrial, Computing & Engineering Technologies, Pennsylvania College of Technology, Williamsport, PA, United States

A recent study examining perceptions of information security identified that people are mostly concerned about potential day-to-day threats that can affect them, and more importantly, their children. The study also found that most people don't understand how to protect themselves because they have not been well educated about how to use technology safely and effectively. The authors suggest the need for courses or full educational programs in digital living. Our study examines how perceptions of digital natives differ from digital immigrants in that digital immigrants have real-world, pre-online experience to better put the use of online resources into context, as digital natives have less of an understanding in separating their virtual world from the real world. Our digital technology involves new advantages and new risks, only by means of education can these risks be mitigated.

Technologies in Knowledge Sharing

ICT Boundary Strategies and Spatio-temporal Rhythms in Everyday Working Life

Calle Rosengren, Assistant Professor, Department of Design Sciences, Lund University, Lund, Sweden
Kristina Palm, Assistant Professor, Karolinska Institutet, Sweden
Ann Bergman, Professor, Karlstad University, Sweden

The previous clearly defined spatial and temporal boundaries between work and private life are weakening in the trail of new technology and the digitalization of society. Access to ICT functions (email and text messages) enables employees to continue working after they leave the office. This study explores the process of how digital technology interacts with and affects relationships between work and private life, working conditions and wellbeing. It focuses on how digital technology is actively used by employees to manage accessibility to the different spheres. Using technology to achieve a balance between work and private life spheres is described as ICT boundary strategies. A case study was carried out involving three multinational industrial companies in Sweden. Time diaries and semi-structured interviews with a sample of 40 employees were used to see on how they manage the challenges of digital working life. The results indicate a wide variation in the participants' ICT boundary strategies for balancing work and private life. The presentation highlights: how technology is tweaked to manage accessibility to different spheres by using multiple devices, keeping the spheres separate on ICT devices, and active use of ringtones; how work and private life are separated by dedicating technology to certain places (sedentarization); how the permeability of the domain boundaries varies depending on whether the sender is a family member, friend, work colleague or manager. Different strategies appear to be related to personal preferences, contextual variables such as workload, and the strategies of other colleagues and family members.

Technologies and Human Usability

Beyond Technophobia: Societies Embracing Technological Innovation

Christian Oggolder, Senior Scientist, Institute for Comparative Media and Communication Studies, Alpen-Adria-Universität Klagenfurt, Vienna, Austria
Dr. Caroline Elisabeth Roth-Ebner, Klagenfurt, Austria, Austria

Beginning as an elitist technological innovation whose sole function was to transmit data, today the Internet and digital media play a central role in a global transformation process that affects all sectors of society, economy, politics, and the single individual (Castells 2005). Both the enormous growth of Internet users during the last decade and the increasing diversity of the respective usage possibilities reflect today's societal importance of the Internet and digital communication. The integration of the Internet into everyday life leads to a redefinition of lifestyles within an entirely mediatized society (Krotz 2012). In this paper, we will analyse by way of example some of the fields where technological innovation meets social transformation. The area of work may serve as a first example. The working environment is being transformed fundamentally along with the use of digital media: Not only communication has accelerated and proliferated, but also a blurring of the boundaries between leisure time and worktime can be observed (Roth-Ebner 2016). Second, childhood is increasingly being affected by the ubiquitous exposure to media, e.g. smartphones and tablets, which has consequences for peer communication, the organisation of family life and the way learning is performed (Livingstone 2013). As a third example, media content production has transformed in a way that users are participating much more in production processes. Traditional media are losing their function as gatekeepers (Bruns 2008), meanwhile bloggers and YouTubers attract diverse audiences. Therefore, we have to rethink common models of the public (Van Dijk 2013).

Technologies in Knowledge Sharing

The Impact of Information Communication Technologies in Sub-Saharan Africa: Undergoing Changes in Societal Norms as a Result of Access to ICTs

Dr. Trisha Capansky, Teacher, History, Independent Scholar

It is no coincidence that developing nations, who are witnesses to the financial benefit garnered by technological advances in western nations, are looking to emulate western communication practices in hopes of a similar outcome. Consequently, there is little doubt that a transformation in space and time ratios will occur within these developing regions. Yet, unlike in developed nations were the adaptation to contemporary communication platforms was arguably a three-hundred year process in the making, cultures in developing nations are undergoing changes that are controlled by how quickly outside investment can be secured and infrastructure can be put into place. With the adoption and popularity attributed to broadband technologies, the time gap is quickly narrowing. Emerging and developing countries present an unusual opportunity to examine electronic communication usage and impact on a culture. This proposed paper will provide an overview of our ongoing study on the impact of information communication technologies (ICTs) in sub-Saharan Africa. Data compiled from surveys disseminated within this region will be discussed with the question in mind: Does the technology change developing society and the types of communication, or is it simply providing a new means of transmission of the developing society's norms of communication behavior?

Technologies in Society

Monday, 11 March	
11:25-13:05	**PARALLEL SESSIONS**
Room 2	**Learning Technologies**

4-H Informal Education to Increase STEM Knowledge and Career Development in Underrepresented Youth: Hands-on STEM Programming for Minority Youth and Youth with Disabilities

Noelle Guay, 4-H Extension Agent, 4-H Youth Development Program, University of Florida, West Palm Beach, FL, United States

Palm Beach County 4-H Youth Development Program, in partnership with the University of Florida and Palm Beach County Board of County Commissioners, supports research, education/teaching, and extension projects that increase participation of underrepresented minorities from rural areas and youth with disabilities in Science, Technology, Engineering, and Math (STEM). These youth have been engaged through Palm Beach County 4-H after school clubs and have been partnered with caring, adult mentors including 4-H leaders as well as community partners, such as the Belle Glade Youth Empowerment Center, Florida Atlantic University's Center for Autism and related Disabilities, and two rural public schools. These clubs focus on hands-on STEM programming and projects in the areas of robotics, engineering, food science and agricultural science. Having the opportunity to participate in hands-on, educational STEM activities year-round led by 4-H staff and University of Florida faculty enable these youth the unique opportunity to explore career opportunities, lead community service activities, interact with youth and adults outside of their neighborhoods, and have fun while developing critical life skills that will help them become productive and engaged citizens in their communities, their country, and their world. The goal is to empower, prepare, and encourage youth to pursue education and careers in STEM to meet future challenges across the world and increase technological advancement in all science arenas.

Ubiquitous Learning

Reinventing Schools: Confronting Our Troubled Times

Prof. Andrew Gitlin, Professor, Department of Lifelong Education, Administration, and Policy, University of Georgia, Atlanta, Georgia, United States

The US has again the highest wealth inequality in its history. This foundational trouble and the related troubles in the decline of democracies and the health of the environment suggest that doing nothing will likely result in rising violence, authoritarian leaders, and environmental events that could threaten the well being of humans, especially the poor. Given the dire consequences of these troubles something must be done. Schools, as currently constructed, are unlikely to make much of a difference and therefore they need to be reinvented to act on and confront societal troubles. A first step in reinventing schools is to fundamentally shift from a functionalist relation with society where schools only look to satisfy the status quo to a reconstructivist view that focuses on schools role in contributing to the production of a better society. Spaces of difference are one possibility to facilitate this restructuring. Spaces of difference, for example, can facilitate this restructuring because they provide a connection between school space and outside space such as communities such that a third space is formed that embraces differences (e.g., wealth inequality). Furthermore, spaces of difference are affordable because technology can easily "build" such virtual spaces without the unrealistic cost of brick and mortar. These technological spaces bring together schools and society and thereby reflect a wide array of interests that can challenge the status quo and confront the troubles of wealth, democracy and the environment. A final step is to transform these spaces from passive to activist orientations.

Technologies in Knowledge Sharing

Using Educational Technology to Promote Peace, Social Justice, and Sustainable Living: Lessons Learned from Teaching the World's Largest Course

Scott Plous, Professor of Psychology, Department of Psychology, Wesleyan University, Middletown, CT, United States

Action teaching is an instructional practice that contributes to peace, social justice, and sustainable living at the same time that it educates students. In this presentation, I describe several action teaching assignments that I gave to students in a Social Psychology MOOC (massive open online course), including a "Day of Compassion" assignment in which thousands of students around the world spent 24 hours living as compassionately as possible, submitted an essay analyzing the experience, and provided each other with peer feedback. Preliminary results suggest that MOOCs offer a cost-effective way to deliver high-impact learning opportunities on a large scale, and that online instructional technologies can deliver these opportunities to people who may otherwise have limited access to higher education.

Ubiquitous Learning

The Challenge of Integrating Technology into the Curriculum of Developing Countries: Relevance and Cultural Sensitivity

Paula Mac Kinnon, MindBloom Consulting, Mahone Bay, Nova Scotia, Canada
Dr. Gregory MacKinnon, Professor of Science & Technology Education, School of Education, Acadia University
Dr. Heather Hemming, Vice President, Acadia University

The potential for technology to empower education in public schools is undeniable yet the choice of appropriate technologies remains a challenge considering the digital divide that exists within developing countries. Using the Caribbean context as a backdrop, this paper will resist a "technoromantic" approach to leveraging new tools and instead examine the practical challenges associated with implementing relevant, culturally sensitive curriculum. This paper will address several curriculum projects that been undertaken in the Caribbean region. In particular, the inherent action research (mixed methods) has allowed us to glean unique insight into the perspectives and definitions that regional leaders hold for technology integration. As a result, we recommend a strategy for assisting them move forward in developing curriculum that models international best practice.

Technologies and Human Usability

Monday, 11 March	
11:25-13:05	**PARALLEL SESSIONS**
Room 3	**Social Transformations**

Informational Sharing and Cultural Diversity in the Digital Age

Shu Chuan Chu, Associate Professor, College of Communication, DePaul University

With digital technologies facilitating the information sharing and knowledge exchange, virtual communities have become a global space that could facilitate consumers' information search. This proposal examines how technologies have changed Internet users' information sharing behaviors and discusses the influence of cultural diversity in electronic word-of-mouth (eWOM) communication. Specifically, this proposal argues an important role of culture in information sharing in virtual communities by examining how new technologies have shaped and impacted the knowledge exchange process.

Technologies in Knowledge Sharing

Marking and Making Time: Temporality in Video Blogging of Gender Transition

Victoria Pitts Taylor, Professor, Feminist, Gender & Sexuality Studies, Wesleyan University, Middletown, United States

Video blogs are a highly popular way for people to narrate and share their experiences of gender confirmation surgery, hormone therapy and other modes of physical transition. Video bloggers use a variety of methods to mark the time it takes to transition, and to communicate the hardships caused by medical and legal barriers that slow down the process. This paper examines the ways that time and temporality are measured and crafted in video blogs of gender transition, and considers the relationship between physical, embodied and virtual temporalities as they converge in these forms of social media.

Technologies in Society

Being in the Digital World: Flusser and the Future of Thinking

Peter Nemes, Lecturer, Department of International Studies, Indiana University, Bloomington, Bloomington, United States

It has been over three decades that Vilém Flusser expanded his philosophy of photography into a prophetic vision of humanities' leap into a universe of technical images. Revisiting the notion of the future of writing (and, as a consequence, the end of history) as well as the notion of a return of image-based thinking allows for directly questioning how digital technologies change the possible answers to the age-old quest of what it means to be human. This philosophically driven exploration of the digitalized world that we now inhabit is the goal of my paper. Using Flusser's unique phenomenological approach I will investigate the ways in which knowledge is formulated and how understanding is shaped by our altered being in the (digital) world. Flusser foresaw and anticipated but never actually experienced the fully connected existence of Homo Digitalis and engaging his ideas now is more important than ever. A separate but connected line of inquiry is the question of absence and presence, a dynamic that is at once at the core of how humans communicate and inhabit the world and a central concern of the effects of technology on us. The goal is to go beyond the cataloging of potential or already visible problems of digital technologies' impact on human psychology and think about the state of being that we are in now in a concrete and phenomenological way.

Technologies and Human Usability

The Virtual Women Community: A Supportive Environment for Exposure and Intimacy

Dana Weimann Saks, Lecturer, Communication, Yeezrel Valley College, Zezreel Valley, Israel

Vered Elishar-Malka, Yeezrel Valley College, Zezreel Valley, Israel

Dr. Yaron Ariel, Lecturer, Yeezrel Valley College, Israel

This study examines the activity and expression patterns of women within closed, multi-participant women's Facebook groups. At the research center, the three largest groups of their kind in Israel, which have been created, and are now being managed by, and dedicated exclusively to, women. This study aims to learn about the unique women's virtual community by examining the type of dynamic and discourse that take place within these groups: their usages patterns, their perception of intimacy, sharing, support, and self-disclosure. A quantitative content analysis was conducted to randomly examine posts that were written during December 2017-January 2018 by members and administrators of the groups. A total of 1,500 posts were analyzed, including their threads properties. In addition, the Facebook profile of all the group members who had published these posts were analyzed for further information. The most popular topics of the posts were health (14.7%), motherhood (12.7%), relationships with partners (12%) and sexuality (9.3%). The majority (92%) of them included a positive message expressed by their author. Most of the posts (89%) included dialogical elements. Furthermore, in most (94%) of the posts, the authors' name, picture, and Facebook's full profile were overt. A positive correlation was found between the level of personal exposure and the depth of discourse that followed. We also found a negative correlation between the level of personal exposure in the group, and the number of friends on the user's page, a possible indication of the central role that these groups play in their users' lives.

Technologies in Knowledge Sharing

Monday, 11 March	
11:25-13:05	**PARALLEL SESSIONS**
Room 4	**Salud, Medio Ambiente y Bienestar**

Comunicación móvil y salud personal: Estudio de caso con mujeres desempleadas de origen urbano y rural

Carlos Ferras Sexto, Profesor, Universidad de Santiago de Compostela, Santiago de Compostela, España
Yolanda García Vázquez, Posgrado, Universidad de Santiago de Compostela, Santiago de Compostela, España

Presentamos los resultados del uso de una herramienta de intervención terapéutica cognitivo-conductual para mejorar la salud mental, física y social de un grupo de mujeres desempleadas de larga duración en España, diferenciando su origen urbano o rural. Se sigue el siguiente método: Enviamos mensajes de texto automatizados (SMS) a teléfonos celulares de mujeres desempleadas de larga duración seleccionadas al azar por los servicios sociales públicos. Durante un período de intervención de 28 días, las mujeres reciben 4 mensajes de texto automáticos diariamente en su teléfono celular a una hora predeterminada. Medimos los síntomas de depresión al principio y al final de la intervención y analizamos los datos cualitativos para determinar la aceptabilidad de un programa de SMS remoto. Los resultados muestran que los síntomas de depresión con el Personal Health Questionnaire-9 (PHQ-9) pasaron de un promedio de 13.8 al inicio a 4.9 al final de los 28 días ($p = 0.89$). El 100% de las mujeres informaron que les gustaba recibir mensajes de texto y a la mayoría les resultó útil.

Tecnologías en la sociedad

Modelo de intervención tecnológico consensuado: La sustentabilidad y su transferencia a otras problemáticas. El Caso dee Coyhaique

Claudio Herrera Figueroa, Profesor-Investigador, Humanidades y Educación, Universidad Tecnológica de Chile-INACAP, Chile

Desde 2011, en Coyhaique (Patagonia occidental chilena) se trabaja en la urgente problemática medioambiental que inunda la ciudad. La UTC: INacap, a través de sus equipos de académicos y estudiantes, participa de las actividades de sensibilización, difusión e intervención local. Actualmente, dado el impacto y cobertura de las acciones desarrolladas, la Universidad ha identificado la oportunidad y necesidad de sistematizar la experiencia denominada Constructores Nuevo Aire, a través de la configuración de un modelo de intervención interdisciplinario, enmarcado en la tercera misión de la Universidad, específicamente en el primer propósito de la política de Vinculación con el Medio (VcM), de contribuir al desarrollo productivo, social y cultural a nivel local, regional y nacional, mediante la presencia de sus once sedes del sur. Considerando, además, que frente a la complejidad de la acción tecnológica, la responsabilidad de la transformación de los espacios es interdisciplinaria, en la medida que sean nuevas racionalidades las que determinen la tecnología, la transdisciplinariedad se hace necesaria, por lo que el desafío de la interdisciplinariedad y la transdisciplinariedad en Ingeniería y en Humanidades y su impacto en la Formación Profesional nos conduce a la innovación de contenidos, metodologías y vinculación con lo local. Por último, al considerar a la tecnología como una manifestación humana, se abriga la esperanza de una solución tecnológica que incluya las dimensiones culturales, sociales y ambientales de la comunidad, es decir, incorporar a todos los actores que participan en la solución de una problemática medioambiental.

Tecnologías en la sociedad

El Big Data y la Segmentación del mercado Digital en la Nueva Sociedad del Conocimiento

Lilia.M Villacis, Investigadora, Universidad Eloy Alfaro del Manabí, Ecuador
Blanca Inés Velázquez Vera, Investigadora, Universidad Eloy Alfaro del Manabí, Ecuador
Lucía Margarita Álvarez Zambrano, Investigadora, Universidad Eloy Alfaro del Manabí, Ecuador

El artículo plantea los desafíos fr la construcción del big data y la segmentación del mercado en la era digital y lo que enfrentan las empresas en esta era tecnológica, teniendo en cuenta el enfoque estratégico, tecnológico y táctico; en especial los departamentos de marketing, los mismos que pueden tomar mejores decisiones, implementando la analítica de datos. Se define la evolución del marketing desde el levantamiento tecnológico con
su enfoque en el producto y la producción en masa, hasta el marketing actual, que está centrado en el consumidor y las necesidades del cliente. Se analiza qué es Big Data, los volúmenes de datos, los tipos de datos y sus fuentes; igualmente, se puntualiza qué es la analítica de datos (data analytics). Se presenta la necesidad de tener claro que las bases teóricas ayudan a a captación, fidelización y posicionamiento de marca. El tipo de investigación fue descriptiva, con un diseño no experimental, transacciones, de campo. La técnica de recolección de datos fue la encuesta, se diseñó que fueron validados por 3 expertos en mercadeo y computación. Desde la construcción del big data que te conlleva a la velocidad, variedad, veracidad, valor y visualización, hasta los retos estratégicos, tecnológicos y operativos en las organizaciones; las tendencias del marketing y la medición del ROMI.

Tecnologías en la sociedad

Monday, 11 March

11:25-13:05 **PARALLEL SESSIONS**

Room 5

Aspectos sociales y Tecnologías a Distancia

La lectura digital en adultos mayores mexicanos: Un estudio cualitativo sobre sus creencias, actitudes y prácticas

Santiago Roger Acuña, Profesor investigador, Universidad Autónoma de San Luis Potosí, México
Gabriela López Aymes, Universidad Autónoma de San Luis Potosí, México

En este trabajo se presenta un estudio cualitativo dirigido a conocer y caracterizar las creencias, actitudes y prácticas de adultos mayores mexicanos respecto a la lectura digital. Participaron 21 adultos mayores urbanos con nivel socioeconómico medio alto, usuarios habituales de tecnologías digitales y con edades comprendidas entre los 64 y 75 años. Se realizaron tres grupos focales de 7 participantes (solo mujeres, solo hombres y el restante grupo mixto, con 4 hombres y 3 mujeres). Se analizaron dimensiones relacionadas con sus hábitos de lectura tradicional y sus experiencias en el empleo de tecnologías digitales para la vida cotidiana, sus actitudes y prácticas de lectura digitales, las dificultades y ventajas que encuentran en este tipo de lectura, así como también sus necesidades de apoyo. Los principales resultados refieren la inexistencia de diferencias en las creencias y actitudes, de acuerdo con el género. La mayoría de los participantes en los grupos resaltaron la importancia de la utilización de tecnologías digitales para la lectura, aunque sus prácticas se relacionan con lectura de prensa y documentos para su área profesional, reservando la lectura en papel para los textos narrativos (novelas). Las principales dificultades se refieren al manejo más sofisticado de los dispositivos de lectura y a los criterios de valoración de la calidad de los documentos consultados. En las conclusiones se señala el potencial positivo de la lectura digital para el aprendizaje a lo largo de la vida y se discuten estrategias para favorecer la inclusión digital de este grupo social.

Tecnologías en la sociedad

Prejuicio y educación a distancia en Brasil

Leonardo Viana, Universidade Federal do Rio de Janeiro, Brasil
Milton Campos, Profesor, Universidade Federal do Rio de Janeiro, Brasil
Ibis Marlene Alvarez, Universidade Federal do Rio de Janeiro, Brasil

La educación a distancia (EAD) llega a Brasil como la "tecnología de la esperanza". Permite expandir las oportunidades de acceso a la educación superior en un país de dimensiones continentales. Actualmente, a pesar de la acreditación oficial de calidad de enseñanza y aprendizaje equiparable a las universidades presenciales, se percibe alta desestimación social de las titulaciones que se obtienen en estudios a distancia, incluso por personas que carecen de experiencias al respecto. Esta investigación indagó sobre las representaciones sociales que rodean esta modalidad de enseñanza entre los jóvenes del estado de Río de Janeiro. Se utilizó la técnica de evocación libre de palabras. Participaron 246 estudiantes que se presentaron a la prueba de acceso a la universidad, en la Fundação Cecierj. Los resultados muestran clara relación de las representaciones sociales de la EAD con la flexibilidad, facilidad y la economía, lo que sugiere que esta modalidad de estudios se percibe como una opción asociada a menor exigencia y a la rentabilidad. No se manifiesta el valor añadido que aporta la tecnología al aprendizaje, en cambio, se evidencia la vigencia de prejuicios sociales centenarios, arraigados a la historia de la educación profesional en Brasil.

Aprendizaje virtual

Afectividad en comunidades de graduación a distancia con la intervención de juegos educativos: La colaboración y la competición en el aprendizaje

Fabiane Proba, Estudiante, Universidad de Estudios de Bergamo, Italia
Milton Campos, Profesor-tutor, Universidad Federal del Rio de Janeiro y Universidad de Montreal, Brasil
Carlos Eduardo Bielschowsky, Profesor-tutor, Universidad Federal del Rio de Janeiro y Centro de Educación Superior a Distancia del Estado de Río de Janeiro, Brasil
Emilio Gattico, Profesor-tutor, Università Degli Studi di Bergamo, Italia

La investigación tiene como objeto la afectividad en la Educación en red, haciendo foco en foros de discusión de graduación a distancia con la intervención de juegos educativos. Tales graduaciones, cuya coordinación es centralizada en un órgano gubernamental (Cederj), son ofrecidas por las universidades públicas estaduales y federales en Río de Janeiro – Brasil. El estudio tiene como objetivo evaluar la percepción de estudiantes y docentes en cursos a distancia respecto al uso de juegos de naturaleza opuesta (basados en colaboración y en competición), aplicados en foros de discusión, con el fin de verificar qué tipos de clima afectivo emergen en cada caso. Además, se pretende evaluar cuál clima afectivo sería el más adecuado al proceso de comunicación pedagógica, según Campos, Laferriere y Lapointe, desde la percepción de estudiantes y profesores. Se establece como base teórica el constructivismo crítico, desde el enfoque de Piaget, Vigotsky, Grize y Habermas, a partir del cual los procesos históricos requieren una comprensión crítica de las relaciones entre el sujeto psicológico y la sociedad. Se aborda también la teoría del aprendizaje colaborativo - socioconstructivismo (Vygotsky) y la teoría del aprendizaje cooperativo - neobehaviorismo, de nociones a aplicar en un ambiente competitivo (Slavin). El estudio tiene potencial para contribuir no solo en los procesos de comunicación pedagógica en foros de discusión educacionales, sino también en cursos y entrenamientos de empresas.

Aprendizaje virtual

Aportaciones y limitaciones del uso de internet en la búsqueda de trabajo: El caso de las mujeres adultas con menor nivel de formación

Lidia Arroyo, Researcher, Gender and ICT- IN3, Open University of Catalonia, Castelldefels, Spain

Una de las principales estrategias de las políticas europeas digitalización y empleo ha estado dirigida a la inclusión digital de los grupos afectados por la brecha digital, que eran también los grupos con menores oportunidades laborales y educativas. Estas políticas parten de la idea de que el acceso a Internet es una vía para una mayor igualdad de oportunidades y superación de otras desigualdades sociales. Por lo que respecta a los estudios sobre cómo el uso de Internet facilita la búsqueda de trabajo, encontramos escasa evidencia empírica sobre ello, especialmente de aquellos de tipo cualitativo que indaguen en la experiencia de las personas usuarias y exploren la relación entre el uso de Internet y el éxito en la búsqueda de trabajo teniendo en cuenta el nivel socio-educativo. Esta investigación cualitativa indaga en la interrelación del uso de Internet y búsqueda de trabajo en mujeres adultas (de 26 a 61 años) con menores niveles de formación, residentes en la provincia de Barcelona (España) y que han realizado un curso de inclusión digital en los últimos 10 años. Los resultados muestran que el uso de Internet no resulta ser un canal de búsqueda de trabajo exitoso en lo que respecta al acceso directo a puestos de trabajo de las ofertas identificadas en Internet. Pero, a nivel subjetivo, sí detectan una mayor confianza en sí mismas que afecta a su proceso de búsqueda de trabajo.

Tecnologías en la sociedad

13:05-13:55 **Lunch / Almuerzo**

13:55-15:10 **PARALLEL SESSIONS**

Monday, 11 March	
13:55-15:10	**PARALLEL SESSIONS**
Room 1	**Mobile Media**

Mobile Devices as a Design Platform: Perceived Effectiveness of Tablet Devices for 2D and 3D Design

Dr. Stan Guidera, Professor, Department of Architecture and Environmental Design, Bowling Green State University, United States

This study investigates the intersection of two emerging trends in design fields: the increasing rate of adoption of mobile computing and the shift in design fields from a two-dimensional to three-dimensional model-centric design processes in which the 3D model functions as database for project-related information as well as a visual representation. The ability of mobile devices to run apps with the functionality of desktop applications could yield substantive changes in design workflow. The rate of adoption of tablets and mobile devices among students and faculty is of particular interest to academics involved in preparation for professional fields in the design disciplines. However, research related to the effectiveness of tablet devices as either a standalone design platform or a means to enhance design processes is limited, particularly in terms of the role of mobile design in professional education. Therefore, this study was developed two primary objectives. First, it investigated the extent to which tablet and mobile devices were perceived by students, educators, and professionals in design-related fields provided an effective platform for the development of both 2D and 3D design skills. Secondly, it investigated the extent to which students and educators in design fields perceived that, by gaining experience during their academic training, tablet-based design processes contributed to their professional preparation. Participants were asked to complete 2D drawing and 3D modeling tasks using tablet-based apps and then completed an on-line survey structured to facilitate statistical analysis intended to support the conclusions and recommendations.

Technologies in Society

Spatial Design and the iPhone: Utilizing Students' Cognizance of an Everyday Technology to Investigate and Design Space

Sheryl Kasak, Adjunct Associate Professor, CCE, Department of Interior Design, Pratt Institute, United States

Through a series of studio projects this paper discusses how the moving image and film editing vocabulary and technique can be used as resources for understanding light, sound and time in the design process. The iPhone has allowed for the constant presence of video in our daily lives. Capturing information as still or moving images; what format to shoot in; standard rectangular, time lapse, slow mo[tion], video, square or pano[ramic] format has become an innate activity. Our framed view becomes objective as the device determines the image boundaries. This familiarity with the smart phone as both a mediator and conveyor of experience combined with the predication of how we place ourselves with[in] space might allow us to utilize these devices as design tools. In studio, students analyzed films including Blade Runner. The character Deckard uses an "Esper" machine to navigate a 2d image 3 dimensionally, enabling the viewer to inhabit the photographic space and understand the spatiality and relationships of elements within the room through a perceived occupancy including light and reflection. This scene is an important reference as it allows navigation through a filmic image while using calibrated coordinates, reinforcing the importance of data collection as a design tool. Film/video has proven to be a relevant tool for students as they formulate their ideas about space into something experiential and not representational. The results are progressive and sometimes unconventional, but speak to the vital relationship between the phenomenological and the spatial when designing environments for occupancy.

Ubiquitous Learning

Monday, 11 March	
13:55-15:10	**PARALLEL SESSIONS**
Room 2	**Governance and Agency**

AI and Human Competencies: Imagination, Resolution and Agency

Callum McEachern, University of Tasmania, Australia

The deployment of existing digital technologies is resulting in reactive governance and education policies across all social, cultural and political contexts. Closer analysis shows unexpected impacts on the learning and decision-making capacities of democratic citizens. In particular, how temporal and spatial factors are reshaping risk assessment, problem-solving and memory. This trans-disciplinary study explores the potential impact of AI on cognitive and emotional intelligence. Could AI weaken place-based relationships that generate diversity in knowledge, skills and values? Could deploying AI without robust citizen competencies, erode ownership of 'ends and means' and the realisation of human needs? How to revitalise the role of physical experience in developing critical, cooperative and creative competencies is discussed. Solutions to improve governance are also presented in models to strengthen community motivation, abilities and opportunities for learning and decision-making about AI.

2019 Special Focus: The Social Impact of AI: Policies and New Governance Models for Social Change

Artificial Intelligence and Probability as Techniques for Human Problem Solving

Thomas D. Barton, Teacher, Cornell Law School, Cambridge University, United Kingdom

Human ingenuity has devised a variety of devices for resolving social problems, techniques that seemingly bear little in common. Among these varied methods are random selection; scientific investigation; markets; democracy; religious decree; contracts; and state enforced public norms (i.e., laws). Each distinct realm employs different methods for problem resolution, and produces outcomes in different forms. As each emerged historically, each carried powerful social or philosophical repercussions. Modernly, social problems migrate among these decisional realms with relatively little formality, planning, or even coherence. That spontaneity is not necessarily bad; like biodiversity, the uncoordinated differences among the problem solving techniques together make possible a more workable society than would emerge from exclusive reliance on fewer techniques. In recent years, two new devices have become highly significant to human problem solving: probability and artificial intelligence. Probability, though not new, has broadened and intensified with the ability to aggregate vast data sets electronically. Artificial intelligence, in the strong sense of machine self-learning, is similarly enabled by the explosion of information and computing power. I propose to examine probability and artificial intelligence as newly invented devices for problem solving. Each tool carries uniquely new qualities and capabilities; each may be projected to address problems within a certain range or with certain attributes, and to bear distinct social, moral, economic, and political consequences.

2019 Special Focus: The Social Impact of AI: Policies and New Governance Models for Social Change

AI and the Hyperinflation of Supremacy

Dr. Paul Hawkins, Board Chair, Working Diversity, Inc., Pittsburgh, PA, United States

This paper examines the relationship between supremacist sociopolitical systems and AI, each of which has been developing along its own temporal trajectory. It fundamentally asks whether those trajectories are converging in the early twenty-first century, and if so, what consequences may result. Of particular interest is the problem of hyperinflation, whereby AI may supplant human cognition as supremacy's propellant, thereby geometrically growing its structural influence. If this hyperinflation of supremacy is indeed on the horizon, this paper will suggest how social justice activism may likewise need to rapidly evolve in order to create future anti-supremacist countermeasures.

2019 Special Focus: The Social Impact of AI: Policies and New Governance Models for Social Change

Monday, 11 March	
13:55-15:10	**PARALLEL SESSIONS**
Room 3	**Workforce Impacts**

Putting AI to Work: Technology and Policy for Enabling the Workforce

Dr. Brandie Nonnecke, Postdoc; Research & Development Manager, CITRIS & the Banatao Institute, University of California, Berkeley, Berkeley, United States
Manasa Gummi, MPP Graduate, CITRIS and the Banatao Institute, University of California, Berkeley, Berkeley, United States
Camille Crittenden, Deputy Director, CITRIS and the Banatao Institute, University of California, Berkeley, Berkeley, United States
Dan Gillette, Sr. Research Scientist, CITRIS and the Banatao Institute, University of California, Berkeley, Berkeley, United States
David Linderman, Director, Health Initiative, United States

Technologies powered by artificial intelligence (AI) promise to transform the future of work, with wide-ranging effects on employment, wages, and income distribution. In the face of dystopian forecasts of robots replacing workers, we have an opportunity to consider how AI and intelligent tools can enhance and augment human labor rather than replace it. Emerging technologies can be applied to make the workforce more inclusive, helping to bring new populations into the workforce or assist workers to maintain meaningful employment as they age. We explore the pace and extent of the effects of AI on the workforce with a particular focus on its adoption for innovations serving the aging and individuals with disabilities where we investigate application of AI in training and workforce development; job discovery, selection, and access; and enhancing and augmenting human labor. In order to better ensure the development and deployment of AI in the workforce is more inclusive, especially for older populations and those with disabilities, we conclude with private and public sector policy recommendations that seek to support development of educational and workforce training models, inclusive design and reasonable accommodation considerations in the workplace, and development of economic and social safety nets for those caught in the crosscurrent of automation.

2019 Special Focus: The Social Impact of AI: Policies and New Governance Models for Social Change

The Impact of Knowledge Management on Projects Success

Arik Sadeh, Faculty, Technology Management, HIT Holon Institute of Technology, Holon, Israel
Prof. Dov Dvir, Prof. Emeritus, Management, Ben Gurion University of the Negev, Israel

This paper deals with the impact of knowledge management in an organization on various types of projects, the organization performs. According to Peter Drucker knowledge is the only meaningful economic resource. There is no generally accepted definition of Knowledge Management; However the creation and diffusion of knowledge have become ever more important factors in competitiveness. This study examines the impact of the various components of knowledge management on the performance of projects performed in Israel. Success of technological ventures is measured in wide spectrum of variables. One category of measures is about the contribution of a venture to the developing organization in expanding the technological infrastructure of the organization, and increasing the level of knowhow and knowledge in the developing organization. Other not less important aspects of success are in terms of meeting economic goals and penetration to new or existing markets. The projects were grouped into three different groups, defined by the level of Novelty of the project's product, the level of Technology required to perform the project and the level of Complexity of the product it produces. The paper shows the impact of the various components of knowledge management on projects at large and on the different groups in particular and also shows that the impact of knowledge management on the success of projects varies according to the levels of Novelty, Technology and Complexity of the projects.

Technologies in Knowledge Sharing

Cultural Diversity in the Digital Age: Developing Mobile Support for Migrant Professionals

Nataliya Berbyuk Lindström, Senior lecturer, Department of Applied Information Technology, University of Gothenburg, Gothenburg, Sweden
Sylvana Sofkova Hashemi, Associate Professor, Department of Pedagogical, Curricular and Professional Studies, University of Gothenburg, Gothenburg, Sweden

Fluency in the language of host society in combination with early entry into the job market are essential elements of successful migrant integration and social inclusion. Due to its accessibility, mobile technology can serve as a support and bridging tool for many people for both language learning and managing employment opportunities. The aim of this study is to explore what professional integration needs the newly arrived professionals (teachers, healthcare professionals and engineers) coming to Sweden, one of the top recipients of asylum applications per capita, experience. Further, we discuss how to develop mobile support to enhance a personalised and sustainable professional integration. We apply participatory design principles conducting semi-structured focus group interviews and interactive workshops with above mentioned migrant professionals, mentors and language teachers. Thematic content analysis is used for analysis of the data. The results demonstrate diverse professional needs and requirements for digital competence for work and at work. The study also gives suggestions for developing mobile applications for enhancing integration of professionals in the Swedish labor market.

Technologies in Knowledge Sharing

Monday, 11 March	
13:55-15:10	**PARALLEL SESSIONS**
Room 4	**Filosofías de las Tecnologías**

Simulacros de un mundo virtual: Traducciones y transferencias en la producción artística contemporánea

Massimo Cova, Professor associat, Facultat de Belles Arts, Universitat de Barcelona, España

La propuesta consiste en presentar unas obras de artistas contemporáneos de reconocido prestigio internacional, que utilizan las nuevas tecnologías como referentes para reflexionar acerca de su significación y de sus implicaciones en nuestra sociedad globalizada. Obras, procedimientos y estrategias de creación artística que relacionan cuestiones inherentes al cuerpo, a la identidad, al espacio o a la memoria, con la virtualidad, el no-humano o la obsolescencia tecnológica. Artistas que tratan errores, defectos e imperfecciones de los medios de la prometedora tecnología moderna como síntomas de fracaso de modelos de crecimiento, o procesos de descodificación y recodificación de la información y la (in)transcendencia de sus contenidos también como signos de falibilidad de los medios. Obras de arte que nos hacen reflexionar sobre las biotecnologías y unos nuevos modelos de humanidad, sobre cuerpos biológicos obsoletos e inadecuados para una sociedad exuberante y nuevas arquitecturas corporales con funciones adicionales como formas de vida emergente, o sobre señales de actividad cerebral que permiten visualizar los sentimientos y las emociones. Obras de arte entendidas como dispositivos para pensar el mundo en que vivimos a través de las experiencias estéticas que generan, para provocar interrogantes y concienciación y no para dar respuestas o información sobre aspectos significativos de nuestros modelos de vida y de pensamiento.

Tecnologías y uso humano

Poéticas massmediáticas, postpoesía e hiperficción: El horizonte epistemológico de la Generación Y

Bernat Garí Barceló, Profesor asociado, Universitat de Barcelona, Barcelona, España

El presente estudio pone de manifiesto que los medios de comunicación —y de modo particularmente intenso, el espacio digital— han modificado los usos escriturarios de algunos autores nacidos entre los sesenta y los ochenta. Escritores como Fresán, Ray Loriga, Mañas, Douglas Coupland, Andrés Neuman y Alberto Fuguet —que en ocasiones ni siquiera se leyeron entre ellos— participan de una poética común que destaca por la asunción de motivos culturalmente periféricos (subliteratura, blogs, cómic, rock, etc.), por la vertebración armónica del espacio narrativo o por la configuración de una escritura massmediática que recodifica el espacio hipersaturado de nuestros días. Con mi investigación ilustraré el desarrollo teórico de dicho modelo, cuyo valor sistemático Susan Sontag puso de relieve en la conferencia "Al mismo tiempo: el novelista y el razonamiento moral". Sontag introduce la noción de 'hipernovela' que es operativa para el desmenuzamiento de los textos que trabajaré. La hipernovela, según Sontag, «no tiene principio; es reversible; es accesible por varias entradas, ninguna de las cuales se puede señalar autoritariamente». La hipótesis que planteo es la siguiente: ¿Es la hipernovela el enclave óptimo desde el que la generación millennial y premillennial propuso un nuevo modelo de escritura?

Tecnologías en la sociedad

Practicas interactivas prosociales desde una perspectiva afectiva emocional humana

Deyanira Bedolla Pereda, Profesora investigadora, Universidad Autonoma Metropolitana Cuajimalpa, México

La dimensión afectiva emocional humana, tiene gran potencial en el desarrollo de proyectos que se ocupen de problemáticas sociales al determinar motivación, toma de decisiones, cambio de juicio y comportamiento del individuo. Emociones y sentimientos prosociales (solidaridad y empatía) conducen a llevar a cabo acciones como cooperar, compartir, colaborar, y al mismo tiempo producen efectos de cohesión e integración social. Desde dicha perspectiva, se reflexiona aquí en torno a las modalidades interactivas capaces de incidir en el modo de desarrollo de procesos sociales, educativos, y comunicativos al conducir y fomentar dichas acciones y efectos, lo cual puede conducir a tener beneficios sociales. Los objetivos de la determinación de los modos de interacción de dispositivos cotidianos, paralelamente a cumplir los objetivos utilitarios para los que han sido destinados, pueden ser concebidos y aplicados buscando alcanzar al mismo tiempo fines humanos y sociales, volviéndose medios para conducir acciones prosociales, lo cual es muy relevante frente a la fragmentación social, individualismo e intolerancia global actual. La posibilidad de un cambio social se subraya, a partir del planteamiento de Ortega y Gasset en su "Meditación de la técnica", que ha transformado al ser humano hasta el punto que ésta y la evolución de las personas son indisolubles, de manera que el cambio tecnológico también implica un cambio social. La innegable influencia en el individuo de los dispositivos que señala Agamben para capturar, orientar, modelar, y controlar gestos, conductas y opiniones podría ser direccionada con fines humanos y sociales.

Tecnologías en la sociedad

Monday, 11 March	
13:55-15:10	**PARALLEL SESSIONS**
Room 5	**Análisis social y filosófico**

¿Es la contabilidad una tecnología social?: Balance de un debate

Carlos Emilio Garcia Duque, Profesor Titular, Programa de Contaduría Pública, Universidad de Manizales, Manizales, Caldas, Colombia

El filósofo argentino Mario Bunge afirma que se puede considerar la filosofía como una tecnología social. Sin embargo, muchos teóricos de la contabilidad argumentan a favor de la tesis de que la contabilidad es una ciencia perteneciente al campo de las ciencias sociales. En esta ponencia examino los argumentos de Bunge y los contrasto con otras propuestas sobre el estatuto epidémico de la contabilidad, detallando las particularidades de la discusión.

Tecnologías en la sociedad

El ambiente laboral, directamente relacionado con el perfil socioeconómico del capital humano, como estrategia de competitividad en el sector textil

Marisol Maestre Delgado, Docente, Universidad de Pamplona, España
Ludy Flórez Montañez, Docente, Universidad de Pamplona, Colombia
Luz Ángela Moreno Cueva, Docente, Universidad de Pamplona, Colombia

El objetivo de la presente investigación es identificar las condiciones socioeconómicas y de información laboral del capital humano en empresas del sector textil de tejidos del Municipio de Pamplona, Norte de Santander (Colombia), utilizando una metodología de tipo descriptivo con enfoque mixto, en la cual la población de estudio estuvo conformada por treinta y siete empleados que trabajan en siete empresas, de tal forma que se pudiese correlacionar la información obtenida allí con la suministrada por el diagnóstico con el Emotiv Insight para determinar el clima laboral. Es importante destacar que el talento humano en su mayoría es femenino. Cerca del 50% de los trabajadores recibe menos de un salario mensual de $260 USD; aún así, la mayoría se siente a gusto con su salario. De igual forma, se evidenció que las empresas del sector cuentan con un adecuado entorno de trabajo, donde se facilita la cooperación y la ejecución de tareas por parte de los trabajadores, incentivada principalmente por la buena relación con los demás empleados y con una estructura jerárquica ideal. Asimismo, se pudo determinar que los factores externos incrementan y amenazan notoriamente la productividad de las personas, pues alteran las emociones, por lo que la empresa debe mejorar el ambiente laboral.

Tecnologías en la sociedad

Comentarios críticos al texto de Skolimowski: The Structure of Thinking in Technology

Daian Florez, Profesora Asociada, Ciencias Humanas, Universidad Nacional de Colombia, Colombia

La tesis que defiendo en mi ponencia plantea que los argumentos que Skolimowski esgrime para defender que la tecnología no es ciencia aplicada no son concluyentes. Para mostrar lo anterior, voy a reconstruir los tres argumentos históricos que Skolimowski ofrece, a saber: el argumento histórico del transistor, la fatiga de materiales y el proyecto Manhattan, para mostrar que, pese a que se podrían ofrecer otros argumentos históricos en esa misma línea, la evidencia histórica no debe impresionarnos, dado que desde una perspectiva realista los artefactos también están sometidos a las leyes de la naturaleza, aún cuando no las hayamos descubierto.

Tecnologías en el intercambio de conocimientos

15:10-15:25	**Coffee Break / Pausa para el café**
15:25-17:05	**PARALLEL SESSIONS**

Monday, 11 March	
15:25-17:05	**PARALLEL SESSIONS**
Room 1	**Technological Determinism**

A Sustainable Living Lab for Smart Grid Knowledge Transfer into Society: Mobility2Grid

Mr. Julian Alexandrakis, Technische Universität Berlin, Berlin, Germany
Henrike Weber, Post-Doc, Technische Universität Berlin, Germany
Dr. Birgit Böhm, Post-Doc, Technische Universität Berlin, Germany
Karoline Karohs, Process Manager M2G, Mobility2grid e.V., Germany

Results of regular representative surveys on environmental awareness in Germany show, that one of the most important environmental tasks for the respondents is to reduce CO2 emissions and switch to renewable energies. They consider themselves as well-informed about environmental knowledge, but only a few change their consumption habits. Thus, transferring knowledge from complex transformation processes such as mobility and energy systems, seek for innovative mechanisms. The Sustainable Living Lab Mobility2Grid develops sustainability innovations by using electric vehicles' batteries as storages for renewable energies in a decentralized urban micro smart grid. Transferring its results into society is a key task of M2G. Hence, this paper focuses on the question: What knowledge about mobility and energy transition can and must be imparted trough target group-oriented training programs? The case study is, from a methodical perspective, approached as an action research case, and hence aims at discovery, interpretation, reflection and insights. Primary data was gathered from a qualitative survey with participants after each training session (module). In total nine trainings with employees of different institutions and industries such as energy, mobility, city cleaning, transport federation, science and education were carried out. The study shows that a technical understanding, fundamental connections about the topic of electro mobility and micro smart grids, an improved understanding of the electro mobility`s historical development and last but not least, an outlook and future ideas of electro mobility were key categories of learning outcomes.

Ubiquitous Learning

The Impact of New Technologies on the Production of Television News

Dr. Steven C. Koehn, General Manager of UINDY TV and Assistant Professor of Electronic Media, Communication, University of Indianapolis, Indianapolis, IN, United States

This is an investigation of the impact of robotics, A.I. writing programs and new wireless technologies on the production of television news. In less than twenty years, the television news studio has gone from an average of over twenty crew members necessary to produce the newscast to an average of three or less as new technologies replaced newsroom personnel. Now, while research has been conducted on the loss of certain television positions and their impact upon the job field due to technological changes, the impact upon the quality of the news programming has not been investigated. In this study, on-going qualitative data is being collected from four television stations' news programs as new technologies are being implemented in the news production process. Presently, the data consists of interviews with individuals at news stations who have experienced the technological changes shift in the production of the news and a content analysis of the trade articles that relate to the new production processes and observed effects. The ability to present quality news reports for the public to make critical decisions is paramount for a democratic existence. However, research has shown that technological determinism shapes the development of cultural values quite frequently in un-foreseen ways. Are we facing a situation where these new technologies subvert the production of news or not? Thus, the preliminary findings of the study will be presented in regards to the impact of new technologies in television news production and the implications of the changes.

Technologies and Human Usability

A Philosophical Perspective on the Wise Use of Technology

L. Scott Cole, Ph.D student, University of California, Davis, United States

Technology impacts the quality our everyday lives for better and for worse. But can we make generalizations about how a "wise" person should think about, and engage with technology? This is the question I will address in this talk, in part by highlighting the work of contemporary American philosopher of technology Albert Borgmann. In the first part of the talk, I discuss the concept of wisdom, which has been the subject of philosophical inquiry since Plato. I will review the relation between wisdom and humility, rationality, factual knowledge and practical knowledge. I will argue that practical knowledge—that is, knowledge about how to live a good life—is necessary component of wisdom. In the second part of the talk I introduce Borgmann's perspective on the relation between the use of technology and living a good life. Borgmann's work is both descriptive and prescriptive. He asserts that modern technology exhibits a consistent pattern: it tends to reduce humans' engagement with reality and participation in social life, and that this negatively impacts quality of life. Borgmann's prescription is to make a conscious effort to engage with aspects of reality that he terms "focal." Focal things and practices are good in and of themselves; they reorient our lives and provide sense and meaning. I conclude by briefly reviewing some critiques of Borgmann's view.

Technologies in Society

15:25-17:05 **PARALLEL SESSIONS**

Room 2

Bridging the Divide

Mobile Technology for Inclusive Society: User Modelling for Targeted Integration

Sylvana Sofkova Hashemi, Associate Professor, Department of Pedagogical, Curricular and Professional Studies, University of Gothenburg, Gothenburg, Sweden
Nataliya Berbyuk Lindström, Senior lecturer, Department of Applied Information Technology, University of Gothenburg, Gothenburg, Sweden

Sweden is one of the top recipients of asylum applications per capita in Europe. Increasing cultural and linguistic diversity is a challenge in the society to achieve successful social and professional inclusion. Getting employment, education, housing and access to healthcare are essential means of integration, which can be facilitated by language and cultural knowledge as well as contacts with the members of host society (Ager & Strang, 2008). Mobile technologies enable authentic, interactive and social contexts for learning and can serve the purpose of a bridging tool to the host society. Newly arrived migrants in Sweden have and use smartphones. The aim of this study was to map available mobile technology and to explore how the existing apps meet the migrants' learning and integration needs. A sample of apps was first selected based on evaluation of technological, pedagogical, linguistic and cultural criteria (the TPLC-model). Next, we conducted user tests over a three weeks period with 44 newly arrived Arabic-speaking migrants of selected apps of different functionalities and learning activities (language and vocabulary training, intercultural communication, social interaction, etc.). We used questionnaires for background, self-estimation of Swedish language, cultural and societal competences and perceptions of necessary information to become integrated. The results demonstrate that apart from translation and vocabulary apps, mobile apps are hardly used by the newly arrived migrants. One reason is lack of targeted language and cultural training that facilitates migrants' immediate needs for employment, accommodation, contact with locals as well as cultural factors in relation to design.

Technologies in Knowledge Sharing

Defining Digital Skills: A Literature Review

Melissa Sassi, Program Manager, Startup Ecosystem, IBM, San Jose, United States

According to UNESCO, "literacy is the ability to identify, understand, interpret, create, communicate, compute, and use printed, and written materials associated with varying contexts." However, there is no such consensus or clarity around a definition for digital literacy. Without such a global or uniform definition, it is difficult for the world to address digital inclusion and measure progress. Imagine the impact if the United Nations, the IEEE, or a similar body were to support a comprehensive framework for digital skills and intelligence and endorse a global standard for a definition of digital literacy and skills. This could aid in achieving a measurement and reporting methodology while enabling individuals, organizations, and nation states to track their progress over time, while proving the necessary building blocks for individuals in the Global South to gain the necessary skills for the future of work and the 21st century economy. While 50% of the world is technically connected to the internet, how many are making meaningful use of its power? Similarly, how many truly have the digital skills necessary to transition from consumers of technology into creators, makers, and doers empowered by technology? The UN sustainable development goals repeatedly underline the importance of technology and inclusion as enablers of development and economic growth. The pairing is essential – unless concrete efforts are made to give everyone access to the right skills, digital tools risk being a force for inequality. Without this foundation, there cannot be true inclusion, an especially dire challenge for forgotten stakeholders.

Ubiquitous Learning

Games the Dust Particles Play: Dust Explosion Simulator

Mr. Srivatsan Prativadibhayankara, Gameplay Programmer, Development, Level2 llp

Mytreya Venkata Urukram Pattaswamy, Gamer Programmer, Game development, Level-II LLP

Overview: 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.

Theme:Technologies and Human Usability

Geomedia, Tourism, and Civic Engagement

Divya Mc Millin, Professor and Executive Director, School of Interdisciplinary Arts and Sciences, University of Washington Tacoma, Tacoma, Washington, United States
Orlando Baiocchi,

The purpose of this paper is to explore the essential elements of geomedia: the locative potential of media and the potential of mediated locations in civic engagement. Case studies offer a way to examine both annotative (virtual tagging) and phenomenological (subjective action) elements. The spatial turn in media studies centralizes location-based questions, and intersecting with geomedia schema, allows us to identify users as individual actors. This paper analyzes firstly two small-scale grassroots tourism initiatives in Kolkata and Bengaluru, India. These case studies demonstrate the use of social media, print journalism, blogs, art exhibits, television appearances, and folk and street theater, to advocate for the preservation of heritage buildings and parks, to reclaim identities and to ensure legacy. Based on fieldwork and interviews with tour guides in both cities, the paper discusses the complexities of producing place and nation, the field of tension between reaffirming local authenticities and responding to the logics of state-driven forms of globalization. Following, the paper focuses on the Azores Geopark located in the archipelago of the Azores, Portugal and part of the European and the UNESCO-assisted Global Geopark Networks. Its mission is to ensure conservation of the geological heritage and to encourage sustainable development, while promoting responsible tourism and the well being of the local population. The Azorean Geopark case study includes a critical discussion of the use of wireless and mobile information technologies. Together, the case studies reveal the value of technology in promoting participatory citizenship and enhancing the dynamics of collaboration and community building.

Technologies in Knowledge Sharing

Monday, 11 March	
15:25-17:05	**PARALLEL SESSIONS**
Room 4	**Tecnología, enseñanza y pedagogía**

Comunidades de conocimiento y tecnología para todos: Estrategia didáctica de diseño tecnopedagógico para un aprendizaje autónomo y colaborativo

Carmen Gisel García Aguilar, Universidad Nacional Autónoma de México, México
José Armando Jiménez García, Universidad Nacional Autónoma de México, México

Una investigación de seis años en Educación Media Superior presencial de dos Centros de Estudios Tecnológicos —Industrial y de Servicios—, un Colegio de Ciencias y Humanidades y un posgrado en Docencia en línea para este nivel de la Universidad Nacional Autónoma de México en asignaturas de francés e inglés, muestra la transformación de las relaciones de aprendizaje de 235 estudiantes y la observación de 115 más del Área de Lenguaje y Comunicación e Histórico social. El diagnóstico inicial de capitales, condición sociocultural, física, académica, geográfica y de problemáticas e intereses comunes, procurando la igualdad de oportunidades, apoya la creación de equipos de trabajo autónomo y colaborativo. Cada equipo diseña y comparte un material didáctico audiovisual de contexto real, recursos sociales y materiales tecnológicos contemporáneos asequibles, aportando solución a problemas situados. Construye la historia bajo esquemas de representación y de comunidades de prácticas educativas participativas, presentes y virtuales, de sistemas de comunicación y lingüística aplicada. Así, la estrategia didáctica Habilidad Comunicativa Significativa, de diseño de currículo autónomo del aprendizaje autorregulado de cada docente y estudiante, desarrolla el aprendizaje electrónico significativo y las habilidades y capacidades con apropiación de contenidos, desde un modelo constructivista. En beneficio a la igualdad, acceso e inclusión al actual mundo laboral de dominio tecnológico digital, a comunidades y medios de producción, conocimiento y comunicación, es necesario extender y continuar la participación de cada ser social hacia nuevas estructuras de conocimiento y redes de investigación que sustenten el cambio de la estructura civil.

Aprendizaje virtual

El B-learning: Un modelo pedagógico trasformador en la enseñanza universitaria del Ecuador

Gladys Lagos, Docente Titular, Universidad de Guayaquil, Carrera de Informática / Universidad Agraria del Ecuador, Facultad de Medicina Veterinaria, Ecuador
Juan Carlos Pelaez López, Consejero Externo, Ingeniería, ISingenieros, Ecuador

La inclusión de las tecnologías en la educación ha permitido integrar nuevas herramientas tecnológicas en el aula. La presente investigación analiza la aplicación del aprendizaje combinado (B-learning) como un nuevo modelo pedagógico en la enseñanza universitaria del Ecuador. Para ello se utilizaron las redes sociales, incluyendo actividades virtuales en vivo y grabadas, como complemento a las clases presenciales. Se realizó un estudio no experimental descriptivo a 80 estudiantes y 5 docentes del octavo semestre de la carrera de Sistemas multimedia de la facultad de Filosofía de la universidad de Guayaquil, a quienes se les consultó sobre la aplicación del aprendizaje B-learning en las actividades académicas. El resultado del estudio mostró que el 88,4% del grupo estudiantil se siente satisfecho con la aplicación de este modelo, un 93% lo considera como una herramienta que permite el refuerzo de las actividades presenciales. El 92% opina que le permite ahorrar el tiempo de movilización. El 98,4% de los docentes coincide en que su aplicación contribuye a mejorar la asimilación de los contenidos en los estudiantes. Se concluyó que la aplicación del B-learning tiene un alto nivel de aceptación entre la comunidad universitaria. Su uso ha logrado mejorar la comunicación en el aula, se ha mejorado el rendimiento académico de los estudiantes, eliminando las barreras de tiempo y espacio, presentes en la enseñanza tradicional.

Aprendizaje virtual

Videojuegos, Serious Games y contrafacticidad: El papel de los videojuegos en la enseñanza de la historia

Gaizka Pérez, Universidad de Deusto, Deusto, España

Los videojuegos, en cuestión de pocos años, se han convertido en una de las industrias del entretenimiento más populares. Su creciente aceptación ha provocado que se plantee su uso en ámbitos más allá de lo meramente lúdico. Durante la última década ya han existido diferentes intentos de utilizar este medio con fines educativos. La enseñanza de la historia con videojuegos se enfrenta a un importante problema de esta disciplina, el de los contrafácticos, que ha sido discutido ampliamente por filósofos e historiadores. Algunos de ellos señalan lo útil que puede resultar el utilizar este tipo de recursos con el fin de proporcionar un aprendizaje más específico acerca de las complejas conexiones entre las contingencias históricas. Los videojuegos, como medio interactivo, permiten hacer uso de los contrafácticos de modo que la comprensión de las interrelaciones entre la economía, la tecnología, la política, la diplomacia y otras variables históricas relevantes se presenten de una forma atractiva. Tradicionalmente, gran parte de las propuestas de este tipo han sido desarrolladas desde el concepto de serious games. Sin embargo, la intención de este artículo es mostrar las ventajas de cierta clase de videojuegos comerciales que, frente a los serious games, son capaces de aprovechar en mayor medida el potencial de la contrafacticidad promoviendo un aprendizaje más activo.

Aprendizaje virtual

Monday, 11 March

15:25-17:05 **PARALLEL SESSIONS**

Room 5

Aplicaciones de las Nuevas Tecnologías en el Aprendizaje

Las TIC en la Educación Superior como factor andragógico en la Licenciatura de Informática de la UFPS

Fernel Manuel Cárdenas García, Docente Cátedra y Coordinador Unidad de Registro y Control - Modalidad A Distancia, Norte de Santander, Universidad Francisco de Paula Santander, Cúcuta, Colombia
Maribel Cárdenas García, Docente y Vicerrectora Administrativa, Universidad Francisco de Paula Santander, Colombia
Jorge De Jesús Cañizares Arévalo, Docente y Director Grupo de Investigación Rotá, Universidad Francisco de Paula Santander Ocaña, Colombia
En los últimos tiempos se viene hablando con creciente insistencia en los avances, cambios y transformaciones que la sociedad enfrenta diariamente. En tal sentido, es preciso reflexionar y analizar sobre la conjugación de las Tecnologías de la Información y la Comunicación en la Educación Superior. Esto provoca el interés de generar una construcción teórica y epistemológica para la modalidad de educación a distancia de la Licenciatura en Informática de la Universidad Francisco de Paula Santander, Cúcuta, Norte de Santander, Colombia desde la perspectiva del factor de aprendizaje andragógico. Mencionada investigación se planteó como un estudio de carácter cualitativo apoyado en la etnografía. El escenario objeto de la investigación recae en estudiantes, docentes y egresados de la Licenciatura en Informática de la UFPS y los informantes claves se enmarcaron en pequeños grupos con la intención de visualizar elementos que permitieron la construcción teórica cuyo predominio se enmarca en el factor del aprendizaje andragógico que, Según Adam, es "la ciencia y el arte de instruir y educar permanentemente al hombre". Por lo tanto, la presente investigación dejó aportes altamente significativos para la estructuración y conformación de la base curricular de la Licenciatura en Informática en la modalidad de educación a distancia. Asimismo, se definen algunos modelos pedagógicos y enfoques de enseñanzas impregnadas con las necesidades y expectativas de quienes se forman y capacitan como Licenciados de la Universidad Francisco de Paula Santander.
Tecnologías en el intercambio de conocimientos

Plataforma de análisis semántico para documentos multimedia en un entorno escolar

Toni Badia, Profesor asociado, Universidad Pompeu Fabra, España
Gemma Iglesias, Universidad Pompeu Fabra, España
Jens Grivolla, Investigador, Universidad Pompeu Fabra, España
Maite Melero, Investigadora, Universidad Pompeu Fabra, España
Leo Wanner, Investigador principal, Universidad Pompeu Fabra, España
Antoni Zabala, Presidente, IRIF, España
Sílvia Redondo, Escola Garbi, Barcelona, España
En el proyecto TecSemHu (Recercaixa 2018) elaboramos una plataforma de análisis semántico de documentos multimedia (audiovisuales y textuales) para ser usada en contextos educativos en humanidades. Las lenguas de los documentos son catalán, español e inglés. Para cumplir este objetivo, es necesario integrar las tecnologías lingüísticas y las herramientas de análisis semántico necesarias en una plataforma; crear el capítulo catalán de la DBpedia; generar un repositorio de documentos multimedia analizados y enriquecidos semanticamente; implementar un entorno de usuario que permita explotar de forma eficiente y asequible los documentos enriquecidos; y validar la implementación de la plataforma en un piloto en un entorno educativo real en educación secundaria. Es un proyecto de dos años (04/2018 - 03/2020), cuyas etapas principales son el desarrollo o adaptación de las herramientas de análisis; la recopilación de documentos para el repositorio; y la creación y validación de un demostrador para ser usado en el piloto. Actualmente, las herramientas de análisis están en fase de experimentación y se ha constituido la DBpedia catalana. Se han seleccionado los temas concretos en que se planteará el piloto en cursos de tercero de ESO (otoño-invierno 2019). Se está constituyendo el repositorio de documentos relevantes para el piloto, y preparando la interfaz de consulta. La plataforma en el entorno educativo facilitará el aprendizaje autónomo, competencial, globalizado e integrado, así como la formación en búsqueda e investigación guiada, la capacidad de discernimiento de lo relevante, y la cooperación entre pares en el proceso de aprendizaje.
Aprendizaje virtual

Sistemas de análisis de calidad en sitios web y el caso de los portales universitarios

Alejandro Morales Vargas, Doctorando, Universidad Pompeu Fabra, Barcelona, España
El propósito de este trabajo es mostrar un estado de la cuestión en el ámbito de la calidad de sitios web realizado a través de un análisis de producción científica y revisión sistematizada de literatura. Se identifican los trabajos académicos y profesionales más relevantes sobre este tema. Al mismo tiempo se pretende demostrar cuáles son los principales autores, desde qué contexto profesional y desde qué áreas del conocimiento se aproximan al tema. También, se trata de detectar qué procedimientos metodológicos emplean para medir la calidad web y conocer si sus resultados están basados en evidencia o se presentan mediante casos de estudios. En particular, se detallan los artículos de investigación que examinan los portales web de las universidades con el objetivo de proponer un instrumento que considere parámetros e indicadores específicos para el sector de la educación superior.
Tecnologías en el intercambio de conocimientos

Tuesday, 12 March	
08:30-09:00	**Conference Registration Desk Open / Mesa de inscripción abierta**
09:00-09:20	**Daily Update / Noticias del día**
	Dr. Phillip Kalantzis-Cope, Chief Social Scientist, Common Ground Research Networks, Champaign, United States
09:20-09:55	**Plenary Session / Sesión plenaria (en inglés)—Ronda Zelezny-Green, Honorary Research Associate, Royal Holloway, University of London, UK**
	"Okay Google: Considering Policies to Address Racial and Gender Bias Echoes in AI Systems" **Ronda is a mobile technologist, educator, and researcher, whose professional experience spans the public, private, and civil society sectors. She specializes in educational technology (especially mobile learning), gender, teaching and training, and policy advice. She has provided quantitative and qualitative market insight and analysis as well as project implementation leadership for a wide range of stakeholders including schools, mobile network operators, governments, and international NGOs. Ronda regularly publishes in academic forums and is globally recognized as the world's foremost expert in gender and mobile learning. She holds a PhD in Human Geography with an ICT4D focus at Royal Holloway, University of London, where she is also an Honorary Research Associate, and is a Co-Founder and Director of Panoply Digital. Dr Zelezny-Green currently works as a director at the GSMA, the global trade association for the mobile industry.**
09:55-10:25	**Garden Conversation / Charlas de jardín**
	Garden Conversations are informal, unstructured sessions that allow delegates a chance to meet plenary speakers and talk with them at length about the issues arising from their presentation. When the venue and weather allow, we try to arrange for a circle of chairs to be placed outdoors. **Las charlas de jardín son sesiones informales no estructuradas que permiten reunirse con ponentes plenarios y conversar tranquilamente sobre temas derivados de su ponencia. Cuando el lugar y el clima lo permiten, se realizan en el exterior.**
10:25-10:30	**Transition Break / Pausa**
10:30-12:10	**PARALLEL SESSIONS**

Tuesday, 12 March	
10:30-12:10	**PARALLEL SESSIONS**
Room 1	**New Media Ecosystems**

Of Trolleys and Tesla: Could Trolley Cases Help Us Understand How to Program Autonomous Vehicles?

John Basl, Assistant Professor, Philosophy, Northeastern University, United States
Jeff Behrends, Lecturer, Philosophy, Harvard University, Cambridge, United States
Mark Lee, Harvard Law, Harvard University, Cambridge, United States

In this paper, we hope to explain how theorizing about Trolley Cases is related to answering ethical questions facing the employees of car manufacturers. We canvas three important accounts of this relationship already defended in the literature. We first consider two instances of Trolley Optimism, views on which thinking about trolley cases bears in an important way on how autonomous vehicles (AVs) should be designed. A traditional form of Trolley Optimism sees Trolley Cases as structurally identical to real-world cases involving AVs and seeks to deploy traditional philosophical resources to inform the design of AVs. A second form, inherent in the MIT Moral Machine approach, seeks to use Trolley Cases to collect responses from a wide audience, aggregate that data, and then apply the insights gleaned from that data to enact our collective preferences in the design of self-driving cars. Trolley Pessimists are skeptical of the value of Trolley Cases, typically because either they doubt the value of thought experiments or think that AV crash scenarios are too dissimilar to Trolley Cases. We too think that deciding how to program AVs is importantly different than deciding what the best course of action in a Trolley Case is. But our Trolley Pessimism is grounded in the view that the machine learning systems that are the foundation of self-driving cars force us to adopt a paradigm on which it is choices about entire training sets that are subject to ethical evaluation, significantly diminishing the value of Trolley Cases.

2019 Special Focus: The Social Impact of AI: Policies and New Governance Models for Social Change

New Media Ecosystems: Amazon and the Emerging Knowledge Economy

Eric Freedman, Dean and Professor, Columbia College Chicago, United States

The ongoing industrial migrations of new technologies (game engines, artificial intelligence, augmented and virtual reality, and 3-D imaging) across commerce, news, entertainment, prototyping and manufacturing, scientific visualization, education and within the military suggest they have broad power for organizing the cultural field. In a multi-million-dollar deal with game developer Crytek, Amazon licensed the CryEngine in 2015 as a codebase for its own proprietary Lumberyard engine; the company's goal was to expand the Amazon Web Services ecosystem by consolidating a suite of products and services for video game developers (tools for building, hosting, and livestreaming). And with its 2017 acquisition of Body Labs, a 3D body modeling startup, Amazon expanded its investments in artificial intelligence; the company's interest in avatar-based technologies is part of a broader visual communications and e-commerce strategy. This paper foregrounds Amazon as a case study model of an emerging new media ecosystem--an industrial arrangement that has emerged to concretize the exchange value of integrated software and hardware mechanisms, with the broader goals of connecting information to e-commerce, pairing knowledge to technobiographic identity models, and shaping the emerging technology trends for communities (no-fault algorithms and conversational computing). With close attention to Amazon's acquisition and build strategy, and its hermetic information systems and workflows, this paper unravels the complex intersectionality of the company's technocentric portfolio.

Technologies in Society

Twitter as a Journalistic Work-Tool in a "Twitter-unfriendly" Society

Dr. Yaron Ariel, Lecturer, Yereel Valley College, Israel
Vered Elishar-Malka, Yereel Valley College, Israel

Twitter is one of the most popular online social networks worldwide, however, in Israel, for the majority of the population - enthusiastic users of other online social networks -Twitter is an unfamiliar arena. Unlike most Israelis, news media professionals (as well as politicians and PR personnel) are dominant users of the platform. To examine Twitter roles in their lives, senior news professionals with active Twitter accounts were identified as the target population, and were then asked to answer a questionnaire that included closed and open questions. Our findings demonstrate that Twitter use has a professional orientation: 64% of the respondents tweet only as part of their journalistic position, and 77% of those tweets are designated for their colleagues and not for the public. A significant difference was found in the presumed influence of Twitter, with a higher attributed influence for those who used Twitter more than two years and the lowest for those who used it for less than three months. Analysis of responses to the open questions on the questionnaire reveals seven primary reasons for the adoption of Twitter: Self-curiosity, Being innovative, Expressing their unique voice to relevant actors, Supporting work routines: quick updating and expanding the circle of sources, Exposure to additional audiences, "Marking territory" - quickly and effectively being the first to publish information, and, Editorial board pressures. *Technologies in Knowledge Sharing*

Tuesday, 12 March	
10:30-12:10	**PARALLEL SESSIONS**
Room 2	**Defining and Shaping Third Spaces**

Social Impact of Gaming in India

Divya Mc Millin, Professor and Executive Director, School of Interdisciplinary Arts and Sciences, University of Washington Tacoma, Tacoma, Washington, United States

What is the social impact of gaming in developing economies such as India? This paper seeks to address this question through the case study of the League of Extraordinary Gamers in Bengaluru, India through four phases of fieldwork spanning 2013-17. The theoretical concept of Thirdspace allows us to explore more fully, the process by which young media users in India leverage their connectivities and technology options to produce a "place" they can habit meaningfully and powerfully. The first phase of fieldwork in 2013 in Bengaluru, one of the first cities to be digitized, revealed significant upheavals in the city with the installation of fiber optic cables throughout. It was that summer that LXG was established, necessitating fieldwork in summer 2015 when the gaming industry achieved a dramatic spike. Analysis of LXG campaign strategies and marketing materials, as well as interviews continued in early 2016, both with shoutcasters and marketers in Bangalore as well as developers in Seattle and Bellevue, Washington, where the most popular games are developed. The final phase of fieldwork was conducted in summer 2017, where visits to four private universities in the city and interviews and participant observation at LXG, filled in the gaps on media preferences and gaming habits. Thinking through gaming centers and streaming programming as Thirdspace advances our understanding of how new technologies can engender notions of global citizenship and local agency.

Technologies in Society

Hookup Apps and the End(s) of Community

Greg Goldberg, Associate Professor, Sociology, Wesleyan University, Middletown, United States

Critics have faulted Grindr and similar "hookup apps" for commodifying social relations; instead of treating potential partners as "human beings," Grindr users are thought to treat each other as objects to be consumed and disposed of at whim. In other words, what ought to be a community or collective of users is instead a market. In this paper, I draw from the so-called "antisocial thesis" in queer theory to critique this valuing of communal and collective relations. I propose that the market-like relations established through apps like Grindr may in fact be politically desirable insofar as they thwart the desire to know, speak for, and act in the interest of others – a tendency that may appear altruistic but has annihilative ends. I also consider the implications of these market-like relations on the establishment and maintenance of identity.

Technologies in Knowledge Sharing

Co-Ability through the Coming Together of Solid Bodies : Arguments by Means of a New Synthesis of Objects and Bodies

Renata Dezso-Dinnyes, Assistant Lecturer, MOME Digital Craft Lab, Moholy-Nagy University of Art and Design, Budapest

The purpose of this proposal is to discover convincing arguments by means of a new synthesis of objects and bodies, as well as to seek ways of presenting design culture as an integrative discipline that allows researchers to formulate new questions for the field. The proposal accommodates a design approach to understand the intercorporeality between disabled recipients and design technology, focusing on practice to theory links (with emphasis on understanding the complex social phenomenon of stigmatised identities). The design process data were further analysed by using an interpretive approach to prove a grounded theory. The research was conducted in a context characterised by the changing character of disability and the nature of solid bodies coming together. What happens when instead of the body normative organisation, the body could be considered as diversative and be fluidly multiplied? Can it create a new nomad energy exchange between entities? Also, can it create new productive and innovative existence by not using normative functions, and by using normative "Body Schema" only? Does the launch of inorganic technology automatically mean the deconstruction of the subjective self? Our understanding of the actors involved will be deepened if normative power is not exercised. Thus, not only their personal experiences will be brought into the project, but also the social forces will provide a rich array of research opportunities. The aim is to understand the network between organic and inorganic bodies better, to achieve an improvement in the contemporary complexities of human life.

2019 Special Focus: The Social Impact of AI: Policies and New Governance Models for Social Change

Virtual Coaching: Leveraging Technology for Professional Development of Teachers

Dr. Gregory MacKinnon, Professor of Science & Technology Education, School of Education, Acadia University, Canada
Delise Williams, Bryant College, Saint Kitts and Nevis
Terry Ann Marsh Roberts, Teacher Educator, Antigua State College, Antigua and Barbuda
Yvonne Jones, Teacher Educator, T.A. Marryshow Community College, Grenada

Communication technologies were accessed to offer virtual coaching to literacy teachers in six Caribbean countries. Expert coaches provided professional advice to teachers as they taught in public school classrooms. Using a mixed methods action research methodology, the efficacy of the coaching system was evaluated as a reasonable cost effect alternative to onsite visits. Field notes, surveys, interviews and focus groups were reviewed in an iterative fashion in order to offer thematic assessment and potential improvements to the system.

Technologies in Knowledge Sharing

Tuesday, 12 March	
10:30-12:10	**PARALLEL SESSIONS**
Room 3	**Virtual Environments**

Museum Affinity Spaces: Exploring the Potential of a New Tool for Re-imagining Museum-school Partnerships for Multiliteracies Engagement and Learning

Dr. Stefania Savva, Postdoctoral Research Fellow, Department of Multimedia and Graphic Arts, Cyprus University of Technology, Cyprus
Dr. Nicos Souleles, Associate Professor, Department of Multimedia and Graphic Arts, Cyprus University of Technology, Cyprus

The proposed research shall give insights into the potential of immersive virtual environments (IVEs) to act as platforms for developing and evaluating multiliteracies learning for students. To examine the latter, this paper delves into the Museum Affinity Spaces (MAS) project, an empirically based, pedagogically-driven research initiative, entailing plans for a platform targeted at museums/galleries and learning institutions such as schools and universities, which allows them to form partnerships and be immersed in a virtual environment in order to enrich classroom experience and overcome physical limitations of attending a cultural space. The overall aim of the MAS project is to grant students with opportunities to gain experience of museums and cultural heritage beyond national boundaries and enhance their literacy repertoires by incorporating understandings of technology-enhanced museum learning as a multiliteracy practice. The intention is for school-teachers, museum educators, and students to be able to use a virtual platform themselves and in collaboration with other parties from around Europe and the world, either through synchronous or asynchronous learning to develop learning activities deriving from museums. The project employs design-based research (DBR) and is structured to unfold in three phases: preliminary analysis, the prototyping stage, and implementation and evaluation or assessment. This presentation shall focus on the preliminary analysis and prototyping stage of the project, as it was carried out during the first six months since the project embarked.

Ubiquitous Learning

Professional Learning Communities: Possibilities for Distance and Online Learning

Dr. Heather Hemming, Professor and Academic Administrator, Education, Acadia University, Canada

One of the challenges of asynchronous course delivery is that by nature they involve less live interaction that either face-to-face classrooms or using online synchronous platforms. For the most part, establishing collaborative online communities for students is considered basic to course delivery. For those engaged in online teaching it is well understood that the creation of dynamic online learning communities entails much more than connecting students enrolled in the same course. Making learning meaningful with authentic opportunities for participants to engage in "deep learning" was, in this case study, a paramount feature to the course design. Marrying the opportunities technologies offer with this goal led to the creation of an assignment aimed towards knowledge creation and purposeful use of digital tools and resources that enable and accelerate the process of deep learning. The study is descriptive and exploratory in nature. The focus of this exploration is an assignment entitled Leadership & Informal Assessment - Preparing for a Professional Learning Community. This task was intended to embed the assessment framework within the context of the assignment. Data collection was analyzed using the following items on a 5- point scoring scheme. Did the assignment: create a session whereby participants are actively involved in learning and using embedded technology, reflect a understanding of the principles assessment and the topic of focus? And, adopt a facilitating approach? The results indicate promising possibilities that may have implications across several realms beyond course delivery.

Technologies in Knowledge Sharing

What Drives Support for Self-Driving Cars?: A Survey-based Experiment

Joshua Ferno, Student, Department of Political Science & Policy Studies, Elon University, Elon, NC, United States

Technological advancements for the production of autonomous vehicles are nearing levels of commercial availability, promising to bring dramatic changes to everyday life. The degree to which these vehicles are integrated into the transportation system will be heavily dependent upon regulatory policy. Public opinion about self-driving vehicle policy will inform those policies. This study seeks to understand the current landscape of public opinion on self-driving cars and how it may develop in the future. The project leverages a series of survey-based randomized and controlled experiments, designed to present varied information about perceived benefits and drawbacks to autonomous vehicle technology, to a representative sample of the United States to shed light on the nuance behind correlates of public opinion in this area. Findings offer insight on citizens' attitudes toward the role of government in this emerging technology, as well as contribute to a conversation regarding the perceived value of human autonomy relative to that of the labor-saving benefits of automation. Results suggest that stimuli related to personal safety and autonomy are particularly important, more so than stimuli related to economic implications. Findings are relevant to scholars, policymakers and industry members alike regarding the extent that particular arguments about autonomous vehicles can affect their image among consumers and the wider public.

Technologies in Knowledge Sharing

Tuesday, 12 March	
10:30-12:10	**PARALLEL SESSIONS**
Room 4	**Sociedad y ciudad digital**

El diseño y las nuevas recnologías como motor de infraestructura sostenible en las pequeñas empresas en Chile: Una mirada a las nuevas tecnologías en diseño en pos de empresas y emprendimientos

Cristóbal Moreno, Académico - Jefe de Carrera, Departamento de Tecnologías de Gestión, Área de Diseño Industrial, Universidad de Santiago de Chile, Santiago de Chile, Chile

El diseño puede actuar como un motor fundamental a la hora de potenciar condiciones e infraestructura para su desarrollo sostenible en pequeñas empresas en Chile, regulando la incertidumbre y reduciendo su dependencia de políticas asistencialistas de subvención Estatal, de la importación de recursos y de condiciones de infraestructura productiva, debido a que el país no tiene capacidad para abastecerlas. El diseño identifica valor por medio de la detección e interpretación de las necesidades de las personas. El diseño confiere valor, integrando dicha comprensión del entorno y de los usuarios. También comunica valor, ofreciendo productos y servicios como experiencias relevantes de consumo. Por otra parte, las nuevas tecnologías han permitido generar una democratización de los entornos productivo, permitiendo a la disciplina del diseño gestar mayores proyectos en diversos ámbitos, otorgando nuevas líneas de emprendimiento y desarrollo de industrias creativas. Esta presentación busca fundamentar por qué el diseño y las nuevas tecnologías productivas pueden ser un agente determinante para superar la brecha de condiciones e infraestructura emprendedora en Chile.

Tecnologías en la sociedad

Creando puentes entre la ciudad universitaria y las pequeñas empresas de Valdivia, Chile: Ciudad Universitaria y fomento productivo en cuatro comunas de la Ciudad de Valdivia, Chile.

Julio Carvajal Rivera, Investigador, Instituto de Comunicación Social /Académico, Universidad Austral de Chile, Valdivia, Chile

Valdivia es una antigua ciudad de América (1552) catalogada en Chile y el extranjero como ciudad universitaria por la calidad de sus instituciones de educación superior y su entorno social y natural. Está inserta en un hermoso paisaje natural, rodeada de ríos, bosques y exuberante vegetación, con aproximadamente 300.000 habitantes. Se encuentra a 840 kms. al sur de Santiago, capital de la República de Chile. Por sus características naturales, sociales, turísticas y universitarias, fue declarada en 2016 "Capital Americana de la Cultura", por el Bureau Internacional de Capitalidades Culturales (Barcelona). Queremos presentar en este Congreso los alcances de un proyecto de fomento, innovación y competitividad para 120 pequeñas empresas de 4 comunas de la zona sur de Chile, el cual fue financiado por el Gobierno Regional. El proyecto tuvo como propósito realizar en 2015-2016 un diagnóstico socioeconómico de la realidad productiva del entorno de la ciudad capital. Para esto se utilizó una metodología mixta, cualitativa-cuantitativa, empleando en lo fundamental el modelo de Michael Porter, asociado a la cadena de valor de la empresa. Esto permitió identificar el eslabón clave de debilidad del sector. El resultado fue un plan de fomento e innovación diseñado para vincular a estudiantes y profesores con 120 pequeños empresarios de la zona, quienes están georreferenciados, y que mantienen relaciones productivas con la ciudad universitaria. La propuesta permitió el trabajo integrado de 3 universidades, un centro de estudios científicos y la Municipalidad de Valdivia, quienes integran una corporación local.

Tecnologías en el intercambio de conocimientos

Aplicaciones de la economía digital y programable en las Smart Cities: El caso de la congestión urbana como activo digital

Ferran Herraiz Faixó, Profesor, Universidad de Barcelona, Barcelona, España

La vertiginosa urbanización del planeta presenta grandes desafíos y, al mismo tiempo, grandes oportunidades. La concentración de personas en los espacios urbanos proporciona numerosas economías de escala, pero también implica la generación de externalidades negativas que deben ser manejadas por las Smart Cities. Sin ir más lejos, la movilidad en las ciudades se está convirtiendo en un problema complejo que requiere de un tratamiento urgente por parte de las instituciones, pues sus consecuencias económicas son múltiples y relevantes. La búsqueda de posibles soluciones está ejerciendo presión en el despliegue de las TIC en las ciudades y su consiguiente digitalización a gran escala. Pero esta implementación debe hacerse con una gran perspectiva más allá de lo tecnológico incorporando más conceptos económicos y humanos a través de la economía programable y los incentivos. El presente trabajo exploratorio muestra un modelo de gestión de externalidades a nivel general, y en concreto, sobre la congestión de las ciudades utilizando las posibilidades ofrecidas por algunas de las tecnologías actuales más disruptivas como son el IoT (Internet de las cosas), Blockchain/DLT y la "Token Economy", todas ellas combinadas con aspectos relacionados con el capital humano como la teoría del refuerzo. Las posibilidades potenciales que estos conceptos van a tener en la movilidad futura y en otros campos son enormes para una gestión más sostenible, descentralizada e inteligente que permita un auténtico salto digital.

Tecnologías en la sociedad

Tuesday, 12 March	
10:30-12:10	**PARALLEL SESSIONS**
Room 5	**Academic Applications**

Academic Information Services in the Advent of Artificial Intelligence

Prof. LiLi Li, Associate Professor/E-Information Services Librarian, Georgia Southern University, Statesboro, GA, United States

Impacted by the digital revolution, academic libraries worldwide are in transition to change ways of information delivery and dissemination to support excellence in teaching and learning. To illustrate the impacts of Artificial Intelligence (AI) on future academic information services, this proposed presentation mainly focuses on the advance Artificial Intelligence (AI) in the fields of Deep Learning, Machine Translation, Roberts, and Voice Recognition, since they are driving forces to shape the next generation of academic information services in the future. The paper explores new challenges and opportunities for academic libraries worldwide in this section. In addition to general discussion of academic administration, budget control, staff training, etc., this proposed paper will explore technical limitations and legal impacts of the future Artificial Intelligence (AI) applications used in academic learning environments.

Ubiquitous Learning

Teaching System Analysis and Design through Experiential Learning

Dr. Francine Vachon, Associate Professor of Information Systems, Goodman School of Business, Brock University, St. Catharines, Ontario, Canada

The systems development life cycle (SLDC) is a complex process that often results in costly failures for businesses. Most failures result from human factors: incomplete or faulty requirements, user resistance, lack of user involvement, know-it-all developers, amongst others. In a systems analysis and design, students learn theoretical aspects and technical skills, such as project management, data flow diagrams, normalization, entity-relationship diagrams, database design or software customization. However, the greatest difficulty resides in understanding the human factors that impact SLDC. I teach system analysis and design through service-learning to help students understand the human aspect and organization politics of SLDC. At the beginning of the term, students form teams. Each team will then go through the whole SLDC to build and deliver an information system for a local non-profit organization or a small business. As they learn a new concept, they apply it immediately to their project. At the end of the term, they present and deliver their project and their system to their clients. Students gain a deeper understanding of their craft as well as practical experience. In this paper, I will discuss the lessons I learned from my students' projects as well as best practices developed over the years. Critical success factors will be discussed.

Technologies in Knowledge Sharing

The Affordances of Book App Design for Supporting Early Literacy Development

Dr. Antoinette Doyle, Memorial University of Newfoundland
Jacqueline Hesson, Associate professor, Memorial University of Newfoundland, Canada
Ross Connolly, PhD / Research Assistant, Memorial University of Newfoundland, Canada
Ling Li, PhD Candidate / Research Assistant, Memorial University of Newfoundland, Canada

For decades, parents have been encouraged to provide their young children with exposure to story books, primarily through parent-child reading. Such activity is known to promote some of the foundational supports that children's transition into becoming readers. Evolving technology over the decades has influenced the way young children experience storybook reading. Today, book apps have replaced earlier technology such as the CD-ROM, and with current ubiquitous access to personal computers, tablets, smart phones, and other devices, digitized reading opportunities and uptake has skyrocketed for adults and children alike. Children's e-book reading experiences are shaped by the affordances of evolving digital technology. Indeed, there is a dizzying array of multimedia enhancements to these books that aim to promote an interactive reading experience. Although the technological capacities of book apps are stunning, many parents, educators and researchers question the degree to which they actually benefit children's literacy development. Our study, building on earlier evaluation tools for books on CD ROM, updated evaluative criteria appropriate for e-book evaluation. Using this tool, we systematically examined the design of currently popular e-book apps for young children (preschoolers to age eight), and examined the potential of the design of these apps to support young readers' learning. We examined two overarching areas of research on children's literacy development—print knowledge for supporting word reading skills and language development for supporting comprehension. We will discuss the findings about the design of children's e-books in relation to their affordances for supporting the two key domains essential to reading success.

Ubiquitous Learning

12:10-13:00	**Lunch / Almuerzo**
13:00-13:45	**PARALLEL SESSIONS**

Tuesday, 12 March	
13:00-13:45	**PARALLEL SESSIONS**
Room 1	**Virtual Lightning Talks** **Mobile Learning: The Study in the Palm of your Hands** Karolina Nunes Tolentino Costa, Master's Degree student, Graduate Department of Design, UDESC - Universidade do Estado de Santa Catarina, Florianópolis, Brazil This article aims to investigate the current Art State's on different experiments carried out in the Mobile Learning's area. Through an RLS (Systematic Literature Review) it was researched in recent articles an overview of analyzes and results about the usability aspects involved in this type of educational platform. The work presents results of research (nationally and internationally) carried out with three types of participants: children, adolescents and young people, which show experiments' results regarding ergonomics, user experience, usability and also reflections on the interaction process between students and educational platforms. The methodology used follows the guidelines suggested by the authors Levy and Ellis (2006), which present a sequence of steps and activities to be followed in RLS. T *Technologies and Human Usability* **China's Alternative Moral Economy: A People's Artificial Intelligence?** Marcus Breen, Editor, International Journal of Knowledge, Technology and Society, United States China is advancing its Artificial Intelligence research and application. This talk will draw on research in Beijing, China with IT companies developing AI for use in Social Media and more generally. The paper asks what kind of moral economy framework is emerging in China that differs from the liberal democratic perspective that dominates US and Western European analysis. *2019 Special Focus: The Social Impact of AI: Policies and New Governance Models for Social Change*

Tuesday, 12 March	
13:00-13:45	**PARALLEL SESSIONS**
Room 2	**Ponencias virtuales breves (en español)**

Diseño y construcción de una prótesis transfemoral expandible de bajo costo en el mercado peruano

Sebastián Alonso Rodríguez Chávez, Estudiante, Universidad Privada del Norte, Perú
Adams Frederick Palomino Girio, Estudiante, Universidad Privada del Norte, Perú
Paul Anthony Yengle Benavides, Estudiante, Universidad Privada del Norte, Perú
Renato Gianmarco Rodríguez Silva, Estudiante, Universidad Privada del Norte, Perú
Jorge Octavio Gozalo Esquivel, Estudiante, Universidad Privada del Norte, Perú
Ruth Manzanares Grados, Docente, Pontificia Universidad Católica del Perú, Perú

En Perú, el 16.4% de los hogares tienen al menos un miembro de la familia con alguna discapacidad, ya sea física y/o mental. La discapacidad para usar las extremidades tanto superiores como inferiores es la de mayor incidencia, llegando al 3.1% de la población peruana, lo cual se traduce en un total de 931.990 peruanos, de los cuales el 0,3% tiene la facilidad de obtener una prótesis, pero más del 43.7% no utiliza ninguna, lo cual no implica que no lo necesite. Dado este porcentaje de personas que no cuentan con la posibilidad económica de adquirir una prótesis debido a sus altos costos en el mercado peruano, se encontró la necesidad de brindar una solución más económica, personalizada y duradera. Legnar, es el resultado de un estudio antropométrico, social, ergonómico y de materiales, que permite una reducción en el costo final de un 51% en las prótesis, brindando al sector de la población peruana con una amputación transfemoral, el acceso a una prótesis que mejore su calidad de vida, proporcionándoles autonomía y una mejor integración en el ámbito social y laboral, así como la cooperación a la propiocepción y aceptación del usuario. Muestra una serie de características mejoradas con respecto a las prótesis existentes en el mercado, pero que invitan a la búsqueda de su mejoramiento constante para continuar brindando mejores prestaciones a sus usuarios, teniendo como meta final la devolución de todas sus capacidades motrices presentes antes de la amputación.

Tecnologías en la sociedad

Inteligencia artificial y propiedad intelectual: Retos y desafíos

Laura Caballero, UNIR, Madrid, España

La llegada de la IV Revolución Industrial —un ecosistema tecnológico conformado por plataformas de inteligencia artificial, robótica, nanotecnología, el Internet de las Cosas o las redes móviles 5G— supone un desafío para el derecho en general, y para un concreto sector normativo —la propiedad intelectual— en particular. El catálogo de derechos protegibles y las distintas vías tuitivas es amplio y flexible. Por ejemplo, el derecho de paternidad y su protección a través de los derechos de autor. También puede plantearse la protección, en sede de derechos de autor por vía de derechos conexos o, por qué no, a través de patentes. Pero la naturaleza huidiza de atributos de personalidad de los entes dotados de inteligencia, como robots o chatbots, supone un desafío jurídico, por cuanto a priori carecen de las referidas cualidades, que son requisitos imprescindibles en nuestro ordenamiento jurídico para otorgarles derechos inherentes a la propiedad intelectual como, por ejemplo, el reconocimiento de la autoría. En concreto, este sector normativo ha mostrado flexibilidad ante los sucesivos embistes tecnológicos, pero ahora urge aquilatar si la legislación existente es suficiente para resistir el panorama que se avecina. En esta comunicación se abordan algunos de los principales retos que, en materia de propiedad intelectual, implica la llegada de la IV Revolución Industrial.

Tema Destacado 2019: El impacto social de la Inteligencia Artificial: Políticas y nuevos modelos de gobierno para el cambio social

Minería de datos y sus aportes para las nuevas tendencias de snvestigación social: Perspectivas y herramientas en la era del Big Data

Cristian Loyola, Docente, Universidad la República, Universidad la República, Chillán, Chile

La presente ponencia tiene como objetivo invitar a la reflexión respecto a los cambios que está sufriendo en la actualidad el paradigma de las ciencias sociales en relación a su forma de hacer investigación social. Esto debido a las transformaciones y aportes que han surgido en los últimos años gracias al Big Data, entendiendo que el trato de los datos masivos es mucho mas complejo que simplemente tener un gran número de información, que se puede manejar en una tabla tradicional. Este desafío requiere una comprensión y herramientas mejores, especialmente para aquellos nuevos actores que pretendan hacer ciencia de datos y que provengan de disciplinas alejadas de las tecnologías de información y comunicación. La estadística, la sociología y otras disciplinas que se han hecho cargo del manejo de datos para inferir resultados se ven expuestas a una nueva realidad, ya no limitada por los recursos limitados de tiempo y espacio basados en muestras estadísticas, sino que, frente a posibilidades nunca antes imaginadas, abre nuevas perspectivas a la búsqueda de datos, la ética respecto a estos, la forma de interpretarlos y también de visualizarlos. Uno de los aspectos importantes es el proceso conocido como minería de datos, que básicamente es la forma en que se exploran y abordan. Es por ello que se presentarán las estrategias mas utilizadas hoy, las ventajas e inconvenientes para la investigación social, su aplicación práctica para el científico social, los nuevos conocimientos y perspectivas

Tecnologías en el intercambio de conocimientos

La brecha tecnologica en la Licenciatura de Comunicación Social en la Universidad Autónoma de S Domingo

Lady Laura Liriano Balbi, Estudiante, Universidad de Salamanca, Salamanca, España

El tópico principal de la investigación es la tecnología como catalizador de la sinergia que debe existir entre la educación intercultural y los medios de comunicación. Se trata de un tema cardinal en el actual contexto de digitalización al que tiende la cultura y la enseñanza, aspectos en los cuales la educación de la República Dominicana se ha quedado rezagada, por lo que la tesis plantea buscar alternativas de análisis profundo del problema. El tema trasciende las limitaciones de la insularidad dominicana y se podría considerar de carácter universal, con incidencias en cualquier país, por lo que no se limita a la exégesis de un marco teórico-conceptual. Pretendemos realizar una propuesta de abordaje e implementación al problema. La UASD servirá de escenario, pues los programas de estudios de la Licenciatura en Comunicación Social están divorciados de los modelos de enseñanza de integración de tecnología en las aulas, además del abismo que existe con la demanda en el ámbito laboral en los medios de información del siglo XXI. Este desfase ha sido legitimado como algo connatural, puesto que para muchos la barrera de lo que se enseña y lo que se practica es diferente. Una cosa es la carrera universitaria y otra el accionar de un egresado, si bien la dicotomía debe evitarse, puesto que el profesional de la comunicación no puede cargar con esa brecha que separa al estudiantado del practicante como si se tratara de entidades diferenciadas y no del mismo individuo en evolución.

Tecnologías en el intercambio de conocimientos

Tuesday, 12 March	
13:00-13:45	**PARALLEL SESSIONS**
Room 2	**Ciencia, tecnología e innovación: Elementos clave para la integración de Colombia en la región durante el posconflicto** Mayerly Saavedra, Estudiante, Auxiliar de investigacion del proyecto de investigacion DIS 2568, Universidad Militar Nueva Granada, Colombia Colombia se encuentra dentro de un escenario del posconflicto en el que el gobierno tiene desafíos importantes como mantener la paz y construir sociedades más incluyentes y equilibradas para convertirse en una unidad productiva que aporte al desarrollo no solo de las regiones más afectadas sino del país en general. Con este trabajo se pretende explicar por qué en el desarrollo de Colombia en la época del posconflicto es fundamental enfocarse en el eje de la educación principalmente en la ciencia, la tecnología y la innovación. El enfoque metodológico de esta investigación es la revisión estructural de fuentes primarias. Mediante esta se ha encontrado como conclusión principal que la educación debe ser la base fundamental del desarrollo en el posconflicto, no solo en términos de formación, sino también a la hora de consolidar reconciliación y en la construcción de una cultura de paz. Por ese motivo es importante fomentar el desarrollo de la ciencia, la tecnología y la innovación (CTI). Con los resultados del presente trabajo se pretende generar recomendaciones en cuanto al uso de la educación en el posconflicto, generando un desarrollo sostenible, bienestar para la población y una integración efectiva en la región. *Tecnologías en la sociedad* **Estrategias didácticas para expresar la información técnica a las comunidades de bajos recursos, bajo el enfoque de la responsabilidad social** Adriana Maria Rangel Arenas, Docente, Facultad de Arquitectura y Diseño, Universidad Jorge Tadeo Lozano, Cajica, Cundinamarca, Colombia Marianela Mas Y Rubi, Docente, Universidad del Zulia, Venezuela Francisco Javier Civitillo Hernández, Docente, Universidad del Zulia, Maracaibo, Venezuela La sociedad venezolana en la última década ha vivido un proceso de transformación en la generación del hábitat como refugio familiar. Un proceso complejo dirigido hacia las clases más desposeídas, pero a la vez débil en cuanto a su implementación y poca productividad. La Universidad del Zulia ha desarrollado un estrecho vínculo con el contexto social. A partir de este escenario la investigación se circunscribe en aportar estrategias didácticas que permitan expresar la información técnica sobre el hábitat y sus habitantes bajo el enfoque de la responsabilidad social a objeto de mejorar el mantenimiento y vida útil de las edificaciones. Capacitar estas áreas requiere de instrumentos metodológicos de aprendizaje específicos ajustados al nivel de comprensión presente en los habitantes. La comunidad Ricardo Aguirre ubicada en la ciudad de Maracaibo, representa el caso a estudio de esta investigación. Metodológicamente se ha aplicado la investigación-acción, documental y de campo, para proceder a la obtención, registro y organización de la información de fuentes vivas y documentales, definir líneas de desarrollo y áreas de conocimiento correspondientes al proceso de mantenimiento y servicio en edificaciones, y diseñar de estrategias didácticas para expresar la información técnica a las comunidades. Todas estas acciones de crecimiento en los senderos de la integralidad del saber común y académico, la búsqueda conjunta del bien común y el compromiso social, han permitido llegar a la conclusión de desarrollar documentos técnico-didácticos con un lenguaje adaptado, pero a la vez con el propósito de fortalecer la capacitación comunal de forma socialmente responsable. *Tecnologías en la sociedad* **El uso de Facebok como recurso para el aprendizaje virtual del portugués** Luciane Ribeiro, Estudiante, Universidad Veracruzana, México Jessica Badillo Guzmán, Universidad Veracruzana, México Marcela Mastachi Pérez, Profesora, Universidad Veracruzana, México El uso de Facebook como recurso de apoyo para el aprendizaje ha tomado fuerza en los últimos años. Sea por su proliferación entre la población, por la posibilidad que brinda de compartir recursos audiovisuales o por la oportunidad de generar grupos y comunicarse de forma síncrona y asíncrona, Facebook representa un espacio de aprendizaje útil, funcional y viable para profesores y estudiantes, en una era digital en la que el conocimiento se produce y se distribuye, en buena medida, en la red. Particularmente, en el aprendizaje de lenguas Facebook ha demostrado ser un recurso eficiente. En este marco, esta ponencia presenta los resultados de una experiencia de gestión del aprendizaje del portugués en un grupo de estudiantes de posgrado en México, utilizando el método de proyectos, desde su planeación hasta su evaluación, en el formato de curso-taller. En ella, Facebook se incorporó como una herramienta para compartir, analizar y discutir materiales de aprendizaje del portugués, tales como videos, imágenes, documentales y páginas web que favorecieron, además del aprendizaje del idioma, la inmersión cultural. Los resultados demuestran la pertinencia de Facebook en el aprendizaje de una lengua extranjera y los beneficios que genera el aprendizaje virtual a través de redes sociales para el logro de los objetivos y proyectos que orientaron el desarrollo del curso-taller. *Aprendizaje virtual* **Uso de la telemedicina: Caso práctico de teleconsultas de San Quintín a Tijuana (Baja California)** Cristian Castillo Olea, Investigadora, Universidad de Deusto, España Gilberto Montaño Duron, Universidad de Deusto, España Arturo Serrano Santoyo, Universidad de Deusto, España Este artículo proporciona una introducción sobre el uso de la teleconsulta utilizando dispositivos móviles en áreas rurales del Estado de Baja California, México, que involucró a estudiantes de la Facultad de Medicina y Psicología de la Universidad Autónoma de Baja California. Las teleconsultas fueron realizadas usando la plataforma Telmedx. El objetivo es optimizar los tiempos de viaje y los costos para los pacientes de Tijuana y San Quintín. Actualmente tiene una estimación de desplazamiento de 6 horas de viaje. Como metodología se empleó una entrevista tipo script semi-estructurada que se implementará para estudiantes y médicos, para que puedan describir cómo fue la experiencia de trabajar con el uso de la tecnología. En este caso, cómo se utilizó la teleconsulta con el apoyo de una colaboración de tecnología de la información y la comunicación a través del intercambio de información y el despliegue de teleconsultas, lo que facilitó el proceso de toma de decisiones del médico en casos de enfermedades pediátricas y ayudó a reducir el tiempo de viaje y los costos para los pacientes. *Tecnologías en la sociedad*

Tuesday, 12 March	
13:00-13:45	**PARALLEL SESSIONS**
	Modelo de trabajo colaborativo para el sector agropecuario de Santander: Perspectiva sistémica que sustenta la interacción social de los agentes que conforman el Sistema de Innovación Agropecuario en Santander, Colombia Leidy Dayhana Guarin Manrique, Universidad Industrial de Santander, Colombia Mónica Gisela Dueñas Gómez, Investigadora, Universidad Industrial de Santander, Colombia Hugo Ernesto Martínez Ardila, Profesor, Universidad Industrial de Santander, Colombia Luis Eduardo Becerra, Universidad Industrial de Santander, Colombia Con base en los resultados del proyecto denominado "Diseño de un modelo de trabajo colaborativo entre actores del sector agropecuario para el desarrollo de la Agrópolis de Santander – Magdalena Medio", conocido también como Agrópolis MACTOR, el cual ha sido ejecutado bajo la convocatoria 745 de Colciencias (Departamento de Ciencia, Tecnología e Innovación en Colombia), y teniendo en cuenta que su principal objetivo es brindar herramientas que contribuyan con la articulación de los distintos agentes que forman parte de la triple hélice del Sistema de Innovación Agropecuario (SIA) en la región santandereana, se ha generado como principal aporte desde el campo de la investigación, la propuesta de un conjunto de escenarios que posibilitan la visualización de Agrópolis MACTOR, como: (1) el sistema actual percibido, (2) aquel que podría llegar a ser el ideal (en un mediano y largo plazo), y, (3) el denominado como no deseado, también en un mediano y largo plazo. Como metodología para obtener estos resultados prospectivos, se ha recurrido a la implementación de los métodos MACTOR y MIC-MAC, así como de estrategias que involucran lineamientos de metodologías participativas. Se espera que éstos resultados logren aportar al conjunto de barreras que han sido identificadas tanto en la literatura como en el SIA Santandereano, de tal manera que favorezca tanto la generación de interacciones efectivas orientadas a la transferencia de conocimientos y tecnologías, como el desarrollo de procesos innovadores que impacten en el desarrollo de los mercados y del territorio. *Tecnologías en la sociedad*

13:00-13:45 **PARALLEL SESSIONS**

Room 3

Virtual Posters and In Person Posters

How to Evaluate the English Learning Experience Based on Serious Games: Psychometric Properties of the Game Experience Questionnaire in Ecuador

Alexandra Morales, Assistant Professor, Health Psychology, Miguel Hernández University, Elche, Spain
Clayton Carrasco, Teaching Professor, Universidad de Guayaquil, Ecuador
Mireia Orgilés, Associate Professor, Miguel Hernández University, Spain
José P. Espada, Full Professor, Miguel Hernández University, Spain

The use of serious games for learning is increasingly common in academic contexts. The Game Experience Questionnaire (GEQ) is a widely used instrument to evaluate the psychological implications of games; However, no Spanish version is available. The aim of this study was to adapt and validate the English version of the Game Experience Questionnaire (GEQ) into Spanish. Factor structure and reliability of this tool with college students in Ecuador were examined. Analyses were conducted based on a sample of 71 students aged 18-24 years (M = 19.62; SD = 1.67; 68% were females) who were exposed to a methodology based on serious games and gamification for learning English during 2017-18. We conducted confirmatory factor analyses (CFA) using R Package for Structural Equation Modeling version 5-12 and Cronbach alpha was calculated. This study confirmed the seven-factor structure of GEQ and an adequate reliability for each subscale: "competence" (5 items; $\alpha = .80$), "sensory and imaginative immersion" (6 items; $\alpha = .86$), "flow" (5 items; $\alpha = .77$), "tension/annoyance" (3 items; $\alpha = .85$), "challenge" (5 items; $\alpha = .63$), "negative affect" (4 items; $\alpha = .86$), and "positive affect" (5 items; $\alpha = .90$). Reliability of the GEQ was excellent ($\alpha = .84$). The Spanish version of the GEQ seems to be a valid and reliable tool for assessing relevant dimensions of game experience in college students in Ecuador. Future research involving a larger sample is needed to consolidate these preliminary results and examine temporal stability of the GEQ.

Technologies in Knowledge Sharing

Ischemic Heart Disease Diagnosis Expert System

Dan Bouhnik, Head of the Computer Science Department, Jerusalem, Israael, Jerusalem College of Technology
Maayan Zhitomirsky Geffet, Senior Lecturer, Bar Ilan University, Israel
Gila Prebor, Senior Lecturer, Bar Ilan University, Israel

Expert systems are one of technology's greatest contributions to society today, particularly medical systems which may improve people's quality of life and even actually help save lives. In this research we will design and develop the technology for an expert system for doctors for the diagnosis of Ischemic Heart Disease (IHD) and determination of its' severity, by monitoring and analyzing symptoms predefined by cardiac experts and researchers. IHDs are characterized by a decrease in the supply of blood to the myocardium, i.e. a discrepancy between the hearts' demand for oxygen and the actual blood flow to the heart. The purpose of this research is to develop an expert system which will aid doctors diagnosing cardiac patients and help them decide which tests are necessary and what is the best possible method of treatment, all while constituting a reliable basis for an information system. We will try to develop an information system which will analyze the disease as a human being would. In order to do so we will utilize artificial intelligence. We will examine two mathematical systems for the product development, diagnosis and solution. We will attempt to tailor the system so it will present diagnostic results as close as possible to human analysis.

Technologies in Society

Using Flipped Classroom in Computer Science

Iñigo Mendialdua, Assistant Professor, Computer Languages and Systems, University of the Basque Country, Donostia, Spain
Montserrat Maritxalar, Unevirsity of the Basque Country, Spain
Dr. Ana Arruarte, University of the Basque Country, Spain
Josu Ceberio, University of the Basque Country, Spain
Itziar Irigoien, University of the Basque Country, Spain
Jose Francisco Lukas, University of the Basque Country, Spain
Jesus Ibañez, University of the Basque Country, Spain

In this project we have implemented the flipped classroom learning method in the Faculty of Computer Science of the University of the Basque Country in order to increment the students' autonomy. We have applied the learning method in two subjects: Statistics and Programming Methodology. To do so, the material of each subject has been prepared in several formats such a book, notes and videos. At the end of the lessons we have interviewed some of the students and they have valued positively this innovative learning method. Viewing the feedback we have decided to continue testing it in other subjects such as Data Structures and Algorithms and Databases

Technologies in Knowledge Sharing

Geovisualization as Art in Higher Education

Hannah Hamalainen, Assistant Professor, Geospatial and Earth Sciences Librarian, University Libraries, University of New Hampshire, Durham, NH, United States

Geovisualization is the science and art of visualizing and interpreting spatial information. By fostering artistic expression through geospatial design, GIS can prove to be a future asset for the scientific education field -- by displaying scientific information in the geospatial sciences. This poster demonstrates an alternative proactive pedagogical tactic for librarians embedding themselves into geospatial technologies curriculum by teaching spatial information literacy and student geospatial artwork. Two geospatial classes have used geospatial software to generate art as a means to explore the visual attributes of data and to experiment with new algorithms and methods uncommonly used by students. The primary aim of the pedagogical methods employed was to simultaneously increase the interest, creativity and geographic skills among science university students while increasing the arts-based engagement from the community.

Technologies in Knowledge Sharing

Tuesday, 12 March	
13:00-13:45	**PARALLEL SESSIONS**

Virtual Communities and Social Participation: Widening the Limits of Participatory Budgeting

Márcia Maria de Medeiros Travassos Saeger,
Júlio Afonso Sá De Pinho Neto, Associate Professor III, Department of Applied Social Sciences, Federal University of Paraíba - Brazil, Mamanguape, Paraíba, Brazil

Participatory Budgeting (PB) is a mechanism of participative democracy set to promote a debate between society and the city administration to find the best way of using public resources and the public policies thereof. Thus, the discussions towards the implementation of such policies must be founded on shared knowledge and experience, a process in which the different social actors involved in this context can interact. In this scenario, the creation of virtual communities arises as a special feature, for they can assemble citizens with the objective of discussing budgeting as a community. Virtual communities are virtual settings able to stimulate a greater interaction among members, which promotes social participation. Such context of virtual settings applied to the PB motivated the development of this study. The objective of this exploratory and descriptive research – which developed from a case study – was to evaluate the Online version of the Participatory Budgeting in the city of João Pessoa, located in the state of Paraíba, Brazil. The study's findings revealed that the implementation of the Online PB was only meant to learn the community's demands through a virtual setting. However, opposite to the dialogical and participatory nature of the PB, the tool did not foster the interaction among participants that can further the collective discussion about the actual needs of each community. Such findings reveal the need to reformulate the Online PB to make it into a true virtual community, of dialogical character, which the PB of João Pessoa really needs.

Technologies in Knowledge Sharing

Citizenship, Proactive Tourism and Multimedia Communities: New Challenges in the Perspective of Lifelong Learning (Virtual Poster)

Liviya Kazantseva, PhD Student, Università degli studi di Macerata, Macerata, Italy
Paola Nicolini, Professor, Università degli studi di MAcerata, Italy

This project intention is to continue the studies undertaken on the dynamics of social interaction which are being held with existing myCicero, a hypermedial platform of integrated services (ticketing, transport, museums, POIs, itineraries, events) linked to the territory, through the creation of joining supportive users. With increasing availability of multimedia devices, not only tourist impressions on the territory involved are becoming a goal, but also social relations that take place online. Many applications are directly downloadable to the user's gadget. However in very few cases these apps include the aspect of social networking. In this particular case, the study focuses on the dynamics of social interaction that arises from the discussions referred to the points of interest of Marche region. Our research is aimed to estimate the platform's usability according to users' age/ generation groups, social status, education, interests and location. We analyze users' feedback to improve application visual perception and positive yield in the sphere of technology-person interaction. The analysis on the basis of tech-person interaction is supported by a multi-method methodology that assume dialogue between the human and social sciences (focus group, interview, questioning) and the UX Design (for example, eyes tracking technology). Focus groups are intended on the analysis of technical data on registered users on the site and application.

Technologies and Human Usability

The Challenges and Solutions of Information Security and Privacy Issues within Enterprise Systems at the Age of Big Data

Dan Bouhnik, Head of the Computer Science Department, Jerusalem, Israael, Jerusalem College of Technology
Maor Weinberger, Information Science, Bar-Ilan University, Ramat Gan, Israel

Harnessing big data technologies for the organization needs may improve its ability to detect and respond to threats, but at the same time it might pose new threats to information security (Matturdi et al., 2014; Yang et al., 2016). This research aims to comprehensively map and analyze the perceptions of information system administrators about the challenges faced by the information security field at the age of big data. In addition, we will strive to build a broad map of current solutions designated to cope with these challenges. The research will be conducted using a mixed methodology of Exploratory Sequential Research, consisting of both a qualitative phase and a quantitative phase. The quantitative phase will be conducted by using semi-structured interviews and the quantitative phase will make use of closed-ended questionnaires. As far as we know, this is the first academic research in Israel that strives to comprehensively map perceptions of information system administrators about the challenges of information security at the new era of big data and the first ever to collect first-person evidence from the people who practically work in this field. The study may bear significant contribution for the academic research in understanding various information security issues associated with the emerging technologies of big data. In addition, the data that will be collected may be used for the establishment of tools aim to bridge the gap between big data utilization and information security protection.

Technologies in Society

Relational Leadership Considerations for Higher Education Technology Administrators (Virtual Poster)

Todd Britton, Chief of Information Officer (CIO), Office of Information Technology, University of La Verne, La Verne, United States
Dr. L. Hyatt,

Higher education technology administrators (HETAs) are facing a very tight labor market, shrinking budgets, challenging enrollment trends, and elevated demand for competent talent (Blankenberger & Phillips, 2016; Gast, Werner, & Kraus, 2017; Torres, Rochmes, & Harding, 2017). As leaders, HETAs are also responsible for managing personnel that requires a leadership perspective historically not usually associated with those responsible for leading technology initiatives. The purpose of this research was to review cogent relational leadership literature to identify emerging themes that align with HETAs. Historically, technology administrators were more independent in nature, deriving their power from their position. Yet lately, benefits of a more relational role are being realized by these leaders. The findings of this study suggest relational leadership as an approach that focuses on the satisfaction, motivation, and well-being of team members resulting in a deeper human connectedness (EDUCAUSE, 2015; Orr & Bennett, 2017; Uhl-Bien, 2011). The methods used were a review of over 200 peer-reviewed publicly accessible publications were identified and analyzed using comparative analysis. Prominent themes emerged and were identified as important relational leadership considerations for higher education technology administrators. Findings included five central practices which indicated relational leadership was connected to team trust, innovation, and enhanced employee outcomes, satisfaction, and tenure. The results of this research benefit higher education technology administrators, their communities, and the institutions they serve.

Technologies in Society

Tuesday, 12 March

13:00-13:45 **PARALLEL SESSIONS**

Room 3

Pósteres y pósteres virtuales

Sistema convergente de informaciones para apoyo al planeamiento de polos presenciales para la educación a distancia: Una investigación para la optimización de los impactos sociales

Andrino Fernandes, Profesor, Departamento Académico de Salud y Servicios, Instituto Federal de Santa Catarina, Florianópolis, Brasil

La educación a distancia es una modalidad educativa que posibilita la supresión de distancias geográficas, económicas, sociales y culturales con el objetivo de democratizar el acceso a una formación emancipatoria. Además, para racionalizar sus resultados sociales, son necesarias estrategias para una mejor distribución de polos presenciales. Por eso, este trabajo presenta el resultado de una investigación que objetivó desarrollar un sistema de informaciones para subsidiar la planificación estratégica para la toma de decisiones para optimizar la distribución y el alcance de sus polos. Esta investigación fue realizada en el Instituto Federal de Santa Catarina (Brasil) con la participación de profesores y estudiantes. Los indicadores de municipios y/o regiones catarinenses que se tiene son identificación del municipio, área territorial, población, índice de desarrollo humano (IDH), producto interno bruto (PIB), relación distancia x tiempo entre las ciudades, matrículas, instituciones de enseñanza, cursos ofrecidos, empresas, sectores y actividades económicas, empleabilidad, entre otros. El sistema es una aplicación web con mapa clicable, integración con base de datos —donde las fuentes del datos son de organizaciones oficiales— y, para el alcance, se define el tiempo que sea adecuado para el desplazamiento de los estudiantes hasta la ciudad que sea polo. La metodología, con base en el abordaje, fue cualitativa; con base en los objetivos, fue exploratoria, descriptiva y evaluativa; con base en los procedimientos técnicos, fue bibliográfica, experimental y documental.

Tecnologías en la sociedad

Aplicación en realidad aumentada customizable como apoyo en el proceso de Enseñanza-Aprendizaje: Área de la Ingeniería

Alejandro Alvarez-Marin, Universidad de La Serena, Chile
Jaime Campbell Barraza, Académico, Universidad de La Serena, Chile
Jaime Rodriguez Urquiza, Académico, Universidad de La Serena, Chile

Mauricio Castillo-Vergara, Universidad de La Serena, Chile

Se confecciona una aplicación customizable con la tecnología de realidad aumentada (AR) para interactuar en el proceso de enseñanza-aprendizaje, con el propósito de determinar el interés por parte de los estudiantes en la asignatura de Mecánica de Sólidos I, impartida a distintas especialidades de las carreras de Ingeniería Civil. Se seleccionaron los ejercicios con la que se desarrolló la experiencia customizable de realidad aumentada, se diseñó y aplicó la experiencia customizable de realidad aumentada y se analizaron los resultados para determinar la percepción de la experiencia de parte de los estudiantes.

Tecnologías en el intercambio de conocimientos

Redes Neuronales: Nueva estrategia de Inteligencia Artificial para implementar dentro del proceso de reclutamiento y selección de personal (virtual)

Glendamira Serrano Franco, Docente, Universidad Politécnica Metropolitana de Hidalgo, Hidalgo, México
Mario Alberto Gea Pérez, docente, Universidad Politécnica Metropolitana de Hidalgo, México
Marco Antonio González Silva, Docente, Universidad Politécnica Metropolitana de Hidalgo, México
Víctor Manuel Zamudio García, Docente, Universidad Politécnica Metropolitana de Hidalgo, México

La Inteligencia Artificial (IA) avanza vertiginosamente, llegando a los procesos de reclutamiento y selección de personal dentro de las organizaciones. A través de algoritmos programados se pretende automatizar y analizar la búsqueda del candidato idóneo dentro de una base de datos que resguardará aptitudes, talento, habilidades o CV, de cada uno de los candidatos que se postulen para esa vacante. Se analizarán los datos tomando en cuenta los criterios de evaluación correspondientes para definir al candidato idóneo para la vacante solicitada. Se podrá obtener la información con la implementación de una red neuronal dentro del proceso de reclutamiento y selección de personal, realizará pruebas para medir el comportamiento del candidato, analizará y evaluará sus capacidades intelectuales en diversos escenarios de trabajo de acuerdo al perfil y a las habilidades requeridas para la vacante solicitada, facilitando el proceso de búsqueda del candidato idóneo de acuerdo a los talentos requeridos para cubrir la vacante. El uso de la IA, hará que el proceso de reclutamiento y selección de personal sea más eficiente y evitará contrataciones fallidas, reducirá tiempos y rotación de personal, permitiendo a la organización un crecimiento futuro en el desarrollo de sus empleados.

Tema Destacado 2019: El impacto social de la Inteligencia Artificial: Políticas y nuevos modelos de gobierno para el cambio social

Concepción de una app para sensibilizar a la población en el problema de los perros callejeros (virtual)

Iris Iddaly Méndez Gurrola, Profesor, Universidad Autónoma de Ciudad Juárez, Ciudad Juárez, México
Alma Karina Portillo Payan, Universidad Autónoma de Ciudad Juárez, México
Ramón Iván Barraza Castillo, Universidad Autónoma de Ciudad Juárez, México

La cantidad de perros en abandono en las calles de Ciudad Juárez, Chihuahua, crece exponencialmente día con día. El problema de que haya una gran cantidad de perros callejeros no solo en Ciudad Juárez sino en todo México radica en que no existen las formas necesarias de generar cultura hacia los animales, un ejemplo de ello es que en las escuelas no se trata de inculcar valores hacia estos seres vivos y no se planean programas para enseñar el cuidado de un animal. Generalmente las causas de abandono acontecen por falta de empatía y sensibilidad hacia otro ser vivo, debido a que no existe una cultura de respeto ni armonía de las personas hacia los animales. En este trabajo se presenta la investigación y evaluación de diversas apps relacionadas con perros perdidos y/o callejeros que pueden ayudar a personas que han extraviado algún perro o que quisieran adoptar uno, así como reportar alguno en abandono. Basados en el análisis de las apps existentes en las tiendas electrónicas tanto Google Play como App Store y detectando la carencia de un enfoque integral de sensibilización apoyado en las TICs, se realiza una propuesta de una app que contempla seis secciones con información y mecanismos de reporte, que brindarán soporte para la sensibilización de la sociedad y apoyo a estos animales.

Tecnologías en la sociedad

Tuesday, 12 March	
13:00-13:45	**PARALLEL SESSIONS**
Room 4	**Innovation Schowcase** **Psychological Implications of "Clutter": A New Serious Game for English Learning** Clayton Carrasco, Teaching Professor, Universidad de Guayaquil, Ecuador Alexandra Morales, Assistant Professor, Health Psychology, Miguel Hernández University, Elche, Spain Mireia Orgilés, Associate Professor, Miguel Hernández University, Spain José P. Espada, Full Professor, Miguel Hernández University, Spain Despite the evidence of the utility of serious games and gamification to highly involve students and improve the learning process, there is lack of serious games developed to improve English linguistic skills. Therefore, the main objective of this study was to describe the design and the psychological implications of a new serious game called Clutter. It is aimed at strengthening English skills - including oral and written production, grammatical structure and vocabulary. Clutter uses an active methodology and applies the game-based learning as a pedagogical approach. During Clutter, the students have to sort words to form a grammatically correct sentence and pronounce it correctly. Clutter has a didactic sequence and computerized game mechanics, which allows the evaluation of learning and metric data that is reported online. A second objective was to analyze the psychological implications of Clutter through the Game Experience Questionnaire-post game module. Participants were 71 college students aged 18-24 who responded an online survey after participating in English classes using Clutter. Students evaluated positively the experience because they felt revived, energized, satisfied and proud. They informed they did not feel ashamed, regretted, guilty, nor weary or exhausted. It was not hard for them to get back to the reality and they did not feel disoriented after the game. In conclusion, Clutter is a new serious game for strengthening English skills that generates in the students positive psychological imports for learning. *Technologies in Knowledge Sharing*

Tuesday, 12 March	
13:00-13:45	**PARALLEL SESSIONS**
Room 5	**Taller (en español** **El desarrollo de la inteligencia espiritual en las organizaciones: Inteligencia espirtual contra Inteligencia artifiicial** Jose Luis Bustelo, Profesor, ESERP, Madrid, España Raquel Crisostomo, Universitat Internacional de Catalunya, Barcelona, Spain Luciano Muriel, Profesor, ESERP, Madrid, España La emergencia en el siglo XXI de la inteligencia artificial replantea problemas éticos-morales y sociales. Enfrente, la inteligencia espiritual se refiere al sentido global de la vida de las personas, pero también a las relaciones entre lo personal y lo social, entre lo endógeno y lo exógeno, entre lo creativo y lo intelectivo, entre el soma y la psique. Ante la pregunta de Alan Turing "¿Puede pensar una máquina?", nos hacemos las siguientes: ¿En un futuro próximo los robots controlarán nuestra sociedad? ¿Tendrán valores las máquinas? En este estudio, los autores investigan sobre el desarrollo de la inteligencia espiritual en las organizaciones y su comparación con la inteligencia artificial. El objetivo de la investigación es intentar contestar a la pregunta: ¿Es la inteligencia espiritual y su desarrollo, la diferencia entre el humano y la máquina? *Tema Destacado 2019: El impacto social de la Inteligencia Artificial: Políticas y nuevos modelos de gobierno para el cambio social*
13:45-14:00	**Break / Pausa**

Tuesday, 12 March	
14:00-15:15	**PARALLEL SESSIONS**
Room 1	**Applications in Health and Wellness**

Exploring Chatbots for Clinical Trials

Prof. Ching Hua Chuan, Associate Professor, School of Communication, University of Miami, Coral Gable, United States

We propose a chatbot to assist cancer patients and their families with clinical trials information online. Clinical trials are important tools to improve knowledge about effective treatments for all diseases, including cancers. However, studies show that fewer than 5% of cancer patients are enrolled in any type of research study or clinical trial. Although there are a wide variety of reasons for the low participation rate, we address this issue by focusing on the difficulty of information acquisition and comprehension of clinical trial documents due to medical jargon and technical details. To reduce such difficulty, a chatbot was developed to answer questions and provide proactive assistance in a conversational manner. The chatbot is designed to help users determine whether they are eligible for the clinical trial and to identify what additional information that they need to consult with their doctors about in order to determine their eligibility. An in-person experiment was conducted to evaluate the effectiveness of the chatbot. First, information about a specific clinical trial on melanoma cancer was obtained from the National Cancer Institute. Three interfaces were developed: a traditional website mimicking NCI's search page, a website containing the clinical trial information with a chatbot assistant in the sidebar, and a chatbot-only interface with information delivered only through the chatbot. The preliminary results indicate that the participants who used chatbots achieved better understanding about eligibility than those who used only the website. Additionally, interfaces with chatbots were rated significantly better in terms of perceived usability, interactivity, and dialogue.

Technologies and Human Usability

Screen-Time: Health, Achievement and Sleep

Erhan Sinay, Research Coordinator, Toronto District School Board, Canada
Thomas Ryan, Nipissing University, North Bay, Ontario, Canada

Herein we suggest a person today will be confronted with multiple blue light emitting screens daily. Exposure and time attending to these screens is a concern, issue and focus of much research locally, regionally, nationally and internationally. Our purpose was to develop an integrative and reflexive understanding of screen time as it impacts people of all ages both physically and mentally. In doing so we illuminated several problematic areas of concern for children, youth and adults thereby ascertaining whether screen time was positive or a negative phenomenon. Some research suggests many negative outcomes for those with high rates of screen time and other investigators point towards positive impacts of screen time. Perhaps, if Health is a priority, screen time is not an issue, if the person remains healthy.

Technologies and Human Usability

Cognition, Culture, Context, and Conveying Care: A Cognitive Theory Approach to Designing Usable Health and Medical Technologies

Prof. Kirk St.Amant, Professor and Endowed Chair of Technical Communication, Technical Communication and Biomechanical Engineering, Louisiana Tech University, Ruston, United States
Prof. Nicholas Bustamante, Professor, Louisiana Tech University, United States

Meeting the design and usability needs of other cultures requires an understanding of the contexts where materials are used (Norman, 2002; Garrett, 2010). From a healthcare perspective, this requires an understanding of the contexts in which patients use medical technologies and materials (Meloncon, 2015; St.Amant, 2015). The challenge involves identifying variables affecting how such materials are used in different settings to help guide the design processes used to develop different health and medical technologies. A modified version of the cognitive science concepts of scripts and prototypes can help to address such situations. This proposed presentation would examine how cognitive concepts of scripts and prototypes can guide the process of developing usable health and medical technologies for different cultural audiences. In so doing, the presenters would: Overview what scripts and prototypes are and how they can help individuals understand contexts where health and medical materials are used; Explain how scripts and prototypes can guide the design of materials to enhance use by different audiences; Discuss how the application of these ideas can assist with the translation and localization of health and medical materials for patients from other cultures. Through this approach, attendees with gain a familiarity with scripts and prototypes and learn how to use them to understand and address the contexts in which patients use health and medical technologies.

Technologies and Human Usability

Tuesday, 12 March	
14:00-15:15	**PARALLEL SESSIONS**
Room 2	**Managing Risk**

Understanding Patterns of Terrorism in India Using AI Machine Learning

Scott Gartner, Director, International Affairs, Law, and Political Science, Pennsylvania State School of International Affairs, University Park, PA, United States
Diane Felmlee, Professor of Sociology, Pennsylvania State University, United States
Rithvik Yarlagadda, Doctoral Student, University of Maryland, United States
Dinesh Verma, IBM Fellow, Distributed AI, United States

Terrorism represents an undesirable but seemingly inevitable part of the modern social landscape, and understanding terrorism dynamics can provide useful insights for developing governance structures and policies that are both more effective at reducing violence and less invasive on general society. With the tremendous increases that are happening in Artificial Intelligence capabilities in computing technology, application of AI technologies to terrorist data can yield useful insights regarding the interaction of terrorists, governance and society. Generally, there have been few applications of machine learning techniques to understanding patterns of terrorist behavior. Specifically, little work has been done to use AI to analyze terrorism patterns in India, which experiences among the world's highest levels of terrorism. Using the Global Terrorism Database and the South Asian Terrorism Portal we apply "shallow machine learning models" that require only a modest amount of data to train themselves and can facilitate our exploration of three questions crucial to understanding the complex dynamics of terrorism, state and society: From a description of the attack can we figure out who the likely terrorist group is? Can we predict the likely location for next attack from a history of past attacks? Can we identify the principal factors that cause a city to be targeted? We believe that this project will: provide an example of socially-relevant AI research; expand our understanding of the factors that shape counterterrorism policy, and contribute to our greater recognition of the interwoven relationship of technology, knowledge and society.

2019 Special Focus: The Social Impact of AI: Policies and New Governance Models for Social Change

Handling Information Biases and "Fake News" across the Digital World

Vered Elishar-Malka, Yereel Valley College, Israel
Dr. Yaron Ariel, Lecturer, Yereel Valley College, Israel
Dana Weimann Saks, Lecturer, Communication, Yeezrel Valley College, Zezreel Valley, Israel

In the current information ecosystem, it has become utterly challenging - while at the same time - extremely essential, to identify misinformation, information biases and manipulations. The 2016 U.S presidential elections, for example, were characterized with harsh accusations from both sides, blaming the media, political players, and even foreign governments, for deliberately spreading "fake news" to influence election outcomes. Content copying and editing procedures seem to become more accessible than ever, and despite the attempt to prevent it numerous "fake" copies exist. Our paper argues that it is imperative to consider more efficient ways to track content unit across different digital platforms, whether for keeping track of the agenda-setting building in Hybrid media systems or for the broader goal of keeping democratic processes uncontaminated. Weinberger (2007) suggested that an efficient way to deal with information overload is dynamic tagging, predetermined by the content creator or by post-evaluation of editors, users, and automated software. Thus, we suggest that hashtags or similar features (e.g., Barcodes) should be used to enable a reliable tracking system. As Blockchain mechanism thought us, tracking is not equal to governmental or industrial surveillance, thus, such system will make it possible for anyone of interest to identify the source, as well as the whole "life circle" of any piece of information and idea, which might have been traveling for a while across various social networks and the internet. This tracking mechanism might also drive some players away from any attempt to spread "alternative facts," lies, and biased information.

Technologies in Society

Tuesday, 12 March	
14:00-15:15	**PARALLEL SESSIONS**
Room 3	**Policy and Governance**

Online Exam Policy and Procedure in Higher Education

Dr. Wei-Ying Hsiao, University of Alaska Anchorage, United States
Manfen W Chen, Associate Professor, Accounting and Finance, University of Southern Indiana
Dr. Hsing-Wen Hu, University of Alaska, United States

The online course are getting popular in the past decade. However, there have been concerns about the academic integrity in online education. The concerns are not only to ensure students who enrolled in an online course who are doing their assignments, but also who are taking the online examinations. Further, the challenges about online exams are students using technology for cheating on exams. Different institutions have different online exam taking requirements and procedures. The purpose of this study is to analyze different online exam policies and procedures in higher education. The recommendations of the paper will promote the academic integrated to online education.

Technologies in Knowledge Sharing

Information Technology Governance in Decentralised Autonomous Organisations

Miss Melina Mutambaie-Katende, Johannesburg, South Africa

This paper explores the implications of decentralized autonomous organisations by examining a blockchain operating system for collective intelligence called DAOStack. This technology may diminish the role of IT directors in the future because it provides ways to efficiently automate governance activities. The paper provides a comparative analysis to highlight the factors that affect decision-making in hierarchical organisations and decentralized autonomous organisations. The study suggests that DAOs facilitate collaboration and decision making from directors. Recommendations include promoting influence-oriented skills in governance as oppose to hard skills like reporting, auditing, budget management, and managing contractual agreements.

2019 Special Focus: The Social Impact of AI: Policies and New Governance Models for Social Change

Institutional Policy and Distance Learning

Manfen W Chen, Associate Professor, Accounting and Finance, University of Southern Indiana, United States
Wei Ying Hsiao, Professor, University of Alaska Anchorage, United States

Traditionally, academic policies and procedures are formulated based on traditional classes. With the rapid changes of technology and the increasing popularity of online and/or hybrid offering, institutions experience the need for policy development with the aim of reciprocal adaptation not only for the distance education but also for the broader institutional policy (Wallace, 2007). The purpose of our study is to examine academic policies, procedures, and distance learning guidelines among accredited universities in the U.S. with four foci: regulatory policies (such as accreditation standards and demands, student privacy, intellectual property, copyrights), academic and administrative policies (such as online course or program development and approval, Learning Management System, course quality, student authentication), faculty guidelines (such as faculty credentialing, responsibilities, course evaluation and assessment, ownership of educational materials), student guidelines (such as student support, academic integrity, student orientation, appeal process). Summary findings are reported, disconnect between online teaching and university policy is identified, and suggestions to provide reciprocal adaptation to policy development are provided.

Technologies in Knowledge Sharing

Tuesday, 12 March

14:00-15:15 — **PARALLEL SESSIONS**

Room 4

Docencia y tecnología

Retos de los profesores de Administración de Empresas frente a una generación tecnológica

Juan Carlos López Meléndez, Investigador, Programa Académico de Honor, Universidad de Puerto Rico en Humacao, Humacao, Puerto Rico

La tesina "Retos de los profesores de Administración de Empresas frente a una generación tecnológica" giró en torno a los retos de los profesores de dicho departamento académico frente a las Tecnologías de Información (TI) en el desempeño de esta generación universitaria subgraduada. Se investigó el efecto del uso de las Tecnologías de Información como herramienta educativa en la educación superior. La muestra, constituida por personal docente y estudiantes universitarios, permitió conocer la opinión de si efectivamente el uso de la tecnología como herramienta agiliza o dificulta el proceso de aprendizaje y si mejora o deteriora el desempeño académico de esta generación universitaria subgraduada. De igual modo, pretendió investigar si existe algún vínculo entre la tecnología personal y la institucional —tanto de los educadores del nivel superior como de los estudiantes— para cumplir con la misión y metas académicas. Los hallazgos de esta disertación subgraduada revelaron información valiosa sobre el efecto del rendimiento académico del estudiante.

Tecnologías en el intercambio de conocimientos

Relatos Digitales Personales en la Formacion Inicial Docente: Una experiencia de innovación

Claudia Palma, Estudiante, Universidad Católica de la Santísima Concepción, Concepción, Chile

Los desafios de la sociedad actual requieren contar con profesionales capaces de adecuarse a los constantes cambios de los sistemas globales. En este sentido, se reconoce la necesidad de formar a profesores que se hagan cargo de las cada vez más complejas demandas de nuestros sistemas educativos. En este sentido, las TICs facilitan y potencian el desarrollo de propuestas innovadoras, tan necesarias en la Formacion Inicial Docente. En este trabajo, se presentan los resultados de un estudio cualitativo, interpretativo y fenomenológico en donde 15 estudiantes de un Programa de Formación Pedagógica de una universidad privada chilena, realizan una construcción narrativa autobiográfica, a través de Relatos Digitales Personales (RDP) con el objetivo de reconstruir las dificultades surgidas de sus primeras experiencias de práctica docente.

Tecnologías en el intercambio de conocimientos

Clasificación de centros educativos de educación infantil y primaria en Burgos según el uso de las Tics

María del Pilar Gómez Mondino, Universidad de Cantabria, Santander, España

Actualmente, las nuevas tecnologías están presentes en todas las áreas de nuestra vida: comunicación, salud, educación, etc. En la normativa educativa actual se hace hincapié en la importancia del uso de las nuevas tecnologías y su incorporación en la realidad de las escuelas. En las escuelas, lo normativo y teórico conviven. Por ello es necesario una reflexión y un análisis documental de ambos en su contexto real. Esta investigación pretende analizar y reflexionar sobre el uso de las TIC en las escuelas de Burgos, mediante el estudio de caso, en centros que participan en un programa de certificación obteniendo la clasificación de excelente (TIC 5), según la aplicación que hacen de las nuevas tecnologías. Para conocer esta realidad se realizará una investigación cualitativa y se recogerán datos en los centros educativos a través de análisis documental, informantes clave, observaciones de aula entre otros instrumentos, con el fin de conocer de primera mano en qué consisten estos procesos de certificación y, sobre todo, en qué prácticas educativas están teniendo lugar en los centros que tienen una puntuación alta. Se da especial importancia a los aspectos de la comunicación e información con la comunidad educativa, la formación permanente del profesorado y la utilización de las TIC como instrumentos didáctico-metodológicos de los cuales deriva dicha certificación y sus prácticas en las escuelas. Además, se plantean líneas futuras de trabajo y de investigación para la innovación en el campo de las TICs.

Tecnologías en la sociedad

15:15-15:30 — **Coffee Break / Pausa para el café**

15:30-16:15 — **Talking Circles II / Mesas redondas II**

A second Talking Circle is held at the end of the second day for the original group to reconvene and discuss changes in their perspectives and understandings as a result of the conference experience. Delegates self-select into groups based on broad thematic areas and then engage in extended discussion about the issues and concerns they feel are of utmost importance to that segment of the network.

Al final del día se procede a una segunda mesa redonda con el grupo original para revisar y discutir los diferentes cambios en las perspectivas y comprensiones, fruto de la experiencia del congreso. Los delegados se autoincluyen en grupos basados en áreas temáticas generales y participan en una detallada conversación sobre los temas y cuestiones que consideran de mayor importancia.

Plenary Room - 2019 Special Focus: The Social Impact of AI: Policies and New Governance Models for Social Change
Room 1 - Designing Technologies for Human Usability
Room 2 - Enabling Technologies in Knowledge Sharing / Thinking Technologies for Society
Room 3 - Learning Technologies in Education
Room 4 - Tema destacado 2019: El impacto social de la Inteligencia Artificial: Políticas y nuevos modelos de gobierno para el cambio social (en español)

16:15-16:45 — **Conference Closing and Award Ceremony / Clausura del Congreso**

Santiago Roger Acuña	Universidad Autónoma de San Luis Potosí	México
Dalal Alenezi	Public Authority for Applied Education and Training	Kuwait
Julian Alexandrakis	Technischen Universität Berlin	Germany
Alejandro Álvarez-Marín	Universidad de la Serena	Chile
Yaron Ariel	Yereel Valley College	Israel
Guersevaing Ariel	Elisava School of Design and Engineering	Spain
Lidia Arroyo	Universitat Oberta de Catalunya	España
Toni Badia	Universitat Pompeu Fabra	España
Thomas D. Barton	Cornell Law School, Cambridge University	United Kingdom
Deyanira Bedolla Pereda	Universidad Autónoma Metropolitana	México
Jeff Behrends	Harvard University	United States
Nataliya Berbyuk Lindström	Department of Applied Information Technology	Sweden
Marcus Breen	Boston College	United States
Todd Britton	University of La Verne	United States
Nicholas Bustamante	Louisiana Tech University	United States
José Luis Bustelo	ESERP	España
Laura Caballero	UNIR	España
Jorge de Jesús Cañizares Arévalo	Universidad Francisco de Paula Santander	Colombia
Trisha Capansky	Independent Scholar	United States
Maribel Cárdenas García	Universidad Francisco de Paula Santander	Colombia
Fernel Manuel Cárdenas García	Universidad Francisco de Paula Santander	Colombia
Clayton Carrasco	Universidad de Guayaquil	Ecuador
Julio Carvajal Rivera	Universidad Austral de Chile	Chile
Cristian Castillo Olea	Universidad de Deusto	España
Jorge Chamorro Padial	Universidad de Granada	España
Manfen W Chen	University of Southern Indiana	United States
Stephen Cheskiewicz	Pennsylvania College of Technology	United States
Shu Chuan Chu	DePaul University	United States
Ching Hua Chuan	University of Miami	United States
Alicia Cid Reborido	Universidad Autónoma Metropolitana	México
L. Scott Cole	University of California, Davis	United States
Miquel Colobran	Autonomous University of Barcelona	Spain
Evan Couzo	University of North Carolina, Asheville	United States
Massimo Cova	Universitat de Barcelona	España
Raquel Crisostomo	Universitat Internacional de Catalunya	España
Adriana Cristóforo	Universidad de la República	Uruguay
Renata Dezso-Dinnyes	Moholy-Nagy University of Art and Design	Hungary
Antoinette Doyle	Memorial University of Newfoundland	Canada
Dov Dvir	Ben Gurion University of the Negev	Israel
Vered Elishar-Malka	Max Stern Yezreel Valley College	Israel
Diane Felmlee	Pennsylvania State University	United States
Andrino Fernándes	Instituto Federal de Santa Catarina	Brasil
Joshua Ferno	Elon University	United States
Carlos Ferras Sexto	Universidad de Santiago de Compostela	España
Daian Florez	Universidad Nacional de Colombia	Colombia
Jeffrey Foster	Western Sydney University	Australia
Eric Freedman	Columbia College Chicago	United States
Carmen Gisel García Aguilar	Universidad Nacional Autónoma de México	México
Carlos Emilio García Duque	Universidad de Manizales	Colombia
Yolanda García Vázquez	Universidad de Santiago de Compostela	España
Bernat GaríBarceló	Universitat de Barcelona	España
Scott Gartner	Penn State School of International Affairs	United States

Andrew Gitlin	University of Georgia	United States
Greg Goldberg	Wesleyan University	United States
María del Pilar Gómez Mondino	Universidad de Cantabria	España
Noelle Guay	University of Florida	United States
Stan Guidera	Bowling Green State University	United States
Hannah Hamalainen	University of New Hampshire	United States
Paul Hawkins	Working Diversity, Inc.	United States
Heather Hemming	Acadia University	Canada
Ferran Herraiz Faixó	Universidad de Barcelona	España
Claudio Herrera Figueroa	Universidad Tecnológica de Chile	Chile
Wei-Ying Hsiao	University of Alaska	United States
Peña Javier	Elisava School of Design and Engineering	Spain
Chacón Jonathan	Elisava School of Design and Engineering	Spain
Phillip Kalantzis-Cope	Common Ground Research Networks	United States
Sheryl Kasak	Pratt Institute	United States
Liviya Kazantseva	University of Macerata	Italy
Petr Knizek	National Library of the Czech Republic	Czech Republic
Steven C. Koehn	University of Indianapolis	United States
LiLi Li	Georgia Southern University	United States
Lady Laura Liriano Balbi	Universidad de Salamanca	España
Juan Carlos López Meléndez	Universidad de Puerto Rico	Puerto Rico
Cristian Loyola	Universidad la República	Chile
Lorenzo Pena Lucas	Elisava School of Design and Engineering	Spain
Lilia M. Villacis	Universidad Eloy Alfaro del Manabí	Ecuador
Paula Mac Kinnon	MindBloom Consulting	Canada
Gregory MacKinnon	Acadia University	Canada
Marisol Maestre Delgado	Universidad de Pamplona	España
Marcela Mastachi Pérez	Universidad Veracruzana	Mexico
Divya Mc Millin	University of Washington Tacoma	United States
Callum McEachern	University of Tasmania	Australia
Iris Iddaly Méndez Gurrola	Universidad Autónoma de Ciudad Juárez	México
Iñigo Mendialdua	University of the Basque Country	Spain
Anna Meroni	Politecnico di Milano	Italy
Maialen Miguel	Univerisidad de Deusto	España
Alexandra Morales	Miguel Hernández University	Spain
Alejandro Moráles Vargas	Universitat Pompeu Fabra	España
Cristóbal Moreno	Universidad de Santiago de Chile	Chile
Luciano Muriel	ESERP	España
Melina Mutambaie-Katende	University of Johannesburg	South Africa
Peter Nemes	Indiana University, Bloomington	United States
Brandie Nonnecke	University of California, Berkeley	United States
Karolina Nunes Tolentino Costa	Universidade do Estado de Santa Catarina	Brazil
Christian Oggolder	Alpen-Adria-Universität Klagenfurt	Austria
Carmen Orama López	Universidad de Puerto Rico	Puerto Rico
Claudia Palma	Universidad Católica de la Santísima Concepción	Chile
Adams Frederick Palomino Girio	Universidad Privada del Norte	Perú
Juan Carlos Pelaez López	Grupo Informático GFI	Ecuador
Gaizka Pérez	Universidad de Deusto	España
Júlio Afonso Sá De Pinho Neto	Federal University of Paraíba	Brazil
Victoria Pitts Taylor	Wesleyan University	United States
Scott Plous	Wesleyan University	United States
Tatiana Portnova	Universidad de Granada	España

Fabiane Proba	Universidad de Estudios de Bergamo	Italia
Adriana María Rangel Arenas	Universidad Jorge Tadeo Lozano	Colombia
Luciane Ribeiro	Universidad Veracruzana	México
Calle Rosengren	Lund University	Sweden
Caroline Elisabeth Roth-Ebner	Universität Klagenfurt	Austria
Thomas Ryan	Nipissing University	Canada
Mayerly Saavedra	Universidad Militar Nueva Granada	Colombia
Márcia Maria de Medeiros Travassos Saeger	Universidade Federal da Paraíba	Brazil
Ramon Sanguesa	Elisava School of Design and Engineering	Spain
María Teresa Santander Gana	Universidad de Santiago de Chile	Chile
Melissa Sassi	IBM	United States
Stefania Savva	Cyprus University of Technology	Cyprus
Glendamira Serrano Franco	Universidad Politecnica Metropolitana de Hidalgo	México
Erhan Sinay	Toronto District School Board	Canada
Sylvana Sofkova Hashemi	University of Gothenburg	Sweden
Kirk St.Amant	Louisiana Tech University	United States
Francine Vachon	Brock University	Canada
Leonardo Viana	Universidade Aberta do Brasil	Brasil
Andrea Villavicencio		Ecuador
Dana Weimann Saks	Yeezrel Valley College	Israel
Maor Weinberger	Bar-Ilan University	Israel
Daniel Weinstein	Quid	United States
Ronda Zelezny-Green	University of London	UK
Maayan Zhitomirsky Geffet	Bar Ilan University	Israel

COMMON GROUND | Conference Calendar

Eleventh International Conference on Climate Change: Impacts & Responses
Pryzbyla Center,
The Catholic University of America
Washington, D.C., USA | **16–17 April 2019**
on-climate.com/2019-conference

Ninth International Conference on Religion & Spirituality in Society
University of Granada
Granada, Spain | **25–26 April 2019**
religioninsociety.com/2019-conference

IX Congreso Internacional sobre Religión y Espiritualidad en la Sociedad
Universidad de Granada
Granada, España | **25–26 de abril de 2019**
la-religion.com/ congreso-2019

Twelfth International Conference on e-Learning & Innovative Pedagogies
Hotel Grand Chancellor Hobart
Hobart, Australia | **2–3 May 2019**
ubi-learn.com/2019-conference

Fourth International Conference on Tourism & Leisure Studies
Florida International University
Miami, USA | **16–17 May 2019**
tourismandleisurestudies.com/2019-conference

Ninth International Conference on The Constructed Environment
Centro Cultural Vila Flor
Guimarães, Portugal | **23–24 May 2019**
constructedenvironment.com/2019-conference

Nineteenth International Conference on Diversity in Organizations, Communities & Nations
University of Patras
Patras, Greece | **5–7 June 2019**
ondiversity.com/2019-conference

Fourteenth International Conference on the Arts in Society
Polytechnic Institute of Lisbon
Lisbon, Portugal | **19–21 June 2019**
artsinsociety.com/2019-conference

Tenth International Conference on Sport & Society
Ryerson University
Toronto, Canada | **20–21 June 2019**
sportandsociety.com/2019-conference

Twelfth Global Studies Conference
Jagiellonian University
Kraków, Poland | **27–28 June 2019**
onglobalization.com/2019-conference

Seventeenth International Conference on New Directions in the Humanities
University of Granada
Granada, Spain | **3–5 July 2019**
thehumanities.com/2019-conference

XVII Congreso Internacional sobre Nuevas Tendencias en Humanidades
Universidad de Granada
Granada, España | **3–5 de julio de 2019**
las-humanidades.com/congreso-2019

Seventeenth International Conference on Books, Publishing & Libraries
University of Granada
Granada, Spain | **5 July 2019**
booksandpublishing.com/2019-conference

Fourteenth International Conference on Interdisciplinary Social Sciences
Universidad Autónoma Metropolitana
Mexico City, Mexico | **10–12 July 2019**
thesocialsciences.com/2019-conference

COMMON GROUND | Conference Calendar

XIV Congreso Internacional de Ciencias Sociales Interdisciplinares

Universidad Autónoma Metropolitana Unidad Xochimilco
Ciudad de México, México | **10–12 de julio de 2019**
interdisciplinasocial.com/congreso-2019

Twenty-sixth International Conference on Learning

Queen's University Belfast
Belfast, UK | **24–26 July 2019**
thelearner.com/2019-conference

XXVI Congreso Internacional sobre Aprendizaje

Universidad de Queen
Belfast, Reino Unido | **24–26 de julio de 2019**
sobreaprendizaje.com/congreso-2019

Aging & Social Change: Ninth Interdisciplinary Conference

University of Vienna
Vienna, Austria | **16–17 September 2019**
agingandsociety.com/2019-conference

Ninth International Conference on Health, Wellness & Society

University of California at Berkeley
Berkeley, USA | **19–20 September 2019**
healthandsociety.com/2019-conference

IX Congreso Internacional de Salud, Bienestar y Sociedad

Universidad de California, Berkeley
Estados Unidos | **19–20 de septiembre de 2019**
saludsociedad.com/congreso-2019

Fourth International Conference on Communication & Media Studies

University of Bonn
Bonn, Germany | **26–28 September 2019**
oncommunicationmedia.com/2019-conference

IV Congreso Internacional de Estudios sobre Medios de Comunicación

Universidad de Bonn
Bonn, Alemania | **26–28 de septiembre de 2019**
medios-comunicacion.com/congreso-2019

Ninth International Conference on Food Studies

National Kaohsiung University of Hospitality and Tourism
Kaohsiung City, Taiwan | **24–25 October 2019**
food-studies.com/2019-conference

Twelfth International Conference on the Inclusive Museum

Muntref, Museum of Immigration
Buenos Aires, Argentina | **7–9 November 2019**
onmuseums.com/2019-conference

Sixteenth International Conference on Environmental, Cultural, Economic & Social Sustainability

Pontifical Catholic University of Chile
Santiago, Chile | **29–31 January 2020**
onsustainability.com/2020-conference

XVI Congreso Internacional sobre Sostenibilidad Medioambiental, Cultural, Económica y Social

Pontificia Universidad Católica de Chile
Santiago, Chile | **29–31 de enero de 2020**
lasostenibilidad.com/congreso-2020

Fourteenth International Conference on Design Principles & Practices

Pratt Institute, Brooklyn Campus
New York, USA | **16–18 March 2020**
designprinciplesandpractices.com/2020-conference

XIV Congreso Internacional sobre Principios y Prácticas del Diseño

Pratt Institute, Brooklyn Campus
Nueva York, Estados Unidos | **16–18 de marzo de 2019**
el-diseno.com/congreso-2020

Sixteenth International Conference on Technology, Knowledge, and Society

Illinois Conference Center at University of Illinois Research Park
Champaign, USA | **26–27 March 2020**
techandsoc.com/2020-conference

COMMON GROUND | Conference Calendar

Thirteenth International Conference on e-Learning & Innovative Pedagogies
University of the Aegean - Rhodes Campus
Rhodes, Greece | **23–24 April 2020**
ubi-learn.com/2020-conference

XVI Congreso Internacional de Tecnología, Conocimiento y Sociedadgies
Universidad del Egeo - Campus Rodas
Rodas, Grecia | **23–24 de abril de 2020**
tecno-soc.com/congreso-2020

Twentieth International Conference on Knowledge, Culture, and Change in Organizations
University of Illinois at Chicago,
Student Center East
Chicago, USA | **27–28 May 2020**
organization-studies.com/2020-conference

XX Congreso Internacional de Conocimiento, Cultura y Cambio en Organizaciones
Universidad de Illinois en Chicago,
Student Center East
Chicago, Estados Unidos | **27–28 de mayo de 2020**
la-organizacion.com/congreso-2020

Twentieth International Conference on Diversity in Organizations, Communities & Nations
University of Milan
Milan, Italy | **10–12 June 2020**
ondiversity.com/2020-conference

Fifteenth International Conference on The Arts in Society
NUI Galway
Galway, Ireland | **24–26 June 2020**
artsinsociety.com/2020-conference

Twenty-seventh International Conference on Learning
University of Valencia
Valencia, Spain | **13–15 July 2020**
thelearner.com/2020-conference

XXVII Congreso Internacional de Aprendizaje
Universidad de Valencia
Valencia, España | **13–15 de julio de 2020**
sobreaprendizaje.com/congreso-2020

Fifteenth International Conference on Interdisciplinary Social Sciences
National and Kapodistrian University of Athens,
Athens, Greece | **20–22 July 2020**
thesocialsciences.com/2020-conference

XV Congreso Internacional de Ciencias Sociales Interdisciplinares
Universidad de Atenas
Atenas, Grecia | **20–22 de julio de 2020**
interdisciplinasocial.com/congreso-2020

Tenth International Conference on Health, Wellness & Society
Université de la Sorbonne Nouvelle Paris 3
Paris, France | **3–4 September 2020**
healthandsociety.com/2020-conference

Tenth International Conference on Health, Wellness & Society
Université de la Sorbonne Nouvelle Paris 3
Paris, France | **3–4 September 2020**
healthandsociety.com/2020-conference

Sixteenth International Conference on

Technology, Knowledge & Society

Solidarity in the Digital Public Sphere: Extremes or Common Ground?

26–27 March 2020 | Illinois Conference Center - The Research Park at the University of Illinois | Urbana-Champaign, USA

techandsoc.com/2020-conference

XVI Congreso Internacional de

Tecnología, Conocimiento y Sociedad

No hay escala: Distancia y acceso en la era del aprendizaje distribuido

23–24 de abril de 2020 | Universidad del Egeo - Campus Rodas | Rodas, Grecia

tecno-soc.com/congreso-2020

Call for Papers

We invite proposals for paper presentations, workshops/interactive sessions, posters/exhibits, colloquia, innovation showcases, virtual posters, or virtual lightning talks.

Returning Member Registration

We are pleased to offer a Returning Member Registration Discount to delegates who have attended the Technology, Knowledge & Society Conference in the past. Returning research network members receive a discount off the full conference registration rate.