General Framework and Plenary Keynote Speakers of the Collocated Conferences

The 21st World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2017
The 11th International Multi-Conference on Society, Cybernetics and Informatics: IMSCI 2017
The 16th Ibero-American Conference on Systems, Cybernetics and Informatics: CISCI 2017
Décima Sexta Conferencia Iberoamericana en Sistemas, Cibernética e Informática: CISCI 2017

Orlando, Florida, USA – July 8 -11, 2017

Saturday, July 8th, 2017

9:00 AM – 12:00 and 1:00 PM – 5:00 PM Registration

10:00 AM – 11:00 AM ***Conversational Participative Session****

Co-Chairs and Co-Facilitators: **Professor Shigehiro Hashimoto,** Kogakuin University, Japan, **Dr. Andrés Tremante**, Florida International University, USA, and **Dr. Nagib Callaos,** Founding President of the IIIS, USA, *"Inter-Cultural and Inter-Disciplinary Communication"*

11:00 AM – 12: 00 PM ***Participatory Workshop*****

Speaker and Moderator: **Professor Thomas Marlowe,** Seton Hall University, USA, "*Has Informatics Changed the Intellectual Landscape?"*

12:00 PM – 1:00 PM Lunch (on your own)

1:00 PM – 2:00 PM ***Conversational Session****

Facilitator and Moderator: **Professor Thomas Marlowe,** Seton Hall University, USA, "*Has Informatics Changed the Intellectual Landscape?"*

2:00 PM – 3:00 PM ***Participatory Workshop*****

Speaker: **Professor William Swart,** East Carolina University, USA, *"Implementing Flipped Learning to Produce Measurable Results"*

3:00 PM – 3:30 PM Coffee Break

3:30 PM – 4:30 PM ***Participatory Panel****

Panelists and Co-Facilitators: **Professor William Swart,** East Carolina University, USA and **Dr. Nagib Callaos,** Founding President of the

IIIS, USA, "*Flipped Classroom in the context of Education and Instruction."*

4:30 PM – 5:30 PM ***Conversational Session****

Speaker and Moderator: **Dr. Ashton T. Sperry**, Ronin Institute for Independent Scholarship, USA, *"Reinventing Academia? Why? How?"*

5:30 PM – 6:30 PM ***Conversational Session****

Co-Facilitators: **Dr. Faith Power,** Shenandoah University, USA, **Dr. Nagib Callaos,** Founding President of the IIIS, USA, and **Dr. Luis Velazquez-Araque**, University of Guayaquil, Ecuador, "*Research and Consulting: Research via Consulting and Consulting via Research*"

**** Attendees of conversational sessions or participatory panels will have the opportunity to write position or reflection papers related to the topics discussed in the respective session. These papers might be published in the post-conference proceedings, with no additional charge, as invited papers, after going through internal editorial review. The deadline for these papers will be 21 days after the conference is over. One of the objectives of these conversational sessions is to provide a learning process through the sharing of ideas, experiences, opinions, and knowledge, via inter-disciplinary communication. This learning might generate, in turn, position or reflections papers that should be, in our opinion, included in the proceedings of the conference, because a) they are part of its consequences and the information and knowledge that was shared through it, and b) they might, in turn, generate more inter-disciplinary communication.***

***** Conference participants who attend a whole workshop will receive an attendance certificate signed by its speaker and/or facilitator.***

Sunday, July 9th, 2017

8:00 AM – 12:00 PM and 1:00 PM – 6:00 PM **Registration**

7:45 AM – 10:00 AM **Plenary Session** of all Collocated Events (with complimentary plated breakfast for the plenary session's attendees)

Co-Chairs: **Dr. Robert Cherinka,** MITRE Corporation, USA and **Eng. Joseph Prezzama**, MITRE Corporation, USA

7:45 AM – 8:00 AM Short Announcements.

8:00 AM – 8:35 AM Keynote Speakers: **Dr. Robert Cherinka and Eng. Joseph Prezzama**, MITRE Corporation, USA**,** *"Driving Digital*

Business Value through Culture, Diversity, and Lean Agile Leadership"

8:35 AM – 9:10 AM Keynote Speaker: **Professor Shigehiro Hashimoto**, Kogakuin University, Japan, *"Multidisciplinary Learning Extends Communication Skill, and Helps Cross Cultural Understandings: Biomedical Engineering"*

9:10 AM – 9:45 AM Keynote Speaker: **Dr. Kevin Foltz**, Institute for Defense Analyses, USA, *"End-to-End Security with Translation"*

9:45 AM – 10:00 AM Q&A

10:00 AM – 12:00 PM Breakout Sessions for WMSCI 2017, IMSCI 2017 and their collocated events

10:00 AM – 12:00 PM Plenary session for CISCI and SIECI 2017 (***In Spanish/Portuguese***)

Moderadores: **Dr. Andrés Tremante**, Florida International University, EUA y **Dra. Ma. Dolores García Perea**, Instituto Superior de Ciencias de la Educación del Estado de México

10:00 AM – 10:25 AM Ponente: **Dra. Ma. Dolores García Perea**, Instituto Superior de Ciencias de la Educación del Estado de México, *"Las Prácticas Profesionales del Investigador Educativo. Paradojas y Utopías"*

10:25 AM – 10:50 AM Ponente: **Dr. Leônidas Conceição Barroso**, Pontifícia Universidade Católica de Minas Gerais, Brasil, *"Integração de Ensino, Pesquisa e Solução de Problema da Vida Real: Uma Experiência em Andamento na Região do Vale do Mucuri (Brasil)"*

10:50 AM – 11:15 AM Ponente: **Dr. Julio César González Mariño**, Universidad Autónoma de Tamaulipas, México, *"Gamificación del Aprendizaje: Una Estrategia para Potenciar la Innovación en Educación Médica"*

11:15 AM – 11:40 AM **Dra. Eva María Olmedo Moreno**, Universidad de Granada, España, Directora del Departamento de Métodos de Investigación y Diagnóstico en Educación, *"Modelos de Aprendizaje Híbridos para la Intervención con Menores en Riesgo de Exclusión Social"*

11:40 AM – 12:00 M Preguntas y Respuestas

12:00 PM – 1:00 PM Lunch (on your own)

1:00 PM – 3:40 PM **Plenary Session** of all Collocated Events

Co-Chairs: **Dr. Mario Lamanna**, Evoelectronics, Italy and Selex-SI, USA, Senior Scientist and **Professor Dusan Soltes**, Comenius University at Bratislava, Slovakia

1:00 PM – 1:35 PM Keynote Speaker: **Professor Dusan Soltes**, Comenius University at Bratislava, Slovakia, "*Pros and Cons of Smart ICT in Some Governmental Applications*"

1:35 PM – 2:10 PM Keynote Speaker: **Dr. Mario Lamanna**, Evoelectronics, Italy and Selex-SI, USA,*"Cyber Security for Critical Infrastructures. The New Technology Challenges"*

2:10 PM – 2:45 PM Keynote Speaker: **Professor Margit Scholl**, Technical University of Wildau [FH], Germany, *"Living in a Digital World: Improving Skills to Meet the Challenges of Digital Transformation through Authentic and Game-Based Learning"*

2:45 PM – 3:20 PM **Professor William Swart**, East Carolina University, USA, *"The Future is not what it used to be: Demographics, Technology, Business and Academia in Exponential Times"*

3:20 PM – 3:40 PM Q&A

3:40 PM – 4:10 PM Coffee Break

4:10 PM – 6:30 PM Breakout Sessions

7:00 PM – 8:30 PM **Welcome Reception: Buffet Dinner.**

Monday, July 10th, 2017

8:00 AM – 12:00 PM and 1:00 PM – 6:00 PM **Registration**

7:45 AM – 10:00 AM **Plenary Session** of all Collocated Events (with complimentary plated breakfast for the plenary session's attendees)

Co-Chairs: **Professor Thomas Marlowe**, Seton Hall University, USA, and **Professor Matthew E. Edwards**, Alabama A&M University, USA

7:45 AM – 8:00 AM Short Announcements.

8:00 AM – 8:35 AM Keynote Speaker: **Professor Thomas Marlowe**, Seton Hall University, USA, *"Has Informatics Changed the Intellectual Landscape?"*

8:35 AM – 9:10 AM Keynote Speaker: **Prof. Dr. Dr. med. Ulrich Sprick**, St. Alexius/St. Josef Clinic, Germany,*"Psychotherapy via the Internet as a Novel Tool for Clinical Use"*

9:10 AM – 9:45 AM Keynote Speaker: **Professor Matthew E. Edwards**, Alabama A&M University, USA, *"Using Constructivism Learning With Bloom's Cognitive and Affective Domains, and Mental Mind Structures to Implement Contextualized Critical Thinking in Both Disciplinary and Interdisciplinary Studies"*

9:45 AM – 10:00 AM Q&A

10:00 AM – 12:00 PM Breakout Sessions

12:00 PM – 1:00 PM Lunch (on your own)

1:00 PM – 3:40 PM **Plenary Session** of all Collocated Events

Co-Chairs: **Professor Matthew E. Edwards**, Alabama A&M University, USA and **Professor Russell Jay Hendel**, Towson University, USA

1:00 PM – 1:35 PM Keynote Speaker: **Dr. Anthea Fudge**, University of South Australia, *"i-Science 2.0: Digital Literacies, eLearning and Digital Technologies for Higher Education Studies of Science"*.

1:35 PM – 2:10 PM Keynote Speaker: **Professor Louis Trudel**, University of Ottawa, Canada, *"Use of Technology for Research and Pedagogical Purposes in STEM (Science- Technology- Engineering- Mathematics) Education"*

2:10 PM – 2:45 PM Keynote Speaker: **Professor Maria Jakubik**, HAAGA-HELIA University of Applied Sciences, Finland, *"Flourishing Organizations"*

2:45 PM – 3:20 PM Keynote Speaker: **Drs. Ninon Candalh-Touta**, Universite Pierre et Marie Curie (Paris VI), France, *"Time to Consider the Medical Students and Medical Robotics in the Process of Improving Healthcare"*

3:20 PM – 3:40 PM Q&A

3:40 PM – 4:10 PM Coffee Break

4:10 PM – 6:30 PM Breakout Sessions

Tuesday, July 11th, 2017

8:00 AM – 12:00 PM **Registration**

7:45 AM – 10:00 AM **Plenary Session** of all Collocated Events (with complimentary plated breakfast for the plenary session's attendees)

Co-Chairs: **Professor Russell Jay Hendel**, Towson University, USA, and **Dr. Ashton T. Sperry**, Ronin Institute for Independent Scholarship, USA

7:45 AM – 8:00 AM Short Announcements.

8:00 AM – 8:35 AM Keynote Speaker: **Dr. Russell Jay Hendel**, Towson University, USA, *"Supplementing Multiple Modalities and Universal Design in Learning with Goal-Setting"*

8:35 AM – 9:10 AM Keynote Speaker: **Dr. Sang E. Park**, Harvard School of Dental Medicine, USA, *"Implementing Flipped Classrooms in Health Science Education"*

9:10 AM – 9:45 AM Keynote Speaker: **Dr. Ashton T. Sperry**, Ronin Institute for Independent Scholarship, USA,*"Finding Knowledge in the Messiness of Scientific Practice"*

9:45 AM – 10:00 AM Q&A

10:00 AM – 12:00 PM Breakout Sessions

12:00 PM – 1:00 PM Lunch (on your own)

1:00 PM – 3:40 PM **Plenary Session** of all Collocated Events

Co-Chairs: **Professor Thomas Marlowe,** Seton Hall University, USA and **Fr. Prof. Joseph Laracy**, Seton Hall University, USA

1:00 PM – 1:35 PM Keynote Speaker: **Jim Johnson**, The Standish Group, USA, *"CHAOS Update, Nanocourses, the Winning Hand, and the Root Cause of IT Project Failure"*

1:35 PM – 2:10 PM Keynote Speaker: **Dr. Jun Miyazaki**, OrangeTechLab, Japan, *"Era of Data Economy"*

2:10 PM – 2:45 PM Keynote Speaker: **Fr. Prof. Joseph Laracy**, Seton Hall University, USA, *"Toward an Interdisciplinary Approach to STEM Education: Insights from Seton Hall University's Core Curriculum."*

2:45 PM – 3:20 PM Keynote Speaker: **Dr. Giti Javidi,** University of South Florida, Sarasota-Manatee, USA, "*Methodologies that Promote Cross-Disciplinary Education*"

3:20 PM – 3:40 PM Q&A

3:40 PM – 4:10 PM Coffee Break

4:10 PM – 6:30 PM Breakout Sessions

7:00 PM – 8:30 PM **Awards Ceremony and Toast**

Award Certificates will only be delivered at the Awards Ceremony. No exceptions will be made under any circumstances.

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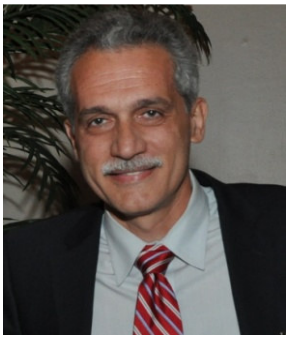
Conversational Participative Session *– Saturday July 8th, 2017, 10:00 AM – 11:00 AM*

"Inter-Cultural and Inter-Disciplinary Communication"

Co-Chairs and Co-Facilitators

Professor Shigehiro Hashimoto

Kogakuin University, Japan
Associate to the President and
Dean of Admissions Center
Doctor of Engineering and
Doctor of Medicine
Author of several Books in
Biomedical Engineering



Dr. Andres Tremante

Florida International University, USA
The *Mechanical* & Materials Engineering (MME) Department
Former President of a Multi-disciplinary Organization Oriented to Solve Real life Problems which Requires and Generates Inter-Disciplinary Communications

Dr. Nagib Callaos

Founding President of the International Institute of Informatics and Systemic, USA
Former Dean of Research and Development of the University Simon Bolivar, Venezuela
Founding Editor in Chief of the Journal of Systemics, Cybernetics and Informatics

Abstract

Taking into account that a discipline can be conceived as intellectual culture, is there any possibility of reciprocal learning, via analogical thinking, between studies and research in 'Inter-Cultural Communication' and 'Inter-Disciplinary Communication'?" Is ***dialogue*** a necessary condition for making feasible both kind of communication? Is inter-cultural communication required for real life ***multiculturalism*** as inter-disciplinary communication is required for real life problems most of which require ***multi-disciplinary*** teams? Are skills in both kinds of communication required in ***Academic Globalization***?

Short Bios

Professor Shigehiro Hashimoto has been for a long time making inter-disciplinary research in Bio-Medical Engineering and teaching inter-disciplinary courses for multi-cultural audiences

which also required inter-cultural communication. He is Doctor of Medicine from Kitasato University in 1987, and Doctor of Engineering from Tokyo Institute of Technology in 1990.

Professor Hashimoto was Research Associate at the School of Medicine, Kitasato University, (1981-1989), Assistant Professor in the School of Medicine, Kitasato University (1989 -1994), Associate Professor at the Department of Electronics, Osaka Institute of Technology (1994-2001), and Professor at Osaka Institute of Technology (2001-2011). He also was the Creator of the first Department of Biomedical Engineering in Japan at Osaka Institute of Technology (2005) and Director of its Medical Engineering Research Center (2005-2011). He is the current Associate to the President and Dean of Admissions Center of the Kogakuin University, Japan (2012-). Professor Hashimoto experienced internship in Research Center for Artificial Heart in Free University in Berlin, Germany in 1977.

Professor Hashimoto is author of the books "Introduction to Biosystems Engineering (1996)". "Introduction to Biomedical Measurement Engineering (2000)", "Introduction to Bio-mechanical Engineering (2013)" He is also the Editor of Special Issues on Bio-Medical Engineering in the Journal of Systemics, Cybernetics, and Informatics and published many articles in Bio-Medical engineering.

Professor Shigehiro Hashimoto collaborated with Chulalongkorn University (Thailand, Mahidol University (Thailand), Northwestern University (USA), University of Illinois at Chicago (USA) in his inter-disciplinary research, education and communication, as well as in the solution of multi-disciplinary real life problems and in producing multi-disciplinary based applications and implementation. In this sense, he is generating many input to technological innovations based on inter-disciplinary research.

Dr. Andrés Tremante is former president of the a Multi-Disciplinary Organization oriented to 1) solve real life problems which mostly require multi-disciplinary teams and 2) to synergistically relate all disciplinary and inter-disciplinary departments of the University Simon Bolivar with the public and the private sectors as well as with business and the Venezuelan society at large.

Professor Tremante received both his BS and MS in Mechanical Engineering (ME) from Simon Bolivar University in Venezuela, and his PhD from ENSAM in Paris, France. He remained there for post-doctoral studies in multi-phase flow and pumping. Presently he teaches courses in the fluid mechanics stem of the BSME program. Dr. Tremante began his stint at FIU working as a senior research scientist with the Applied Research Center before moving to the Mechanical and Materials Engineering Department in 2009. Prior to this he was Professor and Head of “The Mechanical Energy Conversion Laboratory” at Simon Bolivar University (Laboratorio de Conversión de Energía Mecánica. Universidad Simón Bolívar – USB) from 1992 to 2005 where his Undergraduate & Graduate courses and Research Areas included: Thermodynamics, Fluid Mechanics & Heat Transfer, Statics & Dynamics, Thermal & Hydraulic Turbomachines, Internal Combustion Engines, Energetic Systems, Hydro & Thermal Power Generation, Fossil & Renewable Energy, Oil Production & Multiphase Flow. In the recent past, he has been an editorial member of 23 journals and has published 125 papers in his area of expertise.

Dr. Nagib Callaos is the Founding President of the a 32 years old Multi-Disciplinary Organization oriented to 1) solve real life problems which mostly require multi-disciplinary teams and 2) to synergistically relate all disciplinary and inter-disciplinary departments of the University Simon Bolivar with the public and the private sectors as well as with business and the Venezuelan society at large. He is also the Founding President of the IIIS and the Founding Editor in Chief of the Journal of Systemics, Cybernetics, and Informatics (JSCI). He is former Dean of Research and Development of the University Simon Bolivar.

Professor Callaos was also the founding president of several organizations on research, development, and technological innovation, e.g. The Foundation of Research and Development of the University Simon Bolivar, the founding president of the Venezuelan Fund for Technological Innovations (created by presidential decree), which required the evaluation of projects from any discipline as well as technological innovations that required multi-disciplinary teams, The Venezuelan Association of Executives in Patents and Copyrights. As a professional, Dr. Callaos was for many years consultant in Information Systems in the largest corporations in Venezuela including its Central Bank. In this context he is the Founding president of a consulting 32 years old consulting firm in information systems and software engineering. His main research, academic, and professional activities, along almost 50 years were in the area of systemic Methodologies of Information System Development, Group Decision Support Systems, and Action-Research mainly via Operations Research. He tutored more than 100 undergraduate and graduate theses and produced more than 100 research papers and reflection articles. He has also edited, or co-edited many books, mostly conferences proceedings.

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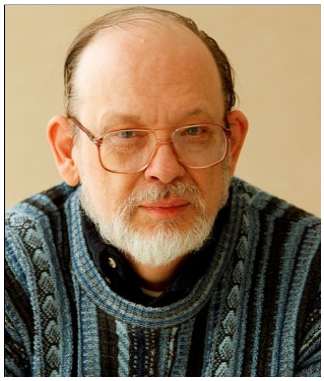
***Participatory Workshop* – Saturday July 8th, 2017, 11 AM – 12:00 M**
***Conversational Session* – Saturday July 8th, 2017, 1:00 PM – 2:00 PM**



Professor Thomas Marlowe

Seton Hall University, USA
Department of Mathematics and Computer Science
Program Advisor for Computer Science
Dr. in Computer Science and Dr. in Mathematics

Participatory Workshop

"Has Informatics Changed the Intellectual Landscape?"

Abstract

- Have the changes in bibliographic research and research methods brought about by the internet, social media and software support for collaboration and communication been: primarily an accelerant? Deeper but largely superficial? Pervasive and substantial? If the last, in what way(s)?
- Has collaboration become more common and/or easier due to collaborative software? Has this really changed its frequency or nature? The likelihood of interdisciplinary collaboration?
- Has data science changed the way research is done and presented? Positively? Will development of digital humanities strengthen/save the humanities? Signal their death as a distinct mode of inquiry? Does it support or inhibit the formation of alternate models in the natural and social sciences?
- CP Snow wrote/lectured about his perception of the growing gap between academics/researchers in the sciences and in the humanities, where many of the former looked down on the latter, and many of the latter neither grasped nor wanted to understand the former. Beyond historical accident, this was in part due to the vast gulf in terminology, idioms, concepts, patterns, practices, approaches, and philosophy, even for overlapping problems. It can be argued that mathematics and computer science/informatics have become a third equally mutually incomprehensible culture, with very different approaches and patterns of thought. To what extent is this real? If it exists, is it primarily conceptual, or due to siloing, turf protection, lack of interest, or allopatric speciation?
- Will informatics and computing specialists serve as a bridge or translator between disciplines? A dam inhibiting or preventing progress? A priesthood or secret society with its own rituals and argot?

- Does systems and software engineering methodology say anything useful about modeling and investigation in other disciplines? Does the requirements process in these disciplines actually communicate successfully with academic clients and experts in other areas?
- Does informatics support, inhibit, or not affect the formation of interdisciplinary ventures, projects, teams, or research initiatives? Does it change the preparation that the non-informatics specialists should bring to the table? If so, how can we prepare academics and researchers? Have existing interdisciplinary/cross-disciplinary projects helped to bridge the two-culture or three-culture gaps?
- Given the (partial) reality of the above changes, and the growing importance of data-driven and interdisciplinary projects, we can no longer rely simply on luck, polymaths and the fortunately educated. How can we prepare conceptual map-readers, navigators, and tour guides to explore intellectual landscapes, and communicators, translators, integrators, and change managers to work with "multi-cultural" and interdisciplinary/cross-disciplinary teams?
- What do systemics, second-order cybernetics, or similar integrative disciplines have to contribute?
- What can be done to include a broad-based philosophical, historical, ethical, multi-disciplinary and integrative perspective in the education of all academics and researchers, to minimize the effects of these problems?
- Do women, minority and non-traditional academics/researchers have a different perception? Do they bring different mindsets and backgrounds to the table?

Short Bio

Thomas J. Marlowe is Professor of Mathematics and Computer Science at Seton Hall University, where he was the coordinator of the computer science program until beginning phased retirement this summer. His research spans many areas, with publications in software engineering, collaboration (including risk analysis, intellectual property issues, and development structures and processes) and information science, language support for real-time systems, program optimization and analysis, and computer science pedagogy (including problem-solving and critical thinking), as well as topics in mathematics, information science, and interdisciplinary studies. He holds a B.S and M.S in Mathematics from Seton Hall University, and an M.S. in Computer Science, a Ph.D. Computer Science, and a Ph.D. Mathematics, all from Rutgers University. He has been a regular at these conferences since 2008.

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***Participatory Workshop* – Saturday July 8th, 2017, 2:00 PM – 3:00 PM**

Professor William Swart

East Carolina University, USA
College of Business
Former Provost and Vice Chancellor for Academic Affairs
Former Dean of Engineering at New Jersey Institute of Technology

Participatory Workshop

"Implementing Flipped Learning to Produce Measurable Results"

Abstract

This participatory workshop will be related the educational model name flipped classrooms of flipped learning which, in opinion of a increasing number of academics, has more educational effectiveness than other means of using ICT innovations in Education. Professor William Stuart, author of the book "*Extending the Principles of Flipped Learning to Achieve Measurable Results: Emerging Research and Opportunities"*, will deliver this workshop, which will be structured with the following topics

- What is and why consider flipped learning?
- How to implement flipped learning
  - Changed role of students
  - Changed role of professor
- Measuring flipped learning results
- Improving flipped learning results

Short bio

William Swart is a Professor of Marketing and Supply Chain Management at East Carolina University. He received his BS in Industrial Engineering from Clemson University and his PhD in Operations Research from the Georgia Institute of Technology. He has held leadership positions in industry, including Corporate Vice President, and in the academia, including Provost and Vice Chancellor for Academic Affairs. He is the recipient of a NASA/JFK Group Achievement Award, the Institute of Industrial Engineers (IIE) Operations Research Practice Award, and the Achievement in Operations Research Medal from the Institute for Operations Research and Management Science (INFORMS).

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Participatory Panel* *– Saturday July 8th, 2017, 3:30 PM – 4:30 PM*

**In participatory panels any attendee may, besides asking questions, also take the role of a panelist answering other attendees' questions*

"*Flipped Classroom in the context of Education and Instruction*"

Co-Facilitators

Professor William Swart

East Carolina University, USA
College of Business
Former Provost and Vice Chancellor for Academic Affairs
Former Dean of Engineering at New Jersey Institute of Technology

Dr. Nagib Callaos

Founding President of the International Institute of Informatics and Systemic, USA
Former Dean of Research and Development of the University Simon Bolivar, Venezuela
Founding Editor in Chief of the Journal of Systemics, Cybernetics and Informatics

Abstract

When e-learning is used as a *substitute* of face to face learning, it certainly might increase the *efficiency* of teaching processes but this might be being achieved lowering the educational *effectiveness*. But, when e-learning is used as *complement* to face to face classrooms then it certainly may increase the effectiveness of the educational process. To address this issue the notions of Education and Instruction should be differentiated. Instruction might be a *necessary* condition of education but is it a *sufficient* condition? Instruction is one of the means of education which should not be confused as its *end*. Do all professors of higher education know the difference between both notions? How we can find professors of higher education that did not reflect enough about the real meaning of the notion of "education"? What did Albert Einstein mean affirming that *"Education is that which remains, if one has forgotten everything he learned in school."*? Is Flipped learning more educational that e-learning used as substitute of face to face classrooms?

Short Bios: see above

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***Conversational Session* - Saturday July 8th, 2017, 4:30 PM – 5:30 PM**

Dr. Ashton T. Sperry

Ronin Institute for Independent Scholarship, USA
Research Scholar
Philosophy of Science, Decision and Game Theory, and Logic

Conversational Session on

"Reinventing Academia? Why? How?"

Short Abstract

The tenure-track faculty position is the gold-standard for pursuing a career in scholarly research. But it is not a path that works for everyone. Higher education produces more PhDs than there are academic jobs to employ them. It is a waste of human capital. Some fields provide jobs in private industry for those with advanced degrees, but to contribute to someone else's research. Some academics take an extended break for health reasons, to have a family, or to reassess goals. All paths have generally meant leaving academia forever. This conversational session will discuss the reasons, drawbacks, and benefits of pursuing independent scholarship, and how one can pursue independent scholarship comparable to that found in academia. The format is an open discussion among attendees.

Short Bio

Dr. Ashton T. Sperry (Ph.D., the University of Missouri) is a Research Scholar at the Ronin Institute for Independent Scholarship. He specializes in the philosophy of science, decision and game theory, and logic. His primary research is on the development of an account of scientific explanation, which includes the complexity of non-equilibrium dynamic systems, and on the development of an account of bounded rationality for realistic decision-making in game theory. His research is found in peer-reviewed journals.

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***Conversational Session* – Saturday July 8th, 2017, 5:30 PM – 6:30 PM**

"Research and Consulting: Research via Consulting and Consulting via Research"

Facilitators

Dr. Faith Power

Shenandoah University, USA.
Visiting Professor of Entrepreneurship
Board Service: Free Medical Clinic of the NSV; Our Health; Byrd School of Business Advisory Board; Board of Trustees, Valley Health

Dr. Luis Velazquez-Araque

University of Guayaquil, Ecuador
Founder of the Aerodynamics Laboratory at National University of Tachira, Venezuela
Visiting professor at the Czech Technical University in Prague, Czech Republic

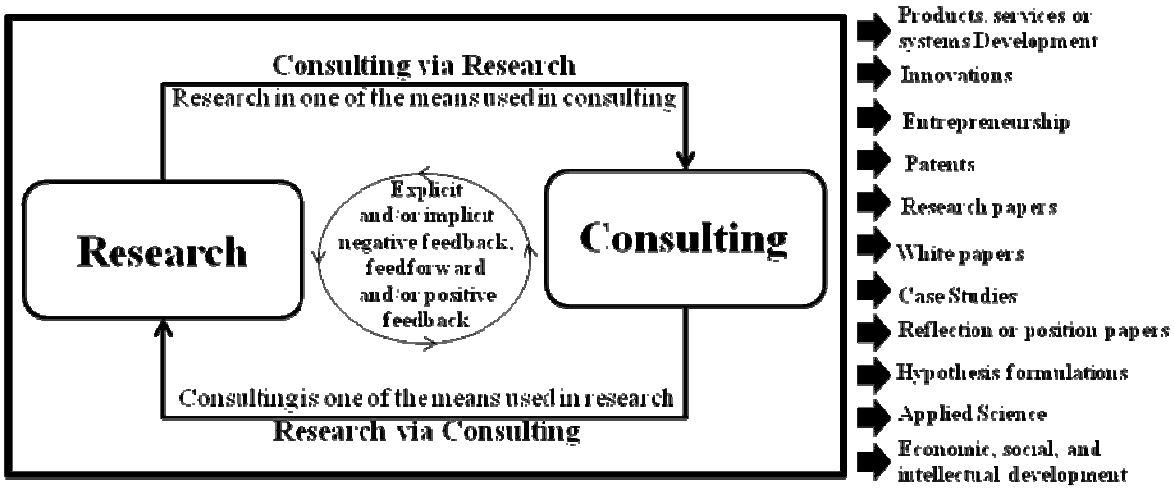
Dr. Nagib Callaos

Founding President of the IIIS, USA
Former Dean of Research and Development of the University Simon Bolivar, Venezuela
Founding Editor in Chief of the Journal of Systemics, Cybernetics and Informatics

Motivation

Some academic areas necessarily require consulting activities or other related practicing experiences. For example, what would be the "lab" for a professor of information systems development methodologies if not information systems development in the real world? In some other academic fields, consulting activities might enrich, support, and enhance research, as it might be the case in some Engineering fields, Law, Medicine, Managements Science, Operation Research, etc. But yet, in other academic fields, consulting is perceived as an activity that might distract from what is considered proper scholarly research. In some fields or disciplines this might be true at the individual or team level. However, even in these cases scholarly research would eventually generate, via other scholars or researchers, applied research which would support real life problem solving and, consequently, the decision and policymaking processes that are part of the consulting activities. Consequently, research and consulting, directly or indirectly, immediately or not, complement and relate to each other via cybernetic co-regulative loops (negative feedback or feedforward) and co-amplificatory loops (positive feedback). These

loops, in turn, may potentially produce synergic effects that: a) increase the effectiveness (and possibly the efficiency) of both kinds of activities, and/or b) generate systems/products development, innovations, entrepreneurship, patents, research papers, etc.



At the individual or team level, disciplinary research and consulting activities are not required to complement each other. However, at the organizational level in Higher Education, research and consulting activities (or real life problem solving) should be related to each other in order to integrate the organization to society at large. This is a necessary condition for legitimizing research universities, reciprocating the financial support being provided by society, and maintaining their functioning as academic organizations, not completely dedicated to instruction or education, but also to research. An increasing number of academics are, explicitly or implicitly, relating research and consulting activities to each other and, sometimes, to their educational activities. Consulting via research and doing research via consulting are both being done with more frequency, in the corporate sector as well as in the academic sector, including organizations created by (and/or in the context of) Higher Education organizations.

Short Bios

Dr. Faith Power is a serial entrepreneur, having started and run several companies. Most recently she was the CEO of Ambriel Technologies, LLC, a technology research and development firm whose focus is to support, enhance and expand the capabilities of global communications. Prior to Ambriel Technologies, Power was the founder and CEO of Power/Warner Communications Group, Inc., a full-service marketing communications firm.

In addition to being an entrepreneur, Power is also an organizational consultant and professor teaching in the areas of leadership, cultural change, organizational structure and behavior, entrepreneurship and business management.

Active across the Commonwealth of Virginia, Power served as board chair of the Virginia Chamber of Commerce and the Top of Virginia Regional Chamber of Commerce. She is currently a member of Valley Health System's Board of Trustees, the Virginia Port Authority and Our Health.

Power holds a B.A. in Political Science from Marshall University, a Master's degree from The George Washington University in Education and Human Development and has an applied organizational science doctoral degree from The George Washington University. Power's doctoral research area of interest is present-moment sensemaking.

Dr. Luis Velazquez-Araque received his Mechanical Engineering degree from the National University of Tachira, Venezuela in 2003. He has experience in the oil industry having worked for Petroleos de Venezuela and also in the cement industry having worked for Lafarge Group. He received his Ph.D. in Thermodynamics and Fluid Dynamics at the Czech Technical University in Prague in 2011 and has been a university professor for more than 12 years at the National University of Tachira and visiting professor at the Czech Technical University in Prague during 4 years. After returning from Czech Republic he founded the Aerodynamics Laboratory at the National University of Tachira.

He is member of the following societies: American Society of Thermal Fluid Engineers ASTFE, American Society of Mechanical Engineers ASME, International Institute of Informatics and Systemics IIIS, Venezuelan Society of Engineers and Rotary International.

He has been part of the "Prometeo Project" from Ecuador, an initiative of the Ecuadorian Secretary of Higher Education Science and Technology, sharing his expertise in the field of teaching and research in biofuels. Luis also began his career as a motivational speaker in 2012, basing his conferences on people development key areas such as leadership, perseverance and attitude. Dr.Velazquez-Araque has published more than 20 papers at international conferences and journals in countries such as USA, Japan, Russia, Taiwan, Netherlands, Austria, New Zealand, Czech Republic, Ecuador and Venezuela. He is currently associate professor at the Faculty of Chemical Engineering at the University of Guayaquil in Ecuador and founder of the company Innoveos Consulting.

Dr. Nagib Callaos Bio: see above.

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***Plenary Session* - Sunday July 9th, 2017, 8:00 AM – 8:35 AM**

Dr. Robert Cherinka

MITRE Corporation, USA
Senior Principal
Information Systems Engineer

Eng. Joseph Prezzama

MITRE Corporation, USA
Associate Department Head,
Tampa Operations

Keynote Address

"Driving Digital Business Value through Culture, Diversity, and Lean Agile Leadership"

Short Abstract:

There is an explosion of the digital world in progress. Some examples of this disruption include cloud computing, virtual reality, sensors for Internet of Things (IoT) and Blockchain. These technologies are now becoming the new norm. The pace of digital transformation is increasing, changing, and morphing. These changes are being driven by powerful forces. Businesses are in the midst of coping with these changes. A new model is emerging to help characterize a new digital platform that goes beyond traditional information technology (IT) infrastructure. This new digital platform expands across a much broader environment to include IT Systems, IoT, customer engagement, ecosystems, and business Intelligence.

In this presentation, we will expand upon this new digital platform, highlighting some of the challenges to its adoption and its use in driving business value. We will also offer insight into setting the right culture in an organization, encouraging Bi-modal and diverse thinking, while simultaneously promoting lean agile IT leadership to assure success in this new digital world.

Short Bios

Dr. Robert Cherinka is a Senior Principal Computer Scientist for the MITRE Corporation, located in Tampa, Fl. His expertise is in software and process engineering, with a focus toward agile development technologies. Bob is currently a Department Head for Agile Engineering and Innovation, leading a distributed team of IT professionals developing and applying emerging technologies across several major US Government domains. Bob earned a Ph.D. and M.S. in computer science from Old Dominion University, Norfolk, Virginia, leading research in static analysis and testing techniques for component-based systems. In addition, he earned a B.S. in computer science in 1987 from the University of Pittsburgh. After 6 years in the US Air Force, he joined MITRE in 1993.

Mr. Joseph Prezzama is currently the Associate Department Head for the MITRE Corporation, Tampa Operations Office. In 1996 he earned a Master of Science in Software Engineering from Monmouth University, Eatontown, New Jersey. Prior to that, he earned a Bachelor of Science in Electrical Engineering from Trenton State College, Ewing, New Jersey.

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***Plenary Session* - Sunday July 9th, 2017, 8:35 AM – 9:10 AM**

Professor Shigehiro Hashimoto

Kogakuin University, Japan
Associate to the President and Dean of Admissions Center
Doctor of Engineering and Doctor of Medicine
Biomedical Engineering

Keynote Address

"Multidisciplinary Learning Extends Communication Skill, and Helps Cross Cultural Understandings: Biomedical Engineering"

Abstract

Multidisciplinary learning has been discussed in relation to cross- cultural understandings. "Biomedical engineering" is exemplified for the multidisciplinary field. "Biomedical Engineering" is the multidisciplinary research area, which includes biology, medicine, engineering, and others. Several learning programs have been tried in the biomedical engineering field: in Japan, in Thailand, and in USA.
Some of them are cross-cultural student seminars on biomedical engineering. In the group work, students are divided into the small cross-cultural groups. Each group finds a problem, methods to solve the problem, contribution to the society. Presentations are made of slides in reference to information in the internet. They have learned how to communicate with students, who has not only variety of studying backgrounds but also variety of cultural backgrounds. The training awakes in students several points: thinking from a different point of view, using various communication tools. The process extends the communication skill, and helps cross-cultural understandings.

Keywords: Multidisciplinary Design, Biomedical Engineering, Learning, Students, and Cross-cultural Understanding.

Short Bio

See above and http://www.mech.kogakuin.ac.jp/labs/bio/

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***Plenary Session* - Sunday July 9th, 2017, 9:10 AM – 9:45 AM**

Dr. Kevin Foltz

Institute for Defense Analyses, USA
Information Technology and Systems Division
Independent technical analyst for the Department of Defense

Keynote Address

"End-to-End Security with Translation"

Short Abstract

To communicate ideas we use standard languages, protocols, data formats, and units of measure. However, different people, machines, and software use different standards. Translators allow these different entities to communicate, but this requires them to trust the translator to properly represent and protect their information. Automated translation methods typically allow a translator to change or share a message without the knowledge of the communicating entities. Such methods deny the communicating entities basic security guarantees such as integrity and confidentiality. This talk discusses challenges and potential solutions to secure translation.

Short bio

Kevin Foltz is a research staff member at Institute for Defense Analyses. He works on Enterprise Level Security (ELS) in support of the Air Force and Department of Defense to provide secure communication and collaboration. He holds a PhD in Electrical Engineering from California Institute of Technology and degrees is mathematics, computer science, and strategic security studies from Rice University and National Defense University.

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***Plenary Session* - Sunday July 9th, 2017, 1:00 PM – 1:35 PM**

Professor Dusan Soltes

Comenius University at Bratislava, Slovakia
Faculty of Management,
Director of the e-Europe Research & Development Centre

Keynote Address
"Pros and Cons of Smart ICT in Some Governmental Applications"

Short Abstract

We will present results of our ongoing R&D started under the EU/7FP/Sec./SMART project regarding some applications of the contemporary smart ICT in selected e-government applications. Viz. e-government itself, consumer protection, border controls and protection, counter terrorism, smart surveillance in the cyberspace. The results of our particular research have been clearly showing that in addition to some evident positives and benefits as achieved by the application of the smart ICT, the same technology is very often unfortunately misused also for various clandestine activities that are violating some of the fundamental and internationally recognized human rights like e.g. right to freedom of expression, privacy, confidentiality of communications, etc. Unfortunately, in many cases these violations are made by those institutions that have to protect and guaranteeing the above FHR to all people either on the national and/or international levels.

Short Bio

Prof. Dusan Soltes has been currently i.e. since 1993 working at the Faculty of Management of the Comenius University at Bratislava and since 2003 as a full time regular professor for MIS and International Economic relations and the director of the e-Europe Research & Development centre as a specialized centre for EU funded projects under the former 5th and 6th and current 7th FP especially those from the ICT/IST programme for more details: (//erdc.fm.uniba.sk). He has been also an evaluator for the EC and its 6 and current 7FP and has been collaborating with numerous DGs of the EC in Brussels in the area of the ERA, Information Society, ICT, etc. In addition to his home university he has been a Visiting Professor and Research Fellow at numerous universities at the EU member states as well as at the universities in the USA and China. Before joining his current university, he worked for numerous United Nations agencies (UNDTCD, ILO, UNECE, ITU, UNFPA, etc.) as a senior expert in the highest Professional category P5 in various countries of Europe, Asia and Africa. Prof. Soltes has been widely publishing home and abroad in Professional periodicals as well as proceedings of many international conferences, congresses, seminars especially those organized abroad by various international Professional organizations of which he has been an active member.

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***Plenary Session* - Sunday July 9th, 2017, 1:35 PM – 2:10 PM**

Dr. Mario Lamanna

Evoelectronics, Italy
and
Selex-SI, USA
Senior Scientist

Keynote Address
"Cyber Security for Critical Infrastructures: The New Technology Challenges"

Abstract

A cyber security system for critical infrastructures needs the extensive use and the targeted application of the most modern computer and communication technologies. The implementation of such a system relies on the efficient application of these technologies to a general architecture, specifically tailored for cyber security. In order to draw the guidelines for an efficient design, both perspectives and limits of these technologies are analysed. In particular, five key technologies, namely Big Data, Intelligence, Human in the Loop, Deep Learning and Data Fusion, are described and analysed with respect to their potential application to cyber security. The results of the analysis show that, in order to design efficiently this kind of systems, a multidisciplinary approach and a strong synergy between human and machine technologies are necessary.

Short Bio

Dr. Mario LaManna received the degree in Electronic Engineering from the University S. Anna College in Pisa (Italy). He has spent most of his professional career working with Selex ES Finmeccanica SpA, (Italy) and as a Teaching Professor with the University of Pisa. He has been working as Program Manager of a number of international cooperative projects in the fields of Military, Aerospace and Security, in Pisa, Rome, Europe and US. He is presently working with Evoelectronics SRL in Rome, Italy. He has participated in more than 100 international conferences as paper author, session chairman and invited speaker. He is a Member of IEEE and IIIS and an Expert Member of EDA and EU.

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***Plenary Session* - Sunday July 9th, 2017, 2:10 PM – 2:45 PM**

Professor Margit Scholl,

Technical University of Wildau [FH], Germany
Faculty of Economics, Computer Science, Law
Business and Administrative Informatics
Received a research prize from TH Wildau

Keynote Address

"Living in a Digital World: Improving Skills to Meet the Challenges of Digital Transformation through Authentic and Game-Based Learning"

Abstract

The constant proliferation of digitalization is increasingly penetrating all areas of life and requires greater awareness and improved skills to handle processes based on information and communication technologies (ICT) and digital transformation (DT). In addition, the use of applications and ICT is prevalent both in private life and at work. DT itself is an ongoing process of change that not only affects individual enterprises, modern administrations, and other organizations but is also having an increasing impact on the entire (knowledge) society and all human beings.

Digital technologies and infrastructures form the basis for new digital applications, new exploitation potentials, and digital business models as well as communication in digital value-added networks. This has changed people's communication behavior, and new knowledge is needed to deal with digital technologies, coupled with soft skills to cope with the changes triggered by digitalization. It is also necessary to foster a new awareness of the various challenges and threat scenarios of organizational and social values.

Due to shorter and shorter technology cycles, lifelong learning is taking on a new meaning. Recent research suggests that for a new sensitization to occur, a change must be made to include learner-centered, realistic, and participatory learning environments with real-world contexts. Innovative teaching and learning methods that integrate reflection, self-assessment, and performance review are needed. This brings into play cooperative learning exercises in cross-disciplinary teams drawing on authentic game-based learning approaches. The inclusion of playful elements is particularly suitable to increase motivation and encourage behavioral change.

Shot Bio

Margit Scholl, PhD, is Professor for Business Informatics and Administrative IT in the Faculty of Business, Computing, and Law at the Technical University of Applied Sciences Wildau (TUASW) situated to the southeast of Berlin. Her research and teaching work centers around process and project management, (mobile) business applications, information security including baseline protection and awareness, multimedia and learning methods.

Prof. Scholl has assembled a research team (Innovation in Teaching/Learning) for her planned projects, a group that is to be completely supported by external funding. The team has been carefully chosen to bring together a broad range of interdisciplinary research and teaching experience.

In 2010, she founded the WILLE Institute (Wildau Institute for Innovative Teaching, Lifelong Learning and Constructive Evaluation), which is affiliated to the university under the umbrella of the Centre of Technology Transfer and Advanced Learning. She won the university's research prize in 2011, and in 2013 she did a research semester at the University of Washington's iSchool in Seattle, USA. In 2014, she had her university professorship at the TUASW converted to a five-year research professorship. Her aim in this new position is to focus on developing and deploying a holistic understanding of technology in an area that will in future be more strongly characterized by diversity. This focus will be applied to the following research area: "Holistically Building and Managing Smart Technologies in the Twenty-First Century."

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***Plenary Session* - Sunday July 9th, 2017, 2:45 PM – 3:20 PM**

Professor William Swart

East Carolina University, USA
College of Business
Former Provost and Vice Chancellor for Academic Affairs
Former Dean of Engineering at New Jersey Institute of Technology

Keynote Address
"The Future is not what it used to be: Demographics, Technology, Business and Academia in Exponential Times"

Short Abstract

Our view of the future when this conference first took place some 22 years ago bears little resemblance to the realities of today. And, surely, the world 22 years from now will bear little resemblance to what we imagine it to be today. Nevertheless, without adopting a view of the future, we will find ourselves subject to another popular saying (attributed to the hall of fame baseball player/manager Yogi Berra): "You got to be careful if you don't know where you are going because you might not get there."

The presentation will begin by conjuring up a vision of the future by examining current trends in globalization, demographics, and technology. It will then discuss how individuals, and businesses are evolving to respond to this changed and changing future and the challenges and opportunities that these present to academia. The presentation will then discuss how future changes and challenges are inexorably moving academic institution toward technology enhanced personalized learning – from mass dissemination of information, as in traditional lectures, to mass customization of learning, where learning coaches and consultants provide just-in-time learning only to those that need it when they need it.

Short Bio

William Swart is a Professor of Marketing and Supply Chain Management at East Carolina University. He received his BS in Industrial Engineering from Clemson University and his PhD in Operations Research from the Georgia Institute of Technology. He has held leadership positions in industry, including Corporate Vice President, and in the academia, including Provost and Vice Chancellor for Academic Affairs. He is the recipient of a NASA/JFK Group Achievement Award, the Institute of Industrial Engineers (IIE) Operations Research Practice Award, and the Achievement in Operations Research Medal from the Institute for Operations Research and Management Science (INFORMS).

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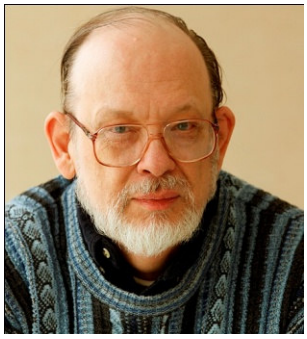
***Plenary Session* – Monday July 10th, 2017, 8:00 AM – 8:35 AM**



Professor Thomas Marlowe

Seton Hall University, USA
Department of Mathematics and Computer Science
Program Advisor for Computer Science
Doctor in Computer Science and Doctor in Mathematics

Keynote Address

"Has Informatics Changed the Intellectual Landscape?"

Abstract

The internet and social media, tools for collaboration and sharing and for project and data management, and an enormous and ever-increasing collection of computer-implemented techniques and algorithms have been instrumental in accelerating both research and its dissemination, as well as facilitating deeper and more sophisticated analyses of qualitative and quantitative data, although not unmixed with negative effects including plagiarism, low-quality electronic journals, and all-too-frequent credulous consumption of on-line information.

But there remain other issues, at least equally basic, to consider, affecting collaboration; the changes to the humanities, social sciences, and other fields; interdisciplinary studies; and the fundamental nature of academia, research, and pedagogy themselves. Informatics, itself a mix of science, technology and engineering, and mathematics and logic, flavored at times with economics, business, and social science, has developed terminology, idioms, concepts, patterns of use and communication, practices and approaches, theory, and philosophy of its own—a language or set of languages often incomprehensible to most outside, other than at times to some mathematicians and systems engineers.

Has informatics, perhaps in conjunction with modern mathematics, really become a third castle in CP Snow's intellectual landscape, determined to be pristinely separated from the humanities and social sciences on the one hand, and the sciences and engineering on the other? If so, is this a result primarily of siloing, turf protection, and lack of interest in crossing the ground between them? Or is it true allopatric speciation—the birth of a new intellectual genus as a result of separation and evolution, and inherently structural and conceptual?

Regardless, large, complex and long-lived ventures are increasingly likely to be able to benefit from approaches common to informatics, including but not limited to modern, agile versions of requirements, specification, and design. Communication between technical personnel and the (in the broad sense) clients using their services is likely to require mapping and translation. Interdisciplinary teams, which increasingly require or are even dominated by an informatics component, may require not only specialists in each area, but collaborators who are comfortable with exploration, mapping, translation, integration, and the presentation of multiple views and narrations. Interdisciplinary projects and enterprises will no longer be able to rely on luck, polymaths and those fortunate to have a matching education.

For this reason, consider the informatics component of interdisciplinary education, or for that matter, of education in general. Is it sufficient to concentrate on discipline- or purpose-specific useful approaches, tools and techniques? Or should one seek to convey the informatics mindset(s), worldview(s), and conceptual understanding(s)? Can the proposed workforce of intermediaries and their managers be created without such understanding?

And to what extent does this fit with a broad-based integrative perspective in the education of all academics and researchers, including informaticians, computer scientists, and software engineers? What do systemics, second-order cybernetics, or similar integrative disciplines have to contribute? And how can we incorporate the perspectives of populations with different demographic, academic, and experiential backgrounds and focus both at the table and in the field?

Short bio

Thomas J. Marlowe is Professor of Mathematics and Computer Science at Seton Hall University, where he was the coordinator of the computer science program until beginning phased retirement this summer. His research spans many areas, with publications in software engineering, collaboration (including risk analysis, intellectual property issues, and development structures and processes) and information science, language support for real-time systems, program optimization and analysis, and computer science pedagogy (including problem-solving and critical thinking), as well as topics in mathematics, information science, and interdisciplinary studies. He holds a B.S and M.S in Mathematics from Seton Hall University, and an M.S. in Computer Science, a Ph.D. Computer Science, and a Ph.D. Mathematics, all from Rutgers University. He has been a regular at these conferences since 2008.

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***Plenary Session* – Monday July 10th, 2017, 8:35 AM – 9:10 AM**

Professor Dr. Dr. med. Ulrich Sprick

St. Alexius- / St. Josef Clinic, Germany
Chief Physician
Psychiatry and Psychotherapy

Keynote Address

"Psychotherapy via the Internet as a Novel Tool for Clinical Use"

Short Abstract

An increasing amount of patients with prolonged waiting times or difficulties to get admittance to the health system has enforced the number of internet-based psychotherapy treatments in many countries. There is a wide range of solutions ranging from self-help to guided or therapist-delivered versions. Advantages and disadvantages of the different treatment approaches will be highlighted. Completer rates and effects of different e-health treatments will be compared with face to face treatments. Additionally different quality parameters of internet-based psychotherapy will be focused.

Short Bio

Professor Sprick is an associated professor at the University of Düsseldorf and Deputy Medical Director and Head of the Department of Day Clinics and Ambulances of the St. Alexius/St. Josef Clinic in Neuss, Germany.

He is a trained psychiatrist and an expert psychologist specialized on psychotherapy (CBT) and forensic psychiatry. He has been working in Brain research for more than 10 years with special interests in brain plasticity, endogenous opiates, trophic factors, reward systems and memory. From the clinical perspective his actual research interests include nonvisual effects of light, cognitive training for schizophrenic patients and telemedicine, especially therapist delivered psychotherapy.

Professor Sprick is a member of several Medical and Psychological Societies.

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***Plenary Session* – Monday July 10th, 2017, 9:10 AM – 9:45 AM**

Dr. Matthew E. Edwards

Alabama A&M University. USA
Professor of Physics and
Former Dean, School of Arts and Sciences

Keynote Address

"Using Constructivism Learning With Bloom's Cognitive and Affective Domains, and Mental Mind Structures to Implement Contextualized Critical Thinking in Both Disciplinary and Interdisciplinary Studies"

Short Abstract

In academia, the benefits of Contextualized Critical Thinking occur effortlessly for a large segment of students. However, the rewards of critical thinking develop slowly, if at all for the remaining segment. The onset of cognitive thinking begins with simple memorizing, recording, valuing, comparing, and contrasting events, or situations—using the early categories of Bloom's cognitive and affective domains. Once contextualization and advanced components of Bloom's domains are added, the able-minded students, using constructivism with "mental mind structures," without even thinking of them, develop a knack for critical thinking while other students remain languishing in states of inaptness. To that extent, we have developed mnemonics, acronyms, and other mental patterns, such as what we call "mental hooks," "mental straights" and "mental S's" to assist students in learning. All students, including the able-minded ones and the struggling groups, can benefit from these techniques in both disciplinary and interdisciplinary studies.

Short Bio

Since January 2002, Dr. Edwards has been a Professor of Physics at Alabama A&M University (AAMU), and served as the Dean of the School of Arts and Sciences from 2007 to 2011. Prior to 2002, academic positions he held included associate professorships at Spelman College and Fayetteville State University, and a visiting associate professorship and adjunct faculty position at the University of Pittsburgh, and an assistant professorship at the University of Arkansas at Pine Bluff. He has held several summer-faculty-research positions at Government Labs: the ROME Air Force Research Lab, NASA Langley Research Lab, and the Naval Research Lab. Dr. Edwards is a Condensed Matter physicist with expertise in (1) Density Functional theory/Solitons Wave theory/Finite Element Methods, (2) the materials of electrooptics, (3)

pyroelectric, resistivity, and dielectric properties of crystals and nano-particles doped organic thin films, and (4) STEM Education. Dr. Edwards has more than 40-refereed papers and journal proceedings and has made at least 55 professional and administrative presentations. He has guided five students to advanced degrees: three to the Ph.D., and two to the Master's degree, has served on more than 16 dissertation and thesis committees, and has peer-reviewed greater than 18 research manuscripts. Currently, he is guiding two Ph.D. degree students. He received the Ph.D. degree in condensed matter physics from Howard University, Washington, D.C., and has obtained numerous grants, honors and awards. He is the founding Director of IHSER (Institute of Higher Science Education and Research). Moreover, in 2015, he was a guest editor for the American Journal of Materials Science. Currently he sits on the Board of Directors of three science journals and one science education journal, and serves on the executive committee of the Alabama Academy of Science.

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***Plenary Session* – Monday July 10th, 2017, 1:00 PM – 1:35 PM**

Dr. Anthea Fudge

University of South Australia
Course Coordinator of Science for Tertiary Learning
Blended learning/digital technologies upon the delivery of science

Keynote Address

"i-Science 2.0: Digital Literacies, eLearning and Digital Technologies for Higher Education Studies of Science"

Abstract

The world has changed; moving from an information age to a conceptual age with digital technologies at the forefront. Technology has shifted the ways educators teach and students learn. Science, Technology, Engineering and Mathematics (STEM) education courses prepare students with important scientific knowledge and skills in addition to a wider context of developing ever important digital literacies in this online world.

A challenge arising from technological advancement is for educators to prepare students for hypothetical jobs in future industries. Science students need 21st Century skills to evaluate academic resources and effectively use digital technologies. Students are increasingly digital natives but are not always experts in the use of technology.

The increased use of digital media in higher education provides opportunities for students to further their engagement with complex tasks. Reflective practice over a five year iteration of a science course from various feedback and evaluation measures ensured interventions were made embedding digital literacies into the course, not as an add-on to scientific knowledge but as part of being a problem solver and supporting digital literacies. A multifaceted approach was taken to embed different digital technologies within the science course in a meaningful way bound by learning theories and employing technologies including; tailored digital video content related to science laboratory safety and experiments, virtual classroom sessions providing feedback and clarification wherever the student was located, incorporating blended learning techniques in tutorials, building digital literacies with online library sessions covering search strategies and critical analysis techniques of resources, course analytics monitoring student engagement and access, online learning management systems, and bring your own device (BYOD) technology encouraged collaboration within a classroom allowing the learner and educator to gain instant feedback using the technology and analytics ensuring students are able to engage with complex

research problems presented. Results of internal and external students learning progress, engagement and confidence will be discussed.

Educators must be willing to embrace digital learning and model an inquiring attitude with students to best prepare them for the inevitable technology developments to come.

Short bio:

Dr. Anthea Fudge is a Course Coordinator of science courses; Science for Tertiary Learning and Introduction to Biosciences at UniSA College, University of South Australia, Australia and is also currently undertaking a Graduate Diploma in Digital Education (Digital Learning). With a background in chemistry and physics and a PhD researching wine science -Anthea is passionate about encouraging students to engage with the sciences and spark an interest in learning and discovery. Anthea is excited to continue to explore the impact of blended learning and digital technologies upon the delivery of science related courses within the enabling sector and STEM education.

General Framework and Plenary Keynote Speakers of the Collocated Conferences

The 21st World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2017
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Décima Sexta Conferencia Iberoamericana en Sistemas, Cibernética e Informática: CISCI 2017

***Plenary Session* – Monday July 10th, 2017, 1:35 PM – 2:10 PM**

Professor Louis Trudel

University of Ottawa, Canada
Faculty of Education
Science Education
ICT Application in Science Learning and Teaching

Keynote Address

"Use of Technology for Research and Pedagogical Purposes in STEM (Science- Technology- Engineering- Mathematics) Education"

Short Abstract

In this presentation, we will first examine the various functions technology can play in STEM education, as well its advantages and limits. Indeed, STEM classroom has not escaped the digital revolution. In the laboratory, computers and probes allow quick and easy data collection and analysis, so students can test their hypothesis, and variations of it, within the time limits of the school curriculum. Aside this technical prowess, a new generation of software aims to integrate the principles of knowledge construction into an integrated approach enabling the student to actively participate in his own learning. In teacher training, software helps student teachers to design pedagogical scenarios that can be later commented upon and evaluated by practicing teachers, opening the door to continuous teacher professional development. As a conclusion, we plead, in order to benefit from these various contributions, for a continuous interaction through research between the development of technological tools and their pedagogical use in STEM education.

Short Bio

Professor Louis Trudel holds a Ph.D. in Education from the Université du Québec à Montréal. He teaches science education courses in the teacher education program as well as courses in quantitative research methodology at the master's level in education. He recently organized a symposium within the framework of the Canadian French Association for the Advancement of Science (ACFAS) on the relationship between formal and informal education to develop scientific education in which Canadian and international researchers were invited. He is currently participating in the publication of a volume on this issue. Dr. Trudel has published several articles on topics related to science education in trade journals.

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***Plenary Session* – Monday July 10th, 2017, 2:10 PM – 2:45 PM**

Dr. Maria Jakubik

HAAGA-HELIA University of Applied Sciences, Finland
Hanken School of Economics
Head of Master's Degree, Programme in International Business Management (IBMA)

Keynote Address

"Flourishing Organizations"

Short Abstract

Organizations are living open systems created and developed by people. Appreciative inquiry (AI) changes the attention from problem solving to developing organizations based on their strengths. The life-giving forces (LGFs) of 29 organizations in Finland were determined during a four-year period of research. Data were collected and analysed qualitatively by groups of Master's students. Altogether 319 interviews were conducted by asking 'unconditional positive questions'. Discovering what provides joy and happiness for people in work serves as a strong basis for them to dream, design and achieve their own and their organization's destiny in the future.

Short Bio

Dr. Maria Jakubik is an active visiting scholar (UK, USA, Italy, France, Spain, Austria, Lithuania, Hungary) and conference participant (EURAM–UK, Estonia, Poland; EDiNEB-The Netherlands, Spain; EIASM–Cyprus; MIC–Croatia, Italy; WMSCI-USA; and Finland). Her research interests focus on Knowledge Management, Employee Engagement, Action Research, Appreciative Inquiry, and Organization Development. Her research papers have been published in the *Journal of Knowledge Management*, *International Journal of Learning and Intellectual Capital*, *Journal of The Learning Organization*, *Review of Innovation and Competitiveness - A Journal of Economic and Social Research*. Maria has two PhDs (1984 Hungary; 2011 Finland) and an MBA (Finland and USA).

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***Plenary Session* – Monday July 10th, 2017, 2:45 PM – 3:20 PM**

Drs. Ninon Candalh-Touta

Universite Pierre et Marie Curie (Paris VI), France

Robotic and learning of the laparoscopic gesture

Keynote Address

"Time to Consider the Medical Students and Medical Robotics in the Process of Improving Healthcare"

Short Abstract

Laparoscopic surgery becomes a standard for many surgical procedures due to its advantages over open surgery in terms of cosmetic results or patient recovery time. Unfortunately, for the surgeon and the student in medical school this surgery is imparted with mechanical, visual and ergonomics problems. Consequently, students sometimes end up choosing another specialty.

How can we improve the set-up to have an easier and less painful training? How can we design the task to make it more understandable to the student? How can we adapt the training to a particular subject?

Short Bio:

Ninon Candalh-Touta is doing her PhD student in learning laparoscopic gestures and robotics at ISIR (Paris, France). She did an international master degree called "mechatronic systems for rehabilitation" between Universita degli studi di Brescia (Italy) and Université Pierre et Marie Curie (Paris, France). During the last semester she did her internship at Leon Root Motion Analysis Laboratory (New-York, USA) on musculoskeltal modeling for varus rotational osteotomy in children with cerebral palsy.

She published at CARS (Barcelona, 2017) on the correlation between proprioceptive capacities and laparoscopic performance.

She was a member of jury at the festival *Pariscience* which is a science movie international festival.

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***Plenary Session* – Tuesday July 11th, 2017, 8:00 AM - 8:35 AM**

Dr. Russell Jay Hendel

Towson University, USA
Dept of Mathematics

Keynote Address

"***Supplementing Multiple Modalities and Universal Design in Learning with Goal-Setting***"

Short Abstract

A paradigm example of multiple modalities occurs with teaching functions, such as cost, profit, and marketing functions. A superior pedagogic technique emphasizes the multiple modalities of algebraic, computational, tabular and graphical representations of functions. Exposure to the four modalities significantly enriches function comprehension experience. Multiple modalities are advocated by the National Council of Teachers of Mathematics Standards, by the Common Core State Standards as well as by the principles of Universal Design in Learning. Hendel recently advocated four central pillars to pedagogical excellence: executive function (that is, multiple modalities), goal setting, attribution theory and self-efficacy. This presentation explores multiple examples in diverse educational and training settings where use of multiple modalities by itself may fail unless there is also present adequate goal-setting, the sequencing of a task into a collection of clearly defined, achievable but challenging subtasks.

Short Bio

Russell Jay Hendel holds a doctorate in theoretical mathematics from M.I.T., an associateship from the Society of Actuaries, and is in a doctoral program at the Spertus Institute for a degree in Jewish studies. He is currently an Adjunct II faculty member at Towson University which has recently become a Center of Actuarial Excellence. His research and publication interests include discrete number theory, actuarial science, biblical exegesis, the theory of pedagogy, applications of technology to pedagogy, and the interaction of mathematics and the arts. He regularly reviews books for the Mathematical Association of America

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***Plenary Session* – Tuesday July 11th, 2017, 8:35 AM - 9:10 AM**

Dr. Sang E. Park

Harvard School of Dental Medicine, USA
Associate Dean for Dental Education
Implemented the flipped classroom educational model at Harvard School of Dental Medicine

Keynote Address
"Implementing Flipped Classrooms in Health Science Education"

Short Abstract

The presentation describes the development and implementation of a flipped classroom model to promote student-centered learning in health sciences. This model combines active learning pedagogy with instructional technology and flips the sequence so that students in the course view online materials before class; then, during class, students participate in peer teaching and team-based class activities. The utilization of flipped classroom helped increase student participation and learning accountability. An emphasis on instruction design and pedagogy is key in achieving a positive learning experience for students.

Short Bio

Sang Park, DDS, MMSc is Associate Dean for Dental Education at the Harvard School of Dental Medicine. At HSDM, Dr. Park implemented the flipped classroom educational model, to focus on self-directed learning and using instructional technology to spend the class time in interactive classroom activities and team-based projects. The flipped classroom has since become an integral part of several predoctoral HSDM courses, across a range of topics. Dr. Park's research interests include the effectiveness of educational assessment methods such as case presentations and OSCE; the use of online portfolios, learning modules, and examination in dental education; and the integration of primary care medicine into dental education and patient care.

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***Plenary Session* – Tuesday July 11th, 2017, 9:10 AM - 9:45 AM**

Dr. Ashton T. Sperry

Ronin Institute
for Independent Scholarship, USA
Research Scholar
Philosophy of Science, Decision and Game Theory, and Logic

Keynote Address

"Finding Knowledge in the Messiness of Scientific Practice"

Short Abstract

Science is messy in practice. Very incomplete models of the world are churned through an inductive process of fits and starts. How can science provide any knowledge, given our inability to arrive at accurate representations the world? I argue that there is virtue found in the messiness. Many different representations can act as models, rather than having a narrow specification. Models can be mere data summaries, sketches of explanations missing unspecified details, conjectures of how physical processes might work, while disregarding the actual processes or more complete explanations. Scientific knowledge is a property of the variety of representations, analogous to how patterns emerge and error is mitigated with the inclusion of more data. The variety of representations is integral to justifying our inferences to the best explanation.

Short Bio

Dr. Ashton T. Sperry (Ph.D., the University of Missouri) is a Research Scholar at the Ronin Institute for Independent Scholarship. He specializes in the philosophy of science, decision and game theory, and logic. His primary research is on the development of an account of scientific explanation, which includes the complexity of non-equilibrium dynamic systems, and on the development of an account of bounded rationality for realistic decision-making in game theory. His research is found in peer-reviewed journals.

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***Plenary Session* – Tuesday July 11th, 2017, 1:00 PM – 1:35 PM**

Jim Johnson

The Standish Group, USA
Founder and Chairman
40 Years of Experience in the Computer Industry
Mission-Critical Applications and Technology

Keynote Address
"CHAOS Update, Nanocourses, the Winning Hand, and the Root Cause of IT Project Failure"

Short Abstract

Last year at WMSCI 2016, Jim Johnson and Hans Mulder outlined the new CHAOS University System, which is a partnership with The Standish Group, University of Antwerp, and the Antwerp Management School. This year Jim Johnson will outline the progress to date and future planned efforts. A major feature of forthcoming programs will focus on nanocourses and lifelong learning events. The second part of the talk will spotlight new discoveries. Using the CHAOS Database, we found the root causes of most project success and value.

In the session, we will explore:

- CHAOS University progress
- Nanocourses and lifelong learning events
- The Winning Hand
- Marginal PM activities
- Root cause of project success & value

Short Bio

Jim Johnson is the founder and chairman of The Standish Group. He has been professionally involved in the computer industry for over 40 years and has a long list of published books, papers, articles and speeches. He has a combination of technical, marketing, and research achievements focused on mission-critical applications and technology. He is best known for his research on project performance and early recognizing technology trends. Jim is a pioneer of modern research techniques and continues to advance in the research industry through case-based analytical technology.

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***Plenary Session* – Tuesday July 11th, 2017, 1:35PM – 2:10 PM**

Dr. Jun Miyazaki

OrangeTechLab, Japan
Chief Executive Officer
Co-project leader of Komazawa University and visiting collaborator at National Institute of Advanced Industrial Science and Technology

Keynote Address

"Era of Data Economy"

Short Abstract

In the recent AI revolution, data become more and more crucial for any business activities, this means data are becoming like "currency". But compared to currency, semantics or value of data is different among multidisciplinary people around the data, because the meanings and value of data have been different among the people who are in distinct roles, such as domain knowledge experts, legals, data scientists, systems architects and whole systems consultants.

This talk will address what is "data economy" and how the multidisciplinary people communicate and utilize the data as "currency" and how data create a new economy.

Short bio

Accelerator for software systems, consultation and hands-on leading for R&D fragments into real businesses. Many experiences to cross "death-valley" between products and R&D in a big companies' innovation divisions, and startup companies. He has also long experience to connect Silicon Valley area and Japanese R&D divisions, and have made SV's seeds to be real products. Inter-Disciplinary approaches for "make it happen", and diversity management for all over the world

Technology area: Parallel Artificial Intelligent systems (Deep Learning), systems architecture, document systems, data base systems, data science, and business model creation. Nov. 2016-current: Visiting Collaborator at National Institute of Advanced Industrial Science and Technology (AIST). June 2016-current: CEO OragneTechLab Inc., CMO Culture Convergence Design, CTO SBF consulting 1988-2016 May at Fuji Xerox R&D and innovation

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***Plenary Session* – Tuesday July 11th, 2017, 2:10 PM – 2:45 PM**

Fr. Dr. Joseph Laracy

Seton Hall University, USA
College of Arts and Sciences
Department of Mathematics and Computer Science
Complex Systems, Differential Equations, and Dynamical Systems

Keynote Address
"Toward an Interdisciplinary Approach to STEM Education: Insights from Seton Hall University's Core Curriculum"

Short Abstract

"Many academics are familiar with the term 'silo effect,' in reference to the growing tendency of disciplinary isolation both in research and teaching. 'Siloing' is noted particularly in the formal, natural, and applied sciences. Yet, many areas of human inquiry require by their very nature, an interdisciplinary approach. At Seton Hall University, in the context of the Core Curriculum for undergraduate studies, serious efforts are underway to bring the sciences into dialogue with the wider Catholic intellectual tradition. By fostering a healthy exchange between philosophy, theology, mathematics, computing, and the natural sciences, upperclassmen have been able to explore topics of great personal interest and draw significant connections from content learned in diverse fields of their education. Opportunities exist to extend and adapt this approach to other university settings internationally."

Short Bio

Father Dr. Laracy's principal mathematical interests are in the area of differential equations and dynamical systems. He also enjoys teaching topics in applied statistics, logic, and the history of mathematics and science. Father Laracy's early career interests at the Complex Systems Research Laboratory at MIT concentrated on uncertainty and dynamics in large-scale, complex engineering systems and looked at key sources of uncertainty, ways to model and quantify uncertainty, and ways to maintain properties such as safety and resilience as systems change over time. His master's degree research at that time was supported in part by NASA Ames Research Center Grant NAG2-1543 (Model-Based Hazard Analysis Research) and National Science Foundation Grant CNS-0550008 (A Socio-Technical Approach to Internet Security). As a student at the University of Illinois, he pursued research activities to develop a scalable RSA cryptographic co-processor under the direction of Dr. Julian Palmore, supported in part by National Science Foundation Grant DMS 99-83160 (Vertical Integration of Research and Education in the Mathematical Sciences). Laracy also worked on a software pattern-based fly-by-wire aircraft control system with the guidance of Dr. Ralph Johnson. In the course of his studies, he held engineering positions with Lucent Technologies (Wireless Terminal Interoperability Laboratory), Ball Aerospace and Technologies (NASA Deep Impact Mission), and Light Source Energy Services.

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***Plenary Session* – Tuesday July 11th, 2017, 2:45 PM – 3:20 PM**

Dr. Giti Javidi

University of South Florida, USA
Sarasota-Manatee
Dep. of Information Technology
Former full professor of Computer Science at Virginia State University

Keynote Address

"*Methodologies that Promote Cross-Disciplinary Education*"

Short Abstract

The purpose of this talk is to present the idea that cross-disciplinary education in STEM and Entrepreneurship as a new trend in education has the potential to equip students with the necessary skills for solving multidisciplinary problems. STEM graduates should not only possess technical, but also social, cultural and entrepreneurship skills like innovation, creativity, teamwork and leadership. These new profiles compose the 21st century skills and cannot be developed with the traditional methodologies. STEM disciplines have inherent limitations that need to be corrected by the presence of disciplines such as social entrepreneurship to help STEM students become prepared for solving multi-disciplinary social and global issues.

Short Bio

Dr. Giti Javidi received her Ph.D. from University of South Florida in Tampa. Prior to joining the Information Technology program, College of Business, at USF, Sarasota/Manatee, she served as a full professor of Computer Science at Virginia State University, where she played a pivotal role in developing and advancing the Computer Science program for women and minorities. Dr. Javidi's primary research is grounded in methods found in the field of Human Computer Interaction and its intersection with data visualization with many dimensions over a wide variety of data types. Methodologies that promote cross-disciplinary education is also of great interest. She also has interest in biases and barriers to participation and/or success of minorities and women in STEM. Her work has been published in several peer-reviewed national and international journals and she has presented at several conferences and summits as keynote speaker. Dr. Javidi has also been the recipient of a number of prestigious Google, NSF and NASA grants. A long-time advocate for increasing participation and retention of women in STEM fields, Dr. Javidi has worked tirelessly on a number of projects in this domain over the past 13 years. She serves as an active member of the National Center for Women & Information Technology (NCWIT). At the national level, she has worked to develop new curricula and programs for computer science education with the goal of engaging a wider audience, particularly women and minorities. Dr. Javidi is very well-respected in the community as a great scholar and was recently recognized as "Women-of-Influence, 2017.

CISCI/SIECI 2017 Plenary Session (In Spanish)

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Sesión Plenaria *– Domingo 9 de Julio, 2017, 10:00 AM – 10:25 AM*

Dra. María Dolores García Perea

Instituto Superior de Ciencias de la Educación del Estado de México
Investigadora en Educación y Autora de Varios Libros
Miembro la Red Iberoamericana de Pedagogía (REDIPE) y de la Red Internacional de Filósofos de la Educación (RIFE).

Ponencia Plenaria

"Las Prácticas Profesionales del Investigador Educativo: Paradojas y Utopías"

Resumen

Las prácticas profesionales desarrolladas por el investigador educativo al interior y exterior de la institución donde labora, están determinadas principalmente por el espíritu de la época, es decir, por el clima intelectual, cultural, económico, político, etc., que caracteriza a la sociedad en un periodo histórico específico.

Para analizar, entonces, las prácticas profesionales realizadas por este actor educativo mexicano en dos momentos coyunturales distintos y valorar, por un lado, su pertinencia y acorde a la época que le tocó vivir, por otro, el carácter paradójico y utópico de su asignación y desarrollo, se hace un recorrido por dos tipos de sociedades (industrial y post-industrial) con la finalidad de identificar el espíritu de la época que caracteriza a dichos momentos coyunturales.
También se describen los aspectos que constituyen la presencia y autoridad de este actor educativo en el sistema educativo mexicano.

Se incluye la relación de prácticas profesionales privilegiadas y recomendadas por los investigadores educativos cuya trayectoria es reconocida en el ámbito nacional mexicano así como de aquellos que la desarrollan de manera cotidiana, sin olvidar las que se incrementan debido a la presencia del internet y de las herramientas tecnológicas aplicadas a la educación, con el propósito de valorar los alcances, impacto, retos y obstáculos.

Por último, a partir de experiencias personales y narradas por algunos investigadores educativos elegidos con base en criterios específicos, se explican los componentes, ámbitos, estructura y radio de acción que caracterizan las prácticas profesionales que desarrollan y se valora su estatus paradójico y utópico así como las circunstancias de los éxitos logrados.

Breve CV

La Dra. María Dolores García Perea es, desde 1992, Investigador Educativo del *Instituto Superior de Ciencias de la Educación del Estado de México,* actualmente es Investigador Nacional, Nivel I, del *Sistema Nacional de Investigadores* de CONACYT y está certificada en Competencias docentes por CERTIDEMS (2014).

Es autora de los libros: El investigador educativo en las sociedades del conocimiento y de la información. Tomo II (Gestión del conocimiento y Teleformación) (2015), El investigador educativo en las sociedades del conocimiento y de la información. Tomo I (2015), Aprender a aprehender la esperanza (2013), Las nociones de formación en los investigadores (2010 y 2012) y Formación, concepto vitalizado por Gadamer (2006, 2007 y 2015). Coautora del libro: El concepto de percepción en Georg Berkeley (2009).

Es miembro de las redes académicas siguientes: Internacionales: Red Iberoamericana de Pedagogía (REDIPE) y Red Internacional de Filósofos de la Educación (RIFE). Nacionales mexicanas: Association Francophone Internacional de Recherche Scientifique en Educación, Sectión Mexicaine (AFIRSE); Red Mexicana de Investigadores de la Investigación Educativa (REDMIIE); Red Nacional de Investigadores en Educación y Valores (REDUVAL); Asociación Nacional de Asesores, Consultores e Instructores Independientes (ANACI); Ilustre y Benemérita Sociedad de Geografía y estadística del Estado de México (SMGEEM).

Forma parte del Comité Científico de REDIPE, Comité Editorial de la tercera publicación conjunta de la UAEMEX-Instituto Tecnológico de Mérida, Consejo Editorial Consultivo de Revista (RISCI), Miembro del Registro CONACyT de evaluadores acreditados (RCEA) y árbitro del Congreso Internacional d Innovación Educativa, Evaluación de las Propuestas Académicas para la integración del Catálogo de Formación Continua y Superación Profesional de Maestros en Educación Básica en Servicios, Simposio Iberoamericano en Educación, Cibernética e Informática (SIECI) y Conferencia Iberoamericana en Sistemas, Cibernética e Informática (CISCI).

Ha participado como TESTIGO DE CALIDAD de Carrera Magisterial 18ª Etapa, Departamento de Educación Preescolar en el Valle de Toluca, Ciclos Escolares 2008-2009 y 2006-2007, Toluca, México.

Ha recibido los reconocimientos siguientes: Premio al Mejor Artículo de Sesión de CISCI 2015, 2014, 2013, 2010 y 2008; Diploma destacada trayectoria en el estudio e investigación en las Ciencias de la Educación. Sociedad Mexicana de Geografía y Estadística del Estado de México (2015); Mención de honor al mérito educativo y ciudadano REDIPE, Marco del Simposio Internacional de Educación, Pedagogía y Formación Docente (2014); Exaltación al mérito investigativo y a la producción intelectual. REDIPE, Marco del Simposio Internacional de Educación, Pedagogía, Investigación y Diversidad (2014); Mención de honor al Mérito a la labor Pedagógica y la producción intelectual. En el marco del Simposio Internacional de Educación (2013); Participación en la conferencia plenaria Séptima Conferencia Iberoamericana en Sistemas, Cibernética e Informática (CISCI 2008).

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Sesión Plenaria *– Domingo 9 de Julio, 2017, 10:25 AM – 10:50 AM*

Dr. Leônidas Conceição Barroso

Pontifícia Universidade Católica de Minas Gerais, Brasil
Faculdade de Ciências Empresarias
Ganador de Varios Premios Nacionales e Inter-Nacionales

Ponencia Plenaria

"Integração de Ensino, Pesquisa e Solução de Problema da Vida Real: Uma Experiência em Andamento na Região do Vale do Mucuri (Brasil)"

Resumen

Descreve-se um projeto interdisciplinar que procura integrar ensino, pesquisa e solução de problema da vida real. Trata-se de buscar respostas para a pergunta: como atingir o desenvolvimento da região do Vale do Mucuri (nos estados de Minas Gerais e Bahia, Brasil), respeitando seus recursos naturais. A Geografia é utilizada como eixo norteador, tendo como suporte tecnológico os Sistemas de Informação Geográfica para os diálogos interdisciplinares, de forma a integrar dados, informações, técnicas, métodos e pessoas de diferentes campos do conhecimento

Palavras-chave: Geografia. Interdisciplinaridade. Sistemas de Informação Geográfica. Solução de problemas. Pesquisa e Prática. Vale do Mucuri

CV Breve

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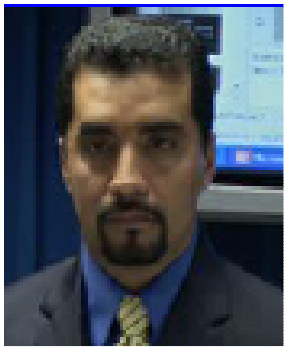
CISCI/SIECI 2017 Plenary Session (In Spanish)

The 16th Ibero-American Conference on Systems, Cybernetics and Informatics: CISCI 2017
Décima Sexta Conferencia Iberoamericana en Sistemas, Cibernética e Informática: CISCI 2017

Sesión Plenaria *– Domingo 9 de Julio, 2017, 10:50 AM – 11:15 AM*



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Ponencia Plenaria

"Gamificación del Aprendizaje. Una estrategia para Potenciar la Innovación en Educación Médica"

Resumen

Gamificación es el término utilizado para referirse a la implementación de mecánicas, dinámicas y otros elementos del diseño de videojuegos, en actividades no lúdicas. Con el fin de aumentar la motivación intrínseca, la concentración y el compromiso del usuario, por realizar una actividad que de otro modo le resultaría tediosa y aburrida.

La gamificación se ha estado implementando con éxito, como una poderosa herramienta para lograr cambios de comportamiento y actitud en los usuarios, en ámbitos como la psicología, los negocios, la industria del software, mercadotecnia, TV entre otros. Se prevé que continúe utilizándose mucho más en las empresas en el corto plazo.

En educación médica existen altos índices de fracaso y deserción durante el primer año, por problemas asociados a la complejidad de los contenidos y a la forma tradicional como son abordados por los profesores. El estudiante pierde la motivación al fallar en las primeras evaluaciones parciales y al no encontrar otra alternativa de estudio, abandona o no concluye el curso con éxito. Implementando un proceso de gamificación del aprendizaje, es posible contribuir a la resolución de esta problemática y potenciar la innovación en educación médica.

Esta ponencia describe, una propuesta para implementar un proceso de gamificación del aprendizaje de la anatomía cardiovascular. Con el diseño de modelos 3D del sistema cardiovascular y el desarrollo de un software que integre en su diseño, dinámicas y mecánicas de los videojuegos. De manera que, detone en el estudiante la motivación intrínseca por permanecer interactuando con los contenidos, como lo haría disfrutando con su videojuego favorito.

Esta experiencia innovadora de aprendizaje; se encuentra en su fase inicial de desarrollo, para su implementación en la Facultad de Medicina e Ingeniería en Sistemas Computacionales de Matamoros, dependencia de la Universidad Autónoma de Tamaulipas en México.

CV Breve del autor.

Julio César González Mariño. Dr. en Educación, Maestría en Tecnología Educativa, Lic. en Informática.

Es profesor e investigador adscrito, de tiempo completo, a la Facultad de Medicina e Ingeniería en Sistemas Computacionales de Matamoros, de la Universidad Autónoma de Tamaulipas. México. Líder de proyectos de investigación y fundador del Cuerpo Académico *Competencias Tecnológicas* (UAT-CA-129), desarrollando actualmente la línea de investigación *Tecnologías para el Aprendizaje de Medicina*.

Entre sus publicaciones destacan un libro, varios capítulos de libro, y artículos en revistas indizadas como la Revista Complutense de Educación de la Universidad Complutense de Madrid; la Revista Universidad y Sociedad del Conocimiento de la cátedra UNESCO de Universitat Oberta de Catalunya; la Revista Didáctica y Multimedia de la Universidad Autónoma de Barcelona, entre otras.

Estos productos de investigación han sido citados por más de 200 investigadores de diferentes países de Iberoamérica.

Cuenta con la certificación de profesor de perfil deseable PRODEP y la Certificación de Competencia Laboral en el estándar Impartición de cursos de formación de capital humano CONOCER.

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Sesión Plenaria *– Domingo 9 de Julio, 2017, 11:15 AM– 11:40 AM*

Dra. Eva María Olmedo Moreno

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Ponencia Plenaria

"Modelos de Aprendizaje Híbridos para la Intervención con Menores en Riesgo de Exclusión Social"

Breve Resumen

El proceso de enseñanza y aprendizaje de los estudiantes se encuentra establecido por las herramientas, fuentes de información, conexiones y actividades que cada individuo utiliza para su propia formación. Estos han sido denominados como Entornos Personales de Aprendizaje (PLE) (Brown, 2010). Desde el principio, los estudios sobre los PLE coinciden en tener entre sus principales conclusiones, que el uso de las herramientas convierten a los estudiantes en seres autónomos y con mayor capacidad para tomar decisiones (Tait, 1999), además de facilitar su integración académica y social como consecuencia de la participación en comunidades de aprendizajes de diferentes tipos (Wenger, 2006; Salinas, 2008).

Las Ciencias Sociales y las Humanidades se erigen necesarias para dar respuesta a estos retos, y en concreto, las Ciencias de la Educación tienen la gran responsabilidad de impulsar *Modelos de Aprendizaje Híbridos* ajustados a los modos de relación, escenarios de aprendizaje insertos en el PLE de cada menor con riesgo de exclusión social. Ya que de esto depende no solo su autoeficacia escolar, sino el nivel de integración social y, consecuentemente, la construcción del modelo de ciudadanía.

CV Breve

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