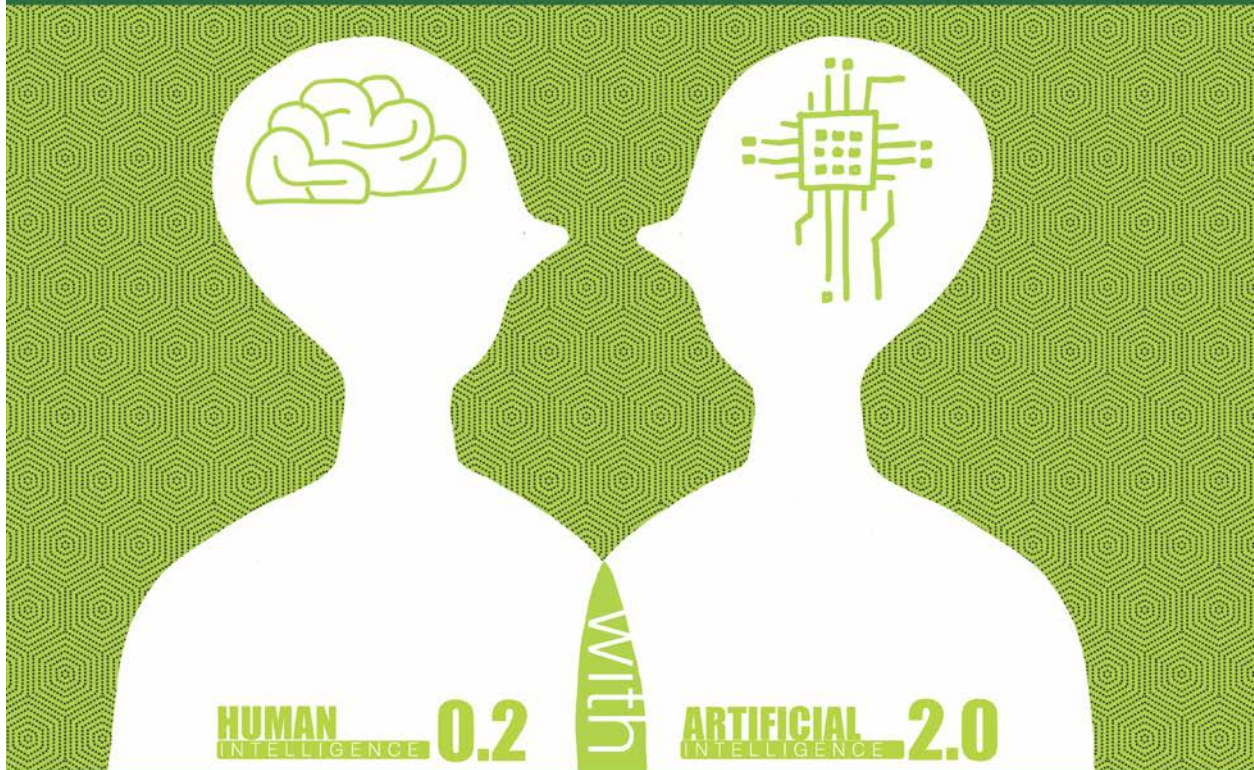


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**The Human-Technology Frontier:
Understanding the Learning of Now
to Prepare for the Future**

Wednesday, May 16 – Friday 18
Discovery Park G150

University of North Texas
Denton, Texas, U.S.A.



Working symposium hosted by the Texas Center for Educational Technology (TCET) sponsored by the Association for Educational Communications and Technology (AECT) and University of North Texas (UNT)





Human Intelligence 0.2 with Artificial Intelligence 2.0

Understanding the Learning of Now to Prepare for the Work of Future

University of North Texas Discovery Park G150, Denton, Texas, U.S.A.

Wednesday, May 16 – Friday 18

Organizers: Dr. Lin Lin, Professor, UNT (Lin.Lin.unt.edu)

Dr. J. Michael Spector, Professor, UNT (Mike.Spector@unt.edu)

Overview

The Texas Center for Educational Technology (TCET) is hosting a working symposium with distinguished scholars on May 16 – May 18, 2018. The symposium is sponsored by the Association for Educational Communications and Technology (AECT) and University of North Texas. The purpose of this working symposium is to generate short-term and long-term collaboration goals and plans to revive TCET as a Research and Development center for educational technologies in Texas. Distinguished scholars will focus on the learner as a whole person, with healthy development of brain, habit, behavior, and learning in the fast-advancing technological world. The general format of each day will feature short and provoking presentations each morning and afternoon, followed by small group activities around key topics.

Goals and Deliverables

Through collaboration with local universities, schools, and agencies and through an expanded partnership with global collaborators including universities and business partners internationally, we will re-establish TCET as the Research and Development Center for learning and teaching technologies in Texas. Concrete deliverables include an edited volume with the Symposium participants and partners, along with collaborative projects and grant proposals to continue research and development in areas of high interest to our participants and partners.



Background

One of the big ideas proposed by the National Science Foundation is "The Future of Work at the Human-Technology Frontier." The four core research themes proposed by NSF are: 1) Building the human-technology partnership; 2) Augmenting human performance; 3) Illuminating the socio-technological landscape; 4) Fostering lifelong learning. This working symposium addresses some of these issues. The key discussion topics include:

1. **Learning and human intelligence:** What are the fundamental problems with regard to learning and education? What do the history and future of learning look like? Based on what we know of the brain and what we are likely to understand in near future, how should learning be defined/redefined?
2. **Towards a holistic account of a person – brain, body, habits, and environment:** How do people typically develop over time and with experience? How do researchers in different disciplines typically frame learning research and which ones have embraced a holistic approach? What would a research design that embraces a whole person perspective look like? Share examples.
3. **Human intelligence with innovations and advances of technologies:** What technologies are most likely to have a positive impact on learning in the next 2 years? 5 years? 10 years? What are the most challenging problems confronting effective use of advanced technologies today? What challenges are likely to emerge in the next 2 to 5 years?
4. **Properties and units of measures of learning:** What are the constructs of learning given the multilevel technologies, collaborative networks, methodologies, and analysis techniques we have to work with?
5. **Fragmented relationship among theory, research, practice and policy:** What examples of effective alignment link behavioral, cognitive and neurological science, learning research, instructional practice, and educational policy? What might be done in the next 2 to 5 years to improve those links?
6. **What would a reasonable research agenda be for an organization like TCET?** What can we do together – publish, present, conduct research and development?



Wednesday, May 16, 2018, Discovery Park G150 Agora, Morning Sessions

Time	Activities	Speakers and/or Facilitators
08:30 - 09:00	Breakfast	
09:00 - 09:05	Introductions	Dr. Kinshuk, Professor Dean, College of Information, UNT
09:05 - 09:15	Opening Remarks	Dr. Neal Smatresk President, UNT
09:15 - 09:20	TCET Symposium Goals and Expected Outcomes	Dr. Lin Lin, Professor Dr. J. Michael Spector, Professor UNT
09:20 - 09:40	TCET Foundation and History	Dr. James Poirot Professor Emeritus, UNT
09:40 - 10:00	Panel Discussions: the Future of TCET	Drs. James Poirot; Cathleen Norris; Elliot Soloway; and J. Michael Spector UNT and University of Michigan
10:00 - 10:10	Coffee Break	
10:10 - 10:40	Networking Activities	All
10:50 - 11:05	Toward a Neuro-Cognitive Redefinition of Learning	Dr. Phillip Harris Executive Director, AECT
11:05 - 11:25	Discussions	Dr. Brad Hokanson Professor, University of Minnesota Past President, AECT
Lunch		
11:30 - 13:30	Lunch: Discovery Park G150 Agora Please visit: Students' poster presentations and NetDragon virtual reality games (Location: Discovery Park Library)	



Wednesday, May 16, 2018, Discovery Park G150 Agora, Afternoon Sessions

Time	Activities	Speakers and/or Facilitators
01:30 - 01:45	Defining the “NEW” K12 Digital Ecosystem	Mr. Lenny Schad Chief Technology Information Officer Houston Independent School District
01:45 - 02:10	Discussions	Dr. Elliot Soloway Professor, University of Michigan
02:20 - 02:35	Artificial Intelligence 2.0 and Education	Dr. Ronghuai Huang Professor, Dean, Smart Learning Institute, Beijing Normal University
02:35 - 2:55	Discussions	
02:55 - 03:05	Coffee break	
03:05 - 03:20	The Role of Digital Curricula in K-12	Dr. Cathleen Norris Regent Professor, LT Chair, UNT Dr. Elliot Soloway Professor, University of Michigan
03:20 - 03:40	Discussions	
03:50 - 04:05	The Challenges of Sustaining a 1:1 Tech Initiative in Upper Elementary Classrooms	Ms. Elizabeth Fuentes Senior Education Grants Coordinator Ms. Tina Chong Education Program Manager Jiv Daya Foundation
04:05 - 04:25	Discussions	Dr. Cathleen Norris Regent Professor, LT Chair, UNT
04:35 - 04:50	Intelligent Textbook for Critical Thinking in Biology	Dr. Vinay K. Chaudhri Visiting Professor Stanford University
04:50 - 05:10	Discussions	Dr. Rodney Nielsen Associate Professor, CS, UNT
05:20 - 05:35	Summary and Reflection	Dr. J. Michael Spector and Dr. Lin Lin
Dinner		
06:00 -	Dinner: GreenHouse Restaurant & Bar Address: 600 N Locust St, Denton, TX 76201; Phone: (940) 484-1349	



Thursday, May 17, 2018, Discovery Park G150 Agora, Morning Sessions

Time	Activities	Speakers and / or Facilitators
08:30 - 09:00	Breakfast	
09:00 - 09:15	Review and overview	Dr. J. Michael Spector and Dr. Lin Lin
09:20 - 09:35	Creativity and Measurement	Dr. Brad Hokanson Professor, University of Minnesota Past President, AECT
09:35 - 09:55	Discussions	Dr. Phillip Harris Executive Director, AECT
10:05 - 10:20	Learning Paths and Analytics	Dr. George Siemens Director, Learning Innovations and Networked Knowledge Research Lab University of Texas at Arlington
10:20 - 10:40	Discussions	
10:40 - 10:50	Coffee Break	
10:50 - 11:05	Data-Driven Education: The Next Great Frontier or a Pipe Dream?	Mr. William Zhou CEO and Co-founder, Chalk
11:05 - 11:25	Discussions	Dr. George Siemens Director, Learning Innovations and Networked Knowledge Research Lab University of Texas at Arlington
11:35 - 12:00	Networking Activities	
	Lunch	
12:00 - 01:30	Lunch: Discovery Park G150 Agora	



Thursday, May 17, 2018, Discovery Park G150 Agora, Afternoon Sessions

Time	Activities	Speakers and/or Facilitators
01:30 - 01:45	The Neuroscience of Learning	Dr. Marc Schwartz Professor University of Texas at Arlington
01:45 - 02:05	Discussions	Debbie Cockerham PhD Candidate; Managing Director Research Learning Center, FWMSH
02:15 - 02:30	Neuropsychological Assessment 3.0	Dr. Thomas D. Parsons Director of NetDragon Digital Research Centre Professor, Director of Computational Neuropsychology and Simulation
02:30 - 02:50	Discussions	
02:50 - 03:00	Coffee Break	
03:00 - 03:15	Brain Initiative, M2lab and Critical Thinking Project	Dr. Xiaoqing Gu Professor and Dean Dr. Jing Leng Assistant Professor School of Education Science East China Normal University
03:15 - 03:35	Discussions	Dr. J. Michael Spector Professor, UNT
03:45 - 04:05	Innovative and Effective Learning: Focusing on a Developmental Approach to Critical thinking	Dr. J. Michael Spector Professor, UNT
04:05 - 04:25	Discussions	Dr. Xiaoqing Gu Professor and Dean, ECNU
04:35 - 05:00	Summary and Reflection Tomorrow's Agenda	

Dinner

06:00 - Dinner: Texas Roadhouse: Steakhouse
Address: 2817 S Interstate 35 E, Denton, TX; 76205 Phone: (940) 243-7427



Friday, May 18, 2018, Discovery Park G150 Agora, Morning Sessions

Time	Activities	Speakers and / or Facilitators
08:30 - 09:00	Breakfast	
09:00 - 09:30	Review and Overview	
09:30 - 09:45	Learning Analytics and Logic Models (virtual)	Dr. Dirk Ifenthaler Professor and Chair of Learning, Design and Technology at University of Mannheim Editor-in-Chief, <i>Technology, Knowledge and Learning</i>
09:45 - 10:05	Discussions	
10:05 - 10:15	Coffee break	
10:15 - 10:30	Dignation for TCET (virtual)	Dr. Gary Natriello Professor, Director, Gottesman Libraries Executive Editor, <i>Teachers College Record</i> Dr. Hui Soo Chae Director, Research and Development for the EdLab and the Gottesman Libraries Teachers College, Columbia University
10:30 - 10:50	Discussions	
11:00 - 11:30	Wrap-up Discussions	Dr. J. Michael Spector, Professor Dr. Lin Lin, Professor UNT
Lunch		
11:30	Lunch Box Discovery Park G150 Agora	

