
HCIL ANNUAL SYMPOSIUM

36th Annual HCIL Symposium ~ 2019

APRIL 4, 2019

To be held at the College Park Marriott Hotel & Conference Center, following the iConference
2019

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Advanced Program

Attention >>> new date (April 4) and new Location

During the symposium HCIL faculty and students present their latest work in well polished talks, posters or demos. Tutorials are also offered.

Every year we attract about 200 attendees from academia, industry and government agencies.

Come and join us!

8:15 **Registration & Light Breakfast**

9:00 **Plenary Talks**

Welcome Address

Niklas Elmqvist, Director of Human-Computer Interaction Lab

Usable Security Beyond End Users

Michelle Mazurek

Translating Accessibility Research into Accessibility Practice

Jonathan Lazar

Break

10:30 **Plenary Talks (continued)**

Developing Performance Benchmarks for Interactive Analysis Systems

Leilani Battle

Assessing the Value of Group Ideation in Intelligence Analysis using Structured and Unstructured Approaches

Yla Tausczik, Mihai Boicu, Gheorghe Tecuci

Block-based Comprehension: The Impact of Program Representation on Student Performance

David Weintrop, Heather Killen

Lunch

then we split in parallel sessions

1:00 **Security and Privacy**

Chair: Michelle Mazurek

CTFs IRL: A Field Study on the Impact of Hacking Competitions on Secure Development

Daniel Votipka, Michelle Mazurek, Hongyi Hu

STEM Learning & Computational Thinking

Chair: David Weintrop

The Impact of Live Coding in Physical Computing Environments

Lautaro Cabrera, David Weintrop

Design

Chair: Eun Kyoung Choe

Designing for Sociality in the Garden

Hanuma Teja Maddali, Amanda Lazar

FULL-DAY Tutorial

Introduction to Usability Testing

(<http://hcil.umd.edu/tutorial-introduction-to-usability-testing/>)

Bill Killam

10:30 am – 4:30 pm

HALF-DAY Tutorials

Color Fundamentals for Digital Content Creation, Visualization and Exploration

(<http://hcil.umd.edu/tutorial-color-fundamentals-for-digital-content-creation-visualization-and->

Understanding the Process of Reverse Engineering
Seth Rabin, Daniel Votipka, Kris Micinski, Jeff Foster, and Michelle Mazurek

Improving Non-Experts' Understanding of End-to-End Encryption: An Exploratory Study
Wei Bai, Michael Pearson, and Michelle Mazurek

How Entertainment Media Shapes Perceptions of Cybersecurity
Kelsey Fulton, Rebecca Gelles, Alexandra McKay, Richard Roberts, and Michelle Mazurek

Understanding the Role of Privacy and Trust in Intelligent Personal Assistant Adoption
Yuting Liao, Jessica Vitak, Priya Kumar, Michael Zimmer

Privacy and Security Considerations for Digital Technology Use in Elementary Schools
Priya Kumar, Marshini Chetty, Tamara Clegg, Jessica Vitak

Break

Designing to Illuminate Children's Scientific Funds of Knowledge Through Social Media Sharing
Kelly Mills, Elizabeth Bonsignore, Tammy Clegg, June Ahn, Jason Yip, Daniel Pauw, Lautaro Cabrera, Kenna Hernley, Caroline Pitt

Digital Stickers for Interest-Driven and Place-Based Learning
Daniel Pauw, Hannoori Jeong, Janet Bih FoFang, Cachanda Orellan, Samara Orellana, Elizabeth Bonsignore, Tammy Clegg

Designing Binary Learning Games for Middle Schoolers
Merijke Coenraad, Noel Kuriakos, Diane Jass Ketelhutt, Jan Plane, Michel Cukier, David Weintrop

Teaching Fourth Grade Mathematics and Computational Thinking with Sphero
David Weintrop, Janet Bih Fofang, Margret Walton, Janet Walkoe

Co-Designing Food Trackers with Dietitians: Identifying Design Opportunities for Food Tracker Customization
Yuhan Luo, Peiyi Liu, Eun Kyoung Choe

Group Tracking: Exploring tracking behaviors of amateur athletes in club sports teams
Pramod Chundury, Eun Kyoung Choe

Rainbow: Prototyping and Simulating Complex Systems with Paper Craft and Augmented Reality
Seokbin Kang, Leyla Norooz, Tammy Clegg, Jon Froehlich

Designing Internet of Things Technologies with and for Older adults
Alisha Pradhan, Amanda Lazar, Leah Findlater

exploration/
Theresa-Marie Rhyne
1:00 pm – 4:30 pm

Cognitive Science in HCI
(<http://hcil.umd.edu/tutorial-cognitive-science-in-hci/>)
Tim Clausner
1:00 pm – 4:30 pm

FULL-DAY Tutorial continues till 4:30

3:00

Accessibility and Aging

Chair: Hernisa Kacorri

Understanding Adaptive Activities for People With Dementia – From a Practitioner's Perspective

Emma Dixon, Amanda Lazar

Hands Holding Clues for Object Recognition in Teachable Machines

Kyungjun Lee, Hernisa Kacorri

#HandsOffMyADA: A Twitter Response to the ADA Education and Reform Act

Brooke Auxier, Cody Buntain, Paul T. Jaeger, Jen Golbeck and Hernisa Kacorri

Reviewing Speech Input with Audio: Differences Between Blind and Sighted Users

Jonggi Hong, Christine Vaing, Hernisa Kacorri, Leah Findlater

Improving PDF Accessibility Evaluation and Remediation Tools

Aravind Rajkumar, Jonathan Lazar

Collaboration and Innovation

Chair: Joel Chan

Transactive memory systems in data science teams

Joohee Choi, Yla Tausczik

Does self-selection influence problem solving performance in crowds working on hidden profile tasks?

Xiaoyun Huang, Yla Tausczik

Finding analogies from the Web to inspire innovation

Xin Qian, Joel Chan

Why it's hard to take notes on technical topics that are actually helpful

Kunal Eapen, Joel Chan

Efficient lossless compression of scientific claims

Matt Erhart, Joel Chan

Understanding Data

Chair: Niklas Elmqvist

Beyond the #Justice hashtags: Understanding digital participation after police-involved deaths

Kimberly Glasgow, Yla Tausczik

Science by Sight: Data Visualization as an Alternative to Equation-based Analytic Methods in Science Instruction

Eric Newburger, Niklas Elmqvist

High-Performance Data Visualization

Zhe Cui, Niklas Elmqvist

ORC Layout: Adaptive GUI layout with OR-constraints

Yue Jiang, Ruofei Du, Christof Lutteroth, Wolfgang Stuerzlinger

Vistrates: A Versatile Platform for Data Analytics

Karthik Badam, Andreas Mathisen, Roman Rädle, Clemens Klokrose, Niklas Elmqvist

All tutorials continue until 4:30 pm

4:30
to
5:30

Posters and Demos

The impact of collaborative filtering on technical information exchange discussions on Reddit

Jake Cupani, Xiaoyun Huang, Yla Tausczik

An In-Depth Exploration of the Online Security Advice Ecosystem

Noel Warford, Amritha Jayanti, Elissa Redmiles, Michelle Mazurek

Designing Technology to Increase Adoption of Healthy Behaviors in Men in the Context of Light Food Consumption

Diva Smriti, Eun Kyoung Choe

Paovis for Hypergraph Visualization

Catherine Plaisant

Understanding and Changing Attitudes towards Dementia

Shruti Hegde, Himanshi Manglunia, Hernisa Kacorri, Robin Brewer, Amanda Lazar

Mining the Web to Understand Visualization Tool Usage

Arjun Nair, Leilani Battle

Modeling User Behavior When Exploring Massive Medical Images

Ameya Patil, Leilani Battle

Simulating Brushing and Linking Interactions over Connected Histograms

BJ Sallah, Leilani Battle

Babysteps: A Teachable Step Counter

Mayanka Jha, Hernisa Kacorri

TOR: A Teachable Object Recognizer

Jonggi Hong, Jaina Gandhi, Hernisa Kacorri

Morphic: Unlocking the flexibility, power and simplicity hidden in your computer.

TBD

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