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14. ABSTRACT

15. SUBJECT TERMS

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a. REPORT UU	b. ABSTRACT UU	c. THIS PAGE UU	19b. TELEPHONE NUMBER 323-442-8228

RPPR Final Report
as of 04-Jan-2023

Agency Code: 21XD

Proposal Number: 72238NSRIP
INVESTIGATOR(S):

Agreement Number: W911NF-18-1-0243

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Final Report for Period Beginning 02-Jun-2018 and Ending 28-May-2019

Title: Observational System for Monitoring and Modeling Group Social Dynamics

Begin Performance Period: 02-Jun-2018

End Performance Period: 28-May-2019

Report Term: 0-Other

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Distribution Statement: 1-Approved for public release; distribution is unlimited.

STEM Degrees: 0

STEM Participants: 0

Major Goals: This award supported a new Group Social Dynamics Lab that now houses a state-of-the art observational system to conduct laboratory and field-based studies of social dynamics among groups and teams. The lab has capabilities for novel observational and analytic approaches to study group dynamics using video and audio recording equipment. The analytic software will be used to monitor and analyze in-the-moment group processes and outcomes, including group behavior, micro facial expressions, and synchrony that arises in social interaction. The lab will work in collaboration with the University of Southern California (USC) Center for Applied Network Analysis, the USC mHealth Collaboratory, and the USC Center for Artificial Intelligence in Society, and will provide valuable opportunities for research and training.

Accomplishments: The proposed lab equipment and software were reviewed and purchased. Installation of the Noldus equipment and software was completed in early 2019, and 6 lab members (including the PI and students) received a full day training on the equipment in Spring 2019 by a Noldus representative. All other equipment and furniture was installed in the lab by Spring 2019, and the lab is now fully functional and ready to be used in studies.

Training Opportunities: Students (4), faculty (1) and the PI received a full day of training on the Noldus equipment and software in Spring 2019, by a Noldus representative.

Results Dissemination: Nothing to Report

Honors and Awards: Nothing to Report

RPPR Final Report
as of 04-Jan-2023

Protocol Activity Status:

Technology Transfer: Nothing to Report

PARTICIPANTS:

Participant Type: PD/PI

Participant: Kayla Chelsey de la Haye

Person Months Worked: 1.00

Project Contribution:

National Academy Member: N

Funding Support:

International Collaboration:

USA

Partners

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I certify that the information in the report is complete and accurate:

Signature:

Signature Date:

FINAL TECHNICAL REPORT

DURIP Award: W911NF1810243

Observational System for Monitoring and Modeling Group Social Dynamics

PI: Kayla de la Haye

Award Period: 25 May 2018 to 28 May 2019

ABSTRACT

This award supported a new Group Social Dynamics Lab that now houses a state-of-the-art observational system to conduct laboratory and field-based studies of social dynamics among groups and teams. The lab has capabilities for novel observational and analytic approaches to study group dynamics using video and audio recording equipment. The analytic software will be used to monitor and analyze in-the-moment group processes and outcomes, including group behavior, micro facial expressions, and synchrony that arises in social interaction. The lab will work in collaboration with the University of Southern California (USC) Center for Applied Network Analysis, the USC mHealth Collaboratory, and the USC Center for Artificial Intelligence in Society, and will provide valuable opportunities for research and training.

A. Equipment Acquired

Name	#	Manufacturer	Total Cost
<i>Equipment</i>			
Workstation	1	Dell	\$1,548.94
Laptops	4	Dell	\$5,769.52
Galaxy Tablet S3	20	Samsung	\$7,322.41
Portable audio recorder	4	Sony	\$247.68
Headphones	5	Bose	\$688.95
Portable hard drives	2	LaCie Rugged	\$251.77
Wireless mouse	5	Dell	\$104.90
Power strips	1	Hitrends	\$23.99
USB extension cable	1	Syncwire	\$7.66
USB-C to HDMI Adapter	2	OWAVO	\$37.78
Laptop adapter	1	Dell	\$99.99
Laptop bags	4	Brinch	\$159.96
Tablet carry bag	20	CoolBELL	\$410.97
Tablet case	20	Supcase	\$522.70
Tablet screen protector	20	Sparin	\$200.56
Tablet stylus pen	20	Liberway Stylus	\$18.09
Whiteboard	1	FORAY via Office Depot	\$186.15
Whiteboard markers	1 box	EXPO2	\$10.93
Table & chairs for lab	1 / 2 ch	Office & Ergonomic Solutions Inc	\$3,277.41
Cabinet for lab	1	Office & Ergonomic Solutions Inc	\$1,594.83
<i>Noldus Software & Hardware</i>			
Observation Lab & Media Recorder w/ Observer XT Face Reader Noldus Care (support) Shipping	1	Noldus	\$66,021.72
Portable Observation Lab	1	Noldus	\$12,644.76

B. Summary of Research Projects Using Equipment

i. Research projects described in the proposal

Installation of the Noldus equipment and software was completed in early 2019, and 6 lab members (including students) received a full day training on the equipment in Spring 2019 by a Noldus representative. In future, we plan to use the equipment in the following projects:

- ARO Multi-University Research Initiative (MURI) project “QUANTA: Quantitative Network-based Models of Adaptive Team Behavior” (<https://muriteams.cs.ucsb.edu/>). PI de la Haye is Co-PI on this MURI project, and plans to use the equipment in future research to monitor and model micro-behaviors and social interactions among group members during problem solving tasks.
- The equipment will also support an ongoing research project, “Monitoring and Modeling Family Eating Dynamics (M2 FED)” (NSF: IIS-1521740), on which Dr. de la Haye is a Co-PI. The lab equipment will support the development and testing of an integrated cyber-physical system, comprised of in-home beacons, wireless and wearable sensors, and smartphones, which provide ongoing, synchronized real-time data on family social dynamics (with an emphasis on how they relate to eating behavior, although the capacity of the system to monitor group social dynamics has broader applications for groups and teams).

ii. Other research projects

Other upcoming research projects in which we intend to use the equipment:

- Availability bias in social networks: In Fall 2019 we will begin using the equipment in a study that evaluates how social networks influence “availability bias” (Tversky & Kahneman, 1973), and the impact this has on behavior. This pilot study will examine if thinking about features of ones’ social network, and the speed of retrieval of this information (availability), exert a causal influence on decisions and behavior. The study will be run in our new Group Social Dynamics Lab, so that participants response time and behaviors can be monitored and coded using the Noldus equipment and software.