EDITOR'S COMMENTS

Replication Crisis or Replication Reassurance: Results of the IS Replication Project

By: **Alan R. Dennis**
Co-Editor, *AIS Transactions on Replication Research*
Indiana University
ardennis@indiana.edu

Susan A. Brown
Co-Editor, *AIS Transactions on Replication Research*
University of Arizona
suebrown@arizona.edu

Taylor M. Wells
Managing Editor, *AIS Transactions on Replication Research*
Brigham Young University
taylor.wells@byu.edu

Arun Rai
Editor-in-Chief, *MIS Quarterly*
Georgia State University
arunrai@gsu.edu

Motivation and Objective of the IS Replication Project

Having confidence that findings reported in a peer-reviewed study published in a reputable journal is generalizable to some current or future context is critical for scientific progress (Open Science Collaboration 2015). If empirical results are not reproducible, how can we have confidence in the ability of our theories to explain and predict behavior? Research has shown that about one third or more of research published in leading psychology and science journals is not reproducible (Camerer et al. 2016; Camerer et al. 2018; Open Science Collaboration 2015). This has led to arguments that there is a replication crisis in Psychology (for discussions of this, see Camerer et al. 2018; Pashler and Wagenmakers 2012; Stroebe and Strack al. 2014).[1]

Do we have a replication crisis in the Information Systems (IS) discipline? In 2014, Alan Dennis and Joe Valacich launched *AIS Transactions on Replication Research* (*TRR*) with a goal of having a dedicated outlet for replication research, thereby promoting replication in the IS discipline (Dennis and Valacich 2014). In October 2018, *MIS Quarterly* (*MISQ*) and *TRR* came together to launch the IS Replication Project, with the goal of replicating 25 articles published in *MISQ* and other top IS journals to understand the extent to which IS research is reproducible. We posted a call for participation on AIS World and invited all interested researchers to submit proposals for a replication study. We received 31 proposals, which ultimately turned into 21 papers published or accepted for publication in *TRR* by July 1, 2020.

In this editorial, we present the profile of the replication studies, analysis, and results comparing the replications to the original studies, and recommendations for replication research.

Profile of Studies in the IS Replication Project

The 21 replications represent 59 different authors from 29 different universities in the United States, Germany, China, Brazil, and Austria. Fourteen of the studies replicated work from *MISQ*, three from *Information Systems Research*, and one each from *Journal of MIS*, *Journal of the AIS*, *Communications of the ACM*, and *Computers & Security*. The majority of the original studies were surveys (16), although there were also four experiments and one Web scraping paper replicated. The methods used in the replications were consistent with the original study, with only one of the studies employing a minor adjustment (i.e., from field survey to online survey). (See Table 1.)

---

[1]Some of this is due to researcher fraud but the vast majority of cases are not (Stroebe and Strack 2014).

Table 1. IS Replication Project Studies												
	Authors		**Type***	**Method**		**Location**		**Participants**		**N = Rep.**	**Technology Context**	
	Rep.	**Org.**		**Orig.**	**Rep.**	**Orig.**	**Rep.**	**Orig.**	**Rep.**		**Orig.**	**Rep.**
1	De Leoz & Petter 2020	Choi et al. 2010	M	Survey	Survey	South Korea	Not reported (Mturk and Prolific)	Team members at energy and steel companies	Mturk and Prolific, Age > 18 who participated in an IT project	97	Teams	IT Teams
2	Ebrahimi & Martinez 2019	Choi et al. 2015	M	Survey Exp.	Survey Exp.	SE Asia	US	Students	Undergrad students	552	Social Media (Facebook)	Social Media (Facebook)
3	Erskine et al. 2020	Rutner et al. 2008	C	Survey	Survey	Not Reported	US	IT employees at Fortune 100	IT professionals (Qualtrics sample)	508	IT Work	IT Work
4	Fischer et al. 2020	Benamati & Lederer 2001	C	Survey	Survey	US	Austria	IT professionals	Austrian IT managers	258	Technology	ICT
5	George et al. 2020	Srite & Karahanna 2006	M	Survey	Survey	US	US & China	Students	Students (Chinese and American)	242	Personal Computers and Personal Digital Assistants	Virtual Reality
6	Giddens & Riemenschneider 2020	Rutner et al. 2008	C	Survey	Survey	Not Reported	US	IT employees at Fortune 100	IT employees at a US Fortune 500	303	IT Work	IT Work
7	Hermes et al. 2020	Adjerid et al. 2018	M	Exp.	Exp.	US	Germany	Mturk and Prolific	German students and their family/ friends	1319	Online Privacy	Online Privacy
8	Ma et al. 2020	Van Slyke et al. 2006	M	Survey	Survey	US	China	Undergrad students	Grad students	311	E-commerce Merchants (Amazon and Half.com)	E-commerce Merchants (Taobao and Amazon)
9	Masuch et al. 2020	Moody et al. 2018	C	Survey	Survey	Finland	Germany	Working professionals	Employees (Mturk and Clickworker)	433	Security Policies	Security Policies
10	Mockus et al. 2020	Lindberg et al. 2016	C	Web Scraping	Web Scraping	N/A	N/A	Pull requests & issues	Pull requests	267	Open Source Software	Open Source Software
									Issues	356		
11	Moquin 2020	Ho et al. 2017	C	Survey	Survey	Multiple	US	IT directors, managers, professionals, programmers	IT employees with > 5 years experience; org. size > 100 employees	110	Cloud Technology	Cloud Technology
12	Muchhala & Moravec 2019	Han et al. 2015	E	Survey	Survey	US	US	Students	Undergrad students	538	Campus Emergency Notification System	Campus Emergency Notification System
13	Samhan & Joshi 2019	Kim & Kankanhalli 2009	C	Survey	Survey	Not Reported	Jordan	Employees across units and positions at an IT services firm	Public hospital staff	352	Enterprise System	Electronic Health Records
14	Samtani et al. 2019	Johnston & Warkentin 2010	M	Survey Exp.	Survey Exp.	US	Majority US (78%)[†]	Faculty and students	MTurk	276	Email Fear Appeal	Email Fear Appeal
15	Shaft et al. 2020	Yin et al. 2014	E	Exp.	Exp.	US	US	Undergrad students	Undergrad students	378	E-commerce Reviews	E-commerce Reviews

	Authors		Type*	**Method**		**Location**		**Participants**		N = Rep.	**Technology Context**	
	Rep.	**Org.**		**Orig.**	**Rep.**	**Orig.**	**Rep.**	**Orig.**	**Rep.**		**Orig.**	**Rep.**
16	Shah & Soror 2019	Agarwal & Karahanna 2000	C	Survey	Survey	US	US	Undergrad students	Undergrad students	251	World Wide Web	ERP Simulator
17	Terlizzi et al. 2019	Hong & Thong 2013	C	Survey	Survey	Hong Kong	US	Respondents to a banner ad on a Hong Kong website	MTurk (US only)	378	Commercial and governmental websites	Mobile Banking
18	Tourinho & de Oliveira 2019	Agarwal & Karahanna 2000	M	Survey	Survey	US	US	Undergrad students	Undergrad students	294	World Wide Web	Social Media
19	Yang et al. 2020	Menard et al. 2017	M	Survey	Survey	US	US	Home users (MTurk US only)	Organizational users (MTurk US only)	466	Password manager	Password Manager
20	Young et al. 2020	Moody et al. 2018	C	Survey	Survey	Finland	Not reported	Working professionals	IT professionals (Qualtrics sample)	218	Security policies	Security Policies
21	Zeng et al. 2020	Malhotra et al. 2004	C	Field Survey	Online Survey	US	US	Household respondents	Undergrad students	168	E-commerce	Social Networking Site

Note: *Replication Type: (C)onceptual; (E)xact; or (M)ethodological.

[†]Samtani et al. (2019) used MTurk participants from the US (78%), India (16%), the Philippines (2%), and others (4%)

Exp = Experiment

Org. = Original Study; Rep. = Replication Study

The following is the breakdown by type of replication:

- *Exact* (exact copies of the context and methods of the original article): 2 articles
- *Conceptual* (exactly the same research questions or hypotheses, but use different measures, treatments, and/or analyses): 11 articles
- *Methodological* (exactly the same methods as the original study; i.e., measures, treatments, statistics etc. but conducted in a different context): 8 articles

Analysis

We tracked the details for each paper, paying particular attention to the differences between the original study and the replication. In addition to method deviations, we examined the number of years that had elapsed since the original study was published, the participants and locations for both studies, as well as the technology across the studies. Finally, we examined the degree to which the results of the replication matched the results of the original study, both for significant and nonsignificant results.

Results

The details of each replication study and its findings can be found as articles in *TRR*. A summary of the project's findings is presented in Table 2. The results lead to an interesting pattern. Specifically, the degree of difference between the original paper and the replication is not the source of any systematic difference in the results. Replications with large deviations were as likely to replicate as those with small deviations. In short, IS does *not* have a replication crisis.

Tables 1 and 2 show that very few replications (10%) were exact replications in which the replication study's method, participants, location, and technology matched those of the original study. Most replications varied two or more of these four design elements. The methods of the

	Replication Citation	Years Elapsed*	Match				Same Results		Different Results		
			Method	Location	Participant	Technology	Supported in Both	NS in Both	NS in Original; Supported in Replication	Supported in Original; NS in Replication	F1
1	De Leoz and Petter 2020	9	Yes	No	No	Partial	6	0	1	1	0.857
2	Ebrahimi and Martinez 2019	2	Yes	No	Yes	Yes	7	1	0	4	0.778
3	Erskine et al. 2020	11	Yes	Yes	Partial	Yes	4	3	1	1	0.800
4	Fischer et al. 2020	18	Yes	No	Yes	Partial	N/A	N/A	N/A	N/A	N/A
5	George et al. 2020	13	Yes	Partial	Partial	No	0	0	1	2	0.000
6	Giddens & Riemenschneider 2020	11	Yes	Yes	Yes	Yes	3	2	1	1	0.750
7	Hermes et al. 2020	1	Yes	No	No	Yes	2	3	1	6	0.364
8	Ma et al. 2020	13	Yes	No	Partial	Yes	8	7	2	5	0.696
9	Masuch et al. 2020	1	Yes	No	Partial	Yes	4	0	0	3	0.727
10	Mockus et al. 2020	3	Yes	N/A	N/A	Yes	3	1	0	1	0.857
11	Moquin 2020	2	Yes	No	Yes	Yes	5	4	1	2	0.769
12	Muchhala & Moravec 2019	1	Yes	Yes	Yes	Yes	8	5	3	4	0.696
13	Samhan & Joshi 2019	9	Yes	No	No	No	6	2	1	2	0.800
14	Samtani et al. 2019	7	Yes	Partial	No	Yes	3	0	2	2	0.600
15	Shaft et al. 2020	5	Yes	Yes	Yes	Yes	3	0	0	2	0.750
16	Shah & Soror 2019	17	Yes	Yes	Yes	No	4	0	1	2	0.727
17	Terlizzi et al. 2019	5	Yes	Yes	No	No	10	0	0	0	1.000
18	Tourinho & de Oliveira 2019	17	Yes	Yes	Yes	No	5	1	0	1	0.909
19	Yang et al. 2020	2	Yes	Yes	No	Yes	8	6	0	3	0.842
20	Young et al. 2020	1	Yes	No	No	Yes	5	2	2	2	0.714
21	Zeng et al. 2020	15	Partial	Yes	No	No	3	0	0	5	0.545

Table 2. Comparison of Original and Replication

Note: *Years elapsed since publication of the original study.

replications almost always matched the methods of the original study, and just over half used the same technology (about 40% examined whether the theory generalized to a different technology). Most replications used a different type of participant and studied the theory in a different location.

The central focus of the Replication Project was to understand if replications generally find the same results as the original studies. The short answer is yes. The long answer is more nuanced. Most of the original studies in Table 1 tested hypotheses and used statistics to conclude if the hypotheses were supported or not. Most replication studies tested the same hypotheses, so we can examine the extent to which the findings from the replication match the findings from the original study. In other words, to what extent does the replication find the same hypotheses to be significant as the original and the same nonsignificant ones?

One useful metric for this is the F1 score; there are, of course, many others. We calculated the F1 score for each study and found that the average F1 score in our set of studies was 0.709. We view this as good, especially considering that the typical replication differed from the original study on at least two important dimensions.

We performed additional analysis to see if there were factors that predicted a replication study's F1 score. For example, we expected that replications that more closely match the original study would have higher F1 scores, while those that replicate the study in a different location with a different technology and different participants would have lower F1 scores, especially those where much time has elapsed between the original study and the replication. We were wrong. We could find no such pattern; replications that differed on many dimensions from the original study were as likely to find high F1 scores as those that closely matched the original study.

Therefore, we conclude that good IS theories—those published in *MISQ* and other top IS journals—are likely to transcend time, technology, user, and location. We in IS do not face a replication crisis as our colleagues in other disciplines do. Instead, we have replication reassurance.

There are some individual replications that seem to deviate from the original more than others. As we examine these individual replications, we note two key elements that contribute to differences in these particular studies:

- *Technology*: In two of the three studies that are different from the overall set (i.e., the number of matching findings is far lower than the other replications), the technologies are quite different. Specifically, in one case the original technology was e-commerce, while the replication was social networking. In the second case, the original technology was PCs and PDAs, while the replication examined virtual reality. It is possible that there are distinctions between these technologies that call for additional theorizing to capture the contextual differences in technology and generalize the original theories from one technology to another.

- *User understanding of technology*: In one study, the original study used participants from MTurk (U.S. participants) and Prolific Academic (English first language participants), while the replication used German students. The focus of the studies is on privacy, with the original work published pre-General Data Protection Regulation and the replication after. Thus, one element to consider is a national policy change or shift in public perceptions as a contributor to the generalizability of research findings over time and between countries (e.g., pre- and post-COVID-19).

Recommendations

We offer the following recommendations to advance the field of IS:

First, we suggest a good way to develop understanding regarding replication is through incorporating replication as part of training doctoral students. The importance of replication and the advantages of having a replication culture that understands new empirical findings should be replicated are well known (Dennis and Valacich 2014). Replication is about examining the generalizability of a theory, not about questioning the validity of the original study. We assume that all studies are valid when published, so the goal of replication is to understand how theories can generalize to other times and contexts and what changes are needed to better enable them to do so. Replication is also an excellent way for students to learn research methods. The original paper provides the research question, relevant literature, theory, and/or data and systems information, plus a set of valid methods to answer the question. This allows students to focus on the method so that they can not only learn what it is, but how it is done, as well as the more subtle art of navigating the peer review process. Therefore, we suggest that replication should be a standard part of research methods education for all doctoral students, and as appropriate, master's students as well.

Second, we recommend professional organizations and journal editors collaborate on encouraging and sharing the results of replication in aggregate, as we are doing here. Journals with different editorial objectives can collaborate to promote replication. While *TRR* routinely publishes replications, highly ranked IS journals are unlikely to. This Replication Project provides a model for the collaboration between a top journal like *MISQ* with a replication-dedicated outlet like *TRR*: replications of articles in *MISQ* are published in *TRR* and the results of the project are disseminated through a *MISQ* editorial.

Another example of such a collaboration is the badging project between *TRR*, the AIS journals, and *MISQ*. When a paper in one of these journals is replicated, the original paper receives a badge in the AIS digital library. The badge signals two very important things about the original study:

- It was important and interesting enough for another group of authors to replicate the study, usually in a different context.
- It provided sufficient contextual, methodological, and technical details to be replicated, an important issue we discuss below.

As the original paper in the AIS digital library links to the replication paper, scholars in the field can get a sense of how various elements (e.g., technology, participants) might influence the results. The replication study provides one more piece of evidence regarding the validity of the theory in the original study, which can be a useful reference when framing the arguments in a new piece of research.

Third, we suggest replication as an effective solution to assess whether the results are unique to one data set. To counter dubious methodological practices (e.g., data mining, HARKing, p-hacking) that may constrain results to one data set, some researchers advocate study preregistration, where researchers formally preregister their *a priori* theoretical hypotheses with a third-party and pledge not to deviate from this theory in their analyses after the data has been collected (Kupferschmidt 2018). Preregistration imposes theory-based constraints to solve a methodological problem. In contrast, replication directly addresses the question as to whether the results are generalizable beyond one data set.

Fourth, as sources of uncertainty in IS research can stem from novel data-generation processes, methods, and contexts (Rai 2020), authors need to include sufficient contextual, methodological, and technical detail to enable their work to be replicated, as we briefly discuss:

- *Contextual*: It is important that technology is sufficiently described along with other aspects of the context such as the temporal, location, cultural, and problem and task settings. This information will enable replication research to assess whether a change in context challenges assumptions underlying a theory or model; alters the meaning of constructs; changes the nature of causal, generative, or contingency mechanisms; or changes the utility of theories, models, or solutions.

- *Methodological*: Researchers should provide sufficient information on the protocols for data generation, analysis, and interpretation of results which involve:
  o Research design (e.g., sampling procedures, treatments and controls, procedures to source and curate data)
  o Analysis (e.g., validity assessment, model specifications, robustness tests)
  o Interpretation of results (including how researchers may have reconciled quantitative metrics on model accuracy and bias with human judgement)

  The specifics of the methodological information will depend on the particular methods that are employed. Where mixed-methods are employed, it is important to provide sufficient information on the individual methods and how they are combined in the study.

- *Technical*: Information on choices made in writing, modifying and executing code, and the scalability and portability of code and models, may be relevant to provide.

  From a pragmatic perspective, it is not possible, nor do we suggest, that authors try to provide every detail of every aspect of their projects in an article. Journal articles have page limits.

As authors may be constrained in providing sufficient detail to enable their work to be replicated, *TRR* has a special type of article that can be linked to the original article published in another journal to provide all researchers with access to the necessary empirical materials and protocols. This option can be a viable one for authors of all original research to consider in publishing their protocols, data, and/or code as a supplemental article in *TRR* which links to the original article in the other journal. The viability of this choice for an author will depend on the policies of the journal in which the authors have published their original article.

Finally, some researchers conducting replications want to replicate the original study exactly, while others prefer to use new methods to test the original study's theory. Both are appropriate, although we note that replications using new methods are more powerful (Dennis and Valacich 2014).

Concluding Remarks

The results of the IS Replication Project are encouraging and provide replication assurance. Given our experiences with the project, we suggest that collaborative initiatives between replication-dedicated outlets and top scholarly journals, such as this initiative between *TRR* and *MISQ*, can play an important role in promoting replication and progress of the IS discipline. While we had an overwhelming majority of survey-based research in this project, we expect shared protocols, data, and code will enable greater replication across types of research and help with advancing the IS discipline.

References

Adjerid, I., Peer, E., and Acquisti, A.   2018. "Beyond the Privacy Paradox: Objective Versus Relative Risk in Privacy Decision Making," *MIS Quarterly* (42:2), pp. 465-488.

Agarwal, R., and Karahanna, E.   2000. "Time Flies When You're Having Fun: Cognitive Absorption and Beliefs About Information Technology Usage," *MIS Quarterly* (24:4), pp. 665-694.

Benamati, J., and Lederer, A. L.   2001. "Coping with Rapid Changes in IT," *Communications of the ACM* (44:8), pp. 83-88.

Camerer, C. F., Dreber, A., Forsell, E., Ho, T.-H., Huber, J., Johannesson, M., Kirchler, M., Almenberg, J., Altmejd, A., Chan, T., Heikensten, E., Holzmeister, F., Imai, T., Isaksson, S., Nave, G., Pfeiffer, T., Razen, M., and Wu, H.   2016. "Evaluating Replicability of Laboratory Experiments in Economics," *Science* (351:6280), pp. 1433-1436.

Camerer, C. F., Dreber, A., Holzmeister, F., Ho, T.-H., Huber, J., Johannesson, M., Kirchler, M., Nave, G., Nosek, B. A., Pfeiffer, T., Altmejd, A., Buttrick, N., Chan, T., Chen, Y., Forsell, E., Gampa, A., Heikensten, E., Hummer, L., Imai, T., Isaksson, S., Manfredi, D., Rose, J., Wagenmakers, E.-J., and Wu, H.   2018. "Evaluating the Replicability of Social Science Experiments in Nature and Science between 2010 and 2015," *Nature Human Behaviour* (2:9), pp. 637-644.

Choi, B. C., Jiang, Z., Xiao, B., and Kim, S. S.   2015. "Embarrassing Exposures in Online Social Networks: An Integrated Perspective of Privacy Invasion and Relationship Bonding," *Information Systems Research* (26:4), pp. 675-694.

Choi, S. Y., Lee, H., and Yoo, Y.   2010. "The Impact of Information Technology and Transactive Memory Systems on Knowledge Sharing, Application, and Team Performance: A Field Study," *MIS Quarterly* (34:4), pp. 855-870.

De Leoz, G., and Petter, S.   2020. "To Share or Not to Share: Consequential Impacts of IT Support on the Knowledge Processes of IT Project Teams," *AIS Transactions on Replication Research* (6), Paper 4.

Dennis, A. R., and Valacich, J. S.   2014. "A Replication Manifesto," *AIS Transactions on Replication Research* (1:1), pp. 1-5.

Ebrahimi, M., and Martinez, J. D.   2019. "Involuntary Embarrassing Exposures in Online Social Networks: A Replication Study," *AIS Transactions on Replication Research* (5), Paper 7.

Erskine, M. A., Zaza, S., Brooks, S., and Seipel, S. J.   2020. "Exhaustion from Information System Career Experience: Are the Implications for Turn-Away Intention Different for Millennials?," *AIS Transactions on Replication Research* (6), Paper 16.

Fischer, T., Jaeger, K., and Riedl, R.   2020. "Coping with Rapid Changes in IT: An Update," *AIS Transactions on Replication Research* (6), Paper 2.

George, J. F., Chi, M., and Zhou, Q.   2020. "American and Chinese Students and Acceptance of Virtual Reality: A Replication of 'The Role of Espoused National Cultural Values in Technology Acceptance,'" *AIS Transactions on Replication Research* (6), Paper 1.

Giddens, L., and Riemenschneider, C. K.   2020. "Emotional Dissonance and the IT Professional—A Replication," *AIS Transactions on Replication Research* (6), Paper 8.

Han, W., Ada, S., Sharman, R., and Rao, H. R.   2015. "Campus Emergency Notification Systems: An Examination of Factors Affecting Compliance with Alerts," *MIS Quarterly* (39:4), pp. 909-930.

Hermes, S., Hillebrand, L., Bauer, J., Böhm, M., and Krcmar, H.   2020. "Objective Versus Relative Risk in Privacy Decision Making: A Replication Study from Germany," *AIS Transactions on Replication Research* (6), Paper 11.

Ho, S. M., Ocasio-Velázquez, M., and Booth, C.   2017. "Trust or Consequences? Causal Effects of Perceived Risk and Subjective Norms on Cloud Technology Adoption," *Computers & Security* (70), pp. 581-595.

Hong, W., and Thong, J. Y.   2013. "Internet Privacy Concerns: An Integrated Conceptualization and Four Empirical Studies," *MIS Quarterly* (37:1), pp. 275-298.

Johnston, A. C., and Warkentin, M.   2010. "Fear Appeals and Information Security Behaviors: An Empirical Study," *MIS Quarterly* (34:3), pp. 549-566.

Kim, H.-W., and Kankanhalli, A.   2009. "Investigating User Resistance to Information Systems Implementation: A Status Quo Bias Perspective," *MIS Quarterly* (33:3), pp. 567-582.

Kupferschmidt, K.   2018. "More and More Scientists Are Preregistering Their Studies. Should You?," *Science*, September 21 (https://www.sciencemag.org/news/2018/09/more-and-more-scientists-are-preregistering-their-studies-should-you).

Lindberg, A., Berente, N., Gaskin, J., and Lyytinen, K.   2016. "Coordinating Interdependencies in Online Communities: A Study of an Open Source Software Project," *Information Systems Research* (27:4), pp. 751-772.

Ma, X., Lou, H., Van Slyke, C., and Clary, G.   2020. "Concern for Information Privacy and Online Consumer Purchasing in China," *AIS Transactions on Replication Research* (6), Paper 6.

Malhotra, M. K., Kim, S. S., and Agarwal, J.   2004. "Internet Users' Information Privacy Concerns (IUIPC): The Construct, the Scale, and a Causal Model," *Information Systems Research* (15:4), pp. 336-355.

Masuch, K., Hengstler, S., Trang, S., and Brendel, A. B.   2020. "Replication Research of Moody, Siponen, and Pahnila's Unified Model of Information Security Policy Compliance," *AIS Transactions on Replication Research* (6), Paper 13.

Menard, P., Bott, G. J., and Crossler, R. E.   2017. "User Motivations in Protecting Information Security: Protection Motivation Theory Versus Self-Determination Theory," *Journal of Management Information Systems* (34:4), pp. 1203-1230.

Mockus, A., Bradley, R., Ma, Y., Bichescu, B., and Zaretzki, R.   2020.   "Coordinating Interdependencies in an Open Source Software Project: A Replication of Lindberg, et al.," *AIS Transactions on Replication Research* (6), Paper 14.

Moody, G. D., Siponen, M., and Pahnila, S.   2018.   "Toward a Unified Model of Information Security Policy Compliance," *MIS Quarterly* (42:1), pp. 285-312.

Moquin, R.   2020.   "Trust or Consequences Replication: A Methodological Replication Study," *AIS Transactions on Replication Research* (6), Paper 5.

Muchhala, R. C., and Moravec, P. L.   2019.   "Replication Research: Campus Emergency Notification Systems," *AIS Transactions on Replication Research* (5), Paper 10.

Open Science Collaboration.   2015.   "Estimating the Reproducibility of Psychological Science," *Science* (349:6251), p. aac4716.

Pashler, H., and Wagenmakers, E. J.   2012.   "Editors' Introduction to the Special Section on Replicability in Psychological Science: A Crisis of Confidence?," *Perspectives on Psychological Science* (7:6), pp. 528-530.

Rai, A.   2020.   "Editor's Note: Proactively Attending to Uncertainty in IS Research," *MIS Quarterly* (44:1), iii-vii,

Rutner, P. S., Hardgrave, B. C., and McKnight, D. H.   2008.   "Emotional Dissonance and the Information Technology Professional," *MIS Quarterly* (32:3), pp. 635-652.

Samhan, B., and Joshi, K. D.   2019.   "Switching to Electronic Health Record Systems: A Replication of the User Resistance Model," *AIS Transactions on Replication Research* (5), Paper 11.

Samtani, S., Zhu, H., and Yu, S.   2019.   "Fear Appeals and Information Security Behaviors: An Empirical Study on Mechanical Turk," *AIS Transactions on Replication Research* (5), Paper 5.

Shaft, T. M., Tian, A., and Whang, S.   2020.   "Anxious and Angry: A Replication Investigating the Effects of Emotions on Perceptions of Online Review Helpfulness," *AIS Transactions on Replication Research* (6), Paper 17.

Shah, V., and Soror, A.   2019.   "An Empirical Examination of Cognitive Absorption in a Computer-Based Simulation Training Context," *AIS Transactions on Replication Research* (5), Paper 6.

Srite, M., and Karahanna, E.   2006.   "The Role of Espoused National Cultural Values in Technology Acceptance," *MIS Quarterly* (30:3), pp. 679-704.

Stroebe, W., and Strack, F.   2014.   "The Alleged Crisis and the Illusion of Exact Replication," *Perspectives on Psychological Science* (9:1), pp. 59-71.

Terlizzi, M. A., Brandimarte, L., and Sanchez, O.   2019.   "Replication of Internet Privacy Concerns in the Mobile Banking Context," *AIS Transactions on Replication Research* (5), Paper 8.

Tourinho, A., and de Oliveira, B. M. K.   2019.   "Time Flies When You Are Having Fun: Cognitive Absorption and Beliefs about Social Media Usage," *AIS Transactions on Replication Research* (5), Paper 4.

Van Slyke, C., Shim, J., Johnson, R., and Jiang, J.   2006.   "Concern for Information Privacy and Online Consumer Purchasing," *Journal of the Association for Information Systems* (7:6), pp. 415-444.

Yang, N., Singh, T., and Johnston, A. C.   2020.   "A Replication Study of User Motivation in Protecting Information Security Using Protection Motivation Theory and Self-Determination Theory," *AIS Transactions on Replication Research* (6), Paper 10.

Yin, D., Bond, S. D., and Zhang, H.   2014.   "Anxious or Angry? Effects of Discrete Emotions on the Perceived Helpfulness of Online Reviews," *MIS Quarterly* (38:2), pp. 539-560.

Young, D. K., Carpenter, D., and McLeod, A. J.   2020.   "A Conceptual Replication of the Unified Model of Information Security Policy Compliance," *AIS Transactions on Replication Research* (6), Paper 7.

Zeng, M., Lin, S., and Armstrong, D. J.   2020.   "Are All Internet Users' Information Privacy Concerns (IUIPC) Created Equal?," *AIS Transactions on Replication Research* (6), Paper 3.