



AFRL-AFOSR-JP-TR-2018-0024

---

**Implicit and Explicit Attitudes towards America in Socio-Digital Influence: Trust and Social Identity in Cyberspace**

**James Liu  
Massey University**

---

**03/16/2018  
Final Report**

DISTRIBUTION A: Distribution approved for public release.

Air Force Research Laboratory  
AF Office Of Scientific Research (AFOSR)/ IOA  
Arlington, Virginia 22203  
Air Force Materiel Command

<b>REPORT DOCUMENTATION PAGE</b>				<i>Form Approved</i> OMB No. 0704-0188	
<p>The public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Executive Services, Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.</p> <p><b>PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ORGANIZATION.</b></p>					
<b>1. REPORT DATE (DD-MM-YYYY)</b> 16-03-2018		<b>2. REPORT TYPE</b> Final		<b>3. DATES COVERED (From - To)</b> 18 Dec 2014 to 17 Dec 2017	
<b>4. TITLE AND SUBTITLE</b> Implicit and Explicit Attitudes towards America in Socio-Digital Influence: Trust and Social Identity in Cyberspace				<b>5a. CONTRACT NUMBER</b>	
				<b>5b. GRANT NUMBER</b> FA2386-15-1-0003	
				<b>5c. PROGRAM ELEMENT NUMBER</b> 61102F	
<b>6. AUTHOR(S)</b> James Liu				<b>5d. PROJECT NUMBER</b>	
				<b>5e. TASK NUMBER</b>	
				<b>5f. WORK UNIT NUMBER</b>	
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b> Massey University Tennent Drive Palmerston North, 5301 NZ				<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>	
<b>9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b> AOARD UNIT 45002 APO AP 96338-5002				<b>10. SPONSOR/MONITOR'S ACRONYM(S)</b> AFRL/AFOSR IOA	
				<b>11. SPONSOR/MONITOR'S REPORT NUMBER(S)</b> AFRL-AFOSR-JP-TR-2018-0024	
<b>12. DISTRIBUTION/AVAILABILITY STATEMENT</b> A DISTRIBUTION UNLIMITED: PB Public Release					
<b>13. SUPPLEMENTARY NOTES</b>					
<b>14. ABSTRACT</b> This project did not complete the 3rd and final year due to challenges meeting US Human Research Protection documentation requirements. However, the first two years were very productive and the attached report discusses the findings and publications that resulted. A massively cross-cultural and longitudinal 4 Wave dataset was collected in the first year and a half of a three year research plan. In Wave 1, a comprehensive survey of personality, values, institutional trust, mass media usage, and political attitudes and ideology (including a comprehensive measure of attitudes towards the USA) was collected from representative online samples of adults in 20 countries plus two city samples (N=21,984 including China, Russia, and the USA, September 2015). A follow-up survey was administered to the same individuals 6 months later (N=9165), and a behavioral trust experiment was conducted 6 months after that on a smaller subset of the sample (N=3236); implicit and explicit attitudes towards America and Americans will be administered in 16 countries in Jan 2017, still following the initial sample longitudinally. An experienced team of more than 40 academics (primarily social psychologists, but also communications and computer simulations experts) around the world has been assembled and is now working on this data set. Two papers were submitted for publication (on the structure of global trust around the world, and journalists performance and civic participation) and 8 conference papers have been presented: 1) a new Global Trust Inventory was introduced as a proxy measure of Social Capital, and structural equivalence for its 7 sub-factors was demonstrated in 11 countries; and 2) evaluations of journalists performance was related to news consumption and civic participation in 22 countries.					
<b>15. SUBJECT TERMS</b> AOARD, Socio-Digital Influence					
<b>16. SECURITY CLASSIFICATION OF:</b>			<b>17. LIMITATION OF ABSTRACT</b>  SAR	<b>18. NUMBER OF PAGES</b>  7	<b>19a. NAME OF RESPONSIBLE PERSON</b> ROBERTSON, SCOTT
<b>a. REPORT</b>  Unclassified	<b>b. ABSTRACT</b>  Unclassified	<b>c. THIS PAGE</b>  Unclassified			
			<b>19b. TELEPHONE NUMBER (Include area code)</b> +81-042-511-7008		
Standard Form 298 (Rev. 8/98) Prescribed by ANSI Std. Z39.18					

**Implicit and Explicit Attitudes towards America in Socio-Digital Influence: Trust and Social Identity in Cyberspace**

**Dec 28, 2017**

**Name of Principal Investigators (PI and Co-PIs):**

- e-mail address : j.h.liu@massey.ac.nz
- Institution : Massey University
- Mailing Address : School of Psychology, Private Bag 102904, North Shore, Auckland 0745, New Zealand
- Phone : +64 21 401 652
- Fax : none

Period of Performance: Jan 1, 2014 to Dec 28, 2016

**Abstract:** A massively cross-cultural and longitudinal 4 Wave dataset has been collected in the first year and a half of a three year research plan. In Wave 1, a comprehensive survey of personality, values, institutional trust, mass media usage, and political attitudes and ideology (including a comprehensive measure of attitudes towards the USA) was collected from representative online samples of adults in 20 countries plus two city samples (N=21,984 including China, Russia, and the USA, September 2015). A follow-up survey was administered to the same individuals 6 months later (N=9165), and a behavioral trust experiment was conducted 6 months after that on a smaller subset of the sample (N=3236); implicit and explicit attitudes towards America and Americans will be administered in 16 countries in Jan 2017, still following the initial sample longitudinally. An experienced team of more than 40 academics (primarily social psychologists, but also communications and computer simulations experts) around the world has been assembled and is now working on this data set. Two initial papers have been submitted for publication (on the structure of global trust around the world, and journalists' performance and civic participation) and 8 conference papers have been presented). In the initial papers submitted for publication, 1) a new Global Trust Inventory was introduced as a proxy measure of Social Capital, and structural equivalence for its 7 sub-factors was demonstrated in 11 countries; and 2) evaluations of journalists' performance was related to news consumption and civic participation in 22 countries. This dataset is unprecedented in the comprehensiveness of social science measures administered to large representative samples from around the world, and promises to yield many scientific advances in months to come.

**Introduction:** The proliferation of the internet offers unparalleled opportunities to create a sustainable global social order based on some, but not necessarily all of the institutions and practices prevalent in Western societies in general, and the United States in particular. This research identifies patterns of institutional trust, social identification with different groups, mass media (especially digital media) usage, and ideological belief most conducive to maintaining a powerful and prosperous global society, and conversely, those patterns that are most potentially disruptive and/or destructive to global society and America's place in it.

The objective of this research is to identify patterns of institutional trust, social identification with different groups, mass media usage, and ideological beliefs in 20+ countries conducive to maintaining (or disrupting) a powerful and prosperous global society through survey and behavioral measures. New capabilities are being developed in terms of survey instruments and statistical techniques capable of measuring & identifying patterns of institutional trust around the world, global mass media (esp. internet) usage, and their impacts on citizenship, political engagement, and attitudes towards America.

The ultimate question to be answered by this research is: when, where, and how, does mass media technology produce a digital divide, and when, where, and how does it produce a digital connect?

**Experiment/Survey:** The research design employed is massively cross-cultural and longitudinal, involving 4 Waves of data collection from an initially representative sample from 20 countries (plus 2 city samples from two more countries). We used Nielsen, an internationally respected polling agency based in the United States to collect a longitudinal global dataset using our first two years of funding. Survey data from 21,984 individuals (representative with respect to age, gender, and geographical distribution in 20 countries, city samples in 2 countries) was collected in Wave 1 (September 2015) as the baseline. A follow-up survey (Wave 2) was successfully administered to a subset of these persons 6 months later in March 2016, producing a longitudinal sample of N=9165. Wave 3 involving an experimental Trust Game (social dilemma) was conducted in 17 countries, involving N=3236 individuals from 17 countries, involving real money changing hands. Finally, Wave 4 involving Implicit and Explicit attitudes towards America and Americans is due to begin in the New Year in 2017, completing the 4 Waves of data collection.

The advantage of this design is that we have massive amounts of information (from Waves 1 and 2) to predict behavior in a social dilemma of trust (Wave 3) and implicit and explicit attitudes towards America and Americans (Wave 4). While the samples in Waves 3 and 4 are relatively small compared to the initially representative samples, we have comprehensive information about their trust profiles, their social identifications, values, personality, political ideology, and mass media usages from Waves 1 and 2. So we will be able to predict their attitudes and behavior in 2016/17 from survey data taken in 2015, which is relatively rare in social science data sets, and unprecedented in cross-cultural samples with a wide age range.

**Results, Discussion, Plans for Next Option Period:** Initial papers have been focused on the development of reliable cross-cultural instruments for measuring key concepts, such as the Global Trust Inventory, Press Performance, and Civic Participation. Planned papers for the coming year continue in this vein, with measures of Values, Personality, Digital Immersion planned. Furthermore, major papers on Attitudes towards America and Americans (both implicit and explicit) and Behavioral Trust compared to attitudinal trust are being prepared. Eventually, we will put this all together and attempt to develop new theoretical models of the relationships between basic features of human psychology like personality and values with technology-mediated features like digital immersion and their impact on trust in different institutions (including the United States) and political attitudes and ideology. For these more comprehensive, theory-based papers, I would like to request a time extension, so that the grant terminates in the middle of 2018 rather than at the beginning of 2018. Only in 2018 will we be able to use our data to answer the ultimate question of how to produce a digital connect rather than digital divides.

The major research advances to be accomplished for 2017 involve identifying digital ecologies, that is, global patterns of the consumption of mass media (particularly news in print, television, and internet forms), and how they interact with psychological factors like personality and values to produce different configurations of institutional trust. This digital and institutional ecology will then be linked to dependent variables like implicit and explicit attitudes towards Americans and America, and other political attitudes and values (like hostility toward immigrants and/or homosexuals, for example).

A detailed list of planned papers follows.

- a. First are projects that I and my team in New Zealand are working on, and will be guaranteed outputs:

Liu, J.H., Milojev, P., & Gil de Zúñiga, H., (in preparation). Digital immersion in mass media and its impact on civic and political participation together with subjective well-being.

Zhang, R., Liu, J.H., & Milojev, P. (in preparation). The system of trust in East Asian societies.

Vilar, R., Milojev, P., Araujo, R., Gil de Zúñiga, H., & Liu, J.H. (in preparation). Values, online and offline social capital, and political participation.

Liu, J.H., & Milojev, P. (in preparation). Predicting attitudes towards immigrants to Europe using the

Global Trust Inventory: Longitudinal data from 2015 to 2016.

- b. Homero Gil de Zuniga of University of Vienna co-led the survey portion of the research- he is a leading Communications researcher in the area of new media. He and his team are planning the following writing projects with the survey data.
- The structure of institutional trust and its relationship to trust in mass media and journalists
  - How different media consumption relates to trust in science (key uses and associations).
  - A comparative study on exposure to political disagreement and the use of technology. This one will be multilevel analysis and will included some macro data from our countries (i.e. form ITU) to combine it with our data set.
  - Generational patterns of media use for news (Baby boomers, vs Generation X, Millennials, etc) in terms of their hybrid media use (see Andrew Chadwick book on media hybridity and why it matters).
  - Second Screening and connection with higher levels of political discussion and participation. Here there is also room for psychological traits predicting dual screen use as well (may be is a different paper we can do for Argentina).
  - Does the use of social media and Internet also predict internet/social media privacy concerns? We have this data from wave one but haven't run any analysis yet.
  - News use and discussion of political matters as antecedent of perception and attitudes toward immigrants, and its effect over support for authoritarianism.
  - News finds me perception. Introduction of a construct around the world. Invariance test to see in what countries we can find a valid instrument.
  - Personality traits and its relationship with social media use. An update of my very cited piece in CHB with data around the world.
- c. These are projects that international team members are working on, so please keep in mind that given the extent and complexity of the author list, I cannot guarantee that all these outputs will actually be completed. What I can promise is that 2017 will be an incredibly productive year as the international research team reaps the benefits of a year and a half of intensive data collection with intellectual and creative outputs. There may be numerous projects in addition to the listed ones that are published, but some of the projects below might not be realized.

Silvia Mari (University of Milan)- Conspiracy theories in the digital age.

Sammyh Khan (Keele University), Katja Hanke, James H. Liu & Homero Gil de Zuniga. On the true wealth of nations: a cross-cultural study into the relationship between national identification and wellbeing, and its country-level predictors

Daniel P. Balliet (VU University, Amsterdam) & Toshio Yamagishi – Examining the social dilemma of trust in online studies across cultures.

Susumu Yamaguchi (Nara University) & Hiroaki Morio – A global study of modesty and self-esteem: causes and consequences.

Katja Hanke (GESIS- Mannheim) – Attitudes towards Americans: Predictions from around the world.

Sandy Schumann (Oxford University) – Gender and political participation: Implications from the internet age.

Tomas Perez-Acle (Fundacion Ciencia & Vida, Chile) – Simulating the rise and fall

of trust using social science data: From theory to prediction. I met Tomas at the last AOARD meeting in DC, and we have launched a joint project combining my survey and behavioral data with his expertise in computer simulations- instead of simulating disease vectors, we are simulating the rise and fall of trust and prosperity in societies.

In addition, we are planning 3 workshops to stimulate research productivity in 2017: one in Europe (July), one in the Americas (February), and one in New Zealand (August- the 2017 Asian Association of Social Psychology conference is in Auckland, and this will be a good opportunity not only to work on papers, but to have some conference papers presented as well).

**List of Publications and any Significant Collaborations that resulted from your AOARD supported project:**

d) conference presentations without papers

A major symposium involving 8 papers was presented at the Asian Association of Social Psychology conference in 2015 in Cebu, the Philippines:

Liu, J.H., Milojev, P., Cannon, P., de Souza, R., de Araujo, R., Isler, L. de Zuniga, H. (2015). Conceptualizing digital influence: A cross-cultural and longitudinal approach. Paper presented as part of a 2 part symposium on Digital Influence at the 11<sup>th</sup> biennial conference of the Asian Association of Social Psychology, Cebu, the Philippines, Aug 19-22.

Mari, S., Ooh, S-L., Zhou, Z., Liu, J.H., Maheshwari, S., Isler, L., Xie, T., Hakim, M., & Robinson, A. (2015). Conspiracy theories and trust in institutions at the time of the Internet. Presented at at the 11<sup>th</sup> biennial conference of the Asian Association of Social Psychology, Cebu, the Philippines, Aug 19-22.

Maheshwari, S., Xie, T., Liu, J.H. (2015). Online engagement and socio-political participation: a case of Indian youth. Presented at at the 11th biennial conference of the Asian Association of Social Psychology, Cebu, the Philippines, Aug 19-22.

Jung, J., Choi, H.S., & Liu, J.H. (2015). Digital Influence, Identity, and Trust in South Korea. Presented at at the 11th biennial conference of the Asian Association of Social Psychology, Cebu, the Philippines, Aug 19-22.

Isler, L., Liu, J.H., & Tian, X., Liu, J.H. (2015). Social Media: an interactive venue to reaffirm guiding principles and cultural values. Presented at at the 11th biennial conference of the Asian Association of Social Psychology, Cebu, the Philippines, Aug 19-22.

Tian, X., Isler, L., Liu, J.H., Gouviea, V., & Hakim, M. (2015). Digital Influence can Shape One's Materialistic Orientation: A Look at Materialism from Both Individual and Societal Perspectives. Presented at at the 11th biennial conference of the Asian Association of Social Psychology, Cebu, the Philippines,

Aug 19-22.

Hakim, M., Asril, N.M., Isler, L., & Liu, J.H. (2015). Interactivity, citizenship and political participation: How the Internet is building a new pattern of political behavior among Indonesian youth. Presented at at the 11th biennial conference of the Asian Association of Social Psychology, Cebu, the Philippines, Aug 19-22.

Gouveia, V., Vilar, R., Araujo, R., Liu, J.H., & Tian, X. (2015). Value Priorities and Uses of Mass Media: A Study in Different Cultural Contexts. Presented at at the 11th biennial conference of the Asian Association of Social Psychology, Cebu, the Philippines, Aug 19-22.

e. The following papers have been submitted for publication, but have not yet been accepted:

Liu, J.H., Milojev, P., & Gil de Zuniga, H. (under review). The Global Trust Inventory as a “Proxy Measure” for Social Capital: Measurement and Impact in 11 Democratic Societies. *Personality and Social Psychology Bulletin*.

Gil de Zúñiga, H., Diehl, T., Ardevol-Abreu, A., & Liu, J.H. (under review). The impact of journalism & news across 22 countries: How journalists’ performance evaluations and news use relate to civic participation. *The International Journal of Press/Politics*.

(copies of these papers are attached)