# Juan G. Arroyo-Flores

#### SOCIAL SCIENTIST, Ph.D. IN SOCIOLOGY

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### **Education**

Ph.D. in Sociology

University of South Florida

 A social network analysis of online gamers' friendship networks: Structural attributes of Steam friendships, and comparison of offline-online social ties of MMO gamers

M.A. in Sociology

Río Piedras, PR

University of Puerto Rico

2013

2020

- · Magna cum Laude
- · Debugging the body: The construction of a posthumanist discourse mediated by aesthetically-healthy body advertising

**B.A. in Sociology**Río Piedras, PR

University of Puerto Rico 2010

· Magna cum Laude

# Research & Professional Experience

### **Research Consultant/Analyst**

Florida

University of Miami

August 2019 - PRESENT

• Collaborate on several NIH-funded projects with an interdisciplinary research team from the University of Miami. The main two projects focus on: 1) PrEP and substance use disorders use among Latino men who have sex with men; 2) HIV risk in Latina Seasonal Workers. Tasks include cleaning, data wrangling, running statistical analyses using social network analysis tools based in the R environment, and producing reports of findings. Analyses include regressions, network measures, MRQAPs, and Multilevel Models. PI: Mariano Kanamori, Ph.D.

Principal Investigator Tampa, FL

University of South Florida

February 2017 - March 2020

• **Dissertation** - This work looks at the formation and meaningfulness of online and offline social ties from the perspective of avid MMO gamers through a mixed-methods approach. Data were collected from the Steam API, an online questionnaire, and follow-up semi-structured interviews. Linear, Logistic, and Ordinal regression analyses were used to analyze the quantitative data. In addition, bias net models were used for the Steam dataset. Thematic analysis from a qualitative social network analysis perspective was used for the interviews.

### Graduate Research Assistant Tampa, FL

University of South Florida

August 2018 - August 2019

• USF-funded project on "The Puerto Rican Vote Nationwide and in Florida." Questionnaire design, dissemination, and analysis. This project studied the possible impact of Puerto Rican voters in the 2018 mid-terms in the USA after hurricanes Irma and María. Analyses include descriptive and inferential statistics, from correlations to regressions. Pl: Elizabeth Aranda, Ph.D.

#### Graduate Research Assistant

Tampa, FL

University of South Florida

March 2016 - May 2019

• NSF-funded project on "Structural Anonymization Techniques for Large, and Dynamic Social Graphs." Testing Exponential Random Graph Models (ERGMs) as viable options for the anonymization of large graphs. This was a collaborative interdisciplinary project between the Computer Science and Sociology Departments at USF. Pls: John Skvoretz, Ph.D., and Adriana Iamnitchi, Ph.D.

### **Graduate Research Assistant**

Río Piedras, PR

University of Puerto Rico - Center for the Study of Social and Health Differences

March 2011 - June 2012

• Collaborated with an interdisciplinary team to investigate HIV stigma in health care scenarios and the history of mental health in Puerto Rico. Tasks included writing literature reviews, English-Spanish and Spanish-English translation of documents, assisting in the design and implementation of digital questionnaires, offering workshops for the usage of tablets as research tools, and creating and managing SPSS databases. PI: Nelson Varas, Ph.D.

### **Student Researcher**

Río Piedras, PR

University of Puerto Rico

August 2009 - December 2009

Investigated the perception of fashion styles among students. Tasks included creating and administering questionnaires, face-to-face
interviews, quantitative data analysis (using SPSS), transcribing interviews, coding, and qualitative analysis as part of a Sociocultural
Anthropology course. Professor: Eva Villalón, Ph.D.

Student Researcher R\(\text{o}\) Piedras, PR

University of Puerto Rico

January 2009 - May 2009

• Investigated the transition from college to the working world. Tasks included face-to-face interviews, transcribing interviews, coding, creating a glossary and qualitative analysis of the data as part of the Sociological Research Techniques course. Professor: Karen Hoffman, Ph.D.

Research Assistant Chicago, IL

University of Illinois May 2008 - July 2008

• Conducted research on myths about Latino Immigrants in the USA. Tasks included reviewing articles and books, analyzing secondary data, and discussing findings in a roundtable presentation. Summer Research Opportunities Program (SROP). Mentor: Nilda Flores-González, Ph.D.

# Teaching Experience \_\_\_\_\_

#### **Instructor - Social Science Statistics**

Tampa, FL

University of South Florida

Fall 2016

• Developed and implemented syllabus, course structure, lectures, and student assessments.

### **Instructor - Introduction to Sociology**

Tampa, FL

University of South Florida

Spring 2015

• Developed and implemented syllabus, course structure, lectures, and student assessments.

### **Guest Lecturer - Sociology of Pop Culture**

Tampa, FL

University of South Florida

October 7, 2013

• Lectured and led classroom discussion. Audience Theory (Stuart Hall's Encoding/Decoding).

### **Honors & Awards**

2013-18 McKnight Doctoral Fellowship, Florida Education Fund
 2014 Conference Presentation Grant, University of South Florida - Student Government

Tampa, FL
Tampa, FL

Academic Merit and Outstanding Performance Scholarship Program, University of Puerto Rico

Río Piedras, PR

### **Publications**

### **BOOK CHAPTERS**

### Online-Offline Social Ties in Massive Multiplayer Online Games

J. Arroyo-Flores

Mediated Millennials Vol: 19 - Emerald Publishing Limited

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### **JOURNAL ARTICLES**

# Behind the Mask: Understanding the Structural Forces that Make Social Graphs Vulnerable to De-anonymization

S. Horawalavithana, **J. Arroyo-Flores**, J. Skvoretz, A. Iamnitchi

2019

IEEE Transactions on Computational Social Systems

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### The risk of node re-identification in labeled social graphs

S. Horawalavithana, **J. Arroyo-Flores**, J. Skvoretz, A. Iamnitchi

2019

Applied Network Science 4(1)

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### **BRIEFS**

### **Understanding Puerto Rican Voting in the United States**

J. Arroyo-Flores, A. Rosa, E. Aranda2018Scholars Strategy Network - Civic EngagementGo To

### **CONFERENCE PROCEEDINGS**

# Diversity, Homophily and the Risk of Node Re-identification in Labeled Social Graphs

S. Horawalavithana, C. Gandy, **J. Arroyo-Flores**, J. Skvoretz, A. lamnitchi Proceedings COMPLEX NETWORKS 2018, pp. 400-411

### **Presentations**

# Diversity, Homophily, and the Risk of Node Re-identification in Labeled Social Graphs

S. Horawalavithana\*, C. Gandy, J. Arroyo-Flores, J. Skvoretz, A. Iamnitchi

2018

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Cambridge, UK

Complex Network 2018

The Puerto Rican Vote in Florida Tampa, FL

**J. Arroyo-Flores**, E. Aranda, A. Rosa

November 16, 2018

Puerto Rico se Levanta Conference: Understanding Challenges to Puerto Rico and Puerto Ricans in Florida post-Hurricane Maria

Actual/Virtual Social Ties in Massive Multiplayer Online Games Philadelphia, PA

J. Arroyo-Flores

August 12, 2018

ASA Section on Communication, Information Technologies, and Media Sociology Refereed Roundtable Session

Perception and Management of Online/Offline Friendship Ties through the Eyes of Online Gamers

\*\*Philadelphia, PA\*\*

J. Arroyo-Flores

Panelist Media Sociology Preconference - Digital Media and Social Networks

A Social Network Analysis of an Online Gaming Community: From Online to

Montreal, QC

J. Arroyo-Flores

August 11, 2017

Media Sociology Preconference

Anonymizing Social Network Data for the Research Community

Beijing, CN

J. Skvoretz\*, J. Arroyo-Flores, C. Gandy, S. Viswanathan & A. IamnitchiSunbelt XXXVII International Network for Social Network Analysis Conference

Managing Life as a Ph.D. Student: Dealing with Stress, Time, and Family

J. Arroyo-Flores

June 20, 2015

Panelist for the University Experience at the McKnight Doctoral Fellowship New Fellows' orientation

Debugging the Body: Cultural Tales of Aesthetically-Healthy Bodies in

Advertisements in Puerto Rico

San Francisco, CA

J. Arroyo-Flores

August 2014

Panelist at the Society for the Study of Symbolic Interaction Annual Meeting

Immigration Myths: Are Immigrants Criminals and Economic Burdens?

Chicago, IL

J. Arroyo-Flores

July 2008

Panelist at University of Illinois – Chicago Summer Research Opportunities Program (SROP) Annual Research Symposium

Immigration Myths: Are Immigrants Criminals and Economic Burdens?

July 2008

East Lansing, MI

July 2008

Round table participant at the Committee on Institutional Cooperation (CIC) and Summer Research Opportunities Program (SROP) Conference

# **Professional Development - Workshops & Training**

SPSS Workshop. Tampa, FL

McKnight Summer Research & Writing Institute.

Collecting and Analyzing Social Media Data Using Social Media Lab.

New Port Beach, CA

XXXVI SUNBELT CONFERENCE OF THE INTERNATIONAL NETWORK FOR SOCIAL NETWORK ANALYSIS. April 2016

Exponential Family Random Graph Modeling (ERGMs) Using statnet.

XXXVI SUNBELT CONFERENCE OF THE INTERNATIONAL NETWORK FOR SOCIAL NETWORK ANALYSIS. April 2016

Making Large Classes Feel Small: Building Dynamic Interactions to Support Active Learning with Classes of 50-500.

AMERICAN SOCIOLOGICAL ASSOCIATION. February 2015

# **Professional Service**

Peer Reviewer, New Media and Society

2018-19 **Peer Reviewer**, Journal of Social Structure (JoSS)

2017 **Peer Reviewer**, Social Psychology Quarterly

## Skills

### **QUALITATIVE RESEARCH**

**Preparing and Conducting Interviews** Narrative Analysis Thematic Analysis Participant Observation & Ethnography Creating and Managing Coding Glossaries

### **QUANTITATIVE RESEARCH**

Creating & Administering Questionnaires Social Network Analysis Managing & Analyzing Large Datasets Descriptive & Inferential Statistics

### **SOFTWARE SUITES AND ANALYTICAL TOOLS**

SPSS & R **QSR NVIVO UCINET & Gephi** Microsoft Office Qualtrics

### **LANGUAGES**

Spanish - Native Speaker

July 2017

Webinar

New Port Beach, CA