

absence is felt as they take with them their social capital and their volunteer labor.

The chapter concludes by outlining four themes the authors gleaned from their interviews about why church refugees are done with church: “They wanted community...and got judgment. They wanted to affect the life of the church...and got bureaucracy. They wanted conversation...and got doctrine. They wanted meaningful engagement with the world...and got moral prescription” (p. 28). Chapters two through five are named for those four themes or contradictions and are somewhat repetitive of what is introduced in chapter one. As the chapters beyond the first one expand on these themes a bit, they also feel wordy at times and not essential to gain insight from this book. Chapter one is key.

Chapter six, “Being the Church No One Wants to Leave,” is presumably written to the white American evangelical pastor, as the one who would be able to change the church into one that the church refugees will not want to leave. The chapter details suggestions on how to engage church members on those four themes or contradictions spelled out in chapter one. Chapter seven, “Church for the Dechurched,” opens by returning to the titled metaphor of being a refugee. Refugees leave home to save their lives, but some of the culture and meaning of home goes with them. Likewise, here, the authors describe the church refugees as holding on to their faith in God but purportedly no longer ascribing to a legalistic system of right belief. The book concludes with a reminder once again that the church refugees left church in order “to do more, not less” (p. 137), and therefore, that retaining the donees before they leave church could mean holding on to some people who could be a key outreach tool to the nones, thereby shaping the church’s future.

There is an excellent TRAILS resource that could be used before covering this text in the Sociology of Religion class in order to frame this book as a sociological reading rather than a religious one. Tal Peretz (2015) has created an activity titled “A Cost/Benefit Analysis of Religion’s Effects in Society,” which can help students think sociologically when they might be unclear how to do so with religion. The goals of the activity include helping students to view any religion “as a social construction, a set of institutions, a resource mobilized by social actors, and an instantiation of power” (Peretz 2015). This activity, followed by discussion of *Church Refugees*, could together help graduate and undergraduate students to develop their sociological imagination through a sociology of religion discourse.

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Matthew, J. Salganik

Bit by Bit: Social Research in the Digital Age.

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The social sciences have witnessed a groundswell of interest in things called “data science” and

“computational social science” over the past couple decades. Terminological debate notwithstanding, computational social science is the space between the computational sciences and the social sciences. In other words, computational social science is the use of new computational resources to find, organize, analyze, and communicate findings culled from social data that are difficult to acquire or not available via other means. Computational social science is also the use of these computational resources to find patterns in messy and/or big data that are not as readily communicated through more traditional social scientific methods. Data science is not just empirically rigorous social science by another name—at least not in terms of public perception. Private-sector firms lead the way in much of computational social science (Lazer et al. 2009:721), and data scientists get jobs (Columbus 2018; Davenport and Patil 2012). Clearly, the field of data science, while somewhat loosely defined and its scope conditions constantly debated, is recognized as being new, exciting, and valuable in some capacity, both inside and outside academia. It is no surprise, then, that departments across the social sciences (including sociology) are increasingly interested in teaching data science and institutionalizing it as part of their curricula.

But to which resources does an instructor turn when developing a course in a nascent field, such as computational social science? Enter Matthew J. Salganik’s book *Bit by Bit: Social Research in the Digital Age*. With *Bit by Bit*, Salganik offers what is truly a Swiss Army knife for learning and teaching computational social science. The book is equal parts explanation of what computational social science is, lessons on how to do computational social science, and recommendations for how computational social science should grow as an interdisciplinary field. The book begins with a simple premise—“the digital age creates new opportunities for social research” (p. 2)—and the remainder of the roughly 420 pages is devoted to exploring what some of these new opportunities are and the ethical implications behind them.

The book is arranged in seven chapters. After a general introductory chapter that outlines the book’s contents, the next four chapters are organized into approaches to research design for computational social science: “Observing Behavior,” “Asking Questions,” “Running Experiments,” and “Creating Mass Collaboration.” In chapter 2, Salganik discusses the promises and complications that the digital age has introduced for how we understand and use observational social data. This

chapter sheds light on a fundamental question for many computational social scientists: What are “big data”? According to Salganik, big data constitute large and/or messy collections of information gathered by organizations, firms, and government bodies for nonresearch information, which, with a little “repurposing” and creativity, can be used to answer research questions (p. 14). Salganik outlines 10 common (but not necessarily essential) traits of big data and three strategies for analyzing these data once they have been obtained. Salganik devotes chapter 3 to how the digital age is shaping survey research. For instance, Salganik points out that the rise in digital communication technologies is reintroducing the applicability of nonprobability sampling strategies—what he refers to as “non-probability sampling 2.0” (p. 102)—and is opening new routes for how we ask people survey questions. Surveys, he points out, can now be administered in ways that minimize the risks of respondent fatigue and social desirability bias, as exemplified by ecological momentary assessments (Sugie 2018) and wiki surveys that incorporate respondent-generated questions in real-time (Salganik and Levy 2015). Chapter 4 outlines some of the ways digital environments enable experimental research, showing how, for example, experiments can be facilitated via preexisting web platforms and researcher-created digital environments that maximize control of the experimental conditions. Some of the most exciting material in *Bit by Bit* comes in chapter 5, wherein Salganik explores how the open nature of many digital platforms allows for what he terms “mass collaboration” (p. 231). Thanks to the digital age, hand-coding can now be accomplished at previously unheard-of scales using crowd-sourced classifying tasks; data can be collected faster, easier, and cheaper; and solutions to complex problems can be found through incentivized open calls. As an example of an open call, Salganik recounts the famous “Netflix Prize” (pp. 246–49), where Netflix, wanting to increase the accuracy of its movie recommendation algorithm, released a large review-by-reviewer data set and asked researchers to create and train an algorithm that could predict movie reviews in held-out data at least 10 percent better than Netflix’s system for a cash prize. Finally, Salganik devotes chapter 6 to ethical concerns for digitally enabled social research, such as the role that big data may play in attempts at mass surveillance (pp. 289–90) and the implications of technology evolving at a faster rate than the “rules, laws, and norms” that a society has to regulate it (p. 293).

I was pleasantly surprised by two pedagogical features of *Bit by Bit*. First, while I expected the book to be useful for data science/computational social science courses, I did not anticipate that it would be as ready as it is for classroom use “right out of the box.” For example, each chapter concludes with a “What to Read Next” section, which Salganik uses to point out counterarguments, omitted but important discussions, and readings to guide further inquiry. Perhaps most impressive, Salganik includes an “Activities” section at the end of every chapter (except the introduction and conclusion) for students to get hands-on practice with the ideas and methods in the main text. These activities range in difficulty, and Salganik dutifully points out when an exercise requires math, data collection, or coding. The variety in difficulty, assignment type, and application area across the exercises makes the “Activities” sections quite spectacular. Further, many of the exercises utilize real data to address actual problems in the world. For instance, in an exercise at the end of chapter 2, the student is asked to “replicate and extend” Penney’s (2016) study on mass surveillance and its “chilling effect” on people’s propensity to access Wikipedia entries on topics associated with terrorism (pp. 80–81). The student is given a link to the data and a series of questions that encourage a deeper engagement with the material, including replicating the original paper’s data visualizations and interpreting the output. The wide assortment of well-thought-out activities, recommendations for external reading, and student-friendly prose makes this book a great stand-alone data science course text.

The second feature that surprised me was how well the book could function as a more general introduction to quantitative research design—specifically on surveys, quasiexperiments, and experiments. Salganik makes few assumptions about readers’ backgrounds and skill sets, and he endeavors to give conceptual primers on everything ranging from probability sampling, total survey error, and interviewer effects to poststratification, the SUTVA (stable unit treatment value assumption), and matching. In this sense, *Bit by Bit* is not simply a book on computational social science (though it does that very well); rather, it is an assessment of the ways in which digital innovation is simultaneously opening the realms of possibility for social research and raising important questions about privacy, security, and safety. In hindsight, it should be clear that Salganik had this more ambitious goal in mind for the book; after all, the book’s

subtitle is not “A Guidebook for Computational Social Science” but instead “Social Research in the Digital Age.” Instructors teaching graduate-level research methods seminars may therefore find this book useful as a methods book—one that is updated to take account of the promises and pitfalls afforded by advancements in digital technology for how we go about collecting, analyzing, sharing, and storing data.

The book is most readily cast as a graduate-level text. However, the material is presented in down-to-earth prose, and mathematical details are pushed back into end-of-chapter notes. These two features give the book lots of potential for undergraduate use. I, for one, intend to use this book in my undergraduate data science–related courses and supplement it with some simpler coding exercises. For example, in the document classification lesson of my undergraduate text analysis course, I plan to have the students read the “Counting Things” section of chapter 2—focusing specifically on Salganik’s discussion of King, Pan, and Roberts’s (2013) strategy of using supervised learning methods to “scale up” document coding—and then pair that with my in-class exercise where we build a simple naive Bayes classifier to identify positive and negative product reviews on Amazon (McAuley and Leskovec 2013). Salganik’s engaging and casual writing style, when paired with a simple classification exercise, should motivate undergraduate students to realize the real-world benefit of having machine learning experience in their professional tool kit. Furthermore, I already assign the ethics chapter in my computational text analysis and introductory sociology courses. This book has been a long time coming for computational social science, and it should prove invaluable as social science departments begin instituting data science classes as part of their course catalogs.

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Jean Beaman

Citizen Outsider: Children of North African Immigrants in France. Oakland: University of California Press, 2017. 168 pp. \$34.95. ISBN-9780520294264.

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The study of the sociology of race and immigration has gained a new meaning within a global context. Given that ethnic diversity and issues such as immigrant accommodation are not exclusive to the United States (Marger 2000), the need to expand race and immigration theories outside the U.S. context is especially important. *Citizen Outsider: Children of North African Immigrants in France* contributes to this expansion through the utilization of ethnographic research conducted from 2008 to 2009 in Paris, France. By utilizing a cultural citizenship framework, Dr. Jean Beaman highlights the experiences of a predominantly middle-class, Maghrebin second generation. Past research pertaining to second-generation immigrants has often analyzed employment and educational attainment as markers for immigrant incorporation and assimilation (Carter 2005; Patillo 2007; Portes and Rumbaut 2001). Focusing on the experience of this

North African immigrant community under the cultural citizenship framework allows the author to describe its experiences within France, while also showing how immigrant groups can be labeled as being members of a society while remaining on its fringes. Those that fit this position, and the name-sake for the book, are defined as being “citizen outsiders” (Cohen 2010; Dubois [1903] 1994; Lorde 2007). Beaman’s work also demonstrates how utilizing traditional sociological lenses of assimilation and immigrant integration are not sufficient when studying the experiences of the second generation.

This book consists of five chapters in addition to the preface, acknowledgment, conclusion, and methodology section. Within the book, the author seeks to address several key points. First, the author asks how ethnic minorities resist and navigate implicitly race-based definitions of French identity. Second, the work shows how the legacy of the French empire on self-identification can impact the second generation. It also seeks to understand the sociopolitical realities of the group, how it may (or may not) remain on the fringes of society, and what these different realities can tell us about race and ethnicity in France. Finally, as this book is predominantly interested in upwardly mobile, middle-class Maghreb-origin members, it seeks to understand how this group perceives its prospects and possibilities for participating in mainstream French society (p. 3).

The book begins with a preface on why the researcher chose Paris, France, as her site of study and discusses her previous experiences within the city as an American of color. In particular, the author highlights the struggle of being one of the few African Americans in her group and coming into contact with French-influenced stereotypes, images, and speech acts. Beaman discusses how her fascination with Paris would extend well through graduate school as she began to apply her sociological imagination to her own experiences as well as within the context of the Maghrébin immigrant community. Through her ethnographic work, the author hopes to show how race and ethnicity separate and label individuals within France as well as the United States.

Chapter 1, titled “North African Origins in and of the French Republic,” opens with an introduction of one of the interviewees. It describes his childhood and growing into adulthood. In doing so, the author shows how he has a disconnect between being born a French citizen and how he is perceived within French society. Using his story as a launch point, the author addresses her primary