Editorial: the golden age of consumer research

James Christopher Westland¹

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Twentieth century retail innovator John Wanamaker lamented that “Half the money I spend on advertising is wasted; the trouble is I don’t know which half.” This all changed radically in the opening years of the twenty first century when search giant Google applied Garfield’s [1] bibliometric tools to advertising. Google takes cues from keywords input to its core search engine, and translates these to deliver relevant ads to consumers. Facebook has extended this model, taking cues from friendship and posting networks, political views, interests, and numerous other measures of a consumer’s social life, translating these into relevant ad placements. Together these two internet giants control 40 % of the \$150 billion internet advertising market, with additional share controlled by internet retailers Alibaba and Amazon. Internet retailers waste very little money, and when they do, they know about it quickly.

Massive dollar flows in e-commerce have ushered in a golden age of consumer research, making available nearly limitless volumes of data on consumer interests, personalities, demographics, intentions and purchase actions all funneled through our favorite internet browsers. Machine learning, statistical analysis and graph theory have reached an unprecedented level of integration in R, Mathematica and other tools, and can reliably compute demand curves, elasticities, surpluses and other mathematical depictions of consumer behavior. Google, Facebook, Amazon and other internet firms make it a priority to share marketing data with users and researchers, offering APIs, code bases, and state-of-the-art analysis tools.

The wealth of new data and tools being freely distributed to researchers should have encouraged an explosion of innovation in consumer research. So far, academe

✉ James Christopher Westland
westland@uic.edu

¹ University of Illinois-Chicago, Chicago, IL, USA

has been slow to profit from the abundance. The majority of consumer sentiment research submitted to ECR still invokes old fashioned questionnaire approaches to polling consumers. Likert [2] created the categorical response questionnaire when few alternatives were available, before the time of computers, data communications and econometrics. It has proved an invaluable tool for researching politics, opinions and demographics as long as strict protocols are applied to assure consistency and validity of responses. In awkward contrast to the “electronic” in e-commerce, questionnaire research favors pencil and paper methods and abstract perceptions over concrete actions like purchases. Stylistic conventions in questionnaire research often give too little attention to whether data actually reflects underlying sentiment, and the resulting mismeasurements of vaguely defined “perceptions” in contrived “theory” frameworks may be exacerbated with old-fashioned path analysis software [3]. These methods were accepted before wide-spread digitization, and indeed have a current role in special circumstances such as political polling. But in consumer research they cannot compete with more immediate, accurate and reliable methods analyzing an unprecedented wealth of tangible real-time data.

The good news is the emergence of an industry of “big data” researchers, often outside of academe, that assesses consumer behavior for commercial gain. They are creating an ecosystem of commercial analysis fueled by internet data—purchases, healthcare and medicine, interests, recommendations and so forth—made available through the rise of e-commerce. Search engine marketing jobs alone contribute almost \$30 billion a year in salaries in the US. Interest will be spurred by increased market-orientation of regulated industries like healthcare. Consumer analysis ecosystems now fund some of our best mathematicians, account and campaign managers, copywriters and research labs that turn consumer ratings into salable products. Their marketing role models are Nate Silver rather than Don Draper; they crunch numbers in secret to discover how their company’s searches, ad placements, recommendations and other data will help them gain an edge over competitors. Importantly, these same corporate marketing analysts are paving the way for academic researchers, whose goals will contrast with theirs. Expect academic studies to be global, social, political, economic and psychological, all the while making findings quickly available to the public, circulated in journals such as ECR.

When will we begin seeing the fruits of the internet marketing revolution in academe? It all starts with contributions to journals such as ECR. My active goal over the coming year is to find like-minded researchers interested in managing special issues, conferences and other venues that can stimulate research with e-commerce datasets. ECR is soliciting and will fast-track innovative research applying machine learning, statistical analysis and graph theory applications to search and transaction data from Google, Facebook, Amazon, online discussions, social media, job boards, music services, Instagram, and the list goes on. This is the new soul of e-commerce research, and ECR is determined to remain at the center of these exciting developments.

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