

Listening In: Building a Profile of Podcast Users and Analyzing Their Political Participation

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ABSTRACT. Past research has shown that Internet use for news leads to increased political participation levels, both offline and online. Other forms of digital and user-generated media such as blogs have also yielded similar results. However, little is known about podcast users and their role within democratic societies. This article outlines findings from an online survey conducted in the United States that lend support to the notion that podcast use for news leads to political participation, even when controlling for the effects of other media forms. This article also identifies demographic predictors for those who are likely to be podcast users.

KEYWORDS. Demographic predictors, offline, online, podcast, podcast users, political participation, United States

A Google search on September 24, 2004, for the word “podcast” yielded a mere 24 hits (Green, 2004). Almost seven years later, a similar Google search for the term yields 315 million hits (author search, September 24, 2011). Originally known as “audioblogs” (Berry, 2006), the term “podcast” entered the popular lexicon after news reports from mainstream

media such as *The New York Times* (Farivar, 2004), *The Philadelphia Inquirer* (Rubin, 2004), and *Business Week* (Green, 2004) stated that early adopters of the iPod, a portable mp3 player introduced by Apple in 2001, were the majority users of podcasts (Apple, 2001). For a few years after, a myth prevailed that an iPod was necessary to listen to podcasts, when all that

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was needed was a computer with Internet access (Fose & Mehl, 2007).

Podcasts are essentially digital files containing audio and or video content that allow consumers to “timeshift and place-shift their listening and viewing habits through the downloading of content onto a personal computer or a portable media player for immediate or future viewing” (Haygood, 2007, p. 518). Previous definitions for podcasts have focused on aspects related to their on-demand quality (Howe, 2004) or their episodic feed capability (Reynolds, 2006), much to the detriment of manual downloads.

The operationalization of the term podcast for this study is consistent with that offered by Gil de Zúñiga, Veenstra, Vraga, and Shah (2010), who defined a “podcast” as “a digital audio or video file that is episodic, automatic or manually downloadable, program-driven, and conveniently accessible, usually via an automated feed, such as Really Simple Syndication (RSS) feed” (p. 47). The idea of subscription is central to a podcast; it allows users to receive the information they have chosen for themselves—underlining the focal element of consumer control (Haygood, 2007)—without their having to actively seek it. Once they have subscribed to a podcast, the file automatically gets downloaded to their computer, mp3 player, or any other device, from where they can easily access it.

The diffusion of podcasting has had a unique trajectory, and while its use in American and other international academic settings has been studied (Dupagne, Millette, & Grinfeder, 2009; Huntsberger & Stavitsky, 2006; Parson, Reddy, Wood, & Senior, 2009; Ragusa, Chan, & Crampton, 2009), there is little information available on the use of podcasts by the general population, the kind of podcasts people like listening to, their motivations for listening to them, and the effects of engagement with a fairly individualistic technology on their political participation in a democratic setting.

Researchers have not paid too much attention to podcasts and what they mean for media studies. However, as they evolve from being a novelty to a more important part of mainstream digital media with a growing audience, it becomes increasingly appealing to study the

societal significance of podcasts and the effects they have on the people who use them. In this study, we tried to find out who listens to podcasts by administering an online survey to a national sample of the American population, not restricted to students in an academic institution. Through statistical regressions, we questioned if listening to podcasts would predict an individual’s political participation. We found that, indeed, podcast use is a strong predictor of political participation online as well as offline, after controlling for media use (for news) and political partisanship. This is explained in greater detail in the Methodology section of this article.

Studying podcast use at a more generalizable level becomes relevant, given that media companies such as National Public Radio (NPR) and the British Broadcasting Corporation (BBC) have increased the number of their program offerings in podcast form. Also, the number of Americans who access the Internet through wireless devices such as mobile phones, computer notebooks, and netbooks has increased from previous years (Smith, 2010). By their very structure, podcasts transcend spatial and temporal constraints, making it easy for people to listen to or view them whenever and wherever convenient, thus making it plausible that podcasts as a medium may also increase in popularity.

Therefore, we concluded it was important to get a demographic snapshot of the people who listen to podcasts and what their engagement with this medium means for their level of political participation. That media use is a necessary conduit to citizen engagement in political activities has been largely accounted for in the literature (see Bachmann, Kaufhold, Lewis, & Gil de Zúñiga, 2010; Berelson, Lazarsfeld, & McPhee, 1986; Shah, Kwak, & Holbert, 2001). Nevertheless, according to our knowledge, an individual’s news consumption via podcasts and its effect on the user’s political participation have not been empirically assessed prior to this study. Therefore the goal of this study is twofold: (a) to learn more about the composition of American podcast listeners and their demographic characteristics, as well as demographic predictors of podcast use; and (b) to test whether or not the consumption of news through

this medium provides a net gain on people's level of political engagement beyond the effect of consuming news via other venues.

LITERATURE REVIEW

What Do We Know about Podcast Categories and Audiences?

Early literature on podcasts focused either on the novelty aspects (Farivar, 2004; Green, 2004; Rubin, 2004) and/or on the "how to" or technical part of podcasts, informing people on ways to join the world of podcasting (Battino, 2005; Geoghegan & Hlass, 2005). Some of the earliest surveys of a podcast audience were unscientific but still attempted to provide first audience snapshots. A non-random Web poll by the online magazine TNCNewMedia.com in October 2005 showed that a majority (79%) of the podcast users was male, their average age was between 28 and 40 years, and their average annual household income was \$81,100 (T. Bourquin, personal communication, October 25, 2005). Soon after, a radio station (WTMD) in Baltimore conducted a phone poll on podcast use among its radio listeners in November 2005. The station reported that its audience members did not listen to many podcasts, and if they subscribed to five podcasts or more, they were less likely to actually listen to them all (Hill, 2005).

One of the earliest scientific studies on podcast use by audiences at a national level was a survey of iTunes users by digital measurement company comScore in October 2006 (comScore, 2007). The survey revealed that men represented a larger share of the iTunes podcast audience than women, at a rate of almost two-to-one, compared to the male/female ratio of all Internet users that was almost equal. Results declared by the company also stated that the iTunes podcast audience was younger, about 70% under the age of 45, well educated, and belonged to the middle-class or higher income bracket. Following this research, few additional studies on podcast audiences have been published to date.

Two audience surveys of specific podcast programs were conducted in 2007, one of

which was carried out by the weekly half-hour podcast titled *Astronomy Cast*. The program's researchers found almost similar results as the comScore (2007) survey, and concluded that their audience was highly educated, economically stable, heavily male, and surrounded by technology on a daily basis (Gay, Bemrose-Fetter, Bracey, & Cain, 2007). However, its audience research was specific to the program, and the results could not be generalized to all podcast users. In 2007, the weekly National Public Radio program *Latino USA* carried out a survey that compared the demographics of its podcast audience with its traditional radio audience. The results revealed significant demographic differences between the two audiences despite their having the same content available in both radio and podcast forms. Compared with the radio audiences of *Latino USA*, podcast users were significantly more ethnic (48% "Latino" for the podcast versus 72% "White" for the radio show), younger (70% under the age of 45 for the podcast and 70% aged 45 and older for the radio show), highly educated (47% of the podcast audience had at least a master's degree), and more male than female by a ratio of nearly two-to-one (Avila, 2009). Again, the results were specific to the program's audience.

In May 2008, the Pew Internet & American Life Project conducted a national survey related to online media use. Its data revealed that audiences who primarily listened to podcasts via personal computers surpassed those who heard them on their iPods (Madden & Jones, 2008). This survey also stated that 19% of all Internet users had downloaded a podcast for listening at a later time, probably offline. Among those users, only 17% downloaded podcasts on a daily basis. The survey reported that online, men were more likely than women to have downloaded a podcast (22% compared to 16%), but both were equally likely to listen to podcasts daily (3% for both). In 2006, podcast usage was almost evenly spread out among the age groups except for those 65 years and older. In 2008, not only had podcast use increased among young people, but also those with higher education and income levels (Madden & Jones, 2008).

In its annual report on the state of American journalism in 2009, the Pew

Project for Excellence in Journalism looked at 48,903 podcast programs tracked by pod-castalley.com in December 2008 to categorize the types of podcasts audiences downloaded. In the survey, “Music” podcasts were the most popular category, comprising 16.4% of all podcast program themes and downloads, followed by “Technology” at 8.7%, “Comedy” at 6.9%, and “Video” at 2.38%. “News” and “Politics” combined came in last, at a mere 2.1%. More than 33% of the podcast programs were categorized as “General,” and another 30.5% were coded as “Other” categories. These numbers are interesting, but they do not tell us much about the kinds of people who listen to these podcasts, or specifically, who listens to what kinds of podcasts.

Building on this existing research, we sought to provide a demographic sketch of podcast listeners at a broader level—podcast use in general and not faithful listenership of a particular podcast—as well as the demographic variables that would be significant predictors of podcast use. Bearing this in mind, we proposed our research question:

RQ1: What is a typical demographic snapshot of a podcast listener, and which of these variables is significant predictors of podcast use?

Podcast Use and Political Participation

Political participation has been previously construed as including not only voting and other forms of electoral activity such as working in campaigns and making financial contributions, but also contacting public officials, attending protests, and getting involved either formally or informally on local issues (Brady, Verba, & Schlozman, 1995). This conceptualization has been expanded since the development of new technologies such as the Internet and other alternate channels that have allowed people to express themselves and feel empowered, thus spawning an explosion of grassroots participation (Gil de Zúñiga et al., 2010). People participate in a democratic system to choose not only the country’s leaders but also protect their interests and themselves from the elected

leaders’ subjective decisions (Pateman, 1970). The achievement of this practice is wherein the “justification for the democratic method lies” (Pateman, 1970, p. 14). This is not possible if people do not actively participate in the democratic processes of their country.

Social theorists have expressed concern that the Internet and other electronic media encourage individualistic engagement and consumption—people are protecting themselves and their own interests—at the cost of public participation and are leading to a decrease in social capital or people’s engagement with each other (Putnam, 2000). This could have serious consequences for a democratic nation if its citizens’ engagement with new technologies, specifically online, translates into political disengagement, often expressed in the form of low voter turnout, lesser trust in government, and less involvement in political and civic activities (Wilkins, 2000).

Diffusion of these new technologies has not been uniform either, causing concern among social scientists regarding the effects of the digital divide—understood as the phenomenon that “might exacerbate inequality rather than ameliorate it” between those who have Internet access and those who do not (DiMaggio, Hargittai, Celeste, & Shafer, 2004, p. 359). Moving beyond the issue of access, researchers exploring the digital divide have found that differences in manners of access and use of online resources also perpetuate digital inequity (Hargittai & Walejko, 2008). Political scientists have worried that while some aspects of this divide may be narrowing with decreasing costs of technology, making it more affordable, it still mirrors the race and social economic status (SES) division prevalent in political participation in general (Jensen, Danziger, & Venkatesh, 2007). Indeed, Zillien and Hargittai (2009) found that users belonging to high economic status were reaping the benefits of their time spent online compared to those users who belonged to lower socioeconomic groups. The authors noted that people’s adoption of technologies in their daily lives does not happen independently of their existing circumstantial constraints or advantages, and therefore, status-based differences in Web usage are not likely to go away anytime soon.

Not all news is bleak though; communication researchers studying the relationships between technology and political engagement found that contrary to reducing involvement, the Internet and various other online resources have opened new roadways to political participation, especially for those who may have found it difficult to do so via traditional, offline methods (Gil de Zúñiga et al., 2010). The Pew Internet & American Life Project also reported that contrary to fears that use of the Internet and personal mobile devices leads to increased social isolation among people, these devices actually help them remain connected with each other, leading to forms of social engagement that sociologists failed to predict (Hampton, Sessions, Ja Her, & Rainie, 2009). A meta-analysis of online communication supports the assertion that increased Internet use in general is linked to increased social and political engagement (Boulianne, 2009). Specifically, such research has focused on blogs (Gil de Zúñiga, 2009), social network sites (Valenzuela, Park, & Kee, 2009), cell phones, and text messaging tools (Rettie, 2008). Given the newness of podcasts, no such examination has been conducted for this particular medium so far; does this medium encourage individual engagement at the cost of public engagement in political processes, or does it help enhance the latter?

Despite proof that the Internet and new technologies associated with it do not necessarily get rid of the socioeconomic divisions and possibly perpetuate them, they have opened new avenues of involvement for people in political and civic activities (Anduiza, Cantijoch, & Gallego, 2009). Therefore, it becomes important to test the relationship between new technologies and political participation; even the promise of a positive relationship between the two is likely to help and strengthen a democracy, and social scientists must be aware of it.

Media Use as a Predictor for Political Participation

The association between media use and political participation has been scrutinized for over

six decades now (Lazarsfeld, 1957; Lipset, Lazarsfeld, Barton, & Linz, 1954). Generally, sound evidence has been presented stressing the positive relation between citizens' news media consumption and their (increased) political and civic commitment (Berelson et al., 1986). More recently, scholars have presented evidence that supports this association in the digital era of the Internet (for a more detailed summary see Rojas et al., 2005; Shah et al., 2001). This also seems to be the case with newer and more interactive modes of digital communication. Research indicates that social networking sites such as Facebook help foster increased political participation, inasmuch that online political groups foster the same engagement functions that offline political groups perform (Feezell, Conroy, & Guerrero, 2009).

As a media form, podcasts are mostly compared to blogs (Berry, 2006). Much of the academic work within the blogosphere seeks to link blog audiences and producers with political engagement and participation. A study of the secondary effects of the Internet on the community found that blogging activity increases the political engagement of those who previously identified themselves as politically passive (Kavanaugh, Kim, Pérez-Quiñones, Schmitz, & Isenhour, 2008). In fact, using Pew Internet & American Project data, scholars have found that using blogs also reinvigorated the political realm, yielding increased political participation (Gil de Zúñiga, Puig-I-Abril, & Rojas, 2009). Thus a growing body of studies has shown links between increased use of blogs and political participation (Gil de Zúñiga, 2009; Gil de Zúñiga et al., 2009; Latimer, 2009; Zhou, 2009). Generally, face-to-face or offline political participation tends to predict online political participation, and predictive relationships exist between online and offline political participation and the use of blogs (Gil de Zúñiga et al., 2009). Research also indicates that as audiences use more media for information, their political participation increases in measurable ways (Norris, 2005).

To reiterate, increased media use, especially new media, has allowed for new channels of political engagement that complement offline

political participation to the extent that there are more avenues open to an already active individual. At the same time, online media news consumption may encourage new forms of participation, and the effects of online news or media use, which is on the rise, may replace those of traditional news media (Gil de Zúñiga et al., 2010). This is especially applicable for those who prefer the former to the latter and may not have participated or engaged in political or civic activities had it not been for new forms of communication. Therefore, in this article, online and offline political participation are treated as different variables, based on the rationale offered by the authors who advocate for a clearer distinction between offline and online political participation. In the established relationship between increased new media use and new, electronic methods of political engagement, the connection, if any, between podcast media consumption and politics remains largely unexplored.

The Pew Internet Life Survey states that 85% of American adults use the internet. About 21% of American adults said they have downloaded a podcast so that they can listen to it or view it later (Pew Internet & American Life Project, 2012). Despite the increasing number of podcast users as well as the use of podcasts as an educational tool, previous research has rarely looked at a more general sample of this group. Earlier findings indicate that podcast listeners are young, highly educated, and financially well off. But does that hold true for the podcast user population even now? This lack of podcast knowledge has led to a need for audience information—on a national scale—and how their use of this medium affects their political engagement. Based on the premise of the previously found relationship between media use and political participation, and in an attempt to extend this relationship to podcasts, we proposed the following two hypotheses:

- H1: Podcast use for news will predict political participation online.
- H2: Podcast use for news will predict political participation offline.

METHODOLOGY

Data

To test the hypotheses and examine the research question, an online survey was conducted among U.S. adults from across the country shortly after the 2008 presidential election.¹ The survey instrument was administered using Qualtrics, a Web survey software program, and was pilot-tested before actual fieldwork. Respondents for the survey were selected from among those who registered to participate in an online panel administered by the Media Research Lab at the University of Texas at Austin. To overcome some of the limitations of using small, convenient samples such as college students, the Media Research Lab based this national sample on two U.S. Census variables, gender (50.2% male, 49.8% female) and age (30% 18–34, 39% 35–54, 31% 55 or more).²

After matching a 10,000 random draw to these demographic characteristics, panel participants received the survey's URL through an e-mail invitation, which provided a time estimate to complete the survey and information about a monetary incentive for their participation. The first invitation was sent December 15, 2008, and three reminders were submitted in the following three weeks to improve response rates. A concluding reminder was sent January 5, 2009. A total of 1,432 e-mail addresses were invalid. Of the remaining 8,568 participants, 1,482 respondents answered the survey, 323 of which had missing values. After excluding these cases, the final N used for the analysis was 1,159.

Based on the American Association of Public Opinion Research's (AAPOR) RR3 calculation, the response rate was 17.3% (AAPOR, 2008, pp. 34–35).³ This relatively low response rate was within the acceptable range for panel Web-based surveys, and the article response rate stands among other academic research studies (Göriz, Reinhold, & Batinic, 2002; Sax, Gilmartin, & Bryant, 2003), and is also similar to those reported by the Pew Research Center and its Internet & American Life Project and other organizations that employ random digit dialing (Pew Internet & American Life Project,

2009). Compared to U.S. Census data, our sample was slightly better educated, included more females and White respondents compared to other gender and race groups. However, there was no evidence that our sample was skewed in regard to political participation; turnout levels were similar to those reported by the Pew Internet & American Life Project 2008 post-election survey—the most comparable to our study because it was conducted at roughly the same time. (See the Appendix.)

Measures

Nonparametric correlations were used to attain a descriptive outline of the kinds of people who use podcasts. Logistic regressions—a method of multiple regression in which the predictors are entered in a specific order—were used to analyze the demographic factors that would predict the profile of a potential podcast user. Ordinary least squares (OLS) regressions were used to analyze the relationship between podcast users and their online and offline political participation.

Control Variables

The analyses controlled for the five demographic variables: age, education, gender, income, and race. For the purpose of the regression and OLS, two additional variables, media use and strength of partisanship, were included as controls, since previous research has shown that they affect political participation.

Demographics included the respondents' age (measured with a five-group scale; median group: 40–49), education level (measured with an eight-point scale: less than high school, high school, some college, two-year college degree, four-year college degree, master's, doctoral, professional JD/MD; median group: two-year college degree), gender (33% male, 67% female); income (measured on a 15-point scale; median group: \$50,000–\$59, 999); and race/ethnicity (84.4% White, 15.6% non-White).

Media use (for news) was computed as an additive scale of eight items that measured how often participants used different online and offline media on a seven-point scale (cable TV news, network TV news, local TV news,

radio news, online newspaper, offline print paper, online magazine, offline print magazine; $\alpha = .70$, $M = 31.35$, $SD = 8.78$). Strength of partisanship was measured by asking respondents to rate their party identification using an 11-point scale ranging from strong Republican (8.7% of respondents) to strong Democrat (13.2% of respondents). This item was folded into a six-point scale, ranging from weak partisanship to strong partisanship ($M = 3.31$, $SD = 1.79$).

Dependent and Independent Variables

Podcast use was computed as a dummy-coded variable from a question asking participants if they used podcasts (1 = yes, 0 = no; $M = .12$, $SD = .32$; 11.6% of the respondents were podcast users). Online political participation was computed by adding the scores of seven items that measured on a 10-point scale how often respondents had indulged in different political activities (e-mail to a politician, make a campaign contribution, subscribe to a political listserv, sign up to volunteer for a campaign, e-mail a political message, post comments on a political blog, write an e-mail to a news organization; $\alpha = .89$, $M = 15.02$, $SD = 11.65$).

Offline political participation was an additive scale of seven items that asked respondents whether they had engaged in specific political activities during the past year (1 = yes, 0 = no; called or sent a letter to an elected official; spoken to a public official; attended a political rally; participated in any demonstration or protest; posted a political sign, banner, button, or bumper sticker; voted in the 2008 election; wrote a letter to a news organization; $\alpha = .72$, $M = 2.23$, $SD = 1.75$).

RESULTS

The findings for RQ1, as shown in Table 1, reveal that most of the respondents who said they used podcasts were aged between 30–39 years and, interestingly, between 50–59 years, a group that has not come up as major podcast users in previous research. Most of them were highly educated, with 35.7%

TABLE 1. Podcast Users and Their Preferences

	Podcast users (N = 115)	Podcast type					
		Politics (N = 39)	Sports (N = 17)	Entertainment (N = 59)	News (N = 40)	Education (N = 39)	Other (N = 42)
Age							
19–29	9.6	12.8	17.6	10.2	2.5	7.7	4.8
30–39	27.8	15.4	17.6	35.6	32.5	25.6	21.4
40–49	20.9	20.5	23.5	20.3	20.0	23.1	21.4
50–59	27.8	28.2	17.6	15.3	27.5	30.8	47.6
60–69	13.9	23.1	23.5	18.6	17.5	12.8	4.8
Education							
High school/GED	8.7	15.4	5.9	6.8	12.5	5.1	11.9
Some college	20.9	12.8	29.4	16.9	22.5	12.8	31.0
2-year college degree	7.8	15.4	5.9	8.5	15.0	7.7	7.1
4-year college degree	35.7	35.9	41.2	41.7	25.0	30.8	31.0
Post graduate degree	26.9	20.5	17.6	27.1	25.0	43.6	19.1
Gender							
Female	57.4	57.4	35.3	55.9	65.0	65.0	64.3
Male	42.6	43.6	64.7	44.1	35.0	43.6	35.7
Income							
Below 39,999	20.8	25.7	29.4	17.0	25.0	23.1	21.4
40,000–69,999	25.1	20.5	17.7	23.8	20.0	28.3	38.1
70,000–109,999	36.4	36.0	23.5	40.8	40.0	28.3	31.0
110,000 and up	17.4	18	29.4	18.7	15.0	20.5	9.5
Race							
White	72.2	66.7	82.4	72.9	70.0	69.2	73.8
Non-White	27.8	33.3	17.6	27.1	30.0	30.8	26.2

Note. N = 115.

*Percentages maybe more than 100 due to rounding of decimals.

of them having at least a four-year college degree, and belonged to the high-income bracket. More than half of them had an annual income of \$70,000 or more. College-educated individuals with high salaries are more likely to use new technologies compared to those who do not fall into these categories. More females than males said “yes” when asked if they downloaded podcasts (57.4%), and in response to the question related to podcast use, more Whites (72.2%) than non-Whites said yes for using them. These two results can be explained by the fact that our sample is skewed toward females and Whites, as explained in our methodology.

Podcast users were asked about the kinds of podcasts they listened to and their options were politics, news, entertainment, sports, education, and other. Results indicate that those who listened to political podcasts tended to be of older age, 50 years and above. More than half of the respondents who listened to sports podcasts were male, and in keeping with previous research, those belonging to the

high-income bracket comprised almost half of the total number of podcast users. Another result in keeping with previous research findings was that the young folks were not interested in listening to news-related podcasts. Only 2.5% of the respondents aged between 19 and 29 years responded “yes” to listening to them. A Pearson’s correlation test between media use (for news) and podcast use showed a significant positive correlation ($r = .116$) at the .01 level (two-tailed).

A logistic binary regression with demographics, as shown in Table 2, revealed that three variables were significant predictors of podcast use, namely gender ($B = -.424$, $p < .05$), race ($B = -.794$, $p < .001$), and income ($B = .058$, $p < .05$). These findings show that individuals who are male, non-White, and belong to the higher income bracket are most likely to use podcasts. Of the other variables, education was the only one that approached statistical significance at $p < .05$ level ($B = .124$).

H1 and H2 were supported, as shown in Table 3.

TABLE 2. Logistic Regression: Demographics (Predictors) and Podcast Users

Demographics	B	s.e.	Wald	Exp(B)
Gender (female)	-.424*	.209	4.131	.65
Race (white)	-.794***	.236	11.350	.45
Age	-.046	.030	2.289	.96
Education	.124	.072	3.016	1.13
Income	.058*	.027	4.699	1.06
Nagelkerke's R2	.072***			

Note. Cell entries are B coefficients (unstandardized), standard error, Wald χ^2 , and odds ratio. N = 958.

* $p < .05$. ** $p < .01$. *** $p < .001$.

TABLE 3. OLS Predicting Political Participation

	Online political participation	Offline political participation
Demographics		
Age	.027	.080**
Education	.121***	.258***
Gender (female)	.027	.040
Income	-.088**	.056
Ethnicity (White)	.021	.058
R ²	2.5%***	11%***
Media use and partisanship		
Media use	.308***	.205***
Partisanship	.119***	.051
R ² change	12.6%***	5.1%***
Podcast use		
Podcast use	.169***	.121***
R ² change	2.7%***	1.4%***
Total R ²	17.8%***	17.5%***

Note. Cell entries are standardized beta coefficients. N = 957.

* $p < .05$. ** $p < .01$. *** $p < .001$.

OLS was used to predict online and offline political participation with control demographic variables in the first block, two additional controls—media use and strength of partisanship—included in the second block, and the podcast use variable in the third block.

The first model included demographic variables and explained 2.5% variance of online political participation, media use and strength of partisanship variables accounted for another 12.6% of the variance, and podcast use accounted for 2.7% of additional variance, all three significant at the $p < .001$ level. In

addition, respondents who were highly educated ($\beta = .121$, $p < .001$), used media extensively ($\beta = .308$, $p < .001$), and identified as Democratic ($\beta = .119$, $p < .001$) were more likely to engage in activities such as e-mail campaigns, social network activism, online donations, Web site promotion, and blogging. These results imply that podcast users are more likely to engage in online political participation ($\beta = .169$, $p < .001$).

Also, people belonging to low-income brackets were more likely to engage in online political participation as compared to those belonging to high-income brackets ($\beta = -.088$, $p < .01$). The reason for this could be the low costs associated with online participation. For instance, people do not have to spend money on gas to travel to political rallies, on stamps to mail the local government officials, and other similar expenses.

The second model looked at the variables that would predict offline political participation. It was similar to the model that analyzed online political participation, with demographic variables in the first block, media use and strength of partisanship in the second block, and podcast use in the third block. The total variance of this model was 17.5%, significant at the $p < .001$ level.

As hypothesized, podcast use ($\beta = .121$, $p < .001$) was a positive significant predictor of offline political participation, even after controlling for demographics, media use, and strength of partisanship. This suggests that podcast users are more likely than non-users to participate in offline political activities such as voting, attending political events, participating in campaigns, and donating to civic issues. This finding opens avenues for examination of the influence of new media, given that previous research showed that the use of new technologies does not necessarily increase offline participation (e.g., Gil de Zúñiga et al., 2010). In this study, it does.

The demographic variables that showed up as significant predictors in the OLS analysis for offline political participation were age ($\beta = .080$, $p < .01$) and education ($\beta = .258$, $p < .001$). Income, with a beta coefficient of .056, did not reach the .05 p level of significance. Among older people, those who were

highly educated were more likely to engage in offline political activities. The other significant positive predictor of offline political participation was media use ($\beta = .205, p < .001$). The remaining variables, namely ethnicity ($\beta = .058$), income ($\beta = .056$), and gender ($\beta = .040$), did not yield statistically significant results.

In conclusion, our findings show that race, gender, and income are strong demographic predictors of podcast use (see Table 2). If you are male, non-White, and earn a lot of money, you are more likely to use podcasts. Even though podcasts are easily available and convenient to use, they are still accessible via the Internet and do not work toward helping to bridge the digital divide that exists among users and non-users of computers or, for that matter, those who know how to use the Internet and those who do not. However, the finding that more minorities are likely to use podcasts is encouraging and an indication that this technology has the potential to be inclusive.

The podcast use variable was a significant predictor of an individual's online and offline political participation. The results, as shown in Table 3, indicate that even after controlling for two strong predictors of political participation, namely media use and strength of partisanship, there is a positive relationship between podcast use and political participation. Simply put, a podcast user is likely to participate in political activities—online and offline—that are important for a functioning democracy.

Podcast users who are highly educated, use media extensively, and are of Democratic leaning are more likely to engage in online political activities. Podcast users are also more likely than non-users to participate in offline political activities such as voting, attending political events, participating in campaigns, and donating to civic issues.

The demographic variable that showed up as a significant predictor for both online and offline political participation was age. Education and income were significant predictors in the case of online political participation, whereas age was significant predictor in offline political participation. Among older people, those who were highly educated as well as those who belonged to the high-income bracket were

more likely to engage in offline political activities. This is in keeping with previous political science research (Brady et al., 1995; Delli Carpini, 2000). Other significant positive predictors were media use and strength of partisanship. Overall, these results imply that using podcast technology—a fairly individualistic activity—does not adversely affect a person's political activity that involves engagement with political leaders and other members of society, but, in fact, significantly predicts it.

DISCUSSION

What are the demographic characteristics of the people who use podcasts in the United States? What kind of podcasts do they listen to? And finally, perhaps more importantly, what are the effects of podcast use on the American democratic process? This article intended to shed some light on these questions, and it did so based on national U.S. data. It therefore provides generalizability related to those who use podcasts and how they use this particular medium.

The study found that gender is a significant predictor of podcast use; males are more likely to subscribe to podcasts than females. This is consistent with diffusion of new technologies' findings, where usually men are more inclined to acquire and try new technology in comparison to women. Also, the higher the income bracket a respondent belonged to, the more likely he or she was to use podcasts. But more revealing is the fact that a minority group member is more likely to use this technology than a White individual, offering a possibility for democratizing information and creating an inclusive media ecology.

Additionally, another unique contribution of this study lies in establishing an empirical relationship between podcast use and political participation, both online and offline. This relationship remains constant, even when controlling for the effect of other media consumption on participatory behaviors. That is, the positive effect of podcast use on the political realm goes beyond the relationship that other media use may also have with respect to citizens' political participation levels.

Increased new media use has allowed new channels of political engagement to flourish, which complement offline political participation to the extent that an already active individual has more avenues open for participation compared to before. At the same time, online media news consumption may encourage new forms of participation for those who may not have participated or engaged in political or civic activities had it not been for new forms of communication (Gil de Zúñiga et al., 2011). With the result of non-Whites being more likely to use this technology, this study shows that while some gender and income gaps are still fairly strong in relation to technology use, the race gap can be bridged to some extent. There is no reason not to believe that as newer technologies diffuse in our society, other gaps too will cave and allow more people from disadvantaged backgrounds to participate in political processes.

As for podcast topics, entertainment seems to be the most popular genre for podcast users. This was not a surprise finding. In parallel, using podcasts to receive news is not as popular. This may be relevant to the extent that our measure of podcast use to predict political participation online and offline does not discriminate for different genres. Researchers should consider these different types of content to further explore the path that goes from being informed to participating politically. As the number of podcast users increases, this content segregation could provide more insights in this regard. It should also be more feasible for future studies to test that, given the limited sample achieved here. This is but a suggestion for future research.

There are other shortcomings that need to be discussed about this study. One of the most noticeable is simply the nature of our data. Based on national U.S. data, we are confident about the generalizability of the findings. Nonetheless, this study relies on cross-sectional data, and strictly speaking, causality should be interpreted with caution, particularly with respect to the relationship between podcast use and participation. People who participate more in politics also probably tend to rely on podcasts to get information; therefore it would be difficult to state with any kind of surety that podcast users will be active political participants. In any case, initial efforts in this regard have suggested

a reciprocal asymmetric relationship by which media variables will play a more important role in predicting participation than vice versa (Rojas, 2008).

Another important limitation is the measurement used to analyze the use of podcasts and the limited number of variables included in our models. Podcast use was a dichotomous variable, and we understand that it is far from perfect. It does not help focus on the nuances of podcast use, such as people downloading them because they subscribe to them but not necessarily listen to them or download them just once, yet think of themselves as podcast users. Additionally, other variables that deal with key aspects of citizenship and democracy should be explored. For instance, our models do not control for the effect of individuals' political efficacy, their political interest, and how politically sophisticated or knowledgeable they might be. However, these are all points for future research, and we encourage other scholars who wish to examine this phenomenon further to bear these limitations in mind when designing their study.

All in all, this study indicates that other forms of digital media such as podcasts may become as important as online and offline traditional media to explain people's political participatory level. As this technology becomes pervasive, there will be more possibilities for citizens to receive information, help them reflect upon important issues, and ultimately engage in politics.

NOTES

1. Although the data employed in this study are not freely available to the general public, to comply with *JITP* replication policy, the authors have facilitated the release of the data to any scholar solely interested in pursuing such endeavors via the *JITP* Editor or by requesting the data from the first author of this manuscript at monica.chadha@utexas.edu. Different uses of this data are not permitted without the explicit consent of the authors of this article.

2. Strictly speaking, the sample may not be interpreted to be representative because it is not the result of a pure randomization from the entire U.S. population. Nevertheless, the procedure of matching online samples with census data has been validated by existing research in political communication (see, e.g., Correa, Willard, & de Zúñiga, 2010; Curran, Iyengar, Lund, & Salovaara-Moring, 2009; Gil de Zúñiga et al., 2010; Iyengar & Hahn, 2009). Additionally,

the demographic breakdown of our sample is similar to that of surveys conducted by the U.S. Census and the Pew Research Center, which lends support to how well our sample statistics estimate population parameters (see the Appendix).

3. The formula for RR3 is (complete interviews)/[complete interviews + eligible nonresponse + e (unknown eligibility)], where e was estimated using the proportional allocation method, i.e., (eligible cases)/(eligible cases + ineligible cases).

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APPENDIX

Demographic Profile of Study Survey and Other Comparable Surveys

	Study Survey Dec. 2008–Jan. 2009 %	Pew Internet & American Life Project Post-Election Survey Nov.–Dec. 2008 %	U.S. Census American Community Survey (adults only) 2005–2007 %
<i>Age:</i>			
18–24	3.5	6.0	13.1
25–34	18.9	9.9	17.8
35–44	21.6	13.5	19.4
45–64	50.5	40.5	33.2
65 or more	5.5	30.2	16.6
<i>Gender:</i>			
Male	33.0	47.2	50.0
Female	67.0	52.8	50.0
<i>Race/ethnicity:</i>			
White	84.4	79.8	65.8
Hispanic	4.5	6.1	15.0
African American	5.0	9.2	12.1
Asian	3.0	1.3	4.0
<i>Education:</i>			
High school or less	15.4	38.4	46.7
Some college	28.1	27.7	22.3
College degree	37.2	19.8	22.4
Graduate degree	19.2	14.1	8.6
<i>Household income:</i>			
Less than \$49,999	41.1	51.2	50.1
\$50,000 to \$99,999	37.9	31.8	30.9
\$100,000 or more	21.0	17.1	19.0
<i>Turnout:</i>			
Voted in 2008	80.3	85.2	—