

QUESTIONING DIGITAL CITIZENSHIP: THE ANSWER TO ECONOMIC AND POLITICAL INEQUITY?

DIGITAL CITIZENSHIP: THE INTERNET, SOCIETY, AND PARTICIPATION.
By Karen Mossberger, Caroline J. Tolbert, and Ramona S. McNeal.
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*Reviewed by Lindsey Greer**

INTRODUCTION

If you surfed the Web today, you may be part of a massive American contingent turning to the Internet for news, e-mail, entertainment, and e-commerce.¹ In the past four years, the number of American adults who surf the Web climbed from 58 to 70%.² Homes equipped with high-speed Internet access jumped dramatically from 20 to 74 million.³ Researchers hail this growth as a “new high-water mark,” signaling tremendous advancement in Internet use and broadband access.⁴

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1. The terms “Web” and “Internet” are used interchangeably throughout this article. “E-commerce” refers to “commerce conducted via the Internet.” Merriam-Webster Online Dictionary, E-commerce, <http://www.merriam-webster.com/dictionary/e-commerce> (last visited Mar. 25, 2008).

2. JOHN B. HERRIGAN, PEW INTERNET & AM. LIFE PROJECT, FOR MANY HOME BROADBAND USERS, THE INTERNET IS A PRIMARY NEWS SOURCE 1 (2006), http://www.pewinternet.org/pdfs/PIP_News.and.Broadband.pdf [hereinafter NEWS SOURCE]. The Pew Internet & American Life Project “produces reports that explore the impact of the internet on families, communities, work and home, daily life, education, health care, and civic and political life.” Pew Internet & American Life Project: About Us, <http://www.pewinternet.org/about.asp> (last visited Mar. 25, 2008).

3. NEWS SOURCE, *supra* note 2, at 1.

4. *Id.*; “Broadband access” describes high-speed Internet access, including digital subscriber lines (DSL), cable modems, wireless connections, and fiber (T-1) connections. KAREN MOSSBERGER, CAROLINE J. TOLBERT & RAMONA S. MCNEAL, DIGITAL CITIZENSHIP: THE INTERNET, SOCIETY, AND PARTICIPATION 18 (MIT Press 2008).

Despite this progress, a “digital divide” remains between those with and without Internet access.⁵ In *Digital Citizenship: The Internet, Society, and Participation*, Karen Mossberger, Caroline J. Tolbert, and Ramona S. McNeal explore the damaging effects of this digital divide by examining the economic and political ramifications of disparities in what they term “digital citizenship.”

The authors define a “digital citizen” as someone who uses the Internet daily, since, as they contend, frequency of Internet use most accurately measures a person’s technological skill, continuity of access, and actual usage.⁶ They ask whether systematic differences affect the likelihood of an individual becoming a digital citizen. Because evidence suggests that citizens who are minorities, less educated, older, or who have low income face greater challenges to becoming digital citizens, the authors inquire whether and how this digital divide affects economic opportunity, civic engagement, and political participation.⁷

In spite of sometimes inconclusive data, the authors draw optimistic conclusions about the gravity of the Internet’s impact. They contend that increases in digital citizenship can provide potential solutions to disparities in economic opportunity and reverse trends of declining civic engagement and political participation.⁸ The book ultimately calls for government intervention in the form of “federal and subnational policy to create universal access and equal educational opportunity” in an effort to level the economic playing field and politically mobilize its citizens.⁹ Although the authors provide substantial evidence of a correlation between economic and political benefits and increased Internet use, other evidence calls into question the extent of the Internet’s impact; contradictory data suggest that the Internet may not lie at the root of observed economic and political advancements.¹⁰ While the Internet certainly has some beneficial impact on the lives of many, the book cannot establish the extent or gravity of

5. “Digital divide” refers to “systematic disparities in access to computers and the internet, affecting Americans who are low income, less educated, older, African American, and Latino.” MOSSBERGER ET AL., *supra* note 4, at 8. “Older” is defined as fifty years of age or older. “Less educated” refers to a high school degree or less. “Low income” is defined as an annual household income of \$30,000 or less. *Id.* at 96, 98, 101.

6. *Id.* at 1–2, 10–12.

7. *Id.* at 8–9; “Civic engagement” constitutes “political interest, political discussion, and political knowledge,” while “political participation” mostly refers to voter turnout. *Id.* at 48.

8. *Id.* at 1–2.

9. *Id.* at 19.

10. *Id.* at 28–29.

this impact. Without more conclusive data, the authors fail to justify their call for significant government involvement and expenditure to advance digital citizenship.

We must look beyond the authors' correlative data and test their hypotheses in real-world settings if we are to truly embrace their far-reaching conclusions and better understand the causal mechanisms between the Internet and specific advancement. A promising opportunity for in-depth investigation lies on the horizon as local municipalities begin digital citizenship initiatives aimed at expanding broadband access points, lowering the cost of broadband access, and improving citizens' technological capabilities.¹¹ Studies comparing the average income, civic engagement, and voter turnout of communities with digital citizenship initiatives versus similarly situated communities lacking those initiatives are a perfect means to ascertain the validity of the authors' claims. Only if these real-world initiatives yield economic and political benefits that outweigh the infrastructure costs required to implement these reforms, should we call for widespread government expenditures to "digitize" our citizens.

I.

EVOLVING CONCEPTIONS OF DIGITAL CITIZENSHIP: WHAT IS A DIGITAL CITIZEN?

At the outset, Mossberger, Tolbert, and McNeal call for a reevaluation of how studies measure Internet use.¹² Current "occasional use" studies ask respondents if they have ever, at any point, used the Internet, whereas new "frequency of use" studies measure whether respondents are daily Internet users.¹³ The authors claim that occasional use studies are outdated, lead to unsupported conclusions that the digital divide is rapidly shrinking, and unjustifiably cause government officials to dismiss technological inequality as a problem of the past.¹⁴ The authors suggest that studies evaluating frequency of use are more valuable in examining today's digital divide, because daily use is a

11. See, e.g., Mark Niquette, *Strickland's Goal: Broadband for All: Initiative Aimed at Expanding Internet Access Throughout State*, COLUMBUS DISPATCH, Dec. 18, 2007, at 3B (describing Ohio Governor Ted Strickland's initiative to establish "e-community leadership teams" in eighty-eight counties to provide affordable broadband Internet access to all Ohioans regardless of where they live in the state).

12. MOSSBERGER ET AL., *supra* note 4, at 10–12.

13. *Id.* "Occasional use" studies ask whether respondents use the Internet "at least occasionally" or have had "any experience at all with the Internet." *Id.* at 10. "Frequency of use" studies ask whether respondents "used the Internet yesterday." *Id.* at 11.

14. *Id.*

better measure of one's access to the Internet and skill in navigating the Web.¹⁵

Occasional use studies are obsolete and present an overly optimistic picture of a narrowing digital divide.¹⁶ Although it is important to know what percentage of Americans has been exposed to the Internet, rare or infrequent use skews data and potentially overstates the number of citizens who have the access and skill required to use the Internet for economic and political purposes.¹⁷ A respondent who has used the Internet or e-mail just once in his life would be considered "online" for occasional use studies, despite the fact that he is unlikely to possess the skills or experience necessary to use the Internet for personal advancement.¹⁸ These measures of occasional use depict a significant rise in the number of Americans using the Internet—specifically from 48% in 2000 to almost 75% in 2006.¹⁹ The authors argue that sole consideration of these occasional use statistics by policymakers, the media, and scholars underscores the continuing problem of a damaging digital divide: occasional use studies incorrectly suggest that the divide is quickly diminishing.²⁰

The authors cite new frequency of use studies to illustrate that the digital divide remains a troublesome issue, despite some improvement.²¹ Frequency of use studies reveal the digital divide is not shrinking at the fast pace many occasional use studies suggest.²² Whereas nearly 75% of citizens are "online" for purposes of many occasional use studies, just 48% of citizens were daily Internet users in 2006.²³ To accurately evaluate the continuing impact of the digital divide, it is imperative to view technological issues through the lens of frequent Internet use studies. For these reasons, the authors define a digital citizen as a daily Internet user—one likely to possess the In-

15. *Id.* at 12.

16. *Id.* at 11–12.

17. *Id.* at 10–11.

18. *Id.*

19. *Id.* at 11 box1.1.

20. *Id.* at 12.

21. *Id.* at 11.

22. The authors note that "[a]t first glance, Pew surveys show that Internet use has grown appreciably, with 73 percent of the population in February–April 2006 reporting that they have gone online 'at least occasionally' in some place—home, work, school, the homes of others, or at public access sites (http://www.pewinternet.org/trends/Internet_Activities_7.19.06.htm). But if we examine the proportion of Americans who use the Internet on a daily basis, this segment has grown more slowly and is much smaller—48 percent in 2006." *Id.* at 10 (footnote omitted).

23. *Id.* at 11 box1.1.

ternet access and technological competence necessary to use the Web for personal advancement.²⁴

II.

BECOMING A DIGITAL CITIZEN: SYSTEMATIC INEQUITIES SIGNAL A CONTINUING DIGITAL DIVIDE

“Ascriptive hierarchy” denotes societal exclusion faced by individuals as a result of characteristics like gender, race, and ethnicity.²⁵ Mossberger, Tolbert, and McNeal argue that ascriptive hierarchy continues today as inequalities fuel an ongoing digital divide.²⁶ Relying on recent empirical studies, the authors conclude that citizens who are African-American, Latino, older, less educated, or who have low income still face significant barriers to becoming digital citizens.²⁷ They also contend that widespread disparities in broadband access only exacerbate the problems associated with the digital divide.²⁸

A. *Systematic Inequity: Groups Face Exclusion from Digital Citizenship*

A comparison of the general population’s Internet use versus that of historically disadvantaged members of society reveals significantly less Internet access and lower rates of use among the historically disadvantaged subgroups.²⁹ While 60% of the general population has home Internet access, only about 40% of African-Americans and Latinos enjoy this benefit.³⁰ Americans who are less educated, older, or who have low income also differ greatly from the general population when it comes to Internet access.³¹ Approximately 43% of less educated or older members of society and just 36% of low income individuals benefit from home access.³² Similar discrepancies among these groups persist with respect to frequency of Internet use. For instance, 35% of the general population uses the Internet daily while a mere 20% of the aforementioned subgroups use the Internet daily.³³

24. *Id.* at 1–2, 10–12.

25. *Id.* at 7. For an example of the use of the term, see Rodney Hero, *Multiple Theoretical Traditions in American Politics and Racial Policy Inequality*, 56 *POL. RES. Q.* 401 (2003).

26. MOSSBERGER ET AL., *supra* note 4, at 8.

27. *Id.*

28. *Id.*

29. *Id.* at 96–101 box5.2.

30. *Id.* box5.2.

31. *Id.* at 96, 98, 101.

32. *Id.* at 99 box5.2.

33. *Id.*

Because home Internet access and frequency of Internet use strongly influence a person's ability to become a digital citizen, it appears that these disadvantaged groups are less likely to enjoy the potential economic and political fruits of digital citizenship.

Young adults (aged 18 to 29) boast very different experiences from the general population.³⁴ Even though roughly 60% of both young adults and the general population enjoy home access,³⁵ young adults use the Internet more frequently than the general population: 42% of the former go online daily, as compared with just 35% of the latter.³⁶ Additionally, while 40% of the general population has no Internet access at all, just 29% of younger Americans lack any access.³⁷ For these reasons, young adults generally do not face the same barriers to becoming digital citizens that other segments of society confront.³⁸

The evidence is mixed with respect to a gendered digital divide. On the one hand, American women are just as likely as men to go online, which may suggest the narrowing of any divide.³⁹ On the other hand, men generally go online for a greater range of uses.⁴⁰ Even though actual performance reveals no significant disparity in men's and women's respective abilities to search for information online, women report less confidence in using the Internet, which may account for their less in-depth Internet usage.⁴¹ Thus, despite the fact that women and men are online at nearly the same rate, men's greater

34. *Id.* at 97 box5.1.

35. *Id.* at 96–101 box5.2.

36. *Id.* box5.2.

37. *Id.*

38. Young adults aged 18 to 25 are part of a "Digital Generation." Their significant Internet use may be a result of increased Web access at school and a familiarity with the Internet from a young age through home access. Studies show that increased Web use among young adults is strongly correlated with school Internet access and home Internet access as a child. For a complete analysis of Internet use among children and young adults, see NAT'L TELECOMM. & INFO. ADMIN., U.S. DEP'T OF COMMERCE, A NATION ONLINE: HOW AMERICANS ARE EXPANDING THEIR USE OF THE INTERNET 42–56 (Feb. 2002), available at <http://www.ntia.doc.gov/ntiahome/dn/anationonline2.pdf>.

39. MOSSBERGER ET AL., *supra* note 4, at 105.

40. *Id.*

41. "Survey data reveal almost no substantive difference between men and women in self-reported technical competence, information literacy, or the ability to use the Internet to find information. According to a recent study that compared self-assessments and actual performance in searching for information online, there were no real differences in the actual performance of men and women, once age, education, and other influences were taken into account. Yet women underestimate their skill, and this may even limit use due to a feeling of inadequacy online." *Id.* (citations omitted).

range of online activity may suggest that men are more likely to become digital citizens.⁴²

B. Disparities in Broadband Access: Widening the Digital Divide

In addition to evaluating traditional factors that affect the digital divide, specifically home Internet access and frequency of Web use, the authors also assess the impact of broadband on technological inequality. Broadband is a type of high-speed Internet access, constituting a new wave of technological advancement.⁴³ It includes DSL, cable modems, wireless connections, and T-1 connections.⁴⁴ Disparities in broadband access are especially relevant because high-speed Internet capabilities empower users to more effectively and efficiently utilize the Web.⁴⁵

Despite the fact that 42% of Americans had broadband service in 2006, systematic differences exist between groups who possess broadband and those who do not.⁴⁶ Americans who are less educated, older, or who have low income are the least likely to have broadband.⁴⁷ Asian-Americans, African-Americans, and rural residents are also less likely to have broadband access than the general population.⁴⁸ The authors contend that the higher cost of broadband and the lack of broadband availability in rural areas lead to these discrepancies; these are also the reasons most often cited by survey respondents as to why they lack home broadband access.⁴⁹

In light of this empirical data, the authors present compelling evidence to suggest that systematic inequalities fuel an ongoing digital divide, which in turn severely undermines access to the potential benefits of digital citizenship. High-speed Internet access “encourage[s]

42. *Id.*

43. *Id.* at 18, 123.

44. *Id.*

45. *Id.*

46. *Id.* at 18, 123–24.

47. In 2005, 28.3% of Americans with incomes of \$20,000 to \$30,000 had broadband at home compared to 50.3% of Americans with incomes of \$50,000 to \$75,000. Citizens who were 69 years old had home broadband access 24.9% of the time, whereas 33 year olds possessed broadband 55.8% of the time. Americans with a high school diploma had home broadband access 31.1% of the time, while 52.5% of individuals with a bachelor’s degree enjoyed broadband. *Id.* at 130 box6.1.

48. In 2005, Caucasians had home broadband access at a rate of 41.9%, while African and Asian Americans possessed broadband at a rate of approximately 29%. Compared to 41.9% of suburban residents and 40.6% of urban residents, just 25.7% of rural residents had broadband. *Id.*

49. *Id.* at 124–25.

skill development” and completion of “daily tasks online.”⁵⁰ As more individuals increase their technological competence and become comfortable using the Internet, they are more likely to become digital citizens and use the Web for personal gain.⁵¹ Consequently, differences in broadband access, as well as disparities in Internet and computer access, all perpetuate an alarming divide in technological skill and Internet usage.

III.

THE IMPACT OF DIGITAL CITIZENSHIP: IMPROVING ECONOMIC OPPORTUNITY, CIVIC ENGAGEMENT, AND POLITICAL PARTICIPATION

With the digital divide plaguing historically disadvantaged groups, the authors seek to highlight the potential ramifications of this technological inequity and propose ways in which the Internet can combat growing social problems. Concluding that digital citizenship fosters economic opportunity, civic engagement, and political participation, they call for government intervention to lessen the divide through efforts to increase digital citizenship.⁵² Although greater digital citizenship may mitigate economic disparities, poor civic engagement, and political inactivity, it is unclear how and to what extent the Internet will rectify these problems. What remains to be seen is whether the Internet truly propels advances in economic opportunity or whether other factors like advanced language or social skills are the real drivers behind improved economic opportunity.⁵³ It is also unclear whether the Internet actually has the power to motivate politically disinterested masses to become more engaged or active in the political sphere, or instead, if the Internet merely provides information to individuals already politically stimulated.⁵⁴ To answer these pressing questions, it is critical that researchers examine digital citizenship efforts begun by local municipalities. As state and local governments begin expanding Internet access points and technological literacy

50. *Id.* at 19, 123; *see also*, *Study Finds Broadband Access Key to Empowerment of Minority Communities; Local Council Formed to Study Impact on Detroit Area*, PR NEWswire, Mar. 11, 2008, available at http://www.prnewswire.com/?utm_source=google&utm_medium=cpc&utm_term=PR+Newswire&utm_campaign=Branding&gclid=CN3gi-yRs5ICFQNEPAodHgNIMw.

51. *Id.*

52. MOSSBERGER ET AL., *supra* note 4, at 2, 19. The type of government intervention requested includes “federal and subnational policy to create universal access and equal educational opportunity.” *Id.* at 19.

53. *See infra* Part III.A.

54. *See infra* Part III.B–C.

training,⁵⁵ Mossberger, Tolbert, and McNeal should put their theories to the test, studying the real-world effects of increased digital citizenship. If the results yield substantial economic and political improvements in these digital communities—particularly advancements in disadvantaged neighborhoods and benefits that are worth the infrastructure costs needed to implement these digital reforms—such data will support and better justify the authors' calls for widespread government involvement.

A. *Economic Opportunity*

Mossberger, Tolbert, and McNeal observe growing income inequality between high- and low-skilled workers and seek to determine what role Internet use plays in shaping individual economic prospects.⁵⁶ Out-dated research prompted the authors to conduct their own studies, utilizing the most recent current population survey (CPS) data and survey results collected by the Pew Internet & American Life Project.⁵⁷ The goal of their work is to ascertain “whether computer and Internet use on the job benefits U.S. workers by raising wages beyond what they would otherwise receive, given their other qualifications and characteristics.”⁵⁸ Their study provides current data on correlative trends as well as on the potential impact the Internet has on wages; however, it fails to conclusively prove that expanding the technological skills of low-income workers would level the economic playing field.

The authors' studies undoubtedly evidence a link between heightened computer and Internet use at work and increased wages. The authors establish “strong and consistent evidence that technology use at work is related to higher wages, even after controlling for a battery of factors known to increase earnings, including education, age, and occupation.”⁵⁹ However, as the authors admit, other factors can contribute to the observed correlation between computer and Internet use and

55. See, e.g., Niquette, *supra* note 11.

56. MOSSBERGER ET. AL., *supra* note 4, at 17.

57. *Id.* at 4, 31-32; DEBORAH FALLOWS, PEW INTERNET & AM. LIFE PROJECT, EMAIL AT WORK (2002), available at http://www.pewinternet.org/pdfs/PIP_Work_Email_Report.pdf; JOHN B. HERRIGAN & LEE RAINIE, PEW INTERNET & AM. LIFE PROJECT, THE INTERNET'S GROWING ROLE IN LIFE'S MAJOR MOMENTS (2006), available at http://www.pewinternet.org/pdfs/PIP_Major%20Moments_2006.pdf.

58. MOSSBERGER ET. AL., *supra* note 4, at 21.

59. The authors' studies reveal that “holding other demographic, occupational, economic, and job sector factors constant, an individual who uses the computer at work is predicted to earn \$101 more per week than the same individual who does not use the computer at work. . . This is a 14.5 percent boost in earnings based on technology use at work.” *Id.* at 37.

wages.⁶⁰ First, unobservable differences can account for the higher wages of technologically savvy workers.⁶¹ More talented workers, for instance, may be assigned to positions requiring computer use.⁶² Second, “technology use represents only one part of the rising skill requirements in the workforce.”⁶³ Other factors include “hard” skills, such as reading, writing, and arithmetic, and “soft” skills, otherwise known as social or people skills.⁶⁴ While the authors’ studies do account for factors like education and occupation, they do not account for unobservable factors, hard skills, or soft skills. Therefore, the studies only provide correlative data, as opposed to conclusive proof of causation.

On the whole, the authors indirectly make this correlative distinction, often noting that the variables are “related” or “associated.”⁶⁵ However, their final conclusion lacks this important distinction. They contend that their studies “indicate that technology use at work *advances* the economic prospects for individuals.”⁶⁶ Although technological use may very well lead to increased wages, the authors’ studies do not evidence that computer or Internet use at work “advances,” or otherwise causes, the end result of increased wages. In fact, other international studies suggest that increased wages for computer users are not a result of increased computer use and are largely the result of other skills, such as improved writing or math skills.⁶⁷ As a result, the authors’ evidence merely provides correlative trends and lacks sufficient grounds to establish causation between computer or Internet use and increased wages.

B. Civic Engagement

Expounding upon their economic argument, the authors further hail the Internet as a possible solution to declines in civic engagement.⁶⁸ Defining civic engagement as a “multifaceted concept, con-

60. *Id.* at 28–29.

61. *Id.* at 28.

62. *Id.*

63. *Id.* at 29.

64. *Id.*

65. *Id.* at 43–44.

66. *Id.* at 45 (emphasis added).

67. Lex Borghans & Bas ter Weel, *Are Computer Skills the New Basic Skills? The Returns to Computer, Writing and Math Skills in Britain*, 11 *LAB. ECON.* 85, 85–96 (2004), available at http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6VFD-492778N-2&_user=10&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=3714fb4c99be604bff44733ce3234c1.

68. MOSSBERGER ET. AL., *supra* note 4, at 65.

sisting of political interest, political discussion, and political knowledge,” the authors evaluate how Internet use may help foster these three concepts.⁶⁹ They theorize that Internet use will likely promote civic engagement.⁷⁰ However, an admitted dearth of empirical data suggests a need for greater research on this subject to thoroughly assess the Internet’s impact.⁷¹ More importantly, the current phenomenon of declining civic engagement in the face of increased Internet use calls the authors’ theory into question, warning that the Internet may not be the newfound remedy to waning political interest, discussion, and knowledge.⁷²

To specifically assess the possible relationship between Internet use and political interest, discussion, and knowledge, the authors conducted their own studies.⁷³ They analyzed data from the 2000 American National Election Studies (NES) survey, a 2002 Pew Internet & American Life Daily Tracking survey, and a 2004 Pew Research Center for the People and the Press survey.⁷⁴ Although the studies do evidence a correlation between Internet use and political interest, discussion, and knowledge,⁷⁵ the authors overstate their findings by asserting an unsupported causal relationship. They conclude the use of online news “encourages” civic engagement.⁷⁶ However, the evidence again only establishes correlative relationships—online news and discussion are “positively associated,” online news and political knowledge are “positively related,” and the fact that individuals who use online news “express more interest” in politics than those who do not read online news.⁷⁷ The authors do not establish that the Internet causes any of these increases, for they fail to exclude the possibility that individuals who are already civically engaged are more likely to go online for political purposes.

69. *Id.* at 48.

70. *Id.* at 65.

71. *Id.*

72. *Id.* at 49; N.Y. TIMES, *American Democracy Project* (2003), available at http://www.nytimes.com/ref/college/collegespecial2/coll_asscu_abstract.html?pagewanted=print (acknowledging a decline in civic engagement).

73. MOSSBERGER ET. AL., *supra* note 4, at 56.

74. *Id.*; PEW RESEARCH CTR. FOR THE PEOPLE & THE PRESS, CABLE AND INTERNET LOOM LARGE IN FRAGMENTED POLITICAL NEWS UNIVERSE: PERCEPTIONS OF PARTISAN BIAS SEEN AS GROWING, ESPECIALLY BY DEMOCRATS (2004), available at <http://www.people-press.org/reports/pdf/200.pdf>; PEW RESEARCH CTR. FOR THE PEOPLE & THE PRESS, NEWS AUDIENCES INCREASINGLY POLITICIZED: ONLINE NEWS AUDIENCES LARGE, MORE DIVERSE (2004), available at <http://www.people-press.org/reports/pdf/215.pdf>.

75. MOSSBERGER ET. AL., *supra* note 4, at 60–62.

76. *Id.* at 62.

77. *Id.* at 60–61.

The authors also fail to refute contradictory research that undercuts their findings. In the field of Internet study, two opposing theories exist. At one end of the spectrum is the optimistic approach of scholars like Mossberger, Tolbert, and McNeal, who believe the Internet fosters civic engagement.⁷⁸ At the other end lies the pessimistic view of scholars who believe the Internet merely reflects politics as usual, has no significant effect on civic engagement, and may even hinder political discourse.⁷⁹ For example, some researchers believe the Internet fails to increase civic engagement among the disengaged and merely provides instant, cost-free information to those already politically motivated.⁸⁰ Some critics believe that the Internet exacerbates information gaps between those who use the Internet for political involvement and those who do not, creating an “information-rich get richer” phenomenon.⁸¹ Others contend that the Internet decreases one’s feeling of community attachment,⁸² depersonalizes communications,⁸³ and limits the scope of information people receive⁸⁴—all factors detrimental to civic engagement.⁸⁵ While the authors acknowledge these concerns, they ultimately dismiss these worries without any substantive explanation as to why the critics’ arguments lack merit.⁸⁶

Most confusing, however, are the authors’ optimistic viewpoints given recent declines in civic engagement. Assuming the authors are correct that Internet use leads to increased civic engagement, why is it that Internet use is at an all-time high while civic engagement overall continues to decline?⁸⁷ The weight of the argument lies with the critics. If the Internet actually increases civic engagement, as the authors

78. Michael Xenos & Patricia Moy, *Direct and Differential Effects of the Internet on Political and Civic Engagement*, 57 J. COMM. 704, 706–07 (2007).

79. *Id.* at 706.

80. MOSSBERGER ET. AL., *supra* note 4, at 49, citing Michael Margolis & David Resnick, *Politics as Usual: The Cyberspace “Revolution”* 212 (2000); *see also* Xenos, *supra* note 78, at 708.

81. Xenos, *supra* note 78, at 708.

82. MOSSBERGER ET. AL., *supra* note 4, at 50, citing Robert Putnam, *Bowling Alone: The Collapse and Revival of American Community* 221, 479 (2000); *see also* Xenos, *supra* note 78, at 708.

83. MOSSBERGER ET. AL., *supra* note 4, at 49, citing N. Nie and L. Erbring, Stanford Institute for Qualitative Study, *Internet and Society: A Preliminary Report* (2000); *see also* Xenos, *supra* note 78, at 708.

84. MOSSBERGER ET. AL., *supra* note 4, at 50, citing Cass Sunstein, *Freedom of Expression in the United States* (2001); *see also* Xenos, *supra* note 78, at 708.

85. MOSSBERGER ET. AL., *supra* note 4, at 49–51.

86. The authors’ optimism regarding the Internet’s impact is reflected in their ultimate conclusion that the Internet “encourages” civic engagement. *Id.* at 62, 66.

87. *Id.* at 49, 51; MARY MADDEN, PEW INTERNET & AM. LIFE PROJECT, DATA MEMO: INTERNET PENETRATION AND IMPACT 3 (2006), available at <http://www.pew>

contend, it does so mostly among individuals already interested in politics. Because political enthusiasts are more likely to seek political information online as compared to the politically apathetic, civic engagement overall continues to decline as the majority of Americans lose interest in politics. This conclusion makes sense in light of the authors' final conclusion that "[i]ndividuals who consume political information online are more likely to participate in political discussions, have higher levels of political knowledge, and have more acute political awareness."⁸⁸ By highlighting that these increases in civic engagement were witnessed just among individuals who "consume political information online," the authors lend credence to the argument that the Internet may simply affect individuals already politically interested; who else but the politically interested would seek out political information online? Confronted with these critical arguments, Mossberger, Tolbert, and McNeal's correlative assertions lose part of their appeal. After all, is the expenditure of taxpayer dollars warranted if it merely expands civic engagement among the politically interested and hardly impacts the politically apathetic?

C. Political Participation

Despite substantial contributions of empirical data evidencing a link between heightened Internet use and political participation (i.e. voter turnout), the authors' findings fall prey to concerns similar to those that plagued their civic engagement arguments. They hypothesize that three forms of Internet activity—chat rooms, e-mail, and online news—further political participation.⁸⁹ While they present compelling arguments about why, in theory, the Internet should foster participation, they fail to present substantial empirical data to support their contentions. Not only is the empirical data limited in this field, but no causal link is established. Instead, plausible alternatives exist to explain the reasons behind any increased political participation.⁹⁰

The authors effectively convey the theoretical reasons why the Internet should increase political participation. Chat rooms foster real time, cost-free social discourse, allowing participants to debate current political issues.⁹¹ Increasingly used by political actors to mobilize vot-

internet.org/pdfs/PIP_Internet_Impact.pdf; N.Y. TIMES, *American Democracy Project*, *supra* note 72.

88. MOSSBERGER ET. AL., *supra* note 4, at 65.

89. *Id.* at 67.

90. *Id.* at 68.

91. MOSSBERGER ET. AL., *supra* note 4, at 69–70. Examples of political chat rooms are available at <http://www.chatmag.com/topics/politics/politics.html>.

ers, e-mail allows for personalized two-way communication.⁹² Finally, online news presents a more convenient, flexible, and inexpensive way of conveying information.⁹³

The authors then present empirical data to evidence a correlation between increased Internet use and political participation. To compensate for a lack of existing data on the subject, the authors conduct their own study to gauge the impact of the Internet on voter turnout.⁹⁴ The study reveals a link between the Internet and political participation but only during presidential campaigns, as opposed to midterm elections.⁹⁵ The study also suggests that chat rooms, e-mail, and online news have varying correlative relationships with voter turnout.⁹⁶ Specifically, e-mail communication and chat room discussions have a greater association with increased participation than online news.⁹⁷

While the authors' data provides new evidence, specifically on the relationship between voter turnout and Internet chat rooms, e-mail, and online news, no causal relationship is established. It is unclear whether the Internet increases voter turnout or whether individuals, who are already politically active and thus likely to vote, are more inclined to use the Internet for political discussion and information. If anything, the authors' hypothesis suggests the latter. They point out that "political participation requires motivation."⁹⁸ To the extent that a citizen is not politically motivated, that individual is unlikely to send or read political e-mails, seek out online political news, or engage in

92. MOSSBERGER ET. AL., *supra* note 4, 72–74. Examples of politicians using e-mail date back to the 1992 presidential election when Jerry Brown used an e-mail address to communicate with the general public. Since that time, many politicians have utilized email to disperse their message and mobilize voters. *Id.* at 73.

93. *Id.* at 75.

94. The study evaluates how Internet use, through political chat rooms, e-mail, and online news, may be linked to voter turnout. The authors used three postelection national telephone surveys from 2000, 2002, and 2004, all of which were conducted by the Pew Internet and American Life Project. *Id.* at 78–81.

95. "For 2000 and 2004, the respondents who took part in [political chat room discussions, political e-mailing, or reading online political news] were significantly more likely to report voting, controlling for other factors (age, income, education, gender, partisanship, and state contextual factors). None of the online political activities were associated with increased voting in the 2002 midterm election." *Id.* at 81.

96. *Id.* at 84–87. "When participation in political chat room increased from low to high, the probability of voting rose between 21 and 39 percent." *Id.* at 86. "The probability of voting increases between 21 and 39 percent, comparing individuals who regularly send and receive political e-mails with those who rarely do." *Id.* at 85. "Comparing similar individuals who regularly read online news (high) with those who do not (low), the probability of voting increases by between 16 and 26 percent, depending on the respondent's other forms of media consumption." *Id.* at 84.

97. *Id.* at 84–87.

98. *Id.* at 68.

chat room discussions on political issues. Moreover, if politically disinterested individuals do not use the Internet for political purposes (i.e. by chatting, e-mailing, or reading about political subjects), any influence the Internet may have in increasing political activity is lost. As such, the Internet may simply reflect politics as usual and may not lie at the root of any increased political participation. This is especially plausible given the recent trend of declining voter turnout despite increasing Internet use.⁹⁹ After all, if the Internet truly leads to increased political participation, we would expect to observe advancements in voter turnout, not the reverse.

Ultimately, it may very well be true that the Internet does increase political activity, as the authors contend. However, this data simply does not support that conclusion. To better ascertain whether the Internet increases political involvement or whether political involvement merely leads to greater Internet use, studies asking respondents about their existing level of political involvement are key. We need to understand what propels individuals to go online, what motivates them to seek out political information, and whether consumption of political information increases their political participation beyond its current state. Mossberger, Tolbert, and McNeal's study contributes to part of the equation—highlighting a correlative relationship between Internet use and political participation—but it fails to adequately rule out the alternate scenario that political participation drives Internet use.

D. Ending the Debate: Taking Advantage of Real-World Digital Citizenship Initiatives

To better evaluate the authors' optimistic forecasts about digital citizenship, particularly in light of recent trends and scholarship undercutting the extent of the Internet's impact,¹⁰⁰ it is imperative to study emerging digital citizenship initiatives budding in local communities before demanding federal involvement and expenditure. In other words, because the direct benefits of digital citizenship remain uncer-

99. Cynthia Crossen, *Why Don't Americans Like to Vote? Politics Are Only One Reason*, WALL ST. J., Oct. 16, 2006, at B1; Kwan Min Lee, *Effects of Internet Use on College Students' Political Efficacy*, 9 CYBERPSYCHOLOGY & BEHAV. 415 (2006), available at <http://www.liebertonline.com/doi/abs/10.1089/cpb.2006.9.415>.

100. Current trends questioning the impact of the Internet include the phenomenon of low civic engagement and voter turnout in the face of all-time highs in Internet use and access. See *supra* Part III.B–C. Current scholarship questioning the impact of the Internet includes studies suggesting that other skills, such as language, math, or social skills, may be more important in advancing economic opportunity than computer skills. See *supra* Part III.A.

tain, real-world initiatives that reveal the extent of the Internet's impact in actual communities can add clarity to Mossberger, Tolbert, and McNeal's scholarship. By comparing the frequency of Internet use, average income, civic engagement, and voter turnout between communities with digital citizenship initiatives and similarly situated communities without those digital efforts, we can move one step closer to either confirming or disproving the authors' arguments. More importantly, we can better ascertain whether such effects are substantial enough to warrant federal and sub-national policy, as the authors request.¹⁰¹

In an era of exploding Internet use and a continuing digital divide,¹⁰² some state and local governments have sprung into action with programs to increase digital citizenship. In December 2007, Ohio Governor Ted Strickland announced the "Connect Ohio" plan, where staff and regional program managers plan to set up "e-community leadership teams" in eighty-eight counties.¹⁰³ The mission is to provide all Ohioans with stable and affordable broadband Internet access as well as educational opportunities aimed at increasing technological competencies.¹⁰⁴ The endeavor will involve the formation of a public-private nonprofit partnership, entitled Connect Ohio Initiatives LLC.¹⁰⁵ As of December 2007, the Controlling Board had approved a budget proposal of \$2.9 million for the 2008-2009 fiscal years and Governor Strickland had proposed an additional \$3.9 million for the following two years.¹⁰⁶

To take advantage of programs like Connect Ohio for research purposes, studies should compare the frequency of Internet use, average income, civic engagement, and voter turnout in these digital communities before and after the initiative takes effect. Researchers should also observe the results in these "digital" communities and compare them to similarly situated communities without digital citizenship endeavors.¹⁰⁷ The former study will help establish a real-world, correlative link between digital citizenship efforts and increases in frequency of Internet use, economic opportunity, civic engagement,

101. MOSSBERGER ET. AL., *supra* note 4, at 19.

102. NEWS SOURCE, *supra* note 2 (stating that Internet use has reached all-time heights); MOSSBERGER, ET. AL., *supra* note 4, at 8 (discussing the continuing existence of a digital divide).

103. Niquette, *supra* note 11.

104. *Id.*

105. *Id.*

106. *Id.*

107. Similarly situated communities include communities of similar size, economic wealth, average income, racial make-up, and educational backgrounds of its citizens.

and political participation. The latter study will help establish a causal link between the factors, as it will rule out possible alternate causes that could lead to observed advancements. For instance, if both the digital community and the similarly situated community witness similar improvements in frequency of Internet use, one could reasonably conclude that the digital citizenship initiative was not the driving force behind the advancement, nor was it necessary to achieve the desired effect. Thus, as a threshold consideration for any federal involvement, local digital citizenship efforts must yield substantial increases in citizens' frequency of Internet use, average income, civic engagement, and/or voter turnout.

Assuming that digital communities observe the aforementioned benefits, the next step involves an assessment of which subgroups the digital initiatives significantly affect. As Mossberger, Tolbert, and McNeal conclude, systematic inequities in technological skill and access perpetuate a continuing digital divide.¹⁰⁸ Considering that these inequities exist mostly among Americans who are minorities, low income, older, or less educated,¹⁰⁹ improvements from digital citizenship initiatives must develop within these subgroups. Otherwise, if such initiatives largely benefit citizens not plagued by the digital divide, government efforts could be ineffective among citizens with the greatest need. Such programs could even be detrimental by making the "information-rich richer," thus widening the digital divide.¹¹⁰ Should these new studies reveal an "information-rich get richer" phenomenon, we must reconsider Mossberger, Tolbert, and McNeal's call for government intervention and evaluate whether digital citizenship initiatives constitute an effective means of addressing economic and political inequities among historically disadvantaged groups.

To the extent, however, that these initiatives yield significant benefits among the subgroups most affected by the digital divide, the final question is whether the resulting economic and political benefits outweigh the costs required to finance the initiatives. As is evident from the Connect Ohio plan, digital citizenship efforts are not inexpensive. The projected costs for Connect Ohio are likely to reach, if not exceed, \$7 million in the next three years alone.¹¹¹ Furthermore, the projected financial costs do not include the opportunity costs of the time spent by government employees on the formation and implementation of the Connect Ohio initiative. However, such expenditures of

108. MOSSBERGER, ET. AL., *supra* note 4, at 8.

109. *Id.*

110. Xenos, *supra* note 78, at 708.

111. Niquette, *supra* note 11.

time and financial resources can be worthwhile, as long as the benefits outweigh the costs. Although it is difficult to calculate the benefits of intangible improvements like increased Internet use, civic engagement, and voter turnout, it is relatively simple to calculate an increase in average income above an increase observed in similarly situated communities. Assuming a cost-benefit analysis establishes the value of a digital citizenship initiative, this information in connection with Mossberger, Tolbert, and McNeal's findings would add credence to the authors' optimistic conclusions. In other words, while these real-world studies alone are insufficient to fully confirm the extent of the Internet's impact, they present a unique opportunity to supplement Mossberger, Tolbert, and McNeal's research and justify the authors' calls for substantial federal involvement.

CONCLUSION

Mossberger, Tolbert, and McNeal ultimately present compelling arguments to reevaluate the digital divide and its continuing effect on historically disadvantaged groups. The authors insightfully argue that, by viewing the digital divide through the lens of daily or frequent Internet use, scholars gain a clearer picture of groups lacking the experience and skills necessary to use the Internet for economic or political advancement. However, the authors fall short in their premature calls for government intervention on the basis that the Internet causes greater economic opportunity, civic engagement, and political involvement. Although the authors provide substantial data to support the existence of a correlative relationship between Internet use and these benefits, they fail to thoroughly address the evidence's shortcomings. While a digital divide certainly affects economic well-being and political involvement at least to some extent, the data is less conclusive than the authors suggest. At times, the authors assume a causal relationship where the data merely reflects a correlative link. They also fail to give adequate consideration to a host of other factors likely to affect the correlations observed and neglect to consider current trends of declining civic engagement and voter turnout in the face of growing Internet use.

Despite these shortcomings, the authors' scholarship furthers our understanding of a continuing digital divide and the need to address this important issue. The authors also present a more complete picture of emerging empirical data on the subject, for they contribute original research to the field of Internet study. Given the amount of correlative data between increased Internet use and economic opportunity, civic engagement, and political participation, it is likely the Internet posi-

tively affects these values, at least to some extent. However, the book leaves the reader questioning the degree of the Internet's impact and whether it is substantial enough to justify significant government expenditure.

To answer these questions, Mossberger, Tolbert, and McNeal have a promising opportunity to supplement their research with empirical studies of real-world digital citizenship initiatives already underway. If, at the local level, these initiatives produce substantial economic and political benefits above those observed in similarly situated communities, the authors can better defend their conclusions. Furthermore, if these local initiatives reveal significant improvements among historically disadvantaged groups and yield benefits that outweigh implementation costs, then a greater justification will exist for federal involvement and expenditure. However, until such data is gathered, questions persist regarding the degree of the Internet's impact and whether digital citizenship initiatives are the best means to address societal inequities. While the Internet may provide at least a partial answer to economic and political inequity, it remains uncertain whether the Internet and digital citizenship can provide a significant and lasting solution to widespread social, economic, and political problems.