

Not Bugs, But Features: Towards a Political Economy of Access

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Digital divide researchers should be leading the academic and political conversation on the growing gap between rich and poor in the United States: where it came from, why it persists, and how we can change it. But we are not. As interdisciplinary scholars of technology and inequality, we have much to offer but the expert opinions in these increasingly mainstream debates are more often those of traditional economists,¹ political scientists,² and sociologists.³ And technologists with moonshot ideas are perhaps the most prominent of all.⁴ There are plenty of causes for this dilemma that are external to our field but I think our marginal position is at least partly self-inflicted: By framing the digital divide as a specific, technological species of poverty within contemporary capitalism, we cede in advance a more powerful critique of the technological nature of inequality more generally. This is work we are uniquely positioned to do, but to do so we must practice and theorize a political economy of access that shifts our focus from informational poverty to informational inequality.

Capitalism requires inequality: Ford and his managers needed workers on the line, Google and its engineers need cafeteria workers and book scanners.⁵ The relationship between a society's wealthy and its poor varies historically but the two are always produced together and technology mediates this relationship. Digital divide scholars have dissected exactly who lacks access to information and communication technologies⁶ (ICT), how that lack has transformed into poverty of skill or usage,⁷ and how institutional interventions must account for cultural and economic context.⁸ What is missing is an attention at everyday, institutional, and structural scales to how informational wealth and poverty are produced together and how ICT changes the nature of that inequality. We must focus not on the special qualities of the digitally divided, the “information have-nots” as Al Gore put it two decades ago,⁹ but how the digital divides us. A political economy of access holds that capital—whether financial, social,

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- 1 e.g.: Joseph E. Stiglitz, *The Price of Inequality: How Today's Divided Society Endangers our Future* (New York, NY: WW Norton & Company, 2012); Thomas Piketty, *Capital in the 21st Century*, trans. Arthur Goldhammer (Cambridge, MA: Harvard University Press, 2014).
 - 2 e.g.: Jacob S. Hacker and Paul Pierson, *Winner-Take-All Politics: How Washington Made the Rich Richer--and Turned Its Back on the Middle Class* (New York, NY: Simon and Schuster, 2011); Robert D. Putnam, Carl B. Frederick, and Kaisa Snellman, "Growing class gaps in social connectedness among American youth," *Harvard Kennedy School of Government Saguaro Seminar* (Cambridge, MA: 2012).
 - 3 e.g.: Jennifer M. Silva, *Coming Up Short: Working-Class Adulthood In An Age of Uncertainty*, (New York, NY: Oxford University Press, 2013); Janet Gornick and Markus Jäntti, eds., *Income inequality: Economic Disparities and The Middle Class in Affluent Countries* (Stanford, CA: Stanford University Press, 2013)
 - 4 e.g.: *The Economist*, "Bill Gates on Inequality: Three Myths Debunked," January 22, 2014; Tad Friend, "Is Elon Musk's Hyperloop a Pipe Dream?" *The New Yorker*, August 15, 2013.
 - 5 Laura Sydell, "What It's Like to Live on Low Pay In a Land Of Plenty," *NPR: All Tech Considered*, December 18, 2013.
 - 6 e.g.: Jan van Dijk, *The Deepening Divide: Inequality in the Information Society* (London: Sage, 2005); Paul DiMaggio, Eszter Hargittai, W. Russell Neuman, and John P. Robinson, "Social Implications of the Internet," *Annual Review of Sociology* (2001): 307-336.
 - 7 e.g.: Alexander van Deursen, and Jan van Dijk, "Internet Skills and the Digital Divide," *New Media & Society* 13.6 (2011): 893-911; Eszter Hargittai, "Digital Na(t)ives? Variation in Internet Skills and Uses Among Members of the 'Net Generation'," *Sociological Inquiry* 80.1 (2010): 92-113.
 - 8 e.g.: Mark Warschauer, *Technology and Social Inclusion: Rethinking the Digital Divide* (Cambridge, MA: MIT Press, 2004); Virginia Eubanks, *Digital Dead End: Fighting for Social Justice in the Information Age* (Cambridge, MA: MIT Press, 2011).
 - 9 Al Gore, "No more information haves and have-nots." *Billboard* 106.43 (October 22, 1994)

or cultural—is not an object we possess but a social relation.¹⁰ A political economy of access shifts the focus from opportunity, which is always individual, to power, which is always relational. The three examples below, two structural and one ethnographic critique of our approach to unemployment, gesture towards a political economy of access that moves digital divide scholarship and policy away from counting bugs in the system, playing whack-a-mole with new divides in skills or mobility or big data visibility, and towards mapping the features of the system which continues to reproduce inequality.

The idea that gaps in access and skill keep people from getting good, available jobs is common sense in U.S. politics: from Congressmen¹¹ to Secretaries of the Treasury,¹² to Presidents.¹³ And the presence of a 'skills gap' is a persistent theme in surveys of employers.¹⁴ But today there are about three times as many unemployed workers as there are job openings in the US;¹⁵ wages for STEM fields have stagnated when you would expect them to rise if such skills were limited, precious commodities;¹⁶ and digging down into survey data reveals employer concerns over the skill gap are more about finding skilled workers who are willing to work for low wages.¹⁷ The jobs with the highest growth potential in the next decade are not STEM jobs but low-wage service jobs in health and retail fields, most of which require more emotional literacy than computer literacy to succeed.¹⁸ A consistent theme in digital divide scholarship has been regular surveys of who has what skills or tools and how this constrains or rewards them in the job search process.¹⁹ I worry this approach gives tacit approval to the pernicious myth of a skills gap, rather than critically addressing the shape of inequality today. Instead of calculating unemployed workers' precise level of ICT poverty, we should enlarge our tent to include research on how certain skills get under- or over-valued in the labor market²⁰ or how ICT industries recruit low-wage coding labor and lobby for policy that supports the same.²¹

Many of us pride ourselves on providing sober empirical assessments of digital utopian claims. But by focusing on the opportunities ICT use provides for poverty relief, we avoid debates on how certain

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- 10 Karl Marx, "The General Formula for Capital" in *Capital, Vol. 1: A Critique of Political Economy*, trans. Ben Fowkes (London, UK: Penguin Classics, 1992 [1977]): 247-258
- 11 Bill Owens, "Closing the Skills Gap," *The Huffington Post* (April 1, 2014)
- 12 "[T]hose workers with less education and fewer skills will realize fewer rewards and have fewer opportunities to advance." Remarks Prepared for Delivery by Treasury Secretary Henry H. Paulson at Columbia University, August 1, 2006.
- 13 "[I]n this rapidly-changing economy, we have to make sure that every American has the skills to fill those jobs." Remarks Prepared for Delivery by President Barack Obama for the State of the Union, January 18, 2014.
- 14 e.g.: The Manpower Group, *2013 Talent Shortage Survey*. March 4, 2014.
- 15 Bureau of Labor Statistics, "Employment Situation Summary," March 7, 2014; Bureau of Labor Statistics, "Job Openings and Labor Turnover Survey," March 11, 2014.
- 16 Daniel Costa, "STEM Labor Shortages? Microsoft Report Distorts Reality About Computing Occupations," *Economic Policy Institute*, November 19, 2012.
- 17 Lawrence Mishel and Heidi Shierholz, "A Decade of Flat Wages: The Key Barrier to Shared Prosperity and a Rising Middle Class," *Economic Policy Institute*, August 21, 2013.
- 18 Bureau of Labor Statistics, "Occupations with the Most Job Growth", *Employment Projections*, December 19, 2013.
- 19 e.g.: Cassidy Puckett and Eszter Hargittai, "From Dot-edu to Dot-com: Predictors of College Students' Job and Career Information Seeking Online," *Sociological Focus* 45.1 (2012): 85-102.
- 20 e.g.: Arne L. Kalleberg, *Good Jobs, Bad Jobs: The Rise of Polarized and Precarious Employment Systems in the United States, 1970s-2000s* (New York, NY: Russell Sage Foundation, 2011)
- 21 Biao Xiang, *Global "Body Shopping": An Indian Labor System in the Information Technology Industry* (Princeton, NJ: Princeton University Press, 2007)

technologies fundamentally alter the nature of inequality in societies, sectors and workplaces.²² Aversion to such work may stem from a fear of being labeled technological determinists, but a sober assessment of the social-technological dialectic is necessary to any theory of political economy.²³ Technologically-induced unemployment is a good example here. Automation of routine data processing may be one reason we are witnessing ongoing labor market stratification between high-wage knowledge workers and low-wage service workers. Indeed much of the job losses from the recent recession were mid-wage, routine clerical work that many employers have automated away—one ingredient in our 'jobless recovery.'²⁴ Travel agents and bank tellers are the archetypal examples here, but in my own city of Washington, D.C. we've seen drastic reduction in the clerical pools which fueled the rise of our local black middle class.²⁵ In the U.S., a good job has always been part of our common sense of the good life; digital divide scholarship must grapple with what exactly those good jobs are, where they have come from and where they have gone.

Finally, we might think about the most minute aspects of computerization that large-scale surveys might overlook and which only long-term qualitative work can unravel. I entered academia partly to address one problem that kept popping up in my previous life as a social worker: My clients needed a non-trivial level of computer literacy to apply for jobs which themselves required no computer literacy. These lengthy online job applications provided new opportunities for discrimination (e.g., applicants with criminal histories or bad credit can be filtered out) and convenient scapegoats for avoiding applicants who could have been model workers but whose skills and experiences did not fit on a traditional resume (e.g., "Got a red light from the computer, it's out of my hands"). This has reappeared frequently in my fieldwork and it is a good example of why we must shift our frame from poverty to inequality: Asking only what skills or tools are needed to complete the application or get the job keeps us from asking how the shift to online applications shapes the very nature of the job search, how employers benefit, and how this opens opportunities for the good life to some but not others.

I worry that digital divide scholarship and the politics that emerge from it are something of a cargo cult: Assuring ourselves that the good life will emerge if the symbols of it (i.e., ICT and related skills) are present. With this in mind, it is insufficient to reframe the digital divide binary into a digital inequality spectrum.²⁶ It is the same problem, only more finely measured. A political economy of access looks not at degrees of poverty but its production in relationship to wealth, not gaps but the power to make them. I have presented some pessimistic scenarios of technological change above but they are only examples designed to deflate the assumptions of ICT-enabled social mobility that I believe have been inherent to our field since the first *Falling Through The Net* report.²⁷ The empirical work of shifting our focus from poverty to inequality means focusing on ICT not as inherently good or

22 For example, the dominant economic paradigm of skill-biased technological change (SBTC) that rewards high-skill workers is being challenged by heterodox theories of power-biased technological change (PBTC) that tends towards stratification and workplace control, see: Frederick Guy and Peter Skottz, "Power-Biased Technological Change and the Rise in Earnings Inequality," *Society for the Study of Economic Inequality Working Paper Series* (November 2005).

23 Langdon Winner, "Do Artifacts Have Politics?" *Daedalus* 109.1 (1980): 121-136.

24 Maria E. Canon and Elise Marifian, "Job Polarization Leaves Middle-Skilled Workers Out in the Cold," *The Regional Economist* January, 2013.

25 Lisa Rein, "As Federal Government Evolves, Its Clerical Workers Edge Toward Extinction," *The Washington Post*, January 14, 2014.

26 Eszter Hargittai and Amanda Hinnant, "Digital Inequality," *Communication Research* 35.5 (2008): 602 -621

27 National Telecommunications and Information Administration (NTIA), *Falling Through the Net: A Survey of the 'Have-nots' in Rural and Urban America*. (Washington, DC: US Department of Commerce, 1995)

bad but as the landscape of contemporary inequality.²⁸ This integration with traditional political economy and the empirical shift accompanying it could answer Jan van Dijk's call for more theoretical, interdisciplinary, qualitative, dynamic, and conceptually elaborated approaches to the digital divide.²⁹

In this way we might take inspiration from geographers who, starting in the early 1970s, argued that space evidenced social struggles and their boundaries, rather than acting as a mute stage for such struggles.³⁰ Geography is also a site for future collaboration: One site where digital divide scholarship and policy should be more prominent is in debates over 'creative cities' urban policy, a paradigm where growth is driven by the recruitment of technological elites.³¹ Such policies often displace or impoverish working-class residents of color, rather than supporting them in developing their own skills and in building sustainable economic alternatives.³² This is exactly where a political economy of access should be: Exploring how new sites and trends of inequality within contemporary capitalism are built into the technologies we use, what we do with them, and the stories we tell about them—from the most ephemeral personal uses to the grander narratives of policy and economic mobility. Because the digital divide is not a bug in a broken system, but a feature of a system working exactly as it should.

28 Wenhong Chen and Barry Wellman, "Minding the Cyber-Gap: The Internet and Social Inequality" in Mary Romero and Eric Margolis, eds., *The Blackwell Companion to Social Inequalities* (Malden, MA: Blackwell, 2005): 523-545.

29 van Dijk, *Deepening Divide*: 25-6

30 David Harvey, *Social Justice in the City*, Athens, GA: University of Georgia Press, 2009 (1973).

31 Richard Florida has built a series of books and a strong consulting and public intellectual business based on these ideas, beginning with *The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community, and Everyday Life*, New York, NY: Basic Books, 2002;

32 Jamie Peck, "Struggling with the Creative Class," *International Journal of Urban and Regional Research* 29.4 (2005): 1-31

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