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**The High-Tech Economy, Work, and Democracy 2.0:
A Research Agenda**

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ABSTRACT

The current techno-economic transformation, or Algorithmic Revolution, has wide-ranging consequences for society, posing many challenges of economic policy. At a macro level, it has been associated with rising inequality, “disruption” of many economic sectors, and the destruction of many jobs as well as the creation of others, with still unknown net effects. At the micro level, it has generated a particular type of employment relations: while the industrial revolution was associated with wage labor, often in large concentrations of workers, the current revolution is associated with a shift from employees to what might be called micro-entrepreneurs, who are often widely dispersed. This paper addresses the *political* effects of these transformations—specifically the effects on the structure of popular interest representation regarding these policies of economic regulation. These changes may be profoundly affecting the nature of mass democracy in the 21st century, or Democracy 2.0.

The new worlds of work, by atomizing workers and challenging unions, makes collective action more difficult, particularly around “productionist” policies—micro and macro economic outcomes of the techno-economic transformation as it unfolds. A host of important questions are raised. What role can unions still play in addressing these issues? Can other organizations, which have emerged around other kinds of issues, engage economic or productionist policies effectively? What is the role of social media in coordinating action not only for protest but also for organizing and providing policy input? Through raising these questions, this paper proposes an agenda of comparative research for examining the capacity of citizens to engage the policies that may guide the goals of technology development, how technology is implemented, and how its social and economic consequences are regulated.

The world has been in the midst of a techno-economic transformation with far-reaching effects. It proceeds with unprecedented speed, as is often captured with reference to Moore's Law. It is a complex, technical, and therefore esoteric phenomenon, with the consequence that its nature and projections even in the near term are understood by a relative few. It has wide-ranging consequences for society, including effects on the world of work, inequality, and social stratification. This paper raises some preliminary questions and ideas for a research agenda regarding some *political* consequences, particularly the nature of political representation and the capacity of ordinary citizens to have input into public policy relevant to this transformation as it unfolds.

The discussion presents a framework for understanding the transition to what might be called Democracy 2.0. The way interests are organized and articulated politically is fundamental to a democratic regime. Many analyses have seen new social movements and civil society organizations as a trend toward deepening democracy at the end of the 20th and beginning of the 21st century. This paper adds another dimension to that discussion: the question of the structures of interest representation and interest articulation specifically concerning productionist issues—the kind of economic issues that unions traditionally took up. Even as 21st century democracy may have deepened with the appearance and effectiveness of new kinds of organizations pursuing new interests, the present question inquires about the capacity of citizens to achieve representation on the kinds of economic issues that in many ways dominated the agenda at the onset of mass politics. The label Democracy 2.0, then, conveys two points. First, the changes in the structure of representation may be seen as a major shift in the nature of mass democracy from the time it first appeared in the 19th and early 20th

centuries. Second, the present focus is specifically on the representational changes that may result from, and the interests and policies that address, the current techno-economic transformation.

In considering the way the new techno-economic transformation may be changing the structures of representation, the analysis narrows this focus in two ways. First it looks at “popular” voice or representation; that is, “elite” or capital interests are not taken up here, though these are clearly important—and indeed often the most powerful drivers of policy. However, the present question concerns channels of popular representation—and, indeed, countervailing power to those commanding concentrated interests.

Second, the paper focuses on the capacity of citizens to organize for making political claims or demands specifically regarding what can be referred to as productionist issues that arise with new hi-tech economy, that is, issues of economic policy and regulation, at both the micro and macro levels—policies that may guide the goals of technology development, how technology is implemented, and how its social and economic consequences are regulated.

These policy issues are not only of analytic interest. They are clearly salient for firms and economic actors—both those who advance the changes and those challenged or disrupted by them. But they are also salient, indeed increasingly salient, for the population in general, given that the hi-tech economy has distributive and employment effects and raises a host of normative issues. The recent publicity over privacy issues has heightened the perceived need for scrutiny of the consequences of technology in general, and the potential impacts on inequality and employment have received increasing media attention. In recent years, open-ended survey questions in the OECD as well as Latin American countries reveal the high salience of economic issues in general and jobs more specifically.

The present analysis is based on stylized patterns of countries in the advanced economies of the North Atlantic. Although I have relied particularly on the experience of the United States, I advocate a comparative research agenda, which will highlight the causal importance of differing political structures and policy decisions. At the same time, some reference is also made to Latin America, a very different region in many ways, including the level of economic development, the nature of ICT penetration, and position in the world value chain. Nevertheless, it can be a fruitful point of reference in some respects because it experienced a similar shift in what will be analyzed as the popular interest regime, with parallel challenges for political representation, and existing analysis of this shift in Latin America suggests the challenges posed for collective action on economic issues. Similarly, Latin America's its longer experience with a dual labor market as well as its innovation with new participatory institutions are helpful in posing some questions that may be relevant for advanced economies. Nevertheless, while cross-regional comparisons between the advanced West and Latin America may be interesting and illuminating, that comparison, involving such different cases, is not directly considered here.

Many analyses have examined the politics of earlier economic transformations. For advanced economies, a body of work has looked at the politics of the transformation from the Keynesian welfare state to more liberalized economic models. Similarly, for Latin America many studies have focused on the politics and political consequences of the transition from import substitution to export-oriented models, from protectionist to more open, globalized economies. Still incipient is analysis of the current techno-economic transformation—the ICT (information and communication technologies) revolution, or what Zysman has called the Algorithmic Revolution.¹ The analysis is

¹ John Zysman, "The Algorithmic Revolution—The Fourth Service Transformation," *Communications of the ACM*, 49:7 (July 2006).

important because of the profound impact of the Algorithmic Revolution on business models, jobs, the world of work, and distribution.

The present question, then, concerns the conditions under which popular voice can meaningfully engage these policy issues concerning the deployment and economic consequences of the current techno-economic transformations. What organizations can have meaningful input regarding its consequences for the world of work and questions of larger economic policy? My approach here is to view these questions in terms of an iterative process: the current economic transformation is having a major impact on the world of work, which affects the capacity of citizens to engage these issues by affecting the way people organize and make demands. That is, the very consequences of the hi-tech transformation affect the capacity of people to undertake collective action and politically engage the micro and macro policy issues that arise with the techno-economic changes. There is thus a feedback loop.

The analytical framework presented here focuses on the structures of mass politics, specifically on a shift in popular interest regime. This shift has involved change in types of organizations through which citizens articulate political demands, in the types of interests or demands the new organizations present, and in their capacity for undertaking collective action and their repertoires of action. From this perspective, a number of questions arise for comparative research regarding the conditions under which popular voice can meaningfully engage the productionist policy challenges of the Algorithmic Revolution and its consequences. Have the decline of unions and the emergence of new employment relations demobilized the micro and macro economic issues that unions have typically taken up, and can other types of organizations take up these issues? Are there new forms of participatory institutions that can provide policy-making access? What is the role of social media in coordinating action not only for protest but also for organizing and providing policy input?

The Changing Popular Interest Regime

Approaches to the question about mass politics and popular representation may focus on two different sites in the democratic polity. The first is the electoral arena—this is the site where recruitment to state office is contested. This arena is one of formal institutions, and political parties are the main actors. Participation in the electoral arena may be related to the goals of pursuing interests and affecting policy, but it has been recognized as a blunt mechanism for signaling policy preferences or pursuing specific interests.

The second site of participation and representation is the interest arena. It is the central focus of this analysis. This arena operates more informally. It has no mechanism of equality, such as equality of the vote, and it has no—or few—formal, institutional rules. It is the arena of interest organizations and lobbying, of social movements and protest. It is where specific interests are more clearly articulated and pursued.

The analytical cut I would like to make is to focus on what I have called the popular interest regime, that is, the set of organizations (or organizational infrastructure) through which ordinary citizens have sought to frame and pursue their interests. To put the present situation in comparative perspective, one can consider an historical shift in the popular interest regime. In past work, I have referred to this shift as one from the union-party hub (UP-Hub) to the associational network (A-Net).² With this shift, there are different organizations, with different traits, interests, and types of collective action. The present question concerns the implications of this shift for popular representation about economic issues.

² Ruth Berins Collier and Samuel Handlin, “The Shift in the Popular Interest Regime,” in Ruth Berins Collier and Samuel Handlin, eds. *Reorganizing Popular Politics: Participation and the New Interest Regime in Latin America* (University Park, PA: Pennsylvania State University Press: 2009), pp. 48-60.

The classic form of the popular interest regime was one dominated by party-affiliated labor unions and dates from the onset of mass politics. Mass politics came in with the industrial revolution in Europe and the spread of factory production, with the decline of the artisan working class and the rise of a proletariat. Accordingly, the issues were productionist—centered in materialist grievances around class and employment relations, from work place issues to the large issues of economic organization and indeed the whole economic model. One need only remember that initially grievances were often framed in anti-system, anti-capitalist terms, and later in terms of capitalist or economic regulation at the national level.

In this context, Western Europe pioneered a new social technology in the form of mass parties and labor unions, which were typically affiliated to these mass parties. These organizational types spread quickly to other countries with a growing proletariat in the first decades of the 20th century, such as Latin America and China. Regional differences not surprisingly existed: although Socialist and Communist parties diffused to Latin America, the type of labor-based party that often predominated there was the “populist” party, embodying different socio-political coalitions and generally weaker unions. Nevertheless, in one form or another, in those countries where mass politics emerged relatively early, the party-affiliated union was the dominant player in the popular interest regime.

Unions are particular kinds of organizations. They have clear members and they have dues, which give them regular resources. Organization is centered in the workplace, where workers have face-to-face relations, common conditions, and a common target of grievances in the form of a common employer. At the same time, unions scale up to form peak organizations of national confederations, which can speak for the members. These features have facilitated collective action both among individuals and across organizations.

With these advantages, unions have typically had a wide repertoire of action, from protest and strikes to institutionalized access of seats at the negotiating table with both employers and the state. The institutions invented for this negotiating access were state-regulated collective bargaining and other forms of tripartite bargaining on economic policy.

Especially after World War II, structures of corporatism gave unions certain access to the state and to policy makers. This access varied tremendously, with the biggest contrast between societal corporatism in Europe, where unions had powerful policy-making roles in tripartite negotiations, as opposed to state corporatism in Latin America, where unions were subordinated and coopted by the state. Substantial variation also existed within each of these types.

In sum, through most of the 20th century, unions were the dominant actors in the popular interest regime. They obviously were not the only popular organizations, but they were dominant in the West as well as in Latin America. Further, the issues that pre-occupied them were productionist, that is, micro and macro materialist issues of employment and economic regulation. Notwithstanding variation across cases, they had quite institutionalized access to the policy-making process at both these levels.

The UP-Hub began to be supplanted in the 1970s and 1980s. Economic and social change brought about changes in the popular interest regime. New types of organizations have proliferated and have taken up quite different issues, at the same time that unions have been weakened.

A reshaped popular interest regime, the A-Net, emerged in two phases. The shift began in the 1960s and 1970s in the advanced economies, when new social movement organizations (SMOs) were formed around a set of quite different issues related to rights and risks. The economic foundation for the shift was often analyzed in terms of post-materialism. A common analysis was that the major materialist issues had been solved,

and an orthogonal dimension in issue space emerged. These rights issues concerned civil rights, human rights, women's rights, LGBT rights, disability rights, animal rights, and so forth; prominent among the risks were nuclear and environmental risks.

As with the earlier diffusion of a labor movement, these rights and risks movements also diffused internationally. However, in many other regions, the rights issue dominating the agenda was democratic rights and regime transitions.

These new organizations were analyzed under the rubric of the new social movements—a label that made an explicit contrast with unions as the “old” social movement. The constituency for these new issues was not based in a face-to-face setting like a factory but was a much more dispersed set of sympathizers. Rather than bureaucratized unions, hierarchically organized into peak associations, willing to collaborate with the state, these were analyzed as participant, anti-authority, and oppositionist movements, related to one another in fluid networks. While unions had a very wide repertoire of insider and outsider action, social movement organizations focused on outsider actions of contention, including protest, petitions, and so forth.

A second phase in the transformation of the popular interest regime started in the 1980s, when the major economic transitions of liberalization and globalization began. In terms of the organization of popular interests, this economic change meant a number of things.

First, materialist issues were once again prominent on the agenda. In Latin America, especially with the debt crisis and the so-called lost decade of no growth in the 1980s, the result was the appearance of many kinds of materialist subsistence organizations in lower class neighborhoods—like communal kitchens and food distribution. Many world regions saw the proliferation of a host of other organizations around distributive issues, in health, education, service delivery, and neighborhood infrastructure. Western-based organizations became important players throughout the

world. But an important point is that these materialist issues were consumptionist, rather than the productionist issues that unions traditionally took up.

Corresponding to this organizational proliferation and consistent with liberalizing orientations on the right as well as with notions of deepening democracy on the left, came an orientation toward “civil society”—consistent with a pre-occupation with non-state actors. This analytical model was advanced by activists as well as international financial institutions, and the model also came to be a central focus in the social sciences. Civil society organizations (CSOs) proliferated—from professionalized NGOs, acting both domestically and internationally, to grass-roots community organizations.

For many civil society organizations, as for SMOs, funding is uncertain and must be constantly renewed. Some are quite precarious, though some are well resourced, with ties to international funding and/or access to state resources, either as grants or contracts for research or service delivery. Also, rather than members, they are likely to have fluctuating relations with constituencies and beneficiaries and, like social movement organizations, intermittent participants. Also like the latter, they tend not to be hierarchically organized but instead related in a network. As a result, both mobilizing individuals and coordinating organizations for collective action may be more difficult, though this is an important area of research. Many of these organizations do not make demands on the state, but some do through a variety of demand-making strategies. Most deliver services of one type or another.

Another effect of economic liberalization and globalization is that unions have been weakened with privatization, greater competition, and the growth of a secondary labor market. A dualistic labor market had started earlier in Latin America, because late development never absorbed as much labor as early development, and an older urban informal sector started to expand in the 1950s-60s. The size of the sector bumped up in

the 1980s, with the lost decade of the international debt crisis and the move to more marketized economic models.

As is well documented, a secondary labor market also grew in the advanced economies. In both regions, while many labor market insiders—those with security of employment and generally better wages and benefits—are still protected, they are under pressure and on the defensive, albeit with variation across countries. Unions have declined in density, power, and political influence, though again to different degrees in different countries.

**Table 1. Shift in Popular Interest Regime:
From Union-Party Hub to Associational Network**

| | UP-Hub: Unions dominant | A-Net: Pluralistic, with following additional components |
|--|---|--|
| Organizational traits | Party-affiliated unions: members, dues, peak/hierarchical | SMOs: dispersed sympathizers; networks CSOs: constituencies, beneficiaries; networks Unions weakened |
| Issues | Micro & macro productionist | SMOs: rights, risks CSO: consumptionist, distributive |
| Repertoire of Collective Action | Wide: strikes to institutionalized negotiation | SMOs: contention CSOs: service delivery, demand making |

SMO: social movement organizations

CSO: civil society organizations

The result is a new popular interest regime—a new organizational infrastructure. It is far more varied and “pluralistic.” Unions remain important components but are no

longer so dominant, encompassing, or powerful. New organizations advocate a different set of interests and have different organizational traits, inter-organizational relations, and repertoires of action. The question is if the salient economic issues have been demobilized or if the new interest regime can engage the policy challenges of the key techno-economic transformations of the 21st century.

The Micro and Macro Policy Challenges of the Algorithmic Revolution: The Changing World of Work

The current techno-economic transformation, or the Algorithmic Revolution, is in many ways a real game changer. It refers not only to the computer revolution that began decades ago, but to what many see as a break in c. 2005, when computing resources no longer were seen as scarce, but rather as abundant and virtually limitless. It is this abundance that has enabled the age of big data, analytics, and social media, as well as a new cyber-coordinated labor market.

My thinking about the political effects of this transformation is substantially informed by the US case. However, one cannot generalize from the US case, and it is precisely a comparative analysis of these issues and the need to explain variation that I want to advocate. Nevertheless, the US case may be helpful in pointing to certain trends and challenges and, at least, in identifying the policy issues that might be engaged.

The social consequences of the Algorithmic Revolution are too numerous, varied, and well known to list here. They range from privacy concerns, to discriminatory internet searches, the decollectivization of risk, and personalized pricing. Here, I focus on the consequences for the world of work.³ These consequences are wide ranging, and

³ For a recent discussion of the implications for macro-economic policy, see *Technology at Work: The Future of Innovation and Employment*. Citi GPS: Global Perspectives and Solutions. <http://www.oxfordmartin.ox.ac.uk/downloads/reports/Technology%20at%20Work.pdf>

include, for example, new data management systems, often in brick and mortar settings, that increase the monitoring of work or that increase contingency in the dual labor market by scheduling work to adjust to demand in real time, distributing risk to the worker, whose own scheduling and income become uncertain and unstable. For present purposes, however, I want to consider two particular consequences for the world of work: the generation of jobs and on-demand work. Both raise key questions of productionist policy. In the last few years, these have become increasingly visible political issues of both micro and macro economic policy.

The first, then, is the generation of jobs. Some analyses now suggest that automation has entered a new historic phase, because of both robotics and the analytics of big data. Some now argue that instead of increasing both productivity and also jobs, as occurred during past technological innovations, technology may overall be destroying jobs. A first round of theorizing suggested that routine jobs in manufacturing or white-collar office work would be at risk, but more skilled jobs have also become vulnerable as more and more tasks become automated and commodified.

Indeed, even the most highly skilled jobs have been affected, as can be seen in a lecture by a PhD in computer science who had a career as a top machine-learning researcher at GE. In the lecture, entitled “Data-Driven Analytics in the Industrial Internet or How to Destroy My Job,”⁴ the speaker described how his job had constantly changed over his career, as at each phase the tasks became automated. His point was that building analytic models used to be an artisanal process, but even that is becoming automated through the use of meta-heuristics. He argued, “in the future, we expect data-driven analytic models to become a commodity.” So commodification and the

⁴ Piero Bonissone, GE Global Research. CITRIS, University of California, Berkeley, Sept. 11, 2013.

elimination of jobs may not be limited to only blue- and white- and pink-collar jobs, and the solution may not be simply training.

The jobs issue does not appear to be limited to the US or advanced economies. A recent study showed a decline in labor share of national income in over 70 percent of 59 countries on which data were available from 1975 to 2012, and that included Mexico, China, and India. Out of ten major economic sectors examined, employment declined in six of them, and increased in only two. Finally, the authors suggest that these declines occur within sectors, rather than shifts in their relative size.⁵

No doubt, employment is expanding not only in some traditional sectors (like healthcare) but also in sectors created or boosted by the new technology. The latter include non-technical, traditional jobs in hi tech firms jobs, which tend to be outsourced, like gardeners, food workers, bus drivers, and office workers; “data janitors”—the non-automated “cultural data workers” behind artificial intelligence;⁶ transportation/delivery, warehouse, and logistic workers who accommodate the rise in e-commerce; etc. Perhaps most obviously, and as will be discussed below, it also includes the expansion of technical jobs and those that are facilitated by cyber-coordination of the market on new platforms.

Despite these growth areas, the net balance of jobs, or the net effect of technology to displace rather than replace jobs, remains unknown. Nevertheless, the discussion of this uncertainty raises interesting policy challenges for stimulating job creation as well as for redistributing what seem to be the unequal dividends generated by the hi-tech economy. The tasks of such economic regulation are thus wide-ranging, including perhaps the conceptualization of full employment, jobs policy, incomes policy,

⁵ Loukas Karabarbounis and Brent Neiman, “The Global Decline of Labor Share,” *Quarterly Journal of Economics* 129:1 (2014).

⁶ Lily Irani, “Justice for ‘Data Janitors,’” *Public Books* (January 15, 2015), <http://www.publicbooks.org/nonfiction/justice-for-data-janitors>, accessed May 15, 2015.

and sectoral policy. And the question is: how do ordinary citizens engage those productionist policies? Through what organizations?

The second effect of technology on the world of work to be considered here concerns the type of job or employment relations—particularly the way it seems to boost micro-entrepreneurship and the atomization of work. In contrast to the industrial revolution with its proletarian employment relations and the pattern of selling one’s labor typically long-term to a single employer, a common pattern in the new economy is not to find a job, but to make one and to be a contractor or freelancer rather than employee. The new technology has facilitated a decomposition of work, with short-terms arrangements ranging from the project to the “gig” or even the micro-task in a pattern of “on-demand” work. Accompanying that arrangement is uncertain work and remuneration in a form of piecework. Further, the new technology of communication facilitates work at a distance, so that remote workers are dispersed, often in their own homes, and do not meet face-to-face. Like the unemployed, atomized workers are hard to organize. Indeed, they often “confront” one another as competitors.

One can perhaps distinguish two subgroups in this growing world of work. The first consists of those in new hi-tech fields. Needless to say, the hi-tech sector hires a lot of people, but it has also spurred a new world of micro-entrepreneurs. The second are those in a labor-market that is cyber-coordinated by platforms in the cloud. Both have particular interests or issues generated by their work, and they also pose some macro issues.

The hi-tech workers range from those who begin new start-ups and those who make apps, to those in the new “maker movement.” This world of work is one with a high failure rate and low—at best postponed—income, and in places like San Francisco and Austin, often involves living in cramped hacker hotels. It may be a model in which success is rare and thus depends on a lot of people willing to take the risk of a low-

probability outcome. It is a world of work with a high rate of turnover and one that attracts a particular group: especially young males during the period in their lives when they can afford that kind of life style.

This of course is not to deny that many start-ups are founded by people who have already made it big, or, for instance, have comfortable jobs teaching in universities. But along with a certain number of millionaires and professors, in many ways it is a model of a problematic world of work.

The second group of micro-entrepreneurs are workers cyber-coordinated by platforms, where any bits of unused value can become a marketable commodity—assets like a room in your home (AirBnB), a ride in your car (Uber), slivers of time, or expertise—even a medical consultation (e.g., Mechanical Turk, TaskRabbit, Upwork, Doctor on Demand).

Some of these workers may sell quite high levels of skill and may do quite well on a project basis. Some appreciate the flexibility of part-time work and the ability to choose hours of work as they will. For some it is supplementary to other work or activity. But many are a new form of contingent worker, or what Standing⁷ has called the precariat, who are micro-earners, with uncertain schedules and income and no control or input into conditions of work. Further, some of these workers are dependent on large, task-brokerage firms, like Uber, which impose conditions of pay and work on these workers (and indeed on the riders, who are also subject to behavior-inducing ratings),⁸ who do not have any say in these matters.

The pervasiveness of this emerging work, and perhaps more importantly the nature of employment relations among worker, client/”employer,” and platform is an important area of research. While there are many anecdotal and journalistic accounts,

⁷ Guy Standing, *The Precariat: The New Dangerous Class* (London: Bloomsbury Academic, 2011).

⁸ See Maureen Dowd, “Driving Uber Mad,” *New York Times*, May 24, 2015.

systematic comparative research is needed. It is important to delineate theoretically important axes of analysis and, on that basis, derive analytically interesting categories of worlds of work. It is also important to undertake cross-national analyses on the extent and growth of these different types of work, the demographics and skills of the workers, and the capacity of these atomized workers to organize or undertake collective action, or have voice about conditions of work.

The growth of atomized work presents a number of policy challenges. These include issues related to the precariousness of short-term work, particularly the uncertainty of hours and income, the application of labor regulations, minimum wage or income policy, worker-client-platform relations, and the legal status of workers as subcontractors or employees with the attendant distribution of responsibilities of work conditions and benefits.

Policy issues also arise at the macro level. In evading regulation, the growth of platform work not only challenges traditional vested interests in the same sector (like hotels and taxis), but also a number of consumer and public interests. The advantages of convenience, price, and efficiency are much touted. Lagging in attention are issues such as safety, reliability of provider and of service, zoning, and taxation—the other side of revenue collection by the government. Ultimately at issue as well is the question of the national growth and social welfare models.

While these issues of potential low labor absorption and atomized micro-entrepreneurialism may be associated with the new hi-tech economy, they are familiar in Latin America; and in a certain sense, these traits have a lot in common with the informal sector, which has been studied for decades. Political scientists have studied informality precisely because it has raised the micro and macro issues of jobs and economic regulation—such as the precariousness and instability of work, the lack of formal jobs, and social policy. Informality in Latin America has also raised the problems of the

collective action and political representation faced by these workers. Survey analysis in the region has suggested that an atomized world of work, without providing a large work-based network, has substantially demobilized workers in their capacity to address productionist problems not only in the work place but also in the political arena.⁹ Thus, these kinds of “late-development” questions again arise in the context of hi-tech development.

Cross-country comparative analyses are needed because one can expect that these job market effects of the new technologies will play out differently across different countries. How that happens will probably depend on at least two interacting factors. The first is the niches countries occupy in the international economy or their positions in the international chain of value creation and hence on the size of different economic “sectors.”¹⁰ Conceptualizing and understanding these niches in the world economy of the 21st century is important.

Second, it will vary with policy—that is, politics. Thus, we come back to the central question of the capacity of popular organizations to play an influential role on these issues.

Capacity of the Popular Interest Regime

As we have seen, the new, more pluralistic interest regime has components with a variety of different models of organization, issues areas, repertoires of action, and perhaps different capacities for collective action and demand making. Future research

⁹ Ruth Berins Collier and Brian Palmer-Rubin, “Latin America’s New World of Work: The Informal Sector and Problem Solving in the Interest Arena,” Institute for Research on Labor and Employment, University of California, Berkeley (2011).

¹⁰ See Mark Huberty, “The Dissolution of Sectors: Do Politics and Sectors Still Go Together?” in Ban Breznitz and John Zysman, eds., *The Third Globalization? Can Wealthy Nations Stay Rich in the Twenty-First Century?* (Oxford, University Press, 2013).

on the capacity of the popular interest regime for addressing these economic, productionist issues might focus on three areas of variation across cases.

First, unions are still important, and they traditionally have similar productionist interests. What is their role in the 21st century representation? Under what conditions will they primarily defend the interests of insiders, that is, their own members, and when will they also take up the interests of outsiders, particularly the new micro-entrepreneurs? To what extent are unions reaching out to or even sponsoring “alt-labor” organizations that may include not only non-unionized employees but also freelancers and those considered independent contractors? A suggestive analysis is that of Thelen, which, focusing on a different set of outsiders, nevertheless argues that the strategy of unions toward outsiders varies across European countries.¹¹ Yet again, Scandinavia provides the “good” model, in which unions include the interests of outsiders. But such a model remains the exception; in Germany, for instance, unions hunker down to protect only their members in key, powerful, traditional sectors.

Second, what is the capacity of the “new” organizations to engage these productionist or economic issues? In many ways, the rights and risks social movements have proven to be quite effective, as indicated by substantial success they have achieved—e.g., women’s and LGBT rights, air pollution, and, in Europe, GMO regulation. Consumptionist, distributive issues have also had substantial success, as can be seen, for example, in the dramatic expansion of pensions and cash transfer policies in Latin America to labor market outsiders and to the informal sector, though the politics of these expansions has varied.¹²

¹¹ Kathleen Thelen, *Varieties of Liberalization and the New Politics of Social Solidarity* (New York: Cambridge University Press, 2014).

¹² Candelaria Garay, *The Politics of Social Policy Expansion in Latin America* (New York: Cambridge University Press, forthcoming).

But three questions arise. Can rights and consumptionist or distributive demands morph or expand into basic economic and sectoral, productionist demands, including those related to the generation of jobs and regulation of work? Second, can effective voice be achieved on these issues by opposition and contestation, which is the main type of action of social movements?

The 2013 protests in Brazil illustrate these questions. These impressive but sporadic protests were originally about the specific consumptionist demand of transportation fares. They subsequently expanded to issues of poverty, but one might view this type of demand as a consumptionist issue. The question is if such protests and repertoires of contention can raise and be effective on the broader issues of economic policy and economic regulation. Or rather is some strategy of constant policy participation, monitoring, and engagement needed?

This leads to a third question, concerning the role of more institutionalized forms of access to policy making. Unions engage in formal and informal negotiations with employers and the state. What are the new forms of institutionalized access for the new organizations that might take on these productionist issues?

One innovation is the participatory policy council, which mandates citizen participation, often through CSOs. The most institutionalized, extensive, and successful of these have been established in Brazil. The most familiar have to do with local participatory budgeting. Similar councils, including those at the national level, have been adopted around a large variety of policy areas throughout Latin America, and they are widely advocated by the World Bank. Are these councils an effective form of institutionalized access in Democracy 2.0?

Two notes of potential caution are worth analysis. First, these councils have been widely adopted, but in general they have not been successfully implemented,

particularly on a national level, except in Brazil.¹³ Second, even within Brazil, most of these councils have been implemented around rights and consumptionist issues, especially health and social assistance. However, some economic policy councils have also been established, mostly on a kind of corporatist model, with representatives from business, unions, governments, and sometimes other stakeholders or popular organizations. Relatively little research has examined these economic policy councils, but there seems to be initial skepticism about their effectiveness. Thus the question remains if they are appropriate for the types of productionist issues of present concern. Some political science literature¹⁴ has suggested that different types of policy are associated with different types of political processes, so that, for example, the political process around distributive policy may be quite different from the political process around economic and regulatory policy. Might participatory councils, originally established around distributive or consumptionist issues, be effective on these regulatory or redistributive issues? And are there alternative forms of institutionalized policy-making access?

In sum, we can think in terms of three key questions regarding representative capacity of the popular interest regime: 1) the role of unions, 2) the role of new organizations—as well as the relationship between these and unions, and 3) the institutional spaces of representational access. The research agenda, then, has to do with the capacity for collective action, the repertoires of action of different kinds of organizations, and the policy process—the actors and institutions—in which economic interests are taken up.

¹³ See, for instance, Lindsay Mayka, “Bringing the Public into Policymaking: National Participatory Institutions in Latin America,” Ph.D. Dissertation, University of California, Berkeley, 2013.

¹⁴ See especially Theodore J. Lowi, “American Business, Public Policy, Case-Studies, and Political Theory,” *World Politics* 16:4 (1964).

Political Parties, The Nature of Issues, and Social Media

Three other important factors figure into these issues of popular representation on productionist policy: the role of parties, the nature of the issues involved, and the role of social media in coordinating and advancing collective action.

Political Parties. The above discussion has focused on the interest arena. However political parties are major actors in the political process around economic issues. Although the electoral arena—as the other site of representation in addition to the interest arena—is beyond the present purview, a couple of brief comments may be added, as parties can help solve collective action problems.

In this regard, the key issues are the nature of the parties' electoral constituencies and the relation between parties and organized interests. Once again, a potential contrast between Democracy 1.0 and Democracy 2.0 may be noted. In the UP-Hub of Democracy 1.0, unions had organic links with mass parties. In fact, the model of the mass party has been the labor-based party (LBP), i.e., a party with unions as the core support base. But this pattern has been changing. Especially with the move to liberalized economies, the boundary of the political has moved, and many choices are now made in the market rather than as the outcome of state policy. As a result, parties in many countries have changed, although to different degrees across countries.

In general, parties have less organic, more distant relations to interest organizations. Even the classic LBPs have moved in the direction of becoming catch-all or electoral-professional parties, which are more strategic electorally and more flexible in their policy positions. In this context, the organization of interests and the ability to gain the attention of parties is perhaps even more important. That said, some Latin American cases, such as Bolivia and Argentina, present a different model. In both countries new class-based movements have emerged in a new organizational form and have established new kinds of links with political parties through which they have become

quite influential on economic policy, although perhaps not on the regulation of the hi-tech economy per se. Cross-case difference is clearly exists. Once again, a comparative research agenda is essential.

The Nature of Issues. Perhaps a more universal factor affecting collective action around the Algorithmic Revolution and its consequence has to do with the nature of the issues relevant to technological innovation. At least three things make it difficult for ordinary citizens to be part of this discussion. 1) *Speed.* This is an area in which, true to Moore's Law, innovation happens at lightning speed. It is hard for citizens to keep up with such fast-moving developments. 2) *Technical complexity.* Much of what one needs to know is quite technical and complex. In these two senses a parallel can be seen with the issue of financial regulation and new financial instruments, for which even the regulators have to play catch-up and voters generally have little awareness of on-the-ground developments. 3) *Calculative asymmetry.* This policy area presents a particular challenge for a cost-benefit calculus for citizens. The benefits seem more visible, private, and immediate (e.g., efficiency, cost, or convenience gains from a cyber-coordinated labor market), whereas the costs (e.g., a low-wage job market, low aggregate demand) are less clear, longer term, and more like a public bad, requiring collective action to avoid, with private action having the effect only of foregoing the benefit.

Social Media. Finally, as has been widely noted, the new technology itself, especially the internet and social media, may affect the interest regime, overcoming some of the problems and challenges emphasized above and facilitating coordination for collective action, organization, and demand making.

On one side are the tech utopians, who are quite common within the hi-tech world and in journalism, and who think that social media democratizes and gives power to the people. An example is Thomas Friedman of the New York Times, who recently wrote about "The Square People"—those that amass in real or virtual squares or both,

and constitute an increasingly empowered political force that counter the superclass of ‘Davos Men.’¹⁵

On the other side are the tech skeptics, including some major critics from within the hi-tech sectors (Jaron Lanier or Evgeny Morozov).¹⁶ A relevant point of these more balanced analyses is that social media may be effective tools to do some things, like “identify, recruit, mobilize, and coordinate supporters” –for activities such as protesting, signing petitions, and fundraising, but they also may undermine organization by circumventing it.¹⁷ So there may be a trade-off, in which the very ease of coordinating individuals remotely, online, sidesteps the need for organization in the initial stages.

Social media seems effective in convoking large numbers for opposition to, e.g., the system, the regime, leaders, corruption. Large protests, augmented and intensified by social media, can even bring down governments. More problematic is constructing organizations that can step into the void and engage the policy-making process. The Arab Spring protests have widely been analyzed in this way, but it’s an area where research is needed.

To push this idea further, could it be that the very ease of convoking and coordinating individuals without organization leads to a kind of opposition as performance? At the limit, opposition might become a kind of flash mob or a transgressive performance without specific goals, a well-thought out analysis of the situation, and some idea of the way forward.

¹⁵ Thomas Friedman, “The Square People, Part I,” *New York Times*, May 13, 2014.

¹⁶ Jaron Lanier, *Who Owns the Future?* (New York: Simon & Schuster, 2013); Evgeny Morozov, *To Save Everything, Click Here: The Folly of Technological Solutionism* (New York: Public Affairs, 2013).

¹⁷ Moises Naim, “Why Street Protests Don’t Work,” *The Atlantic*, April 2014. See also Zeynep Tufekci, “After the Protests,” *New York Times*, March 20, 2014 and “Online social change: easy to organize, hard to win,” Ted Talk October 2014, https://www.ted.com/talks/zeynep_tufekci_how_the_internet_has_made_social_change_easy_to_organize_hard_to_win?language=en.

Perhaps an example is the Occupy movement in the US, which seemed to emerge out of nowhere, but then failed to really engage issues in a serious way that made actual policy demands. In fact, for many of the Occupy participants it was not even considered advantageous to agree on a program, but rather the idea was to be an oppositional presence and engage in a participatory process.

One can be optimistic or pessimistic about these movements that use social media to diffuse so quickly and to coordinate collective action. On the one hand, they often seem to be episodic and then disappear, without leaving behind an organization that could perform the important and necessary functions of institutionalized access and representation. On the other hand, they avoid Michels's iron law of oligarchy, which is, as he states it: "Who says organization says oligarchy."¹⁸

Further, this kind of horizontal, leaderless movement, precisely in its performative aspect, may, as Castells argues, play an important role in that it can dramatically raise issues and change society's understanding and values.¹⁹ And these movements do seem to have been able to at least raise the issues of inequality, jobs, and economic regulation. Rather than a dilemma or trade-off between organization and a movement, perhaps democratic representation requires both.

But the question remains: what organizations can take up these issues?

In assessing the role of social media in coordinating the action of social movements, it should also be borne in mind that the internet and social media can be a tool not only for citizens to make claims or policy demands, but also of power. The new technology has received some attention as a (potentially abused) tool for the government to keep tabs on what it regards as potential trouble makers; but it can also

¹⁸ Robert Michels, *Political Parties: A Sociological Study of the Oligarchical Tendencies of Modern Democracy* (New York: Collier Books, 1962).

¹⁹ Manuel Castells, *Networks of Outrage and Hope: Social Movements in the Internet Age* (Cambridge UK: Polity, 2012). See esp. pp. 224-28.

be used in another way: the government too can mobilize certain constituencies for top-down initiatives, can tweet, intervene in online discussions, and so forth. It is not only authoritarian governments that use social media to spread their message and intervene in debates.²⁰ Apparently the Piñera government in Chile attempted to intervene in the student movement in that way. And monied interests especially have the resources to collect the data, develop the algorithms, and undertake the analytics to advance their interests. As I asked years ago when analyzing corporatism, we have to ask who is doing what to whom and how?²¹ The answer is surely complicated—and certainly important.

In conclusion, the new economy raises fundamental micro and macro policy issues, and the popular interest regime consists of a variety of kinds of organizations with different capacities for representation—different resources, types of collective action, and points of access in the policy process. The question for future research, then, is: what are the consequences of economic and technological change for ordinary people and also for their ability to have a voice in these matters. Different patterns will unfold in different parts of the world and in different countries. We need a comparative perspective for understanding these important questions.

²⁰ See Evgeny Morozov, “How the Net Aids Dictatorships,” TED talk, 2009.
http://www.ted.com/talks/evgeny_morozov_is_the_internet_what_orwell_feared?language=en

²¹ David Collier and Ruth Berins Collier, “Who Does What, To Whom, and How? Toward a Comparative Analysis of Corporatism,” in James Malloy, ed, *Authoritarianism and Corporatism in Latin America* (Pittsburgh: University of Pittsburgh Press, 1977).