

Crisis Theory for Complex Societies

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Once every forty or fifty years the development model of industrial capitalism runs up against an unforeseen obstacle, whose presence is undeniable even though its contours remain largely invisible. Imagine a disaster scenario: something like the wreck of the Titanic. Rivets pop, metal bulkheads groan, leaks appear below the waterline; passengers mill about in a panic, and many lose their lives in the attempt to escape. Yet all this happens very slowly, to the point where most of us don't fully understand what's going on. The shipwreck of capital is interrupted by a series of patch-ups and repairs that fail miserably against a background of unrelated events (elections, birthdays, wars, scientific discoveries, earthquakes, and so on). Finally, after extended periods of tumult and boredom that can last for decades, the crisis is over. A whole way of life has been sucked into the whirlpool.

There is something surreal about structural transformations taking place in slow motion. Their origins are uncertain, their existence is widely denied, and no one can celebrate the day when they end. Typically we can only grasp their nature and significance much later, from vastly different perspectives. We are speeding through a freeway interchange, or maybe surfing the Internet, when suddenly we realize that the world we once knew has undergone a far-reaching metamorphosis. Exactly this could happen to you, some ten or fifteen years in the future. Without intending anything special, you'll turn away from rear-view mirror and say: "Look now, society wears a new skin. Life is totally different."

I've had such an experience. It was in the early '90s, at San Francisco International, while awaiting a flight back to Paris. I stepped out to the sidewalk for a breath of not-so-fresh air, and watched an ascending jet as it executed a perfect, computer-controlled turn above the bay. Suddenly I realized that this huge flying object was just a small part of an integrated transnational processing system that had reorganized my existence. It was as though the weight of the airliner had vaporized into a communicational pulse. My own body and the entire surround – the airport, the jet and the continents it interlinked – were caught in a seamless mesh of continuously modulated data. The sky itself took on a different texture. This was both an intellectual insight into a new mode of production, and a troubling question about the nature of personal identity. The slower, more bureaucratic, more nationally focused world of the '60s and '70s – the world in which I had come of age – was about to vanish from everyday awareness. The era of global networks surged up, bringing accelerated economic growth and kaleidoscopic social change. It was right around that time, shortly after the Zapatista rising of 1994, that I learned a new word: neoliberalism. The concept, and the social order it gradually revealed, would shape my political experience from that point forward, through the counter-globalization movements at the century's turn and then on into the present.

As I learned in those years, while studying the criss-crossing histories of economics and social movements, the crisis of the '70s had been the focus of intense theoretical analysis. For the Italian autonomous Marxists and their political allies, the '70s marked an insurrection against the factory discipline of the mass-manufacturing era and a turn toward to a more flexible, self-organized mode of production. From their viewpoint, the key trait of the new era was a greater possibility for social cooperation at the grassroots level, which they called "invention power."¹ Other theorists of the time – corporate consultants in the neoliberal camp – put forth a strangely parallel interpretation. They saw the crisis of the '70s as a failure of state planning, demanding a return to market mechanisms (which was their idea of self-organization); and they understood the long recession years as a crucible of

1 Antonio Negri, "Domination and Sabotage" (1977), in *Books for Burning* (London: Verso, 2005); Maurizio Lazzarato, *Puissances de l'invention* (Paris: Les empêcheurs de penser en rond, 2002).

innovation, which meant both new technologies and new organizational forms. For them, the driving force was not cooperation, but entrepreneurial competition.

Among both Leftists and business consultants, the crisis was often understood as a turning point in what are called “long waves” of industrial development. These are fifty-year cycles that crest in abundance and prosperity, then fell back into social and economic chaos. Of course there was a difference in the opportunities that each group saw in the long waves. For one side, they were a chance to make a million – and for the other, they were a chance to make a revolution.

So what is today’s crisis good for? For many people, rising temperatures and volatile weather patterns argue against the application of any economic logic – even of the profit-sharing kind traditionally proposed by the Left. In the era of climate change, economic growth itself is the problem. I take the issue seriously, and like many others, I think it is fast becoming the central problem of our time. If the long wave chronology of economic development is compelling today, it is because there is a crisis and the possibility of a new beginning. It is at such moments that social movements play an important role. From the perspective of those who do not command state or corporate power, the overriding question is how to turn the passions and aspirations of grassroots movements into levers that can move the larger society. Given the ecological urgencies, there is an increasingly serious desire to change the entire system. For centuries, capitalism has served as the organizing schema for the production and distribution of the fruits of industry. But it’s clear today that if the current crisis has any use, it must lie in the chance it offers for overcoming the central value of competition that has driven industrial capitalism to its current dead ends.

If we want to seize the opportunity and work toward a strategy for changing the course of social development, then we need to take the decisive facts of economics – namely, surplus profits and the powers they bring – and situate them within a broader matrix of forces. These forces include science, technology and organizational form, on the one hand, and institutions, state politics and cultural ferment, on the other. Their interplay is what makes society complex, lending every process or event its multi-causal nature. What’s more, the interaction of these multiple forces unfolds over historical time, not in strictly repetitive cycles but instead in dynamic patterns that could be better represented as a rising set of overlapping waves or even as a continuous spiral, marked by quantitative and qualitative transformations at every turn of the screw. The present expresses the past at a higher power of complexity. To understand this dynamic – and to grasp its potentials – means taking on its global character, in every sense of the word. Because the political question is there. Who will recognize the systemic nature of the crisis? How to develop a strategy at the world scale? What alliance of forces will be required to produce a solution that cannot come from any single, isolated position?

Over the next decade, progressive movements will be confronted with the risks and opportunities of what can only be described as a world-historical crisis. Defining what this crisis consists of – and in particular, identifying the former stabilizing alliances that have now broken down – is a first step towards a positive resolution. But a first step is not enough. In order to pursue the egalitarian ideals that have always been at the basis of the Left, we need to create a concept of revolution that corresponds to this moment in time, and find ways to act on it.

To that end, I have established a research program for the analysis of the last two systemic crises of the capitalist world economy, and of the resolutions that were found for them. This research program is based on a series of concepts and references developed in collaboration with Armin Medosch and the members of the Technopolitics group in Vienna.² The study begins with the United States, which in the mid-twentieth century became the center of the world political economy. It then turns outward, toward a global conjuncture marked by fading US hegemony. The point of the analysis

2 See the entries of the Technopolitics group at <http://thenextlayer.org> (access to some of the material entails requesting a password). For initial elaborations of the entire project, see http://messhall.org/?page_id=771, as well as <http://brianholmes.wordpress.com/2012/06/18/a-seminar-with-occupy-berlin>. A book-length publication is planned by 2014.

is to understand successive changes in the organization of productive forces, the dynamics of class relations, the forms of the state and the deployment of invention power. Their transformation over the last century has given rise to societies very different than those analyzed in the classic political economy of Adam Smith, or even in its critique by Marx. Without clear concepts of production, class, the state and the power of invention *as they have co-evolved* across the successive crises, it is impossible to move ahead to coherent action in a complex society. And as we will see upon arriving at today's crisis, the creation of practice-oriented concepts also involves a reexamination of the self, both individual and collective.

Undertaken in this way, history is directly useful for political action. When it is turned toward actuality it can offer concrete reference points to help you explore who you are, to relate your own geographical and class origins to those of other individuals and groups, to assess your agency and to gain an insight into what we are all now becoming in relation to each other. History shows what contemporary social relations are made of and how they have been produced.

To develop a historical perspective on the transformations currently underway we will need a certain number of theoretical instruments for establishing the chronologies, structuring the narratives, distinguishing important details and relating them to larger wholes. Think of it as a set of lenses for varying the distance, the depth of field and the granularity of focus. In this essay I'll introduce a number of existing theoretical proposals on the cycles of capitalist growth and the crises that punctuate them. Subsequent phases of the project will involve reworking these theories in order to engage more concretely with recent history, retracing its paths into the present.

Long Waves

After the First World War, a short and feverish burst of prosperity was followed by the violent global recession of 1920-21, which struck North America as well as Europe. Revolutionaries inflamed by the Bolshevik victory of 1917 wondered if this would be the final crisis of capitalism: a catastrophic fulfillment of the tendency to a falling rate of profit theorized by Marx. Addressing the Third Congress of the Communist International, Leon Trotsky took a different view: "Capitalist equilibrium is an extremely complex phenomenon," he observed. "Capitalism produces this equilibrium, disrupts it, restores it anew in order to disrupt it anew, concurrently extending the limits of its domination." This dynamic equilibrium was the life of the beast: "The fact that capitalism continues to oscillate cyclically after the war merely signifies that capitalism is not yet dead, that we are not dealing with a corpse."

Reviewing the long-run data, Trotsky pointed to recurrent boom-bust cycles of some eight to eleven years. He maintained that these widely recognized business cycles were themselves inscribed in longer upward or downward trends. "How," he asked, "are the cyclical fluctuations blended with the primary movement of the capitalist curve of development?"

Very simply. In periods of rapid capitalist development the crises are brief and superficial in character, while the booms are long-lasting and far-reaching. In periods of capitalist decline, the crises are of a prolonged character while the booms are fleeting, superficial and speculative. In periods of stagnation the fluctuations occur upon one and the same level. This means nothing else but that it is necessary to determine the general condition of the capitalist organism by the specific way in which it breathes, and the rate at which its pulse beats.³

With these declarations Trotsky anticipated the more well-known studies of the Russian economist Nikolai Kondratiev, who developed a statistical analysis of long economic cycles lasting from forty-seven to sixty years, which he presented in a 1925 article. By using data on prices, interest rates, wages,

3 Leon Trotsky, "Report on the World Economic Crisis and the New Tasks of the Communist International" (1921), in: *The First Five Years of the Communist International* (London: New Park, 1924), vol. I; available at <http://www.marxists.org/archive/trotsky/1924/ffyci-1/ch19.htm>.

and foreign trade in France, England and the USA, as well as figures for total coal and pig-iron production in the world, Kondratiev was able to identify three long waves of growth: rising from 1789 to a peak around 1814, then declining until 1848; rising again to a peak around 1873, then declining until 1896; and rising once more to a peak around 1920 (followed by a sharp fall, as we know, in 1929). He expressed these findings as curves in the long-run data, using a nine-year moving average to smooth out the variations of the typical business cycle, which he called an "intermediate cycle." As he wrote: "The long waves really belong to the same complex dynamic process in which the intermediate cycles of the capitalistic economy with their principal phases of upswing and depression run their course. These intermediate cycles, however, secure a certain stamp from the very existence of the long waves. Our investigation demonstrates that during the rise of the long waves, years of prosperity are more numerous, whereas years of depression predominate during the downswing." He also observed that an especially large number of technological inventions tended to be made during the slumps, but only applied during the upsurges. For Kondratiev, "the long waves arise out of causes which are inherent in the essence of the capitalistic economy."⁴

Since their initial publication these observations have generated their own repeated waves of interest, particularly during the major downswings that have followed at even intervals, in the '30s, the '70s and again today. What successive generations of researchers have found significant is not just the regular recurrence of upswings and downswings, but also the qualitative difference of each wave, arising from the specific elements that compose it. Here the economist Joseph Schumpeter made a decisive contribution. In his book *Business Cycles*, he proposed that the revival of growth after each depressive phase resulted from the introduction of a cluster of innovations, which he defined not simply as inventions, but instead as new production and distribution techniques focused around a particular set of commodities, infrastructures and services. Together these innovations revolutionize the way business is done while also changing the expectations of consumers and the structure of markets: a process he later termed "creative destruction." For Schumpeter, the innovator is an entrepreneur who can offer investors the prospect of making a profit in an otherwise stagnant market. The impetus given by a group of mutually supporting and highly desirable innovations then relaunches a growth cycle that will transform the entire economy, lifting it out of the downswing. To illustrate this, he gives a crucial example:

The motorcar would never have acquired its present importance and become so potent a reformer of life if it had remained what it was thirty years ago and if it had failed to shape the environmental conditions – roads, among them – for its own further development. In such cases, innovation is carried out in steps each of which constitutes a cycle. But these cycles may display a family likeness and a relation to one another which tends to weld them into a higher unit that will stand out as a historical individual.⁵

It's a complex idea: a succession of distinct business cycles is shaped by the effects of a leading technology into a historically singular wave of economic development. Following in Schumpeter's footsteps, a circle of theorists who gathered from the late '60s onward at the Science Policy Research Unit in Britain (SPRU) took this analysis much further. In their view, each of the Kondratiev waves brought together a group of key technologies with a cheap energy source and characteristic modes of transportation and communication, as well as a particular approach to scientific investigation. Distinct ages of industrial development, or "techno-economic paradigms," could therefore be identified. Here they are: the age of the textile mill (1780s-1840s), of steam power and railways (1840-90s), of steel and electricity (1890s-1940s), of Fordist mass production (1940s-90s), and finally, of microelectronics and

4 Nikolai Kondratieff, "The Long Waves in Economic Life" (1925), in: *The Review of Economics and Statistics* 17/6 (1935). Kondratiev's name is sometimes transliterated with "ff" at the end.

5 Joseph Schumpeter, *Business Cycles* (1939), abridged, with an introduction, by Rendigs Fels (New York: McGraw-Hill, 1964), p. 142.

computer networks (1990s-present).⁶ Each of these waves begins with major technological and organizational innovations, then grows to a maturity phase and finally ends with a period of stagnation and crisis. Investment in technology is suspended during the crisis, while new inventions accumulate. Then when conditions are right, available capital is sunk into the most promising innovations and a new long wave can be launched.

The SPRU researchers did not conceive of each technological period as starting from a blank slate, but instead, as layering a new and dynamic growth sector onto older, relatively stagnant branches of industry which would be transformed or ultimately swept aside by creative destruction. The process was complex: they stressed the idea that important elements of the new techno-economic paradigm were always under development in the previous one. The automobile, for instance, grew increasingly common during the third Kondratiev wave, dominated by the production of steel and electricity; but only in the post-WWII period did Henry Ford's approach to assembly-line mass production restructure all the developed societies into consumer cultures centered around the exaltation of individual mobility. Similarly, computers and feedback control systems were invented in the '40s and advanced continuously from then onward; but only in the '90s did they display their capacity to transform international trade along with the intimate lives of their users. All those who lived through the rise of the networked society will have felt the power of technology to reshape both business and subjectivity.

The power issue is the problem, however. Doesn't this whole discussion come down to technological determinism, or worse, to the boosterism of the neoliberal consultants? Since the rise of the microcomputer in the '80s, business theorists from George Gilder to Alan Greenspan have borrowed Schumpeter's concept of creative destruction to celebrate the digital revolution. Today, the latest generation of these gurus has one true gospel: "disruptive innovation," they call it. The phrase was launched during the wild gyrations of the New Economy, in a 1995 article by Joseph Bower and Clayton Christensen entitled "Disruptive Technologies: Catching the Wave." Then it was all about aggressive start-ups producing smaller hard drives for your computer – while now, the solution to the deepest crisis since the Great Depression is sought in Web 2.0 business models that are supposed to infuse a last gasp of profitability into an economy that can't quite register little details like human-induced climate change. These disruptions signify even more job losses to come – but they are also likely to fuel the volatile business cycle of the 2010s. So we too will have to report that capitalism is not yet dead!

The SPRU researchers, to their credit, have always tried to go beyond such a superficial relation to technology, broadening their models to include not just business processes (innovations in organization, distribution, marketing) but also issues of social reproduction. The Venezuelan technology analyst, Carlota Perez, has given the strongest formulation of this program:

We propose that the capitalist system be seen as a single very complex structure, the sub-systems of which have different rates of change. For the sake of simplicity we can assume two main subsystems: on the one hand a techno-economic, and on the other a social and institutional, the first having a much faster rate of response... A structural crisis (ie the depression in a long wave), as distinct from an economic recession, would be the visible syndrome of a breakdown in the complementarity between the dynamics of the economic subsystem and the related dynamics of the socio-institutional framework.⁷

In other words, there has to be a proper "fit" between the organization of production and the prosperity of the society in which that production takes place. When there is no such complementarity, the

6 These periods are described in Christopher Freeman and Luc Soete, *The Economics of Industrial Innovation, Third Edition* (Cambridge, Mass.: MIT Press, 1997). Also see, by the same authors, *As Time Goes By: From the Industrial Revolutions to the Information Revolution* (Oxford University Press, 2001).

7 Carlota Perez, "Structural Change and Assimilation of New Technologies in the economic and social Systems," in: *Futures* 15/4 (October 1983), available at http://www.carlotaperez.org/papers/bsc_structuralchange.html.

continued development of the production system runs up against a severe crisis. That is what happened in the '30s – and it's happening again today. To understand how such crises unfold it is not enough to look at technological innovation. We will need another set of lenses, in order to focus on labor, culture, conflict, and political mediation.

Institutional Forms

Why do the long waves break? Major economic crises are remembered as periods of dearth and penury: bread lines, soup kitchens, unemployed masses in the street. But if you look back at the films and photos of the Great Depression, you will see something even more striking. Then as now, opulence coexists with poverty, while new machines taunt idle hands with the spectacle of high productivity. The fundamental problem of advanced industrial capitalism is not scarcity but *overaccumulation*, or the concentration of wealth at the top, to the point where it ceases to circulate through the average person's pocket. Technology has as much to do with labor repression as it does with wealth and progress. This is our reality today: there is *too much* production, but it is unaffordable, inaccessible, useless for those who need it most. No one has captured this situation more vividly than John Steinbeck, in his novel of Dust Bowl migrants in '30s California:

The men who work in the experimental farms have made new fruits: nectarines and forty kinds of plums, walnuts with paper shells. And always they work, selecting, grafting, changing, driving themselves, driving the earth to produce. And first the cherries ripen. Cent and a half a pound. Hell, we can't pick 'em for that. Black cherries and red cherries, full and sweet, and the birds eat half of each cherry and the yellowjackets buzz into the holes the birds made. And on the ground the seeds drop and dry with black shreds hanging from them... Men who have created new fruits in the world cannot create a system whereby their fruits may be eaten. And the failure hangs over the State like a great sorrow... In the souls of the people the grapes of wrath are filling and growing heavy, growing heavy for the vintage.⁸

Economic crises may begin with spectacular financial crashes, high inflation, surging unemployment or other calamities of the market; but what emerges from the crucible of anger are overtly political conflicts over the dysfunctions of the "system." Everything comes back into question: the techniques of production, the wage relation, the prices of basic goods, taxes and redistribution, the conditions of daily life, the rules of the political process and even the whys and wherefores of existence. These conflicts arise from the losses incurred by particular groups and the harsh conditions faced by others, but also because the usual blinders fall from the eyes of a great many, revealing the dangerous state of decay that has overcome all those things that capitalist economics treats as mere "externalities." Namely, the natural environment, the health and well-being of the human population, the sharable forms of public culture and the institutions that were supposed to protect all that. Karl Polanyi's anthropological account of the societal collapse of the '30s, *The Great Transformation* (1944) – an essential document for our research program – provides what is still the most probing analysis of the constitutive civilizational blindness that inevitably leads to crises of systemic inequality, environmental decay and armed violence. Yet despite the knowledge that accumulates, there is no guarantee of who wins and loses in these conflicts, or even less, of some ultimate justice. Everything depends on the forces involved, on the manner in which the problems are named and disputed, and on the character of the coalitions that struggle for a solution. As history shows, the grapes of wrath can be pressed into many different bottles.

What is revealed by the study of severe economic crises is something like a syntax and a basic vocabulary that recombines its historical material into an original form, structured essentially as a response to problems that came into being through the resolution of the previous crisis. The

8 John Steinbeck, *The Grapes of Wrath* (New York: Viking, 1939), chapter 25.

“innovations” that result from this reconfiguration or redeployment of capitalism are not only technological and organizational, and they can in no way be restricted to business processes. Rather, production, marketing and finance co-evolve with the demands of the labor force and of consumers, but also with a set of emergent institutional forms that seek for better or for worse to address the issues facing society as a whole. Here the state inevitably comes to the fore, in matters of regulation, infrastructure, social services, monetary equilibrium, trade negotiation, citizenship rights and security. Social movements, civil-society organizations and more diffuse cultural trends also play important roles. In every new configuration of society that has emerged so far, certain defining axioms of capitalism have remained invariant: the dispossession of the weak, the exploitation of labor and of nature, the private appropriation of socially produced wealth. But let’s not prejudge the future!

To generate the narrative of a historical process which is both additive and transformative – *dialectical*, in a word – I will draw on two closely related schools of critical political economy. Both came together to explain the breakdown of the postwar boom in the United States, where Keynesian planners believed (quite wrongly as it turned out) that they had overcome the most violent fluctuations of the business cycle. The first of these two schools is known as the “Regulation Approach.” It was launched single-handedly in 1976 by a Frenchman, Michel Aglietta, with his book *A Theory of Capitalist Regulation: The US Experience*. It’s important to realize that he took the crisis-prone nature of the capitalist economy as a given. Precisely *because* there is a tendency for the profit rate to fall – due to competition, rising wages, technological expenses, worker resistance, and so on – Aglietta asked how the profitability and growth of the postwar economy was maintained at a high level for a relatively long period of time. He also asked how the very factors of stabilization ultimately helped precipitate a new period of uncontrollable volatility.

To begin, he describes the depression of the ‘30s as resulting from an imbalance between an extensive producer-goods sector (steel, oil, electricity, railroads, machine tools, etc) and a consumer manufacturing sector weakened by the absence of mass markets. In response to this contradiction, the postwar period inaugurated a new *regime of accumulation* based on Henry Ford’s key idea that high wages for factory workers would supply the factories with an entire nation of consumers. A regime of accumulation is basically the combination of technologies and organizational models that I discussed above. The new regime of the postwar period, which Aglietta called “Fordism,” was *intensive* in the sense that it required a thorough-going transformation of everyday life, so as to incorporate consumption norms promulgated by industry. The controlled expansion of the consumer market was therefore able to overcome one of the major contradictions that capitalism had encountered in the ‘30s, namely, the absence of effective demand. But what about the social conflicts of the ‘30s, and their resolution by the New Deal institutions?

Aglietta’s main contribution was to identify a series of *structural forms* allowing workers, corporations and the state to carry out a dynamic adjustment – or “regulation” – of continuously evolving social relations. There were five key structural forms: collective bargaining to balance the labor-capital relation; welfare (or more broadly, transfer payments) to prop up demand; the vertically integrated corporation and the financial conglomerate, to facilitate the fixation of prices and the reduction of competition; and fiat money issued by the central bank, which was crucial for the expansion of counter-cyclical spending, including the defense budgets of the Cold War. Together, these institutional forms constituted a *mode of regulation* that dampened the inherent volatility of capitalism. However, they harbored their own contradictions – particularly the printing of fiat money, whose inflationary effects would be a major factor in the decline of the Fordist accumulation regime.

The Regulation Approach has continued to develop since the ‘70s, with subgroups in France and elsewhere. Interestingly, a very similar research agenda came together independently in the US itself from the late ‘70s onward, around a core group of researchers including David Gordon, Thomas Weisskopf, Samuel Bowles, Richard Edwards and Michael Reich. Here the main concept was that of

“Social Structures of Accumulation” (SSAs).⁹ To carry out their work the American researchers adopted the chronology of the Kondratiev waves, developing detailed analyses of the mix of social institutions that first supported and then interrupted capital accumulation in four successive periods from the early nineteenth century onward. They also paid particular attention to the forms of labor control in each period, and they placed strong emphasis on the role of political conflict, both in the breakup of a social structure of accumulation and the formation of the next one. Quite usefully, they distinguished between an early phase of experimentation, a subsequent phase of consolidation and a final phase of decay, the last of which overlaps with the experimentation phase of the next long wave. All of that results in a precisely articulated description of shifting institutional balances, punctuated by decisive moments of rupture. The SSA theorists are invaluable for the study of US political economy.

With such sophisticated work available on the marketplace of ideas, is it necessary to do anything else? The problem of both the Regulation Approach and the Social Structures of Accumulation researchers is that they have tended – at least until quite recently – to take the high growth and relative stability of the postwar period as a norm. Their studies also tended to remain within the existing conceptual map of national economic and political institutions. This made it difficult for them to identify the institutional forms of neoliberalism, which overflow national borders. What we need is to understand how a highly transnational wave of capitalist expansionism developed out of and against the earlier Keynesian-Fordist national states, while leaving their older institutions to live on as shrunken and distorted shells. Only by closely observing this process of layering and gradual supercession will we be able to grasp the more radical break that appears to be in germ right now. But to do so requires yet another set of theoretical optics.

Hegemonic Transitions

Trotsky opened up the question of the long waves with his remarks to the Comintern in 1921. He came back to the subject two years later in a text on “The Curve of Capitalist Development.” This time he directly critiqued Kondratiev’s idea that the long fluctuations, like the shorter business cycles, arise from causes inherent to the capitalist economy. Instead he presented a sweeping view of the world market and the political/military forces that periodically reshape it:

As regards the large segments of the capitalist curve of development (fifty years) which Professor Kondratiev incautiously proposes to designate also as cycles, their character and duration are determined not by the internal interplay of capitalist forces but by those external conditions through whose channel capitalist development flows. The acquisition by capitalism of new countries and continents, the discovery of new natural resources, and, in the wake of these, such major facts of “superstructural” order as wars and revolutions, determine the character and the replacement of ascending, stagnating or declining epochs of capitalist development.¹⁰

To support his argument he presents a graph showing the eight- to eleven-year business cycles curving around a trend-line of growth or stagnation. Every forty years there is a “turning point of capitalist development.” Between these turning points are intriguing notations such: “Event A, Emergence of a new political party, Event B, Revolution, Event C, Social reforms, Victory of literary school X, Event D, War,” etc. Not only institutional reform, but also political opposition, artistic invention and colonial conquest are given their place in this long-run chronology.

How relevant could such an analysis be for our time? Let’s look directly at events that reshaped the global market during the most recent long wave. The New Economy boom of the mid-1990s –

9 For the first full statement of SSA theory, see D. Gordon, R. Edwards, M. Reich, *Segmented Work, Divided Workers: The Historical Transformation of Labor in the United States* (Cambridge University Press, 1982)

10 Leon Trotsky, “The Curve of Capitalist Development” (1923), in: *Fourth International 2/4* (May 1941), available at <http://www.marxists.org/archive/trotsky/1923/04/capdevel.htm>.

marking the consolidation of what I'll be calling Neoliberal Informationalism – came just a few years after the collapse of the Soviet Union that Trotsky had helped to establish. It also followed in the wake of the 1990-91 Gulf War, which assembled the largest international coalition in history, ostensibly to protect the sovereign borders of Kuwait. Advanced mobile computing technologies – largely developed through the debt-funded Star Wars program of the '80s – were put on display for all the world to see, in the form of the so-called Revolution in Military Affairs. To the eyes of the more cynical observers, the missiles flashing through the skies above Kuwait City and Baghdad appeared to be aimed at securing Western access to Middle Eastern oil. But didn't they also secure the global market for the ICT revolution?

In the decade that followed, fiber-optic cables were laid on the sea floor between all five continents; Internet connections were installed in major cities on a floodtide of venture capital; software packages were hawked on every street corner (usually as illegal copies, to be sure); networked business models proliferated everywhere and a glittering cosmopolitan urbanism spread across the earth. The former Third World countries, written off a decade before as a sinkhole of bad debts and guerrilla insurgencies, were now seen as an enticing investment portfolio of “emerging markets” in the context of a New York-centered investment boom. After the long stagnation of the '70s and the uncertain recovery of the '80s, the final decade of the twentieth century witnessed an industrial and commercial expansion that recalled the heyday of the railroads or the automobile. The United States had emerged victorious from the Cold War, and the prize was a unified global market. For a short period, even the most delirious business venture seemed entirely plausible if it came out of Silicon Valley. After all, it would offer the highest technology – and helicopter gunships to protect it.

The role of state power, particularly that of the leading or hegemonic state, is crucial in establishing the geographical framework of accumulation at the outset of a long wave. This is one of the “external conditions through whose channel capitalist development flows.” Yet the kind of military power asserted in the Gulf War could also be conceived as a long-term investment akin to those made in infrastructure: an investment in “world-market control,” as one of the SSA theorists explained.¹¹ Looking back, we can see the Spanish-American war of 1898 as a similar long-term investment in world-market control, lifting the obstacles to US corporate expansion into Latin America at the very outset of the third Kondratiev wave. Even more clearly, the multi-theater operations of the Second World War established the framework for the spread of Fordist production across the world, while also securing the conditions of global resource extraction on which that production depended. Leftists usually call this imperialism – and rightly so. However, to ignore the function of leadership, and the self-interested consent that it implies from other states, is to miss something very fundamental about the dynamics of world society.

The key theorist here is Antonio Gramsci. He distinguished cultural and ideological leadership, or what he called *hegemony*, from the coercive state power that invariably accompanies it. At the outset of his *Prison Notebooks* (1929-35) he defines hegemony as “the ‘spontaneous’ consent given by the great masses of the population to the general direction imposed on social life by the dominant fundamental group.” He goes on to remark that “this consent is historically caused by the prestige (and consequent confidence) which the dominant group enjoys because of its position and function in the world of production.” In our terms, then, hegemony would be the affective sense of belief that binds a productive process to the institutional forms that insure its social reproduction, thus constituting a so-called *historic bloc*. Gramsci was particularly interested in the pivotal role that grassroots leaders – or what he called “organic intellectuals” – play in constituting the historic bloc, but also in contesting it and pressing for a different political-economic order. In this way he opened up the question, not only of how individuals are conditioned by social structures, but more importantly, of how individuals acting

11 David Gordon, “Stages of Accumulation and Long Economic Cycles,” in: Terence K. Hopkins and Immanuel Wallerstein, eds., *Processes of the World System, vol. 3: Political Economy of the World System Annuals* (Beverly Hills: Sage, 1980), pp. 31-32.

within social movements can exert a shaping effect on those very structures.

However, Gramsci went even further. He extended the concept of hegemony to the interstate arena, by asking the question: “Do international relations precede or follow (logically) fundamental social relations?” His answer: “There can be no doubt that they follow. Any organic innovation in the social structure, through its technical-military expressions, modifies organically absolute and relative relations in the international field too.”¹² With that reflection, hegemony takes on a meaning in international political economy. The production relations imposed by a dominant class, plus the cultural/ideological forms articulating them into a larger power bloc, become a kind of operational model that will be “spontaneously” adopted by other social classes in other nation-states (with a veiled threat of coercion if the model is not adopted). This is the interstate function of leadership, which is oppressive for those who refuse it, but also very productive for those who accept being led. The Canadian theorist Robert Cox placed the Gramscian concept at the basis of his analysis of *world order*:

I am using the term *hegemony* here as meaning more than the dominance of a single world power. It means dominance of a particular kind where the dominant state creates an order based ideologically on a broad measure of consent, functioning according to general principles that in fact ensure the continuing supremacy of the leading state or states and leading social classes but at the same time offer some measure or prospect of satisfaction to the less powerful. In such an order, production in particular countries becomes connected through the mechanisms of a world economy and linked into world systems of production. The social classes of the dominant country find allies in classes within other countries. The historic blocs underpinning particular states become interconnected through the mutual interests and ideological perspectives of social classes in different countries, and global social classes begin to form. An incipient world society grows up around the interstate system, and states themselves become internationalized in that their mechanisms and policies become adjusted to the rhythms of the world order.¹³

Once this idea is taken on board, it becomes clear that a thorough examination of the twentieth century’s two great economic crises, together with the one that is unfolding today, would constitute not only a study of the vicissitudes of American power, but also of the changing configurations of world society. This means, among other things, that when George H.W. Bush pompously declared in 1991 that the Gulf War sought to lay the foundations of a “New World Order,” he wasn’t kidding. The geopolitical aim of the international coalition assembled for that conflict was to reinstate the alliance system that had been forged during WWII, and that had subsequently faltered during the crisis of the ‘70s. Clearly there were deep interests in achieving this restoration, interests that could cut across a range of national social classes. At stake for all these classes was the underlying pattern of production relations that had constituted a political-economic order. Moreover, this initial form of US hegemony – what may be called the Keynesian-Fordist world order – also provided the basis for all the postwar variations on welfare-state social democracy. And even though the radical Left, in all its forms, has been defined precisely by its refusal to accept the compromises of the social-democratic project, still we have to recognize that the institutional forms of that compromise have had profound effects on all the social classes of the developed world.

The New World Order of the ‘90s was, nonetheless, a monumental failure. This became clear after Bush’s incoherent son assumed power in 2000, launched two disastrous wars in response to the Al Qaeda attack, and set the stage for the worst global financial crisis since the Great Depression. The historian and world-systems theorist, Giovanni Arrighi, provides the conceptual tools for an analysis of the arc of US hegemony, from its beginnings in the late nineteenth century to the present debacle. What Arrighi does is to overlay a longer imperial cycle, or “systemic cycle of accumulation,” on top of the

12 Antonio Gramsci, *Selections from the Prison Notebooks* (New York: International Publishers, 1971), pp. 12, 176.

13 Robert W. Cox, *Production, Power, and World Order: Social Forces in the Making of History* (New York: Columbia University Press, 1987), p. 7.

three Kondratiev waves we have been considering. He shows, first, how the United States emerged from the shadow of the declining British hegemony and entered into a decisive phase of rivalry with Germany over which state would be the successor to empire; then, how the American-led world-system was constructed on the foundations laid during WWII; and finally, how the US hegemony entered its “financial autumn” from the ‘70s onward, abandoning its industrial dominance for a new role as the computerized manager of globally circulating financial capital. In the course of this process, Arrighi observes, accumulated industrial capital and technological know-how has been redistributed to other poles of the global economy. In particular he focuses on the seemingly inevitable rise of East Asia and especially China as the new global center of capitalist growth. The complex conditions of inexorable American decline, gathering Chinese power and onrushing climate change are what define the current crisis. At this point we can no longer look back to the past, nor confine ourselves to theory. The seemingly distant, impersonal forms of world order return, via the current structural crisis, to press upon our own lives in society – to the point where some of us want to press back.

Social Movements

For the growing numbers of people around the world who do not fit into any “historic bloc,” the only substantial chance to participate in political life is offered by social movements – and by the cultural, ideological and organizational initiatives that arise to articulate them as a challenge to the reigning powers. A prolonged economic crisis like the one that began in 2008 offers immense opportunities to mount those kinds of challenges. So far they have only been taken in fragmentary and halting ways. Why?

It should be obvious by now that the structure of entrenched interests extends very deeply into society, far beyond the border of single countries or the ranks of ruling elites. The recognition of this historical structure in one’s own body is difficult. Yet crisis demands exactly that, because it breaks down the artificial construct of “the individual” as it is experienced in capitalist societies (individual desire, choice, ownership, satisfaction, security). Individuality in the dominant sense of the word is only maintained by access to commodities that claim to replace more fundamental, yet also more problematic relations of interdependence. The concept of *reification*, or the replacement of social relations by things, comes into play here. Political-economic crises are positive to the extent that they offer chances to go beyond reification and deal instead with more profound and problematic human realities. We will see this when it comes to the black power and feminist struggles of the ‘60s and ‘70s, and even more, the current questions of indigeneity and precarious existence. This does not require abandoning Marxist concepts, but instead, thoroughly transforming them. It is impressive to realize that one of the sharpest Marxian theorists of political-economic contradictions in the ‘70s – James O’Connor, the author of *The Fiscal Crisis of the State* (1973) – went on to focus on the crisis of modern individualism, before turning to social ecology. In 1984, O’Connor analyzed the break-up of the Keynesian Fordism in psycho-sociological terms:

In modern capitalism, a terrible and painful ambiguity exists between individual labor and social labor, individual needs and social needs, and individual and social political life. In this reified context, no unambiguous definition of self is possible. Self instead becomes the battleground on which psychologically bloody conflicts are fought.... In practical terms, these struggles against material and social reification and for “social individuality” are the most useful weapons at hand to combat the attempt by capital and the state to ideologically construct and politically use the current crisis to restructure economic, political and social life with the sole purpose of renewed capitalist accumulation, including a new “long wave” of ideological innovation.¹⁴

Today we are, in effect, the inheritors of that long ideological wave known as neoliberalism, which for

14 James O’Connor, *Accumulation Crisis* (Oxford: Basil Blackwell, 1984), pp. 22-23.

decades (precisely the decades of economic expansion) appeared to be the unsurpassable horizon of our time: a reified hyper-individualism, monumentalized by the new mirror-architecture that proliferated from the '80s onward. Those were the decades of free-flowing bank credit and labyrinthine postmodernism, which strengthened each other through the mediation of computer keyboards and fiber-optic cables. In more recent years, however, the real material interests that the working and middle classes of the core industrial nations used to have in the existing economic order have been vanishing before our eyes, beneath the pressures of automation, outsourcing, unemployment and predatory finance, as well as state violence, structural abandonment and environmental decay. Under these circumstances, a threatening letter from the bank, an unpayable medical bill or the loss of a job or a house can prompt a radically new awareness of the damages wreaked by the structural trend to overaccumulation. As a new fiscal crisis of the state simultaneously destroys social services across the developed world, Steinbeck's haunting phrase suddenly takes on a visceral meaning: "Men who have created new fruits in the world cannot create a system whereby their fruits may be eaten."

The Occupy movement bore witness to a generational shift in consciousness that touched people of all ages, binding some of us together into what could be called a "political generation." Meanwhile, the effect of the crisis has been much more intense in a number of European countries – Iceland, Spain, Greece – and has led to outright revolution in the Middle East. The question is how to go ahead. What's missing is a road map to an alternative society.

From my view, the meteoric rise of formerly dominated countries in Asia, Africa and Latin America does not absolve the historical core of the capitalist world-system from a major role in shaping whatever the next fifty years will look like. It does appear increasingly probable that ecological problems, class conflicts and rapidly expanding social movements will soon provoke a political clash in China, whose resolution – whether democratic or authoritarian – will undoubtedly have great influence throughout the world-system. Elsewhere, relative decline opens up either the reactionary possibility of aggression (amply taken by US elites and their allies over the last decade) or the contrary possibility of translocal collaboration in the face of increasingly urgent problems. That second possibility has been developed very extensively by an emergent meshwork of autonomous initiatives spanning the divides of class, language, geography and culture. In retrospect, the counter-globalization movements of the '90s and early 2000s appear as a watershed in the transformation of the historical Left, particularly with respect to modern individualism. A crucial theme of those movements was the development of ecological and social *commons*, which can be defined as reservoirs of cooperative potentials, shared between humans and humans as well as humans and nature. The governance of the commons also entails the development of non-state public spheres, which are crucial to any positive change in the capitalist state-system. Indigenous peoples' movements have played a major role in their elaboration. So have the networked social movements of the precarious generation in the core countries. Yet the emergence of progressive experiments at the level of nation-state, particularly in Latin America, can hardly be ignored. What appears crucial, at this juncture which is certain to be marked by profound institutional change, is the development of intellectual cultures geared toward practical transformations, which will be indissolubly technological, organizational, legal, philosophical, emotional and artistic.

Multiple paths head in that direction. The value of a reflection on crisis and its aftermath is to stress the ways in which dramatic rupture, or even revolution, is inscribed in a continuity. To live with dignity through the coming years, and to fulfill our responsibilities to the future, we need to propose and realize a radical break that is neither apocalyptic nor messianic, but instead, pragmatically utopian. Nothing less will do it. For the organic intellectuals who carry out this work – that is, for people who turn the common capacity of language to an intense and passionate curiosity – that might suggest a reinvention of what Marxists used to call *praxis*. In other words, the merger of complex thinking into concrete activity. Such is the aim of a disciplined and experimental discourse that seeks to engage with the material-ideational-affective forms of society as a whole. In short, the research program that I am proposing here is about the transformational effects of intellectual engagement in social movements.

Consider the alternative. Amid the shipwreck of informational capital, which undoubtedly represents the chance of our lifetimes for a radical change in the course of social development, neoliberal managers steeped in technological opportunism are calling for more of the formulas they have applied obsessively since the '70s, i.e. disruptive innovation. The idea is to deploy networked communications to destroy existing enterprises and open up new markets for the restoration of corporate profits. The gurus believe that Schumpeter's revolutionary doctrine of "creative destruction" can also be applied to social institutions, which for them, after all, are just business processes.

To take one example, Clayton Christensen in his latest book quite rightly observes that the university – arguably the central institution of the contemporary knowledge-based economy – is in crisis, due to its unsustainable expansion on the back of crippling student debt. So he and co-author Henry Eyring propose to seize the technological advantage and transform all but the most elite institutions into online learning facilities offering vocational training slanted to immediate corporate needs. The prototype is a notorious American for-profit school called Phoenix University, whose reputation has recently plummeted due to its extremely low graduation rates and fraudulent enrollment practices. No matter. Since they are all about business models, let's check out their offer:

Traditional universities' overproduction of master's and Ph.D. degree holders relative to their own needs for new faculty members has created a pool of qualified online instructors who are willing to work for a few thousand dollars per course... This means the online university can match teaching supply to student demand – an instructor is hired, or contracted for, only when a class is likely to have enough students to generate an operating profit. Also, an online instructor's teaching performance is easily monitored, and an underperformer has no contractual right to further employment. Along with well-defined learning outcomes, the ability to cull ineffective instructors may be another reason why online courses have achieved average cognitive outcome parity with their face-to-face counterparts.¹⁵

It's hard to believe that the achievement of "average cognitive outcome parity" for cut-rate wages beneath a regime of continuous electronic surveillance is the stuff that educational dreams are made of. This, however, is exactly the kind of future that is being planned out for all the sectors of the informational economy. The irony, in this particular case, is that an economy built around the promises of knowledge should culminate in a systematic program of self-blinding, carried out first by the reduction of critical and scientific thinking to commodities, then by the brutal elimination of any knowledge-commodity that does not find immediate success on a market.

These entrepreneurial restructuring plans are bound to fail, because they do not address the major contradictions of Neoliberal Informationalism. But other plans will assuredly be made, for better and worse, by the political coalitions that are gradually emerging to deal with the more intractable elements of the crisis. The important thing is to be part of that process, to contest it, to interrupt it, to create spaces outside it and ultimately, to propose something better. If our living bodies are the irrepressible source of a sharable invention power, then we can disrupt the current programs of institutional change – and construct a better destiny for revolutionary praxis in the twenty-first century.

15 Clayton M. Christensen and Henry J. Eyring, *The Innovative University: Changing the DNA of Higher Education from the Inside Out* (San Francisco: Josey-Bass, 2011), pp. 213-14.