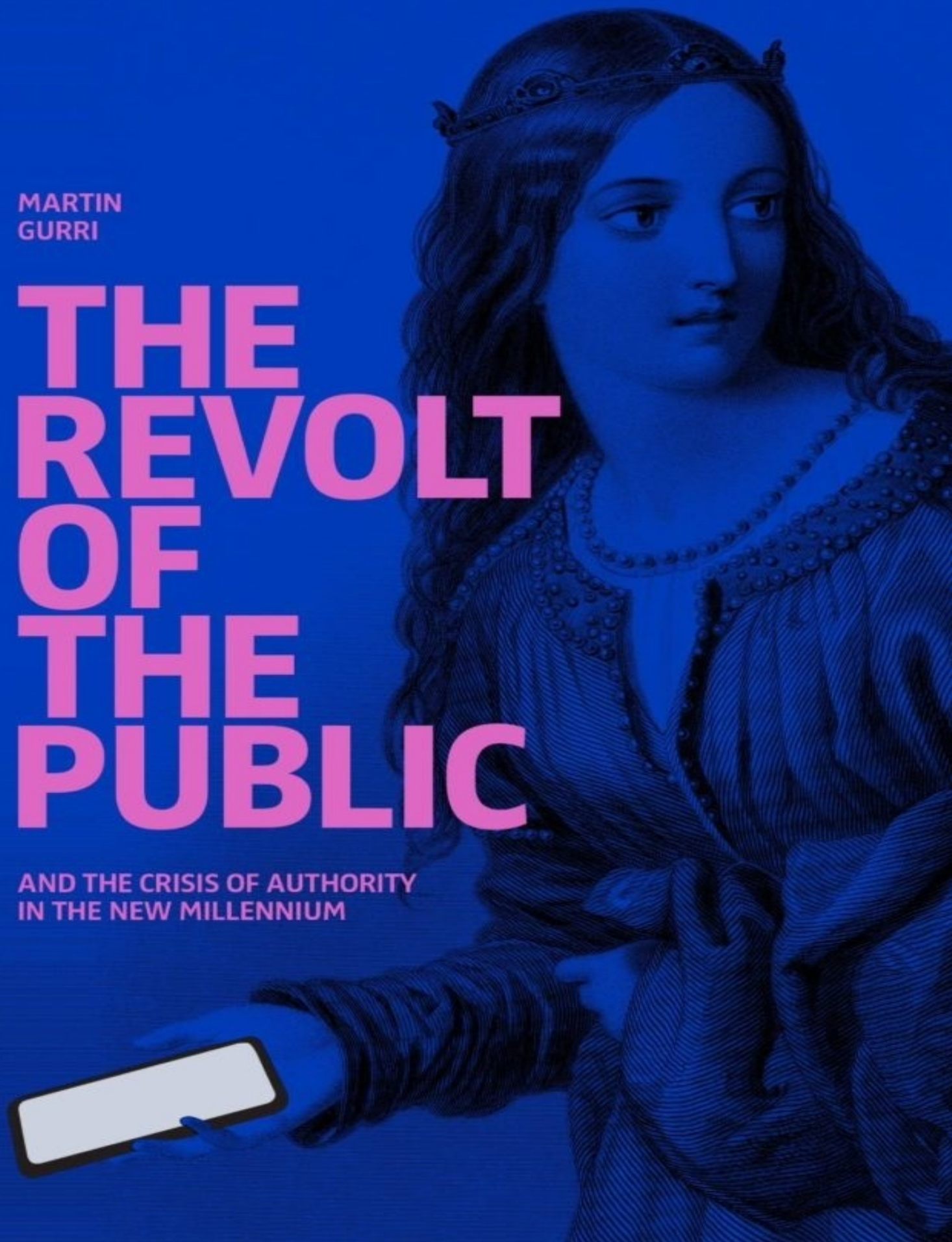
MARTIN
GURRI

THE REVOLT OF THE PUBLIC

AND THE CRISIS OF AUTHORITY IN THE NEW MILLENNIUM



PRELUDE TO A TURBULENT AGE

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Can there be a connection between online universities and the serial insurgencies which, in media noise and human blood, have rocked the Arab Middle East? I contend that there is. And the list of unlikely connections can easily be expanded. It includes the ever faster churning of companies in and out of the S&P 500, the death of news and the newspaper, the failure of established political parties, the imperial advance across the globe by Facebook and Google, and the near-universal spread of the mobile phone.

Should anyone care about this tangle of bizarre connections? Only if you care how you are governed: the story I am about to tell concerns above all a crisis of that monstrous messianic machine, the modern government. And only if you care about democracy: because a crisis of government in liberal democracies like the United States can’t help but implicate the system.

Already you hear voices prophesying doomsday with a certain joy.

I am no prophet, myself. Among the claims I make in this book is that the future

is, and *must* be, opaque, even to the cleverest observer. Consider the CIA and the collapse of the Soviet Union in 1991, or the Fed and the implosion of Lehman Brothers in 2008. The moment *tomorrow* no longer resembles *yesterday*, we are startled and confused. The compass cracks, by which we navigate existence. We are lost at sea.

But we can speak of the present. And I think it demonstrable that an old, entrenched social order is passing away even as I write these words—one rooted in the hierarchies and conventions of industrial life. Since no substitute has appeared on the horizon, we should, as tourists flying into the unknown, fasten our seatbelts and expect turbulence ahead.

INFORMATION IS COOL, SO WHY DID IT EXPLODE?

I came to the subject in a roundabout way. I was interested in information. The word, admittedly, is vague, the concept elusive. Information theory finds "information" in anomaly, deviation, difference—anything that separates signal from noise. But that's not what I cared about.

Media provided my point of reference. As an analyst of global events, my source material came from parsing the world's newspapers and television reports. That was what I considered information. I also held the belief that information of the sort found in newspapers and television reports was identical to knowledge—so the more information, the better. This was naïve of me, but if I say so, understandable. Back when the world and I were young, information was scarce, hence valuable. Anyone who could cast a beam of light on, say, Russia-Cuba relations, was worth his weight in gold. In this context, it made sense to crave more.

A curious thing happens to sources of information under conditions of scarcity. They become *authoritative*. A century ago, a scholar wishing to study the topics under public discussion in the US would find most of them in the pages of the *New York Times*. It wasn't quite "All the news that's fit to print," but it delivered a large enough proportion of published topics that, as a practical proposition, little incentive existed to look further. Because it held a near monopoly on current information, the *New York Times* seemed authoritative.

Four decades ago, Walter Cronkite concluded his broadcasts of the *CBS Nightly*

News with the words, “And that’s the way it was.” Few of his viewers found it extraordinary that the clash and turmoil of billions of human lives, dwelling in thousands of cities and organized into dozens of nations, could be captured in three or four mostly visual reports lasting a total of less than 30 minutes. They had no access to what was missing—the other two networks reported the same news, only less majestically. Cronkite was voted the most trusted man in America, I suspect because he looked and sounded like the wealthy uncle to whom children in the family are forced to listen for profitable life lessons. When he wavered on the Vietnam War, shock waves rattled the marble palaces of Washington. Cronkite emanated authority.

It took time to break out of my education and training, but eventually the thought dawned on me that information wasn’t just raw material to exploit for analysis, but had a life and power of its own. Information had *effects*. And the first significant effect I perceived related to the sources: as the amount of information available to the public increased, the authoritativeness of any one source decreased.

The idea of an information explosion or overload goes back to the 1960s, which seems poignant in retrospect. These concerns expressed a new anxiety about the advance of progress, and placed in doubt the naïve faith, which I originally shared, that data and knowledge were identical. Even then, the problem was framed by uneasy elites: as ever more published reports escaped the control of authoritative sources, how could we tell truth from error? Or, in a more sinister vein, honest research from manipulation?

Information truly began exploding in the 1990s, initially because of television rather than the internet. Landline TV, restricted for years to one or two channels in a few developed countries, became a symbol of civilization and was dutifully propagated by governments and corporations around the world. Then came cable and the far more invasive satellite TV: CNN (founded 1980) and Al Jazeera (1996) broadcast news 24 hours a day. A resident of Cairo, who in the 1980s could only stare dully at one of two state-owned channels showing all Mubarak all the time, by the 2000s had access to more than 400 national and international stations. American movies, portraying the Hollywood approach to sex, poured into the homes of puritanical countries like Saudi Arabia.

Commercial applications for email were developed in the late 1980s. The first

server on the World Wide Web was switched on during Christmas of 1990. The MP3—destroyer of the music industry—arrived in 1993. Blogs appeared in 1997, and Blogger, the first free blogging software, became available in 1999. Wikipedia began its remarkable evolution in 2001. The social network Friendster was launched in 2002, with MySpace and LinkedIn following in 2003, and that thumping *T.rex* of social nets, Facebook, coming along in 2004. By 2003, when Apple introduced iTunes, there were more than three billion pages on the web.

Early in the new millennium it became apparent to anyone with eyes to see that we had entered an informational order unprecedented in the experience of the human race.

I can quantify that last statement. Several of us—analysts of events—were transfixed by the magnitude of the new information landscape, and wondered whether anyone had thought to measure it. My friend and colleague, Tony Olcott, came upon (on the web, of course) a study conducted by some very clever researchers at the University of California, Berkeley. In brief, these clever people sought to measure, in data bits, the amount of information produced in 2001 and 2002, and compare the result with the information accumulated from earlier times.

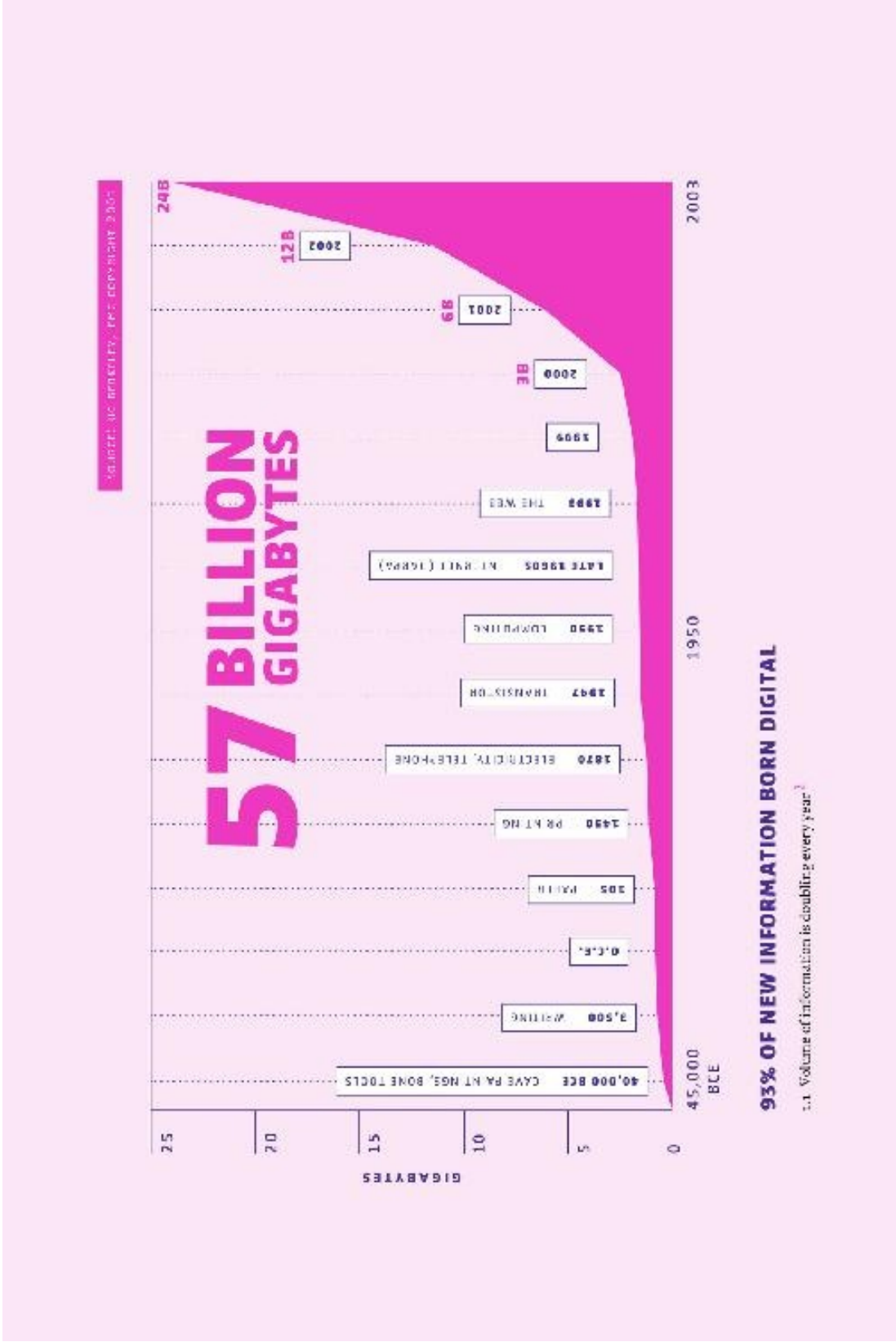
Their findings were astonishing. More information was generated in 2001 than in all the previous existence of our species on earth. In fact, 2001 *doubled* the previous total. And 2002 doubled the amount present in 2001, adding around 23 "exabytes" of new information—roughly the equivalent of 140,000 Library of Congress collections.[1] Growth in information had been historically slow and additive. It was now exponential.

Poetic minds have tried to conjure a fitting metaphor for this strange transformation. *Explosion* conveys the violent suddenness of the change. *Overload* speaks to our dazed mental reaction. Then there are the trivially obvious *flood* and the most unattractive *firehose*. But a glimpse at the chart above should suggest to us an apt metaphor. It's a stupendous wave: a tsunami.

HOW WALTER CRONKITE BECAME KATIE COURIC AND THE AUDIENCE BECAME THE PUBLIC

What was the character of the change imposed by this cataclysmic force, this

tsunami, as it swept over our culture and our lives? That was the question posed to those of us with an interest in media, research, and analysis. A number of *partial* answers presented themselves, before I could truly grasp the big picture.



From a professional perspective, I realized that I couldn’t restrict my search for

evidence to the familiar authoritative sources without ignoring a near-infinite number of new sources, any one of which might provide material decisive to my conclusions. Yet, despite the arrival of Google and algorithmic search, I found it humanly impossible to explore that near-infinite set of new sources in any but the most superficial way. However I conducted my research, whatever sources I chose, I was left in a state of *uncertainty*—a permanent condition for analysis under the new dispensation.

Uncertainty is an acid, corrosive to authority. Once the monopoly on information is lost, so too is our trust. Every presidential statement, every CIA assessment, every investigative report by a great newspaper, suddenly acquired an arbitrary aspect, and seemed grounded in moral predilection rather than intellectual rigor. When proof *for* and *against* approaches infinity, a cloud of suspicion about cherry-picking data will hang over every authoritative judgment.

And suspicion cut both ways. Defenders of mass media accused their vanishing audience of cherry-picking sources in order to hide in a congenial information bubble, a “daily me.”

Pretty early in the game, the wave of fresh information exposed the poverty and artificiality of established arrangements. Public discussion, for example, was limited to a very few topics of interest to the articulate elites. Politics ruled despotically over the public sphere—and not just politics but *Federal* politics, with a peculiar fixation on the executive branch. Science, technology, religion, philosophy, the visual arts—except when they touched on some political question, these life-shaping concerns tended to be met with silence. In a similar manner, a mediocre play watched by a few thousands received reviews from critics with literary pretensions, while a computer game of breathtaking technical sophistication, played by millions, fell beneath notice.

1.2 *From The New York Times, June 3, 2013 © 2013 The New York Times. All rights reserved. Used by permission and protected by the Copyright Laws of the United States. The printing, copying, redistribution, or retransmission of this Content without express written permission is prohibited*

Importance measured by public attention reflected elite tastes. As newcomers from the digital frontiers began to crowd out the elites, our sense of what is important fractured along the edges of countless niche interests.

The shock of competition from such unexpected and non-authoritative quarters left the news business in a state of terminal disorientation. I mentioned the charge of civic irresponsibility lodged against defecting customers. We will encounter this rhetorical somersault again: being driven to extinction is not just a bad thing but morally wrong, sometimes—as with the music industry's prosecution of its customers—criminally so. Yet the news media wasn't averse to sleeping with the enemy. The most popular blogs today are associated with newspaper websites, for example, while the *New York Times's* paywall discreetly displays orifices which can be penetrated through social media.

Such liaisons beg the question of what "news" actually is. The obvious answer: news is anything sold by the news business. In the current panic to cling to some remnant of the audience, this can mean anything at all. On the front page of the gray old *Times*, I'm liable to encounter a chatty article about frying with propane

gas. CNN lavished hours of airtime on a runaway bride. The magisterial tones of Walter Cronkite, America's rich uncle, are lost to history, replaced by the ex-cheerleader mom style of Katie Couric.

One reason the notion of "citizen journalism" never got off the ground was the fundamental confusion about what the *professional* journalist is expected to do, other than squeeze out content like a milk cow.

No part of the news business endured a more humiliating thrashing from the tsunami than the daily newspaper, which a century before had been the original format to make a profit by selling news to the public. True confession: I grew up reading newspapers. For half my life, this seemed like a natural way to acquire information. But that was an illusion based on monopoly conditions. Newspapers were old-fashioned industrial enterprises. Publishing plants were organized like factories. "All the news that's fit to print" really meant "All the content that fits a predetermined chunk of pages."

In substance, the daily newspaper was an odd bundle of stuff—from government pronouncements and political reports to advice for unhappy wives, box scores, comic strips, lots of advertisements, and tomorrow's horoscope. Newspapers made tacit claims which collapsed under the pressure of the information tsunami. They pretended to authority and certainty, for example. But the fatal flaw was the bundling, because it became clear that we had entered on a great unraveling, that the tide of the digital revolution boiled and churned against such artificial bundles of information and "disaggregated": that is, tore them apart.

(My 93-year-old mother has kept her subscription to the *Washington Post* strictly because she loves the crossword puzzles. I have shown her websites teeming with crossword puzzles, but she remains unmoved. My mother wants her bundle, and belongs to the last generation to do so.)

Information sought a less grandiose, less industrial level of circulation. The question was *who* or *what* determined that level. Every possible answer spelled misery for the daily newspaper, but the pathologies involved, I thought, reached far deeper than one particular mode of peddling information, and implicated the relationship between elites and non-elites, between authority and obedience. That passive mass audience on which so many political and economic institutions depended had itself unbundled, disaggregated, fragmented into what

I call *vital communities:* groups of wildly disparate size gathered organically around a shared interest or theme.

These communities relied on digital platforms for self-expression. They were vital *and* mostly virtual. The topics they obsessed over included jihad and cute kittens, technology and economics, but the total number was limited only by the scope of the human imagination. The voice of the vital communities was a new voice: that of the amateur, of the educated non-elites, of a disaffected and unruly public. It was at this level that the vast majority of new information was now produced and circulated. The intellectual earthquake which propelled the tsunami was born here.

Communities of interest reflected the true and abiding tastes of the public. The docile mass audience, so easily persuaded by advertisers and politicians, had been a monopolist's fantasy which disintegrated at first contact with alternatives. When digital magic transformed information consumers into producers, an established order—grand hierarchies of power and money and learning—went into crisis.

I have touched on the manner of the reaction: not worry or regret over lost influence, but moral outrage and condemnation, sometimes accompanied by calls for repression. The newly articulate public meanwhile tramped with muddy boots into the sacred precincts of the elites, overturning this or that precious heirloom. The ensuing conflict has toppled dictators and destroyed great corporations, yet it has scarcely begun.

I'd been enthralled by the astronomical growth in the volume of information, but the truly epochal change, it turned out, was the revolution in the relationship between the *public* and *authority* in almost every domain of human activity.

I CHRISTEN THE NEW AGE AND OTHER DEFINITIONAL ILLUSIONS

This book is not a history of the revolution, since it's much too early for that. Thoughtful interpretations of the genesis and nature of the change have been written by Yochai Benkler, Clay Shirky, and Glenn Reynolds, among many others.[3] If you wish to understand the world being formed outside your windowpane, let me introduce you to this growing body of work, then step aside.

Nor am I propounding some world-historical argument for or against the new order. Using terms for analytic style coined by Isaiah Berlin and borrowed by Joseph Tetlock in his famous study of expert political judgment, I'm afraid that I am a "fox" rather than a "hedgehog." No matter what I believe to be true, there always seems to be another side to the question. If you were to put me to the torture, I'd probably confess that this is my analytic ideal: to consider the question from as many relevant perspectives as the mind can hold.

Understanding 9/11 from the point of view of Al Qaeda incurs, for the analyst, the risk of "going native" and losing his moral equilibrium. That sort of thing happens with distressing regularity in academia, and even in government. But pretending that there is only one point of view aborts even the possibility of analysis. For that, all you need is an original prejudice and a sufficiently narrow mind.

The story I want to tell is simple but has many conflicting points of view. It concerns the slow-motion collision of two modes of organizing life: one hierarchical, industrial, and top-down, the other networked, egalitarian, bottom-up. I called it a collision because there has been wreckage, and not just in a figurative sense. Nations which a little time ago responded to a single despotic will now tremble on the edge of disintegration. I described it as slow motion because the two modes of being, old and new, have seemed unable to achieve a resolution, a victory of any sort. Both engage in *negation*—it is as a sterile back-and-forth of negation that the struggle has been conducted.

So I am writing this book because I fear that many structures I value from the old way, including liberal democracy, and many possibilities glimmering in the new way, such as enlarging the circle of personal freedom, may be ground to dust in that sterile back-and-forth.

The book's temper is reflective. It was written out of a desire to understand. The structure should be intuitive, or so I fervently hope. The chapters are self-standing but thematically connected. Each represents a mystery to be penetrated in this most mysterious of conflicts. Heroes and villains will appear, and because life is meant to be lived rather than analyzed, I have no qualms about saying who I think is which. There will be a scarcity of saints but an abundance of martyrs. That is the way of our moment in time.

To tell my story I must use my own words, but if I am to communicate successfully with you, the reader, you must understand what I mean by them. Terms like *the public* and *authority* are not simple, and require much thinking about. A goal of this book is to flesh out the reality which these terms represent —yet, for obvious reasons, I can't just spring their meaning at the end, like the punchline of a joke. Let me, instead, offer quick–and-dirty characterizations to get the story started, and we can see how these hold up as we go along.

First, the public. It's a singular noun for a plural object. I usually refer to the public as "it," but sometimes, in a certain context, as "them." Whether one or the other is correct, I leave for grammarians to decide. Both fit.

We'll explore later what the public is *not*. My understanding of what the public *is* I have borrowed entirely from Walter Lippmann. Lippmann was a brilliant political analyst, editor, and commentator. He wrote during the apogee of the top-down, industrial era of information, and he despaired of the ability of ordinary people to connect with the realities of the world beyond their immediate circle of perception. Such people made decisions based on "pictures in their heads"—crude stereotypes absorbed from politicians, advertisers, and the media —yet in a democracy were expected to participate in the great decisions of government. There was, Lippmann brooded, no "intrinsic moral and intellectual virtue to majority rule."

Lippmann's disenchantment with democracy anticipated the mood of today's elites. From the top, the public, and the swings of public opinion, appeared irrational and uninformed. The human material out of which the public was formed, the "private citizen," was a political amateur, a sheep in need of a shepherd, yet because he was sovereign he was open to manipulation by political and corporate wolves. By the time he came to publish *The Phantom Public* in 1927, Lippmann's subject appeared to him to be a fractured, single-issue-driven thing.

> *The public, as I see it* [he wrote], *is not a fixed body of individuals. It is merely the persons who are interested in an affair and can affect it only by supporting or opposing the actors.*[4]

Today, the public itself has become an actor, but otherwise Lippmann described its current structure with uncanny accuracy. It is not a fixed body of individuals.

It is composed of amateurs, and it has fractured into vital communities, each clustered around an “affair of interest” to the group.

This is what I mean when I use the word “public.”

Now, authority, which is a bit more like beauty: we know it when we see it. Authority pertains to the source. We believe a report, obey a command, or accept a judgment because of the standing of the originator. At the individual level, this standing is achieved by professionalization. The person in authority is a trained professional. He’s an expert with access to hidden knowledge. He perches near the top of some specialized hierarchy, managing a bureaucracy, say, or conducting research. And, almost invariably, he got there by a torturous process of accreditation, usually entailing many years of higher education.

Persons in authority have had to jump through hoops of fire to achieve their lofty posts—and feel disinclined to pay attention to anyone who has not done the same.

Lasting authority, however, resides in *institutions* rather than in the persons who act and speak on their behalf. Persons come and go—even Walter Cronkite in time retired to utter trivialities—while institutions like CBS News transcend generations. They are able to hoard money and proprietary data, and to evolve an oracular language designed to awe and perplex the ordinary citizen. A crucial connection, as I said earlier, exists between institutional authority and monopoly conditions: to the degree that an institution can command its field of play, its word will tend to go unchallenged. This, rather than the obvious asymmetry in voice modulation, explains the difference between Cronkite and Katie Couric.

With this rough sketch in hand, I’m ready to name names. When I say “authority,” I mean government—office-holders, regulators, the bureaucracy, the military, the police. But I also mean corporations, financial institutions, universities, mass media, politicians, the scientific research industry, think tanks and “nongovernmental organizations,” endowed foundations and other nonprofit organizations, the visual and performing arts business. Each of these institutions speaks as an authority in some domain. Each clings to a shrinking monopoly over its field of play.

* * *

I have one more characterization to propose.

The new age we have entered needs a name. While the newness of the age has often been remarked upon by many writers, and by now is almost a cliché, very little effort, strangely enough, has been invested in christening it. Tony Olcott writes of a “networked age,” but I think he means the phrase to be descriptive rather than titular—and it’s inadequate in any case. “Digital age” is lame, “digital revolution” better and I will use it in some contexts, but it implies change by means of a single decisive episode, and fails to communicate the grinding struggle of negation which I believe is the central feature of our time. An earlier candidate of mine, “age of the public,” I discarded for the same reason. The old hierarchies and systems are still very much with us.

So let me return to my original point of departure: information. Information has not grown incrementally over history, but has expanded in great pulses or waves which sweep over the human landscape and leave little untouched. The invention of writing, for example, was one such wave. It led to a form of government dependent on a mandarin or priestly caste. The development of the alphabet was another: the republics of the classical world would have been unable to function without literate citizens. A third wave, the arrival of the printing press and moveable type, was probably the most disruptive of all. The Reformation, modern science, and the American and French Revolutions would scarcely have been possible without printed books and pamphlets. I was born in the waning years of the next wave, that of mass media—the industrial, I-talk-you-listen mode of information I’ve already had the pleasure to describe.

It’s early days. The transformation has barely begun, and resistance by the old order will make the consequences nonlinear, uncertain. But I think I have already established that we stand, everywhere, at the first moment of what promises to be a cataclysmic expansion of information and communication technology.

Welcome, friend, to the Fifth Wave.

CHAPTER NOTES

1 Peter Lyman and Hal R. Varian, "How Much Information 2003?" School of Information Management and Systems, University of California at Berkeley, 2003, http://www2.sims.berkeley.edu/research/projects/how-much-info-2003

2 Study data courtesy of Hal R. Varian.

3 See Benkler, *The Wealth of Networks* (2006); Shirky, *Here Comes Everybody* (2008) and *Cognitive Surplus* (2010); Reynolds, *An Army of Davids* (2006). I would also recommend Tony Olcott's *Open Source Intelligence in a Networked Age* (2011), Jeff Jarvis's *Public Parts* (2011), and John Battelle's *The Search* (2005).

4 Lippman, *The Phantom Public* (Transaction Publishers, Ninth Edition, 2009), 67.

MY THESIS

3

Consider this book a canvas. My job will be to depict the strange chaotic world that was born with the new millenium and, I feel certain, will remain with us for a little while longer. I'm not a visionary prophesying doom, however, or a scientific wizard forecasting the shape of things to come. I don't know the future, and I'm pretty sure they don't either. If I describe the present accurately, I will have achieved my goal.

Very little of what I have to say will be original: maybe only the composition.

If, after all these admissions, you were to ask me why you should read on, I would respond: because the world I'll describe is probably very different from the one you think you're living in. The problem is that there are so many superficially dazzling aspects of the information tsunami. When I sit in my study in Vienna, Virginia, and Skype with someone in Beirut, Lebanon—that's dazzling. It feels remarkable even as I'm doing it. So, naturally enough, attention has focused on the capabilities of digital platforms like Skype, Facebook, and Google, on the proliferation of communication and collaboration around the globe, or on the unprecedented growth in the volume of information. I understand the fascination—my own journey started with these concerns.

But it turns out that fascination with surface glitter has obscured our view to what is transpiring in the depths. There, human beings interact with platforms and information, and are changed by the interaction, and the accumulated

changes have shaken and battered established institutions from companies and universities to governments and religions. The view from the depths is of a colossal many-sided conflict, the outcome of which, for good or evil, remains uncertain. In fact, the outcome will largely depend on us. And because we still think in categories forged during the industrial age—liberal and conservative, for example, or professional and amateur—our minds are blind to many of the clashes and casualties of this underground struggle.

This is the story I want to tell—the reality I aim to describe as accurately as I can.

A WAR OF THE WORLDS, DEDUCED FROM THE DEVIL'S EXCREMENT

My thesis is a simple one. We are caught between an old world which is decreasingly able to sustain us intellectually and spiritually, maybe even materially, and a new world that has not yet been born. Given the character of the forces of change, we may be stuck for decades in this ungainly posture. You who are young today may not live to see its resolution.

Famous landmarks of the old regime, like the daily newspaper and the political party, have begun to disintegrate under the pressure of this slow-motion collision. Many features we prized about the old world are also threatened: for example, liberal democracy and economic stability. Some of them will emerge permanently distorted by the stress. Others will just disappear. Many attributes of the new dispensation, like a vastly larger sphere for public discussion, may also warp or break from the immoveable resistance of the established order.

In this war of the worlds, my concern is that we not end up with the worst of all possible worlds.

Each side in the struggle has a standard-bearer: *authority* for the old industrial scheme that has dominated globally for a century and a half, the *public* for the uncertain dispensation striving to become manifest. The two protagonists share little in common, other than humanity—and each probably doubts the humanity of the other. They have arrayed themselves in contrary modes of organization which require mutually hostile ideals of right behavior. The conflict is so asymmetrical that it seems impossible for the two sides actually to engage. But they do engage, and the battlefield is everywhere.

The perturbing agent between authority and the public is *information*. For my description of the present to make sense, I will have to show how such a vague, abstract concept can be wielded as a weapon in the war of the worlds.

Irreconcilable differences between old and new can be found in something as seemingly trivial as naming conventions. The industrial age insisted on portentous-sounding names of great seriousness and formality, to validate the organizations which spoke with the voice of authority: “Bank of America,” “National Broadcasting Corporation,” “*New York Times*.” Each of these three names stood for a professional hierarchy which claimed a monopoly of specialized knowledge. They symbolized a starched-collar kind of mastery, and they meant to impress. Even the lowest-ranking person in these organizations, the names implied, had risen far above the masses.

The digital age loves self-mocking names, which are a way to puncture the formal stiffness of the established order: “Yahoo!,” “Google,” “Twitter,” “Reddit,” “Flickr,” “Photobucket,” “Bitcoin.” Without having asked the people in question, I feel reasonably sure that the founders of Google never contemplated naming their company “National Search Engine Corporation” and Mark Zuckerberg of Facebook never felt tempted by “Social Connections Center of America.” It wasn’t the style.

The names of two popular political blogs from the early days of blogging, Glenn Reynolds’s *Instapundit* and Andrew Sullivan’s *Daily Dish*, poked fun at the pretentiousness of the news business. Bridge-bloggers who posted in English from foreign countries leaned toward even more attention-getting names: *Rantings of a Sandmonkey* and *The Big Pharaoh* in Egypt, for example, and my favorite, the Venezuelan *The Devil’s Excrement*. Names of blogs have tended to become less outrageous with time—but the pull of digital culture is still toward goofiness and informality. The names asserted non-authoritativeness. They created a conscious divide between the old order and the new.

3.1 Between authority and the public, names are a battleground

Try to imagine the response of a CIA briefer telling the president of a crisis in Venezuela, who is asked for his source of information: “It’s *The Devil’s Excrement*, Mr. President.” Regardless of the cost in information missed, the briefer will avoid using any sources with such awkward names. His professional dignity—not to say, his professional success—demand the imposition of taboo.

I don’t want to make too much of the conflict over naming styles. It’s a skirmish, a surface manifestation of our struggle in the depths. I touched on the subject because it clarified, in an almost comical way, the non-negotiable claims of identity implicit in the two contending structures: how each side has come to be organized.

The incumbent structure is *hierarchy*, and it represents established and accredited authority—government first and foremost, but also corporations, universities, the whole roster of institutions from the industrial age. Hierarchy

has ruled the world since the human race attained meaningful numbers. The industrial mind just made it bigger, steeper, and more efficient. From the era of Rameses to that of Hosni Mubarak, it has exhibited predictable patterns of behavior: top-down, centralizing, painfully deliberate in action, process-obsessed, mesmerized by grand strategies and five-year plans, respectful of rank and order but contemptuous of the outsider, the amateur.

Against this citadel of the status quo, the Fifth Wave has raised the *network*: that is, the public in revolt, those despised amateurs now connected to one another by means of digital devices. Nothing within the bounds of human nature could be less like a hierarchy. Where the latter is slow and plodding, networked action is lightning quick but unsteady in purpose. Where hierarchy has evolved a hard exoskeleton to keep every part in place, the network is loose and pliable—it can swell into millions or dissipate in an instant.

Digital networks are egalitarian to the brink of dysfunction. Most would rather fail in an enterprise than acknowledge rank or leaders of any sort. Wael Ghonim's passionate insistence on being an ordinary Egyptian rather than a political leader was an expression of digital culture. Networks succeed when held together by a single powerful point of reference—an issue, person, or event—which acts as center of gravity and organizing principle for action.

Typically, this has meant being *against*. If hierarchy worships the established order, the network nurtures a streak of nihilism.

THE CENTER CANNOT HOLD AND THE BORDER HAS NO CLUE WHAT TO DO ABOUT IT

Another way to characterize the collision of the two worlds is as an episode in the primordial contest between the *Center* and the *Border*. The terms were employed by Mary Douglas and Aaron Wildavsky in another context, long before the advent of the information tsunami, but they are singularly apt for our present condition.[1]

"Center" and "Border" can be applied to organizations embracing specific structures, ideals, and beliefs about the future. The two archetypes are relative to each other, and perform a kind of dance which determines the direction of social action.

The Center, Douglas and Wildavsky write, is dominated by large, hierarchical organizations.

> *It frankly believes in sacrificing the few for the good of the whole. It is smug about its rigid procedures. It is too slow, too blind to new information. It will not believe in new dangers and will often be taken by surprise.* [2]

The Center envisions the future to be a continuation of the status quo, and churns out program after program to protect this vision.

The Border, in contrast, is composed of "sects"—we would say "networks"—which are voluntary associations of equals. Sects exist to oppose the Center: they stand firmly against. They have, however, "no intention of governing," and develop "no capacity for exercising power." Rank means inequality, hierarchy means conspiracy to the Border. Rather than articulate programs as alternatives to those of the Center, sects aim to *model* the behaviors demanded from the "godly or good society."

> *Making a program is a center strategy; attacking center programs on behalf of nature, God, or the world is border strategy.* [3]

To maintain unity, the sectarian requires "an image of threatening evil on a cosmic scale": the future is always doomsday. The Border somehow reconciles a faith in human perfectibility with the calm certainty that annihilation is just around the corner.

Sects resolve internal disputes by splintering. Their numbers must remain small. This may be the one strategic difference between the face-to-face sect, as described by Douglas and Wildavsky, and the digital network: the latter can inflate into millions literally at the speed of light.

Viewed from within this scheme, the stories of the last chapter appear in a new light. Hoder, Wael Ghonim, and Shawn Fanning emerged as sectarian heroes of the digital Border, striking at the forces of monopoly and centralization. Ahmadinejad, Mubarak, and Jack Valenti each represented a mighty hierarchy of the traditional Center, slow-turning yet implacable, perfectly willing to smash the individual to preserve the system. Two of the young sectarians, Hoder and

Fanning, received disproportionate punishment. The third, Ghonim, spent eleven nights in the dungeons of the Center. But at the end of the day two great hierarchies—the Mubarak regime and the recording industry—had been toppled.

The confrontation has followed a predictable pattern. Whenever a Center organization thought it owned a document or file or domain of information, the networks of the Border swarmed in and took over, leaving the landscape littered with casualties from such guerrilla raids. Thus the music business collapsed, newspapers shed subscribers and advertisers, political parties shrank in numbers. The US Government lost control of its own classified documents. Book publishers and the TV and movie industries, still very profitable today, depend on technical and copyright regimes which could be breached at any moment.

Since power wasn't a file that could be copied or shared, the political battleground has tilted more in favor of hierarchy. Iran, we saw, imprisoned Hoder and brutally repressed the 2009 protests. The Chinese trained their famous "internet police." Cuba and Vietnam abused and imprisoned dissident bloggers. Even the US Government during this period has been allowed to operate on the assumption that the public were the enemy—for example, in airports and federal buildings.

The Center held the advantage in the political domain, but not absolutely—not as scissors forever cutting paper. Networks exploited their speed, near-invisibility, and command of the information sphere to inflict pain and confusion on the Center. On 9/11, a miniscule network of violent men slaughtered thousands of Americans, while the government stood by, blind and helpless. In 2008, Barack Obama, propelled by online networks which generated funds, volunteers, and an effective anti-Center message, crushed the Democratic and Republican establishments. And we have seen how Wael Ghonim's Facebook invitation to revolution led—through a complex and nonlinear labyrinth—to the overthrow of Mubarak.

Yet in the next stage sectarian advances have been reversed. My suspicion is that they *must* be reversed, if sects—the public in revolt—truly have no interest in governing and possess no capacity for exercising power. Consider Al Qaeda: it failed to achieve the objective for 9/11, which was to terrorize the US into leaving the Middle East. President Obama's fortunes have been more equivocal, and I want to postpone for a bit consideration of his unique place in the struggle

between Center and Border. Suffice to say, for now, that the president lost his governing coalition after the 2010 elections. In Egypt, the secular protesters who overthrew Mubarak were almost immediately swept aside by the hierarchical forces of the Muslim Brotherhood and the Egyptian military.

And this is the deeper pattern of the conflict. The programs of the Center have failed, and have been *seen* to fail, beyond the possibility of invoking secrecy or propaganda. Let the disastrous performance of the rating and oversight agencies before the 2008 financial crisis, and of the Intelligence Community in Iraq, stand for many more examples of Center failure. At the same time, the fracturing of the public along niche interests has unleashed swarms of networks against every sacred precinct of authority. Failure has been criticized, mocked, magnified.

The result is paralysis by distrust. The Border, it is already clear, can neutralize but not replace the Center. Networks can protest and overthrow, but never govern. Bureaucratic inertia confronts digital nihilism. The sum is zero.

The world I want to depict isn't stalemated. The contending forces are too unlike, too asymmetrical to achieve any kind of balance. My thesis describes a world trapped in a sociopolitical combat zone, in which every principle of living, every institution, I want to say every *event*—the choice of what is meaningful in time—has been fought over and scorched in the crossfire. It would be natural to expect one side to prevail in the end, but I have my doubts. I can't picture what Wordsworth's blissful dawn of 1789 would look like under present conditions, or a forced march to the status quo ante as in 1848. The Center can't bring back the industrial age. The networks can't engender an alternative.

The closest historical parallel to our time may have been the wars of religion of the seventeenth century. I say this not *necessarily* because of the chaos and bloodshed of the period, but because every principle was contested. If an educated person of that era were transported to the present, his first question would be, "Who won—Catholics or Protestants?" For us the question has no meaning. Both sides endured. Neither won. Something different evolved. Much the same, I suspect, will occur with the dispute of hierarchy and network.

* * *

In this conflict, my concern as an analyst is to pay attention to the right subject at

the right level of description. I was trained, as even the youngest of us were, to think in terms of the old categories: to think, for example, that the direction of American politics depended on the balance between Democrats and Republicans. Yet both parties are, in form and spirit, organizations of the Center. Both are heavily invested in the established order, offering the public minor differences in perspective on the same small set of questions. Surprises in America's political trajectory are unlikely to come from the alternation of Democrat and Republican.

The analyst searching for *discontinuities*—for the possibility of radical change—must wrench his mind free of the old categories and turn to the subterranean strife of hierarchy and network: in the political parties, between "netroots" activists and a variety of Tea Party networks on one side, and the Democratic and Republican organizations on the other. There, different languages are spoken, and potent contradictions can be found.

My great concern as a citizen is for the future of liberal democracy.

Democracy as an *ideal* can be abstracted from every attempt to implement it—in fact, democracy has often been used to condemn democratic systems which fall short of perfection. Representative democracy as it has evolved *historically* in the US and elsewhere, however, is a procedural business, necessarily integrated with the ruling structures of the time. In the eighteenth and early nineteenth centuries, the procedures of representative democracy reflected a distrust of centralized power and the faith that wealth and land ownership conferred personal independence. In the industrial age, procedures became tightly centralized, top-down, rule-bound, and oriented toward the masses rather than the individual.

That democracy became hierarchical, organizational, an institution of the Center, is less a paradox or a conspiracy theory than a historical accident. The consequences are beyond dispute. Many aspects of representative democracy have become less democratic, and are so perceived by the public. The defection of citizens from the voting booth and party membership give evidence to a souring mood with the established structures. Many have been moved to a sectarian condemnation of the entire system as ungodly and unjust. The more assertive political networks today proclaim our current procedures to be the tyranny of Big Government or a farce manipulated by Big Business.

In the collision of the old world with the new, democracy has not been absolved from harm. It too is a battleground, like the daily newspaper. It may survive, but that is not a given, and it almost certainly will be changed. *How* it changes may depend on the aggregated decisions of individual citizens—in other words: on us—no less than on procedural reforms. This is part of my thesis—and the one place where I will deviate from a pure description of the world, to contemplate what *ought* to be done.

CYBER-UTOPIANS, CYBER-SKEPTICS, CYBER-PESSIMISTS, AND HOW ALL THEIR SOUND AND FURY SIGNIFIES VERY LITTLE

Before the start of recorded history, we find hierarchies managed by elites in authority. For all that time there was a bottom of the social pyramid, more or less inert. How this inchoate lump became the public is a story for a later chapter. Two preconditions had to be met, however. For a public to exist it had to achieve *self-consciousness*—some irritation or dissatisfaction was needed to pry it apart from the elites. For the public to voice its thoughts and opinions, and thus transform itself, potentially, into a political actor, required a *means of communication*. This became a possibility only after the spread of the printing press.

My thesis holds that a revolution in the nature and content of communication—the Fifth Wave of information—has ended the top-down control elites exerted on the public during the industrial age. For this to be the case, I need to show how the perturbing agent, information, can influence power arrangements. Information must be seen to have real-life *effects*, and those effects must be meaningful enough to account for a crisis of authority.

A century of research on media and information effects has delivered confusing if not contradictory findings. The problem for the analyst is again one of complexity and nonlinearity. Intuitively, it should be a simple matter to establish the effects of information. I see a truck bearing down on me, for example: that's information. I move out of the way: that's behavior caused by information. Or I watch television news of the US invasion of Iraq: that's information. I form an opinion for or against, and agitate politically accordingly: that's behavior caused by media information.

Politics in modern countries, however, takes place beyond the immediate

perception of the public. Political information is thus mediated rather than direct—almost always resembling the Iraq war example rather than the truck I can see with my own eyes. This sets up a large number of variables in the interaction between an individual, the mediator, and the information.

Do I, in my condition as a member of the public, accept *all* the mediators' information, and act accordingly? This has been proposed, originally by thinkers like Walter Lippmann, who were intellectually imprinted by their experience in World War I. Through the use of persuasive stereotypes and other techniques, Lippmann argued, those who controlled information—the people in authority, the elites—also controlled "the pictures in our heads." Propaganda, on this account, injected new opinions and actions directly into the gullible brains of the public.[4]

Or do I accept *none* of the mediators' information, because my moral and political beliefs were formed by "strong" social bonds, like church and family, rather than "weak" links like reading a newspaper? That also has been proposed, most recently by Malcolm Gladwell to disparage the possibility of social media "revolutions." Alternatively, I may be invulnerable to mediated information because I'm encased in an armor of prejudice, and dwell comfortably in an information bubble, or daily me.

Or do I engage in a "two-step" process, in which I first absorb the opinions of a strong personal connection, like a trusted friend or minister, and only then accept certain mediated information? That was proposed way back in the 1940s, and has been found applicable to the manner in which Twitter users "follow" information.[5]

Or is it the case that mediators have no power to control how I think or act, but can command my attention to those public issues and events I think *about*? That is the premise of agenda-setting research, which has been applied with some success in the marketplace. Roland Schatz, for example, has correlated the public's disaster donations with the amount of media attention received by an event.[6]

All the information effects findings and theories are suggestive. None, in my view, are even remotely conclusive. In the story of *Homo informaticus*, which

completes this chapter, I will aim for some of the immediate clarity in effects of that truck bearing down on me. Here I propose to skip a level, and pause for a peek at the desultory quarrel about the effects of new media: whether its impact on us has been good, bad, or indifferent.

* * *

The global proliferation of the internet in the 1990s and of social media in the early 2000s inspired equal measures of applause and alarm, with a residue of doubt. Some writers saw in digital media a boost to human collaboration and democracy. Critics dubbed this tribe cyber-utopians. Others found in the internet all manner of ills—the corruption of our culture, for example, or an invitation for governments to spy on their citizens. These were the cyber-pessimists. A third, much smaller group wondered whether anything important had really changed: call them *cyber-skeptics*.

There is less to this dispute than meets the eye.

Let the last come first. Malcolm Gladwell, fittingly in the pages of the *New Yorker*, compared the strong personal ties of the civil rights activists in the 1960s with the weak ties between participants in online causes like the Save Darfur Coalition. Only strong ties, argued Gladwell, made possible the informal coordination of sit-in protesters in the Jim Crow South. Only the mutual support induced by strong ties could embolden a group to face "high risk" situations and achieve political change. As for "Facebook warriors," Gladwell allowed that they might accomplish minor feats of collaboration—finding a donor for a bone marrow transplant, for example. But real politics happened among comrades and in the flesh.[7]

Clay Shirky has noted that a committed activist with strong personal ties to others *also* can expand his reach by becoming a Facebook warrior. There's no contradiction involved. But I want to push beyond this argument. Gladwell's contentions have simply been falsified by events. The initial protests in Egypt were the work of ordinary people, most of them connected digitally, if at all. Wael Ghonim, the Google marketing man, administered his Facebook page from Dubai, under a pseudonym. The strong tie which held together the protesters he summoned to action was loathing of the Mubarak regime.

Gladwell is a thinker of the Center, a mind of the industrial age. This doesn't prove or disprove his ideas—but it places them in a certain context. He explicitly identified strong ties with hierarchy, weak ties with network, and he could not imagine how one might be toppled by the other: "If you're taking on a powerful and organized establishment you have to be a hierarchy." Political change, for Gladwell, was a job for trained professionals, requiring the imposition of a new system, with a new program and ideology, to replace the old. But we have seen how this formula has been contradicted by the sectarian logic of the Fifth Wave. To stand for change now means to be anti-system, anti-program, anti-ideolology.

Gladwell at least grounded his skepticism on a traditional conception of power: hard trumped soft, scissors *always* cut paper. I find it harder to make sense of the warnings of the cyber-pessimists. They shout from the rooftops that dictatorships have used digital tools to spy on dissidents and manipulate public opinion. This, of course, is true. We saw an example in Iran, where the regime threw disagreeable bloggers in prison while flooding the blogosphere with its own stooges. The Chinese are supposed to be even cleverer at cyber-spying and manipulation.

As analysis, the exhortations of the pessimists hover somewhere between pointless and trivially true. Of course dictatorships wish to spy on dissidents, just as dissidents seek to avoid detection—a game made vastly more difficult for those in power by the proliferation of digital hiding-places. Of course dictatorships wish to manipulate media of all kinds to influence opinion. In the industrial age, however, they did so boldly and officially, from authority, while under the new dispensation despots must try to *impersonate* the public to have any hope of influencing it. Instead of injecting slogans into the brains of the masses by means of banner headlines on *People's Daily* or a televised speech of the *lider maximo,* they are now forced to ride the tiger of real opinion, and face the consequences should it turn against them.

Pessimism tends to be the province of the disillusioned idealist and the false sophisticate. That seems to be very much the case when it comes to the loudest voices of cyber-pessimism. I have noted their cautions. Let's move on.

The favorite goat of cyber-skeptics and cyber-pessimists has been Clay Shirky, whose 2008 book, *Here Comes Everybody*, was described by Gladwell as, "the bible of the social media movement"—that is, of the cyber-utopian crowd.

Shirky walks on the sunny side of the street, but he's no utopian. He prefers optimistic anecdotes, which infuriates the curmudgeons, but in the offending book he gave social media credit for *sharing*—photos on Flickr, for instance—and *collaboration* on the Wikipedia model, while admitting that examples of collective action inspired by digital tools were "still relatively rare." That was true in 2008. [8]

His message was that the new digital platforms made it easy for groups to "self-assemble," and that the rise of such spontaneous groups was bound to lead, sooner or later, to social and political change. Very much unlike Gladwell, Shirky foresaw the possibility of the events of 2011, and the part a networked public, connected to the information sphere, could play in revolution. In an article published just before the outbreak of revolt in Tunisia, he addressed the arguments of the skeptics and the pessimists:

> *Indeed, the best practical reason to think that social media can help bring political change is that both dissidents and governments think they can. All over the world, activists believe in the utility of these tools and take steps to use them accordingly. And the governments they contend with think social media tools are powerful, too, and are willing to harass, arrest, exile, or kill users in response.* [9]

Today we know both partners in this political minuet were correct. Digital media can be exploited by self-assembled networks to muster their forces and propagandize for their causes, against the resistance of those who command the levers of power.

But this understates the distance between the old and the new. A churning, highly redundant information sphere has taken shape near at hand to ordinary persons yet beyond the reach of modern government. In the tectonic depths of social and political life, the balance of power has fundamentally shifted between authority and obedience, ruler and ruled, elite and public, so that each can inflict damage on the other but neither can attain a decisive advantage. That is the non-utopian thesis of this book. And it was arrived at, in part, by pursuing threads of analysis about the nature and consequences of new media first spun by Clay Shirky.

HOMO INFORMATICUS, OR HOW CHOICE CAN BRING DOWN

GOVERNMENTS

There remains the question, central to my thesis, of how information can influence political power. The answer isn't intuitive. Information is soft and abstract. Power is as hard and real as a policeman's bullet. Yet, as Shirky observed with regard to new media, the wielders of power have always assumed a close and vigilant relationship to information. Governments have worked hard to control the stories told about the status quo—that is, about them.

This anxiety to control information in those who already controlled the guns should alert us that political power may be less "hard," and more intangible, than supposed.

Power, from our perspective, is a particular alignment between the will of the elites and the actions and opinions of the public: a matter of trust, faith, and fear, apportioned variously but involving both sides. Brute force plays a part, but as the fall of the brutal Muammar Qaddafi demonstrated, no government can survive for long solely on the basis of killing its opponents. A significant fraction of the public must find the status quo acceptable, and the larger the number of true believers, the more solid the foundation underneath a regime. Thus the potential influence of information over political power flows more from its fit into *stories of legitimacy* than from, say, investigative reporting or the dispensing of practical knowledge.

My analysis of this question centers on the rise of a restless, disruptive organism, which I have taken the bold step to name *Homo informaticus*, information man. You and I, and possibly a majority of the human race today, are him: end products of an evolutionary process involving the spread of education, expanded levels of wealth and security, and improved means of communication. Our traits can be explained only in reference to an ancestral environment—in this case, a parched information landscape. That's the logic of evolution. So before I present *Homo informaticus*, we must first encounter his less fortunate predecessor, whom I will call, in plain English, Unmediated Man.

As his name implies, Unmediated Man lacked access to any media. He was likely to be illiterate, and had neither the means nor the interest to travel very far. His only channels of information were the people around him. While he may sound like an implausible fiction, Unmediated Man described the typical

Egyptian of 1980, and represented most people's relationship with information from the dawn of our species until very recently.

In the nature of things, Unmediated Man lived and died within a political system: let's make it an authoritarian regime with great, but not absolute, power to control information. The problem confronting this regime was one of communication rather than control. To impose its will on Unmediated Man, it had to find a way to convey the particulars to him, in the context of a persuasive justifying story.

3.2 The problem: A regime confronts an Unmeditated Man[10]

In reality, of course, *all* information is mediated. The question is whether mediation is conducted directly, face to face, or indirectly by print and electronic sources. Unmediated Man depended on his community for information: extended family, friends, neighbors, local religious and political authorities, bosses, underlings, co-workers, his butcher, his barber, "the street." The single most important aspect of this information environment was that so very little was new. The range of interests was narrow, the set of sources small. Unmediated Man woke up every morning expecting a world quite unchanged from the day

before.

So for the regime to communicate and interact with Unmediated Man in terms advantageous to its story of legitimacy, it needed only to control the community—which, of course, it did in many ways. The regime appointed the local authorities, including the political headmen, police, military, tax and land assessors, business license granters, health inspectors, census takers, teachers, etc. Everyone coming in contact with Unmediated Man knew his version of the regime's story of legitimacy—and those who failed to do so egregiously enough were removed and silenced.

All things being equal, Unmediated Man lacked the means to conceive of an alternative story to the one which justified his present way of life. He may have protested, even violently, against local conditions, but he could never seek to overthrow the political system.

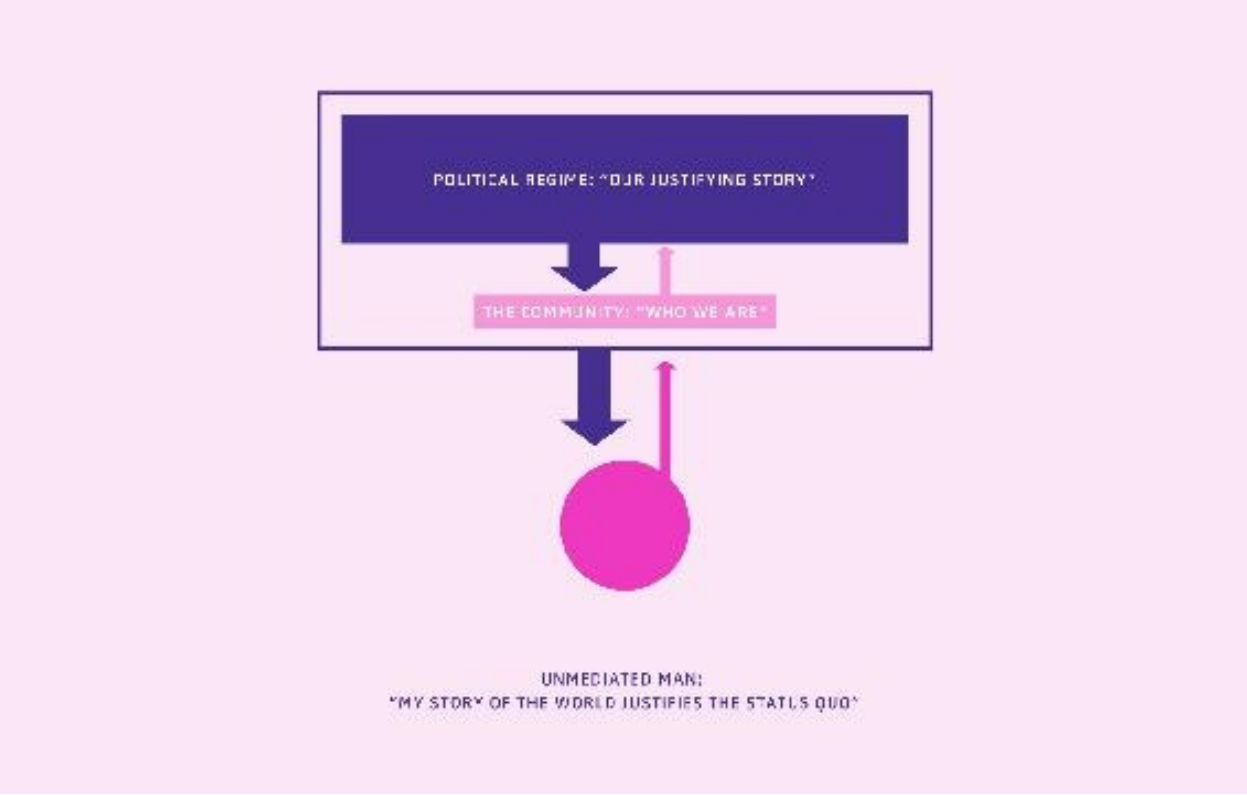
Feedback from below was extremely limited under such constraints. Probably nothing of Unmediated Man's private fears and frustrations reached the ear of the government. This meant the government could (and in fact must) behave as if the public didn't exist. For political purposes, the public became whatever the government told it to be.

It is at this point that our newly-evolved hero makes his entrance on the stage. *Homo informaticus* is a differently-endowed member of the public: he's literate, and has access to newspapers, radio, movies, TV. He has been exposed to a larger world beyond the immediate community.

His arrival confronts the regime with a new threat: the public with a longer reach may gain access to information which subverts its story of legitimacy. In the regime's worst nightmare, the public actually conceives of an alternative form of government and acts to attain it.

To cover the threat, the regime must deploy a costly and elaborate state media apparatus. It acts vigorously to own, or at a minimum to control, the means of mass communication: newspapers, radio, TV, books, cinema, etc. The content of state media plays, in harmony, theme and variations of the regime's justifying story.

The ideal for the regime would be to reconstruct, in the controlled media, voices similar to those of the local community through which it dealt with Unmediated Man. In many ways, the structure of mass media fits smoothly into regime schemes of control: it is top-down, one-to-many, monopolistic, and it demands an undifferentiated, passive mass audience.

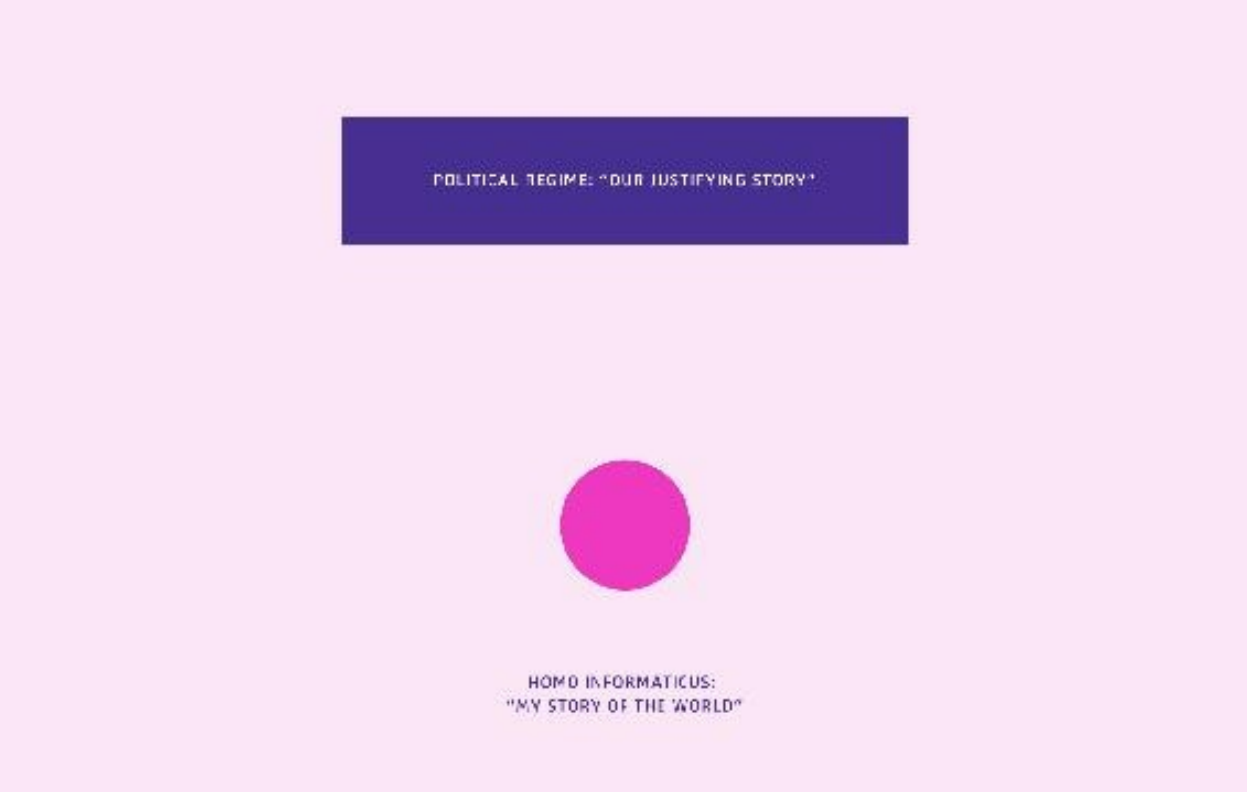


3.3 Control the community and you control the Unmediated Man’s information horizon

However, sheer volume makes the reconstruction of the small world impossible. Even in the most controlled media, the amount of information is far greater than what was available in Unmediated Man’s village. Too much of the content is new and unsettling, too much covers distant and alien conditions. As messages and images proliferate, it becomes progressively harder to determine exactly what their relationship is to the regime’s justifying story. As more intermediaries are used, it becomes progressively more likely that dissonance will be introduced into the information stream.

The simplicity and perfect fit between the public’s perception of the world and the regime’s story of legitimacy are gone forever. Under these conditions, the best outcome for the regime is acceptance by the public that the world is too

complex to be understood yet too dangerous to be left alone, and must be placed in the care of those whose job it is to manage the nation's affairs. Examples of mediated acceptance of the status quo are the Soviet Union under Stalin and North Korea today.



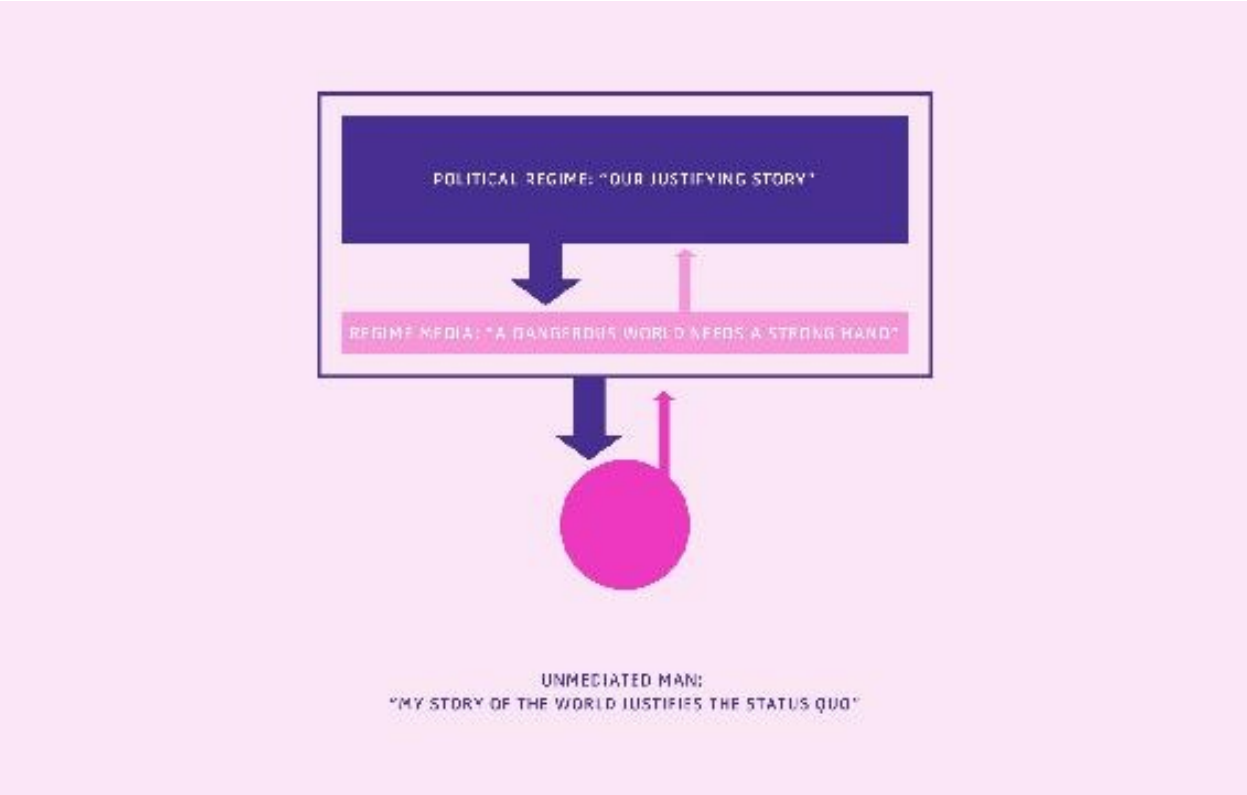
3.4 New problem: regime confronts *Homo informaticus*

By its structure and composition, state mass media allows an even narrower feedback path than did the local community of Unmediated Man. The presence of mediators increases the distance between those at the top of the power pyramid and everyone else.

The decisive transformation of *H. informaticus*'s mental universe arrives with the introduction of independent channels of information. A single such channel —a privately-owned newspaper, say, or a satellite TV station like Al Jazeera— can work a prodigious change in the public's perception of the world.

To understand why, we must return to the thorny subject of information effects. Recall that information must be either directly perceived or mediated by others. Recall, too, that complexity makes the positive effects of mediated information

impossible to determine. I can't say that the "We Are All Khaled Said" Facebook page caused the revolution in Egypt. I wouldn't know how to go about proving such a proposition.



3.5 State media is an expensive way to achieve limited control

But with *negative* effects we stand on solid analytic ground. If all the information available to the public reveals the political system to be fixed, like nature itself, for all time, then revolution becomes an absurdity. If everything I know persuades me that no alternative exists to the status quo, then I may despair even unto violence, but I cannot seek what I do not know—political change. The public in these cases is like a deaf mute standing in the street with a truck bearing down. Negative effects funnel human beliefs, and in this way shape human behavior. They are intuitive and powerful.

That single independent channel of information thus holds the potential for radical change. It broadens *Homo informaticus's* field of vision to encompass alternative values and systems. Most importantly, it shatters the illusion that his way of life is inevitable and preordained, a first, necessary step toward revolution. Whether revolution will ultimately happen will of course depend on a

multitude of factors, many of which have little to do with information. The transition from negative to positive effects must end in nonlinearity, but we can say with confidence that it won't be triggered unless the public is shown a differently-ordered world: a choice.

Information can influence actions by revealing something hitherto not known or believed possible. Scholars have called this *demonstration effects*. A trivial example would be a TV commercial for a new, improved dishwasher detergent. A political example was the jolt of hope experienced by the Egyptian opposition after the fall of Ben Ali in Tunisia. Arab dictators had always died in power and in bed. Their rule had seemed immutable, until the first one collapsed. We can feel the excitement of new possibilities in Wael Ghonim's words, written on his website shortly after Ben Ali's flight:

> *After all that's happened in Tunisia, my position has changed. Hopes for real political change in Egypt are much higher now. And all we need is a large number of people who are ready to fight for it. Our voices must be not only loud but deafening.* [11]

In reality, nothing had changed for Egypt. The transformation had taken place in Ghonim's mind.

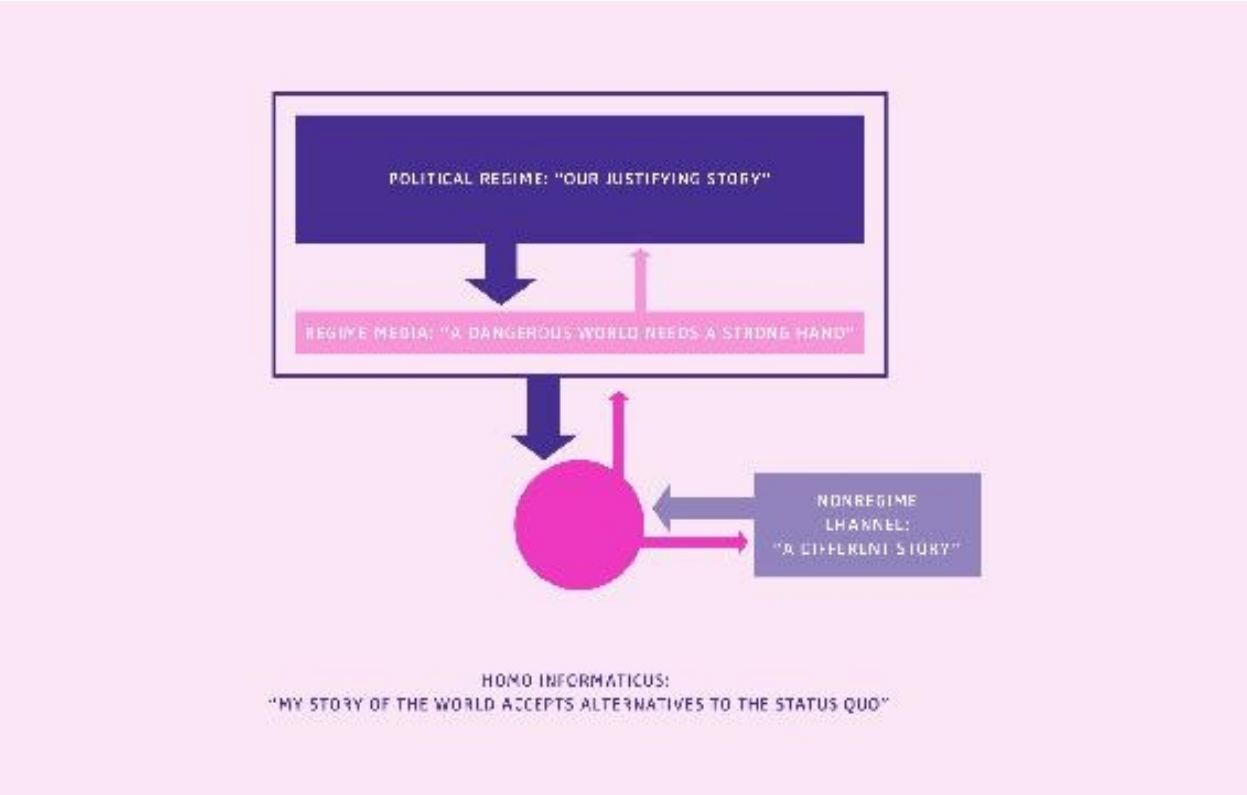
Sheer volume of information is subversive of any narrative: alternatives are demonstrated. State-controlled media had generated too much information, too much that was new, but when effective it had convinced *Homo informaticus* that no safe alternatives existed to the present state of affairs.

By necessity, an independent channel will deliver demonstration effects contradicting the regime's justifying story with equally plausible explanations.

When judging his government, *H. informaticus* can then do so in light of alternative possibilities—different views of the same policy or event, different values invoked for an action or inaction, different performance by other governments, real or imagined. The first step toward skepticism is *doubt*, and *H. informaticus*, exposed to an independent channel, must confront choices and doubts when constructing his story of the world.

As this evolutionary fable approaches the present moment, content proliferates.

A vast global information sphere, churning with controversies, points of view, and rival claims on every subject, becomes accessible to our hero. Its volume and variety exceed that of the controlled media by many levels of magnitude.



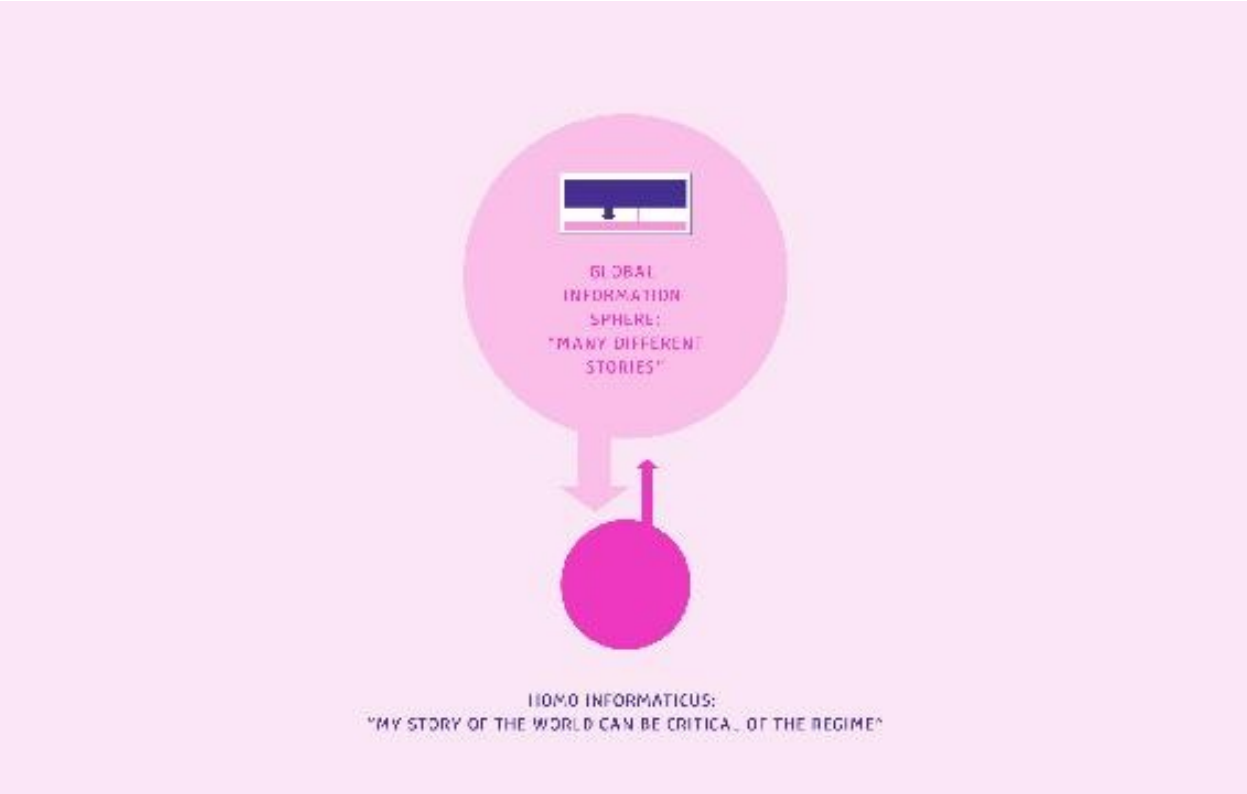
3.6 Independent channel: The psychological revolution

If *H. informaticus* were to try to absorb this mass, his head would explode. This is not what transpires. He will pick and choose. So will other members of the public. By that very selectivity, that freedom to choose its channels of information, the public breaks the power of the mediator class created by mass media, and, under authoritarian rule, controlled by the regime.

The fall of the mediators, all things being equal, means the end of the regime's ability to rule by persuasion.

Governments of every stripe have had trouble grasping the sudden reversal in the information balance of power. Proud in hierarchy and accreditation, but deprived of feedback channels, the regime is literally blind to much global content. It behaves as if nothing has changed except for attempts by alien ideals—pornography, irreligion, Americanization—to seduce the public. Most

significantly, the regime in its blindness fails to adjust its story of legitimacy to make it plausible in a crowded, fiercely competitive environment.



3.7 Overwhelmed: The incredible shrinking state media

An accurate representation based on volume would show state media to be microscopic, invisible, when compared to the global information sphere. This is how *H. informaticus* experiences the changed environment: as an Amazonian flood of irreverent, controversy-ridden, anti-authority content, including direct criticism of the regime.

The consequences are predictable and irreversible. The regime accumulates pain points: police brutality, economic mismanagement, foreign policy failures, botched responses to disasters. These problems can no longer be concealed or explained away. Instead, they are seized on by the newly-empowered public, and placed front-and-center in open discussions. In essence, government failure now sets the agenda.

3.8 Fall of the mediators: when the public talks back

As the regime's story of legitimacy becomes less and less persuasive, *Homo informaticus* adjusts his story of the world in opposition to that of the regime. He joins the ranks of similarly disaffected members of the public, who are hostile to the status quo, eager to pick fights with authority, and seek the means to broadcast their opinions and turn the tables on their rulers.

The means of communication are of course provided by the information sphere. The unit of broadcasting can be a single individual—a Hoder, a Wael Ghonim, any member of the public, including *Homo informaticus*. The level of reach is billions, distributed across the face of the world.

At this stage, the public, clustered around networked communities of interest, has effectively taken control of the means of communication. Vital communities revolve around favorite themes and channels, which in the aggregate reveal the true tastes of the public, as opposed to what mass media, corporations, or governments wish the public to be interested in.

Under authoritarian governments, vital communities will tend to coalesce in

political opposition as they bump into regime surveillance and control.

The regime still controls the apparatus of repression. It can deny service, physically attack, imprison, or even kill *H. informaticus*—but it can't silence his message, because this message is constantly amplified and propagated by the opposition community. Since the opposition commands the means of communication and is embedded in the global information sphere, its voice carries beyond the reach of any national government.

This was the situation in Egypt before the uprising of January 25, 2011. This is the situation in China today. The wealth and brute strength of the modern state are counterbalanced by the vast communicative powers of the public. Filters are placed on web access, police agents monitor suspect websites, foreign newscasters are blocked, domestic bloggers are harassed and thrown in jail—but every incident which tears away at the legitimacy of the regime is seized on by a rebellious public, and is then broadcast and magnified until criticism goes viral.

The tug of war pits hierarchy against network, power against persuasion, government against the governed: under such conditions of alienation, every inch of political space is contested, and turbulence becomes a permanent feature of political life.

Objective conditions and the nature of the political system must be accounted for, when it comes to the evolutionary process I have just described. The viciousness of the regime matters. It was safer to protest against Ben Ali in Tunisia and Mubarak in Egypt than against Qaddafi in Libya or Assad in Syria—or, for that matter, the Kim dynasty in North Korea.

But the rise of *Homo informaticus* places governments on a razor's edge, where any mistake, any untoward event, can draw a networked public into the streets, calling for blood. This is the situation today for authoritarian governments and liberal democracies alike. The crisis in the world that I seek to depict concerns loss of trust in government, writ large. The mass extinction of stories of legitimacy leaves no margin for error, no residual store of public good will. Any spark can blow up any political system at any time, anywhere.

I began by posing a question about how something as abstract as information can influence something as real as political power. Let me end the chapter by

proposing an answer, in the form of three claims or hypotheses.

1. *Information influences politics because it is indigestible by a government's justifying story.*

2. *The greater the diffusion of information to the public, the more illegitimate any political status quo will appear.*

3. *Homo informaticus, networked builder and wielder of the information sphere, poses an existential challenge to the legitimacy of every government he encounters.*

I will explore the implications in the remainder of the book.

CHAPTER NOTES

1 Mary Douglas and Aaron Wildavsky, *Risk and Culture: An Essay on the Selection of Technological and Environmental Dangers* (University of California Press, 1985).

2 Ibid., Kindle location 1172.

3 Ibid., Kindle location 1591.

4 Walter Lippman, *Public Opinion* (Transaction Publishers, 1993. Originally published by Macmillan, 1922).

5 The two-step flow of influence theory was introduced by Paul Lazarsfeld and others based on a study of the 1944 presidential elections. For its application to Twitter, see Shaomei Wu, Winter A. Mason, Jake M. Hofman, and Duncan J. Watts, "Who Says What To Whom on Twitter," presented at the World Wide Web Conference in 2011, http://www.wwwconference.org/proceedings/www2011/proceedings/p705.pdf

6 Roland Schatz, "Rebuilding Reputation Won't Work Without the Full Picture," slides presented at the 11th International Agenda-Setting Conference, 2010, http://issuu.com/mediatenor_international/docs/rebuilding_reputation

7 Malcolm Gladwell, "Small Change: Why the Revolution Won't Be Tweeted," *The New Yorker*, September 27, 2010.

8 Clay Shirky, *Here Comes Everybody: The Power of Organizing Without Organizations* (Penguin Books, 2008).

9 Clay Shirky, "The Political Power of Social Media: Technology, the Public Sphere, and Political Change," *Foreign Affairs*, Vol. 90 No. 1, January–February 2011.

10 All the *Homo informaticus* charts are mine.

11 Ghonim, *Revolution 2.0*, 137.