Here Comes Everybody

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THE POWER OF ORGANIZING WITHOUT ORGANIZATIONS

A woman loses her phone and recruits an army of volunteers to get it back from the people who stole it. A dissatisfied airline passenger spawns a national movement with her weblog. Citizens with camera phones outperform photojournalists documenting the London Transport bombings and the Indian Ocean tsunami. The world's largest encyclopedia is created by unmanaged participants. A handful of kids in Belarus create a political protest that the state is powerless to stop...

Everywhere you look, you can see groups of people coming together to share with one another, work together, or take some kind of public action. A political protest in Eastern Europe seems unconnected to the shared creation of an encyclopedia or to the recovery of a mobile phone, but all of these effects and a thousand others have the same root cause: For the first time in human history, our communications tools support the group conversation and group action. Gathering a group of people and getting them to act used to require significant resources, giving the world's institutions a kind of monopoly on group effort. Now, though, the tools for sharing and cooperating on a global scale have been placed in the hands of individual citizens.

In the same way the printing press amplified the individual mind and the telephone amplified two-way communications, a host of new tools, from instant messages and mobile phones to weblogs and wikis, amplify group communications. And because humans are natively good at working in groups, anything that amplifies group effort changes society. Business models are being transformed at a dizzying

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HERE COMES EVERYBODY

FOR ALMAZ

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CHAPTER 1

IT TAKES A VILLAGE TO FIND A PHONE

On an afternoon in late May 2006 a woman named Ivanna left her phone in the backseat of a New York City cab. No surprise there; hundreds of phones a year show up in the New York Taxi and Limousine Commission's offices, and more than that are actually lost, since some unknown number are simply taken by the next passenger. That was the fate of Ivanna's phone, a fairly expensive multifunction version called a Sidekick, which came with a screen, keyboard, and built-in camera. Sadly for her, the Sidekick was the sole repository of much of the information for her upcoming wedding, from contact information for the catering company to the guest list.

When she realized what she'd done, Ivanna asked Evan Guttman, a friend who worked as a programmer in the financial industry, to offer a reward for its return, via an e-mail message that would show up on the phone. Getting no response after a couple of days, she shelled out more than $300 to buy a new one. Ivanna's phone company had stored copies of her information on its servers and transferred it to her new phone. Once the information had been transferred to her new phone, she discov-

ered that her original one had ended up in the hands of a girl in Queens. Ivanna knew this because the girl was using it to take pictures of herself and her friends and e-mail them around; the photos taken on her old phone had also been transferred to her new one. Ivanna and Evan couldn't be sure who had taken the phone from the cab, but they knew who had it now, or rather they had her picture and her e-mail address, Sashacristal8905@aol.com (since disabled, for reasons that will become apparent).

Evan immediately e-mailed Sasha, explaining the situation and asking for the phone back. Sasha replied that she wasn't stupid enough to return it, a view punctuated with racial invective, saying that Evan's "white ass" didn't deserve it back. (She inferred Evan and Ivanna's race from pictures on the phone; Sasha is Hispanic.) The back-and-forth went on for some time. During the conversation Sasha said her brother had found it in a cab and given it to her; Evan continued to ask for it back, on the grounds that Sasha knew who its rightful owner was. Sasha finally wrote that she and her boyfriend would meet Evan, saying, in the spelling-challenged manner of casual e-mails, "i got ball this is my adress 108 20 37 av corona come n do it iam give u the sidekick so I can hit you wit it."

Evan declined to go to the listed address, both because he assumed it was fake (it was) and because of the threatened violence. Instead, he decided to take the story public. He created a simple webpage with Sasha's photos and a brief description of the events so far, with the stated rationale of delivering a lesson on "the etiquette of returning people's lost belongings," as he put it. He titled the page StolenSidekick, added it to his personal website at EvanWasHere.com, and began telling his friends about what had happened.

The original page went up on June 6, and in the first few hours it was up, Evan's friends and their friends forwarded it around the internet, attracting a growing amount of attention. Evan first updated the page later that day, noting that his friends had done some online detective work and had found a page on MySpace, the social networking website, that had photos of Sasha and a man they surmised was her boyfriend. Evan's second update provided more background on how the phone was lost and on who had it now. His third update, later that afternoon, reported that an officer from the NYPD had seen the story and had written explaining how to file a claim with the police.

That evening, two things happened. First, a man named Luis sent Evan mail, saying he was Sasha's brother and a member of the Military Police. He said that Sasha had bought the phone from a cabbie. (This story, as Evan pointed out on the webpage, directly contradicted Sasha's earlier account of her brother finding the phone.) Luis also told Evan to stop harassing Sasha, hinting violence if Evan didn't lay off. The other event that evening was that Evan's story appeared on Digg. Digg is a collaborative news website; users suggest stories, and other users rate them thumbs up or thumbs down. The Digg front page, like all newspaper front pages, is made up of stories that are both timely and important, except on Digg timeliness is measured by how recently a story was added, and importance is measured by user votes rather than by the judgment of editors. The front page of Digg gets millions of readers a day, and a lot of those readers took a look at the StolenSidekick page.

The story clearly struck a nerve. Evan was getting ten e-mails *a minute* from people asking about the phone, offering encouragement, or volunteering to help. Everyone who has ever

lost something feels a diffuse sense of anger at whoever found and kept it, but this time it was personal, since Evan, and everyone reading StolenSidekick, now knew who had the phone and had seen her insulting refusals to return it. When the barrier to returning something is high, we make peace with "Finders, keepers. Losers, weepers," but when returning something becomes easier, our sympathies ebb. Finding a loose bill on the street is different from finding a wallet with ID in it, and the case of the missing Sidekick was even worse than a lost wallet. Using someone's own phone to refuse to return it to them crossed some barrier of acceptability in the eyes of many following the saga, and the taunts and threats from Sasha and her friends and family only added insult to injury.

Evan, clearly energized by the response from his growing readership, continued posting a running commentary on his webpage. He wrote forty updates in ten days, accompanied by a growing frenzy of both local and national media attention. There was a lot to update: he and the people tuning in posted more MySpace profiles of Sasha, her boyfriend Gordo, and her brother. Someone reading the StolenSidekick page figured out Sasha's full name, then her address, and drove by her house, later posting the video on the Web for all to see. Members of Luis's Military Police unit wrote to inquire about allegations that an MP was threatening a civilian and promised to look into the matter.

Evan also created a bulletin board for his readers, a place online where they could communicate with one another about the attempts to recover Ivanna's phone. Or rather, he tried to create a bulletin board, but the first such service he selected simply couldn't cope with the crush of excited users all trying

to log in at the same time. Seeing this, he selected a second bulletin board service, but that too crashed under the sudden shock of demand, as did the third. (These kinds of failures, sometimes called "success crises," bring to mind Yogi Berra's famous observation about a New York restaurant: "Nobody goes there anymore. It's too crowded.") He finally found a service that could accommodate the thousands of people following the Sidekick saga, and those readers settled in, discussing every aspect of the events, from general speculation about Sasha's moral compass to a forum inviting members of the military to talk about Luis, the MP, and his involvement in the events. (As is usual with these kinds of communities, much of the conversation was off-topic; the military section of the bulletin board included a conversation about whether Luis was taking sufficient care of the uniform he was wearing in the pictures Sasha had taken.)

During this period Sasha's family and friends kept communicating with Evan about the phone, offering several inconsistent stories: her mom had bought the phone from someone, Sasha didn't have the phone, she had sold the phone, she would sell him the phone back for $100. Luis announced they were going to sue for harassment; her friends wrote in with more threatening e-mail. Evan and Ivanna filed a report with the police, who classified the phone as lost rather than stolen property, meaning they would take no action. Several people in the New York City government wrote in offering to help get the complaint amended, including a police officer who shared internal NYPD paperwork and explained how the complaint should have been handled. (Possession of this paperwork almost got Evan arrested when he later tried to get

the complaint reclassified.) By this point millions of readers were watching, and dozens of mainstream news outlets had covered the story. The public airing of the NYPD's refusal to treat this case as theft generated so many public complaints that the police later reversed their stand and, after dispatching two detectives to talk with Ivanna, agreed to treat the phone as stolen rather than lost.

Then on June 15 members of the NYPD arrested Sasha, a sixteen-year-old from Corona, New York, and recovered the stolen Sidekick, which they returned to its original owner, Ivanna. As Sasha's mother memorably told a reporter the day her daughter was arrested, "I never in my life thought a phone was gonna cause me so many problems." It wasn't the phone that caused the problems, though. It was the people at the other end of the phone, people who had come together around Evan's page, who found the MySpace profiles and the family's address and helped pressure the police department, all in a busy ten days, and all of it leading to Sasha's arrest. Having achieved their stated goals of publicly calling out Sasha and retrieving the phone, Evan and Ivanna declined to press charges, and Sasha was released. Ivanna's wedding went off without a hitch, and Evan, in light of his ability to gather a crowd, began getting freelance work doing PR.

"Give me a place to stand and a lever long enough, and I will move the world."

The loss and return of the Sidekick is a story about many things—Evan's obsessive tendencies, Ivanna's good fortune in

having him for a friend, how expensive phones have gotten—but one of the themes running through the story is the power of group action, given the right tools. Despite Evan's heroic efforts, he could not have gotten the phone returned if he had been working alone. He used his existing social network to get the word out, which in turn helped him find an enormous audience for Ivanna's plight, an audience willing to do more than just read from the sidelines. This audience gave Evan remarkable leverage in dealing with Sasha, and with the NYPD, leverage he wouldn't have had without such an engaged group following along. Indeed, the nature of that engagement puts many of the visitors to Evan's webpage in a category that Dan Gillmor, a journalist and the author of *We the Media*, calls "the former audience," those people who react to, participate in, and even alter a story as it is unfolding.

Consider the story from Sasha's point of view. She's a teenager in a media-saturated culture, she gets a very expensive, very cool phone that someone found in the back of a cab, and she decides to keep it rather than try to track down the owner. This isn't the most ethical behavior in the world, but neither is it premeditated theft, and in any case, what could go wrong? She's got her friends and family backing her up, and she surmises, correctly, that Evan isn't in any hurry to come out to Corona. Given all this, the combination of stories and threats from Sasha and her friends and family should have worked. After all, the phone was expensive, but it wasn't that expensive, and it's not like $300 would buy Evan a lot of help. If what Evan wanted was to save Ivanna the price of the phone, spending more than $300 retrieving it wouldn't make any sense.

Evan wasn't in it for the money, though. He was in it to satisfy his sense of justice. Because his commitment to the task at hand was emotional rather than financial, and because he was well-off enough, he was able to invest considerably more in the recovery effort than the phone was actually worth. His decision to present those motivations in public also helped draw people in. "This is not a religious endeavor or a moral endeavor . . . . [sic] this is a HUMANITY endeavor," Evan wrote at one point. The story of righting a wrong is a powerful one and helped him generate the involvement of others that finally led to the recovery of the phone.

Sasha and her friends didn't just want Evan to fail—they assumed that he would fail. The threats from Luis and Gordo had a kind of "You and what army?" quality about them, because they were certain that the police weren't going to get involved. (Luis made this very point in his first message to Evan: "dont give me that bullshit about you going to the cops over a lost phone the nypd has better things to do then to worry about your friend losing her phone." [sic]) The turning point in Evan's quest was the moment when the police agreed to amend the complaint from "lost property" (about which they would have done nothing) to "stolen property" (which led to Sasha's arrest). The NYPD is not an easy organization to browbeat, yet days after they'd tried to close the case, there they were, sending two detectives to spend half an hour with Ivanna on the matter, then sending more officers out to Corona to collar Sasha and retrieve the Sidekick. Imagine how disorienting it must have been for Sasha to learn that the owner of the phone actually did have an army of sorts, including lawyers and cops, along with an international audience of millions.

Thanks to the Web, the cost of publishing globally has collapsed. That raw publishing capability, Evan's existing social contacts, the unusual nature of his story, and the fact that the audience could find Sasha's MySpace page all combined to create a kind of positive reinforcement of attention. People became interested in the story, and they forwarded it to friends and colleagues, who became interested in turn and forwarded it still further. This pattern of growth was both cause and effect for mainstream media getting involved—it's unlikely that *The New York Times* or CNN would have covered the story of a lost phone, but when it was wrapped in the larger story of national and even global attention, they picked it up, which led to still more visitors to Evan's site and still more media outlets tuning in. The story ended up in more than sixty newspapers and radio and TV stations and more than two hundred weblogs. From the humble beginnings of Ivanna's plight and a handful of snapshots of Sasha and her friends, the StolenSidekick page went on to get over a million viewers.

Having the attention of this audience changed the conditions for Evan's relations with the police, and he knew it. He even said in one of his updates that the function of the StolenSidekick page was to put pressure on the NYPD. It also emboldened him. When he went down to the Ninth Precinct to get the complaint upgraded from lost to stolen property, Evan was stymied by the desk officer, who told him in no uncertain terms that it was up to the NYPD to determine what was a crime and what wasn't. Evan's update later that day read, in part, "All I want to do is report a crime. This is ridiculous. Have no fear though. I have many surprises for the NYPD tomorrow. They WILL listen to me and the thousands of you

who have written me and the millions of you who are reading this page." The surprise that he knew was coming was the appearance of the story in *The New York Times* the following morning. Later, when the police indicated a willingness to pursue the case, Evan posted an explicit request to the site: "I ask that EVERYONE come back to visit this page for updates to make sure that the NYPD stay true to what they said." Faced with the opacity of the NYPD bureaucracy, Evan had the information-age equivalent of being able to see through walls: he got insider advice, and he was able to walk into a confrontation with a New York City cop knowing that the story would be front-page news the following morning.

You can see Evan coming to accept his part of the bargain with his users—they would provide the attention that kept him going and made the story attractive to traditional media, and he would channel that attention, reporting on his every move. Many of the viewers of the StolenSidekick page were not just readers but operated as one-person media outlets, members of the former audience, and they discussed the situation on weblogs, on mailing lists, and on various electronic discussion groups Evan set up. He had lawyers, policemen, online detectives, journalists, and even his own ad hoc pressure group working on his behalf, without belonging to any organization responsible for providing those functions.

Evan's updates included mention of constant encouragement and offers of help from more people in the city government who thought he was getting a raw deal from the NYPD. Hours after he posted the first version of the page, an NYPD officer contacted him to explain how to file a complaint. Four days later another officer from the NYPD wrote Evan wanting

to meet; when they did, the officer gave Evan copies of internal NYPD paperwork to show him the kind of form he needed to file to get it treated as a theft. Finally, when Sasha's family began threatening legal action, someone from Legalmatch .org, a legal advice site, offered to help Evan get free advice.

Obviously, much about this story is unrepeatable. It isn't a worldwide media event every time someone loses a phone. The unusualness of the story, though, throws into high relief the difference between past and present. It's unlikely that Evan could have achieved what he did even five years ago, and inconceivable that he could have achieved it ten years ago, because neither the tools he used nor the social structures he relied on were in place ten years ago. Equally obviously, much about this story depends on the angle you are viewing it from. For Ivanna, the story is mostly good. She benefited from Evan's obsessive behavior and the way it was fed by the attention he received, and she had to expend little effort to get her phone back. For Evan himself, the exhilaration of fighting for what he thought was right was balanced against the investment of time and expense. And for Sasha, of course, the story was mostly bad. Of all the telephones in all the towns in all the world, the one she got had a million people at the other end of the line.

And what about us? What about the society in which this tug-of-war was happening? For us the picture isn't so clear. The whole episode demonstrates how dramatically connected we've become to one another. It demonstrates the ways in which the information we give off about our selves, in photos and e-mails and MySpace pages and all the rest of it, has dramatically increased our social visibility and made it easier for us to find

each other but also to be scrutinized in public. It demonstrates that the old limitations of media have been radically reduced, with much of the power accruing to the former audience. It demonstrates how a story can go from local to global in a heartbeat. And it demonstrates the ease and speed with which a group can be mobilized for the right kind of cause.

But who defines what kind of cause is right? Evan's ability to get help can be ascribed either to a strong sense of injustice or to a petty unwillingness to lose a fight, no matter how trivial and no matter the cost to his opponent. And for all the offensiveness of Sasha's taunting, race and class do matter. Evan is a grown-up doing work that lets him take countless hours off to work on the retrieval of a phone. Sasha is an unwed teenage mother. The recovery of the phone wasn't the only loss she suffered—Evan's bulletin board quickly became host to public messages disparaging Sasha, her boyfriend and friends, single mothers, and Puerto Ricans as a group. One conversation, headed with the subject line "[D]o something already!," noted that other people following the story had already uncovered her address, and advocated physical confrontation (though the author didn't offer to participate). Another thread, with the charming title "[W]ould you tap that?," involved discussion by the male participants as to whether Sasha was attractive enough to sleep with.

One could blame Evan for letting these kinds of racist and sexist conversations take place, but the number of people interested in talking about the stolen phone (as evidenced by the inadequacy of most software to handle the volume of users), and the standard anonymity of internet users, made the conversations effectively impossible to police. Furthermore,

though Evan was clearly benefiting from having generated the attention, he was not entirely in control of it—the bargain he had crafted with his users had him performing the story they wanted to see. Had he shut down the bulletin boards or even edited the conversations, he would have been violating his half of what had quickly become a mutual expectation. (Whether he *should* have taken this step is a judgment call; the point is that once a group has come together, those kinds of issues of community control aren't simple. Any action Evan took, either letting the conversation go or stifling it, would have created complicated side effects.)

A larger question transcends the individual events. Do we want a world in which a well-off grown-up can use this kind of leverage to get a teenager arrested, as well as named and shamed on a global platform, for what was a fairly trivial infraction? The answer is yes and no. Millions of people obviously wanted to follow the story, in part because of its mix of moral and visceral struggle. Furthermore, what Sasha did was wrong, and we want misdeeds to be punished. At the same time, though, we want the punishment to fit the crime. It's easy enough to say that Sasha shouldn't have gotten off just because other people take lost property without returning it, but that logic starts to look different if we imagine that the roles were reversed. Poor people lose phones too, and the loss hits them far harder; why should Evan have been able to browbeat the NYPD into paying attention to this of all lost property?

A few years ago Evan wouldn't have been able to get the story heard either. Before the Web became ubiquitous, he wouldn't have been able to attract an audience, much less one

in the millions, and without that audience he would not have been able to get the police to change the complaint. Given how much of our lives is spent in thrall to unresponsive bureaucracy, Evan's eventual victory seems like a shining success, but it came at a cost. Policing time is finite, yet the willingness of humans to feel wronged is infinite. Do we also want a world where, whenever someone with this kind of leverage gets riled up, they can unilaterally reset the priorities of the local police department?

Those kinds of questions are rhetorical, since that's the world we've already got. The real question is, What happens next? The story of the lost Sidekick is an illustration of the kinds of changes—some good, some bad, most too complex to label—that are affecting the ways groups assemble and cooperate. These changes are profound because they are amplifying or extending our essential social skills, and our characteristic social failings as well.

New Leverage for Old Behaviors

Human beings are social creatures—not occasionally or by accident but always. Sociability is one of our core capabilities, and it shows up in almost every aspect of our lives as both cause and effect. Society is not just the product of its individual members; it is also the product of its constituent groups. The aggregate relations among individuals and groups, among individuals within groups, and among groups forms a network of astonishing complexity. We have always relied on group effort for survival; even before the invention of agriculture, hunt-

ing and gathering required coordinated work and division of labor. You can see an echo of our talent for sociability in the language we have for groups; like a real-world version of the mythical seventeen Eskimo words for snow, we use incredibly rich language in describing human association. We can make refined distinctions between a corporation and a congregation, a clique and a club, a crowd and a cabal. We readily understand the difference between transitive labels like "my wife's friend's son" and "my son's friend's wife," and this relational subtlety permeates our lives. Our social nature even shows up in negation. One of the most severe punishments that can be meted out to a prisoner is solitary confinement; even in a social environment as harsh and attenuated as prison, complete removal from human contact is harsher still.

Our social life is literally primal, in the sense that chimpanzees and gorillas, our closest relatives among the primates, are also social. (Indeed, among people who design software for group use, human social instincts are sometimes jokingly referred to as the monkey mind.) But humans go further than any of our primate cousins: our groups are larger, more complex, more ordered, and longer lived, and critically, they extend beyond family ties to include categories like friends, neighbors, colleagues, and sometimes even strangers. Our social abilities are also accompanied by high individual intelligence. Even cults, the high-water mark of surrender of individuality to a group, can't hold a candle to a beehive in terms of absolute social integration; this makes us different from creatures whose sociability is more enveloping than ours.

This combination of personal smarts and social intuition makes us the undisputed champions of the animal kingdom

in flexibility of collective membership. We act in concert everywhere, from tasks like organizing a birthday party (itself a surprisingly complicated exercise) to running an organization with thousands or even millions of members. This skill allows groups to tackle tasks that are bigger, more complex, more dispersed, and of longer duration than any person could tackle alone. Building an airplane or a cathedral, performing a symphony or heart surgery, raising a barn or razing a fortress, all require the distribution, specialization, and coordination of many tasks among many individuals, sometimes unfolding over years or decades and sometimes spanning continents.

We are so natively good at group effort that we often factor groups out of our thinking about the world. Many jobs that we regard as the province of a single mind actually require a crowd. Michelangelo had assistants paint part of the Sistine Chapel ceiling. Thomas Edison, who had over a thousand patents in his name, managed a staff of two dozen. Even writing a book, a famously solitary pursuit, involves the work of editors, publishers, and designers; getting this particular book into your hands involved additional coordination among printers, warehouse managers, truck drivers, and a host of others in the network between me and you. Even if we exclude groups that are just labels for shared characteristics (tall people, redheads), almost everyone belongs to multiple groups based on family, friends, work, religious affiliation, on and on. The centrality of group effort to human life means that anything that changes the way groups function will have profound ramifications for everything from commerce and government to media and religion.

One obvious lesson is that new technology enables new kinds of group-forming. The tools Evan Guttman availed himself of were quite simple—the phone itself, e-mail, a webpage, a discussion forum—but without them the phone would have stayed lost. Every step of the way he was able to escape the usual limitations of private life and to avail himself of capabilities previously reserved for professionals: he used his site to tell the story without being a journalist, he found Sasha's information without being a detective, and so on. The transfer of these capabilities from various professional classes to the general public is epochal, built on what the publisher Tim O'Reilly calls "an architecture of participation."

When we change the way we communicate, we change society. The tools that a society uses to create and maintain itself are as central to human life as a hive is to bee life. Though the hive is not part of any individual bee, it is part of the colony, both shaped by and shaping the lives of its inhabitants. The hive is a social device, a piece of bee information technology that provides a platform, literally, for the communication and coordination that keeps the colony viable. Individual bees can't be understood separately from the colony or from their shared, co-created environment. So it is with human networks; bees make hives, we make mobile phones.

But mere tools aren't enough. The tools are simply a way of channeling existing motivation. Evan was driven, resourceful, and unfortunately for Sasha, very angry. Had he presented his mission in completely self-interested terms ("Help my friend save $300!") or in unattainably general ones ("Let's fight theft everywhere!"), the tools he chose wouldn't have mattered. What he did was to work out a message framed in

big enough terms to inspire interest, yet achievable enough to inspire confidence. (This sweet spot is what Eric Raymond, the theorist of open source software, calls "a plausible promise.") Without a plausible promise, all the technology in the world would be nothing more than all the technology in the world.

As we saw in the saga of the lost Sidekick, getting the free and ready participation of a large, distributed group with a variety of skills—detective work, legal advice, insider information from the police to the army—has gone from impossible to simple. There are many small reasons for this, both technological and social, but they all add up to one big change: forming groups has gotten a lot easier. To put it in economic terms, the costs incurred by creating a new group or joining an existing one have fallen in recent years, and not just by a little bit. They have collapsed. ("Cost" here is used in the economist's sense of anything expended—money, but also time, effort, or attention.) One of the few uncontentious tenets of economics is that people respond to incentives. If you give them more of a reason to do something, they will do more of it, and if you make it easier to do more of something they are already inclined to do, they will also do more of it.

Why do the economics matter, though? In theory, since humans have a gift for mutually beneficial cooperation, we should be able to assemble as needed to take on tasks too big for one person. If this were true, anything that required shared effort—whether policing, road construction, or garbage collection—would simply arise out of the motivations of the individual members. In practice, the difficulties of

coordination prevent that from happening. (Why this is so is the subject of the next chapter.)

But there are large groups. Microsoft, the U.S. Army, and the Catholic Church are all huge, functioning institutions. The difference between an ad hoc group and a company like Microsoft is management. Rather than waiting for a group to self-assemble to create software, Microsoft manages the labor of its employees. The employees trade freedom for a paycheck, and Microsoft takes on the costs of directing and monitoring their output. In addition to the payroll, it pays for everything from communicating between senior management and the workers (one of the raisons d'être for middle management) to staffing the human resources department to buying desks and chairs. Why does Microsoft, or indeed any institution, tolerate these costs?

They tolerate them because they have to; the alternative is institutional collapse. If you want to organize the work of even dozens of individuals, you have to manage them. As organizations grow into the hundreds or thousands, you also have to manage the managers, and eventually to manage the managers' managers. Simply to exist at that size, an organization has to take on the costs of all that management. Organizations have many ways to offset those costs—Microsoft uses revenues, the army uses taxes, the church uses donations—but they cannot avoid them. In a way, every institution lives in a kind of contradiction: it exists to take advantage of group effort, but some of its resources are drained away by directing that effort. Call this the institutional dilemma—because an institution expends resources to manage resources, there is a gap between what those institutions are capable of in theory

and in practice, and the larger the institution, the greater those costs.

Here's where our native talent for group action meets our new tools. Tools that provide simple ways of creating groups lead to new groups, lots of new groups, and not just more groups but more kinds of groups. We've already seen this effect in the tools that Evan used—a webpage for communicating with the world, instant messages and e-mails by the thousands among his readers, and the phone itself, increasingly capable of sending messages and pictures to groups of people, not just to a single recipient (the historical pattern of phone use).

If we're so good at social life and shared effort, what advantages are these tools creating? A revolution in human affairs is a pretty grandiose thing to attribute to a ragtag bunch of tools like e-mail and mobile phones. E-mail is nice, but how big a deal can it be in the grand scheme of things? The answer is, "Not such a big deal, considered by itself." The trick is not to consider it by itself. All the technologies we see in the story of Ivanna's phone, the phones and computers, the e-mail and instant messages, and the webpages, are manifestations of a more fundamental shift. We now have communications tools that are flexible enough to match our social capabilities, and we are witnessing the rise of new ways of coordinating action that take advantage of that change. These communications tools have been given many names, all variations on a theme: "social software," "social media," "social computing," and so on. Though there are some distinctions between these labels, the core idea is the same: we are living in the middle of a remarkable increase

in our ability to share, to cooperate with one another, and to take collective action, all outside the framework of traditional institutions and organizations. Though many of these social tools were first adopted by computer scientists and workers in high-tech industries, they have spread beyond academic and corporate settings. The effects are going to be far more widespread and momentous than just recovering lost phones.

By making it easier for groups to self-assemble and for individuals to contribute to group effort without requiring formal management (and its attendant overhead), these tools have radically altered the old limits on the size, sophistication, and scope of unsupervised effort (the limits that created the institutional dilemma in the first place). They haven't removed them entirely—issues of complexity still loom large, as we will see—but the new tools enable alternate strategies for keeping that complexity under control. And as we would expect, when desire is high and costs have collapsed, the number of such groups is skyrocketing, and the kinds of effects they are having on the world are spreading.

The Tectonic Shift

For most of modern life, our strong talents and desires for group effort have been filtered through relatively rigid institutional structures because of the complexity of managing groups. We haven't had all the groups we've wanted, we've simply had all the groups we could afford. The old limits of

what unmanaged and unpaid groups can do are no longer in operation; the difficulties that kept self-assembled groups from working together are shrinking, meaning that the number and kinds of things groups can get done without financial motivation or managerial oversight are growing. The current change, in one sentence, is this: most of the barriers to group action have collapsed, and without those barriers, we are free to explore new ways of gathering together and getting things done.

George W.S. Trow, writing about the social effects of television in *Within the Context of No Context,* described a world of simultaneous continuity and discontinuity:

> Everyone knows, or ought to know, that there has happened under us a Tectonic Plate Shift [. . .] the political parties still have the same names; we still have a CBS, an NBC, and a *New York Times;* but we are not the same nation that had those things before.

Something similar is happening today. Most of the institutions we had last year we will have next year. In the past the hold of those institutions on public life was irreplaceable, in part because there was no alternative to managing large-scale effort. Now that there is competition to traditional institutional forms for getting things done, those institutions will continue to exist, but their purchase on modern life will weaken as novel alternatives for group action arise.

This is not to say that corporations and governments are

going to wither away. Though some of the early utopianism around new communications tools suggested that we were heading into some sort of posthierarchical paradise, that's not what's happening now, and it's not what's going to happen. None of the absolute advantages of institutions like businesses or schools or governments have disappeared. Instead, what has happened is that most of the *relative* advantages of those institutions have disappeared—relative, that is, to the direct effort of the people they represent. We can see signs of this in many places: the music industry, for one, is still reeling from the discovery that the reproduction and distribution of music, previously a valuable service, is now something their customers can do for themselves. The Belarusian government is trying to figure out how to keep its young people from generating spontaneous political protests. The Catholic Church is facing its first prolonged challenge from self-organized lay groups in its history. But these stories and countless others aren't just about something happening to particular businesses or governments or religions. They are about something happening in the world.

Group action gives human society its particular character, and anything that changes the way groups get things done will affect society as a whole. This change will not be limited to any particular set of institutions or functions. For any given organization, the important questions are "When will the change happen?" and "What will change?" The only two answers we can rule out are never, and nothing. The ways in which any given institution will find its situation transformed will vary, but the various local changes are manifestations of a single

deep source: newly capable groups are assembling, and they are working without the managerial imperative and outside the previous strictures that bounded their effectiveness. These changes will transform the world everywhere groups of people come together to accomplish something, which is to say everywhere.

SHARING ANCHORS COMMUNITY

Groups of people are complex, in ways that make those groups hard to form and hard to sustain; much of the shape of traditional institutions is a response to those difficulties. New social tools relieve some of those burdens, allowing for new kinds of group-forming, like using simple sharing to anchor the creation of new groups.

Imagine you are standing in line with thirty-five other people, and to pass the time, the guy in front of you proposes a wager. He's willing to bet fifty dollars that no two people in line share a birthday. Would you take that bet?

If you're like most people, you wouldn't. With thirty-six people and 365 possible birthdays, it seems like there would only be about a one-in-ten chance of a match, leaving you a 90 percent chance of losing fifty dollars. In fact, you should take the bet, since you would have better than an 80 percent chance of *winning* fifty dollars. This is called the Birthday Paradox (though it's not really a paradox, just a