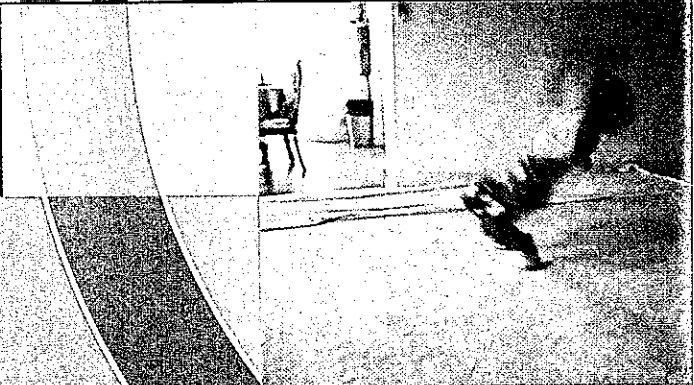
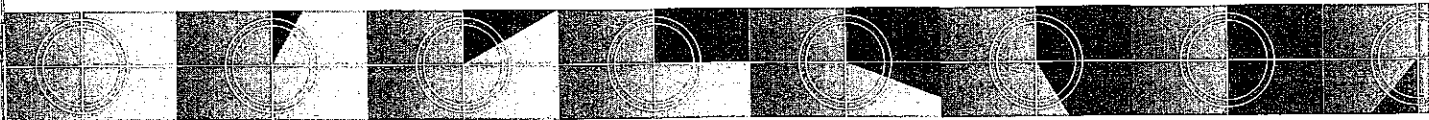
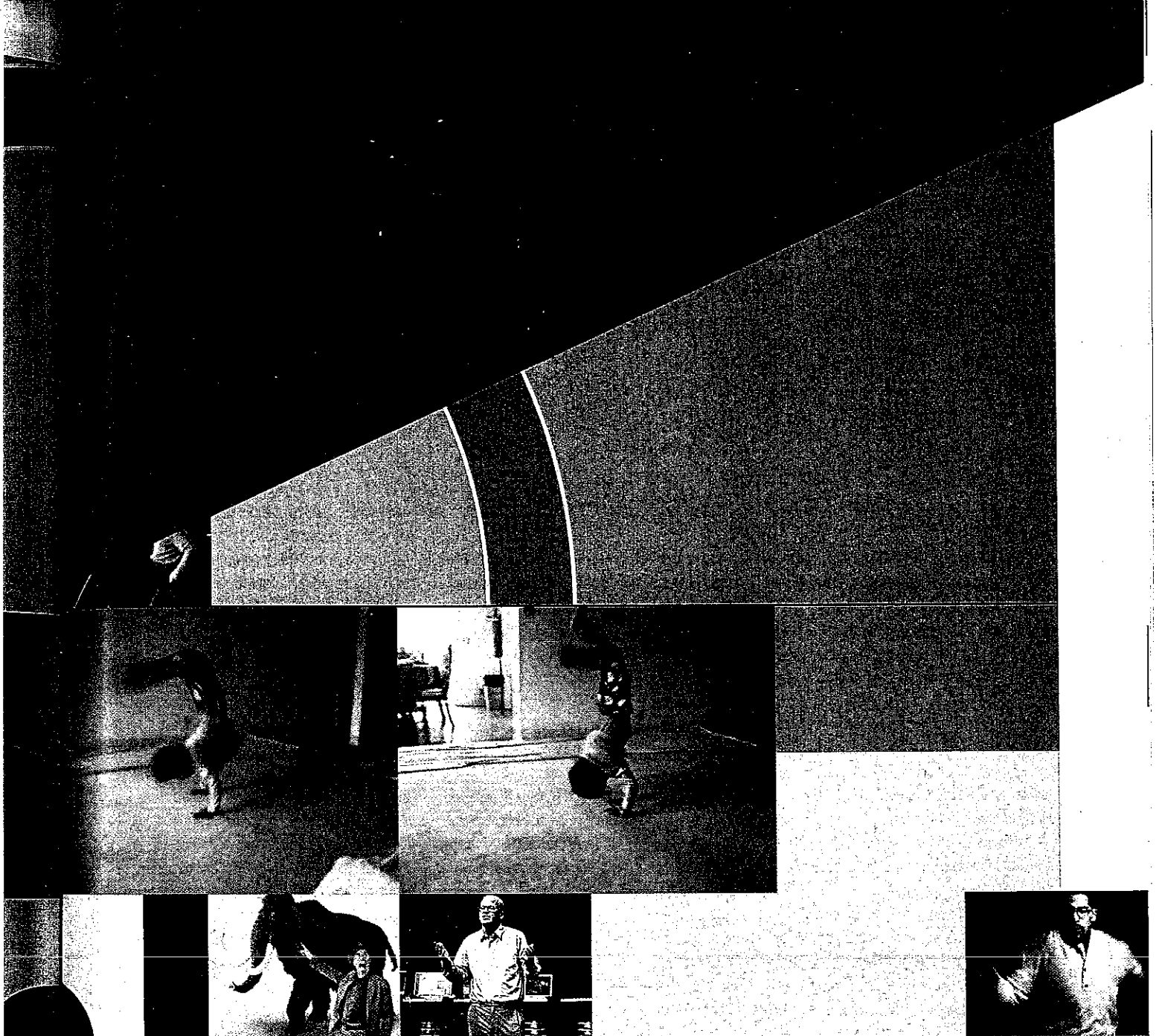


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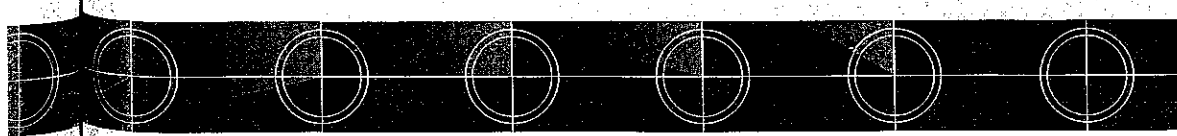


# SCHEIDT





Online video is more powerful than you think.  
TED curator Chris Anderson on how  
**CROWD ACCELERATED INNOVATION** can change the world.



# At last year's

Academy Awards, in front of a global audience of millions, a new troupe, the Legion of Extraordinary Dancers, or LXD, performed a jaw-dropping number. It was, many thought, the best part of the whole spectacle. The dancers were electric, exciting, and altogether unprecedented: Their routine of tricks and moves was hitherto unknown to dance.

Several of the dancers were self-taught. Or more precisely, Internet-taught. And they had been recruited by a filmmaker, Jon M. Chu, in part because of their YouTube reputations.

Chu formed the LXD based on a simple revelation: Because of the web, specifically online video, dance was evolving in Internet time. A series of challenge videos by rival groups of street dancers had created an upward spiral of invention as they strove to outdo one another. The best videos were attracting tens of thousands of views. Much more than pride was at stake. Chu knew something weird was happening when he saw a YouTube video of Anjelo Baligad, a 6-year-old boy from Hawaii who had all of the moves of a professional.

In fact, he wasn't as good as a professional—he was better. This tyke, known as Lil Demon, was demonstrating tricks few adult dancers could pull off. If 6-year-olds could do this now, Chu imagined, what was dance going to look like in 10 years? As he remarked at last February's TED conference, where the LXD gave a breathtaking performance: "Dancers have created a whole global

laboratory for dance. Kids in Japan are taking moves from a YouTube video created in Detroit, building on it within days and releasing a new video, while teenagers in California are taking the Japanese video and remixing it to create a whole new dance style in itself. This is happening every day. And from these bedrooms and living rooms and garages with cheap webcams come the world's great dancers of tomorrow."

Chu's words ignited flashbulbs in my brain. The phenomenon he was describing seemed to match one I was familiar with. When we decided to post TED talks free on the web four years ago, something unexpected happened: Speaker behavior changed. Specifically, they started spending more time preparing for the talks. The slots are 18 minutes long, but in many cases the speakers had crammed weeks or even months of preparation into those 18 minutes.

For example, Jill Bolte Taylor, whose memorable talk describing her own stroke has attracted more than 7 million views, told me that she wrote the talk over several months and then spent an entire month rehearsing it. It showed. Other speakers saw what was out there and gave themselves the task of doing something different and better. We started to see wonderful creative touches in how talks were put together ... ranging from J.J. Abrams' mystery box to Hans Rosling's solidified laser pointer (a long pole).

Indeed, the quality of talks across the board (as measured by audience rankings) was rising. It seemed that posting the talks online had done two things: It gave speakers a library of examples of what constituted a great talk. And it gave them more reason to shine.

This was empowerment plus motivation, a significant one-two. And as speakers continued to innovate and improve, they attracted larger audiences, raising the bar each year (but also adding to the toolkit available to the following year's speakers).

So in both street dance and TED talks, an upward spiral of improvement was taking place, prompted by the use of online video. This seemed an interesting phenomenon, and suddenly I started seeing more examples wherever I looked. I couldn't find a name for it anywhere, so I began thinking of it as Crowd Accelerated Innovation. But what is that, exactly? Does it have implications for the way we work? Will it affect the future of how we learn?

Yes—and yes. I believe that the arrival of free online video may turn out to be just as significant a media development as the arrival of print. It is creating new global communities, granting their members both the means and the motivation to step up their skills and broaden their imaginations. It is unleashing an unprecedented wave of innovation in thousands of different disciplines: some trivial, some niche in the extreme, some central to solving humanity's problems. In short, it is boosting the net sum of global talent. It is helping the world get smarter.

At first mention, this argument can provoke one of two opposing reactions: "That's absurd" or "That's obvious."

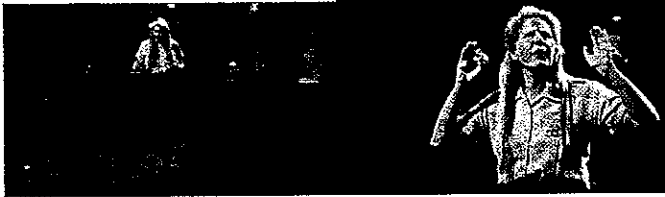
The absurd camp calls YouTube a festering swamp of adolescent distraction: narcissism, kitten videos, and fart jokes. The obvious camp thinks it's old news that the Internet fosters communities and promotes innovation (and this camp may view online video as a relatively insignificant new contributor to a familiar theme).

Both camps have a point. But they're missing the big picture. The true significance of online video has been mischaracterized and underreported.





Jill Bolte Taylor spent several months writing her TED talk and a month rehearsing it.



**iPad Extra:**

To watch the best TED talks, download WIRED from the iTunes Store.

Innovation has always been a group activity. The myth of the lone genius having a eureka moment that changes the world is indeed a myth. Most innovation is the result of long hours, building on the input of others. Ideas spawn from earlier ideas, bouncing from person to person and being reshaped as they go. If you're comfortable with the language of memes, you could say a healthy meme needs an ecosystem not of a single brain but of a network of brains. That's how ideas bump into other ideas, replicate, mutate, and evolve.

Several authors have recently taken on this subject. Henry Chesbrough warns companies to adopt "open innovation," Eric von Hippel speaks of democratizing innovation, showing how, for example, the kite-surfer community outinnovated the manufactur-

ers that were serving it, and Michael Farrell describes "collaborative circles," demonstrating that throughout history the best creativity has happened when groups of artists, reformers, writers, or scientists connected regularly with one another.

So Crowd Accelerated Innovation isn't new. In one sense, it's the only kind of innovation there's ever been. What is new is that the Internet—and specifically online video—has cranked it up to a spectacular degree.

The way I see it, Crowd Accelerated Innovation requires three ingredients: a crowd, light, and desire. Let's take each in turn.

**A crowd.** A crowd is simply a community, any group of people with a shared interest. It can be narrow (unicycling, Greek archaeology) or broad (science, world peace), small (my village) or large (humanity). The community needs to contain at least a few people capable of innovation. But not everyone in

the community need be. There are plenty of other necessary roles:

- The trend-spotter, who finds a promising innovation early.
- The evangelist, who passionately makes the case for idea X or person Y.
- The superspreader, who broadcasts innovations to a larger group.
- The skeptic, who keeps the conversation honest.
- General participants, who show up, comment honestly, and learn.

Different people may occupy these various roles at different times, including that of innovator. Innovation is a response to a particular set of challenges or inspirations. Every mind is unique. Presented with the right fine-tuned pattern of incoming stimulation, I suspect, most people have a shot at coming up with something wonderfully new and fresh. But even if not, they can still play any of the other key roles.

J.J. Abrams incorporated creative touches, like his "mystery box," into his talk.



**Light.** All members of the community need to be visible; each needs to be aware of what others, particularly the most talented members, are up to. If the community is the university alumni association, the fact that one member has the world's most breathtaking idea matters not if it never makes it into the annual newsletter.

Nor is it any good to look out on a sea of faces in a sports stadium and think that you and your fellow fans will innovate together. Individual contributions have to be known so that they can be built upon. Visibility doesn't have to mean literal face-to-face contact. Any form of connection may do the trick. Tweeting counts. But the nature of the visibility—the brightness of the light—will help determine how fast Crowd Accelerated Innovation can take place.

**Desire.** Active learning is hard work. And in most cases, what drives all that work, whether we will admit it or not, is the prospect of recognition for what we've done. Have you ever checked the viewing figures on a blog post you wrote? Watched to see if anyone would reply to a comment you posted? Gotten excited by an award or an exam result? Or felt a thrill when your boss looked you in the eye and said, "Awesome job"?

Then you know the power of recognition—

Innovation you get. Think of each element as a dial on a giant flywheel. Turn any of the dials clockwise and the wheel speeds up—and online video has cranked up all three dials.

### Dial 1: Work the Crowd

Communities have exploded in size. The dancers on the corner suddenly find themselves part of a global dance community. Cake making is no longer the purview of the village fete but a skill that, when captured on video, can be viewed by tens of thousands of salivating aficionados. Scientists, architects, historians, conservationists, musicians ... all are linking up globally in a way unimaginable only a few years ago. Just as significantly, communities have formed that could scarcely have existed before. There are thousands of examples, from impossibly ambitious Rube Goldberg machine creators to crazily creative makeup artists.

Of course, the size of the community isn't the only thing that will determine its pace of learning. But it is hugely important. Out of 100 people, maybe fewer than half a dozen are likely to innovate ... and their best ideas will come along only every few years. Progress will be slow. Yet if the community is a million people across the world, 10,000 times as many individuals are competing for their moment of greatness. What is more, each of

the crowd and contact, the learning died. By contrast, the world's slums, with their vast populations crammed together, often harbor astonishing levels of invention.

When it comes to innovation, size matters. And online video has given every community global reach. It has allowed talents to be shared digitally that could never be shared before. You can track innovation online by looking at the moment a community was first able to share its talents digitally. For writers and software programmers, it happened as soon as the Internet connected them. Photographers and musicians followed soon after, when even the low-bandwidth web could just about handle GIFs, JPEGs, and MP3s. But the vast majority of communities had to wait for online video. It was the technology that allowed *any* talent to be shared digitally.

### Dial 2: Shed More Light

Perhaps the most miraculous element of online video is that, for the first time in history, it's possible to assemble a crowd of people numbering in the millions and give every single member a chance to be seen and heard. Admittedly, it's likely that not a single person besides your mother will view your video. But if the clip is remarkable in some way, a community trend-spotter may just take a shine to it, IM the link to their buddy the evangelist, who writes a rave comment, which is read by a superspreader, who tweets it to their 10,000 followers ... and suddenly, you're on your way.

Equally miraculously, you can log onto the web day or night and take a look at the output of countless community members formerly known as strangers. In picking which ones to view, you will be aided by recommendations, viewing numbers, ratings, and much more. It's surprisingly easy to sift through the chaff for the wheat. In short order, your sense of possibility will be expanded. And if you see something you like or some skill you admire, you can watch the clip repeatedly until you truly get the hang of it. Watching the dancer on the street corner, you might get a single view. Watching the genius from Seoul on YouTube, you have at your disposal: Rewind,

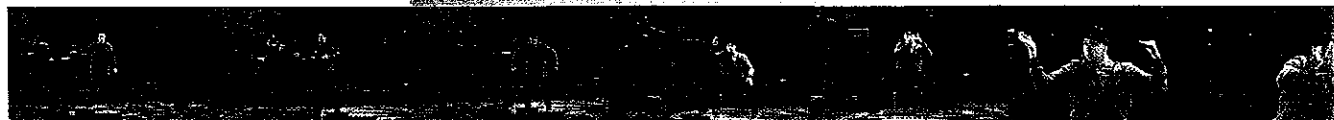
## VIDEO IS THE KILLER APP. DON'T WRITE ME. TELL ME. SHOW ME.

we crave it. It's a fundamental desire. Every community has its own means for granting special status to some of its members, formal or informal. For basketball, there's the Hall of Fame. For the group of dancers on a street corner, the hot one gets the admiring looks and the best date. Our desire for recognition fuels our performance.

Now the more powerful each of the above elements is, the more Crowd Accelerated

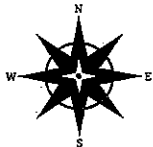
them is exposed to a much wider variety of stimulation. And then ... we have liftoff.

History shows that when communities fall below a certain critical mass, technological progress slows and may go into reverse. The original Tasmanians, limited by the size of their island, never grew beyond a population of a few thousand. Isolated from other cultures, over the centuries they lost many of the technologies they had arrived with. Without



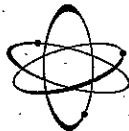
# ▶ A History of Collaborative Circles

Throughout history, innovation has surged when groups of scientists, entrepreneurs, or intellectuals connect regularly. Here are a few examples. —C.A.



## Circa 3,000 BC Trade routes

**THE CROWD** Producers and traders scattered across the world  
**THE LIGHT** The wide-spread movement of goods, which enabled the interchange of ideas  
**THE DESIRE** Better reputation and business opportunities



## 1500s The scientific revolution

**THE CROWD** Scientists around the world  
**THE LIGHT** The dissemination of ideas in printed books and papers  
**THE DESIRE** Scientific fame, wealth from inventions, knowledge for knowledge's sake



## 1600s The coffee house

**THE CROWD** Intellectuals gathered at London cafés, exchanging thoughts  
**THE LIGHT** The ability to hear ideas directly from their source  
**THE DESIRE** Knowledge, social status



## 1900s Urban slums

**THE CROWD** People sharing close quarters—and ideas—in new industrial centers  
**THE LIGHT** Knowing everything everyone else was doing  
**THE DESIRE** Escape from poverty



## 1990s The open source movement

**THE CROWD** Programmers who make better code—for free  
**THE LIGHT** The open exchange of code.  
**THE DESIRE** Peer recognition



## 2010s Online video

**THE CROWD** The world.  
**THE LIGHT** The sharing of any talent or concept with anyone  
**THE DESIRE** A form of global fame, social recognition

Pause, Repeat, plus community ratings and a swarm of validating, clarifying (or, undoubtedly, dismissive) comments to help refine your opinion of what you're seeing. (By the way, I'm certainly not claiming YouTube generates great commenting. But in many niche communities, the comments are incredibly valuable.)

Of course, global communities began forming as soon as the web took off. They didn't

wait for online video. But people's contributions were limited to text and pictures. And when it comes to visibility, that takes you only so far. If Lil Demon had simply written a comment on a dance forum saying, "Hi, I'm 6 years old and I can do backflips," he may not have blown Jon Chu's mind in quite the same way. There's a massive range of activities where seeing is everything. It's not just skills like dancing, decorating, and demoing.

The sharing of ideas in general is often best done through direct speech—we've evolved over eons to subconsciously grasp the subtleties of a face-to-face conversation. In all these cases, for remote audiences video is the killer app. Don't write me. Tell me. Show me.

## Dial 3: Fuel Our Desire

For most of history, the vast majority of people spent their lives toiling in isolated silos. Their families and drinking buddies occasionally acknowledged their talent, but beyond that, not so much. Suddenly, in the past five years or so, no matter how specialized your area of work, it has the potential to be seen and acknowledged by a substantial global audience. The day you log on and see that a video you posted went viral and is being written about with awe by tens of thousands of people? It just might change your life.

I am certain these tiny little metrics—mere blurry numbers on a computer screen—wield immense power. Because it's not just you who's seeing them, it's everyone else, too. They know. And you know that they know. This is all part of a fundamental engine of human motivation. Status, self-esteem, reputation—you may, I suspect, be willing to burn hours for their promise.

I think the motivation is there whether or not the recognition leads to anything tangible. Certainly plenty of tangible outcomes are possible. For the budding author, for example, online recognition might bring with it the press enquiry, the speaking engagement, the book contract. But even without those perks, recognition can give your work meaning. We're social animals. We like to be stroked.

So crank up all three dials and, lo and behold, the wheel of Crowd Accelerated Innovation lurches into motion. Videos are posted. Comments fly. Views accumulate. Leaders emerge. And all this provokes a new round of innovation. In the process, everyone marvels. Everyone learns. ■

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