



The Hunter-Gatherers of the Knowledge Economy

Are the habits of today's knowledge workers unique in history? Actually, the Gen X style of working appears to be the oldest on earth.

By David Berreby

THEY WANT TO come and go as they please, wear what they like, work the hours that suit them — and not too many, thank you — because they value a balanced life more than piling up possessions. They want to work in small groups and be a part of every decision. Direct orders set their teeth on edge. You must explain why you want them to do something or, better, show them by example. You earn their respect by doing what they do.



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For many employers, especially in knowledge-based companies, this is the profile of the new generation of American professionals. Smart enough, yes, and able, but what a pain in the neck.

No doubt some employers hope that when the economic balloon finally comes down, so will the new kids' attitude. Then that snotty generation of employees — the ones who quit on a dime, who do not like orders or rules, who call everyone by his or her first name and make every day Casual Friday, who have to be fulfilled and engaged every minute — will, at last, get theirs. As long skirts follow short and recessions follow booms, the day when the employer has the edge will come again. When the labor market tightens, there will be no more tolerance for torn T-shirts in the hall and dogs asleep under the desk. The guy who signs the check will be back in charge.

After all, it seems reasonable to suppose that the new workers' outlook has been shaped by the law of supply and demand and an economic expansion: There are a lot of jobs in the knowledge economy, not as many workers (there are some 45 million in Generation X, those born in the 1960's and 1970's, compared with 78 million baby boomers), and so the "gold collar" kids, as Fortune magazine's Nina Munk refers to the Gen Xers, call the tune for now. And the tune they call is the consequence of their growing up in abundance. Conventional wisdom is that the new employees are just spoiled.

Yet this leads to a question: Why

this particular tune? Why, if the economy of the moment lets new employees get whatever they want, have they chosen cubicles and teamwork and relationships, rather than big offices, titles and underlings? Is it simply the

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fruit of 20 years of watching TV and playing computer games?

I think not. The description that begins this article was not culled from employer complaints about the new generation. It is a portrait of a typical band of foragers, people like the !Kung San of Botswana, the Ache of Paraguay, the Inuit of the Arctic, who live by hunting and gathering. This is the kind of life, most anthropologists believe, that the human race lived for some two million years as it came into being, until the last few minutes of geological time. Far from being new, the Gen X style of working appears to be the oldest on earth.

The anthropologist Christopher

Boehm, who heads the Jane Goodall Research Center at the University of Southern California, has identified cultural patterns common to all hunter-gatherer groups. None of them would sound out of place in Silicon Valley.

For instance, foragers, unlike their agricultural and industrial cousins, live by a profound egalitarianism. Hunter-gatherers do not like being told what to do. Often enough there is not even a word for headman or chief, and, Mr. Boehm recently wrote in *The American Naturalist*, "most self-aggrandizing or dominant behavior is nipped in the bud."

The boss of the 1990's knows the feeling. The new employees like to work in teams. They want to be close to each other in other ways as well. Fortune magazine's report on the new employees last year cited a long-range analysis of two different companies that had uncovered a shift away from a "task-first" emphasis at work to a "relationship-first" emphasis. (I think of it as a shift over the past few decades from "what are we doing today?" to "how are we doing today?")

This stress on staying equal and in touch has a consequence that might sound paradoxical, if you were raised to think of equality as drab conformity: Hunter-gatherers everywhere have, as Mr. Boehm puts it, a "strong valuation of personal autonomy of adults." Without anyone in authority to set rigid rules, people come and go and speak and work in their own fashion. For the nomadic Murngin of Africa, for instance, "the ultimate value is freedom of movement,"



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reports the ethnographer Lloyd Warner in Marshall David Sahlins's "Stone Age Economics" (Aldine Publishing, 1972). Look-alike "primitives" in grass skirts are a figment of old movies. Foragers need each other to survive; but they leave one another a lot of room to "be themselves." Contemporary hunter-gatherers who are asked why they do not farm sound like Information Agers contemplating work in an auto plant: too much work and too many restrictions on freedom.

This is true of the Gen X workers as well. Fortune last year advised: "The corporate goal is to hire and re-

tain the most talented people on the block. And the best way to do that, it seems, is to let them do whatever the hell they want." As one headhunter told the magazine, "Freedom and responsibility are the very best golden handcuffs there are." Gen Xers cherish one another's idiosyncracies. As one employee of Goldmine Software in Pacific Palisades, Calif., put it, "Everyone has this weird, wacky thing about them — everyone's totally different — but we all get along so well." For the new Information-Age employee, as for the forager band, good and intimate relations can be a matter of life and death. Contemporary business people seem to feel the same way. As one was quoted in Fortune, "We have to know each other, know how we work together, so that when a crisis comes we don't have to spend

a long time coordinating."

A second hunter-gatherer universal that Mr. Boehm has identified is imposing moral sanctions on people who do not behave altruistically or who take advantage of altruists. In the place of rule-setters, there is consensus, the opinion of the band as a whole. Those who hesitate about sharing, who seem to be greedy, are gossiped about, ridiculed, ostracized, sometimes exiled or even killed.

American business culture encourages us to believe humans in a state of nature are dominated by a few "alpha males." But hunter-gatherer peoples practice what some anthropologists have labeled "counterdominance." Groups keep a jealous eye on privilege and authority, so the biggest and baddest do not get too much power.

Bosses have learned that it is unwise to tell a Gen X employee to "just do it" because it is an order, and some have also noticed that their employees need a lot of feedback about how they stand in the group. It is starting to become part of the standard advice for bosses with younger workers. As one recent article in Working Woman magazine put it, "Generation Xers need to see where they are in regard to everyone else."

A third trait common to all hunter-gatherers is a strong preference for consensus and unanimity when it comes time to make key

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decisions, such as, for example, which direction to walk tomorrow. Hunter-gatherers are also passionate about sharing, especially of responsibility and hard-to-get foods. The best hunters get prestige, admiration, respect — but they do not get more meat. The group succeeds or fails as a unit. When foragers identify an ecological or political or social problem that threatens or concerns the entire group, they do their best to cope with it as a group, Mr. Boehm writes.

The new workers, too, seem to prefer this style. Fortune's Ms. Munk detailed, for instance, how Walter Noot, the head of production for Viewpoint Digital Inc. in Salt Lake City, contended with constant griping and requests from employees, who design 3-D and digital models. He put an end to all the complaints in one swoop, when he switched the teams from salaries and work rules to a hunter ethos: a team gets 26 percent of the company's take from a client. How and when it works is up to the team. Productivity has almost doubled.

These group traits — egalitarianism, counterdominance and consensus — are not the only points of similarity between the Gen X worker and the average forager. There are also similarities in individual psychology.

To take one trivial example, hunter-gatherers focus on the concern at hand, and they are nomads. For both those reasons, as Mr. Sahlins, the anthropologist, notes, "some hunters, at least, display a notable tendency to be sloppy about their possessions." He quotes a col-

league's comments on the Yahgan Indians: "They do not know how to take care of their belongings. No one dreams of putting them in order, folding them, drying or cleaning them, hanging them up or putting them in a neat pile. If they are looking for some particular thing, they rummage carelessly through the hodgepodge of trifles in the little baskets."

Hunter-gatherers will work hard

These were the kinds of statistics that led Mr. Sahlins to call hunter-gatherers "the original affluent society."

Unlike those who labor in gardens and farms, factories and offices, hunter-gatherers have a lot of time to tend to their loves and friendships, hobbies and passions, squabbles and terrors. Those tight-knit groups take a lot of psychological work to maintain. Mel Konner, an anthropologist and

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when they have to (large game do not take coffee breaks), but they do not often have to. The anthropologist Richard Lee studied the Dobe group of !Kung Bushmen and found only 65 percent of the population did the work that supported everyone. Moreover, as Mr. Sahlins works it out, the amount of labor this productive crew had to engage in amounted to about two and a half days a week, at six hours a day. (Four or five days a week were frequently spent resting, chatting, embroidering.) "It is not unusual," Mr. Lee writes, "for a man to hunt avidly for a week and then do no hunting at all for two or three weeks."

physician who also studied the !Kung San, wrote in his book "The Tangled Wing: Biological Constraints on the Human Spirit" (Harper Colophon, 1983): "Conflicts within the group are resolved by talking, sometimes half or all the night, for nights, weeks on end. After two years with the San, I came to think of the Pleistocene epoch of human history (the three million years during which we evolved) as one interminable marathon encounter group."

For the forager, life is, as evolutionary psychologists Gordon H. Orians and Judith H. Heerwagen of the University of Washington have put it,

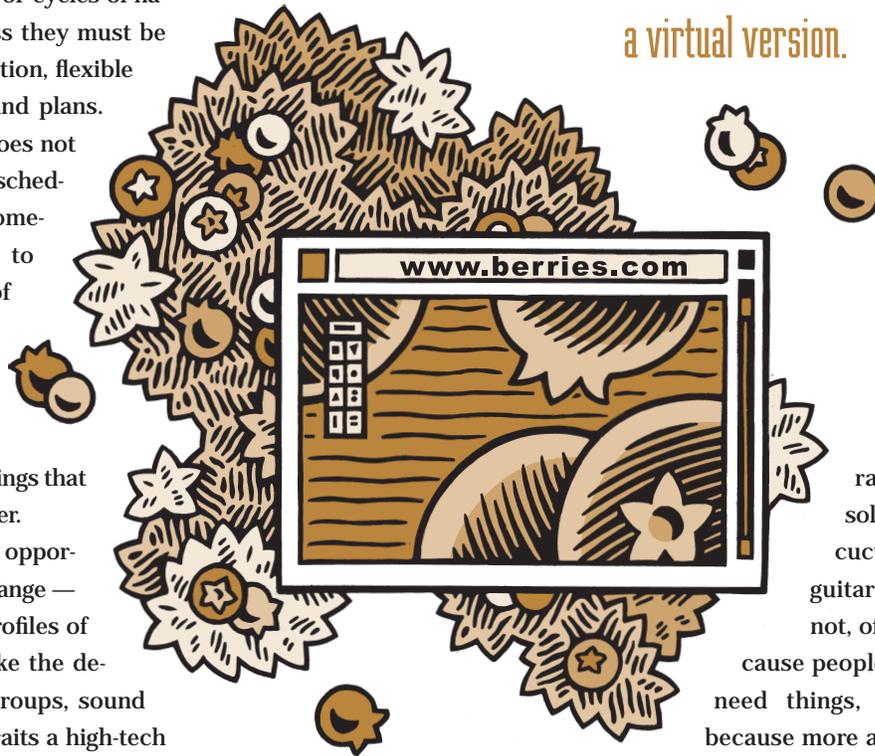
“a camping trip that lasts a lifetime.”¹ Farming and the Industrial Age that followed it both created and demanded predictability. When the time comes to plant, you do what you did last year. When you take your place on an assembly line, you do what you did yesterday. Foragers are not unfamiliar with tradition or cycles of nature, but nonetheless they must be alert to new information, flexible about their hopes and plans. Hunting an animal does not take place on a fixed schedule. Tourists are sometimes disappointed to learn that a band of foragers uses metal pots and wears baseball caps, but hunter-gatherers are quick to adopt the things that make their work easier.

Flexible, alert to opportunities, willing to change — the psychological profiles of hunter-gatherers, like the descriptions of their groups, sound quite a bit like the traits a high-tech startup company would see in its staff. Consider Glenn Rifkin’s description of information work in Issue 11 of *Strategy & Business*: “Software is an industry of fits and starts, of intense product cycles, where the phrase ‘business as usual’ is out of place because the fundamental business can change almost every year.” This does not describe life on a farm or in a factory, but it could, with little tucks and

nips, be made to fit some of the wilder years of surprises from weather and wild animal populations in the Kalahari desert.

Underneath what we all presume are the normal ups and downs of capitalism, we are in the midst of an epochal shift in the economy, as more and more of the total value of commerce resides in information

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rather than solids like cars, cucumbers and guitars. (This is not, of course, because people would not need things, but rather because more and more information of value is being generated.) Information-based work rewards forager traits, and this is probably why the information-based worker asks for an environment that sounds like an anthropologist’s monograph.

Perhaps the information economy, a purely human creation, reproduces our ancestral environment, replacing literal landscapes and

¹G. Orians and J. Heerwagen, “Evolved Responses to Landscapes,” in Barkow, Cosmides and Tooby, eds., “The Adapted Mind” (Oxford University Press, 1992), p. 556.

foraging with a virtual version. If this is so, then the forager style in Silicon Valley (and Alley) represents a return to a fundamental human nature that has been violated by agriculture and industry. This is the argument of Alexandra Maryanski and Jonathan H. Turner, sociologists at the University of California, Riverside, who believe we have inherited an innate preference for loose ties and free actions from the common ancestor of all apes and humans. Compared with other social animals, they say in their book “The Social Cage: Human Nature and the Evolution of Society” (Stanford University Press, 1992), gibbons, great apes and people form social groups whose members are strongly individualistic; social ties are weak, and the density of those ties is low. (What they call density is the ratio of actual social ties to possible social ties.) That all the creatures have this pattern even though they live in a variety of different habitats suggests, they say, that it was coded into the genes of the ancestor of them all. That would make it a very old way of being, indeed.

“Hunting-and-gathering societies are as close as humans have ever come to constructing social patterns compatible with their primate and genetic legacy,” the authors claim. Those patterns are “a composite of both strong and weak ties, an egalitarian ethic and a sense of community resting on cooperation and exchange” among several families “that are free to disperse or come together depending on individual preference and available resources.”

The chimpanzees observed by

Jane Goodall and other primatologists, for example, certainly have a home community with whom they grow up, play and fight. But in the course of a week, a chimp may team up with some friends for a while, then wander off on her own, then join up with a couple of other troop members. Chimps make their decisions about where to go and what to do as individuals. Mothers are close to their children over the years, but other kinds of ties come and go. As the primatologist Frans de Waal carefully documented in a captive troop he observed, chimpanzee alliances shift over time. The troop’s dominant male fell from power when his No. 2, a wily older chimp, deserted him. A third chimp stepped into the power vacuum, but when the first two reconciled, his heyday was over. In fact, the other two killed him, Mr. De Waal recounts in “Peacemaking Among Primates” (Harvard University Press, 1989).

The common ground that might underlie this pattern in primates and people, Ms. Maryanski and Mr. Turner say, is the pattern of females leaving their home group at puberty. In most monkey species, it is the male who leaves to take the great risk of establishing himself among strangers. That leaves mothers and daughters as a stable core that insures the group will endure. Among the apes, however, groups come into being (for example, a male silverback gorilla and his “harem”) and then dissolve (when the silverback dies, the harem disperses). For apes, and thus presumably for the common ancestor of apes and hu-

mans five million years ago, groups are a sometime thing.

Richard Wrangham, a primatologist at Harvard, believes the reason can be found in the environment the ancestors lived in. Mr. Wrangham thinks the ancestors of humans, like contemporary chimpanzees, survived on foods that are sometimes plentiful, sometimes not — ripe fruits, for instance, or meat (male chimps love to hunt). This means that it might pay sometimes to be part of a large group — it is much easier to kill prey in a mob — but that there would also be times when there was not enough prime food to share and the band would need to break up. In such a situation, you make close alliances to defend your territory and your mates against others who could come over the hill at any time, perhaps in a bigger gang.

There is a corollary to this, though Mr. Wrangham does not discuss it: Groups that are easily formed are also easily split and easily dissolved. The same pressures that produced a mind eager to team up should make it able and willing to recalculate constantly the cost-benefit ratio of group membership.

That, say Ms. Maryanski and Mr. Turner, is the way people are. Human beings naturally “form lots of weak ties,” and they “socialize in a constant variety of temporary groupings, and these traits have been greatly extended through shared symbols” and speech. “The more individuals interact and the more depth and complexity of interaction allowed, the greater are the possibilities for social bonding

through shared ideas and symbols.” Agricultural and industrial human society is a kind of scaffolding that supports us, but that scaffolding is also, as the authors dub it, a cage.

Why did it get built? A number of theorists attribute the shift from hunting and gathering to deliberately growing crops. Gardening requires levels of reliability, foresight and predictable behavior not required of hunter-gatherers. Plans have to extend further into the future; people must be told where they fit in the plan, and they have to do as they are told. Their crops have to be stored and protected (hunter-gatherers by and large have no surpluses). Nonetheless, these sacrifices and extra work do produce a lot more food. That increases the pressure because as time passes, more mouths must be fed. One sure sign that farming is not congenial is that people throughout history have been determined to get other people to do it. Slavery does not exist among hunter-gatherers and apparently never did; it comes in with gardens and farms.

Indeed, it is now conventional wisdom among scholars that, as the physiologist Jared Diamond wrote some years ago in *Discover* magazine, “the adoption of agriculture, supposedly our most decisive step toward a better life, was in many ways a catastrophe from which we have never recovered. With agriculture came the gross social and sexual inequality, the disease and despotism, that curse our existence.” Some see the current economic and cultural changes as a great liberation

and a return to humanity’s true nature.

Ms. Maryanski and Mr. Turner assert that changes promote autonomy, flexibility and “weak ties” and that the “changes associated with post-industrial systems” are “more compatible with humans’ biological nature than those occurring in earlier ones.” They add, “For all the early sociologists’ deep concern with ‘loss of communi-

“human nature” arguments. If human beings can be agriculturalists for hundreds of generations, then by definition agriculture comes “naturally” to humans. To say one state of existence is truer to human nature is to say some people are better at being humans than others, and how are we to know that? In any event, the idea of a stable human nature is not strictly necessary to explain the par-

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ty,’ in truth ordinary people embrace the chance to live and participate in a system relatively well attuned to their ape heritage.”

Others flock to this banner for their own reasons. Thom Hartmann, for example, is an entrepreneur and author of “Attention Deficit Disorder: A Different Perception” (Underwood Books, 1997), who believes that Attention Deficit Disorder is a genetically encoded adaptation for hunting. A.D.D., he says, “is only a flaw if you’re in a society of farmers!” Needless to say, Mr. Hartmann has A.D.D. It does him and his readers good to think of themselves as hunters rather than carriers of a disorder.

Cheerleading for the hunters raises some philosophical qualms that probably should apply to all the

allels of the information-economy landscape and the hunter’s landscape. They could be called forth by coincidence of circumstances, in the same way that fish and porpoises separately evolved streamlined bodies for swimming. Perhaps the independent, egalitarian and flexible human being arises when those traits are rewarded by the environment. People have always been remarkably adaptable, after all. Is the root of the similarity a response to the environment (the way bird wings and bat wings resemble each other) or is it rooted in shared ancestry (the way bird wings and lizard forelegs resemble each other)?

For business people, the answer ultimately does not matter. Either way, the information economy is

undoing a culture of hierarchy, stability and reliability, and it is rewarding egalitarianism, adaptability and self-assertion. Because information will continue to expand its share of the economy, even through contractions, this cultural shift will continue. The forager employee is here to stay.

road, cellular at his hip, earphones on his head, socks mismatched and pet iguana in tow — could find a deep happiness in reproducing in the virtual world the savannahs we roamed when our species was young.

There is a problem, though, with this cheery scenario, even if it is ab-

chained to the less enjoyable modes of production.

This is not a new problem in human history, of course. Most farming-based societies have supported an elite who, thanks to the labor of slaves and peasants, got to live like hunter-gatherers without paying the price of forager's insecurity. Among elite pastimes, for instance, was hunting — “the sport of kings,” as the 18th-century English poet William Somerville put it. Those kings kept parks full of game that was off-limits to humble farmers. Kings and nobles also enjoyed their estates and gardens, where they could gather flowers or fruit as they pleased. Other agreeable hunter-gatherer activities, like not having to eat the same thing every day, chatting and gossiping for hours, displaying personal courage in genuinely risky pursuits, having love affairs, and becoming poets and dancers, were also reserved for the rulers and, later, for merchants and traders living in cities.

Native American tribes developed traditions of great oratory because as hunter-gatherers they had the leisure to compose and admire great speeches. The ancient Greeks developed traditions of great oratory because they had slaves to free up the time agriculture would normally demand. The same was true of their Roman successors, as Pliny the Elder recognized: “We use other people's feet when we go out, we use other people's eyes to recognize things, we use another person's memory to greet people, we use someone else's help to stay alive — the only things we



With capitalism's constant churning, Marx said, “all that is solid melts into air.” Industrial humanity turned out to be rather more like agricultural humanity than he expected. But in the more perfect capitalism of the information economy, the constant change he foresaw has sped up to the point where work comes to resemble the “camping trip that never ends.” Rather than slouching toward Bethlehem for a sorry birth into a lesser life, the new Information-Age person — walking jauntily down the

solutely true. It lies in the difference between the forager's real landscape and the cyberforager's virtual reality. Cyberhunting and cybergathering take place on real-world machinery, run on real-world power plants. She who hunts currency trades at 3 A.M. while eating a take-out salad is partaking of agriculture for the salad and industry for the plastic fork, the computer, the lamp, her desk and her clothes. Unlike real hunter-gatherers, the virtual ones depend on other people's being en-

keep for ourselves are our pleasures.”²

This is still the case, especially if you define modern cities as metropolitan statistical areas that include the suburbs. In Manhattan and in Scarsdale, complex characters recall their affairs and examine their souls; lawyers and stockbrokers buy kayaks and crampons to test themselves against nature; books and screen-

men who live magically outside of Nature’s order.”³ Some 400 years later another farmer and champion of farmer values, the poet and essayist Wendell Berry, sounded a similar note in “The Work of Local Culture: What Are People For?” (North Point Press, 1990): “The typical modern city is surrounded by a circle of affluent suburbs, eating its way outward, like ringworm, leaving the so-called inner city

ability to adapt. When aristocrats and capitalist plutocrats were freed to live however they pleased, they incorporated hunter-gatherer pleasures into their lives. In Restoration England, for example, a pious cleric was told by the poet John Wilmot, Earl of Rochester, a notorious libertine, “the two maxims of his morality then were, that he should do nothing to the hurt of any other, or that might prejudice his own health: And he thought that all pleasure, when it did not interfere with these, was to be indulged as the gratification of our own natural appetites.”⁴ This is a credo a Silicon Valley software designer could assent to with ease.

Still, there is that nagging problem. The Earl of Rochester had a house full of servants. Perhaps for the first time in human history, the lifestyle of the elite will be a majority lifestyle, made possible by improvements in technology. If that is true, then the question for employers and employees, and for governments, in the coming century will be what to do about people who are not in the cyberforaging class. Can we win the joys of the hunter-gatherer life for everyone? Or will we replicate the social arrangements of ancient Athens or medieval Europe, where freedom for some was supported by the worst kind of unfreedom for others? **SB**

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plays are written. Indeed, life in a great city, with its constant change, its explorations (“I stumbled on a great place to buy . . .”), its surprises (“you won’t believe what I saw today”), its unpredictability and need for alertness, has long had a hunter-gatherer quality for those who could afford to live without being tied to the plow. Perhaps this is why farmers always seem to resent the city, which seems to them, in the words of one 17th-century Spaniard, “a commonwealth of

desolate, filthy, ugly and dangerous.”
 The implication here — the city as disease, the city as death, city life as some bizarre late-cropping alteration of human nature, is not defensible, given what we know about human history and human nature. The hunter-gatherer lifestyle suits many people very well.
 Indeed, you could argue that the behavior of elite groups tips the argument in favor of a genetic human nature rather than an all-purpose



² Quoted in Orlando Patterson, “Slavery and Social Death: A Comparative Study” (Harvard University Press, 1982), p. 339.
³ Quoted in George Huppert, “After the Black Death: A Social History of Early Modern Europe” (Indiana University Press, 1986), p. 14.
⁴ Quoted in John Adlard, “The Debt to Pleasure” (Carcanet Press, 1989), p. 8.