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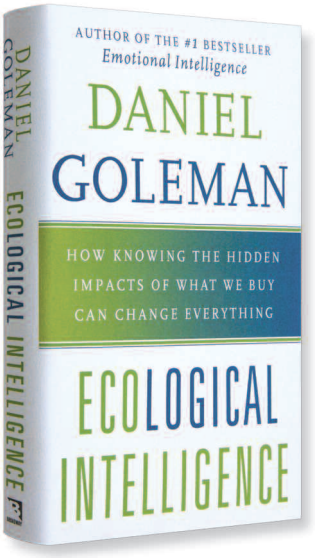
Economics: Green

Ecological Intelligence

How Knowing the Hidden Impacts of What We Buy Can Change Everything



by Daniel Goleman

THE SUMMARY IN BRIEF

Daniel Goleman, author of the best-sellers *Emotional Intelligence* and *Primal Leadership* now introduces *Ecological Intelligence* — revealing the hidden environmental consequences of what we make and buy, and how with that knowledge we can drive the essential changes we must make to save our planet and ourselves.

We buy "herbal" shampoos containing industrial chemicals that can threaten our health or contaminate the environment. We dive down to see coral reefs, not realizing an ingredient in our sunscreen feeds a virus that kills the reef. We wear organic cotton T-shirts, but don't know that the dyes may put factory workers at risk for leukemia. In *Ecological Intelligence*, Goleman reveals why so many of the products that are labeled "green" are a mirage, and he illuminates our wild inconsistencies in response to the ecological crisis.

Drawing on cutting-edge research, Goleman explains why we, as shoppers, are in the dark over the hidden impacts of the goods and services we make and consume — victims of a blackout of information about the detrimental effects of producing, shipping, packaging, distributing and discarding the goods we buy.

What Goleman calls "radical transparency" will enable consumers to make smarter purchasing decisions, and will drive companies to rethink and reform their businesses, ushering in, he claims, a new age of competitive advantage.

IN THIS SUMMARY, YOU WILL LEARN:

- Our world of material abundance comes with a hidden price tag.
- Industrial ecology exists at the cusp where chemistry, physics and engineering meet ecology, and integrates those fields to quantify the impacts on nature of manmade things.
- Radical transparency converts the chains that link every product and its multiple impacts — carbon footprints, chemicals of concern, treatment of workers and the like — into systematic forces that count in sales.
- How making once-hidden data available to all remedies the unfair advantage of sellers over buyers.

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THE COMPLETE SUMMARY: **ECOLOGICAL INTELLIGENCE**

by Daniel Goleman

The author: Daniel Goleman is the author of the international best-sellers *Emotional Intelligence, Working with Emotional Intelligence* and *Social Intelligence*, and the co-author of the acclaimed business best-seller *Primal Leadership*. He was a science reporter for *The New York Times*, was twice nominated for the Pulitzer Prize and received the American Psychological Association's Lifetime Achievement Award for his media writing.

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For additional information on the author, go to: http://www.summary.com.

The Hidden Price of What We Buy

Our world of material abundance comes with a hidden price tag. We cannot see the extent to which the things we buy and use daily have other kinds of costs — their toll on the planet, on consumer health and on the people whose labor provides us our comforts and necessities. We go through our daily life awash in a sea of things we buy, use and throw away, waste or save. Each of those things has its own history and its own future, backstories and endings largely hidden from our eyes, a web of impacts left along the way from the initial extraction or concoction of its ingredients, during its manufacture and transport, through the subtle consequences of its use in our homes and workplaces, to the day we dispose of it. And yet these unseen impacts of all that stuff may be their most important aspects.

As utilized in yesterday's business environment, today's industrial chemicals and processes made utter sense, but all too many make little sense going forward. Consumers and businesses alike can no longer afford to leave invisible decisions about those chemicals and processes — their ecological consequences— unexamined.

Industrial Ecology

Industrial ecology exists at the cusp where chemistry, physics and engineering meet ecology, and integrates those fields to quantify the impacts on nature of manmade things.

The field includes topics as diverse as estimating CO_2 emissions from every industrial process or analyzing the global flow of phosphorus, to how electronic tagging might streamline the recycling of garbage.

If we knew the hidden impacts of what we buy, sell or make with the precision of an industrial ecologist, we could become shapers of a more positive future by making decisions better align with our values. All the methods for making that data known to us are already in the pipeline. As this vital knowledge arrives in our hands, we will enter an era of *radical transparency*.

Radical transparency leverages a coming generation of tech applications, where software manipulates massive collections of data and displays them as a simple readout for making decisions. It will introduce an openness about the consequences of the things we make, sell, buy and discard that goes beyond the current comfort zones of most businesses.

'Green' Is a Mirage

An industrial engineer's version of the deconstruction of stuff is called Life Cycle Assessment, or LCA, a method that allows us to systematically tear apart any manufactured item into its components and their subsidiary industrial processes, and measure with near-surgical precision their impacts on nature from the beginning of their production through their final disposal.

LCAs had a prosaic start; one of the very first such studies was commissioned by Coca-Cola back in the 1960s to determine the relative merits of plastic and glass bottles and quantify the benefits of recycling. The method slowly spread to other industrial questions; by now a large and growing band of companies with national or international brands deploys the method somewhere along the way to make choices in product design or manufacturing — and many governments use LCAs to regulate those industries.

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Nothing Made Industrially Can Be Utterly Green

As one industrial ecologist confided, "The term 'eco-friendly' should not ever be used. Anything manufactured is only relatively so." This shadow side of industry has been overlooked in the value chain concept, which gauges how each step in a product's life, from extracting materials and manufacturing through distribution, adds to its worth. But the notion of a value chain misses a crucial part of the equation: while it tracks the value added at each step of the way, it ignores the value subtracted by negative impacts.

Seen through the lens of a product's LCA, that same chain tracks a product's ecological negatives, quantifying its environmental and public health downsides at each link.

Assessing the pluses and minuses throughout a product's value chain offers a metric for business decisions that will boost the pluses and lessen the minuses.

What We Don't Know

Try this mind experiment:

1. Imagine an old-fashioned two-tray balance scale, like that held by the classic image of a blindfolded goddess of justice.
2. On one of the trays put the total benefits that accrue from all the recycling, use of green products, and other environmental, public health-minded and socially concerned activities you engage in over a typical month.
3. Now on the other tray place what an industrial ecologist might assess as the harmful impacts of everything else you buy and do over the same month: all the miles you drive in a car, the hidden consequences of producing, transporting, and discarding your groceries, the printer paper you use and everything else.

Unfortunately, for any of us but the most incredibly virtuous, the harmful impacts are enormously greater than the benefits.

Vital Lies, Simple Truths

The Norwegian playwright Henrik Ibsen coined the phrase "vital lie" for the comforting story we tell ourselves that hides a more painful truth. When it comes to the full costs of ecological ignorance in the marketplace, we endorse the vital lie *what we don't know or can't see does not matter.*

Every vital lie requires cover stories that paper over the simple truth. We tell ourselves, "Well, I recycle my newspapers and bottles. Plus I bring my own bags to the store" and feel a bit better for having done our part.

As the saying goes, "When you throw something away, there is no away." It remains here, on planet Earth.

'Green' Is Not What It Seems

Consider the tote bags British fashion designer Anya Hindmarch put out in a limited edition of 20,000. Hindmarch's inspiration came when she was approached by a charity called "We Are What We Do" — what Hindmarch decided to do was use her fashion platform to raise public awareness about refusing plastic bags in stores. And that it did.

That Hindmarch canvas tote was emblazoned with the slogan "I'm NOT a plastic bag," a play on the 1929 painting by the Belgian surrealist René Magritte depicting a pipe, below which were the words "Ceci n'est pas une pipe." (This is not a pipe.) The painting's title, *The Treachery of Images*, underscores Magritte's point that the image is not the thing and things are not what they seem.

Ecological Intelligence

Ecological refers to an understanding of organisms and their ecosystems, and *intelligence* connotes the capacity to learn from experience and deal effectively with our environment. Ecological intelligence lets us apply what we learn about how human activity impinges on ecosystems so as to do less harm and once again to live sustainably in our niche, which these days includes the entire planet.

To tap into this intelligence, we need to get beyond the thinking that puts mankind outside nature; the fact is we live enmeshed in ecological systems and impact them for better or worse — and they us. All of us need to discover and share among ourselves all the ways this intimate interconnectedness operates, to see the hidden patterns that connect human activity to the larger flow of nature, to understand our true impact on it, and to learn how to do better.

The New Math

Buy a snack-sized bag of Walkers Salt & Vinegar Flavour Potato Crisps — the British version of potato chips — and its label tells you its carbon footprint, 75 grams of carbon emissions (by comparison a full jumbo jet flying from Frankfurt to New York City emits 713,000 grams per passenger). The bag proclaims that Walkers has been working with an outfit called the

Carbon Trust since 2005 to analyze the carbon footprints of its products and to find ways to reduce them.

To calculate that 75 grams took enormous effort. For starters, researchers from the Carbon Trust calculated how much energy was used when the seeds for its two ingredients, potatoes and sunflower oil, were planted. Then they added in the carbon emitted by the diesel tractors that harvest the potatoes, as well as during their cleaning and chopping, frying and bagging, storing and shipping. They also threw in the greenhouse gases emitted when the bags were printed and the potato crisps packaged. Finally, the carbon accountants factored in what happens when the empty bag gets tossed into a garbage can, including collection and trucking to the dump and burying in a landfill.

There is a need to master a new kind of math that spells out the consequences of our everyday choices and purchases more deeply than ever before. Industrial ecology is the discipline that seeks to master this new math.

How to Boost Our Collective Ecological Intelligence

One way to boost our collective ecological intelligence is to become familiar with a wider range of ways to classify and think about impacts from products. Ideally, we want to understand an item's adverse consequences in three interlocking realms:

1. The *geosphere* (including soil, air, water and, of course, climate)
2. The *biosphere* (our bodies, those of other species and plant life)
3. The *sociosphere* (human concerns, such as conditions for workers)

The Information Gap

Consider our present predicament. If you want to buy a given product that's best for the environment, for your health, and for the well-being of those who made it, it's largely impossible to get sound comparative information. One can check cost and, usually, quality. But apart from organic or "eco" brands and labels, shoppers can rarely express a preference for less toxic or more environmentally sound alternatives.

- When the ecological impact of goods remains invisible, merit goes unrewarded.
- Information itself has value: Knowledge translates into market power.
- The essence of transparency lies in conveying information from the informed to the uninformed.

Radical Transparency

Ecological transparency becomes *radical* when its analysis encompasses the entire life cycle of a product and the full range of its consequences at every stage, and presents that information to a buyer in ways that demand little effort.

Radical transparency means tracking every substantial impact of an item from manufacture to disposal — not just its carbon footprint and other environmental costs, but its biological risks, as well as its consequences for those who labored to make it — and summarizing those impacts for shoppers as they are deciding what to purchase.

Full Disclosure

Radical transparency launched its seminal application on April 1, 2008, in what had once been a laser cosmetologist's office above a sushi restaurant on a well-worn stretch of Shattuck Avenue, Berkeley's (Calif.) main commercial thoroughfare. That office building, faced in attractive cobalt blue and green tile, houses GoodGuide, Inc. Its mission is to build tools that "transform how people see and interact with products and companies by delivering comprehensive and rigorous information at the point of purchase," as its official mission statement puts it.

GoodGuide is a "for-benefit" corporation, with a charter stating that its mission is to benefit not just shareholders but stakeholders — in other words, the shopping public. Dara O'Rourke is an industrial ecologist and the visionary behind this project to bring radical transparency to the marketplace in the form of a software innovation, GoodGuide.

GoodGuide surfaces a product's backstory. It can calculate the specific environmental impacts of a product during manufacture, transport, use and disposal.

The Mindful Shopper

As we shop, our perceptual apparatus attunes us to whatever confronts us in the immediate surroundings: the stylishness and cut of that outfit, the rock-bottom sales prices or the tempting aroma wafting our way from that coffee shop. These sensory impressions drive our shopping decisions far more than some vague memory of the latest alarm over global warming, that news story about yet another toxin scare or a grim scene of an Asian sweatshop glimpsed on some website.

Sensory clutter and cognitive fog challenge anyone trying to get shoppers to notice the impacts of what they are about to buy. GoodGuide and programs like it offer a way to pierce this fog, bringing squarely into awareness the actual impacts of what we buy, giving us the crucial opinion at the moment we need it.

Twitter and Buzz

Instant messaging methods like Twitter, which lets shoppers send their reactions to friends as they stroll through a store, means a customer ripple can start with a single dissatisfied (or delighted) customer. These digital tools threaten the standard veils that have hidden the raw facts about manufacturing processes, toxicity of ingredients, workers' conditions and the like — for better or worse — from customers' eyes.

Impartiality demands that whoever does an evaluation is someone who has no personal stake in the sale of the product. At some point marketplace transparency systems might well include the post of ombudsman (or an ombudsgroup), an independent authority to whom anyone can appeal a rating that seems unfair or inaccurate.

Fair and Square

These towels have been made under fair labor conditions, in a safe and healthy working environment which is free of discrimination, and where the management has committed to respecting the rights and dignity of workers.

That message, printed under a logo reading *FAIR AND SQUARE*, was placed on towels sold at a trendy Manhattan home furnishings store. It proved to have remarkable sales power. Compared to adjacent towels that lacked this simple information, the Fair and Square batch showed a steady boost in sales over a five-month period. When the labels were switched to comparable towels, the sales advantage — a boost of 11 percent in sales — traveled right along with the label.

Most surprising, when the price of the towels was raised, their sales increased more quickly. The two Harvard University political scientists who conducted the experiment, Michael Hiscox and Nicholas Smyth, conjecture that the higher price tag for the towels lent more credibility to the claim for superior labor standards. The results, they suggest, show a large untapped market for such ethical merchandise.

Of course, this happened at an upscale store; its shoppers fall within the marketing category known in some circles as "Price-Sensitive Affluents," those who equate a virtuous label with quality, and are willing to pay up to twice an item's price if it matches their concerns.

Motivational Differences

Children today face the specter of drastic disruptions of life from global warming and the other ecological disasters we may have already set in motion.

Older shoppers may not have cell phones, may be too set in their habits, or merely be too lackadaisical as they shop, to use technologies like the smart bar code. But today's younger generations seem far more motivated to embrace them, growing up in an atmosphere of alarm about the future of their planet that stands to move them more strongly to action. ●

The Virtuous Cycle

Adding hydrogen atoms to cooking oils created saturated fats, gunk patented in 1903 that made baked goodies stay moist longer. The miracle of trans fats lent pastries and cakes a longer shelf life, let pie crusts (and French doughnuts) stay pleasingly crisp yet chewy.

While in 1997, knowledge of trans fat itself — let alone its hazards — was barely beginning to dawn, that awareness grew quickly as a cascade of findings made clear the hazards in eating trans fat. In 2001, the prestigious Institute of Medicine, a branch of the National Academy of Sciences, issued a report confirming that trans fat was strongly associated with heart disease.

Early on, when the FDA began to hold hearings on listing trans fat on products, many companies opposed the proposed labels.

What's most telling is the mechanism that made trans fats vanish. The federal government never banned hydrogenated oils. No one told food companies they had to stop using trans fat. The crucial shift was in the *information available to consumers*. Trans fat stands as a textbook case of the potent market force that comes from full disclosure in labeling the things we buy.

The Multiplier Effect

Sequestered among New Jersey's anonymous landscape of industrial parks squats a vast factory complex dedicated to making bath and body products. A goodly portion of the shampoos in America's stores and beauty salons was born in the immense vats in this factory's mixing room, each vat the size of an upended cargo container — about 18 feet high and 10 feet across. A single vat holds 8,500 gallons, which turns out enough bottles of shampoo to fill a slot on the shelves of every store in a national retail chain.

However the shampoo was made, whatever its ingredients, whatever its contribution to the devalue chain (the ways in which various points in its life cycle have negative ecological impacts), in the logic of the marketplace, all these impacts are rewarded whenever someone buys a single bottle.

In this sense, a single customer switching a brand preference can have vast implications. But the missing piece of the equation here is finding a way to let a company

know precisely why we decided to buy, or switch from, its brand.

Such an information feedback loop between shoppers' preferences and a business's response to how it does things creates a "virtuous cycle."

A virtuous cycle connects what shoppers decide in the store aisles with what companies need to do to win their business. As businesses respond by making more of the improvements that shoppers want, shoppers can feel empowered by seeing that their ethical choices matter.

The Chemical Stew

Conventional wisdom posits a potential bonanza for companies that go green not merely in direct savings on energy costs, but also from the smarter products and processes they innovate that solve ecological problems. But looked at through another lens, the current tide of activity focused on global warming is just the first in a series of such waves likely to wash over businesses in coming years.

Most products marketed today are based on 20th century industrial chemistry. The 21st century will inevitably bring a more fine-grained understanding of how commonly used ingredients interact with human biology. Given the inexorable advance of science, eventually some of those substances will be implicated in processes that lead to disease of one kind or another.

The widespread fears about the heating of the planet are driven by a steady drumbeat of scientific findings, each hitting the media with a new wave of alarm. One inexorable force that stirs these waves is backwash from fast-moving scientific advances. Another is the ever-increasing zones of transparency created by the availability of information.

The Inflammatory Syndrome

If you want to know what industrial chemical compounds Michael Lerner or his wife, Sharyle Patton, carry around in their bodies, just go to the Web page www.bodyburden.org. Lerner and Patton are both active in environmental health, the field that studies how the chemical by-products of industry and commerce impact the human body. They posted their analyses on the Web as part of an awareness-raising campaign.

Lerner, it seems, lugs around relatively high levels of methylmercury, inorganic arsenic and polychlorinated biphenyls (better known a PCBs). These are but a few of the 102 industrial chemicals of 214 assayed by measuring metabolites in his blood and urine.

Patton's body, in addition to these, has relatively high levels of chlorinated dioxins and organochlorine pesticide residues, plus a generous helping of others that did not show up in her husband's tests.

Medical databases link, at various levels of certainty, each of these compounds with a distinct set of illnesses.

Stepping back and looking at the entire list of 214 industrial chemicals creates the creepy feeling that nothing is safe: toxins waft our way in house dust or air, from water and soil, or by offgassing from a long litany of objects from paint and carpeting to computer consoles and furniture.

Bioaccumulation has become its own corner of medical science, with studies suggesting that virtually everyone alive on this planet harbors a stew of toxic substances.

The Amygdala Goes Shopping

Every shampoo contains four basic types of chemicals. The first is surfactants, cleaning agents that strip dirt off hair. But surfactants are harsh and can leave hair dry and brittle, so formulators add a conditioning agent to rectify the pH balance. Foaming agents make it bubbly; fragrances give a shampoo its unique identity. Shampoos can have dozens and dozens of ingredients fine-tuning their unique appeal in these four basic categories. Not all of those ingredients are necessarily benign.

Skin Deep

Skin Deep is a cosmetics hazard-rating website operated by the Environmental Working Group, an outfit that crusades against toxic ingredients in personal care products. The average American woman applies one to two dozen personal care products daily, and Skin Deep tells which of these contain chemicals that might better be kept away from the body's biggest organ, the skin.

From the perspective of neuroscience, Skin Deep caters to the apprehensions of the amygdala, the central node in our brain's radar for danger. These circuits continually scan for anything that might be a threat to us and triggers the fight-flight-freeze reaction that catapults us into a frenzy. When the amygdala goes shopping, it puts us on alert for potential dangers in what we buy.

The very possibility of hazard in a product triggers the brain's most primitive safety strategy: avoid what might be dangerous. The amygdala operates by an emotional logic with a singular decision rule: better safe than sorry.

At present, consumer concerns have relatively little effect on the ingredients or chemicals used in the products we buy. But in a radically transparent marketplace, that equation shifts, allowing shoppers to make more

informed decisions based on information that previously had been hidden. ●

Tough Questions

With the advent of methods for radical transparency, what the marketplace offers today may become out of sync with what shoppers will want tomorrow. These new approaches to managing information herald a coming flood of data about the heretofore unnoticed consequences of a host of common ingredients in everyday products. Previously successful brands may be in danger of becoming tainted in our minds.

Art Kleiner, editor in chief of *strategy+business*, was posed a hypothetical business scenario:

Let's say in the near future the field of epigenetics, the study of which molecules turn what genes on and off, begins to identify certain industrial chemicals as possible triggers of genes known to be active in specific diseases. Those chemicals happen to be crucial to a wide range of products. What should a company do?

Kleiner rattled off a series of tough questions that skeptical executives would have to answer before considering changing their company's use of such chemicals:

1. Do we care about it?
2. What would we lose if we ignore this?
3. How would we have to change our thinking?
4. What's the harm?
5. What information exists that I need to be aware of?
6. What are the costs of changing?
7. Do we really want to know?
8. If we decide to change, how do we convert our response to fit the cost-benefit calculus?
9. What are the logistics of change?
10. Are the changes worth it?

The subtext of these 10 questions and their answers revolves around values, which dictate strategic priorities.

Ecologically intelligent companies will be proactive: businesses will want to be the first to know about epigenetic data, collaborate with suppliers to make shifts, see marketplace feedback as actionable information, and perceive the change as a business opportunity that will bring added value, not just added costs.

The Ecological Evolution

In 2006, Coca-Cola and its franchisees processed 80 billion gallons of water, some ending up in drinks, but most used in making the drinks. Coca-Cola has set measurable targets for itself toward the goal of ensuring that by 2010, all wastewater from Coke plants worldwide is returned to the local water supply clean enough to support aquatic life.

In the view of MIT's Peter Senge and his colleagues at the Society for Organizational Learning, that shift to sustainability as a means to create value can be seen in terms of several discrete stages in the evolution of a business, each with its own drivers.

The earliest stages describe the conventional business response, as reflected in the assumptions behind Kleiner's questions. The assumptions include that accommodating to ecological needs will be costly, unnecessary and bad policy.

A more proactive approach begins in the next stage of Senge's model with voluntary compliance; the drivers here often come from the realization that taking environmental measures can save money and improve reputation and brand value.

Beyond this search for savings comes the next level in Senge's progression, integrating sustainability into a company's strategy, typically by discovering a range of ecologically sound business opportunities.

The Perpetual Upgrade

Wherever you live, whatever you do, you are very likely to have something in your home or workplace made by FiberMark, a manufacturer of papers, packaging and a host of related things that permeate the manufacturing universe.

Packaging from FiberMark holds a slot in a vast number of product supply chains, so whenever FiberMark upgrades its methods, all those products share in the ecological benefit.

As LCA expert Gregory Norris observes, "When anyone in your supply chain makes a smart move, it makes your product greener too — as well as the purchases of everyone who buys your product. That ripple effect turns thousands of upstream suppliers into your allies, to the extent any of them make improvements."

Norris has a vision for a way to churn out an endless stream of such ecological upgrades throughout the world of industry and commerce. Earthster is a free, open-source, Web-based program that will offer businesses LCA-driven windows into supply chains and create an online bazaar for upgrades. Earthster seeks to give B2B (business to business) shoppers a way to signal producers about the ecological improvements they want to see in products over their life cycles.

Norris's hope is that Earthster will one day give industrial buyers the kind of information they need to "show

a metric for how much good we've done in the world — that our choices, for example, have reduced this kind of pollutant by that much."

The Next Fifty Years

There are literally millions of ways to upgrade our collective ecological footprint. Here ecological intelligence takes the form of rethinking our entire legacy from earlier days, when processes and inventions came online without regard for their impacts. Upgrading this legacy may present the biggest business challenge of the 21st century: We need to reinvent everything, from the most basic platforms in industrial chemistry and manufacturing processes through the entire supply chain and life cycle of products.

Second Thoughts

The countries of the Second World — like Brazil, India, Russia and China — harbor the growing new consumer markets whose spending power drives much of the world economy's growth. For billions of shoppers in these economies cost alone will likely prevail as the hallmark of best-selling products.

It may take decades for the first-tier market's desire for impact transparency to reach or permeate these second-tier economies. The market segmentation that separates high-quality/low-impact goods from low-cost/poor-impact ones will likely prevail for decades in these bustling economies. On the other hand, if global retail giants like Wal-Mart apply their huge advantages in seeking ecological gains from their suppliers, the cost equation might change radically.

Getting It Right

Simple ineptness or poor execution may be the greatest threat to the best-intentioned transparency efforts in the marketplace. There are other risks: Radical transparency is itself an untried intervention in a complex system and, as such, may have any number of unintended, even unfortunate, side effects. There are many caveats and cautions.

For one, as some argue, only top-tier brands, which are the most reputation-sensitive, may be affected. Another concern: Misguided good intentions could mean sourcing or other nightmares for companies trying to respond to market shifts.

Doing Well by Doing Good

Throughout history, companies have been able to consume or pollute air, water or land with little to no consequence. The costs — such as damage from floods and the expense of treating respiratory disease or cleaning toxins from soil — are borne by the general public. Whatever form such abuse of nature's commons takes, the laissez-faire mishandling of any public resource can be seen as unsustainable and ethically unacceptable.

Ethical judgments aside, there has been a practical problem in dealing with this abuse: calculating the actual cost of such damage to nature. But new methodologies now allow the quantification of "natural capital," the economic value accruing from nature.

Radical transparency holds out the carrot, the promise of business opportunity waiting to be seized. The free market itself could foster an alternative or complementary mechanism for making damage to the commons consequential to a company, through systematically revealing that harm to consumers. And if a company takes steps to compensate the commons for damage done or raises local health and education standards by bringing jobs to poverty-stricken areas, that, too, would be transparent.

Compassionate Consumption

Radical transparency unites what had seemed polarities: the self-interest of a company aligns with the best interests and values of the consumer.

This conceptual sea change reorients capitalism to embrace the public interest, as an arena for competition emerges where ethics, innovation and initiative are dependably rewarded in sales.

A boost in ecological intelligence seems essential for our species to adapt to the singular challenges of these times. Ian McCallum, a South African physician and naturalist, points out that while our planet seems destined in the years ahead for shifts in weather that threaten our fragile niche, the planet itself can continue long after our species has gone. He says we don't have to fix the planet, but rather our relationship to it. "The Earth doesn't need healing. We do."

RECOMMENDED READING LIST

If you liked *Ecological Intelligence*, you'll also like:

1. ***The Necessary Revolution*** **by Peter Senge, et. al.** This book focuses on sustainability and the challenge for businesses to invest in new solutions to environmental problems.
2. ***Green to Gold*** **by Daniel C. Esty and Andrew S. Winton.** This title shows how companies generate lasting value by building environmental thinking into their business strategies.
3. ***Transparency*** **by Warren Bennis, Daniel Goleman and James O'Toole.** This book contains three essays that look at the issue of transparency from different angles.