

# Digital Rubbish A Natural History Of Electronics

## Jennifer Gabrys

How to Do Things with SensorsRikki-tikki-taviZero Waste HomeGarbage LandJunkyard PlanetDigital RubbishProgram EarthGreening the MediaDemographics and the Demand for Higher EducationA People's History of Environmentalism in the United StatesThis Gaming LifeCookedWorld Wide Waste: How Digital Is Killing Our Planetand What We Can Do About ItMuseum Object Lessons for the Digital AgeWaste: Uncovering the Global Food ScandalThe Company of StrangersThe InformationReassembling RubbishWhat A WasteThe Hidden History of Crime, Corruption, and StatesHistories of the DustheapCuriosaWhen Trash Becomes ArtBullshit JobsBeijing GarbageCentralia PAGarbologyThe Omnivore's DilemmaAn Edible History of HumanityThe ChickenWasteGarbage In, Garbage OutJoin the No-Plastic Challenge!Cognitive Hyperconnected Digital TransformationOutsmart WasteWhite TrashPosthuman KnowledgeA Geology of MediaAccumulationFinite Media

### How to Do Things with Sensors

Part inspirational story of how the author transformed her family's life for the better by reducing their waste to an astonishing 1 liter per year; part practical guide that gives readers tools & tips to diminish their footprint & simplify their lives. Original.

### Rikki-tikki-tavi

You will never look at your cell phone, TV, or computer the same way after reading this book. Greening the Media not only reveals the dirty secrets that hide inside our favorite electronic devices; it also takes apart the myths that have pushed these gadgets to the center of our lives. Marshaling an astounding array of economic, environmental, and historical facts, Maxwell and Miller debunk the idea that information and communication technologies (ICT) are clean and ecologically benign. The authors show how the physical reality of making, consuming, and discarding them is rife with toxic ingredients, poisonous working conditions, and hazardous waste. But all is not lost. As the title suggests, Maxwell and Miller dwell critically on these environmental problems in order to think creatively about ways to solve them. They enlist a range of potential allies in this effort to foster greener media--from green consumers to green citizens, with stops along the way to hear from exploited workers, celebrities, and assorted bureaucrats. Ultimately, Greening the Media rethinks the status of print and screen technologies, opening new lines of historical and social analysis of ICT, consumer electronics, and media production.

### Zero Waste Home

A courageous mongoose thwarts the evil plans of Nag and Nagaina, two big black cobras who live in the garden.

## **Garbage Land**

An examination of how garbage reveals the relationships between the global and the local, the economic and the ecological, and the historical and the contemporary. Garbage, considered both materially and culturally, elicits mixed responses. Our responsibility toward the objects we love and then discard is entangled with our responsibility toward the systems that make those objects. Histories of the Dustheap uses garbage, waste, and refuse to investigate the relationships between various systems--the local and the global, the economic and the ecological, the historical and the contemporary--and shows how this most democratic reality produces identities, social relations, and policies. The contributors first consider garbage in subjective terms, examining "toxic autobiography" by residents of Love Canal, the intersection of public health and women's rights, and enviroblogging. They explore the importance of place, with studies of post-Katrina soil contamination in New Orleans, e-waste disposal in Bloomington, Indiana, and garbage on Mount Everest. And finally, they look at cultural contradictions as objects hover between waste and desirability, examining Milwaukee's efforts to sell its sludge as fertilizer, the plastics industry's attempt to wrap plastic bottles and bags in the mantle of freedom of choice, and the idea of obsolescence in the animated film *The Brave Little Toaster*. Histories of the Dustheap offers a range of perspectives on a variety of incarnations of garbage, inviting the reader to consider garbage in a way that goes beyond the common "buy green" discourse that empowers individuals while limiting environmental activism to consumerist practices.

## **Junkyard Planet**

The true cost of what the global food industry throws away. With shortages, volatile prices and nearly one billion people hungry, the world has a food problem—or thinks it does. Farmers, manufacturers, supermarkets and consumers in North America and Europe discard up to half of their food—enough to feed all the world's hungry at least three times over. Forests are destroyed and nearly one tenth of the West's greenhouse gas emissions are released growing food that will never be eaten. While affluent nations throw away food through neglect, in the developing world crops rot because farmers lack the means to process, store and transport them to market. But there could be surprisingly painless remedies for what has become one of the world's most pressing environmental and social problems. *Waste* traces the problem around the globe from the top to the bottom of the food production chain. Stuart's journey takes him from the streets of New York to China, Pakistan and Japan and back to his home in England. Introducing us to foraging pigs, potato farmers and food industry CEOs, Stuart encounters grotesque examples of profligacy, but also inspiring innovations and ways of making the most of what we have. The journey is a personal one, as Stuart is a dedicated freegan, who has chosen to live off of discarded or self-produced food in order to highlight the global food waste scandal. Combining front-line investigation with startling new data, *Waste* shows how the way we live now has created a global food crisis—and what we can do to fix it.

## **Digital Rubbish**

In this informative book on recycling for children, you will find everything you need to know about our environment. The good, the bad, and the incredibly innovative. From pollution and litter to renewable energy and plastic recycling. This educational book will teach young budding ecologists about how our actions affect planet Earth and the big impact we can make by the little things we do. Did you know that every single plastic toothbrush ever made still exists? Or that there is a floating mass of rubbish larger than the USA drifting around the Pacific Ocean? It is not all bad news though. While this is a knowledge book that explains where we are going wrong, *What a Waste* also shows what we are getting right! Discover plans to save our seas. How countries are implementing green projects worldwide, and how to turn waste into something useful. The tiniest everyday changes can make all the difference to ensure our beautiful planet stays lush and teeming with life. It is a lively kid's educational book with fabulous illustrations and fun facts about the world broken into easy to digest bite-sized bits. Each page can be looked at in short bursts or longer reads for more detail, making it a great children's book for a range of age groups. *Get Involved - Make A Difference!* Almost everything we do creates waste, from litter and leftovers to factory gases and old gadgets. Find out where it goes, how it affects our planet and what we can do to reduce the problem. From how to make your home more energy and water efficient, to which items can be recycled and tips for grocery shopping, this book is packed full of ideas on how you can get involved to make our planet a better place to live. This environment book for children has a wealth of ideas for becoming a planet-defending hero: - Discover shocking facts about the waste we produce and where it goes - Learn where about our Earth's limited resources and how to take some pressure off - Your trash is another man's treasure - Small changes to take your home from wasteful to super resource efficient - Dive into saving our oceans and super recycling - And much, much more *What a Waste* is one of several nature books for kids written by Jess French, a passionate conservationist and veterinarian committed to protecting the beautiful world we live in.

## **Program Earth**

"Garbage doesn't exist in nature--the output of one organism is the useful input of another. So why does garbage exist in the human system? Why did it only become a problem the past century? And most importantly, how can we eliminate it--outsmart the very idea of garbage? Eco-entrepreneur Tom Szaky says that to outsmart waste first we have to understand it, then change how we create it, and finally rethink what we do with it. He traces the roots of our current garbage crisis to 20th century technological advances that resulted in historic changes in consuming habits--both the amount of garbage created and its longevity increased dramatically. Szaky argues we can turn this around by changing what we buy, when we buy, why we buy, and what we do with what we've bought. And through innovative recycling and creative "upcycling" (creating new products from discarded objects) we can stop seeing garbage as useless waste and start seeing it as useful waste--a tremendous volume of resources that are simply misunderstood. After reading this mind-expanding book you will never think of garbage the same way again"--

## **Greening the Media**

Your garbage is going places you'd never imagine. What used to be sent to the local dump now may move hundreds of miles by truck and barge to its final resting place. Virtually all forms of pollution migrate, subjected to natural forces such as wind and water currents. The movement of garbage, however, is under human control. Its patterns of migration reveal much about power sharing among state, local, and national institutions, about the Constitution's protection of trash transport as a commercial activity, and about competing notions of social fairness. In *Garbage In, Garbage Out*, Vivian Thomson looks at Virginia's status as the second-largest importer of trash in the United States and uses it as a touchstone for exploring the many controversies around trash generation and disposal. Political conflicts over waste management have been felt at all levels of government. Local governments who want to manage their own trash have fought other local governments hosting huge landfills that depend on trash generated hundreds of miles away. State governments have tried to avoid becoming the dumping grounds for cities hundreds of miles away. The constitutional questions raised in these battles have kept interstate trash transport on Congress's agenda since the early 1990s. Whether the resulting legislative proposals actually address our most critical garbage-related problems, however, remains in question. Thomson sheds much-needed light on these problems. Within the context of increased interstate trash transport and the trend toward privatization of waste management, she examines the garbage issue from a number of perspectives--including the links between environmental justice and trash management, a critical evaluation of the theoretical and empirical relationship between economic growth and environmental improvement, and highlighting the ways in which waste management practices in the US differ from those in the European Union and Japan. Thomson then provides specific, substantive recommendations for our own policymakers. Everything eventually becomes trash. As we explore the long, often surprising, routes our garbage takes, we begin to understand that it is something more than a mere nuisance that regularly "disappears" from our curbside. Rather, trash generation and management reflect patterns of consumption, political choices over whether garbage is primarily pollution or commerce, the social distribution of environmental risk, and how our daily lives compare with those of our counterparts in other industrialized nations.

## **Demographics and the Demand for Higher Education**

Cognitive Hyperconnected Digital Transformation provides an overview of the current Internet of Things (IoT) landscape, ranging from research, innovation and development priorities to enabling technologies in a global context. It is intended as a standalone book in a series that covers the Internet of Things activities of the IERC-Internet of Things European Research Cluster, including both research and technological innovation, validation and deployment. The book builds on the ideas put forward by the European Research Cluster, the IoT European Platform Initiative (IoT-EPI) and the IoT European Large-Scale Pilots Programme, presenting global views and state-of-the-art results regarding the challenges facing IoT research, innovation, development and deployment in the next years. Hyperconnected environments integrating industrial/business/consumer IoT technologies and applications require new IoT open systems architectures integrated with network architecture (a knowledge-centric network for IoT), IoT system design and open, horizontal and interoperable platforms managing things that are digital, automated

and connected and that function in real-time with remote access and control based on Internet-enabled tools. The IoT is bridging the physical world with the virtual world by combining augmented reality (AR), virtual reality (VR), machine learning and artificial intelligence (AI) to support the physical-digital integrations in the Internet of mobile things based on sensors/actuators, communication, analytics technologies, cyber-physical systems, software, cognitive systems and IoT platforms with multiple functionalities. These IoT systems have the potential to understand, learn, predict, adapt and operate autonomously. They can change future behaviour, while the combination of extensive parallel processing power, advanced algorithms and data sets feed the cognitive algorithms that allow the IoT systems to develop new services and propose new solutions. IoT technologies are moving into the industrial space and enhancing traditional industrial platforms with solutions that break free of device-, operating system- and protocol-dependency. Secure edge computing solutions replace local networks, web services replace software, and devices with networked programmable logic controllers (NPLCs) based on Internet protocols replace devices that use proprietary protocols. Information captured by edge devices on the factory floor is secure and accessible from any location in real time, opening the communication gateway both vertically (connecting machines across the factory and enabling the instant availability of data to stakeholders within operational silos) and horizontally (with one framework for the entire supply chain, across departments, business units, global factory locations and other markets). End-to-end security and privacy solutions in IoT space require agile, context-aware and scalable components with mechanisms that are both fluid and adaptive. The convergence of IT (information technology) and OT (operational technology) makes security and privacy by default a new important element where security is addressed at the architecture level, across applications and domains, using multi-layered distributed security measures. Blockchain is transforming industry operating models by adding trust to untrusted environments, providing distributed security mechanisms and transparent access to the information in the chain. Digital technology platforms are evolving, with IoT platforms integrating complex info

## **A People's History of Environmentalism in the United States**

The author recounts the story of his culinary education and the roles of the four classical elements of fire, water, air and earth in transforming natural ingredients into delicious meals and drinks, in an account that traces his efforts to master classic recipes using one of the four elements. Reprint.

## **This Gaming Life**

Learn about the problem of single-use plastic — and what to do about it. On his birthday, Nick challenges his friends to spend the day without using any single-use plastic. This means they bring their own cloth bags, say no thanks to plastic straws and decorate with paper streamers instead of balloons. Along the way, the kids learn what plastic is made of, how much of it surrounds us and how it's polluting our oceans and affecting the food chain. Most importantly, the five friends learn ways to use less — including just saying NO! No plastic? No problem. Readers will be primed for a No-Plastic Challenge of their own!

## **Cooked**

An ecological and anthropological study of eating offers insight into food consumption in the twenty-first century, explaining how an abundance of unlimited food varieties reveals the responsibilities of everyday consumers to protect their health and the environment. By the author of *The Botany of Desire*. 125,000 first printing.

## **World Wide Waste: How Digital Is Killing Our Planet and What We Can Do About It**

This is a study of the material life of information and its devices; of electronic waste in its physical and electronic incarnations; a cultural and material mapping of the spaces where electronics in the form of both hardware and information accumulate, break down, or are stowed away. Where other studies have addressed "digital" technology through a focus on its immateriality or virtual qualities, Gabrys traces the material, spatial, cultural and political infrastructures that enable the emergence and dissolution of these technologies. In the course of her book, she explores five interrelated "spaces" where electronics fall apart: from Silicon Valley to Nasdaq, from containers bound for China to museums and archives that preserve obsolete electronics as cultural artifacts, to the landfill as material repository. *Digital Rubbish: A Natural History of Electronics* describes the materiality of electronics from a unique perspective, examining the multiple forms of waste that electronics create as evidence of the resources, labor, and imaginaries that are bundled into these machines. Ranging across studies of media and technology, as well as environments, geography, and design, Jennifer Gabrys draws together the far-reaching material and cultural processes that enable the making and breaking of these technologies.

## **Museum Object Lessons for the Digital Age**

Moved by previous visits to the Centralia, and ultimately by a trip to the now deserted town, which was bought out by the state following an unstoppable mine fire that began in 1962, the author was inspired to write a fitting eulogy. The novel is a fictional accounting based on fact and metaphorically presents the mine owners and industrialists as Satanical manifestations in need of exorcism. It is a wonderful mix of period fact with fiction - there is much to learn while enjoying a fanciful journey through the author's imagination. Sample from the book: "More water! More water damn it! The fire is spreading!" From behind a fire pumper a soot covered black-faced fireman came running and shouting. "Around the other side! Quickly!" Three more fire fighters joined in, sweat pouring from their brows in the 83 degree heat, made many times hotter by the raging fire, dragging limp cloth hose toward the quickly spreading fire that was reaching out in anger from the pit. "Charge the line," screamed a scrawny teenage fireman. The hose they were carrying quickly filled and whipped along like a disturbed snake. The fire, in the pit of an old abandoned strip mine near the Odd Fellows cemetery was started once or twice a year to burn excess municipal rubbish, but had never gotten out of control, as did this one. This fire was started on May 27 to clean up rubbish and municipal waste in preparation for the Memorial Day celebration, and was then

extinguished by the fire department and was thought to have gone out. It had again re-kindled on May 29 and was put out late in the evening. It again re-kindled on June 12, though not as bad. Now it had re-kindled yet again, this time with a vengeance, as if set by Satan himself. None of the locals had ever seen such an inferno.

## **Waste: Uncovering the Global Food Scandal**

Sensors are everywhere. Small, flexible, economical, and computationally powerful, they operate ubiquitously in environments. They compile massive amounts of data, including information about air, water, and climate. Never before has such a volume of environmental data been so broadly collected or so widely available. Grappling with the consequences of wiring our world, Program Earth examines how sensor technologies are programming our environments. As Jennifer Gabrys points out, sensors do not merely record information about an environment. Rather, they generate new environments and environmental relations. At the same time, they give a voice to the entities they monitor: to animals, plants, people, and inanimate objects. This book looks at the ways in which sensors converge with environments to map ecological processes, to track the migration of animals, to check pollutants, to facilitate citizen participation, and to program infrastructure. Through discussing particular instances where sensors are deployed for environmental study and citizen engagement across three areas of environmental sensing, from wild sensing to pollution sensing and urban sensing, Program Earth asks how sensor technologies specifically contribute to new environmental conditions. What are the implications for wiring up environments? How do sensor applications not only program environments, but also program the sorts of citizens and collectives we might become? Program Earth suggests that the sensor-based monitoring of Earth offers the prospect of making new environments not simply as an extension of the human but rather as new “technogeographies” that connect technology, nature, and people.

## **The Company of Strangers**

A lighthearted chronicle of how foods have transformed human culture throughout the ages traces the barley- and wheat-driven early civilizations of the near East through the corn and potato industries in America.

## **The Information**

Out of sight, out of mind Into our trash cans go dead batteries, dirty diapers, bygone burritos, broken toys, tattered socks, eight-track cassettes, scratched CDs, banana peels But where do these things go next? In a country that consumes and then casts off more and more, what actually happens to the things we throw away? In Garbage Land, acclaimed science writer Elizabeth Royte leads us on the wild adventure that begins once our trash hits the bottom of the can. Along the way, we meet an odor chemist who explains why trash smells so bad; garbage fairies and recycling gurus; neighbors of massive waste dumps; CEOs making fortunes by encouraging waste or encouraging recycling-often both at the same time; scientists trying to revive our most polluted places; fertilizer fanatics and

adventurers who kayak amid sewage; paper people, steel people, aluminum people, plastic people, and even a guy who swears by recycling human waste. With a wink and a nod and a tightly clasped nose, Royte takes us on a bizarre cultural tour through slime, stench, and heat-in other words, through the back end of our ever-more supersized lifestyles. By showing us what happens to the things we've "disposed of," Royte reminds us that our decisions about consumption and waste have a very real impact-and that unless we undertake radical change, the garbage we create will always be with us: in the air we breathe, the water we drink, and the food we consume. Radiantly written and boldly reported, *Garbage Land* is a brilliant exploration into the soiled heart of the American trash can.

## **Reassembling Rubbish**

*The Chicken* is an encyclopaedic, science-based study that offers a true understanding of the species, reclaiming it from its commercial status as a mere egg and meat provider. High-quality photography, illustration, and info-graphics combine with engaging and authoritative text to create an accessible reference title for the general market. Topics include anatomy, developmental biology, ancestry, breeding, and origins, and there is a comprehensive look at chicken behaviours. Boxed asides are included throughout, relating the scientific detail to the practicalities of chicken husbandry. The book's final chapter is devoted to a beautiful visual study of the characteristics of particular breeds, providing quick-reference information on their origins, particulars, and appearance.

## **What A Waste**

While digital media give us the ability to communicate with and know the world, their use comes at the expense of an immense ecological footprint and environmental degradation. In *Finite Media* Sean Cubitt offers a large-scale rethinking of theories of mediation by examining the environmental and human toll exacted by mining and the manufacture, use, and disposal of millions of phones, computers, and other devices. The way out is through an eco-political media aesthetics, in which people use media to shift their relationship to the environment and where public goods and spaces are available to all. Cubitt demonstrates this through case studies ranging from the 1906 film *The Story of the Kelly Gang* to an image of Saturn taken during NASA's Cassini-Huygens mission, suggesting that affective responses to images may generate a populist environmental politics that demands better ways of living and being. Only by reorienting our use of media, Cubitt contends, can we overcome the failures of political elites and the ravages of capital.

## **The Hidden History of Crime, Corruption, and States**

Why do central and local government initiatives aiming to curb the proliferation of garbage in Beijing and its disposal continue to be unsuccessful? Is the Uberization of waste picking through online-to-offline (O2O) garbage retrieval companies able to decrease waste and improve the lives of waste pickers? Most citizens of Beijing are well aware of the fact that their city is besieged by waste. Yet instead of taking individual action, they sit and wait for the governments at various levels to tell

them what to do. And even if/when they adopt a proactive position, this does not last. Official education drives targeting the consumers are organized regularly and with modest success, but real solutions are not forthcoming. Various environmental non-governmental organizations are at work to raise the level of consciousness of the population, to change individual attitudes towards wasteful behavior, but seemingly with little overall effects.

## **Histories of the Dustheap**

The question of what defines the human, and of what is human about the humanities, have been shaken up by the radical critiques of humanism and the displacement of anthropomorphism that have gained currency in recent years, propelled in part by rapid advances in our knowledge of living systems and of their genetic and algorithmic codes coupled with the global expansion of a knowledge-intensive capitalism. In *Posthuman Knowledge*, Rosi Braidotti takes a closer look at the impact of these developments on three major areas: the constitution of our subjectivity, the general production of knowledge and the practice of the academic humanities. Drawing on feminist, postcolonial and anti-racist theory, she argues that the human was never a neutral category but one always linked to power and privilege. Hence we must move beyond the old dualities in which Man defined himself, beyond the sexualized and racialized others that were excluded from humanity. Posthuman knowledge, as Braidotti understands it, is not so much an alternative form of knowledge as a critical call: a call to build a multi-layered and multi-directional project that displaces anthropocentrism while pursuing the analysis of the discriminatory and violent aspects of human activity and interaction wherever they occur. Situated between the exhilaration of scientific and technological advances on the one hand and the threat of climate change devastation on the other, the posthuman convergence encourages us to think hard and creatively about what we are in the process of becoming.

## **Curiosa**

The result of painstaking research by Lea Vergine, this volume explores the meaning of the "trash" phenomenon in contemporary art from the early 20th century (Boccioni, Carrà, Depero, Picabia, Schwitters), through the Sixties and Seventies (Burri, Kounellis, Fontana, Vautier, Rotella, César, Arman, Manzoni, Pistoletto, Beuys, Spoerri), and up to the present (Cragg, Parmiggiani, Boltanski, Sherman, Bourgeois, Serrano, Cattelan). It examines the challenge launched by these artists, who use waste as a material for creating art. In an era marked by great concern about the environment, the artistic use of the discarded object expresses the alienation and distress that appear to be eroding the wantonly consumeristic social model represented by the West. Recovering and preserving refuse is a means of trying to hold on to it, of making it survive by saving it from a void, from being nothing, from the dissolution to which it is destined; it is about the desire to leave a mark, a trace, a clue for those who remain, hence touching a dimension that is psychological as well as political.

## **When Trash Becomes Art**

Speaking out when it's unpopular. Back in the day, Henry David Thoreau raged at the robber barons—the big shots of their age, despoiling the environment in the name of progress. Deep in the throes of the seemingly unstoppable growth of tech, a modern-day Thoreau has emerged in the guise of Gerry McGovern—decrying the massive, hidden negative impacts of tech on the environment. McGovern has thoroughly documented in *World Wide Waste* how tech damages the Earth—and what we should be doing about it. It is not just the acres of discarded computer hardware conveniently dumped in Third World countries. Every time an email is downloaded it contributes to global warming. Every tweet, search, check of a webpage creates pollution. Digital is physical. Those data centers are not in the Cloud. They're on land in massive physical buildings packed full of computers hungry for energy. It seems invisible. It seems cheap and free. It's not. Digital costs the Earth.

## **Bullshit Jobs**

Media history is millions, even billions, of years old. That is the premise of this pioneering and provocative book, which argues that to adequately understand contemporary media culture we must set out from material realities that precede media themselves—Earth's history, geological formations, minerals, and energy. And to do so, writes Jussi Parikka, is to confront the profound environmental and social implications of this ubiquitous, but hardly ephemeral, realm of modern-day life. Exploring the resource depletion and material resourcing required for us to use our devices to live networked lives, Parikka grounds his analysis in Siegfried Zielinski's widely discussed notion of deep time—but takes it back millennia. Not only are rare earth minerals and many other materials needed to make our digital media machines work, he observes, but used and obsolete media technologies return to the earth as residue of digital culture, contributing to growing layers of toxic waste for future archaeologists to ponder. He shows that these materials must be considered alongside the often dangerous and exploitative labor processes that refine them into the devices underlying our seemingly virtual or immaterial practices. *A Geology of Media* demonstrates that the environment does not just surround our media cultural world—it runs through it, enables it, and hosts it in an era of unprecedented climate change. While looking backward to Earth's distant past, it also looks forward to a more expansive media theory—and, implicitly, media activism—to come.

## **Beijing Garbage**

From food punnets to credit cards, plastic facilitates every part of our daily lives. It has become central to processes of contemporary socio-material living. Universalised and abstracted, it is often treated as the passive object of political deliberations, or a problematic material demanding human management. But in what ways might a 'politics of plastics' deal with both its specific manifestation in particular artefacts and events, and its complex dispersed heterogeneity? *Accumulation* explores the vitality and complexity of plastic. This interdisciplinary collection focuses on how the presence and recalcitrance of plastic reveals the relational exchanges across human and synthetic materialities. It captures multiplicity by engaging with the processual materialities or plasticity of plastic. Through a series of themed essays on plastic materialities, plastic economies,

plastic bodies and new articulations of plastic, the editors and chapter authors examine specific aspects of plastic in action. How are multiple plastic realities enacted? What are their effects? This book will be of interest to students and scholars of sociology, human and cultural geography, environmental studies, consumption studies, science and technology studies, design, and political theory.

## **Centralia PA**

How can garbage turn into gold? What does recycling have to do with globalization? Where does all that stuff we throw away go, anyway? When you drop your Diet Coke can or yesterday's newspaper in the recycling bin, where does it go? Probably halfway around the world, to people and places that clean up what you don't want and turn it into something you can't wait to buy. In *Junkyard Planet*, Adam Minter-veteran journalist and son of an American junkyard owner-travels deeply into a vast, often hidden, 500-billion-dollar industry that's transforming our economy and environment. Minter takes us from back-alley Chinese computer recycling operations to recycling factories capable of processing a jumbo jet's worth of trash every day. Along the way, we meet an international cast of characters who have figured out how to squeeze Silicon Valley-scale fortunes from what we all throw away. *Junkyard Planet* reveals how "going green" usually means making money-and why that's often the most sustainable choice, even when the recycling methods aren't pretty. With unmatched access to and insight on the waste industry, and the explanatory gifts and an eye for detail worthy of a John McPhee or William Langewiesche, Minter traces the export of America's garbage and the massive profits that China and other rising nations earn from it. What emerges is an engaging, colorful, and sometimes troubling tale of how the way we consume and discard stuff brings home the ascent of a developing world that recognizes value where Americans don't. *Junkyard Planet* reveals that Americans might need to learn a smarter way to take out the trash.

## **Garbology**

A New York Times Notable Book A Los Angeles Times and Cleveland Plain Dealer Best Book of the Year Winner of the PEN/E. O. Wilson Literary Science Writing Award From the bestselling author of the acclaimed *Chaos and Genius* comes a thoughtful and provocative exploration of the big ideas of the modern era: Information, communication, and information theory. Acclaimed science writer James Gleick presents an eye-opening vision of how our relationship to information has transformed the very nature of human consciousness. A fascinating intellectual journey through the history of communication and information, from the language of Africa's talking drums to the invention of written alphabets; from the electronic transmission of code to the origins of information theory, into the new information age and the current deluge of news, tweets, images, and blogs. Along the way, Gleick profiles key innovators, including Charles Babbage, Ada Lovelace, Samuel Morse, and Claude Shannon, and reveals how our understanding of information is transforming not only how we look at the world, but how we live.

## **The Omnivore's Dilemma**

The author identifies trash as America's largest export, discussing how the nation reached current garbage levels while explaining what families, communities, and countries are doing to reverse waste trends.

## **An Edible History of Humanity**

"A history of the class system in America from the colonial era to the present illuminates the crucial legacy of the underprivileged white demographic, citing the pivotal contributions of lower-class white workers in wartime, social policy, and the rise of the Republican Party"--NoveList.

## **The Chicken**

"The economics of American higher education are driven by one key factor--the availability of students willing to pay tuition--and many related factors that determine what schools they attend. By digging into the data, economist Nathan Grawe has created probability models for predicting college attendance. What he sees are alarming events on the horizon that every college and university needs to understand. Overall, he spots demographic patterns that are tilting the US population toward the Hispanic southwest. Moreover, since 2007, fertility rates have fallen by 12 percent. Higher education analysts recognize the destabilizing potential of these trends. However, existing work fails to adjust headcounts for college attendance probabilities and makes no systematic attempt to distinguish demand by institution type. This book analyzes demand forecasts by institution type and rank, disaggregating by demographic groups. Its findings often contradict the dominant narrative: while many schools face painful contractions, demand for elite schools is expected to grow by 15+ percent. Geographic and racial profiles will shift only slightly--and attendance by Asians, not Hispanics, will grow most. Grawe also use the model to consider possible changes in institutional recruitment strategies and government policies. These "what if" analyses show that even aggressive innovation is unlikely to overcome trends toward larger gaps across racial, family income, and parent education groups. Aimed at administrators and trustees with responsibility for decisions ranging from admissions to student support to tenure practices to facilities construction, this book offers data to inform decision-making--decisions that will determine institutional success in meeting demographic challenges"--

## **Waste**

A fresh look at the history of environmentalism in the United States, challenging current thinking and presenting an innovative perspective.

## **Garbage In, Garbage Out**

An examination of the global trade and traffic in discarded electronics that reframes the question of the "right" thing to do with e-waste. The prevailing storyline about the problem of electronic waste frames e-waste as generated by consumers in developed countries and dumped on people and places in developing countries. In Reassembling Rubbish, Josh Lepawsky offers a different view. In an

innovative analysis of the global trade and traffic in discarded electronics, Lepawsky reframes the question of the “right” thing to do with e-waste, mapping the complex flows of electronic materials. He counters the assumption that e-waste is a post-consumer problem, pointing out that waste occurs at all stages of electronic materials' existence, and calls attention to the under-researched world of reuse and repair. Lepawsky explains that there are conflicting legal distinctions between electronic waste and non-waste, and examines a legal case that illustrates the consequences. He shows that patterns of trade do not support the dominant narrative of e-waste dumping but rather represent the dynamic ecologies of repair, refurbishment, and materials recovery. He asks how we know waste, how we measure it, and how we construe it, and how this affects our efforts to mitigate it. We might not put so much faith in household recycling if we counted the more massive amounts of pre-consumer electronic waste as official e-waste. Lepawsky charts the “minescapes,” “productionscapes,” and “clickscapes” of electronics, and the uneven “discardscapes” they produce. Finally, he considers both conventional and unconventional e-waste solutions, including decriminalizing export for reuse, repair, and upgrade; enabling ethical trade in electronics reuse, repair, refurbishment, and recycling; implementing extended producer responsibility; and instituting robust forms of public oversight.

## **Join the No-Plastic Challenge!**

An investigation of how-to guides for sensor technologies Sensors are increasingly common within citizen-sensing and DIY projects, but these devices often require the use of a how-to guide. From online instructional videos for troubleshooting sensor installations to handbooks for using and abusing the Internet of Things, the how-to genres and formats of digital instruction continue to expand and develop. As the how-to proliferates, and instructions unfold through multiple aspects of technoscientific practices, Jennifer Gabrys asks why the how-to has become one of the prevailing genres of the digital. *How to Do Things with Sensors* explores the ways in which things are made do-able with and through sensors and further considers how worlds are made sense-able and actionable through the instructional mode of citizen-sensing projects. Forerunners: Ideas First Short books of thought-in-process scholarship, where intense analysis, questioning, and speculation take the lead

## **Cognitive Hyperconnected Digital Transformation**

Renowned historical sociologist Charles Tilly wrote many years ago that "banditry, piracy, gangland rivalry, policing, and war-making all belong on the same continuum." This volume pursues the idea by revealing how lawbreakers and lawmakers have related to one another on the shadowy terrains of power over wide stretches of time and space. Illicit activities and forces have been more important in state building and state maintenance than conventional histories have acknowledged. Covering vast chronological and global terrain, this book traces the contested and often overlapping boundaries between these practices in such very different polities as the pre-modern city-states of Europe, the modern nation-states of France and Japan, the imperial power of Britain in India and North America, Africa's and Southeast Asia's postcolonial states, and the emerging postmodern regional entity of the Mediterranean Sea. Indeed, the contemporary explosion of

transnational crime raises the question of whether or not the relationship of illicit to licit practices may be mutating once more, leading to new political forms beyond the nation-state. --Amazon.com.

## **Outsmart Waste**

Benes imbues mundane objects with the mystical power of holy relics. This collection of his objects is provocative, disturbing and amusing. 110 illustrations.

## **White Trash**

Traveling to London, Seoul, and Reykjavik, the topic of gaming and its effects on people around the world is discussed through a review of its impact on culture, technology, and education around the world.

## **Posthuman Knowledge**

Waste explores the question: from nuclear waste to digital detritus, what can we learn about ourselves from what we let go to waste?

## **A Geology of Media**

Museum Object Lessons for the Digital Age explores the nature of digital objects in museums, asking us to question our assumptions about the material, social and political foundations of digital practices. Through four wide-ranging chapters, each focused on a single object – a box, pen, effigy and cloak – this short, accessible book explores the legacies of earlier museum practices of collection, older forms of media (from dioramas to photography), and theories of how knowledge is produced in museums on a wide range of digital projects. Swooping from Ethnographic to Decorative Arts Collections, from the Google Art Project to bespoke digital experiments, Haidy Geismar explores the object lessons contained in digital form and asks what they can tell us about both the past and the future. Drawing on the author's extensive experience working with collections across the world, Geismar argues for an understanding of digital media as material, rather than immaterial, and advocates for a more nuanced, ethnographic and historicised view of museum digitisation projects than those usually adopted in the celebratory accounts of new media in museums. By locating the digital as part of a longer history of material engagements, transformations and processes of translation, this book broadens our understanding of the reality effects that digital technologies create, and of how digital media can be mobilised in different parts of the world to very different effects.

## **Accumulation**

From bestselling writer David Graeber—"a master of opening up thought and stimulating debate" (Slate)—a powerful argument against the rise of meaningless, unfulfilling jobs...and their consequences. Does your job make a meaningful contribution to the world? In the spring of 2013, David Graeber asked this question in a playful, provocative essay titled "On the Phenomenon of Bullshit Jobs." It went

viral. After one million online views in seventeen different languages, people all over the world are still debating the answer. There are hordes of people—HR consultants, communication coordinators, telemarketing researchers, corporate lawyers—whose jobs are useless, and, tragically, they know it. These people are caught in bullshit jobs. Graeber explores one of society's most vexing and deeply felt concerns, indicting among other villains a particular strain of finance capitalism that betrays ideals shared by thinkers ranging from Keynes to Lincoln. "Clever and charismatic" (The New Yorker), *Bullshit Jobs* gives individuals, corporations, and societies permission to undergo a shift in values, placing creative and caring work at the center of our culture. This book is for everyone who wants to turn their vocation back into an avocation and "a thought-provoking examination of our working lives" (Financial Times).

## **Finite Media**

The *Company of Strangers* shows us the remarkable strangeness, and fragility, of our everyday lives. This completely revised and updated edition includes a new chapter analyzing how the rise and fall of social trust explain the unsustainable boom in the global economy over the past decade and the financial crisis that succeeded it. Drawing on insights from biology, anthropology, history, psychology, and literature, Paul Seabright explores how our evolved ability of abstract reasoning has allowed institutions like money, markets, cities, and the banking system to provide the foundations of social trust that we need in our everyday lives. Even the simple acts of buying food and clothing depend on an astonishing web of interaction that spans the globe. How did humans develop the ability to trust total strangers with providing our most basic needs?

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