



# Made to Break: Technology and Obsolescence in America

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If you've replaced a computer lately--or a cell phone, a camera, a television--chances are, the old one still worked. And chances are even greater that the latest model won't last as long as the one it replaced. Welcome to the world of planned obsolescence--a business model, a way of life, and a uniquely American invention that this eye-opening book explores from its beginnings to its perilous implications for the very near future.

"Made to Break" is a history of twentieth-century technology as seen through the prism of obsolescence. America invented everything that is now disposable, Giles Slade tells us, and he explains how disposability was in fact a necessary condition for America's rejection of tradition and our acceptance of change and impermanence. His book shows us the ideas behind obsolescence at work in such American milestones as the inventions of branding, packaging, and advertising; the contest for market dominance between GM and Ford; the struggle for a national communications network, the development of electronic technologies--and with it the avalanche of electronic consumer waste that will overwhelm America's landfills and poison its water within the coming decade.

History reserves a privileged place for those societies that built things to last--forever, if possible. What place will it hold for a society addicted to consumption--a whole culture made to break? This book gives us a detailed and harrowing picture of how, by choosing to support ever-shorter product lives we may well be shortening the future of our way of life as well.

## **Made to Break: Technology and Obsolescence in America Details**

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# From Reader Review Made to Break: Technology and Obsolescence in America for online ebook

**dejah\_thoris** says

This is one of those books that I think everyone in my generation should be forced to read. Although the concept of obsolescence was coined around the turn of the twentieth century, we are only feeling the REAL implications of this economic mindset now. Slade does an excellent job of explaining the development of obsolescence from physical wear to psychological obsolescence a.k.a. style to death dating (not an inherently negative concept) to deliberately planned obsolescence for either economic reasons or to subvert the Russians. He also highlights the positive reasons business originally embraced obsolescence, namely to create the need for more goods and therefore more employment in a capitalist society without having to rely on technological invention or improvement. Finally, Slade ends on a negative note by exploring our problem of e-waste, specifically cell phones, and how our continuous consumption as Americans is creating environmental disposal problems as well as political problems for both disposal and mining of raw materials. An excellent read that anyone concerned about green engineering or environmental pollution should embrace because it is only by changing our production and consumption habits that we can create lasting change.

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**Emily** says

Notes:

The term planned obsolescence was originated in 1932. Bernard London's "Ending the Depression through Planned Obsolescence" was written in the same year that "Brave New World" was published, and London's description of product obsolescence closely resembled some aspects of Aldous Huxley's work. - ending is better than mending - the more stitches, the less riches (76)

Vance Parkard "The Waste Makers", 1960. (163)

Marshall McLuhan - the medium is the message - whatever the surface content of a specific message, it is the technology of its medium that has the most lasting formative impact on the consciousness of human receivers. The emerging electronic media of the 20th century was rendering obsolete the individualism and linearity characteristics of print culture.

McLuhan "Gutenberg Galaxy" and "Understanding Media" 1964, were written in a mosaic, nonlinear style characteristic of electronic information. He coined the term "mosaic" from Wm Burrough's novel "Naked Lunch", 1959 - this style best reflected the mosaic mesh of the TV image that compels so much active participation on the part of the viewer. Media has created a global village - we are most at leisure when we are most intensely involved. (183-4)

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**Alex** says

Nice book, about corporate engineering of products to be made useless or non functional.  
I loved the last part about the Russian secret service.

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## Jenny says

If you're interested in technological obsolescence, I recommend reading the introduction, first chapter, and last chapter of this book. The chapters in between are well-researched, in-depth essays - essentially case studies - presented chronologically. The writing is clear, and though the book was published in 2006 the problem still looms.

Quotes:

Most engineers in the nineteenth century designed and built their products to last. (31)

"Where man can find no answer, he will find fear." -Norman Cousins, 1945 (144)

Planned obsolescence....psychological obsolescence...grew out of "the desire to own something a little newer, a little better, a little sooner than necessary." -Brooks Stevens (153)

"Our whole economy is based on planned obsolescence....We make good products, we induce people to buy them, and then next year we deliberately introduce something that will make those products old fashioned, out of date, obsolete. We do that for the soundest reason: to make money." -Brooks Stevens (153)

"The product with the longest life period is not automatically the most economical. Value is a product of time and utility....Is a product that has served a short, useful life at a satisfactory cost necessarily wasteful?....There is not a product on the market today that could not be improved by using...more expensive materials. Every design is a compromise..." -Ernest Cunningham, 1959 (168)

[Moore's Law] Every year, smaller and smaller electronic devices became available for less and less cost, and these devices became at least twice as capacious and twice as fast as their immediate predecessor, effectively quadrupling the value of each generation of chip. (196-197)

These apps [WordStar, VisiCalc, dBASE] empowered new users while rendering old skill sets - minute ledger work, the ability to type quickly and flawlessly - completely obsolete. (208)

Electronic components have extremely short lives. [Cell phones and TVs] are creating unmanageable mounds of electronic waste each time they are thrown away. All of the discarded components in this growing mountain of e-waste contain high levels of permanent biological toxins (PBTs)...(261)

Because the toxins contained in most electronics are indestructible, the EU has banned their use by manufacturers and consumers. This ban is proving to be an effective encouragement to the development of alternative, non-toxic materials for electronic manufacture...Although some legislation now exists at the state level, there is no uniformity, no consistency, and no funding for electronic waste disposal programs throughout the United States.

The increasingly short life span of high-volume electronic goods, along with miniaturization, is what causes the e-waste problem. This lack of durability, in turn, grows from a unique combination of psychological and technological obsolescence. (262)

It makes no sense to call a discarded but working phone obsolete when the same make and model is still

available for purchase and continues to provide excellent service to its owners. (264)

"...the increasingly rapid evolution of technology has effectively rendered everything 'disposable.'" (265)

...modern consumers tend to value whatever is new and original over what is old, traditional, durable, or used. (265)

Colin Campbell on the mystery of modern consumption: "an activity which involves an apparently endless pursuit of wants, the most characteristic feature of modern consumption being this insatiability." (265)

"Americans are poorly equipped to recognize, let alone ponder or address, the challenges technology poses....Although our use of technology is increasing...there is no sign of an improvement in our ability." - Committee on Technological Literacy's 2002 report (280)

Very soon, the sheer volume of e-waste will compel America to adopt design strategies that include not just planned obsolescence but planned disassembly and reuse as part of the product life cycle. This is the industrial challenge of the new century. (281)

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## **Frank says**

A well-written and quick read which collects a series of examples from the last century and a half to make a portrait of the evolution of consumer goods to its present wasteful status. Perhaps owing to this story format, the work did not delve very deeply into the problems it presented. At no time was a cohesive vision presented. Instead, the reader is left with a handful of disjointed snapshots and the leering feeling that reuse and informed consumption (the closing imperative) are not sufficient solutions to a problem of which only some symptoms have been given. This may perhaps be best demonstrated by the gaping lack of documentation on the fossil fuel industry - an industry ostensibly focused on burning and thus forever losing its product while simultaneously causing significantly more environmental damage than e-waste (itself a topic unsatisfactorily documented here).

Overall - it's worth the few hours it will take to peruse through, but don't expect to be able to dredge out any principle that you didn't already know about the faults of consumer culture.

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## **Ellen says**

Most economists will tell you that free-market capitalism is the perfect system, but I've never been comfortable with this. The entire system hinges on consumption--constant, unrelenting consumption. As a result, as this book posits, corporations need to make things break or become less desirable so that we'll keep consuming. Slade doesn't really judge, he just gives the facts and the stories behind planned obsolescence. And after about the fourth chapter it becomes formulaic. Personally, I really would have liked more information about the results of this constant consumption (other than the environmental impacts of trash).

How does this encourage slick marketing, institutional classism, discourage small businesses, and waste resources that could feed starving children. Or maybe this economy just has me out for blood and looking for better solutions than a stimulus check.

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### **Rick says**

Makes a whole hell of a lot of sense. Read the introduction and conclusion if you want to get to the point. The middle is interesting, but a bit fluffy. This is an important book though. The amount of waste generated in America, especially electronic, is astounding and the repercussions, like heavy metals polluting the water supply, scary. The message, reuse, recycle, buy less disposable products. Hard advice to follow as I write this on my flat screen monitor that replaced a perfectly functional CRT.

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### **H R Koelling says**

I thought this book was more historical than having anything to do with obsolescence. He told some great stories and did some amazing research, but the title does not live up to what the book really discusses, which is just a bunch of historical stories about various products and how they, in some very remote way, might have something to do with obsolescence in our society today. Please, someone write a better book about this subject than this person did. It's a very important topic that needs a better voice.

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### **Melinda says**

Fascinating stuff. I thought I knew a fair bit about the idea of obsolescence. However I didn't realise that the idea of planned obsolescence started way back in the 1800s with the idea of getting men to shave using a Gillette razor rather than sharpen your own variety

This book looked at obsolescence range of different sides. It looked at the rise of marketing and advertising, shopping demographics, the rise of women's and men's personal hygiene products, computers, e-waste, recycling, nylon stockings. looked at things like chemistry, Soviet espionage, and car manufacturing, US politics and the debate between consumption and thrift.

Really well done, a broad overview of the topic. I felt like I learnt alot.

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### **Shannon (Giraffe Days) says**

Anyone interested in education, the environment, government policy, corporations, innovation and invention, and fads, will get a lot out of this book.

*Made to Break: Technology and Obsolescence in America* details the beginnings of our consumerist society, our over-consumption, our greed, our near-sightedness. Although written specifically about America - with

good reason - the same effects can be seen in any other western country, and most others as well.

In his introduction, Slade says "Deliberate obsolescence in all its forms - technological, psychological, or planned - is a uniquely American invention." Obsolescence has been adopted not only by manufacturers but also consumers: who wants to keep last year's mobile phone model when this year's is also an MP3 player? Who wants to keep driving a 2005 Lexus when the 2006 model promises freedom from your crappy job? This is psychological obsolescence, this way of thinking that anything old is no longer usable, desirable or fashionable.

It did not begin by accident. Worried about over-production, anxious to keep people buying right through the depression, businessmen (and yes, they were all men) decided the only way out would be to sell more stuff, not make less of it. And the way to make people buy more is to render their current possessions obsolete, whether by design flaws, fashion, or aggressive marketing. Disposability is traced back to paper: paper shirt fronts and cuffs for men, then sanitary napkins for women, beginning the "throwaway ethic" now so acceptable. "Thrift" became a bad word, and anti-fun.

Chapter 2 details the war between Ford and General Motors and "the practice of deliberately encouraging product obsolescence." Fleshed out with human stories of the men (yes, they were all men) involved, this chapter is truly fascinating and the only thing I wish had been included, as elsewhere in the book, were some pictures of the cars. Not being of a generation that can still remember the models in question, a little visualisation is helpful. But it's a small, personal quibble, and doesn't detract from the content. It is actually entertaining to read what Ford and Sloane of GM did: unable to push sales up (against the Tin Lizzy, noisy, uncomfortable but very reliable and made to last), GM began changing their design, nothing else - colour, style, upholstery, all things that made the Tin Lizzy look old and sad, and even older GM models now looked pitiful. While, in a later chapter on the 50s and 60s, a backlash against the absurd tailfins resulted in huge popularity of the foreign-made Volkswagen, whose ads emphasised its stability and lack of "superficial model changes."

The concept of "death dating" is studied - the idea of, say, a toaster of having a life span of only 3 years, after which it dies (deliberately), and the owner must buy a new model. Another chapter discusses the advent of radio and television, and the struggle for FM to exist at all, while chapter 8 gives some insight into the Cold War and the deliberate sabotage by American and Canadian companies of their products, knowing that the Soviets were going to steal them, since they couldn't afford to do all the research and invent anything themselves. This chapter is mostly a personal story about a Soviet double agent, and I admit I did get a bit lost amongst all the names, and couldn't help but wonder at the relevance of it all.

Chips play a big part in the story of planned obsolescence, and the final chapter on computers and mobile phones, while reiterating the main points of the introduction, includes some truly scary facts. Like:

1. "Cell phones built to last five years are now retired after only eighteen months of use."
2. There is not yet a ban in the United States that prohibits the export of e-waste to other, often less-developed countries like Bangladesh, where "unregulated facilities burn excess plastic waste around the clock, pumping PBDE and dioxin-laden fumes into the air. Despite respiratory disorders and skin diseases among the local residents, and despite transoceanic airborne contamination, these facilities are still considered valuable local businesses."
3. Nearly every mobile and laptop, pager and organiser, contains tantalum capacitors. Tantalum comes from refining colombo-tantalum ore, or coltan, found mostly in West Africa. Very few people are aware that the mining of coltan "produces economic devastation".

Slade makes some interesting points, notably about the lack of "technological literacy" existing today. "Only

a public that tries to understand the consequences of coltan mining can begin to make an informed choice about the global trade-offs associated with 'trading up' to a new and better cell phone."

There is more to this than the evils of advertising, Slade argues. There is the "mystery" of the consumer themselves. "Neophilias" are people who love new things, and can be divided into three groups - "pristinians", those who must sustain a pristine self-image by always having the newest thing; "trailblazing" or "technophiles", the ones who usually discover the latest "thing" and, though nerdy, spread the word and it catches on (remember when mobile phones were HUGE and really daggy? You wouldn't be caught dead with one); and "fashion fanatics", the majority or neophiles who can't stand wearing last seasons clothes or being out of the loop. With pressure amongst groups of friends, or at school, the need to own that latest gadget becomes the newer form of "keeping up with the Joneses."

While America is one of the worst offenders of disposability, waste and over-consumption, no one else is innocent either. But I respect my mum who would rather shell out a hundred dollars for a decent pair of leather shoes for her kids than twenty bucks for a pair of crappy vinyl sneakers that would have to be replaced three times a year. We had the same telly for about fifteen years, right up to the day it was no longer repairable - they don't tend to last that long anymore. If parents can resist their nagging kids, perhaps even keep them from watching commercial television, maybe a cycle can be broken? It is, after all, psychological, not a natural order of things.

It doesn't have to be this way: Slade reveals one example, "a hand-blown carbon-filament light bulb, made by Shelby Electric Company, that still illuminates the municipal fire hall in Livermore, California: it was originally switched on in 1901." So next time the bulb in the lounge room blows, again, and you get up on a chair to replace it, again, think of this, that the only reason it died is because it was designed that way, to keep you buying more.

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## **Tiffany says**

This was a good book, but seemed kind of short. I think I expected the author to focus a little bit more on companies purposely making their products die early, and how our waste impacts the environment and the world. Not that the book *\*doesn't\** talk about these things, I think I just expected Slade to drive the point a little bit harder, or have more chapters and more technologies discussed (which would drive the point home harder, too). And the penultimate chapter, "Weaponizing Planned Obsolescence," is the beginning of a really interesting story, but feels underdeveloped and more about spy games than about planned obsolescence. And I think that's what makes it feel underdeveloped -- it's not *\*obviously\** about obsolescence, since it focuses quite a bit on the Cold War and that type of thing, so it's almost like the author couldn't decide if the chapter should be fully developed into a Cold War/spy games story, or into a chapter about technology and obsolescence/planned obsolescence.

Still, a really good book and a good look at how technology changes and why people/companies upgrade their products.

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## **Anna says**

Once, a potential housemate I'd never met emailed me a cheery note introducing herself. She was 22, a



recent college graduate, she hoped to teach, and one of the three hobbies she listed was “going shopping.”

I laughed. It’s hilarious to me that shopping could in itself be an end. Imagining that people spend their free time by wandering around with no aim but to trade superfluous cash for objects they don’t need is both depressing and amusing.

But it’s only recently that I’ve started to let go of my self-righteousness and put my own consumer habits in context. I hate shopping—the trying on of clothes, the spending of money I don’t have, the whole mall culture. But Giles Slade’s latest book points me to the consumer web I nonetheless participate in, along with most others in the Western world.

Made to Break showcases the corporate strategy emerging from the 1920s that challenges the nation’s overproduction of goods by creating wants and needs in consumers. This book represents a phenomenal organization of a massive amount of information. With a staggering assortment of primary sources, Slade produces 281 pages that are clear, concise, and unite product histories that previously seemed, to me anyway, separate.

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## **Drew says**

This book provides an interesting (if at times predictable) look at how marketing and social phenomena affects our perception and expectation of consumer goods and their respective lifespans. While *Made to Break* is a thorough, well-documented cultural study, Slade’s use of historical anecdotes make it exceptionally easy to read. His descriptions of everyone from Henry Ford to Bill Gates bring the men (and women) who shaped our perception of obsolescence to life while giving new dimension to their motives. He also manages to simplify the more complex innovations (like the digital revolution) to emphasize their social and technological impact without overwhelming technical details.

I took off one star simply for Slade’s meandering pro-green tech agenda. While I agree that e-waste is an overlooked environmental concern, Slade’s occasional opining detracts from his objective credibility. The last chapter attempts to clarify the author’s concerns; however, his conclusion is too brief and haphazard to add anything meaningful. I would much rather leave the e-waste question to another book and keep *Made to Break*’s focus on history and culture. That said, up until the last chapter, the bulk of the book was quite enjoyable and informative.

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## **Brian says**

An interesting string of anecdotes surrounding twentieth century innovation, loosely orbiting an exploration on the development of planned obsolescence as an industrial norm. Throughout, the author has a habit of straying away from the thesis by delving into the minutiae of integrated circuitry and the political backdrop of the Cold War, winding the reader along on a circuitous narrative that ends with a weak call-to-action absent anything resembling suggestions for a way forward. The storytelling is (usually) interesting and the takeaways are succinct, but it certainly shouldn't have taken 330 pages (hopefully they're recyclable ones!) to get there.

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## **Damon says**

This is an uneven book, but a worthwhile read. It opens with a decent historical account of the modern history of planned obsolescence, but loses focus as it moves closer to the present. I suspect the problem is that the current situation has reached proportions that are beyond the scope of this ambitious but ultimately limited book.

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