

Chapter 1

The Attention Economy



1.1 The Information Society

According to legend, Abraham Lincoln was willing to walk several miles in order to borrow a book while growing up in Indiana during the early nineteenth century. “My best friend is the man who’ll get me a book I ain’t read,” young Lincoln is reported to have said.¹ Literature was scarce, difficult to access, and precious. Not only literature but information in general was hard to come by. Whether news from afar, new knowledge and insight, or simple entertainment, it usually took effort and came at considerable expense to get hold of information.

Just a few years ago, information was much more difficult to get hold of than it is today. Being well-informed depended on subscribing to a newspaper, heading out to buy one, or going to the library. Digitization and information technology have changed all this. Today, a smartphone is enough: access to any information of choice, let it be news, politics, or scientific results; literature, entertainment, or gossip; or endearing baby pictures or cute cat videos. Never before has so much information been so easily accessible.

¹Holleran, A. (2008): “Such a Rough Diamond of a Man,” *New York Times*, July 11, 2008. Verified June 27, 2018: <http://www.nytimes.com/2008/11/09/books/review/Holleran-t.html>

The hallmark of the information age is not that we are all in continuous pursuit of precious information hard to access, but the other way around: The information age offers so much information that drowning in it, or choking on it, is the risk. The vast offer of freely available information online has made the value of information drop steeply. People grown up with the Internet expect to get their information for free and refuse to pay for newspapers, books, or entertainment products. Not too many people would be willing to walk for miles to get hold of a book in this day and age.

1.2 The Price of Information

The easy access to overwhelming amounts of information, and the fact that often you don't have to pay money for it, doesn't mean that information comes for *free*; to receive information, we pay attention. You may have access to loads information, but in order to take it in, process it, and possibly act on it, you spend your attention on it. Project Gutenberg has made more than 53,000 books freely accessible online. If you read a book a day, it will take you 145 years to get through a library that size. If you prefer video, 400 h are uploaded to YouTube every minute. The challenge today is not to find something to read or information to pay attention to; it is to find the time to read or look at the material at your disposal.

With information in abundance comes an attention deficit. As early as 1971, Nobel Prize Laureate in economics Herbert Simon prophetically said about the information age to come:

...in an information-rich world, the wealth of information means a dearth of something else: a scarcity of whatever it is that information consumes. What information consumes is rather obvious: it consumes the attention of its recipients.²

²Simon (1971: pp. 40–41).

The fact that information consumes attention makes attention a valuable resource. The information taken in is the basis of our experience and knowledge and deliberation, decision, and action.

Attention is a curious resource compared to economical means since it is more equitably distributed. Surely, some people can concentrate longer and more intensively than others. All the same, there are only marginal differences in the amount of attention each of us can spend. Attention cannot be accumulated and saved like money for a rainy day. In our waking hours, we constantly spend our attention: We are always attentive to *something*. A common feature of both attention and money is that spending it on one thing excludes spending it on another.

1.3 The Scarcity of Attention

Philosopher and psychologist William James (1842–1910) has described attention in a famous quote from 1890:

[Attention] ...is the taking possession by the mind, in clear and vivid form, of one out of what seem several simultaneously possible objects or trains of thought It implies withdrawal from some things in order to deal effectively with others.³

In order to efficiently take in, process, and act on information, we need to focus on one thing at a time. This has been confirmed in recent cognitive research: Even if we may sometimes multitask and pay attention to several things at once, such as talking on the phone while cooking, it generally makes us slower and more prone to making mistakes. Quality wanes when we split our attention rather than focus on one single item or activity (Sternberg and Sternberg 2012) (Fig. 1.1).

³James, W. (1890): *The Principles of Psychology*, Chapter XI: Attention. *Classics in the History of Psychology*, Green, C.D. (ed.). Verified May 31, 2017: <http://psychclassics.yorku.ca/James/Principles/prin11.htm>



FIG. 1.1. Multitasking makes the quality of one’s attention wane, as witnessed in our reflexes and the scores of information absorbed.

Time becomes a decisive factor when attention really only may be paid to one thing at a time. But time itself is fixed and limited: No matter how much we try to get organized and optimize with to-do lists, there are only 24 h in a day. We have a limited attention capacity (Kahneman 1973). This produces an upper bound for how much each of us may pay attention to, and therefore how much information we can take in and process on a daily basis. This makes the *selection* of information and *allocation* of attention of crucial importance.

Economics has been described as the “study of the allocation by individuals and societies of scarce resources” (Samuelson and Nordhaus 2010). When attention is viewed as a scarce resource, it creates the basis for studying the information age as an *attention economy*.

1.4 Information Sources

In order to obtain information about matters beyond our immediate environment, the media is needed as vehicles and presenters of information. This allots a very central role to the news media. Information is to a large extent received via

channels created by the media. Therefore, the media's reliability as an information source is key to how well-informed, misinformed, or disinformed for that matter we are. If you do not pay attention to news or politics, but allocate your attention to entertainment, it should come as no surprise that you are hardly as informed about politics, as you would have been had you paid attention to it. And if attention is paid to unreliable sources and untrustworthy information, there is a greater risk of being deluded and duped. If attention is systematically spent on conspiratorial YouTube videos and political propaganda sites, no surprise either it invariably will color your perception of reality. A significant consumption of false claims, unconfirmed rumors "alternative facts," and fake news may cause you to lose your grip on the real world and relegate you to an alternative reality (Fig. 1.2).

When attention is consumed by information, information is the source of knowledge, and attention is a scarce resource, it is important to spend attention with care. This is easier said



FIG. 1.2. One-sided news diets may result in distorted ideas of reality.

than done. Many actors in the information market fight dirty to catch and harvest our attention.

1.5 The Market for Attention

Few people like being ignored, not seen nor heard by others. As individuals, we crave at least minimal dose of attention from other people and need it to thrive, both as children and adults. A lot of people just can't get enough, judging from the present-time celebrity and reality television culture. The pursuit of *fame* as reality star on TV or as a *micro celebrity* (or *micro influencer*) on social media may look like a pursuit of attention for the sake of attention itself (Marwick 2015) (Fig. 1.3).

Once in possession of people's attention, it may be transferred to others. If a stage performer points to one person in the audience, a large part of the audience's collective attention will be transferred from the performer to the happy fan. If you have people's attention, you can channel it to another person or product and monetize it. This is the principle in overt sponsorships and product placement alike. When the name of the firm goes on the player's T-shirt, or a media darling is paid to wear a brand visible to the cameras, the advertiser is purchasing into the audience's attention.

Marketing is intrinsically linked to attention harvesting. The aim of marketing is to influence *behavior*. Marketing is about persuading consumers into buying a certain product or voting for a specific candidate. No persuasion happens if no one is listening, reading or watching. Attention is the portal to people's minds and a necessary condition for all successful communication; from teaching and knowledge presentation to persuasion, seduction, and manipulation. This makes attention extremely valuable for everyone with something to sell. It is the main factor in all forms of marketing, branding, and advertising (Teixeira 2014).

Models of marketing qualify different levels of attention, ranging from no attention to partial attention (due to multi-

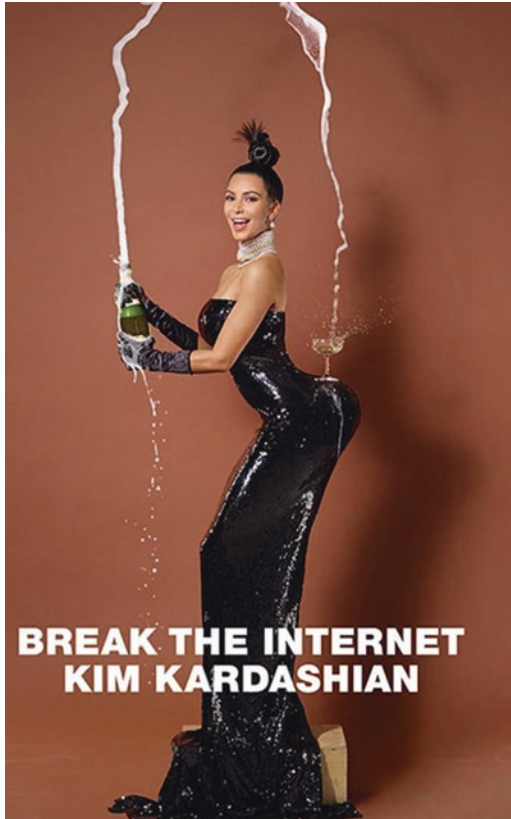


FIG. 1.3. Attention is pursued for its own sake, but may also be traded for sponsor and advertising revenue. Here is Kim Kardashian trying to “break the Internet,” a metaphor for harvesting enormous amounts of online attention. (Spedding, E. (2016): “The man behind Kim Kardashian’s Paper Magazine cover on how to break the Internet,” *The Telegraph*, June 18, 2016, verified June 6, 2017: <http://www.telegraph.co.uk/fashion/people/the-man-behind-kim-kardashians-paper-magazine-cover-on-how-to-br/>).

Optimize Video Advertising for Your Audience's Attention Level

Should you engage, persuade, or a little of both?

CONTEXT	ATTENTION LEVEL	ADVERTISING STRATEGY
CINEMA	Full attention	<i>Focus on persuasion: use mostly information</i>
TELEVISION MULTITASKING	Partial attention (mostly to ad screen)	<i>Balance both goals: entertainment and information</i>
MOBILE MULTITASKING	Partial attention (mostly to second screen)	<i>Compete for attention: entertain on one screen, inform on the other</i>
PEER-TO-PEER SHARING	Lack of attention	<i>Critical to gain attention: entertain to grab attention from few, inform over time</i>

SOURCE THALES TEIXEIRA

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FIG. 1.4. Strategies for catching or exploiting attention with a view to affecting behavior. (*Harvard Business Review* (2015), verified June 10, 2017: <https://hbr.org/2015/10/when-people-pay-attention-to-video-ads-and-why>).

tasking) to full attention (Fig. 1.4). The goal is to isolate the best marketing strategies given the attention already at the advertisers' disposal. If there is no attention, then attention needs to be seized; if there is only partial attention, it needs to be won over completely; and if someone's undivided attention is won over, it must be kept and used as efficiently as possible to persuade and affect behavior.

1.6 Attention Merchants

The intimate connection between attention, communication, and marketing forms the basis of an industry that Columbia Law School Professor Tim Wu has labelled *attention merchants* (Wu 2016). The basic business model is quite simple: harvest attention and resell it for marketing and advertising purposes.

Benjamin Day was the inventor of this business model and one of the brains behind the Penny Press in the 1830s. Back then, newspapers such as *The New York Times* and *The Wall Street Journal* cost six cents; they were luxury items for the

privileged few. In 1833, Benjamin Day launched *The New York Sun* at one cent a paper, dumping the price.

The news criteria were also dumped. The only criterion for the stories was how many papers they could sell. Sensational, dramatic, and juicy crime copy was also popular back then. Material was picked up on a daily basis from the police departments and the courts. Crime sold newspapers. Benjamin Day was no journalist; he was a businessman. His newspaper took tabloid to whole new levels in order to achieve readership—for example, running a successful series in 1835 reporting on a new “scientific” discovery of a race of bat people inhabiting the Moon. Flavor was added to the story with claims of the libertine and promiscuous lifestyle of the bat people. Fake news is *not* a new invention (Fig. 1.5).

When the sole criterion for success is to sell as many papers as possible, truth is of little or no consequence, and a lot of papers had to be sold to make the project fly. The



FIG. 1.5. Fake news from *The New York Sun* in 1835.

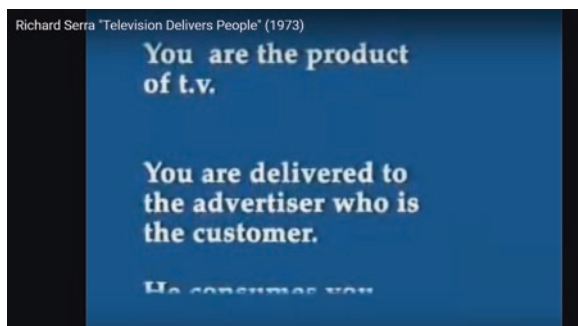


FIG. 1.6. Artist Richard Serra's minimalistic video work, "Television Delivers People," from 1973. (Richard Serra (1973): "TELEVISION DELIVERS PEOPLE," verified May 4, 2017: http://www2.nau.edu/~d-ctel/mediaPlayer/artPlayer/courses/ART300/pov1_ch1/transcript.htm).

papers were sold at less than the production costs. Selling a lot of papers in itself would have simply worsened the deficit. Indeed a bad business if the real customers were the readers paying a cent for the newspaper. In the attention merchant business model, however, the readers are actually the product sold to the real customers: the advertisers. The real customers for Benjamin Day were the companies who placed ads in *The New York Sun* to buy the attention of the readers.

The same business model is later being rehearsed on commercial TV competing for *eyeballs*. The viewers' attention is sold to the paying customers in the advertising industry. The industry in turn presents its messages and influences a broad public audience during commercial breaks. Ever more viewers, ever more attention is sold, and the higher the price for advertising seconds (Fig. 1.6).

From a business perspective, TV programs are merely means for selling what it is really all about, advertisements. The purpose of the programs on commercial TV is to make you watch more TV and stay on the channel. *Stay tuned.*

In the wake of the digital revolution, (business) history repeats itself. As the saying goes on online social networks

and platforms; if you are not paying for the product, you *are* the product. If you perceive services such as Google and Facebook as truly free of charge, you have misunderstood the business model and your own role in it. The main default business model online is the attention merchant. Media researcher Douglas Rushkoff points out:

Ask yourself who is paying for Facebook. Usually the people who are paying are the customers. Advertisers are the ones who are paying. If you don't know who the customer of the product you are using is, you don't know what the product is for. We are not the customers of Facebook, we are the product. Facebook is selling us to advertisers.⁴

The attention and data of the users are the items offered for sale to possibly third party. And similar to the casino, the more engagement by the users, the more social media stand to benefit. Like Robert de Niro says in *Casino* the movie: "In the casino, the cardinal rule is to keep them playing and keep them coming back. The longer they play, the more they lose. In the end, we get it all."

1.7 Data Collection

Corporations such as Facebook, Amazon, and Google collect enormous amounts of data about the online behavior of users. Together with masses of smaller players who also offer seemingly free products, not only do they sell user attention to advertising third parties; they sell a plethora of information about users. This goes for all the information shared when users fill out profiles, listing interests, age, gender, political affinity, relationship status, etc. Every piece of information given up has value when aggregated. This also applies to a heap of data constantly generated about our online behavior through cookies and other invisible tracking systems. Data

⁴Solon, O. (2011): "You are Facebook's product, not customer," *Wired*, September 21, 2011. Verified May 4, 2017: <http://www.wired.co.uk/article/doug-rushkoff-hello-etsy>

about everything, from searches and search patterns, visited pages, and engagement on social media to e-mail contacts and consumption patterns, are collected. Unless your phone came out of the ark, the same goes for your physical movements. If a child has a Hello Barbie doll, it collects and sends information back to the producer Mattel about what the child talks about, likes, and wishes for.⁵ The collected data may be traded in a flourishing market where information on users and citizens is a valuable asset. Online surveillance and resale of the information generated by the surveillance is a growing industry. Already in 2012, the American data broker industry generated revenues (\$156 billion) exceeding twice the amount the US government allocated to its whole intelligence budget.⁶

With data collection, online media and businesses have taken things a step further than earlier attention merchants. Not only do they sell the audience's attention; the collected information is used to target ads for each individual user so that the ads hits home pertaining to user needs, interests, and stances. In Facebook's own words:

We want our advertising to be as relevant and interesting as the other information you find on our Services. With this in mind, we use all of the information we have about you to show you relevant ads.⁷

In less unequivocal terms, users are being monitored to the end of making economic profit by selling information about users along with their attention to third parties. Corporations like Facebook and Google secure their profit by means of a

⁵Marr, B. (2016): "Barbie Wants To Chat With Your Child—But Is Big Data Listening In?"; *Forbes*, December 17, 2015. Verified June 12, 2017: <https://www.forbes.com/sites/bernardmarr/2015/12/17/barbie-wants-to-chat-with-your-child-but-is-big-data-listening-in/#2b31020a2978>

⁶Senator John D. Rockefeller IV (2013). "What Information Do Data Brokers Have on Consumers, and How Do They Use It?" December 18, 2013, Verified June 27, 2018: <https://www.gpo.gov/fdsys/pkg/CHRG-113shrg95838/pdf/CHRG-113shrg95838.pdf>

⁷Facebook Data Policy, verified 04.05.2017: <https://www.facebook.com/privacy/explanation>

business model that is based on surveillance (Taplin 2017). Surveillance provides information about the surveilled that may be (mis)used to persuade, trick, and manipulate more effectively.

1.8 Hit Them Where It Hurts

The amount of collected data combined with powerful computers make it possible to predict quite personal things that users otherwise would not share publicly. Even if you do not state your gender and age and where you live, all the other data points collected from your phone, your computers, your credit cards, etc. are enough for this basic information to be computed with accuracy. And this knowledge is worth a lot in marketing terms. It is much easier to persuade someone to do something or influence their behavior if you know them and know which buttons to push.

The company Target decided to compute whether women were pregnant, even if they had not given that information. That would be useful for marketing during the pregnancy: “We knew that if we could identify them in their second trimester, there’s a good chance we could capture them for years ...As soon as we get them buying diapers from us, they’re going to start buying everything else too.”⁸ Target succeeded in this profiling endeavor. About a year after the onset of this pregnancy-targeted marketing campaign, a father turned up in one of the stores, upset that his 17-year-old daughter had received a pregnancy-related advertising e-mail. When the store manager spoke to the father over the phone later, it was the father who apologized; his daughter *was* actually pregnant.⁹ It doesn’t stop with pregnancy predictions. Big data’s power of prediction may also establish your

⁸Duhigg, C. (2016): “How Companies Learn Your Secrets,” *New York Times*, February 16, 2016. Verified June 12, 2017: http://www.nytimes.com/2012/02/19/magazine/shopping-habits.html?pagewanted=all&_r=1

⁹Ibid.

political views, religious beliefs, sexual orientation, and other very private, personal, but very useful information.

These data may be used for other purposes than showing you “relevant” advertising, as Facebook so nicely puts it. The information may be abused in aggressive predatory advertising, where people stuck between a rock and a hard place are targeted right where they hurt the most. Cathy O’Neil, Ph.D. in Mathematics at Harvard University, activist, and author of the book *Weapons of Math Destruction* (2016), points out that if someone is in possession of people’s zip codes, demographics, habits, interests, and consumer preferences, they may use this information to effectively target ads specifically to people under social and economic pressure. If you have trouble making ends meet, you get fast and furious offers of payday loans at extremely high interest rates. If you are stuck in a steady job with little chance of climbing the career ladder, you are offered courses at expensive universities. The idea behind predatory advertising is:

... to localize the most vulnerable persons and use their private information against them. This involves figuring out where they hurt the most, their so-called pain point.¹⁰

Vulnerable people are subjected to “false or overpriced promises”¹¹ by leveraging their weak points. It is documented that data brokers have sold lists consisting of possible “targets” for predatory advertising of snake oil or worse that include rape survivors, addresses of Domestic Violence Shelters, senior citizens suffering from dementia, HIV/AIDS sufferers, people with diseases and prescriptions taken (including cancer and mental illness), and people with addictive behaviors and alcohol, gambling, and drug addictions.¹²

¹⁰ O’Neil (2016: pp. 72–73).

¹¹ Ibid. p. 70.

¹² Report to the General Assembly of the Data Broker Working Group issued pursuant to Act 66 of 2017, december 15, 2017, verified 29.06.2018: <http://ago.vermont.gov/wp-content/uploads/2018/02/2017-12-15-Data-Broker-Working-Group-Report.pdf>

Data-borne precision marketing is also exploited in political campaigns and ads. If you know the voters' profiles, it is much easier to persuade, seduce, or manipulate them and hence influence which candidate they vote for or if need be make them stay at home on election day. With the right data, you may be able to modify behavior and maybe even influence election results.

Money may buy you both the attention of voters and the information needed to influence their behavior in the desired direction. Barack Obama's campaign did it as early as 2008, when digital micromarketing became a big thing in American politics. Over a billion targeted e-mails were sent, particularly to young people and members of minorities in order to mobilize them to vote for the first time and vote for Obama.¹³ Targeted political micromarketing reached a new level and took a dark turn in the Brexit referendum in the UK and in the 2016 Presidential Election in the USA. Both Leave.EU and Trump's campaign hired the firm Cambridge Analytica, which marketed itself as "using data to change audience behavior" in both commercial and political advertising.¹⁴ When the *Facebook-Cambridge Analytica Data Scandal* broke recently, it came forth that Cambridge Analytica in 2014 started scraping personally identifiable information of up to 87 million Facebook users without their knowledge or consent.¹⁵ The numbers are possibly even higher. With sufficient data about the electorate, it is possible better to manage it emotionally praying on pain points. This may be put to shady use as part of a "voter disengagement" tactic to demobilize the opponent's supposed supporters, so they do not

¹³Nisbet, M. (2012): "Obama 2012: The Most Micro-Targeted Campaign in History?"; *Big Think* April 30, 2012. Verified June 24, 2017: <http://big-think.com/age-of-engagement/obama-2012-the-most-micro-targeted-campaign-in-history>

¹⁴*Cambridge Analytica*, verified June 10, 2017: <https://cambridgeanalytica.org/>

¹⁵"The Cambridge Analytica Files," *The Guardian*, 2018. Verified, June 13, 2018: <https://www.theguardian.com/news/series/cambridge-analytica-files>

vote at all. This tactic is reported to have been employed in the American presidential election to discourage African-Americans to vote for Hillary Clinton.¹⁶ Another tactic is to fuel anger and tensions, divisions, and conflict to the benefit of one's client. This method seems to have been employed in Kenya, where a lot of extremely divisive political messaging and targeted misinformation packages were observed during the 2017 election. Opening Pandora's box of political targeted micromarketing leveraging pain points may not only be damaging to the civility of democratic deliberation and participation. It may pose a danger to peace and stability. As Lucy Pardon, Privacy International Policy Officer, notes:

The potential data-gathering could be extremely intrusive, including sensitive personal data such as a person's ethnicity. In a country like Kenya, where there is history of ethnic tensions resulting in political violence, campaigning based on data analytics and profiling is untested ground fraught with great risk.¹⁷

Many developing countries and emerging economies are at least as sensitive as the USA and UK to data misuse, misinformation, and fake news operations. At the same time, and at rapid pace, these new territories have caught the eye of the attention merchants and their entourage of big data analytics and demographic profiling to potentially hit the developing countries where it really hurts: on political self-determination.

There are dismal and even dystopian prospects in an attention and data economy where companies collect and appropriate personal information, commodify users into products,

¹⁶Burns, J. (2018). "Whistleblower: Bannon Sought To Suppress Black Voters With Cambridge Analytica," *Forbes*, May 19, 2018, verified 29.06.2018: <https://www.forbes.com/sites/janetwburns/2018/05/19/cambridge-analytica-whistleblower-bannon-sought-to-suppress-black-voters/#61a56d707a95>

¹⁷Mirello, N., Gilbert, D., and Steers, J. (2018). "Kenyans Face a Fake News Epidemic," *VICE*, May 22, 2018. Verified June 13, 2018: https://news.vice.com/en_us/article/43bdpm/kenyans-face-a-fake-news-epidemic-they-want-to-know-just-how-much-cambridge-analytica-and-facebook-are-to-blame

and employ the gathered information against the very users to efficiently manipulate and influence behavior (see Chap. 7).

There is a lot of money in politics. The bulk of the campaign gold is spent on buying attention and influence on radio, TV, and the Internet. However, precious attention may come for free. The attention politicians are able to secure through exposure and time allotted to speaking, making headlines and set the agenda on the mass media's news coverage come without charge.

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