Don’t mind me while I drive through your neighborhood taking photo’s of your house, gathering your emails, passwords and other private information from your wifi network. It’s nothing personal, I’m doing it to everyone, in every street, in over 30 countries. Perhaps you can also excuse me while I give access to data you and your friends shared with me and each other, to individuals and companies I have no relation to or control over at all, and while leaking your data, again it’s nothing personal, I’m doing it to 87 million others, you probably won’t mind me showing you and 126 million others some political disinformation, there’s an election coming and I could really use the money. It’s not as if we don’t know each other, I’ve been following your every move online for years now, and it’s no secret that I’m worth hundreds of billions because I sell access to you, promising my customers influence over your voting and purchasing behavior. I’ve got power. Monopolies are rare lol. If all this makes you uncomfortable, you can always cut ties with me and everyone you work and communicate online with, but what would that solve? Your friends are totally oversharing...

Enough with the anthropomorphism. Why aren’t there stronger regulations protecting our privacy, our democracy? Seemingly off topic but very similar: why aren’t there stricter regulations protecting us from anthropogenic climate change? In an attempt to find answers to these questions, I’ve been looking into strategies used by different industries to delay regulation: democratic intervention in the private market in order to protect citizens and the world on which their lives rely. I identified several key disinformation campaigns aimed at influencing public opinion and delaying regulation, described in Oreskes and Conway’s Merchants of Doubt, Hamilton’s Requiem for a Species, and the Oxford Handbook of Climate Change. To avoid having to rely on secondary sources, I collected documents bearing witness to these strategies, from online databases such as the Industry Documents Library. I’ll describe the three industry strategies I found most striking, and show you how they were translated into the game called What Remains, which
aims to make the fight against industry disinformation tangible through something artist Angela Washko refers to as **tactical embodiment**.

Still from What remains, “Title Screen”. Hoorn: Iodine Dynamics. *What remains* is an 8-bit game for the original 1985 Nintendo Entertainment System (NES), a 30 year old device repurposed for creative expression, a symbol of that time’s influence on the present. The game was developed by Arnaud Guillon, Chun Lee, Dustin Long, Aymeric Mansoux and myself. We chose to use the NES, a medium originally intended for entertainment, to address a complex topic with an audience outside the white cube and academia. The game blends visual novel and adventure elements into an epic quest to save the world. The game’s story is set in the 80s, the decade in which many of the problems we face today became painfully apparent.

*The collateral damage of industrial capitalism – acid rain, the hole in the ozone layer, global warming – became visible at the same time as the rise of neoliberalism with its push for deregulation.*

The game is released on original, recycled cartridges as well as online as a freely downloadable ROM playable on any NES emulator. It was released on September 27, 2018.

Jennifer, the game’s female protagonist, stumbles upon a NES cartridge which contains encrypted documents. She and her best friend Michael start to unravel a conspiracy threatening the whole planet by decoding the documents, and start spreading news about the information they discover. The game allows the player to actively engage with the topic of disinformation instead of merely reading about it. This approach was inspired by research using a game to inoculate people against fake news. This pilot study used a multi-player game that invited players to actively create a misleading news article. Although exploratory, the study found that through exposure to, and active engagement with, small amounts of misinformation, participants’ ability to recognize and resist fake news and propaganda improved.
Before delving into the strategies, I would like to briefly describe the attempts at creating legislation since 2016, the year in which the political impact of online advertising platforms finally hit Europe and the US. The European Commission asked online advertisers to self-regulate. The GDPR took effect but the EU is still waiting for the ePrivacy regulation, complementing the GDPR with rules covering tracking technologies, profiling and behavioral advertising. While this regulation has been delayed by fanatic lobbying and the reluctance of the Austrian presidency of the EU Council to make this a priority, the US has seen several congressional hearings, yet is still waiting for improved data protection laws, greater transparency in online advertisements and stricter enactment of anti-trust laws. Examples of the industry’s harmful effects are rapidly piling up, the Russian interference in the 2016 US presidential elections, the Facebook and Cambridge Analytica scandal and the incitement of hate against the Rohingya on Facebook to name but a few. At the time of writing, pivotal elections are nearing, including the 2020 US presidential elections. How has the tech industry succeeded in delaying regulation so far?
The different ways in which regulation can be delayed have not been invented by the tech or oil industry in recent years, there are many tried and tested strategies that were developed decades ago. The tobacco industry is the most famous example, denying the link between smoking and lung cancer, even though research in the thirties already showed this link and their own documents demonstrate they knew as early as 1953. Their campaign to fight facts was so successful that it wasn’t until 2009 that US Congress granted the FDA the right to regulate tobacco as an addictive drug. An impressive 56 years of postponed regulation. To better understand the origins of the strategies used in delaying regulation today, let’s look at some strategies used in the 80s – the decade in which conservative’s anti-communism was replaced by anti-environmentalism, and Ronald Reagan and Margaret Thatcher promised to get the government off the back of the private sector, while creating an ideological link between an unregulated market and the personal freedom of citizens

#1 CONTROLLING THE NARRATIVE

The first strategy used to delay regulation is the aggressive distribution of a self-constructed narrative. The most striking example of this strategy in the 1980s is the use of PR agency Katzenstein Associates by both the Edison Electric Institute
(EEI) and the Tobacco Institute. EEI published an advertisement in the Washington Post in 1982 called: “Acid rain, the real issue is whether you have all the facts”. The ad contained a coupon to order the booklet “An Updated Perspective on Acid Rain” written by Alan Katzenstein. The booklet contained falsehoods such as acid rain having a fertilizing effect and an explanation of pH values explaining that acidity is not all harmful, since tomatoes and carrots are acidic as well: “all have pH values well in the range of the rain that is the subject of scare headlines in the popular media”. In 1987 Katzenstein wrote “Environmental Tobacco Smoke and Risk of Lung Cancer, how convincing is the evidence?” for the Tobacco Institute. He went on a media tour that year, giving 62 TV, radio and newspaper interviews in which he was presented as an air quality expert.
Acid rain implies danger. It's become an issue clouded by confusion, misguided blame and misplaced hope. Undoubtedly, that's because most people have been inundated with one-sided stories that acid rain is strictly a man-made problem which threatens our environment.

Right now, on the basis of incomplete and often frightening reports, people are proposing that legislation be enacted and drastic steps be taken to stop what they believe to be the cause of acid rain.

**What is causing acid rain?**

While it's easy to draw conclusions from the circumstantial evidence, new facts and new interpretations are shaping a better understanding of acid rain and acidity in the environment.

We believe it is virtually impossible to enact sensible legislation until these, and all the facts, are considered.

**Information, free discussion, before legislation.**

We want you to know all the facts, scientific, environmental and economic, as well as what can be done and what is being done about this highly complex and controversial issue. So we've put together a booklet entitled "An Updated Perspective on Acid Rain."

**Call 800-526-7443, Ext. 333 for a free updated fact book.**

For your free copy, call toll free 800-526-7443, Ext. 333.

(In N.J., 800-522-4503, Ext. 333.)

Or return the coupon below.

Do it now. Because acid rain is too important an issue to make a decision about without having all the facts.

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I want the facts. Please send me "An Updated Perspective on Acid Rain."

Name ____________________________

Address ____________________________

City ____________________________ State ______ Zip ______

Send to: Acid Rain Facts, P.O. Box 5004, Clifton, New Jersey 07015.
Acid rain, the real issue is whether you have all the facts. Available at: http://polluterwatch.com/coal-ads-archive. [Accessed: 16-10-2018]

Compared to this, the online advertising industry has it easy; it owns the channels that inform more and more people. Even though news consumption via Facebook is on the decline, news consumption via messaging apps is rising. To capitalize on this, Facebook has announced it intends to merge Facebook Messenger, Instagram and WhatsApp under the guise of improved privacy, yet plans to build functionality on top such as … advertising. The online advertising industry has carefully constructed a narrative using a very fluid identity and can use its own channels to distribute it. Its business model relies on this fluidity, and uses two distinct identities: online advertising platform when facing businesses and social media or search engine when addressing users.

When facing public scrutiny, more identities surface. During the 2nd day of the US congressional hearings with Marc Zuckerberg in April 2018, Senator Dan Sullivan asked Mr. Zuckerberg whether he thinks Facebook is the world’s biggest publisher or a tech company given that Facebook takes full responsibility for published content. If it is considered a neutral tech platform, it has legal immunity under Section 230 of the Communications Decency Act in the US. In a court case by Six4Three against Facebook on the other hand, Facebook claimed that it is a publisher for first amendment purposes, free to censor and alter the content it publishes. So which one is it?

The online advertising industry has a very fluid identity and uses this to remain unaccountable for the effects of its business model.
Still from What remains, “The newspaper is owned by DNYcorp?”. Hoorn: Iodine Dynamics.

In the game, you learn about Alan Kittenstein of the PR agency Kittenstein and Associates. He has been hired by DNYcorp whose energy branch is worried about acid rain causing panic among the public. You also discover that the local newspaper, the Sunny Peaks Gazette, is owned by Fred Robafeller, who owns 80% of DNYCorp, the corporation wreaking havoc on the environment in your hometown. You gain the ability to spread the information you received by literally blowing the whistle. When you do, you inform other characters in the game of what you have just learned, with each responding differently to your news. Some are convinced, others accuse you of being a doom-crying opponent of all progress.

This stage of the game is won by winning the trust of a group of people that run a pirate radio station who let you broadcast a story about the economic interests and corporate entanglements of the Sunny Peaks Gazette. Should DNYCorp’s strategy fail, what else can they do to stay unregulated?
The second strategy is to make it seem as if an industry is fighting for and with the people. This can be achieved by systematically confounding individual freedom with corporate freedom, after which front groups and astroturfing are used to protect the freedom to not be taxed or regulated. Citizens for a Sound Economy (CSE), an anti-tax think tank dedicated to promoting free market economics, was co-founded in 1984 by David Koch, of Koch Industries, and Richard Fink. Although it profiled itself as a grassroots movement, with the slogan: “Americans fighting for lower taxes, less government and more freedom”, it was funded by the tobacco, oil, energy and sugar industries. CSE split into Americans For Prosperity and FreedomWorks in 2004. In 2002 CSE launched the Tea Party website. The Tea Party is a grass roots uprising for freedom, choice, lower taxes and less government regulation, a mobilization of well-meaning, concerned citizens who thought they were fighting elite power, yet the protests were orchestrated by that same elite. The Tea Party turned out to be astroturf, hiding its sponsors until 2012 when internal FreedomWorks documents leaked.

A similar approach was used four years after the founding of CSE, with a much more profound impact. In 1988 Citizens United was founded, again profiling as a
grassroots conservative political advocacy group “dedicated to restoring our government to citizens’ control”, acting as a group of concerned citizens, but funded by among others the Koch brothers. What started in the 1980s, led to the 2010 Citizens United case against the FEC, resulting in the ruling that the free speech clause in the first amendment prohibits the government from restricting expenditures for political communications by among others corporations and non-profits. This made it possible for the now famous super PACs, and billionaire donors, such as the Koch and Mercer families, to have massive influence on politics. Citizens United’s focus on free speech and appealing to protecting individual freedom in order to defend a corporate agenda is echoed by the campaigns of the online advertising industry to delay regulation.


Online advertisers appear to be fighting for free speech. In this fight they choose to ignore the right to privacy and the right to equality and freedom from discrimination. These rights are there to protect people when free speech is used to incite hate and violence against them. During the October 2017 US congressional hearings, Randal Rothenberg, CEO of the Interactive Advertisement Bureau, a lobby group which includes all major online advertisers, while pitching self-regulation against the proposed Honest Ads Act, said: “robust political speech – no matter who is paying for it, no matter how controversial it is, no matter who may be offering it – is the essence of American democracy, and must not be stifled”.

Individuals’ freedom of expression is not what is at stake here though; it is accountability for an industry’s impact on society.
This problem cannot be fixed focusing only on the user-facing side of these platforms, for instance with regulation aimed at increasing transparency in online advertising, while the business model – creating a monopoly, making people and smaller businesses dependent on services that are meant to harvest behavioral data used for psychological profiling and exerting unconscious influence and putting this influence on the market – is the problem.


Inspired by the Koch brothers’ efforts to bootstrap the Tea Party protests, the elections for a new mayor for Sunny Peaks in the game are hit by an anti-tax, pro-freedom, astroturf campaign organized by DNYcorp to get the industry-friendly mayor John Donson elected. You receive information about the scheme and need to convince as many people as possible not to fall for it. You try talking to them about the evidence you have uncovered, but the campaign uses slander against you. You have lost trust. Discrediting news sources, individual journalists and politicians, has always been a very effective strategy, it disqualifies the content of any message made public because it is the very source itself that is untrustworthy. Even though you have evidence, you cannot win this battle. Only after uncovering a plan by DNYcorp that threatens the whole world, publishing your discoveries via independent press, radio and television, and infiltrating the secret headquarters of DNYcorp are you able to stop the spread of false information. DNYcorp defends itself with one last strategy.
The last strategy is all about distracting the public’s attention by putting forward research that invalidates a concern or points to something even more concerning that is unrelated to the industry in question. This strategy has three steps. First the focus is entirely placed on a larger problem than the one a particular industry causes. During the 1980s the Cold War was still used as a distraction to push through policies that were a direct threat to public safety, such as the Strategic Defense Initiative (SDI), Reagan’s thankfully never realized plan to protect the US against Soviet nuclear missiles with a laser defense shield in space. The lobby campaign in defense of SDI turned into a full-fledged attack on science, as exemplified by Russel Seitz’s 1986 paper *In from the Cold: Nuclear Winter Melts Down*. In the paper the author completely dismisses the 1983 paper *Nuclear Winter: Global Consequences of Multiple Nuclear Explosions*, as a politicization of science.

After the 80s environmentalism, and more recently terrorism and other foreign threats, were used to distract the public. Focusing on fighting symptoms in order to distract the attention from causes also works wonders. A fine example is the 1986 paper *Hysteria about Acid Rain* published in Fortune magazine, that mentions bird
droppings having more impact on soil acidification than industrial sulfur dioxide emissions. Step two of the strategy consists of offering a technological solution to the problem, if not now, then surely future innovation will bring solace. Step three is there in case step one and two fail: you stress how people can adapt to the problem you caused, with migration as the ultimate solution. “Not only have people moved, but they have taken with them their horses, dogs, children, technologies, crops, livestock, and hobbies. It is extraordinary how adaptable people can be in moving to drastically different climates”, reads the first chapter of *Changing Climate*, a 1983 report written by the Carbon Dioxide Assessment Committee, chaired by William Nierenberg. The report was later used to dismiss two reports on global warming by the EPA that urged for immediate reduction of coal use. One year later Nierenberg would repeat this strategy, reviewing the research on acid rain.
In *Trashing the Planet* (1990) Dixie Lee Ray, a zoologist who wrote her PhD thesis on the nervous system of a type of lanternfish, also former chair of the Atomic Energy Commission, tries to “unmask the doom-crying opponents of all progress”. She distracts the attention from anthropogenic causes of the hole in the ozone layer and echoes Fred Singer’s 1989 false claim that volcanic eruptions inject hydrochloric acid into the stratosphere, that it is unsure where stratospheric chloride comes from and whether humans have an effect on it. According to a review of the book in *The Florida Green* “the book is loaded with factual information refuting every eco-crisis you’ve come to love over the years”. Even though the book was full of unsubstantiated claims it sold well and was turned into the 1993 bestseller *Environmental Overkill: Whatever Happened to Common Sense?* The book was closely related to two right-wing think tanks, the Heritage Foundation and the Competitive Enterprise Institute, both active in denying climate science and is an example of how after the fall of the Berlin wall in 1989 the red menace of communism had been replaced by the green scare of environmentalism.

The Rio Earth Summit in 1992 was the outcome of rising environmental concerns and a growing body of scientific research showing environmental decline, challenging the conservative worldview. Dixie Lee Ray attended the Summit, where she expressed her concerns regarding the socialist agenda of the UN officials sponsoring the event. Anti-environmentalism as the new anti-communism can still be found in climate science denial propaganda such as the 2012 book *Watermelons: How Environmentalists are Killing the Planet, Destroying the Economy and Stealing Your Children’s Future*, by James Delingpole, executive editor for the London branch of the *Breitbart News* Network.

*Watermelon* is in this case a pejorative term for climate activists and scientists, to show what they are really up to: conspiring against big business and the free market: green on the outside, red on the inside.

To draw attention away from the problems caused by their business model, the testimonies during the November 2017 Twitter, Facebook and Google hearings focused on the foreign threat, the assault on democracy. Facebook’s Colin Stretch stated: “Our country now faces a new type of national cyber-security threat – one that will require a new level of investment and cooperation across our society”. Twitter’s testimony mentions its untimely “focused, retrospective review of malicious Russian activity”. Google too is “deeply concerned about attempts to undermine democratic elections.” Foreign interference is not new though, neither is the domestic manipulation of political discourse, what is new is the infrastructure put in place by online advertising platforms greatly facilitating this interference. Step two of the strategy, the technological solution, is found in AI and
machine learning. We can breathe easy while Twitter makes efforts “to invest even further in machine-learning capabilities”, Google will “continue to expand [their] use of cutting-edge technology to protect [their] users” and two years after the elections, Mr. Zuckerberg testifies Facebook has built “more advanced AI tools to remove fake accounts more generally”. Will he respond as swiftly after the 2020 elections? Step three, where people adapt to the problem, is rather ironic – we are told we need to educate ourselves and learn to detect when we are subconsciously manipulated. Jean Edgett states: “Enhancing media literacy is critical to ensuring that voters can discern which sources of information have integrity and which may be suspect”.

Still from What remains, “They are going to geoengineer a cooling blanket of soot and dust particles...”. Hoorn: Iodine Dynamics.

In the game DNYcorp is distracting people with an epic yet fake alien invasion. The solution they propose is to attack the aliens with nuclear weapons. This will, not coincidentally, generate a nuclear winter, cooling the earth, neutralizing the effects of global warming so people can continue to burn the fossil fuels offered by DNYCorp. The company proposes a technical solution – geoengineering – using the theory of nuclear winter, while simultaneously distracting from the cause of the problem. This part of the game is based on the same paper Russell Seitz attacked to defend Reagan’s SDI. The TTAPS paper, named after its authors, drew attention to the second order effects of a nuclear attack, the dramatic drop in Earth’s surface
temperature for a period of weeks to months due to atmospheric dust, causing crop failure. The initial study’s predictions turned out a bit too extreme, but after two years of research it was clear that the atmospheric effects of nuclear war would be a serious threat that needed to be considered when deciding on defense strategies. The infrastructure put in place to promote the SDI and discredit this paper is now used to undermine effective action against global warming.

WHAT IS AT STAKE

We have seen three strategies used by industries to delay regulations that could harm their business, and how they have been translated into a game that lets players discover and resist them. The game lets players fight for independent media, destroying the carefully constructed narrative of a harmful industry. It lets you discover an astroturf campaign aimed at getting an industry-friendly politician elected, and lets you experience how protesters’ anger against the 1% is used against them, and how powerless you are in the face of slander. The game has an epic ending involving an ambitious attempt at distracting the public with an alien invasion. The game takes place in a pre-internet era yet the strategies used to influence public opinion and delay industry regulation have not evolved that much. The infrastructure used to carry out those strategies has though, and this has made wielding influence much easier.

The mission statements of the online advertising industry during the 2017 congressional hearings were awe inspiring: Google wanted “to organize the world’s information and make it universally accessible and useful”, Twitter aimed “to foster and facilitate free and open democratic debate and promote positive change in the world” and Facebook wanted “to create technology that gives people the power to build community and bring the world closer together”. Those missions address a strong and empowered user, and make Google, Facebook and Twitter come across as downright philanthropic. Yet those statements stay silent about their business-facing side, which addresses another type of user: irrational and easy to manipulate. This carefully constructed narrative, in which online advertising platforms are framed as promoting democracy and free speech while simultaneously performing mass surveillance, gathering an unprecedented amount of personal information on individuals and offering micro-targeted advertising to whoever pays without legal oversight, uses a fluid identity to stave off public scrutiny.
The Dr. Jekyll and Mr. Hyde of the online advertisement industry. Courtesy of the author.

During the 2017 hearings of Facebook, Google and Twitter, distraction ruled – the emphasis was on fighting a foreign threat. AI and machine learning were brought forward as a big part of the solution to battle this evil, next to the public needing to educate itself so they know when they are being manipulated. People are asked to adapt while platforms steer clear of responsibility. Yet as David Carroll, the US professor that sued Cambridge Analytica to obtain access to his information in the UK, said in an interview with the Guardian, in response to a data leak by Google potentially affecting 500,000 accounts: “Google is right to be concerned and the shutdown of Google+ shows how disposable things really are in the face of accountability.”

For a democracy to work, we need informed, not misinformed citizens, who understand what is at stake in decision-making processes. For that we need both access to trustworthy sources of information and trust in the capacity of people to inform themselves. It is important to continue to negotiate a balance between freedom of expression and freedom from discrimination, a recurring theme in political theory since World War II, with the right to privacy as a solid and unquestionable base. It is best not to leave finding this balance, an approach to the tolerance paradox, to publicly traded online advertising platforms. The financial stakes in these platforms will not prove helpful.
What remains is a game that explores these issues and lets you experience the different parallels between disinformation campaigns in the 1980s and today through the lens of a game console from that decade.

Marloes de Valk (NL) is a software artist and writer in the post-despair stage of coping with the threat of global warming and being spied on by the devices surrounding her. Surprised by the obsessive dedication with which we, even post-Snowden, share intimate details about ourselves to an often not too clearly defined group of others, astounded by the deafening noise we generate while socializing with the technology around us, she is looking to better understand why.

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