The Disinformation Dozen and Media Misinformation on Science and Vaccinations

By

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The COVID-19 pandemic has shed a light on the need for people to trust in medical
science. With the need for 70% of Americans to be vaccinated to achieve herd immunity but
30% have reported vaccine hesitancy, now more than ever do we need to redouble our efforts to
ensure that people are adhering to medical advice. Yet dangerous misinformation posited by anti-
vaxxers, anti-maskers, and conspiracy theorists jeopardize this goal. The Center for Countering
Digital Hate online has found that 65% of the misinformation posted on social media sites like
Facebook, Twitter, or Instagram, are from just 12 individuals. These 12 individuals have been
referred to as the “disinformation dozen” for their role in spreading misinformation.

Members of the disinformation dozen such as Ty and Charlene Bollinger turn their
misinformation into money. They have created "The Truth About Cancer" organization and
specialize in creating sample YouTube videos and documentaries for the products that they sell.
They paint themselves as a caring middle-class family and post extensively to reach out to
potential customers.

Another member of the disinformation dozen, Robert F. Kennedy Jr., reveals the more
sophisticated side of misinformation specialists. He has a prestigious background as an
environmental litigator and legal specialist. Additionally, he is the nephew of former president
John F. Kennedy. He has leveraged his fame and background to create the "Children's Health
Defense" which specializes in framing misinformation in a professional manner.

Kevin Jenkins was once known as a respected leader within the African American
community, but now leads the notorious Facebook group "Right to Travel Alliance." He was
radicalized when anti-vaxxers reached out to him and the African community, finding great
success due to the mistrust that African Americans have of the medical establishment. The
Tuskegee trials and current problems with accurately treated African Americans contributed to a
prior schism of trust that has led to his becoming a member of the disinformation dozen.

Therefore, it should be understood that misinformation is not being provided by a few
amateurs or only appreciated by the most gullible or naive. The disinformation dozen reveals a
collaborative effort between business conmen, lawyers, and public leaders. If not addressed
swiftly and accurately, the spread of misinformation could cause irreversible harm to the trust
between the public and the medical institutions we need to rely on now more than ever.

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Introduction

Disentangling science from political influence within the modern age has become an increasingly arduous task. The basic fundamentals necessary for understanding the key social-political problems afflicting our society are coming under scrutiny as a sub-group of people are increasingly forming an opposition to objective and well-established scientific facts. Yet if people are drawing away from science then what alternatives are they being drawn towards? It may seem obvious to believe that those who are anti-science do not rely on sets of established facts or require any reasons of their own. On the contrary, the history of anti-science radical groups and conspiracists reveals that alternative facts are created when scientific facts are erased. Anti-science individuals who are unwilling to accept the casualties caused by COVID-19, for example, are believing instead that the reports are either lies perpetrated by government officials or caused by other sources such as vaccines. A Facebook video posted February 7, 2021, reads with the caption: “Many Dying in Israel Following the Experimental Pfizer COVID mRNA Injections,” where the video shows a man in professional dress describing “hidden connections” with those dying of COVID-19 to the vaccine (Foord 2021). Initially attempting to view the video will result in a “False Information” warning appearing by independent fact-checkers (Reuters 2021). Following the link to the article Reuters has outlined in the video, it is explained that the aforementioned claim is false. The data was taken from an unofficial and independently made aggregator that used Facebook testimonies from family and friends of the deceased, and at times news reports, to construct a list of deceased people in Israel who have taken a vaccine. This list fails to prove, however, that the vaccines were the cause of the individual's death or were even connected in any way (“Fact Check: No Evidence That the Vaccine for COVID-19 Caused Fatalities in Israel.” 2021). Looking further into the comment section, however, reveals no discussion on the fact-checking article, but Lindsay Foord posting another link to a website,
The author of this linked article, Bryan Fischer, writes in an opinion piece titled “Opinion: Fauci Knew About HCQ In 2005 – Nobody Needed To Die,” that if Dr. Anthony Fauci had listened to then-president Donald Trump and employed hydroxychloroquine as a cure then “maybe nobody would have died,” or the world economy could have avoided the “complete shutdown of the greatest economic engine in world history” (Fischer 2020). He additionally brings up partisanship tensions when he claims that due to the banning of hydroxychloroquine by Governor Andrew Cuomo and “the Democrat governors of Nevada and Michigan,” that “by March 28 the whole country was under incarceration-in-place fatwas, and at one point the Bryan Fischer attempts to paraphrase the words of Jesus Christ in claiming that “it’s not the symptom-free who need HCQ but the sick,” to push the idea that anyone showing relevant symptoms of COVID-19 should be given hydroxychloroquine (Fischer 2020). The publisher of this article, The Northwest Connection, makes the claim that they are “A Community Newspaper for the way we live,” before appending the article with a disclaimer that the views discussed “do not necessarily reflect the views of the Northwest Connection, American Family Association or American Family Radio” (Fischer 2020). Another user responded to this article link in the comments: “hopefully when Fauci appears before human rights court, this will be evidence against him!” As of March 31, 2021, this video and its multiple links has garnered 151 reactions and 51 comments, many of which are focused on sharing or spreading similar articles or videos (Foord 2021).

Examples as seen here show how people can become more and more radicalized. The pandemic has introduced unprecedented amounts of stress and duress, and while the hope is that
people will respond to stressors rationally, there is great potential for people to panic and jump to conclusions they normally wouldn’t. When there are inflammatory media headlines, conflicting opinions from friends and family, and contradictory messages online, people can become misinformed in their efforts to understand problems that require rational scientific reasoning (Ng and Kemp 2020). This is compounded by the algorithms and mass-proliferation of information found on social media. Videos and articles shared throughout social media have a great potential to spread misinformation and embed themselves in the public consciousness even after being removed. In a 2020 study performed by Pulideo et al., an analysis was performed on 1000 tweets where it was found that misinformation was being posted more often than science-based evidence and fact-checking tweets. On the other hand, the science-based evidence and fact-checking tweets were retweeted more often, suggesting that more discussion and interaction was occurring for these tweets. People viewing misinformative tweets are less likely to question the material or properly fact-check the content, making such content less meaningful for effectively dissuading people’s fears or concerns about COVID-19 (Pulido et al. 2020).

Additionally, authority figures like former President Donald Trump can easily sway millions of Americans with a simple twitter message or unsubstantiated claim, as evidenced by how sales of hydroxychloroquine rose by 200% on Amazon after former President Donald Trump made several tweets on March 21, 2020 claiming its effectiveness as a treatment for COVID-19 (Niburski K and Niburski O, 2020). Such claims have far-reaching effects in lowering trust of medical health professionals, making the narrative appear “conflicted,” and divide people on issues the scientific community has largely already agreed upon. This leads to partisanship that pushes people towards accepting certain narratives or beliefs on the basis that there are “two-sides” to an issue, which leads to facts being treated as opinions.
Fear combined with a willingness to jump to conclusions can have severe consequences as we are finding that now is one of the most critical times for people to believe in science. Authors Cary Funk and Alec Tyson report with Pew Research about a study conducted on 10,121 US adults from February 16 to February 21 of 2021 on whether they would definitely NOT get a vaccine, probably NOT get a vaccine, probably get a vaccine, definitely get a vaccine, or whether they already have received at least one dose. 19% responded that they had already received at least one dose, 32% responded that they will definitely get a vaccine, 17% that they will probably get a vaccine, but 15% of the participants said they probably would NOT get a vaccine, with another 15% saying that they would definitely NOT get a vaccine (Funk and Tyson 2021). The participants were selected from Center’s American Trends Panel (ATP) members, which recruited members through random sampling of residential addresses. It was weighted to include people of all races, genders, ethnicities, and partisan affiliations. Approximately 1% of the participants failed to respond. These results translate roughly to 69% of participants leaning toward getting a vaccine and 30% leaning against getting vaccinated (Funk and Tyson 2021).

Current estimations by the CDC suggest that about 70% to 85% of people will require vaccinations before Americans can achieve “herd immunity,” which will prevent further waves of COVID-19 outbreaks (Redford 2021). Hopefully, those that responded that would probably not get the vaccine will feel more comfortable with the idea of vaccination as they watch their friends and family get the vaccine. With time being a pressing issue for preventing further mutations and casualties, however, social media now more than ever has the potential to sway public opinion.

Therefore, it is important to understand that people targeted for anti-science extremism are not simply idiots or fools. There is a coordinated and rehearsed effort by educated,
professional fraudsters who are targeting some of the most vulnerable people. A person with anti-science beliefs does not need to believe in everything that is antithetical to science but may pick and choose the parts that are most appealing to them. There are numerous tendrils of disinformation spread throughout social media platforms, and their algorithms have compounded the problem by making it easier to target individuals vulnerable to accepting disinformation ("Fighting the spread of COVID-19 misinformation" c2021). Additionally, people with anti-science beliefs are constantly linking and saving sites to prevent them from being removed or ignored. Yet, it is not always the case that it is the amateurs that are copying and pasting hyperlinks about scientific disinformation. There are people who have made the dissemination of misinformation their career. They devote themselves to this task whether it be due to commercial gain, a personal agenda, or to fulfill a vendetta.

An organization known as the Center for Countering Digital Hate or the CCDH is working to stop the increasingly coordinated spread of hate speech and misinformation throughout the internet. The CCDH was founded in 2017 and would later be incorporated in 2018 (“Our People,” c2020). The founder, Imran Ahmed originally started the organization due to the 9/11 attacks and his strong vindication that bullying of people should not be tolerated. In just 9 months, his organization would join the “Stop Hate for Profit” campaign, which also includes the National Association for Colored People (NAACP) and the Anti-Defamation League or ADL (“Our People,” c2020). Additionally, he has outlined how it is unwise to rely on social media companies to remove misinformation because of their conflicting priorities: “the reason social media companies tolerate hate is for profit. We are not Facebook or Twitter customers, we are their product, and we are what they sell to advertisers” (Frazer 2020). The fact of the matter is that misinformation is inflammatory, controversial, and most of all highly
clickable. Exerting the effort to locate and remove misinformative posts would not only take money and time in of itself, but push away people they want to advertise to (Frazer 2020). Social media companies cannot be relied on to combat misinformation on their own, so outside organizations like the CCDH have to exert their own efforts to stop hate speech from spreading throughout big tech firms like YouTube, Facebook, Amazon, Twitter, Instagram, and Apple. To achieve this end they created an Anti-Vax watch in order to monitor their content. In a sample performed on Twitter and Facebook posts between February 1 to March 16, 2021, 812,000 posts were analyzed and 65% of the posts were determined to be misinformation (“The Disinformation Dozen: Center for Countering Digital Hate” c2020). These posts were traced back to 12 people in particular, whom the CCDH has classified as the disinformation dozen (c2020). The members of the disinformation dozen represent a group of individuals far less understood and far more dangerous than the image of a group of disparate fools posting incorrect information. Their efforts are coordinated, efficient, and, eventually, deadly.
Ty and Charlene Bollinger

The backgrounds of the members of the disinformation dozen are varied and distinct from one another. Yet they are all united in their decidedly coordinated efforts to undermine the mainstream science community. One of the individuals listed is technically a team of two individuals who are controlling and maintaining the same social media sites. Ty Bollinger and Charlene Bollinger market themselves as a family with four children and the two are constantly photographed together on social media sites (“Q&A With Ty Bollinger” 2018). On their website, https://thetruthaboutcancer.com/, there is a synopsis for the background of Ty Bollinger: “Ty Bollinger is a happily married husband, the father of four wonderful children, devoted Christian, best-selling author, medical researcher, talk radio host, health freedom advocate, former competitive bodybuilder and also a certified public accountant” (Bollinger C and Bollinger T 2021). Note that the claim he is a medical researcher is misleading as he lacks a doctorate or any medical training (Srikanth 2021). His research primarily involves studying scientific misinformation with the intention of proliferating it. He first began to distrust the science community 6 months after his marriage in 1996 with Charlene Bollinger when Ty Bollinger’s 52 year-old father, Graham Bollinger, developed stomach pains and was diagnosed with advanced stomach cancer. He died about 25 days later due to bleeding out after interventionist surgeries were conducted. Later his mother and several other families would die of cancer, at which point Ty and Charlene Bollinger would disregard their doctors advice and seek out alternative treatments and medications (Bollinger C and Bollinger T 2021). Today, they warn against the dangers of chemotherapy and surgery, while advocating for treatments such as keto dieting, healing tones, or spiritual energy instead.
Problematically, while diet and lifestyle do play a large role in cancer and cancer development, it is difficult to know how much they correlate to positive cancer outcomes. Experimental human trials where cancer is the only observable factor are extremely difficult to pull-off, given the large time-span needed and the dangers of cancer (Lampe 2020). Currently, it is estimated that about 30% to 50% of cancers are attributable to modifiable risk factors (Islami et al. 2018). What should be kept in mind, however, is that dieting is not advised to be taken over a doctor’s advice, and the products that Ty and Charlene Bollinger are providing are intended to be taken in place of traditional cancer treatments. In this way misinformation is mixed in with half-truths in an attempt to legitimize their platform and push out more propaganda to normalize their alternative cures for cancer. They started by writing “Cancer: Step Outside the Box” in 2006, where they first discussed their background story that would eventually lead to the description found on their website (Bollinger C and Bollinger T c2014-2021). Moving from radio interviews and speaking engagements, they decided to create The Truth About Cancer website, https://thetruthaboutcancer.com/, in 2014 (c2014-2021). From there, they worked on numerous video productions such as “The Quest for The Cures,” “The Quest for the Cures Continues,” and “The Truth About Cancer: A Global Quest” (Bollinger C and Bollinger T c2014-2021). Today, many samples of their documentaries can be found on YouTube or advertised for sale on their website. Their products are often long docuseries with flashy pulls and content.

Take for example a video featured on their YouTube Channel, The Truth About Cancer, “Eastern Medicine: Journey Through ASIA - Episode 1 | Japan – Land of the Rising Sun,” in which several of their tactics become apparent (“The Truth About Cancer Youtube Channel About.” 2014). For one, the production quality is on-par with professionally made documentaries
and has multiple graphics such as the one used to introduce the documentary: “Japan: Land of the Rising Sun” (TheTruthAboutCancer 2019). Yet, as the host Charlene Bollinger explains from a room designed to look like a newscaster’s room, this is the first of a greater documentary series where they journey across seven different Asian countries in seven days. She quickly launches into a recap of the origin story listed on thetruthaboutcancer.com, where she makes the claim that Ty Bollinger’s father, Graham Bollinger, died not from cancer but a “botched” surgery (“The Truth About Cancer Youtube Channel About.” 2014). The background switches between various images of the family members they lost as she explains the history of how TheTruthAboutCancer (TTAC) name was made (“The Truth About Cancer Youtube Channel About.” 2014). The content of the video itself reads very much as a fan tour, where they meet people that have watched videos made by TTAC, at which point they thank Ty Bollinger for changing their lives and praise their content. To prevent the video from being boring, there is occasional drama such as a member of a team being “lost” for a brief period of time until they realized that he went back to their hotel early. Later, they felt threatened by the presence of nearby police during one of their roadside interviews and decided to move. Ty Bollinger and Dr. Yanagi Atsuo used the moment to compare the actions of the police to “bureaucracy” and “modern science,” citing that they were doing things merely because they had to and did not know any better (“The Truth About Cancer Youtube Channel About.” 2014). The video as a whole reads like a fantasy adventure flick about “discovering cures” for cancer while avoiding “the establishment” that is out to thwart their every effort.

As a whole, the “Eastern Medicine: Journey Through ASIA” lasts for about 15 hours with the aforementioned content designed to maintain viewer attention and interest (TheTruthAboutCancer 2019). Emotional statements against authority and bureaucracy, meeting
new “medical experts,” and traveling to new locations consist of the bulk of the content (TheTruthAboutCancer 2019). Although there are occasional free showings, or a free first episode on YouTube, getting all the content including exclusive bonuses will cost $500 dollars (Fig.3). They also have other videos on their YouTube Channel that exist to capture a wider audience: “The Truth About Cancer Presents: Health Nuggets - Cannabis & Cancer,” “The Truth About Cancer Presents: Health Nuggets - Cancer-Fighting Essential Oils,” “31 Ways to Naturally Detox (Part 1) | The Truth About Cancer Present Health Nuggets” (“The Truth About Cancer Youtube Channel About.” 2014). From drugs untested with cancer to gimmicks and snake oil, it is easy to see the sheer range of products that they are using to reach out towards anyone they can find.

Additionally, recordings such as “The Impact of Emotions & Spirituality on Health: Dr. Lee Cowden at The Truth About Cancer LIVE 2019” and “How to Reactivate The Body’s Self-Healing Mechanism: Dr. Edward Group III” exist to diversify into fields such as religion or spirituality while increasing retention among viewers ("The Truth About Cancer® World Premiere of 'Quest for The Cures [FINAL CHAPTER]' - Coming April 21st" 2021). People who believe in new age spiritualism or are desperate to believe non-physical forces are the targets of these recordings. Also these messages are not just published once, but are repeated again and again with subsequent videos on the same topic. TTAC is commonly capable of introducing multiple “professionals” in a single showing or recording, and events like the “LIVE TTAC 2019 meet-up” are advertised in the descriptions of these videos with a link to an external site in the video descriptions (Bollinger C and Bollinger T c2014-2021). The live TTAC events occur annually and offer both new and popular rehashed content. The external site is an extension of https://thetruthaboutcancer.com/ that states in bold: “What if you miss a cancer therapy that
could save your life or the life of someone you love?” This website, [https://go2.thetruthaboutcancer.com/2019-live-event/order/](https://go2.thetruthaboutcancer.com/2019-live-event/order/), capitalizes on the fear of missing out, and reveals that the event is eight hours long but also organized in such a way as to make it impossible to make it to every single presentation (Bollinger C and Bollinger T c2014-2021). With 40 presenters over three days, they have nine breakout sessions where they split apart into groups of three (Fig.2). By the website's own words, “There’s just NO WAY you can attend every presentation. In fact, even if you were to watch all day, every day, you’re still missing more than half the speakers” (c2014-2021). Later on, the website states that “You face impossible must-see choices all weekend long. But we knew that would happen” (c2014-2021). They offer a few “bonuses” in addition to purchasing the full recordings for the 2019 California conference, such as recordings of the 2016 Dallas conference and the 2017 Orlando conference (c2014-2021). With MP3 recordings, transcripts, DVD sets, and ebooks, this package comes out to $499 USD. To get the recordings and DVD set it's $400, and the recordings alone cost $200 (c2014-2021). Offers like these are often advertised through ad banners on TTAC website, [https://thetruthaboutcancer.com/](https://thetruthaboutcancer.com/), or through their Facebook, Twitter, and Instagram pages (Bollinger C and Bollinger T c2014-2021).
Fig.1 Listings on the TTAC 2019 web event order website advertising potentially missed presentations. Note that another member of the disinformation dozen, Robert F. Kennedy Jr., Jr. gave a presentation on vaccine safety.

Fig.2 The homepage of The Truth About Cancer. The uppermost banner cycles to another similar advertisement after the counter ends.
The people that TTAC coordinates with are also not working on a small-scale by any means. Another member of the disinformation dozen as outlined by the CCDH, Rashid Buttar, was a live presenter during TTAC Live Event 2017 as evidenced by the video “the 7 Toxicities That Prevent Healing (with Dr. Rashid Buttar) | TTAC LIVE 2017” (TheTruthAboutCancer (Director) 2019). Rashid Buttar views as a disinformation specialist quickly become apparent when observing the videos he managed to publish through TV Network London Real. London Real Network invites speakers from a vast variety of fields and with varying degrees of credibility to speak, ambitiously claiming to be seeking a “mass scale transformation of humanity” (“Transform Yourself” c2021). One of Rashid Buttar’s now-removed videos was titled “WHY YOU SHOULDN’T WEAR FACEMASKS: Media Misinformation Will Make People Sick.” In this video, Rashid Buttar claims that wearing masks is not only a meaningless practice, but a dangerous one and that people should take off their masks if they are worried about COVID-19; and that for their own health they should “go out… It’s important” (Turvill 2020). Another video, alleged that the then-unreleased COVID-19 vaccine would “make more
people sick” (Turvill 2020). More extreme video examples get into 5G conspiracy theories, where it is claimed that 5G towers will make people more sick or even cause COVID-19. Later Rashid Buttar, while being promoted as a former army surgeon, went so far as to call for the execution of mainstream media: “If there was going to be an execution of an industry right now – if an execution of an individual, execution of somebody to make this world right – it would be mainstream media” (Turvill 2020). He would later downplay this as being “metaphorical,” but his wording is aggressive even by metaphorical standards.

Despite the presence of fringe claims, Rashid Buttar still has strong appeal to mainstream audiences. In one instance, waves were made when Rashid Buttar treated Desiree Jennings, a well-known cheerleading ambassador for the Washington Redskins football team, for her assumed dystonia with chelation therapy (Avila and Cohen 2010). Dystonia is a condition which causes repetitive or twisting movements of varying intensity, and Desiree Jennings claimed that she began suffering from severe dystonia after receiving a seasonal flu shot that had mercury in it. In a media interview she was shown twitching and convulsing in place, only capable of movement when she was specifically running or walking backwards (Avila and Cohen 2010). When she entered Rashid Buttar’s office in October 2009, he used chelation therapy where an IV was inserted with fluids meant to remove “harmful metals” from the body like mercury (Avila and Cohen 2010). This appeared to work for a time afterwards, but Desiree Jennings’ various ailments returned later. This may be connected to the fact that, according to Dr. Charles McKay a board member of the American College of Medical Toxicology, the flu shot Jennings took had far less mercury than an average tuna steak (Avila and Cohen 2010). According to a neurologist interviewed by “20/20” on this matter, Jennings suffered from a psychogenic rather than neurological disorder (Avila and Cohen 2010). Such a finding would help to explain how
Jennings recovered for a time after the dubious chelation therapy due to the “placebo effect,” where her strong belief that she was cured overrode her psychogenic symptoms for a time (Avila and Cohen 2010). This is further supported by a later video performed by Inside Edition where they found Desiree Jennings driving a car and walking normally (“Flu Shot Woman” 2010). When the reporter approached her she started speaking with an Australian accent claiming that she was still having trouble properly pronouncing words, but later the interview concluded after she shuffled to her car sideways after claiming that her dystonia was still affecting her (“Flu Shot Woman” 2010).

Still, Rashid Buttar’s fame and product line had considerably increased as compared to before his publications and treatment of Desiree Jennings. Yet he would not be making as much money or be so well-known if not for cooperation between other members of the disinformation dozen, like TTAC. Affiliate Marketing allows disinformation specialists to effectively work together and promote each other's products to make more sales (“PANDEMIC PROFITEERS: The business of anti-vaxx.” 2020). In a series often quoted by anti-vaccination individuals, *The Truth About Vaccines* by the TTAC, there are web pages that lead to an overall sales leaderboard that exists to show who is making the most commissions. According to [https://partners.thetruthaboutcancer.com/ttav2020/](https://partners.thetruthaboutcancer.com/ttav2020/), affiliate marketers can “earn 40% commissions on all digital products and 30% on all physical product sales,” with their video packages selling for as much as $499 (Fig.3, 2020). Notably, Rashid Buttar is second place on this leaderboard, with another member of the disinformation dozen, Robert F. Kennedy Jr., not far behind in 4th place (“The Truth About Vaccines Affiliate Center.” c2014-2020). Further statements reveal the benefits of becoming an affiliate marketer: “$14 million PAID in affiliate commissions since 2014,” while also offering monetary rewards ranging from $2500 to $500 to
the top 5 people who make the most money (c2014-2020). Many payments may not be made fully publicly available, and it is difficult to track all of their possible transactions. Regardless, affiliations like these help to keep these disinformation specialists going even when their products or services are outing as fraudulent. The North Carolina Medical Board caught on, for example, to how his provided treatments included unproven intravenous hydrogen peroxide to cancer patients and topical chelation creams to children with autism (Szabo 2013). During a 2010 consent board he was forced to admit that his treatments were not approved by the FDA and later that same year Rashid Buttar received warnings for several of his products that forced him to stop selling them (Szabo 2013). In an FDA warning letter, Rashid Buttar was reprimanded for marketing supplements as drugs, his “supplements” including Trans-D Tropin, TD-DMPS, and Progesterone-3/3, which were marketed as being capable of treating chronic pain, metal detoxification, and female hormonal imbalances, respectively (Gridley 2013). His problems with skirting FDA regulations and mainstream medicine arose again in 2016, where Rashid Buttar reacted to another meeting of the FDA’s Pharmacy Compounding Advisory Committee, in which he feared that more supplements he provided as a Doctor of Osteopathy would be banned (“More Supplements Face the Axe” 2016). He ends with a call to action for his supporters to contact legislators and donate money to prevent the bannings.

This example should make it apparent how necessary it is for disinformation specialists to damage the reputation of mainstream science while manipulating the narrative. The more people that trust in science, the lower their ability to sell their alternative and affiliated products, and the higher the chance for legal consequences when their fraud is revealed. Perhaps one of the more aggressive examples of TTAC attempting to undermine mainstream science comes in the form of Rigvir. Rigvir is brought up in Episode 3 of The Truth About Cancer video series as
a Latvian alternative medicine with the power to cure melanoma. It is marketed as a “good virus” that targets cancer cells while leaving other cells alone (Gorski 2017; Alberts P et al. 2018). The results are apparently incredible as the International Virotherapy Center in Latvia claims that, “in melanoma cases, in earlier stages when patients receive Rigvir, the percentage survived is 92 percent. And later stages, for example, if they receive Rigvir it’s 60 percent. If they don’t receive it, it’s only 9 percent” (Gorski 2017). They also claim that “then comes the second mechanism of Rigvir. Whenever those Rigvirs are attracted to cancer cells, those cancer cells become visible to the human immune system” (Gorski 2017). Yet despite such impressive results, the IVC has made no such publications regarding Rigvir. The mechanism for Rigvir “revealing” cancer cells is also extremely specific, but no details or research supporting this mechanism are given, and supporting testimonials are oftentimes skewed to make Rigvir appear to be the cure (Gorski 2017). In reality, the people taking Rigvir had already received treatments for cancer and had only used Rigvir while their cancer was already in decline. In the case of Ms. Sokolava’s testimonial, she underwent chemotherapy and radiation treatment after radical surgery to treat her sarcoma cancer and she attributed her recovery to Rigvir when in reality she was most likely recovering from the side effects of her treatments (Gorski 2017). The claim is also made that Rigvir is preventing sarcoma from making a resurgence, but again this is provided with no proof.

Dangerously, peddling unproven treatments such as Rigvir logically leads to excluding approved treatments supported by science such as chemotherapy. In a case similar to the testimony of Ms. Sokolova, a man named Chris Wark claimed to have survived stage 3 colon cancer thanks to following a raw vegan diet for a month instead of receiving chemotherapy (Gorski 2020). In reality, his colon cancer was treated with surgery, with colon cancer being one of the few forms of cancer that can be cured with surgery alone. When he refused further
chemotherapy and radiation therapy, he was lowering his chances of preventing a resurgence of colon cancer, but it was still possible for him to survive with only surgery (Gorski 2020). Still, people latch onto testimonials promoting quackery like Chris’, and this is attributed to the perception that “chemotherapy as the ultimate example of the hubris and greed of Western medicine and Big Pharma. They claim chemotherapy is ineffective, that it weakens the immune system, and even that it causes cancer. They say the only reason it’s the frontline treatment for cancer is because American physicians are beholden to pharmaceutical giants, incentivizing them to resort to drugs at the expense of prevention and general wellness education” (Szabo 2013). Realistically speaking, there are far more people that have problems with Western medicine and Big Pharma than they do with doctors or chemotherapy treatments. It is effectively conflating medical professionals with the worst flaws of the medical field that erodes trust. This is similar to how all chemotherapy treatments are grouped into being a singular all-encompassing and extremely dangerous treatment, while in reality chemotherapy treatments include many treatments that have varying degrees of intensity.

Therefore, it should be understood that Ty and Charlene Bollinger have done far more than create a few social media posts. Through TTAC they are using social media to save and record sessions, encouraging people to go to conventions and meet up for live seminars, and eventually purchase products from their organization or their affiliates. They have also managed to effectively coordinate with like-minded people such as with another member of the Disinformation Dozen, Rashid Buttar. Rashid Buttar’s ability to pose as a legitimate doctor helps to lend more credence to TTAC and push their narratives unimpeded. What should be understood is that successfully spreading misinformation on social media is not an end goal in of itself, but a means to an end. TTAC has lowered the output of original content that they used to
create in the past, such as documentaries, videos, or books, but TTAC has managed to connect with and promote numerous other misinformation specialists all while peddling unproven alternative treatments to chemotherapy. TTAC is more than a small quackery operation, but a coordinated movement to undermine mainstream science so that they can push their own wares.
Robert F. Kennedy Jr.

Robert Francis Kennedy Junior was born on January 17, 1954. He is the son of Robert F. Kennedy Jr. and the nephew of John F. Kennedy, a former U.S president (Kennedy 2018). He has a long history of working as a legislator for resolving ecological issues. Between the years 1986 and 2017, he served as a senior attorney for the Natural Resources Defense Council which is a non-profit international advocacy group with over 3 million members (Kennedy 2018). Between the years 1984 and 2017, he was highly active as a board member for the Hudson Riverkeeper (Agee and Valley 2017). He also has strong leadership skills as evidenced by how he created the Waterkeeper Alliance, a non-profit environmental organization, and has led it since then (Agee and Valley 2017). Additionally he served as supervising attorney and co-director of Pace Law School’s Environmental Litigation Clinic that he founded in 1987, although he left this post in 2017 (Smith 2015). This impressive record is marred, however, by an equally impressive record of pedaling anti-vaccination rhetoric.

One of the first public forays into the distribution of scientific misinformation by Robert F. Kennedy Jr. Junior began on July 14, 2005, when he published “Deadly Immunity” in an issue of Rolling Stone magazine and the website Salon (Moreno and Anne 2006). This 4,700-word article focused on a CDC meeting in Simpsonwood and the use of mercury variants in vaccines. The article would partly explain how Kennedy became enamored with scientific misinformation: “I was drawn into the controversy only reluctantly. As an attorney and environmentalist who has spent years working on issues of mercury toxicity, I frequently met mothers of autistic children who were absolutely convinced that their kids had been injured by vaccines. Privately, I was skeptical” (Moreno and Anne 2006). Yet later, in a large part due to these meetings, “it was only after reading the Simpsonwood transcripts, studying the leading scientific research, and talking
with many of the nation’s pre-eminent authorities on mercury that I became convinced that the link between thimerosal and the epidemic of childhood neurological disorders is real (Moreno and Anne 2006).” It should be understood that the “pre-eminent authorities on mercury” that he talked to included Dr. Mark Geier and his son David (Mnookin 2017). Dr. Mark Geier is known for being a paid witness involved in a vaccine injury lawsuit (Mnookin 2017). The rest of his evidence would lean heavily on scrutinizing the 286-page transcript of the Simpsonwood meeting he had. The Simpsonwood meeting was not conducted in secrecy with the intention to subvert the public’s opinion on vaccines, as Deadly Immunity claims, but to deal with rising litigation attempts, misinformation, and false allegations against vaccines (Kennedy 2020). In one instance, Robert F. Kennedy Jr. egregiously cut out portions of the transcript, that are not italicized here, to paint the World Health Organization in a poor light. Note that the speaker, John Clements of the World Health Organization, was discussing the study they performed on how disinformation specialists might misconstrue their findings:

“And I really want to risk offending everyone in the room by saying that perhaps this study should not have been done at all, because the outcome of it could have, to some extent, been predicted and we have all reached this point now where we are left hanging . . . There is now the point at which the research results have to be handled, and even if this committee decides that there is no association and that information gets out, the work has been done and through Freedom of Information that will be taken by others and will be used in other ways beyond the control of this group. And I am very concerned about that as I suspect it is already too late to do anything regardless of any professional body and what they say” (Mnookin 2017).

Robert F. Kennedy Jr. would alter the contents of the transcript to make the speaker appear more conspiratorial: “Dr. John Clements, vaccines advisor at the World Health
Organization, declared flatly that the study ‘should not have been done at all’ and warned that the results ‘will be taken by others and will be used in ways beyond the control of this group. The research results have to be handled’’” (Mnookin 2017). This skewed interpretation played exactly into the concerns held by Dr. John Clements as he questioned at one point about “how will it be presented to a public and a media that is hungry for selecting the information they want to use for whatever means they have in store for them?” (Mnookin 2017). The willingness of media outlets to support the rather fringe views held by people such as Robert F. Kennedy Jr. stems from sensationalism and partisanship. In a review of the book The Panic Virus by Seth Mnookin, the reviewer Max Wizneitzer accurately captures the agenda behind media publishings of works like Deadly Immunity: “with the need for 24/7 news, scientific information was relegated to the level of a brief sound bite. Easily understandable parental narratives often had more impact than complex research data“ (Wiznitzer 2011). Mnookin’s book assesses the problem with treating issues as “two-sided” when media outlets give equal sway to celebrities and parents as medical professionals and physicians (Wiznitzer 2011). In an effort to publish a balanced and more engaging story, the result is that people who lack professional training or education are weighing in with opinions weighted far more than they should be. Even the most accurate and rational statements provided by healthcare professionals will appear grievously inhumane when compared to a parent crying over their child they claim was harmed by a vaccine (Wiznitzer 2011).

The website Salon later redacted the original post of Deadly Immunity on January 16, 2011 and replaced it with an article discussing the removal of Deadly Immunity (Lauerman 2015). It begins with this statement: "I regret we didn't move on this more quickly, as evidence continued to emerge debunking the vaccines and autism link," says former Salon editor in chief
Joan Walsh, now editor at large. "But continued revelations of the flaws and even fraud tainting the science behind the connection make taking down the story the right thing to do" (Lauerman 2015). Despite efforts by Salon to append corrections to the article after its publication, Robert F. Kennedy Jr. Junior continued bringing up some of his false claims to now wide-spread media attention. In an MSNBC interview with Joe Scarborough he made the highly damaging claim that “We are injecting our children with 400 times the amount of mercury that the FDA or EPA considers safe” (Mnookin 2017). This was just 4 days after a correction was made where it was found that the amount of mercury injected into children was not 400 times greater but “40 percent” greater than the EPA’s limit for daily exposure to methyl mercury (Mnookin 2017).

“Deadly Immunity” can still be found through the website childrenshealthdefense.org where it was posted again on September 27, 2017. At the beginning is a disclaimer that discusses the retraction of the article by Salon and the overall “media blackout.” This note lays out the idea that the article was “groundbreaking at the time” and pointed out how it “received lots of media attention for uncovering the cozy relationship between government and industry at the expense of children’s health” (Kennedy 2017). This note and reposting of this removed article shows how easily removals may be circumvented, while still allowing the Children’s Health Defense (CHD) to maintain the narrative that “the history of repression of crucial vaccine safety data runs deep” as the article’s note goes on to say (Kennedy 2017). When the article additionally claims that the “article’s facts have stood the test of time,” despite the corrections and retractions over time. They are in a way claiming victory while avoiding any negative repercussions for posting misinformation (Kennedy 2017).

The way that the CHD can get away with maintaining inflammatory articles like Deadly Immunity on their webpage is due to their ability to avoid detection. The CHD does an effective
job of evading detection, even more so than TTAC. This is because the TTAC claims to be pro-choice rather than anti-vaccination. It is alienating to most audiences to outright deny commonly treatments prescribed by doctors, chemotherapy and vaccines, but claiming that they are fighting for the “freedom to choose… freedom to vaccinate… freedom NOT to vaccinate,” places an emphasis on individual rights which is far more appealing especially to western audiences (Children’s Health Defense c2016-2021). In comparison the TTAC has gaudy coloring and the name itself, “The Truth About Cancer,” immediately reveals that they are not a typical organization (Fig.2). TTAC appears to be rather low-quality and unprofessional when compared to the carefully crafted image of the CHD.

Formerly known as the World Mercury Project, the CHD is registered as a non-profit organization whose mission statement reads: “Our mission is to end the childhood health epidemic by working aggressively to eliminate harmful exposures, hold those responsible accountable, and establish safeguards that prevent further harms” (Children’s Health Defense c2016-2021). The main website link features soft colors, professional formatting, and their logo is a globe of the earth held gently aloft by two hands surrounded by dark cut-outs of children holding hands, which can be seen in figure 4.
Fig. 4 Front view of the main webpage for the Children’s Health Defense.

Fig. 5 Banner ad for a collaboration between The Truth About Cancer and Robert F. Kennedy Jr.
Fig.6 Robert F. Kennedy Jr. (center) poses with Ty Bollinger (left) and Charlene Bollinger (right) while holding a check for 10,000 donated to the Children’s Health Defense by Ty Bollinger and Charlene Bollinger.

The Children’s Health Defense (CHD) takes other significant measures to ensure that they aren’t removed for spreading misinformation. The CHD has named their news section *The Defender* and claims that it represents a place for “high-minded conversation” while also serving as a means to “evade official censorship” and “weaponize truth against authoritarianism” (Kennedy 2020). To this end, they maintain legitimacy by publishing articles that cover real and evidence-supported threats to health such as air pollution, mercury in fish, lead in the environment, and an oversaturation of pesticides (Radford 2020). Unfortunately, most of these legitimate points are used to cover their more extreme claims. Titles of articles found on their website quickly make it apparent what their true arguments are: “Herd Immunity? A Dishonest Marketing Gimmick,” “25 Reasons to Avoid the Gardasil Vaccine,” or “Countering False
Vaccine Safety Claims” to name a few (Children’s Health Defense c2016-2021). On the outside, the CHD provides pleasing platitudes while touting Joseph F. Kennedy’s grand legacy. The Defender paints the CHD as victims who are fighting against a system trying to suppress them. To this end, they rarely outright state that they are anti-vax but contend that they are merely “seeking the truth,” or simply want “science to be safer,” and paint themselves as rational agents fighting a holy war against injustice (Radford 2020). This facade makes them dangerous agents, which is especially evidenced by how they had 2.35 million visitors during just the month of March of 2021 (“Childrenshealthdefense.org traffic Ranking & marketing analytics.” c2021).

The CHD has also shown more legislative expertise than other disinformation groups or individuals. For example, the CHD was able to receive a federal loan of 145,000 dollars during the COVID-19 pandemic thanks to their application for the Paycheck Protection Program (“PANDEMIC PROFITEERS: The business of anti-vaxx.” 2020). The Paycheck Protection Program loan is normally intended to help businesses maintain workforce employment during the COVID-19 pandemic, but The US Small Business Administration lacks a proper vetting process or means to determine the authenticity of applications beyond federal registrations, making this option available to the CHD because it is registered as a nonprofit organization (“Paycheck Protection Program.” 2021). Additionally, the CHD has exhibited the capacity to fight back against removal of their content. In an article published by The Defender the CHD claims that the lawsuit they filed in August 2020 “asserts claims of illegal censorship in violation of the First Amendment, illegal “taking” in violation of the Fifth Amendment and corporate fraud in violation of federal law — Racketeer Influenced and Corrupt Organizations (RICO) and Lanham Acts” (“Federal government Illegally Pressured Facebook to CENSOR CHD website, social media CONTENT, lawsuit Alleges • children's Health Defense.” 2021). In their lawsuit
they claim that Facebook has erroneously caused the CHD harm by removing their content on Facebook which lowered visits to their website. This occurred after Facebook performed fact checking with the help of the WHO, which consequently resulted in a reduction in a “significant amount of membership fees and donations to CHD” (“Federal government Illegally Pressured Facebook to CENSOR CHD website, social media CONTENT, lawsuit Alleges • children's Health Defense.” 2021). In one instance it was found that “from January to May 2019, CHD generated $41,241 in user donations from its Facebook page,” yet after “Facebook deactivated CHD’s donate function. CHD has not received any further donation revenue through Facebook” (“Federal government Illegally Pressured Facebook to CENSOR CHD website, social media CONTENT, lawsuit Alleges • children's Health Defense.” 2021). Interestingly, this case shows how organizations like the CHD need social media platforms to voice their opinions, but it also showcases the dangerous potential they have of influencing legislation on a larger scale.

Theoretically, in the rare chance that they win this case or a similar case they could post disinformation without fear of removal and increase their revenue and influence. Even the act of creating such cases helps the CHD to publicize their messages and complete the picture they have of themselves as defenders of the truth fighting against a corrupt authoritarian regime.

Yet the legal actions of the CHD are reactionary rather than offensive. Following on the tail of the 2019 measles outbreak in America, Facebook was forced to take more action against online misinformation. Notably, Facebook ads are highly ideal for disseminating misinformation because they can target individuals who are far more likely to take to scientific misinformation than other individuals. This may include young adults and mothers who are worried that children will be harmed by vaccines (Kahan 2010). The ads themselves are hard to track. While traditional advertising platforms keep a record of the ads they run and at what times they are run,
Facebook ads are delivered on a personalized basis by an algorithm which leaves behind no specific records. Ads are also extremely easy to purchase and run, requiring little verification before approved. In the past, Facebook ads have been problematically used to spread misinformation about Rohingya Muslims in Myanmar, which contributed to the slaughter of Rohingya Muslims in Myanmar (Lapowski 2018).

While Facebook has taken some steps to remove the worst offenders and reclassified “credible threats of violence to include misinformation about violence,” it is still difficult to understand how much damaging information was spread before it was, mostly, stopped (Lapowski 2018). In a study performed by Jamison et al. in 2020, it was found that the Facebook Ad library had the majority of the anti-vaxxer ads bought out by just 2 parties. One ad was for “Stop Mandatory Vaccination” and another ad was for the World Mercury Project, which is now known as the Childhood Health Defense (Jamison A et al. 2020). These ads most likely connect to the lawsuit the Childhood Health Defense is performing to try to regain their lost profits, and this case shows how easy it is to buy out Facebook ad slots. In fact, it was found that more pro-vaccination ads were dropped more often than anti-vaccination ads because Facebook required a disclaimer to show who posted the ad (Jamison A et al. 2020). This was simple for the Childhood Health Defense, as promoting their name increases their website traffic and rarely gives away that they are a disinformation organization, while other ad buyers did not know about this caveat and were simply dropped.

On May 8, 2019, relatives of Robert F. Kennedy Jr.: Kathleen Kennedy, Joseph Kennedy II, and Maeve Kennedy McKean, created an open letter criticizing his views. This letter was written during the resurgence of measles that began as early as 2018, but 2019 introduced a 300 percent increase in the number of measles cases. With these projections, about 110,000 people
will die annually from measles (Kennedy et al. 2019). This is part of the reason why the World Health Organization classified “vaccine hesitancy” as one of the ten threats to global health in the year of 2019 (Ten health issues WHO will tackle this year 2019). The open letter goes on to state that “Robert F. Kennedy Jr.—Joe and Kathleen’s brother and Maeve’s uncle—is part of this campaign to attack the institutions committed to reducing the tragedy of preventable infectious diseases. He has helped to spread dangerous misinformation over social media and is complicit in sowing distrust of the science behind vaccines” (Kennedy et al. 2019). Notably, they bring up his rich history in defending the environment from “multinational organizations” that have “endangered American families,” but separate these achievements from his anti-vax views when they say that while “We stand behind him in his ongoing fight to protect our environment. However, on vaccines he is wrong” (Kennedy et al. 2019). They then conclude that it is best for people to trust medical professionals, and to avoid attempting to independently treat disease without the aid of a medical professional (Kennedy et al. 2019). Another member of his family, one of his nieces, Doctor Kerry Kennedy Meltzer, also spoke out against his anti-science activism. Dr. Meltzer wrote an article for the New York Times titled “Vaccines Are Safe, No Matter What Robert Kennedy Jr. Says,” with the sub-header “I love my uncle. But when it comes to vaccines, he is wrong,” which again attempted to disentangle the better parts of his legacy from his misinformation campaigns (Meltzer 2020). The Children’s Health Defense has yet to address these statements, and have shied away thus far from making a comment.
Kevin Jenkins

Radicals will often tap into the most vulnerable communities in their efforts to spread their beliefs. Rather than trying to create insecurities and doubts in individuals happy and content with their lives, it is far simpler to target those that are already distrusting of the government and science community at large. What the history of one member of the disinformation dozen reveals is an interesting background where he began as a victim of this recruitment targeting.

Fig.7 Anti-vaccination activists marching together during a June rally in Denver with Erik Underwood, center, including from the center to the right, Robert F. Kennedy Jr., Kevin Jenkins and Joyce Brooks, a leader with the Colorado NAACP (Children's Health Defense).
It began with Denver chiropractor Julie Bogdan working with fellow anti-vaccination advocates to shut down a school immunization program. When she looked around, however, she noted a lack of diversity. “It was apparent to me that it looked very — it looked very white, to be honest with you,” she said to reporter Peter Jamison of the Washington Post (2020). She then decided to call on her network of friends to feel out the attitudes of the black community in Denver. An African American friend was able to connect her to Theo Wilson, a black lives matter activist, which allowed her to meet with him at a Chipotle restaurant. What Theo Wilson was struck by was how easy it was to resonate with the idea of predatory (and largely white) pharmaceutical companies preying on the ignorance of vulnerable people (Jamison 2020).

“Visions of Tuskegee still dance in our heads, man,” Wilson said in an interview. “There is, in the black community, common cause — much larger than people would think — because of our history in the medical community” (Jamison et al. 2019). What Wilson said in that interview was true, the Tuskegee experiment was run by U.S government scientists to track the progression of syphilis in hundreds of black men. The study began in 1932 in conjunction between the United States Public Health Service Commissioned Corps and the Tuskegee Institute to try to study syphilis within black men (“Tuskegee Study - Timeline - CDC - NCHHSTP” 2021). The study consisted of 600 black men, 399 of whom had syphilis and 201 who did not, and when penicillin was discovered as an effective treatment around the mid-1940s, it was withheld (Gaynes 2017).

This blatant example of disregard for medical ethics perpetrated by a government largely dominated by white men against black individuals continues to generate distrust in black communities. The history of the mistreatment of black individuals by the medical community that Wilson discusses, however, is even more recent than the 1930s or 1940s. In 2016 Kelly Hoffman et al. created a study published by the University of Virginia about the “Racial bias in
pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites.” The study began by measuring survey results from an online sample of white lay people and then surveys for white medical students. In the surveys were questions related to rating statements based on how true and untrue they are, and then asked participants to report on how much pain a white person would feel as opposed to a black person and what treatments they would administer (“UVA Study Links Disparities In Pain Management To Racial Bias.” 2016). For the true or false portion there were true statements mixed with false statements. It is true for example, that white people are less susceptible to heart disease than black people. It is false, however, that black people have thicker skin than white people. It was hypothesized that medical students would have reliably higher rates of success in accurately answering these questions due to their graduate education, but the results were alarming. About 73 percent of the sample of white laymen would answer that at least one of the true or false questions was possibly, probably, or definitely true when they were not. About 50 percent of medical students would answer that at least one of the true or false questions was possibly, probably, or definitely true when they were not (Hoffman et al. 2016). It was also found participants who believed incorrect assumptions about racial differences more often rated the example black patient as being in less pain than an example white patient with similar conditions. The outcome was that people answering this way made less accurate treatment recommendations, but those who answered the survey without any false answers showed no bias in treatment recommendations (Hoffman et al. 2016). In an NPR interview with Kelly Hoffman, interviewer Audie Cornish would ask if medical school would teach racial biases, or at least biology, that would combat false racial biases (“UVA Study Links Disparities In Pain Management To Racial Bias.” 2016). Hoffman would respond that “what's striking is that these beliefs seem to operate kind of
independently of individual prejudice. So, I mean, it's not the case that these particular medical students and residents are just more racially biased. It's just these are very common beliefs that are very pervasive across our society.” When asked to further elaborate on this, Hoffman would explain that there are many incorrect assumptions based on race within society that go uncorrected such as “black athletes have an extra muscle in their leg,” or beliefs that “that somehow the black body is biologically and fundamentally different, it's stronger, it's less impervious to pain and injury” (Hoffman et al. 2016). Rather than a conscious decision to discriminate against race, it is the accumulation of many false assumptions about race that produce unconscious bias. These beliefs have a way of spreading by word of mouth, and at times through social media, to the point of being accepted as a commonly rationalized fact (Mnookin 2017). Normally the dangers of these ideas do not actively come to light until scenarios where black men and women have to undergo medical intervention. From this study it is suggested that it is a coin flip if you are a non-white individual whether or not you will be accurately evaluated for the pain you are feeling and be given an accurate treatment (Hoffman et al. 2016).

Seeing her success, Dr. Julie Bogdan decided to use her work connections and talk with Joyce Brooks, a black woman who heads the education committee of the Colorado National Association for the Advancement of Colored People (Jamison 2016). Being one of Bogdan’s patients, Brooks became curious about what she was saying and arranged for a meeting with anti-vaccination spokesmen and members of the NAACP Colorado chapter (Jamison 2016). The presenters would be Phil Silbermen and Tony Rogers, the latter of whom is an economist who often fights against vaccinations on social media and has done work for the Kennedy’s Children’s Health Defense nonprofit group (Jamison 2016). The presentation consisted largely of showing that black children suffered vaccine-related injuries, perhaps due to inaccurate pain
measurements as discussed before, than white children. The result was a resounding success and
Brooks would remark that “people really felt informed and rather angry that they hadn’t heard
about this” (Jamison 2016). From there, it would be through a connection of friends and family
Kevin Jenkins would become radicalized and lean heavily into spreading disinformation,
eventually proving to be one of most effective at this task as he would later become labeled as a
member of the Disinformation Dozen (Jamison 2016).

A CCDH report found that in January 2020, Kevin Jenkins used the Facebook live
streaming service to make the claim “They are spending a trillion dollars to convince you [the
Black community] that it’s OK to kill yourselves [with the COVID vaccine]” (Jarry 2021). More
activity became apparent when Kevin Jenkins became a co-creator of the Freedom Travel
Alliance. The Facebook page for the FTA reads with the captions that: “FAFTA is a new website
and travel/tech venture to offer global travellers safe passage for all their travel, hospitality and
leisure booking.” The page was created January 5, 2021, and as of April 4, 2021, sports 7033
likes and 8186 followers (“Freedom Travel Alliance” 2021). Through this Facebook group he
works to gather more members, especially in the African American community, while fulfilling a
niche needed for anti-vaxxers and anti-maskers to travel through the use of loopholes.

Kevin Jenkins’ most significant contribution to online disinformation would be his
creation of the Urban Global Health Alliance (UGHA) of which he serves as the CEO. The
UGHA takes multiple tactics from the pocketbook of the CHD, going so far as to exclude any
mentions of the words “vaccination,” “mask,” “pandemic,” or “disease” on their website
(“Home: Urban global Health Alliance” c2020). The UGHA emphasizes community,
responsibility, and collaboration, but it also serves as a means to legitimize and further spread the
scientific disinformation Kevin Jenkins believes in.
Kevin Jenkins would go on to become a producer of the movie *Medical Racism: The New Apartheid*. According to Imram Ahmed of the CCDH, this self-labeled documentary is "a classic example of the anti-vaccine industry with a highly targeted message using sophisticated marketing techniques and building alliances with affiliate organizations." It begins by alluding to the Tuskegee Syphilis trials and previous breaches of medical ethics by stating that “[t]here are signs that history is repeating itself with the coronavirus” and questions, “Is the COVID-19 Vaccine Safe?” ("The New Apartheid” c2021). *Medical Racism: The New Apartheid* attempts to make use of other life events to push the narrative that vaccines are dangerous and are being used to harm minority groups. In one instance a study was undertaken “to compare ages at first measles-mumps-rubella (MMR) vaccination between children with autism and children who did not have autism” (DeStefano et al. 2004). It would be a “reevaluation” of this study by chemical engineer Brian Hooker that found that a “study discovered that African-American boys who receive the MMR vaccine ‘on-time’ by the age of 3 are 3.36 times more likely to be diagnosed with severe autism as Black boys who waited until they were older” (Hooker 2014). The reevaluation, however, would later be removed due to conflicts of interest because it was found that Brian Hooker had connections to the CHD and was funded by anti-vaccination group Focus Autism (Hooker 2014). There also exists a dubious claim that a 2014 preliminary study found that Somali Americans developed twice the antibody response to rubella after getting the vaccine as compared with Caucasians, which was then used to jump to the conclusion that people of color are being overdosed ("The History, the Facts, and the Statistics You Need to Know From the Groundbreaking Film” 2021). Yet further analysis reveals that this was a speculative article and a larger more controlled study had not yet been conducted, which means it is possible that the Somali Americans could have just been exposed to rubella prior to taking the vaccine.
explaining their increased antibody response (Spencer and Fichera 2021). Beyond these examples the documentary is full testimonials of African Americans claiming to be harmed by vaccines or descriptions of alternative cures like ingesting large quantities of vitamin D to prevent infection (2021). The claim is made that alternative cures are being covered up or obstructed by mainstream science, while in reality numerous vitamins are still being studied to ascertain their helpfulness in dealing with COVID-19 (Spencer and Fichera 2021). In an email statement, a spokesperson for Children's Health Defense denies that the film is misinformation and says it contains "peer reviewed science and historical data," but does not link to these sources (Stone 2021). Overall, the film is heavy on emotions and outrage, but rarely supports their points of view with outside perspectives.

Also, this documentary is by no means small-scale and has other talented producers that have helped to spread its message. One of the producers is Robert F. Kennedy Jr. who makes an appearance and claims strongly in Medical Racism: The New Apartheid that “I would say the same thing that I tell everybody, take responsibility for your own health care,” but then quickly follows up with: “don’t listen to me. Don’t listen to Tony Fauci. Hey, and don’t listen to your doctor” (“VIDEO TRANSCRIPT: Medical racism: The new apartheid • children's health defense ” 2021). Another producer of Medical Racism: The New Apartheid, Curtis Cost, is an author famous for being one of the first African-Americans to publish anti-vaccination books and he is known for stating his belief during a podcast that “viruses do not cause anything, it's a hoax, it's a myth ... whether you are talking about HIV virus, the flu virus or any other virus” (Solomon 2017). Somewhat in contrast, the producer Tony Muhammad is a respected community leader (“The New Apartheid” c2021). He is a Nation of Islam student Minister and a regional representative for the Nation of Islam, and he has worked to create the United in Peace
movement where biker gangs in the streets of South Los Angeles conduct “Peace Rides” to signify their intent to keep streets free of violence (Muhammad 2016).

A post made on the site on April 2, 2021, reads that they are “proud to say one of these #TruthHeroes is our very own Cofounder Kevin Jenkins,” above a link to a website discussing the articles made by the CCDH about the disinformation dozen (“DISINFORMATION DOZEN VACCINE TRUTH HEROES UNITED” 2021). Following the link, https://truthweek.org/, brings up a minimalist and well-designed website sporting “DISINFORMATION DOZEN VACCINE TRUTH HEROES UNITED,” with the “DIS” portion cross-out in red. The websites’ article begins by briefly discussing the background of the CCDH, but abruptly breaks off to state that “It's time to show them who they are up against” (“DISINFORMATION DOZEN VACCINE TRUTH HEROES UNITED” 2021). They then declare that the CCDH is putting themselves at risk of defamation and are incapable of hiding the truth from the public, and
continues on to say that: “we have transformed the ‘Disinformation Dozen’ into who they really represent. Truth Telling Heroes, whose only mission is to educate, evoke thought and research, and empower people to take their own health decisions into their own hands,” before declaring that they are not alone (“DISINFORMATION DOZEN VACCINE TRUTH HEROES UNITED” 2021).

![Fig. 9 Depicted are those listed in the CCDH report as the disinformation dozen, but as cartoon-stylized superheroes. Kevin Jenkins is the second man from the last, wearing an orange and black supersuit. Another graphic then reveals the 7 “DAYS OF TRUTH in solidarity with the “disinformation dozen” from April 4th to April 10th, and also reveals the hashtag “#TRUTHWEEK” with a link to truthweek.org (“DISINFORMATION DOZEN VACCINE TRUTH HEROES UNITED” 2021). Figure 9 also shows several members of the disinformation dozen dressed up like popular superheroes, to further capitalize on the idea that they are role models and examples of excellence within the disinformation community. What examples like these showcase is that the disinformation specialists are empowering their community, and are serving as leaders to increasingly encourage people who believe in disinformation to contribute to their cause by creating art, posting hashtags on social media, or writing their own content. In this way the Disinformation Dozen are empowered by, and in turn empower, other people who believe in disinformation to create a cohesive movement.
Conclusion

Whether you are white, black, male, female, a layman, or a medical professional there is a market for selling anti-science beliefs to you. With this in mind, there then comes the question of what can be done. Some attempts have been made to lower these individuals' concerns over authoritarian rule. Dr. Fauci would deliver a statement to over 100,000 people in order to assure people in a light-hearted tone that “For the most part, you can trust respected medical authorities. I believe I am one of them” (“Fauci to Georgetown Students: ’Trust Respected Medical Authorities.’” 2021). Unfortunately, it should be kept in mind that Fauci was talking to students which many of the aforementioned anti-science groups would rebuff for being educated. It is also indicative of the times when the question of trusting a respected medical authority was one of the first topics to come up during his session spent answering students’ concerns. Also for as ideal as allowing for more interaction between health professionals and communities would be, there are several key problems. First is that healthcare professionals are already strained due to the pandemic and can barely allocate an adequate amount of time to talk to members of their community outside of their now very busy lives. Additionally, it should be assumed that anti-science radicals are not seeking out medical seminars or community meetings but are posting in social media echo chambers and attending their own rallies. Creating meaningful and deep discourse with radical groups who do not wish to communicate is improbable.

The United States has had notably weak reactions to misinformation, as evidenced by the reaction to Russian interference in both the 2016 and 2020 presidential elections, but countries like Denmark have provisions for banning content that promotes violence or terrorism. Germany has laws for blocking incitements of hate or violence and banning hate symbols. The United States has to be careful with making similar laws (Levush 2019). The first amendment of the
United States Constitution states that “Congress shall make no law... abridging the freedom of speech” (“United States of America 1789 (rev. 1992) Constitution” n.d). Still, it may be argued that creating laws preventing misinformation would not prevent the freedom of speech and instead increase the potential for free speech. The words of medical professionals are obfuscated and ignored when people believe misinformation over their words, and fruitful discussion falls apart when facts are set aside in favor of pseudoscience. It should be clear today, that the misinformation campaign is no longer a collection of fragmented individuals, but a collaborative effort between business conmen, lawyers, and public leaders. If not addressed swiftly and accurately, the spread of misinformation could cause harm not only to efforts to stop this pandemic but also any pandemics we may encounter in the future.
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