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EXECUTIVE SUMMARY, RECOMMENDATIONS

THE (PSEUDO-SCIENTIFIC) WORLD AS POLITICS AND BUSINESS

- Although a number of outstanding studies in the past have already dealt with the business background of fake news¹, this report² is the first to provide a quantitative estimate of the profits Hungarian pages generate for sites which systemically spread disinformation about the coronavirus, related treatments and health in general oftentimes tying these into other topics, such as political conspiracy theories³.
- Many websites and associated social media platforms disseminating fake news, conspiracy theories and pseudo-scientific content do so primarily for financial gain, profiting from visitors to the website through online advertising systems. This is a worldwide phenomenon, that our study tracked with a novel methodology in Hungary.
- These revenues are rather significant. Based on Google Ads, we estimate that the 93 click-bait websites examined, promoting pseudo-scientific or COVID-sceptical content or advertising alternative medicine or anti-vaccine information, generate up to 3.7 billion HUF annually (about 10 million EUR) in advertising revenues for their creators. This amount is one and a half times the advertising revenues (2.496 billion HUF) that the commercial channel RTL Klub received from the state in 2020 according to official figures. In 2022, the profitability of such websites has increased significantly as a result of both the intense political campaign (which drives up advertising prices) as well as the pandemic, which has increased not only the amount of time users spend online but also the volume of online commerce.⁵
- For the most part, the authors and creators of websites involved in the pseudo-scientific business remain anonymous, and the pages do not include an impressum. It is thus similarly difficult to determine exactly where their profits end up.
- Because major corporations are the largest actors in the online advertising market, these same companies have unwittingly become some of the most major sponsors of the disinformation universe spreading pseudo-scientific solutions.
- In addition to advertising revenues, a number of other actors popular in the pseudo-scientific field (e.g., popular COVID-skeptic "doctor" Gábor Lenkei) use their own websites for indirect profit, i.e., to promote their own products. According to company data, they are often quite successful in selling their products. The information environment also tends to favour these actors: the global market for dietary supplements and medicinal products has also increased significantly during the pandemic.

¹ Szakács, J. (2020): The business of misinformation. CMDS, https://cmds.ceu.edu/business-misinformation

² As the publisher of the study, Political Capital Institute assumes full legal responsibility for the contents of the paper.

³ We are grateful to Lóránt Győri, Dorina Zelena and Janka Marót for collecting data related to the websites.

⁴ Szakács, J. (2020): The business of misinformation. CMDS, https://cmds.ceu.edu/business-misinformation

 $^{5 \}quad \text{See e.g. GKI Digital (2020), A koronavírus nyertese?! - lendületben az e-kereskedelem, 5 May 2020, https://gkidigital.hu/2020/05/07/koronavirus/}$

- The disseminators of alternative medicinal solutions and pseudo-scientific products are characterised by a kind of hypocritical anticapitalism. While advocating against the "pharmaceutical mafia," they obtain tremendous profits both directly (through website advertisements and clicks) and indirectly (through the promotion of products). Thus, the editors of pseudo-scientific websites are not victims of deception, nor are they "useful idiots" disseminating disinformation: they are, in fact, motivated by financial and political interests as they make the spreading of disinformation an effective tool of their marketing efforts.
- In addition to hypocritical anticapitalism, these websites are also characterised by a kind of hypocritical anti-elitism. While their authors and those they quote speak out against money, the pharmaceutical industry, politicians and scientists, they actually acquire large amounts of money, hope to obtain power and use their own (perceived or real) expertise and authority (e.g., "Doctor Gődény") to try and present themselves as credible sources. Their profit comes in part from the hated corporate sector, as well as from political campaigns and the coronavirus (which they claim to view with some scepticism). They also often try to realise political ambitions through parties and movements.

MORE EFFECTIVE ONLINE DISINFORMATION NETWORKS AS A RESULT OF THE PANDEMIC

- The coronavirus pandemic provided a major boost for the online disinformation industry. The pseudo-scientific information ecosystem became more vibrant, more organized, and more extensive. Traditional websites spreading conspiracy theories also made use of the potential offered by the pandemic, and incorporated those into their regular topics of "background powers."
- The tools and topics used by the fake news websites and click-bait sites are highly heterogeneous. What they do have in common, however, is that because of the "infodemia" related to Covid-19, they were able to spread more easily, with a number of different websites and actors "latching on" to the topic. The linkages, the goals, the similar rhetoric, referring to one another, and sharing content from one another have helped align these elements into one shared universe, connected by a thickly woven web. Conspiracy theories and pseudo-scientific findings, and products connected to earlier theories, play to one another, and become either the starting points or the conclusions of each other's arguments.
- The reach of the more significant pages is increased by the fact that a number of them operate under different names but with the same content, as well as by the fact that social media pages (and Facebook in particular) often direct visitors to particular websites. Oftentimes there are several Facebook pages associated with one website. Because of the network, the target audience is very broad, which also explains the high advertising potential of these sites.
- Widely read mainstream websites and celebrities also often share the posts of pages promoting pseudo-scientific products and treatments further helping them spread their messages on Facebook.

THE MARKETING AND RHETORICAL FRAMEWORK OF PSEUDO-SCIENTIFIC CONTENT

By analysing the content of pseudo-scientific pages and the texts of virus-sceptical celebrities, we were able to identify several – false – principles which they use to promote alternative medicine, including in connection with the coronavirus and vaccines. These principles serve as "fundamental truths" or axioms in this context, without requiring any further justification⁶:

- 1. Anything natural is good; anything artificial is bad.
- 2. Every illness has mental origins, so it is not the illness itself, but primarily fear that has to be cured.
- 3. Traditional medicine is always far more effective than products of the modern pharmaceutical industry.
- 4. Certain miracle medicines (e.g., vitamin C, soda-bicarbonate, ginger), cure any illness imaginable but the profit-hungry pharmaceutical industry wishes to cover it up.
- 5. What causes pain cannot cure illness. Anything that involves pain, suffering or is unpleasant (e.g., vaccines, masks) cannot play any positive role in healing.
- 6. Physical exercise, by strengthening the immune system, can protect the body against any illness.

These pages and actors respond to people's existing fears, emotions and frustrations, as well as the problems caused by the social complexities of coronavirus safety measures; they also touch on real social problems (e.g., the anomalies of the healthcare system, the social situation of teachers, divisions in society, the lack of official communication). And while, as a result, their messages may appeal to all, they use the reactions they elicit for their own financial benefit.

 $^{6 \}quad \text{For more on this, see the 444 story: A magyar bullshitgyógyászat abc-je https://444.hu/2016/03/08/a-magyar-bullshitgyogyaszat-abeceje } \\$

RECOMMENDATIONS

- Corporations: Through specific examples, our study shows how corporations may become unwittingly the main financial supporters of the disinformation ecosystem, promoting what are often life-threatening pseudo-scientific tips and tricks. Thus, these companies and the companies organising their advertising campaigns should play a serious role in the fight against the phenomenon in question primarily by taking conscious steps to ensure that they do not place ads as part of their online advertising campaigns on pages which deny or relativize the coronavirus pandemic or promote anti-vaccine messages or alternative medicine. This is the most effective means of cutting off pages that are disseminating such dangerous content from financial sources (demonetizing them). A number of international initiatives, such as konspiratori.sk in Slovakia, have been successful in these efforts.
- Social media pages should place greater emphasis on content moderation and screening pages. It is fairly common for a number of openly anti-vaccination social media to be alive and well in Hungarian social media despite the fact that they run counter to Facebook's own social media guidelines pages (in addition to pages of the group members of Doctors for Clarity, we might also mention the Alliance of Anti-Vaccination Protectors of Life⁸); these guidelines would make it possible to remove clearly anti-vaccination pages⁹.
- It is also important for consumers of news to verify the credibility of content more carefully

 it is, after all, primarily their physical and mental well-being that is threatened by misleading

 content. Pseudo-scientific arguments can be recognised and uncovered. This study attempts to

 provide guidelines for doing so, among other measures by identifying the various elements of pseudoscientific rhetoric as well as the actors and platforms of the disinformation ecosystem.

⁷ https://konspiratori.sk/

⁸ https://about.fb.com/news/2021/08/taking-action-against-vaccine-misinformation-superspreaders See earlier studies by Political Capital for more: https://www.facebook.com/Olt%C3%A1skritikus-%C3%89letv%C3%A9d%C5%91k-Sz%C3%B6vets%C3%A9ge-Vaccine-Critics-Life-Protection-Assoc-320566067971075

⁹ Revenue-generating websites and Facebook pages linked to them either directly or indirectly form a network: often, posts by Facebook pages increase clicks on a website (and their profits) even without being directly linked to a Facebook page.

¹⁰ See for instance: Ágnes Veszelszk and Nóra Falyuna. "Az áltudományosság leleplezése érveléstechnikai-nyelvészeti eszközökkel." Médiakutató 20.3 (2019): 39-51.

INTRODUCTION

During the coronavirus pandemic, disinformation appearing in various forms spread at a speed and in a quantity that was unprecedented. Humans have an inherent desire to acquire information and to learn about events going on around them. This desire is even more important during a global pandemic; access to information is necessary for a person to receive answers to their questions, and to obtain guidance as they make their decisions, shape their behaviours or manage their emotions. The amount of information available about the coronavirus grew exponentially since the start of the pandemic, and this deafening information noise is particularly favourable for the dissemination of misleading content. This is also something that can be easily used for political or business gain. In a situation where people are emotionally affected, and possibly frightened, it is far easier to influence them since they are more likely to believe unfounded and non-credible information if it reinforces their beliefs and needs. In these cases, people are generally willing to purchase certain products or service if it promises to treat or prevent an illness. In connection with the coronavirus, we saw an increasing focus on health, and thanks to this, the market of traditional and alternative medicines alike became more profitable.

Online platforms which rely on disinformation to capture people's attention are able to attract more clicks on their sub-pages, thus increasing their followership and using their content to influence their audiences. They thereby profit from manipulation both directly and indirectly:

- 1. by receiving money for advertisements placed on the site, proportionally to the number of clicks:
- 2. by selling products or services;
- 3. by encouraging voter turnout or political activism to increase the popularity of a movement or party, or to build their own political capital.

Nóra Falyuna 2021. Érdemes-e kilúgozni a koronavírussal teli kádat, mielőtt belefekszünk? *Political Capital,* 2021. április 1. Nóra Falyuna 2022 (m.a.). A pandémia nyelve, retorikája és kommunikációja. *Magyar Tudomány*.

Péter Krekó (m.a.). Dezinformáció, áltudomány és koronavírus szociálpszichológiai megközelítésben. *Magyar Tudomány*.

- Nóra Falyuna 2020. Az áltudományosság koronázatlan királyai. **e-nyelv.hu magazin** 2020/2. https://e-nyelvmagazin. hu/2020/05/18/az-altudomanyossag-koronazatlan-kiralyai/
- 13 Péter Krekó 2021. Mutations of science in the pandemic. *Eurozine*. https://www.eurozine.com/mutations-of-science-in-the-pandemic/

¹¹ Péter Krekó – Szicherle Patrik: Elburjánzottak az álhírek a koronavírus nyomában https://www.politicalcapital.hu/hireink.php?article_read=1&article_id=2502

Below, we will examine characteristics of the content marketing of certain prominent actors (for instance, but not limited to, prominent members of the group Doctors for Clarity, established during the pandemic) and certain fake news or clickbait sites with broad reach: what are they communicating, how are they communicating and how are they disseminating their messages?

The two marketing elements – advertisement placement and content marketing – go hand in hand: attention economics plays a key role in social media, as attention is both a valuable commodity and also a currency. This is what clickbait sites want to acquire, and this is the first thing users are able to provide. Profit, however, may be realised as both money and votes, if attention is transformed into action – be that in the form of a click, the purchase of a product or the support of a movement or a political activity.

METHODOLOGY

In our study, we employed both quantitative and qualitative methods.

In order to obtain a quantitative estimate of advertising revenue, we used the program Google Ads; we were assisted by social media expert Ákos Berkes, for whose work we are grateful. As the basis of our study, we relied on a list of 105 websites, 93 of which we identified as ones using the advertising platform Google AdSense to sell advertising space, thereby generating revenue for the operator of the website. The advertising surfaces available on the Google AdSense advertising network are sold through the auction system accessible via the Google Ads service. In this system, users have the option to target selected websites directly. In these cases, the ads appear only on the chosen websites or pages, or on the YouTube channel associated with the pages selected.

This system made it possible for us to conduct a qualitative study as part of our research. The 105 websites included in the study provide a comprehensive sample of the websites belonging to an online network promoting pseudo-scientific messages, alternative medicine, Covid-sceptic convictions or anti-vaccine ideas. For our calculations' point of departure, we relied on the advertisements available on the websites selected, as indicated by the Google Ads system. Because the theoretical revenues of the media set under examination depend almost exclusively on the number of page views generated by the sites each month, it was this metric we determined through the analysis of the websites and through the Google Ads advertisement management system.

Based on the advertisements available, we used the average number of advertisements displayed on the 93 websites to calculate the number of weekly and monthly page views of the websites. In this media set, and in view of the anticipated number of page views, we used the revenue planner function of Google AdSense¹⁴ to determine the theoretically possible maximum earnings of the operators of a page. We performed the final calculations on 20 February 2022.

This method enabled us to estimate the theoretical maximum advertising revenue of the media set. In reality, this would translate into real revenues only in the case of a fully saturated advertising market. How much of the theoretical maximum earnings determined are actually realised remains up to the advertisers. At the same time, this media set may obtain revenue from other sources as well (directly or through advertisements sold on other advertising networks); additionally, our analysis examined only a sample, so we may safely state that the theoretical maximum revenue of the entire media set from the online advertising market must be greater than we have seen.

The list of 93 websites collected is based primarily on a sample compiled by Political Capital and the authors; it also relied, however, on relevant previous samples collected by urbanlegends.hu¹⁵. We did not strive for this to be an exhaustive list: because of the dynamically changing nature of the information ecosystem, the websites in question continue to change, with some pages shutting down and some new ones being created.

For a list of the 93 websites used to estimate the maximum advertising capacity, click the link below:

LIST OF PSEUDO-SCIENTIFIC PAGES

We used the program Crowdtangle to produce a quantitative analysis of the activity and the sharing of the most popular Facebook pages of the disinformation ecosystem.

We relied on qualitative content analysis to describe the content marketing strategies and relevant rhetorical framework of pseudo-scientific pages.

¹⁵ List of misleading Hungarian news websites. https://www.urbanlegends.hu/2020/01/megteveszto-magyar-hiroldalak- listaja-2020/

ADVERTISING REVENUES OF PSEUDO-SCIENTIFIC

WEBSITES: CORPORATE SPONSORS

Many people may not realise that the majority of the revenues of websites disseminating pseudo-scientific content and disinformation are generated by advertisements which provide earnings for their operators based on the number of clicks - i.e., through the advertisements published on the pages. For the most part, advertisers place these ads on the websites through the use of the advertisement management platform Google Ads. This allows even those actors to earn a profit who otherwise are not looking to sell a product to their customers.

Political Capital has already described in earlier publications the phenomenon of how the business sector has unwittingly become a main sponsor of these pages¹⁶, which is of course a development that is not exclusive to Hungary. According to a report by the Center for Countering Digital Hate (CCDH)¹⁷, David Icke, the former television sports broadcaster known for his conspiracy theories about lizard people – who later also joined the tide of fake news arising from the wake of the coronavirus – earned approximately \$145,000 a year (approx. 43.5 million HUF) with his YouTube videos; and this accounts only for one segment of his income.

For the 93 websites we examined, Google's advertising system projects **40 million** available ad impressions a week with targeted advertisements, with an average of 7 advertisements per page¹⁸. This translates into 5.7 million page views. We incorporated an over-estimation figure of 10%,¹⁹ resulting in **5.1 million** page views a week and **20.5 million** page views a month. The estimate provided by Google's advertising system, which applies to available impressions, also includes impressions on YouTube channels accessible based on the targeted websites. Because these impressions, in the majority of cases, would be realised on the YouTube channels associated with the websites, this does not significantly impact the calculation of theoretical maximum revenue amounts in the media set.

¹⁶ https://pcblog.atlatszo.hu/2021/08/31/a-128-eves-hitler-felbukkanasa-es-a-volvo-xc40-recharge/

¹⁷ https://www.counterhate.com/_files/ugd/f4d9b9_13cbbbef105e459285ff21e94ec34157.pdf

¹⁸ We arrived at this value by counting and averaging the advertisements displayed on the pages. This means that the system displays 7 advertisements to visitors for each visit to the average pseudo-scientific page.

Our experience is that Google's advertisements tend to "exaggerate," and overestimate the actual potential reach by approximately this factor.

- 1. Using the same average, this translates into \$972,480 in potential revenues each month across the pseudo-scientific and disinformation media set under examination. At the current exchange rate²⁰, this amounts to some 304 million HUF (304,755,782.4 HUF to be exact) per month and nearly 4 billion HUF (3,657,069,389) per year in revenues. This amount is roughly one and a half times greater than RTL Klub's total advertising revenues of 2.5 billion HUF from the state in the year 2020, as officially declared (2,495,600,000 HUF²¹).
- 2. The following information helps interpret the data:
 - Google AdSense's revenue planner considers **potential** and not actual revenue; in other words, these estimates determine the theoretical maximum advertising revenue of the particular pages. These potential revenues would apply to a scenario where all of the page views of this media set were realised on one domain on one single website, that is.²² The calculated monthly number of page views (20.5 million) and the theoretical maximum revenue amount are thus distributed throughout the media set represented by the representative sample.
 - For a single page, Google's revenue planner (which website operators can use to estimate the level of revenue they can expect) projects a maximum of 10 million page views for planning purposes (in other words, the revenue estimated here is twice the theoretical maximum revenue of the media set). The revenue planner projects different amounts based on region and content category:
 - 1. If a page classifies itself as belonging to a scientific category, its revenue in the *Europe, Middle East and Africa* region, assuming 20.5 million page views, is \$914,400.
 - 2. In the category of health, in the same region, revenue is \$1,281,600 in the case of 20.5 million page views.
 - 3. In the category of people and society, it amounts to \$782,400.
 - 4. In the category of news, it amounts to \$480,000.
 - 5. While in the category of online communities, it comes to \$1,404,000.
- 3. We believe it is these categories which apply to the media set under examination. When determining their theoretical maximum revenue amounts, we used the average revenues estimated for the categories above: in this case, assuming 20.5 million page views per month, it totals \$972,480 per month.

²⁰ Official Central Bank exchange rate on 18 February.

Source: Media1, based on RTL Klub reports. https://media1.hu/2021/01/18/rtl-magyarorszag-allami-reklambevetel-2020- covid19/

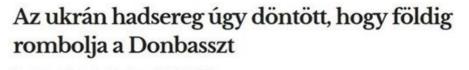
²² If this is divided among several sites, the actual amount would be lower, but not orders of magnitude lower.

Google provides the following disclaimer for this calculator: "There's no guarantee or commitment that you'll earn this amount. Estimates are based on the content category and region you selected. Actual revenue is dependent on many factors such as advertiser demand, user location, user device, content vertical, seasonality, ad size and currency exchange rates." These amounts may nonetheless be considered good estimations, which provide a fair approximation of a page's ability to generate revenue.

We may refer, however, to a number of specific examples of how corporate actors often become unwitting sponsors of disinformation. The following examples are based in part on the authors' own sample and in part on Political Capital's earlier analyses.²³ Political Capital's earlier study has shown that Adsense advertisements are rarely absent from Hungarian disinformation pages, and advertisers in fact include not only small businesses, but some real big shots as well, from retail chains to coffee brands and pharmaceutical companies or auto manufacturers.



In one case, we encountered an advertisement for Tchibo's authentic Ethiopian coffee pods on a declaredly pro-Russian website, alongside an article falsely claiming that the Ukrainian army had decided to "destroy the Donbas." On the same website, visitors saw a promotion from Lidl under an article which accused EU leaders of preventing the approval of Russian vaccines in the European Union.





Placed in an article on a website spreading conspiracy theories was an advertisement for a series on RTL Klub, which the visitor would encounter after reading the confessions of the "key figure" of the Vatican, in which he revealed that the world had ended as part of a "global social experiment" the previous year.

"Be vagyunk zárva, távol a napfénytől és a friss levegőtől, szenvedünk a tv médiaterrorizmusától."

A Vatikán egyik kulcsembere megtörte a hallgatás csendjét és "vallott" arról, miért és hogyan tervezték meg a világ lezárását egy globális társadalmi kísérlet során...

Az Egyesült Államok egykori elnökének, Donald Trumpnak küldött levelében nemcsak a "mély államra" utalt – amit már széles körben ismernek–, hanem egy, a háttérhatalom által uralt "mély egyházra" is.

Ez a mély egyház segédkezett a 2020-as esmeények kapscán is – állítja Viganó érsek, aki első körben kulcsfiguraként beszélt arról, mi történt, mi kezdődött el 2020-ban.



We found an advertisement for Volvo luxury automobiles on another website specialising in conspiracy theories, directly under articles which tried to solicit visitor clicks with discussions of Hitler at age 128 (!), the world dominance of the Rothschilds and the antidote to aging.



Egy 128 éves férfi lehet Adolf Hitler, aki eddig bújkált a világ

Az Argentinában élő férfi azt állítja magáról, hogy ő a Führer, és az elmúlt 70 évét a világ elől bujdosva töltötte: most színre lépi



Kate Rothschild: a bankárdinasztia feketebáránya kilóg a családja sorából, nem gondolnád...

Világhatalom, övék a Föld lakosságának vagyona. Kate mégis teljesen kilóg a dinasztia sorából.



A férfi, aki megállította az öregedést: sosem találnád ki, hogy milyen idős

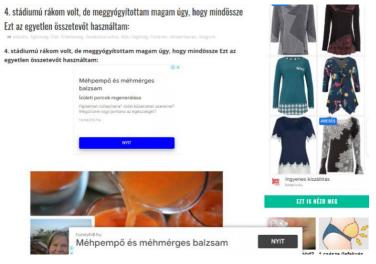
25-30 évesnek néz ki, de ha megtudod mennyi idős, azt fogod gondolni, hogy ilyen nincs.



One advertisement on an esoteric website promoting pseudo-scientific "self-knowledge" exercises and "healing energies" is for the private clinic Duna Medical Center - placed under an advertisement for an aroma claiming to "stop" the virus.



A story about the discovery of a new miracle cure for cancer is accompanied by an advertisement for the company Bonprix.



Ironically, Doctor Gődény's website - which actually includes a staggering number of advertisements, with up to 9 ads per article - advertises the PCR coronavirus tests of Triton Labs.

