

# Knowledge supply chains in an age of truth decay: The role of encyclopedias

Naja Bentzen

European Parliamentary Research Service 

[naja.bentzen@europarl.europa.eu](mailto:naja.bentzen@europarl.europa.eu)

**ABSTRACT:** Our information sphere—the space where we not only express our opinions, but where we also form our opinions—is facing significant challenges. The core trends of »truth decay«—growing disagreement about facts; blurred lines between opinion and fact; increasing influence of opinion over fact; and declining trust in formerly respected sources of factual information—have become increasingly evident in the strategic and systemic dilution and distortion of information that contribute to increasing fragmentation of society, deepening already existing divisions. Over the past three years, growing geopolitical tension and asymmetric warfare have further increased the visibility of and focus on the weaponisation of information and, by implication, the weaknesses of our collective cognitive security. Societal and economic repercussions of the pandemic and the accompanying »infodemic«, the accelerated geopolitical competition, as well as recent domestic political violence in the USA and—most recently—Russia’s war of aggression against Ukraine, have increased the sense of urgency to defend and reinvigorate the information ecosystems that form the core of our liberal democracies, enabling everyone to not only express their opinions, but also to form their opinions, to make informed choices without being manipulated. Against this backdrop, the strategic importance of strengthening our knowledge supply chains is growing. Reinvigorating already existing components of our shared information sphere—including national verified encyclopedias—can help boost collective cognitive resilience against information manipulation, both in and beyond Europe. The external face of such investments can contribute to developing new aspects of European knowledge diplomacy, promoting and projecting European democratic values and freedoms in third countries.

**Keywords:** disinformation; information manipulation; foreign interference; encyclopedias; knowledge diplomacy; democracy; authoritarianism

## Introduction: Collective knowledge and the global information disorder

Thank you, Nataša, Bruno, and Filip, for organising this important conference at a crucial time. Thank you to the Croatian Ministry of Foreign and European Affairs for supporting it. And thank you for your inspiring welcome words, Bruno: Umber-

to Eco's observation about the internet being good for the rich but bad for the poor captures the challenges we are facing in terms of access to knowledge. I'm honoured to be here with all of you, both those who are here in person, and those who are participating online. Everything I say today is my personal opinion, it's not the official position of the European Parliament.

Thanks to the Miroslav Krleža Institute of Lexicography, we have the honour to be visiting your castle of cumulated collective knowledge and cultural heritage today. It feels like a sanctuary in a time of uncertainty, at a time when the pressure on our democratic infrastructure—including our information ecosystem—is mounting. Where the quantity of available information online is skyrocketing, but the quality of the knowledge that people can access is diluted at a similar pace. The threats to our information sphere are just one dimension of the current challenges to democracy. Just like your building is a recognisable and integral component of the architecture of your capital, the knowledge that you provide and make accessible is a landmark in the knowledge infrastructure of your language community and your country. Here and now, we might feel safe between these solid walls, but we all know that they might not be enough to protect us against the rising tides of diluted and sometimes even deceptive information that continue to wash over Europe, over North America, and over the rest of the world.

Thank you for inviting me to speak about what I think is the most important topic of our time: how to handle the ongoing challenges of truth decay, a notion that was coined in 2018 by experts from the Rand Corporation, and that captures four related trends: growing disagreement about facts; blurred lines between opinion and fact; increasing influence of opinion over fact; and declining trust in formerly respected sources of factual information. These trends are linked to the strategic and systemic information disorder that is currently undermining our public space for debate. We in this room today are not the only ones who are concerned about truth decay: seven out of ten people across 19 countries in Europe, in North America, and in the Asia-Pacific region see the spread of false information online as a major threat, according to a recent survey from Pew Research Center.<sup>1</sup> This was actually not the top concern, it only came second; the top concern was climate change. And when I say that information manipulation is the most important challenge of our times, it is not because I don't take the climate emergency seriously. But because if we are not able to agree on facts, if our knowledge and information supply chains are disrupted to an extent where we no longer base our decisions on facts, but where we create separate sets of »alternative facts« to underpin our opinions, then we cannot

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<sup>1</sup> Climate Change Remains Top Global Threat Across 19-Country Survey, Pew Research Center, 31 August 2022.

solve any of the key challenges that we are facing today. And that includes climate change as well as present and potential future pandemics.

### **Distortion and fragmentation of our information sphere**

Three years ago, at the reception in the European Parliament, I used my phone as a metaphor for the challenges that our information sphere is facing in a digital age: I used the image of the Mirror of Erised in *Harry Potter*, which shows »not your face but your heart's desire«. Erised is a palindrome, desire spelt backwards. *Der Spiegel Nerhegeb*, *Speilet Mørd* in Norwegian, and *Mördspegeln* in Swedish: the mirror was created with good intentions, but because it reflects exactly what people want, they get lost in it, it's addictive—it sucks you in. Wishful thinking is not a new phenomenon, but I used the Mirror of Erised as a metaphor for the attention economy that dominates our personal and collective access to information, to news, and to knowledge—with our phones as a key window to the world, a *fata morgana*, where the algorithmic curation shows users what they want to see. And what benefits the online platform of your choice, of course.

My personal Mirror of Erised has started to splinter—I haven't had the time to fix it yet. It reminds me, partly inspired by this castle of a fairy-tale by Hans Christian Andersen, where a splinter of a magical mirror—a malign magical mirror, created for entertainment purposes—pierces the eye of a young boy and disrupts and distorts his view of the world by magnifying everything that is ugly and bad. The splintered mirror in the fairy-tale about the Snow Queen is also a metaphor for our current window to the world, where the online platforms' algorithmic curation favours divisive content over facts and knowledge. It amplifies content that triggers emotion, and we know that negative emotions tend to trump positive ones in the online world. Outrage, hate, fear, shock, horror, disgust generate most engagement, clicks, and likes and shares.

The image of a splintered mirror also captures the fragmentation of our infosphere: you tend to connect with likeminded only, you tend to stay within your own tribe. The fragmentation is further exacerbated by the economic pressure on formerly trusted sources of information: the shifting ad market has led to a decline of traditional news media, including widespread death of local news, which used to be the glue of local communities. The same is true for traditional providers of knowledge, including encyclopedias, some of whom have been struggling to survive in the digital era, as we discussed in Brussels three years ago. Our realities are not only distorted, they are fragmenting to an extent where we often don't agree on basic facts anymore. And the public debate that underpins democracy suffers from the lack of glue that binds the cognitive fabric of our societies together: shared facts, shared references, shared realities.

## Knowledge as the key battleground in the war between democracy and authoritarianism

Let us look at the realities that we share—despite our different backgrounds and our different nationalities. Winter is coming, not only in the cautionary fairy-tale about the Snow Queen. The cold reality has dawned on us on both sides of the Atlantic in a number of ways. On a practical level, mornings are getting chilly: winter *is* coming, literally. And we are learning the hard way that our energy infrastructure is vulnerable. The geostrategic, systemic rivalry between democracy and authoritarianism has unveiled a new and chilling reality in international relations, and on the ground, in our own houses and apartments, in our houses of democracy, in our castles of knowledge, and in our information sphere.

Ukraine has been at the forefront of the hybrid battle between authoritarianism and democracy at least since 2014, and Ukrainians are currently fighting two wars at the same time, one on the ground and one in the collective cognitive space. Putin's war on Ukraine aims not only to conquer territory. It's a war on facts; a war on knowledge; a war on cultural heritage, the collective memory, physical archives, libraries, museums; it's a war on Ukraine's history and even on the Ukrainian language. In the battle between democracy and authoritarianism, knowledge has become a key battleground.

The world has changed in several ways since we met in Brussels three years ago, as we will discuss in a panel later today. I want to focus on three aspects today that are linked to the overall topics of this conference: I will list three key developments from the past three years that have increased the sense of urgency to protect and strengthen our information ecosystems, on both sides of the Atlantic: the infodemic, the situation in the US, and, as I have already mentioned, Russia's war on Ukraine. Based on these developments, I will look at some of the components of what can be called our knowledge supply chains<sup>2</sup> that could and should be boosted further to help strengthen our infosphere: the public space for debate that should enable us to form our opinions—which is a part of freedom of expression—and to make informed choices. That includes you, of course. And then, we can look ahead together, and discuss what the next three years could bring, for you and for the knowledge communities that you represent.

### Three lessons from the past three years

Let's start with three key developments from the past three years. The already known problem of information overload and massive amounts of mis- and disinfor-

<sup>2</sup> Understood as the network of organisations, resources, activities, technology, and individuals involved in the creation and distribution of knowledge.

mation was accelerated by the pandemic, which fuelled our fear and our uncertainty, and increased inequality, because many people lost their jobs. The lockdowns also contributed to isolation and loneliness, which we know can make people more vulnerable to extremist messaging. At the same time, many people spent more time online, including on social media, and all this created a dangerous cocktail which made the World Health Organization (WHO) warn that the pandemic had been accompanied by an »infodemic«, defined as an over-abundance of information—some accurate and some not—that makes it hard for people to find trustworthy sources and reliable guidance when they need it.<sup>3</sup> Many people changed their consumption of online information, with young people increasing their consumption of videos by 51% and their consumption of video games by 31% during March and April 2020 alone. I look forward to hearing more about your experiences later today.<sup>4</sup>

Looking at the role of the online platforms, which are under increasing pressure, including from the European Union, to make trustworthy and authoritative information findable—a challenge we will discuss tomorrow—one key lesson from the infodemic is that even in the eye of the perfect storm, there was authoritative information available in many different languages, that the platforms could make findable, among others, from the WHO itself, as well as national health authorities, that all play a role in our knowledge supply chains, defined as the network of resources, technology, and individuals involved in the creation and distribution of knowledge. I'm not claiming that it was an easy job for the online platforms to navigate the infodemic, or help us navigate the infodemic. Anti-vaxx conspiracy theories—some of them originating from the US—spread across the world. They continue to spread today and continue to hamper the vaccine rollout. But still, there were credible sources available, in many different languages, that the platforms could make findable. That is completely different, of course, when it comes to divisive political wedge issues that are being used to pit people against each other.

That takes me to the second key development that I would like to highlight. I mentioned conspiracy theories originating from the US, and I mentioned the four trends in the notion of truth decay, all of which are playing out in the US right now. In addition, the US is a very good example of the blurring lines between domestic and foreign actors of information manipulation, where domestic actors take over narratives of the Kremlin and vice versa. It can be difficult to measure the impact of information manipulation and truth decay, but you can see some of the results in the US, including in the context of the attack on the US Capitol on 6 January 2021, which was a direct result of the big lie about a stolen election. Violent political speech

<sup>3</sup> Novel Coronavirus(2019-nCoV) Situation Report – 13, WHO, 2 February 2020.

<sup>4</sup> Coronavirus Research – Series 4: Media consumption and Sport, Global Web Index, April 2020.

and physical political violence are on the rise.<sup>5</sup> And we are seeing attacks on not only election workers, but—in the context of the ongoing culture war—also on libraries and librarians that offer books about racism and LGBTQ people.<sup>6</sup>

The third lesson is that China and Russia—which were both under enormous pressure to defend their systems during the pandemic, and launched significant campaigns to defend and promote their narratives—have cooperated more closely to weaken democracies and to undermine our information sphere. Right now, such narratives aim to, for example, convince the world that the West is to blame for the food crisis that Putin has sparked with his war on Ukraine. Both Russia and China are using a network of state-sponsored foreign facing media outlets that they have invested in in the past years, including in Latin America and in Africa. Authoritarian state actors also use academia, our universities, to influence research and to spread their narratives. At the same time, they are devoting significant resources to manipulating Wikipedia articles to make them fit their narratives or harassing or threatening users who don't toe the official line of their respective regimes. After the invasion of Ukraine, Russia threatened to ban Wikipedia for publishing »prohibited materials« and »fake« content about the war over the Russian-language article about the invasion of Ukraine. The result of this threat was that downloads of Russian Wikipedia grew by 4,000% in the first half of March compared to early January, and ironically that made Russia the country with the most Wikipedia downloads worldwide. In July, the Russian media regulator ordered search engines to mark Wikipedia as a violator of Russian laws<sup>7</sup> that makes Wikipedia not only contested territory, but an explicit danger zone.

All this is strong testimony to the power of (shared) knowledge. As we know, both China and Russia have invested significant resources in their own encyclopedias, the Encyclopedia of China (which they call the »Great Wall of Culture«) and the Great Russian Encyclopedia (which they refer to as »The Territory of Truth«). In addition to that, in August 2022, Russian authorities launched another Russian alternative to Wikipedia; Runiversalis, which uses Wikipedia's freeware—so it looks like Wikipedia—and drawing on what they say are former Russian-language Wikipedia editors. Runiversalis, of course, offers only the official Kremlin line about the war on Ukraine.

<sup>5</sup> The New York Times noted on 2 October 2022 that »In the months since the Jan. 6, 2021, attack on the Capitol, which brought lawmakers and the vice president within feet of rioters threatening their lives, Republicans and Democrats have faced stalking, armed visits to their homes, vandalism and assaults.«

<sup>6</sup> Libraries and Librarians Under Attack, Editorial Board, New Jersey Law Journal, 4 September 2022.

<sup>7</sup> Russia orders search engines to put a disclaimer on Wikipedia results it claims are »fakes«, The New York Times, 20 July 2022.

## Knowledge supply chains under threat

These three different developments from the past three years show the importance of knowledge supply chains, and show how different components of our knowledge supply chains are being targeted. I have only mentioned a few of them: I have mentioned libraries and librarians, news media, including local news, public broadcasters, universities, and academia as well as encyclopedias. Last, but not least, the online platforms have played a key part in enabling the decay of our knowledge infrastructure, and must play a key part in strengthening it—and I look forward to the discussion about that during this conference.

Authoritarian actors have increased their investments in their own knowledge infrastructure in recent years, while at the same time stepping up their efforts to undermine ours. With this in mind, it's high time to treat knowledge supply chains as critical infrastructure that underpins the democratic debate, without of course compromising freedom of expression. Our information sphere is only a part of our democratic infrastructure that includes the rule of law, our human rights and democratic freedoms—with the freedom to form our opinions—as a key aspect. Some steps to boost our information sphere are already underway. Currently, a significant amount of energy is going into fixing the broken mirror, the technology that distorts our view of the world. This is necessary, just as it is necessary to teach people how to recognise disinformation, and show them how to »do their own research«, which is also a part of the proposed solutions to the challenges. But we also have to ensure that we have reliable content that can be made findable by the platforms.

Supporting and boosting knowledge supply has the added benefit of not compromising our freedom of expression, because it works to strengthen and diversify our information sphere. The final report of the European Parliament's first Special Committee on Foreign Interference in all Democratic Processes, including Disinformation, which was adopted in March 2022, stated that »pre-bunking (=inoculating people against disinformation) and a healthy information ecosystem are far more effective than subsequent fact-checking and debunking efforts«. The report also highlighted the importance of having »easy and timely access to fact-based information from reliable sources when disinformation starts to spread«. One could be even more ambitious and say that it's important to have access to fact-based information from reliable sources about potential future wedge issues (divisive political issues that can be used to pit people against each other), including history, identity, and religion, before the campaigns start to spread. And anyone who wants to »do their own research« should be able to find reliable sources in their own mother tongue. We have seen Russia weaponise history to justify the war on Ukraine, and Ukrainian president Volodymyr Zelenskyi has asked for not only heavy weapons, but also for efforts to help Russians understand their own history—to prevent futu-

re wars. That should be a part of the Russian-language knowledge infrastructure going forward.

By building bridges between academia, science, and people, in a language they can understand—meaning in people’s native languages as well as using a language that is easy to grasp—verified and trusted encyclopedias like yours—landmarks of knowledge—can help bridge the past, the present, and the future, without getting stuck in the Mirror of Erised. You can help preserve national heritage, help keep languages alive, help create communities of knowledge that can be extended beyond the borders of Europe.

### **Is knowledge still power?**

I know I have painted a somewhat gloomy picture against the backdrop of some of the developments we have seen in the past three years. Yes, there is no shortage of forces who work to divide us, for monetary or geostrategic reasons. There is no shortage of forces that undermine trust in expertise. But we can boost the structures that unite us, that help us bridge the divides and help us share realities. We are witnessing right now how nostalgia for the glorious and mythical past can destroy the future. Nostalgia is desire spelled backwards. Putin, as so many other dictators before him, got stuck in his own Mirror of Erised and tried to impose it not only on the rest of the country, but also on Ukraine. This has prevented him and his compatriots from moving forwards, and they are currently moving backwards, in every possible way. I hope at some point that the Russians will be able to move on, but—as Ukrainian president Zelensky has said—that will require a deeper understanding of their own history. And that requires sustainable knowledge supply chains, in Russian as well.

One of the underlying questions in your welcome words, Bruno, was: ‘Is knowledge still power?’ We know, and we know that they know, that knowledge is still power. Otherwise, why try to undermine it? In democracies, knowledge shared is power multiplied. A knowledge gap, on the other hand, is a power vacuum that will be filled by forces who have an ideological or commercial interest in doing so—if we don’t fill it ourselves. The power of knowledge that you represent has the potential to fill the gaps and reach beyond Europe and the US. Knowledge diplomacy can take many forms, and encyclopedias can be one of them.

### **Conclusion: We are all in the same storm, but some vessels are stronger than others**

Let me conclude by paraphrasing Martin Luther King, Jr: attacks on the information sphere anywhere are attacks on the information sphere everywhere. It’s often



said that we are all in the same boat when it comes to defending democracy. That is only partly true: yes, we are all in the same storm, but some of us have stronger vessels than others. And unfortunately, it's not always enough to go high when they go low, as former first lady Michelle Obama once said. We have to go broad and reach people. If we are not visible, we cannot help others navigate the storm. But we still have to aim high. I look forward to the discussions about how we can increase the impact of the knowledge communities you represent, how your work can be magnified and how we can maximise knowledge diplomacy. Building knowledge supply chains at home can, if we do it right, benefit the entire information ecosystem. I hope we can widen the circle over the next three years, and I hope our Ukrainian friends will be able to join us in person next time we meet. And I look forward to watching this particular network evolve, as a key part of the knowledge supply chains that bridge the past, the present, and the future, and that help build shared realities in your countries. And, by doing that, underpin the democratic debate in Europe and beyond. Thank you for your work, and thank you for lending me your ears and your attention today.

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## OPSKRBNI LANCI ZNANJA U VREMENU PROPADANJA ISTINE: ULOGA ENCIKLOPEDIJA

**Naja Bentzen**

Europska parlamentarna istraživačka služba  
naja.bentzen@europarl.europa.eu

**SAŽETAK:** Naša informacijska sfera, odnosno prostor gdje ne samo da izražavamo svoja mišljenja nego ih i oblikujemo, suočena je s ozbiljnim izazovima. Osnovne tendencije »propadanja istine« (*truth decay*) – sve učestalije neslaganje o činjenicama, zamagljene crte između mišljenja i činjenica te smanjeno povjerenje u nekad cijenjene izvore činjeničnih informacija – postaju sve očitije u strateškom i sustavnom razvodnjavanju i iskrivljavanju informacija, što pridonosi rastućoj rascjepkanosti društva, produbljujući već postojeće podjele. Tijekom prethodnih triju godina rastuće geopolitičke napetosti i asimetrično ratovanje dodatno su podigli vidljivost i usredotočenost na upotrebu informacija kao oružja i – implicitno – slabost naše kolektivne kognitivne sigurnosti. Društvene i gospodarske posljedice pandemije i popratne »infodemije«, rastuće geopolitičko natjecanje, kao i nedavno političko nasilje u SAD-u te agresija Rusije na Ukrajinu povećale su osjećaj da je potrebno hitno obraniti i obnoviti informacijske ekosustave, koji čine srž naših liberalnih demokracija, čime se svima omogućuje ne samo izražavanje mišljenja nego i njegovo oblikovanje te donošenje promišljenih odluka bez da pritom budu podložne manipulacijama. U tom kontekstu raste strateška važnost osnaživanja naših opskrbnih lanaca znanja. Oživljavanje već postojećih sastavnica naše zajedničke informacijske sfere, uključujući potvrđene nacionalne enciklopedije, može pomoći pri povećanju naše kolektivne kognitivne otpornosti na manipuliranje informacijama u Europi i izvan nje. Vanjsko lice takvih ulaganja može pridonijeti razvijanju novih aspekata europske diplomacije znanja te promoviranju i projekciji europskih demokratskih vrijednosti i sloboda u drugim državama.

**Ključne riječi:** dezinformacija; manipuliranje informacijama; strano upletanje; enciklopedije; diplomacija znanja; demokracija; autoritarizam



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