ISBN 978-0-473-63778-1

2022 Quaker Lecture

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THE SEARCH FOR TRUTH:
information, disinformation, and the algorithms of social media

Among the various meanings of the word truth, the one that appears most intriguing to me is truth as "knowledge of the truth".

If I were to tell you a story about difficulties in finding the truth and make an argument that journalism helps us navigate between information and misinformation – my plan for today – it has to start with this note on the distinction between "truth" and "knowledge of the truth".

If I were to make an argument that in the world spun by the algorithms of social media a mutually reinforcing confirmation bias dominates, then distinctions between facts and opinions, truth and knowledge of truth, matter.

One might say the truth is metaphysical and spiritual, the *thing as it is*, while the knowledge of truth is the truth *as it appears*.

> A story about the war, told by numbers of people killed, wounded and displaced.
>
> A story of war, as told by a woman fleeing her home with a toddler in her arms and the memory of home lost.

The difference seems easy to spot. In the first case, we are talking about depersonalized facts. In the second case, we bring the context of truth, our pre-existing knowledge, experiences, feelings, beliefs and more broadly human relation to reality.

We say that war is an extension of politics by other means, a widely accepted fact, or we say war is an act of violence that is always morally wrong.

If the war were only that simple.

Zelensky story

On March 13 this year, when devastating news items about Russia's brutal invasion of Ukraine ran one after the other on my screen, I got an email from a friend with one word in the subject line: 'Zelensky'.

The Ukrainian president, Vladimir Zelensky, hero of an unjust war, a symbol of a nation's willingness to protect freedom, asking the international community to act – that must be the story behind the forwarded link, I thought.

The opposite was true. The link led to the headline: "What Pandora Papers revealed about Zelensky's offshore accounts and funding from Ukrainian kleptocracy".

The article, published on the Greek website *New Economy*[1], claimed that "Ukrainian President Volodymyr Zelensky rode to power on pledges to clean up the Eastern European country, but the Pandora Papers reveal[ed] he and his close circle were the beneficiaries of a network of offshore companies, including some that owned expensive London property."

Misinformation? Russian propaganda hiding behind a Greek website?

A quick Google search revealed the story was a reprint of the October news based on the release of the Pandora Papers by the International Consortium of Investigative Journalists (ICIJ)[2].

The original story was published in the international media at the time. It featured in the Guardian[3] too, and it was authored by an excellent journalist I know. Two strong reasons to trust it. The story was based on evidence that president Zelensky and his partners in comedy production owned a network of offshore companies based in the British Virgin Islands, Cyprus, and Belize.

Why does one feel differently reading the same story in October and in March?

The answer to this question sits between two abstract ideas, the idea of truth and the notion of reality. I will try to unpack both by outlining three spheres of social action where concepts of truth and reality take the tangible form: the world of journalism, the world of media, and the world of the Internet which more often than not leaves us feeling disoriented and confused about the world as it is.

Let's start with journalism.

Journalists as truth-tellers

Finding and telling the truth, as the history of journalism shows, has been a professional credo since the first newspapers were published in the 17th century. A journalist is a mediator in pursuit of truth, one who overcomes the singularity of the event and who, by interpreting the event, transforms reported reality into universal 'experience' and commonly shared knowledge.

Two distinctive visions of the journalist have been developed over the years. One is the position of 'neutral reporter'; the other is a 'participant'. Both are developed in relation to the wider social space:

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[1] "What Pandora Papers reveald about Zelensky offshore accounts and funding from Ukrainian kleptocracy". *New Economy*. 13 March 2022. Available at: https://new-economy.gr/2022/03/13/zelensky-pandora/

[2] Loginova, E. "Offshore holings of Ukrainian President and his inner circle". Organized Crime and Corruption reporting project. Available at: https://www.occrp.org/en/the-pandora-papers/pandora-papers-reveal-offshore-holdings-of-ukrainian-president-and-his-inner-circle

[3] Harding, L., Loginova, E. and Belford, A. "Revealed: 'anti-oligarch' Ukranian president's offshore connections". *Guardian.* 3 October 2021. Available at: https://www.theguardian.com/news/2021/oct/03/revealed-anti-oligarch-ukrainian-president-offshore-connections-volodymyr-zelenskiy

"The first refers to ideas of the press as an informer, interpreter and instrument of government (lending itself as a channel or mirror); the second is the traditional 'fourth estate' notion, covering ideas of the press as representative of the public, critic of the government, an advocate of policy and policy-maker"[4].

If journalists are truth seekers, it is integrity and the values of honesty and truthfulness that should guide their representation of reality. As Quakers value 'integrity', and personal testimony over received opinion, journalists believe they should be honest and truthful when doing the work.

Reprinting the October story about Zelensky therefore should include the information on why it is relevant in March, at that particular point in time.

I said that I knew the author of the original story, investigative journalist Aubrey Belford. I told him I was preparing this lecture and asked if he knew of their news outlet's reprinting the story and if it triggered wider social media discussion.

"I am not sure who else published it, but I did see the story get picked up a lot on social media and re-spun as part of pro-Russian narratives", Aubrey responded.

We all know it is a narrative that gives meaning to the story, and knowledge about the truth.

Knowledge about the truth

In the case of journalism, the news coverage of events tends to appear a truthful account of reality the closer it falls to the prevailing consensus of the moment. To illustrate different standards of reporting in relation to politics, media scholar Daniel Hallin draws a map of three concentric circles where the circles correspond to the spheres of 'consensus, controversy and deviance' in society[5].

Within the '**sphere of consensus**', he explains, exist social issues that journalists regard as non-controversial. When dealing with such issues, journalists "do not feel compelled to present opposing views or to remain disinterested observers. On the contrary, the journalist's role is to serve as an advocate or celebrant of consensus values" (Hallin 2004, p.232).

In the '**sphere of legitimate controversy**' (such as electoral contests or legislative debates) exist social issues that journalists consider suitable subjects of partisan dispute. When this is the case, objectivity and balance are the ruling journalistic principles.

The '**sphere of deviance**' is a region occupied by "political actors and views which journalists and the political mainstream of the society reject as unworthy of being heard". In this sphere, journalism throws away the mask of neutrality and "plays the role of exposing, condemning, or excluding from the public agenda those who violate or challenge the political consensus. It marks out and defends the limit of acceptable political conflict" (Hallin 2004, p.233).

The boundaries between the three spheres are not fixed but fluid and changeable over time.

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[4] McQuail, D. (2010). The future of communication studies: A contribution to the debate. *Media and communication studies interventions and intersections*, 27.

[5] Hallin, D. C. (2004). The media and war. In *International media research* (pp. 228-254). Routledge.

The majority of journalists strongly believe that these spheres of consensus do not affect their work. At the end of the story, they are truth-tellers, neutral interpreters of events. This strong belief is the essence of journalistic values, defined as professional norms of accuracy, fairness, balance, and objectivity. In making news judgements, and creating knowledge about events, issues and people beyond our experience, journalists are led by this set of norms that create professional integrity and define how the work should be done, what is good practice and what is not.

Good journalism, like good governance, is a testimony of civic duty to serve the community. When Aubrey and colleagues dug into 11.9 million documents known as the Pandora Papers, the largest investigation in journalism history, their aim was to serve the public globally. To expose a shadow financial system that benefits the world's most rich and powerful.

That is what we - the audience, the citizens - want to know.

However, the truth about the facts reads differently in the context of peace and the context of war. Otherwise, suddenly bringing Zelensky's business deals to the centre of the story about Ukraine wouldn't feel that uncomfortable.

"Do you know who stands behind the New Economy", Aubrey asked.

I didn't know. The website is in English and in Greek, and the English version does not provide information about the editorial team and the site owners.

That is where we stand now. We don't always know where the information is coming from. The current media landscape includes traditional mainstream media, plus social media, plus media outlets that sit in between.

New media landscape

Established media organisations such as the New Zealand Herald, RNZ, BBC, CNN, Russia Today, or Al Jazeera, are those we first run to when breaking news, such as the start of a war, occurs. They have developed a reputation over the years. We base our trust – and mistrust – in their news on a number of factors: their performance over time, the form of journalism they practice, knowing who owns them, how the newsroom is organised, and how they fit in the cultural, political and social environment within which they operate, and on the ethical norms that drive their journalists.

That is the world of traditional, mainstream, "legacy" media.

What do we know about social media, a central part of our experience of using the Internet? Facebook, Twitter, Instagram, TikTok have mostly developed as commercial companies designed to provide, and I cite: " Internet-based, and persistent channels of mass personal communication facilitating perceptions of interactions among users, deriving value primarily from user-generated content" (Carr and Hayes, 2015, pp-49-50)[6] They operate thanks to the messages we produce, share and comment on. Free labour that is digital, affective, and emotional.

This part of cyberspace allows people to talk to each directly, with no mediators such as journalists to process the information available. This follows the basic principle of the

[6] Caar, C. T. & R. A. Hayes (2015). Social Media: Defining, Developing, and Divining. *Atlantic Journal of Communication* 23, 46–65.

Internet, which started out as a Bulletin Board System (BBS) which allowed users to exchange software, data, messages, and news with each other. How powerful are social media? The last statistics show there are about four billion users of social media across the globe, every second person in the world uses social media. But the digital divide tells us a different story. The move to the online sphere has not been a socially equal one, and the inability of many to connect meaningfully online is a critical concern. With physical distancing and lockdown restrictions in place in the last two and half years, activities like working, learning, or meeting with friends, require these digital tools.

Between these two poles of the media landscape sit other information sites, online outlets, websites of companies, governmental and non-governmental web pages, unions, as well as one-man run businesses, blogs, and video blogs. The New Economy, that republished Zelensky story, among them.

One might argue these information spaces are different. They are, of course, they are different. But are we different when assessing these spaces? Each of us with our individual interests, knowledge and set of values, are we different when engaging with traditional media, with companies and organisations' websites, and with social media?

We switch between the news on Russian aggression in Ukraine, the Ministry of Health statement about the covid cases, our colleagues' achievements and our neighbours' cat videos, with hardly any pause, looking for information that will help us navigate reality and – one always hopes - brighten our understanding of the world.

That is the Dialectics of Concrete, Czech philosopher Karel Kosik would say.

Multiple realities

I first read Kosik as a student, interested in the world of ideas, creativity, and imagination – the immaterial world more than the world of economy where my father wanted to see me as a student.

The Faculty of Political Science in Belgrade, where I enrolled in a journalism major, was a progressive, still socialist-coloured institution. The curriculum included classes across social sciences and humanities: philosophy, sociology, social psychology, law, political theories, political economy, media history, cultural theory, media ethics, foreign languages, stylistics, rhetoric, and of course theory and practice of journalism.

For those interested in the idea of things, a certain level of skill was needed to navigate through the curriculum. We all had to read Marx. There was a lot of mechanics in teaching Marx, hardly any discussion in that first year of study, a lot of ex-cathedra lectures, closed offices and unreachable professors. But there was a group of young open-minded teaching assistants that helped us reconcile three truths about reality: Marx's ideas, Communist Party propaganda, and our own experiences of reality.

What lecturers failed to deliver, we picked up in tutorials. One tutor, whose work would later inspire me as a journalist to write a weekly column, Political Culture, had just come back from the Fulbright fellowship in the States, fresh to discuss justice in terms of political philosophy. Yes, the working class was idolized across all subjects, but another tutor introduced political sociology by talking about the unions and the right to strike. There were teachers eager to engage with the ideas outside of the heavy stones of institutionalized ideology, and I mention

them here because even in a tight and confusing environment, their efforts to open our minds to multiple realities have defined my professional journey ever since.

The revisionism literature of the European left helped too: Gramsci, Marcuse, Kollakowski, Yugoslav philosophers whose journal Praxis had been banned, but whose work was easy to find.

Then came Kosik and the *Dialectics of Concrete*[7]. Kosik was well known for his work on rejuvenating Marx, and open concerns for human freedom. He was expelled from the university for being actively involved in the Prague Spring. His disobedience was attractive, but there was more to it.

Kosik's effort to bring Heidegger – a politically problematic name in socialist Yugoslavia – to the understanding of Marx, brought the tools many of us future journalists were waiting for, tools for grasping 'the thing' while searching for a way to grasp reality. Because:

> What is reality, indeed? If it were only a sum of facts, of the simplest and further irreducible elements, then it would follow that, first, 'concreteness' is the sum of all facts, and that, second, reality in its concreteness is principally unknowable because to every phenomenon one can array further facets and aspects, further forgotten or yet as undiscovered facts, and by this infinite arraying prove the abstract and inconcrete character of cognition. (Kosik, 1976, p.18)

Behind the backdrop of the study of Kosik in Yugoslavia was indeed another reality.

A group of Marxist-humanist professors was expelled from the university, students were arrested for wanting to celebrate the anniversary of the '68 demonstrations, movies were banned and heavily censored, and the president's wife was removed from public life. But a young person felt detached from the concrete.

Politicians claimed, and journalists reported, that professors were "professional Anti-Communists" and "enemies of self-managing socialism"; that the protesting students were violent, and the film-makers – well, they spread pessimism.

A couple of years later, an artist who spent eight months in jail for criticizing the Communist Party, asked me how was it possible to study mass communication and not to protest against political oppression in everyday life.

I said my thoughts were somewhere else.

Where were they, the thoughts of a young person faced with an ideological machine that lied to its citizens and used misinformation to control them?

Where are the thoughts of my students when Wellington protestors link vaccine and Bill Gates microchips, or our thoughts when the president of the United States lies? What could we do to counter the rapid spread of online misinformation used by malicious actors across the world, homogenising racists and recruiting terrorists?

What might help for a start is to look at the structure, conditions, rules and resources that determine human action, to find both the driving factor of discontent and vulnerability towards disinformation.

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[7] Kosík, K. (1976). Dialectics of the Concrete Totality. In *Dialectics of the Concrete* (pp. 1-35). Springer, Dordrecht.

On discontent first: a study published in the *Scientific American* says that the income share of the top 0.1 per cent of people in the country quadrupled over four decades while the real wages of most people declined. Those that possess as much wealth as the bottom 50 per cent combined.

"Elites are the real problem in the US, not the conspiracy theorists", writes columnist Matthew Sayed[8]. People feel that their lives and the lives of the elite exist in a parallel world.

Unpacking the truth about two parallel worlds was the main idea behind the Pandora Papers. Still, the Zelensky story reads differently in time of peace and time of war.

One wonders if this difference, what happened at one point in time and what appears to be relevant upon reflection, goes too far.

Maybe it is closer to the truth to say that one's approach to knowledge easily gets instrumental. The instrumentalization of truth, as we all know, transcends time.

The post-truth world

The post-truth world we are living in has been raised at many points throughout history. From ancient Rome up to the present day, stories that are not true or are meant to be misleading have been used to make money, change people's views and opinions, and make us question who we can trust, the BBC noted, when the term 'fake news' became the Collins Dictionary's word of the year 2017[9].

From stories about Marcus Antonius' drunkenness to the 19th-century newspaper reports on the existence of unicorns on the Moon, times of uncertainty have been a fertile ground for spreading lies and disinformation.

Wars, crises, and natural disasters make it hard to find the meaning. Even journalists, experts in distilling truth from lies, struggle to extract and verify fasts in uncertain times. Unlike popular belief, the facts don't speak for themselves. It is we who give them meaning. Many layers of reality – experienced and imagined, sensed, and spoken about, mine and yours, form a subject matter of our quest for truth.

There were many things that tormented me as a journalist working in the midst of war, the Yugoslav wars in the 90s. For example, contradictory eye-witness accounts. How do you find truth when two people attending the same event say two opposite things? The old professional tool, to ask a third and a fourth person, and more, until the majority are saying the same thing does not work when bullets are flying around and the only thing you can count on is what you see, what you experience. That is how Robert Fisk, described his 40 years of covering the Middle East.

What is real in Lebanon might seem surreal in London, if it were not for the work of journalists and news media in general to put new information in the context of what we already know, to link known and unknown and known, and to tell stories that can be comprehended, as it is comprehension and repetition that makes human actions meaningful.

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[8] Sayed, M. (2021). Elites are the real problem in the US, not the conspiracy theorists. *The Times*. June 11,2022

[9] https://www.bbc.co.uk/bitesize/articles/zwcgn9q

In Auckland and Christchurch, in Kyiv and Cardiff, in Hobart and Wellington, in Budapest and in Ljubljana, in Belgrade, Rabat, Jakarta, Washington, Shanghai, Cairo, and New York, places I've seen and worked in, journalists believe the truth is out there, ready to be told.

What is 'relevant', how it is told, and who it is aimed at, change across national contexts, but a belief that reality exists for journalists to record does not differ. Whatever form it takes, the dynamic between reality and attempts to disclose it transpires.

In the case of news media, differences between governments, freedoms, and media systems, play a significant role in the outcome of journalists' work – stories we trust, believe in, retell, and act upon – but they do not diminish the essential component of journalism praxis, a search for the truth about reality. What is behind that search for truth?

The most important text for the development of liberal journalism, John Stuart Mill's (1859) essay on the liberty of thought and discussion, outlines the basic principle of this search for truth.

Mill explains why a healthy democracy requires a free exchange of different arguments. He establishes the principle that has guided journalists ever since: "On every subject on which difference of opinion is possible, the truth depends on a balance to be struck between two sets of conflicting reasons"[10].

But 'what is truth' when journalism is under threat?

Journalism under threat

At the start of the war in Ukraine, the Russian Parliament adopted a new law imposing prison terms of up to 15 years for spreading what the Government says is "fake news" online.

What was banned?

> The use of the word "war" when writing about Ukraine. The term "a special operation" should be used.
>
> Reports of heavy artillery in residential areas were declared to be illegal.
>
> All content that may discredit the Russian army, including photos or videos too – illegal.
>
> Calls to resist the Russian army are illegal, and so is the calling for sanctions against Russia.
>
> It is illegal to call for anti-war public protests, or even to share online banned content created by others.

Where is the truth there?

Does truth depend on a balance of two sets of conflicting reasons, or balancing the power of military machinery and the country under attack's ability to resist?

Many international news organisations closed their offices and brought their journalists home. What is truth and who is going to tell it if journalists are not there to report it?

That is war. But what about other crises?

[10] Reprinted in Mill, J. S. (2006). The Collected Works of John Stuart Mill.

In 2020, the Chinese Government cancelled press credentials, refused to renew visas, and expelled 18 foreign correspondents, restricting reporting on the Covid-19 pandemic.

To protect what?! People finding the truth about the virus that would kill - now we know – more than 6 million people?

Freedom to communicate is an essential right. Freedom of the media is crucial for participative societies – says the UN Office of the High Commissioner for Human Rights[11]. I cite:

> "Journalists and the media are crucial to ensure transparency and accountability for public and governmental authorities. Yet media freedom and the safety of journalists are under threat around the globe.
>
> There are attacks against the physical safety of journalists and media workers, as well as incidents affecting their ability to exercise freedom of expression, including threats of prosecution, arrest, imprisonment, denial of journalistic access and failure to investigate and prosecute crimes against them."

What type of journalism is practised and could be practised when its professionals are under threat?

Not the one that the International Federation of Journalists defines in its Global Charter of Ethics for Journalists:

> The right of everyone to have access to information and ideas, reiterated in Article 19 of the Universal Declaration of Human Rights, underpins the journalist's mission. The journalist's responsibility towards the public takes precedence over any other responsibility, in particular towards their employers and the public authorities. Journalism is a profession, which requires time, resources and the means to practise – all of which are essential to its independence. [12]

Why is it important to recall these statements? Because talking about the search for truth and misinformation has to start with journalism as the key vehicle for the transference of information, a vehicle for public conversation.

The power of social media

Even in the age dominated by Twitter, Facebook, Instagram, Weibo, TikTok, and social media platforms that seem to define public conversation nowadays, journalism remains to play this important role. How far does that intervention go if the main source of misinformation comes from governments, not just the ones that put journalists in jail and censor calling an invasion a war, but the politicians in democratic countries?

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[11] United Nations Human Rights Office of the High Commissioner. "OHCHR Safety of Journalists and the Issue of Impunity". Available at: https://www.ohchr.org/en/safety-of-journalists

[12] International Federation of Journalists (2019). "Global Charter of Ethics for Journalists". Available at: https://www.ifj.org/who/rules-and-policy/global-charter-of-ethics-for-journalists.html

Towards the end of Trump's presidency, I looked closely at his role in spreading misinformation[13]. The US President's contribution to fuelling extremism, flirting with the political fringe, supporting conspiracy theories and, most of all, Twitter demagogy, created an environment in which he has been seen as an "accelerant" in his own right.

Twitter is a good example of the power of social media in spreading misinformation. Some sources estimate 330 million people used Twitter monthly in 2020. That is a powerful communication tool. It has given politicians such as Trump the opportunity to promote, facilitate and mobilise social groups on an unprecedented scale.

Using artificial intelligence tools developed by a colleague from Belgium, we analysed about half a million Twitter messages related to QAnon to identify the misinformation routes and the role religion played in spreading conspiracy theories. Among them, the most powerful conspiracy theory is called QAnon. Conspiracy theories have been constant throughout history, but 21st-century technological advancements have provided a powerful infrastructure for connecting conspiracy-minded individuals on a global scale.

QAnon, the US-originated conspiracy theory, has become a movement with the ability to produce and promote conspiracy ideas at an unprecedented scale. Its members and followers, united in mass rejection of reason, have demonstrated the ability to produce, share and tie together worldviews that distort and shatter reality, and create an environment that resembles the birth of new religion.

QAnon started when an anonymous individual known as Q, who claimed to be a US government insider, pronounced that "an elite cabal of child-trafficking paedophiles, comprising, among others, Hollywood A-listers, leading philanthropists, Jewish financiers, and Democrat politicians, covertly rule the world" and "only President Trump can bring them to justice with his secret plan that will deliver what QAnon's disciples refer to as The Storm or The Great Awakening".

By 2020, Q's conspiracy theory had significantly expanded. Its followers are believed to be in the hundreds of thousands united by shared hate of mainstream elites, a belief in the existence of invisible power groups that run the world, ignorance towards institutions of the political and social system, contempt of journalists, and rejection of mainstream media and their representation of reality.

QAnon believers' claims are complex and contradictory, crossing ideological lines. What started as "a sprawling but unfounded conspiracy theory claiming the existence of a global network of political elites and celebrities who want to take down Trump", soon expanded to include a secret cabal running a child sex trafficking ring (#PIZZAGATE), a secret war between the Trump administration and a 'deep state', wide corruption of the political system, powerful elites using coronavirus as a cover to implant people with microchips, governments erecting 5G towers during lockdown to survey the population, and many other apocalyptic predictions wrapped up in an evangelistic Christianity that increasingly defines the movement.

Rooted in populism, the QAnon movement aims to evoke resentments of the everyman. Its series of confusing claims resemble the conspiracy legends of the past, but the power of online social media has given them platforms to share, promote, and connect. Efforts have

[13] Rupar, V. and de Smedt, T. (2020) QAnon 2: Spreading conspiracy theories on Twitter. Available at https://getthetrollsout.org/resources/conspiracy-theories

been made to reduce this power. In July 2020, Twitter suspended 7,000 QAnon-related accounts. In August, Facebook deleted over 790 groups, 100 pages, and 1,500 ads tied to QAnon, and restricted the accounts of hundreds of other Facebook groups and thousands of Instagram accounts. Still more is to be done.

What we found was that every fourth QAnon tweet originated in the US. Over 90 percent of these profiles shared the content of at least one other identified user. They praised Trump, supported European-based nationalism, and tweeted about conspiracies, deep state conspiracies, coronavirus conspiracies, religious conspiracies, and political extremism.

Hashtags rooted in US evangelicalism sometimes portrayed Trump as Jesus, as a superhero, or clad in medieval armour, with underlying Biblical references to a coming apocalypse in which he will defeat the forces of evil.

Overall, the coronavirus pandemic appeared to function as an important conduit for all such messaging, with QAnon acting as a rallying flag for discontent among far-right European movements.

Most of the QAnon profiles tap into the same sources of information: Trump tweets, YouTube disinformation videos and each other's tweets. We call it a mutually reinforcing confirmation bias - the tendency to search for, interpret, favour, and recall information that confirms prior beliefs or values.

Harvesting discontent has always been a powerful political tool. In a digital world, this is more true than ever.

By mid-2020, Donald Trump had six times more followers on Twitter than when he was elected. Until he was suspended from the platform, his daily barrage of tweets found a ready audience in ultra-right groups in the US who helped his misinformation and inflammatory rhetoric jump the Atlantic to Europe.

And it came our way, to New Zealand, trashing parliamentary grounds in Wellington.

The social media platforms' attempts to reduce the spread of disinformation by suspending or restricting accounts and deleting groups seem to increase rather than decrease the toxicity of messages. Why is that?

Algorithms and disinformation

What is commonly known as an algorithm is actually a feature of code. That code is created by a programmer, a human, therefore subject to the institutional, political, cultural, and economic logic of its creators.

Our concerns about information technology, which in the past we simply called computers and the internet, are now crystallized around algorithms that drive social media traffic, merging information and disinformation at an unprecedented scale. We talk about the age of algorithms because we are worried that machine processing, millions of codes ingrained in every step of digital interactions, have become a powerful force in our experience of reality. Most notably, our understanding of the world.

While algorithms are an automated set of rules which do not have an agency, their creators and users – computer scientists, and citizens – do. In a newsroom, the algorithms significantly

affect the choice of news, and by influencing news production, carry a capacity to influence people's opinions and behaviours.

We are worried that Facebook, Twitter, Instagram, and other social media giants use algorithms without paying enough attention to what effect they have on people's understanding of themselves, their place in society and their understanding of the world. Research on the commercialized search engines, has revealed inherent biases in the way search engines such as Google operate. The search engines' algorithms marginalize minority groups and reproduce inequalities.

Let me stay for a while with the algorithms behind the search engines. Their aim in the chain of news production – if we stay in the realm of traditional media – is to assist journalists in identifying potential resources for producing news stories. Algorithms typically rank the news elements from various sources based on statistical analysis, e.g., outliers, trends and correlations. This significantly affects the choice of events, issues and people that appear in the news and their place in the story.

Subsequently, algorithms influence the structure of public discourse and people's opinions about political and social reality: a reality where a wide spectrum of actors have stepped into the public communication space, producing, sharing, and co-creating content based on information, but misinformation and disinformation too.

This comes,

> "at a moment when many people, appear to have little confidence in the press much as they have diminished faith in institutions as a whole, and at a time when social actors of many kinds pursue a deliberate strategy of disinformation for political or financial purposes, including through forms of computational propaganda. The dramatic diffusion of misinformation as well as related forms of "dark participation" more generally, has led to widespread debate about what some are calling a "post-truth" era"[14], scholars warn.

In the post-truth era, the line between information, misinformation and disinformation gets blurred.

If we go back to journalism and the search for truth, we could easily see how hostile the environment in which journalism operates has become in many parts of the world.

The social media noise tends to challenge journalism and its role in society.

Relying on the old definition of the purpose of journalism – to provide information citizens need to be free and self-governing, to inform, to bear witness, to serve as a watchdog over those in power, to give a meaning to events beyond our own experience, to set the tone for public discourse – is not enough anymore.

My own investigation of the relationship between journalism and political change shows that, in peaceful times, when the sphere of consensus is strong, the 'rules' of finding trustworthy information are clear. In politically rigid times, times of crisis and war, the rules are reduced

[14] Ekström, M., Lewis, S. C., & Westlund, O. (2020). Epistemologies of digital journalism and the study of misinformation. *New Media & Society*, *22*(2), 205-212.

to a set of unwritten conventions that modify the information landscape to reflect the importance of events and the agents of the events as well.

An analysis of newspapers' front page content showed that political and military tensions usually bring more news items per page than relatively stable political situations. The analysis of Twitter shows the same.

What does 'more news in a time of crises' indicate? The first assumption is there are simply more dramatic, relevant events that deserve our attention.

Dealing with information overload

A page with more items, and a social media feed full of hashtags, reflects the algorithm-supported strategy of dealing with information overload. More information in times of crisis resembles a dense jungle of news items, a feature that leaves us to draw a map of reality as much as we are able.

The pandemic and its associated lockdown restrictions have been met by following the traditional news but also by a rapid uptake in digital technology, where people were more likely to increase their digital communication than to decrease it. This growth has been caused by unprecedented humanitarian and economic needs, as everyday and in-person activities like working, going to school, and grocery shopping have relocated to an online environment.

What has this increase in all forms of digital media use brought to humanity? Connectedness in times of isolation. Work, virtual but still work, in times of disruption. A sense of belongingness instead of feelings of loneliness and irritability.

Scholars say that the shift to the online realm has elevated the power of digital spaces in the pandemic – they were the main way to access information and services and also one of the only remaining avenues where economic, educational, leisure and social interactions can take.

The calls for building up new infrastructure to support quality information are loud and clear. They are coming from politicians, from citizens, and from media professionals. Even from the owners of Facebook, Twitter and Instagram. They are and have to be addressed by all of us. But what are each of us do to distinguish truth from lie, and embrace and understand the world with a spectrum of appearances in between?

If we follow Heraclitus, the things that can be seen, heard, and learned should be the ones to prize the most. This is the empiricist talking. For Quakers too, personal experience is given a high priority, although collective discernment and further enquiry are also critical.

In the world of knowledge that formed me as a journalist and journalism researcher, the search for truth is the purpose of those enquiries.

The world has changed in the digital age, and so has people's sense of reality. Our ability to access information increased, but our ability to understand information accessed and to weed information from misinformation and disinformation lags behind. Our search for the truth, and the way we order our lives in view of the truth, tells us we can only deal with things in so far as they resemble what has been experienced in the past.

When I see a refugee from Ukraine, waiting to cross the Polish border, I know that she fears both a death and a life in the shadow of death.

When I find the old Zelensky story reprinted from the Guardian to a Greek online outlet, I think of former Yugoslavia and a medium of conflict to which information technologies have contributed.

When I see Trump's tweets resurfacing in Europe and his slogans shouted on the parliamentary grounds in New Zealand, I know that the interplay between the abstract idea of truth and its reflection in people's minds, has tangible consequences.

For all of us working in the universities, it is time to start teaching our students how to further develop and export tools for information and gaining knowledge about the world and reality we are living in, so that citizens learn techniques for finding ways to make people critical of the content they consume. That would provide a suitable catalyst for rethinking and surviving the misinformation age we are living in now.