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Ukraine is Winning the Information War Against Russia on Social Media: But Experts Say It Is Far From Over !!



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Introduction

In all military conflicts of the last decade, especially in Estonia and Georgia involving Russia, one thing has come out loud and clear— Information Warfare will precede conflict and it will continue during the conflict. The ongoing conflict in Ukraine is no exception.

The Russian invasion of Ukraine has been labelled as the first "TikTok War," with photos and videos from soldiers and civilians alike spreading and proliferating in real time.¹ The war has become content, flowing across every platform at once.

Russia's armed forces are one of the most capable and technologically advanced

Key Points

- The Russian invasion of Ukraine has been labelled as the first "TikTok War".
- Before and during the invasion, Russia used misinformation, disinformation, and malinformation to influence and manipulate public opinion, both for domestic audiences and abroad.
- US has released intelligence to the public about Russian plans which prevented Russia's disinformation tactics from achieving their goal.
- Social media platforms are playing big role in information warfare. Neutrality of Social media has been exposed.
- Ukrainian President Volodymyr Zelensky has come out as a media savvy commander of information warfare.
- Many major media houses suggest that Ukraine is winning the information war. It is too early to declare winners and losers in this information war.



militaries globally. They have advanced information warfare, cyber Warfare, electronic warfare and intelligence capabilities. The Russian state and its armed forces have become skilled at conducting information warfare in the past two decades.

Russia has used cyber operations to subvert the Ukrainian Government. In the weeks leading up to the 2014 and 2022 invasions, Ukrainian soldiers were targeted with disinformation, designed to sow disorder and confusion in the event of an attack. There is a constant contest to control the narrative about what is happening in Ukraine. Russia is running an active disinformation campaign. Russia may use Artificial Intelligence to find and generate content rapidly.

Information Warfare

Information Warfare has three components— Psychological Warfare, Electronic Warfare and Cyber Warfare.

Psychological operations or 'Psy Ops' broadly refer to tactics for shaping how people perceive events and information. Psychological operations, specially done through electronic and cyber means, are now being carried out by both the Russians and the West including Ukrainians in the ongoing conflict. This operation is fought in the news media and social media to strengthen popular support, convince and persuade the sympathy of potential allies, and concurrently spread uncertainty, confusion and distrust in the enemy's population.

Electronic Warfare tries to disrupt, destroy or misdirect the enemy's electronic systems like communication networks and radar. It includes blocking radio signals, remotely destroying computer circuits and spoofing GPS signals to interrupt navigation. Due to Russia's advanced electronic warfare capabilities, its forces may be able to take down the internet and cell towers using various techniques. Russia has a history of controlling the electromagnetic spectrum, and Russia has used systems that could hinder the signal reception from satellites in eastern Ukraine—such systems can be used to block communications and disrupt the control of drones. Electronic Warfare is generally in the classified domain and not much information is available.

Russia's Concept of Information Operations

Russia's concept of information operation is based on an old Soviet military concept called 'Reflexive Control'. This doctrine depends on surreptitiously providing information to the adversary— this guides the opponent toward 'the predetermined decision desired by the initiator of the action'. The Russian concept of information war includes " massive psychological manipulation of the population to destabilise the state and society".

The main elements of Russia's reflexive control systems in Ukraine have been:

- Denial and deception operations to conceal or obscure the presence of Russian Forces in Ukraine.
- Concealing Russia's goals and objectives in the conflict. Spread fear in some and allow others to convince themselves that Russia's aims are limited and can be accepted.
- Retaining plausible legality for Russia's actions by denying its involvement in the conflict.
- Simultaneously intimidating the West with military power in the form of exaggerated claims of Russia's military prowess, threats of using Russia's nuclear weapons and over flights of NATO and non-NATO countries' airspace.
- Deployment of a massive and complex global effort to shape the narrative about the conflict through formal and social media.

The importance given by Russia to information operations makes it a 'psychological warfare superpower'. Russia uses internet based media heavily. Russia conducted several concurrent information operations to target Ukraine's population before launching offensive military operations. Russia used Ukrainian social media groups, Russian agents, Russian media, Russian-influenced Ukrainian media and Russia's political proxies to conduct information operations. The aim is to:²

- Demoralise and disrupt Ukraine's political leadership and the Ukrainian population.
- Provoke violent protests from Ukrainian Nationalists.

- Provoke distrust and fear of the Ukrainian Government, particularly among pro-Russian Ukrainians in areas Russia seeks to capture.

Russia's information operation in Ukraine to demoralise is based on fear campaigns with the following narratives:

- Overt threats that Russia would capture Kyiv, Kharkiv, Mariupol and other important Ukrainian cities.
- The high costs of war with Russia for Ukraine.
- The inevitability of decisive Russian victory in such a war.

Russia has four distinct audiences that it seeks to manipulate with regard to Russia's invasion of Ukraine. These are the domestic Russian audience, audiences inside Ukraine, audiences in the former Soviet Republics and audiences in Europe and US.

Russia's Actions and Reactions

Before the invasion, Russia used misinformation, disinformation, and malinformation to influence and manipulate public opinion— both for domestic audiences and abroad. Before any military operations begin, Russia during operations use cyber attacks, propaganda and psychological warfare to sow discord and confusion among Russia's adversaries. Russia also carried out several 'false flag' operations before the war began. Russian bots copied disinformation narratives, increasing the reach and virality of these.

Misinformation will play a significant role in this ongoing conflict. Misinformation can spread quickly and reach worldwide audience through the social media. A trending post can reach millions of people and move public opinion in a short period.

The social media accounts of Russians have been flooded with Russia's talking points related to NATO membership, 'genocide' in the Donbas region, false flag events, and similar messages and themes.

Russia targets multiple audiences simultaneously. In a video, Russian President Vladimir Putin is seen intimidating the Chief of Russia's Foreign Intelligence Service—Sergey Naryshkin. The decision to release the video of one of the most sensitive meetings proves a strong desire to influence the Russian population.³

Putin shows himself as a defender of Russian orthodoxy and appeals to traditional Russian cultural, religious and ethnic narratives. Several of these narratives are picked up by high profile media and political figures in the West.

Putin is following the same template of 2014. Russia has used offensive information operations, including deception and influence, to create a pretext to invade a sovereign country, apparently at the invitation of local people. Russia pioneered psychological dislocation, obfuscation of forces, mass disinformation campaigns and repeated denials. The size of the operation and the build-up on the Ukrainian border made it difficult this time. Putin has used the alibi of defending the Russian diaspora in Ukraine from non-existent anti-Russia Ukrainian "fascists" as a pretext for its invasion. Putin has tried to depict Ukrainians as aggressors for his domestic and international audiences.

Putin's claim that the Russian Army was entering Ukrainian territory "to protect people who have been abused by the genocide of the Kyiv regime" has failed to get any popularity among Ukrainians or global audience.⁴

The US has taken particular interest to highlight Russian 'false flag' operation's before they occurred. The Russians attempted to persuade audiences that Ukrainian forces were committing atrocities in the Russian occupied portion of the Donbas. It is presumed that much of the faked footage claiming to show Ukrainian atrocities was aimed at domestic audiences.

Soon after the operations started, supporters of both sides posted fake videos of success of the Russian and Ukrainian Air Forces. A video showing a Ukrainian aircraft shooting down a Russian MiG over a Ukrainian city went viral. Another video showed a Russian MiG avoiding a barrage of surface-to-air missiles— both these videos were from the popular videogame Arma 3.⁵ They were quickly removed from social media.

During the beginning of the Russian invasion of Ukraine, a pilot named the "Ghost of Kyiv" quickly became the conflict's first wartime hero. A lady ace fighter pilot had seemingly single-handedly shot down several Russian fighter jets. The official Ukraine Twitter account shared the narrative. Ukraine's main security agency— Security Service of Ukraine, relayed the tale on its official Telegram channel, with over 700,000 subscribers. The Ghost of Kyiv

videos had garnered more than 9.3 million views on Twitter. She was mentioned in many Facebook groups reaching up to 717 million followers. On YouTube, videos promoting the Ukrainian fighter garnered 6.5 million views, while TikTok videos with hashtag #ghostofkyiv reached 200 million views.

It was a computer version from a combat flight simulator, initially uploaded by a YouTube user with only 3,000 subscribers. The photo allegedly confirming the fighter's existence, shared by Petro Poroshenko—Former President of Ukraine, was from a 2019 Twitter post shared by the Ukrainian Defence Ministry.

Under scrutiny, some of the most widely shared images and stories of Ukrainian resistance have fallen apart. However, many who were sceptical of Russian claims rightly displayed minimal caution about pronouncements from Ukraine, leading to a wave of gullible media coverage that serves to 'propagandise' more than illuminate.

This double standard is apparent in how prominent journalists have reported the war. Charlie D' Agata, a CBS reporter apologised after describing Ukraine as 'civilised' compared to places like Iraq or Afghanistan. Similarly others have expressed shock that a war could happen outside a Third World Nation to people who "seem so like us". In response, the Arab and Middle Eastern Journalists Association released a statement condemning "orientalist and racist" rhetoric and demanded that newsrooms apply the same yardsticks to all victims of war.⁶

From 2014 to 2022: What is the difference?

Some of the differences in the world's reaction to Russia's military operations in Ukraine in 2014 and 2022 includes more proactive influence operations from the West, a profusion of open source intelligence and Russian public opinion.

Before the occupation of Crimea, a well-coordinated, multiplatform disinformation campaign swamped eastern Ukraine with reports of violence targeting Russian speakers. These fabricated reports concealed the real motivations behind Russia's military occupation and illegal occupation of Crimea. Russia's recent attack on Ukraine has encountered condemnation from the international community, backed up by severe financial



consequences. Putin's disinformation campaign has failed to convince Ukrainians, global observers and even his domestic audience that Russia's war in Ukraine is justified.

When Russia started concentrating troops on Ukraine's borders, the US administration shifted its stance. It became very vocal about Russian manoeuvres, movements and planning. It countered Russia's military manoeuvres with solid facts. Traditionally, they rarely presented their intelligence inputs to the public. This time US had made a concentrated effort to release intelligence to the public about Russian plans before they happened, to weaken the potency of 'false flags' that fabricates the pretext for invasion. They have released great details, warning about false flag operations and possible fake terrorist plots. They have given nearly a daily assessment of the troops' movements and likely plans with astonishing clarity. This has prevented Russia's disinformation tactics from achieving their goal. Though early days, Russia's info-warriors appear loose and weak in the current war, failing miserably in the battle of narratives.

A continuous stream of current information, including photos and videos, are being uploaded in social media and instant messaging platforms. This has given the common public with internet facilities, unprecedented access to rare footage of troop and transport movement, equipment, and the damage caused by Russian bombardment of Ukrainian cities. This excellent raw information provides cover to propaganda and misreporting. A growing group of open source investigators coordinates it with the necessary skillset to verify and analyse reports from the conflict zone.

When Putin annexed Crimea in 2014, his popular approval rating rose above 80 per cent, attributed to the "Crimea effect". This time, Russia's invasion of Ukraine did not increase Putin's popularity. There are early signs that it has weakened his base of support.

Despite the threat of years-long prison terms, thousands of Russians joined anti-war rallies across the country. More than 6,440 people were arrested in four days of protests across Russia— the highest nationwide total officially reported in recent memory. An activist group that tracks arrests, OVD-Info, informed detentions in 49 different Russian cities.⁷

Russia's information warfare is routed via a link of institutional channels, ranging from social media accounts, RT television (formerly known as Russia Today), to Sputnik multimedia and



multilingual YouTube channels. These channels were the means for multiple information campaigns against Western Government, prompting several high-level official complaints.

In the past, Russia's info-warriors could spread fake videos and doctored photos to instil fear, confusion, or sympathy for Russia's agenda. However, with recent introduction of OSINT practitioners, such disinformation is exposed on the spot and its conveyors are ridiculed.

Since the operation began, many of these channels had claimed to be using open-source intelligence, known as OSINT. The framing of these channels as OSINT outlets gives them an air of legitimacy that Russian state media does not command.

It was speculated that Russia would destroy Ukrainian communications, but it did not happen. Except in the Donbas region, communications remained intact in most of the country. Since 2017, Russia has been working hard to control what Russians can see on the internet, block content developing gear to silence websites and even shut off the country's online connections to the rest of the world. Last year, Russia made 700,000 requests to Google to restrict search results, and Google agrees with about one-fifth of requests.⁸

The invasion of Ukraine has been accompanied by other efforts to limit public discourse and understanding. Russian media has been deluging viewers, listeners and readers with false messaging about the conflict and its origins. Soldiers captured during the invasion have stated that they believed they were taking part in exercises.

Russian media immediately blamed the Ukrainian Military after using heavy weapons in Ukraine's Donbas region. Russian backed separatists used this opportunity to evacuate civilians residing in the separatist controlled areas to Russia. However, technology gave out Russia's plans. Fabricated videos have easily been detected in Russia's false flag operations. Metadata embedded in the videos showed that files were recorded two days before the Russian invasion of Ukraine.

Russian state owned media outlets have now faced multiple physical and virtual restrictions. RT finds European capitals question its presence, impose sanctions and even ban its broadcasting.

Role of Social Media Platforms

Facebook, owned by the parent company Meta now, has marked Russia's state-owned media content as unreliable. Other social media platforms have truncated these media from running ads or monetising their content. Facebook refused to comply with a Russian order of 25 February 2022 to stop fact checking and labelling content that state owned channels like *Sputnik* and *Russia Today* posted on the social media platform. Russia partially restricted access to Facebook.

Nick Clegg, Meta's Vice President of global affairs, wrote in a statement— "Soon, millions of ordinary Russians will find themselves cut off from reliable information, deprived of their everyday ways of connecting with family and friends and silenced from speaking out. We will continue to do everything we can to restore our services so they remain available to people to safely and securely express themselves and organize for action".⁹

Jen Psaki, White House Press Secretary, noted that the move to shut down access to Facebook is part of a design of Russia cutting its citizens off from the flow of information about the war in Ukraine.¹⁰

Vkontakte (VK), Russia's top social network known as the Russian Facebook, rivals Facebook in Russia and Eastern Europe. VK has an average of 50.2 million visitors per month—double the audience of Russian Facebook users. According to *Yandex*, Russia's version of Google, Facebook is Russia's fourth-most used social network. *Odnoklassniki* is the second-most used social platform followed by *Mail.ru*.

As per *Yandex*, Twitter is the sixth-most used social media website in Russia, clocking in about 11.8 million unique visitors per month. In a tweet of 26 February, Twitter support wrote that the website "is being restricted for some people in Russia", remarking that the "company is working to keep its service safe and accessible".¹¹

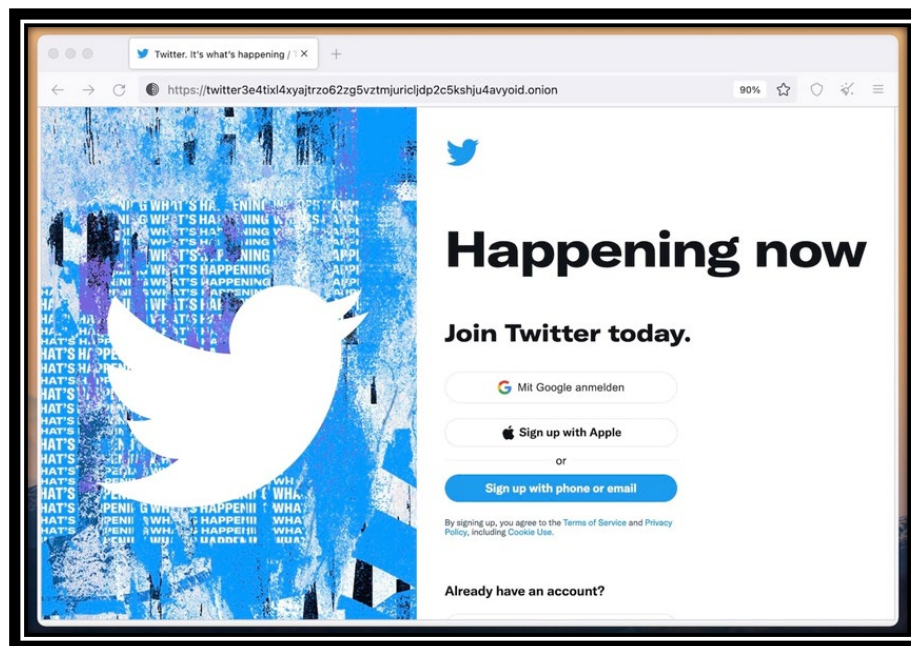
The most popular social media platform in Russia is YouTube, used by more than three-quarters of Russian internet users. Approximately two-thirds to three-quarters of Russian internet users access the encrypted messaging app, WhatsApp, which has proven to be a powerful tool for organisers worldwide.

Google has dropped Russian content from Google News after Russian propaganda performed well in searches for some key terms related to the conflict. Microsoft has dropped RT from its app store.

The European Union has banned Russian state controlled media outlets— RT and Sputnik. Facebook, Google, YouTube and TikTok are now blocking access to RT and Sputnik in the EU. Twitter stated that it would comply with the EU ban.

Bypassing Russian Restrictions. Western social media companies and media outlets have started helping Russians evade censorship by using the different software —Tor, which routes internet traffic through a distributed network of servers, successfully neutralising the website blockade. Twitter, BBC and Deutsche Welle have published links to their Tor sites, accessible with a free browser and Russian-language guides on how to view them.¹²

Figure 1: Twitter running in the Tor Browser



Source: Tech Crunch

Virtual Private Network (VPN) apps, which allow Russians to access otherwise banned sites, have been downloaded million of times on the Apple and Google app stores recently.



The *New York Times* and *The Post* have launched channels on Telegram, and made some war coverage free to access in Russia and Ukraine.

Neutrality of Social media is Exposed. This time Facebook, Twitter, YouTube and Google are proactively engaging in the information war, banning Russian Media from advertising on their platforms and aggressively fact checking Putin's propaganda despite Russia's protests. Social media companies have jumped into action facing the prospect of both sides in the war seeking to control online narratives. Most Western Media Platforms have taken measures to reduce the reach of Russian state funded media. This was done in response to the widespread calls from world leaders. However, other content moderation decisions do not have much precedent behind them.

The decision by Meta, the parent company of Facebook, Instagram and WhatsApp, to allow certain calls for violence against Russian Troops has attracted attention. The announcement drew severe criticism. Civil rights groups reprimanded Meta for allowing speech that could aggravate the conflict. However, the way Meta publicly flaunted the policy tweak and subsequently narrowed allowable posts complicated the perception of the decision.

Meta has been criticised for allowing praise of the Ukrainian Azov Battalion, the neo-Nazi military unit, the discussion of which was earlier banned under Facebook's Dangerous Individuals and Organizations policy.

A Meta spokesperson said. "For the time being, we are making a narrow exception for praise of the Azov Regiment strictly in the context of defending Ukraine, or in their role as part of the Ukraine National Guard. But we are continuing to ban all hate speech, hate symbolism, praise of violence, generic praise, support, or representation of the Azov Regiment, and any other content that violates our community standards".¹³

Twitter has likewise created content moderation cells that have raised eyebrows. The social media platform determined that a tweet from a US senator encouraging someone in Russia to "take out" Putin, does not run afoul of its rules at this time.¹⁴

The willingness of social media platforms to make those calls shows just how pliable their rules can be in some crisis while remaining relatively inflexible in others. Critics have pointed out the double standards in how willing some tech companies have been to take action in

this conflict while allowing misinformation about the COVID-19 pandemic to spread on their sites with minimal intervention.

The US Government can vehemently criticise Russia's crackdown on Western platforms that support freedom of information and expression. But doing so would also carry a real risk of playing into the Russian government's perception that those platforms are puppets of western governments.

However, the results are not black and white. There are many complex political, economic and technological factors to predict what Russia will do next, how big social media platforms will respond and what policy action the US Government will take to garner its interests. The stakes are high. The internet's future and big technology companies and Western governments' role in fighting digital repression are dependent on how all of these actors elect to proceed.¹⁵

Action Taken by Russia on Social Media. Russian citizens within Russia's borders can no longer log onto Facebook, and access to Twitter is dwindling. Russia's federal regulator for monitoring, controlling and censoring mass media, *Roskomnadzor*, on 04 March 2022, blocked access of Facebook to control the narrative about the invasion.

The Russian Government passed a law that prescribes, up to 15 years in prison for spreading "fake information" about the military or the war in Ukraine. Russian Media outlets have to refer to the ongoing conflict as a "special military operation", and not a war. This threat has scared some of the world's most prominent media outlets: The BBC, Bloomberg, CBS and CNN. All are considering the future of their operations in Russia.¹⁶

Russia had blocked several foreign news organisations' websites, including the BBC, Deutsche Welle, Radio Free Europe/Radio Liberty, Voice of America, and other media outlets to spread false information about its war in Ukraine.

The Russian Government stated that Media organisations had spread falsehoods about "the essence of the special military operation in Ukraine, its form, the methods of combat operations like attacks on the population, strikes on civilian infrastructure, the Russian armed forces' losses and civilian victims". Russia has complained that Western media organisations

offer a partial and anti-Russian view of the world while failing to hold their leaders accountable for devastating foreign wars such as Iraq and corruption.¹⁷

The BBC said, "Access to accurate, independent information is a fundamental human right which should not be denied to the people of Russia, millions of whom rely on BBC News every week". BBC said that the Russian block will not stop it from providing accurate information to common people. BBC would start broadcasting four hours of news a day in English on shortwave radio in Ukraine and parts of Russia. It would revive an obsolete technology used in the Cold War to evade state censorship.¹⁸

Russia is still sending messages on social media via botnets. Plenty of pro-Russia content is generated. But these messages don't seem to be effective. The Russian Government is losing the capacity to influence audiences abroad through its established propaganda channels—*Sputnik* and *RT*, as they are now banned in the European Union.

The Russian Government has taken measures to limit what its citizens can see in media and the internet. It has slowed access to Facebook and ordered state and independent outlets to use only governmental sources to report Ukraine. A Freedom House report said, "Although the Constitution provides for Freedom of Speech, vague laws on extremism grant the authorities great discretion to crack down on any speech, organisation, or activity that lacks official support. The government controls, directly or through state-owned companies and friendly business magnates, all of the national television networks and many radio and print outlets, and most of the media advertising market".¹⁹

Russians Getting Cut Off From Foreign Media. There is a 'tit for tat' action going on. Russia has banned German broadcaster— DW Russia, in response to the banning of RT in Germany. The media war is becoming a platform war. RT America has ceased all operations after it was dropped from satellite carrier —Direct TV.

This escalation is spiralling from mainstream media to social platforms which have blocked access to RT and Sputnik. Facebook has been blocked in Russia, and access to Twitter has been restricted. These restrictions are going to be tougher in the coming days. The blockage of social media platforms denies Russians' access to overseas information and real-time conversations, and personal information sharing with non-Russians.²⁰

It is not true that Russians have been thoroughly brainwashed and are obedient to Putin's narrative. Thousands of protestors have disregarded the threat of detention and taken to the streets to protest the invasion. But the capacity to express themselves is narrowing and getting smaller. The best way to defeat the Russian invasion of Ukraine is to make sure that the Russian people know the fact and focus public opinion on Putin himself.²¹

Russia's failure in external influence operation is evident in how cyber vigilantes have been acting against Russian organisations. International hacktivist group— *Anonymous* has declared cyber war on the Russian Government and targeted Russian television and other government sites. The group claimed to have hacked Russian news channels— *Russia 24*, *Channel One*, and *Moscow 24* to show footage of disturbing scenes from the assault and broadcast the message: "Ordinary Russians are against the war". *Anonymous* has taken responsibility of several other cyber attacks, including hacking the Ministry of Defence database, shutting down the Kremlin's official website and taking down 300+ Russian media and bank websites.

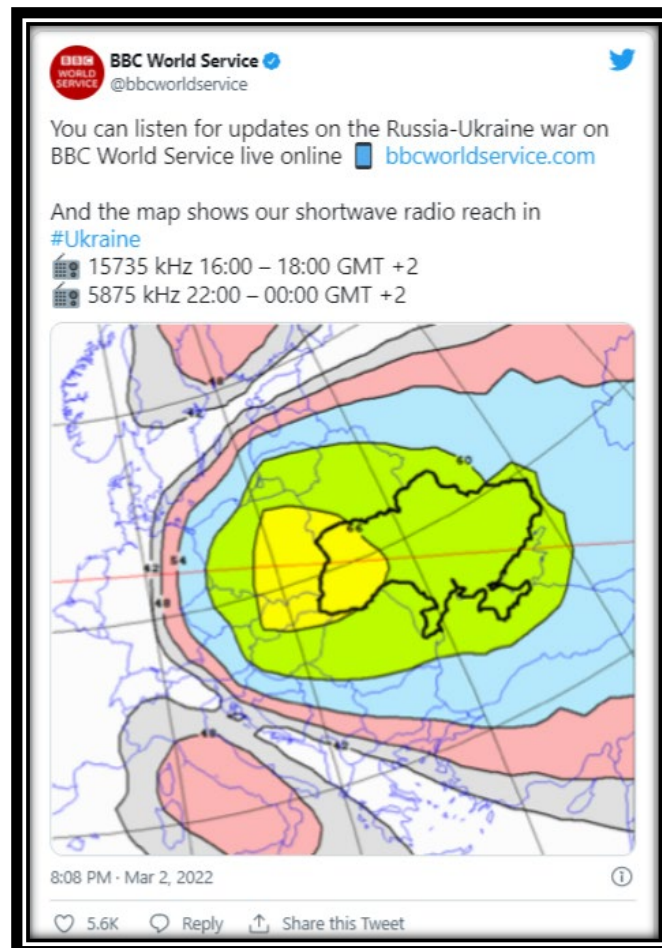
Cogent Communications, a US based company and one of world's largest internet infrastructure providers, is terminating its contracts with its Russian customers to comply with the European Union's rule banning Russian state media. Though Cogent's decision would not disconnect Russia from the global internet, it will adversely affect the speed and result in network congestion.²²

As the operations progress, major internet companies are finding it difficult to respond to pressure from both the Ukrainian and Russian Governments to remove content on their sites posted from both countries.

Use of Old and Outdated Means. The media and internet in Russia are controlled by the Russian Government now, and Russian citizens cannot read anything that looks like the truth and current status of the conflict. Ham Radio Operators have come into action and are spreading the truth. Shortwave radio signals can travel thousands of miles using lower transmission frequencies. News organisations like BBC can broadcast from a safe distance into a conflict zone without requiring physical infrastructure near the battle zone. Low frequency signals reach buildings and basements better, even when the transmitters are far

away. Shortwave signals are more difficult to jam. Citizens are getting news through short wave radios and Ham Radio Operators.²³

Figure 2: BBC Twitter Handle



China's TikTok App. Interestingly TikTok is suspending new video uploads and live streams on its app in Russia in compliance with the country's new "fake news" law. The change will not affect its in-app messaging services. During this suspension, it will review this law's "safety implications" for its users and employees. Countless young people get their news from the Chinese owned video app TikTok. Millions of people are scrolling the app for war videos and footage of combat actions. However, the news may not be truthful in various cases.²⁴

The Propaganda War. Russia's inability to compete in the information domain is evident now. What is more commonly known as the 'Court of Public Opinion', Russia has failed to gain narrative dominance since the invasion. People in the Free World are unwilling to believe Putin's rationale for the invasion —phoney threats from NATO, historical grievances against Ukraine and perceived humiliations from the West. Russian Aggression has spurred Europe and sparked a revolutionary moment: the new, Continent wide narrative that Mr Putin cannot control.²⁵

To counter the propaganda, it is incumbent to expose the propagandist media facts, demonstrate their lack of financial or operational independence, highlight their loyalty to government interests and their disregard for the public interest.²⁶

Use of Technology. The Tech Uber entrepreneur— Elon Musk supplied 47 Starlink telecommunication satellites and a truckload of ground terminals to Ukraine to allow them access to the internet even if Russians damaged equipments on the ground and wireless data links. Musk stated that, he would not block Russian State Media over his channel unless at gunpoint. But then these terminals were immediately targeted and jammed, forcing Musk to shift SpaceX priorities to cyber defence and overcoming signal jamming.²⁷

In the days before the Russian invasion, many people thought cyber attacks and a media blackout would precede the incoming tank columns as Russian hackers would take down Ukraine's communications. However, Ukraine's IT infrastructure has remained operational. This is allowing officials and citizens of Ukraine to dominate the global narrative with images of downed fighter jets and confused Russian soldiers.

Option of Taking over Ukrainian Telecom Networks. Russia can take down Ukraine's communication infrastructure. They have shown their prowess earlier in blanking out Ukraine's power sector. Why it has not done it till now is a matter of conjecture, and it may have been done for the following reasons:

- Keeping some public communications open for their own purposes and decision-making processes.
- Relying on the network to conduct its attack.

- Preserving the networks to eavesdrop on the Ukrainian Military and civilian resistance. Movement of top leadership can be tracked.

Russia can penetrate Ukrainian networks easily because both countries use similar technologies. Before the Crimean annexation in 2014, telecommunication providers of Ukraine were Russians or Russian-Ukrainian business people. Russia could take their help to eavesdrop on these networks and put backdoors.²⁸

Even before the invasion, Russia kept the Ukrainian telephone networks under observation. US officials had complained of leaks of phone conversations between Ukrainian political elites and Western officials. According to a CNN report, President Zelensky uses a secure satellite phone to communicate with US officials.

In the event of Russia taking control of Ukraine, taking over a country's existing telecommunications infrastructure is extremely difficult. Russia will have to spend huge amounts of money building entirely new cell towers and networks. Russian President Vladimir Putin, an ex KGB Chief, knows the benefits of keeping the networks up and running for intelligence purposes very well.

However, suppose the invasion becomes a long struggle. In that case, Russia's strategic calculus could change and it could start destroying the telecommunications infrastructure or use state sponsored hackers to shut it down completely. In that case, it could be a clear sign that the Russians are giving up.

Information Warfare by Ukraine

In previous conflicts, when Russia invaded Georgia in 2008 and Ukraine's Crimean Peninsula in 2014, "the Russians really owned the information space, masterfully owned it, and it could not be any more different with President Zelensky".²⁹

Russia is an acknowledged master in weaponising all manner of media. But after four weeks into the Russian invasion in Ukraine, Russia seems to be losing the information war. The Ukrainian people and a number of international journalists are countering Russia's disinformation campaign. The tenacity, bravery, and vast resources of news outlets are able to break the well-oiled and efficient Russian propaganda machine.

Ukraine's Vice Prime Minister for Innovation has brought together an "IT army" to find vulnerabilities in Russian Government and television networks. The Ukrainian Government has been choking -off social media and slowing down Russian access to Twitter and Facebook. It has been boosting up its propaganda efforts especially on television. Ukrainian officials have promoted highly produced videos to drive home the primeval shock of war. They run a Telegram channel wherein videos of killed or captured Russian soldiers are posted, to alert their family members and stoke anti-military anger back home. The Ukraine Government generated pro-Kyiv content and memes that have flooded English language feeds.

Figure 3: Mykhailo Fedorov Twitter Handle



Ukraine has a transparent and proactive communications strategy, mostly through the effective use of social media. Round the clock, official accounts swiftly distribute news from the battlefield, warn of airstrikes and train citizens on how to help the defence efforts. Four major oligarch owned media groups have teamed up to broadcast the same program and a single narrative. Political differences and criticism over domestic policy have been reduced.

Ukraine has taken control of the media narrative by releasing reports on losses on both sides, footage of destruction from Russian airstrikes and videos of captured Russian soldiers. Ukraine has been relying on first-hand experience in countering Russian propaganda narratives since 2014.³⁰

Ukraine's online propaganda is mainly focused on its heroes and martyrs, which help dramatise stories of Ukrainian fortitude and Russian aggression. Social media has decentralised and democratised the flow of information. The genuineness of these mythical stories does not matter because they become international folklore overnight, which causes nations to rally around Ukraine.

Ukrainian President Volodymyr Zelensky has come out as a media savvy commander of information warfare. He is giving a spirited performance leveraging social and traditional media to swing the Western public opinion in his favour. This is in stark contrast to Russian President —a past master of disinformation. Putin's efforts have been chaotic at best and often outright incompetent.

Zelensky understands the media. He knows how to shape images and narratives. He depicts himself as a heroic resistance leader rather than simply a statesman. He is wearing olive green T-shirts looking like a guerrilla leader. He is putting pressure on world leaders and people to support Ukraine financially and militarily. As the war entered its second week, Ukrainian President Volodymyr Zelensky started shaming the world leaders for not doing enough to hasten the war's end.³¹

On 08 March, in an address to the British Parliament, Zelensky vowed, "We will fight in the forests, in the fields, on the shores, in the streets". The British lawmakers gave him a standing ovation. But Prime Minister Boris Johnson promised only limited sanctions on Russia and humanitarian and military aid would continue from Britain until Ukraine is free.³²

Zelensky is speaking to his citizens. He is reaching out to Russians also. Zelensky comes from a Russianspeaking part of the country. He speaks Ukrainian fluently, and his ability to communicate in both languages helps. On 09 March 2022, Russia acknowledged the presence of conscripts in Ukraine for the first time and announced that few of them had been taken prisoner. Earlier, Russia had claimed that only professional soldiers were fighting there.

On 12 March 2022, Zelensky called on the mothers of Russian soldiers to stop their sons to go to war in Ukraine. He said in a video address released on Telegram— "I want to say this once again to Russian mothers, especially mothers of conscripts. Do not send your children

to war in a foreign country. Check where your son is. And if you have the slightest suspicion that your son could be sent to war against Ukraine, act immediately to prevent him being killed or captured. Ukraine never wanted this terrible war. And Ukraine does not want it. But it will defend itself as much as necessary".³³

On 09 March 2022, Zelensky shared with his 5.1 million Twitter followers a video of a Russian Military strike on a maternity hospital in Mariupol. He demanded Western nations should enforce a no-fly zone over Ukraine. The US and other NATO countries have refused as that would risk putting them in direct conflict with Russia.³⁴

On 16 March 2022, President Zelensky appearing before Congress by video link from Kyiv, pleaded for more military aid, directly requesting President Biden and members of Congress for help by showing an explicit video of the carnage in Ukraine's cities. The wrenching video of people, wounded and killed by Russian attacks, left some lawmakers in tears and brought members of both parties to their feet in lengthy standing ovations.³⁵ The images were so graphic that they prompted an apology from a cable news anchor for failing to warn viewers about what they would see.

The telegenic and combative qualities of Zelensky have made him an unexpected symbol of resistance. He has become a source of discomfort for Western leaders. There are limits to what Zelensky's public utterings can achieve.

Long before the Russian invasion, Zelensky made a communications strategy that disregarded standard diplomatic process, generating discomfort among Ukraine's backers often. This was evident when he repeatedly challenged the Biden administration's policy of not sanctioning the Nord Stream 2 pipeline, built to carry natural gas from Russia to Germany.

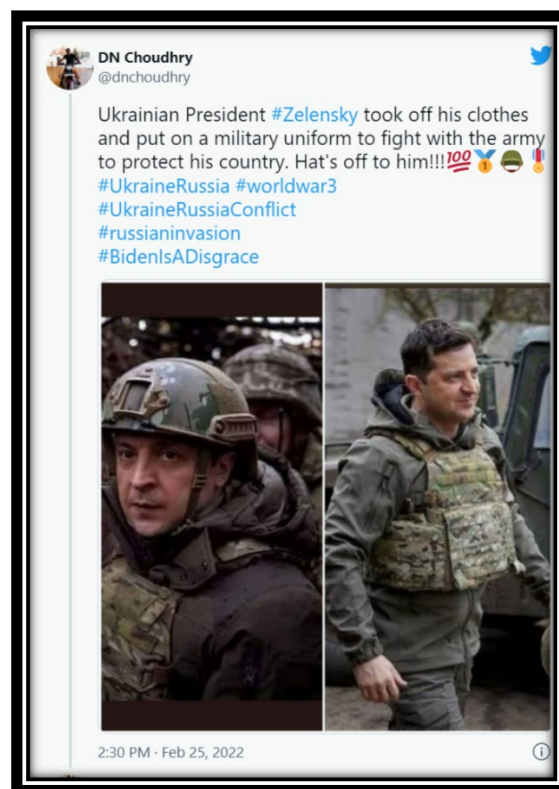
Zelensky irritated senior US administration officials when he downplayed the likelihood of a Russian invasion and accused US and UK of stirring public panic with their repeated warnings about an imminent attack. He half-mocked Western predictions, saying in a national broadcast: "We are told that the Russian invasion will begin on 16 February. I therefore declare that this day will be the day of unity in Ukraine".³⁶

In the information war over Ukraine, some of the country's official accounts have pushed stories with questionable authenticity and even some unverified information in a rapid jumble of fact and myth that was later proved false. The Ukrainian claims on social media have also raised many doubts in the minds of independent observers.

President Zelensky has failed to persuade Mr. Biden and most lawmakers to support his demands for access to Russian made MIG fighters from Poland and create a no-fly zone over Ukraine.

On social media, Photos of Zelensky in military gear went viral. It was stated that he went to the border to help Ukrainian troops. He surely did not go to the border; the picture was from 09 April last year when Zelensky went to see the armed force's sites near the border with Russian-backed separatists in the Donbas region.³⁷

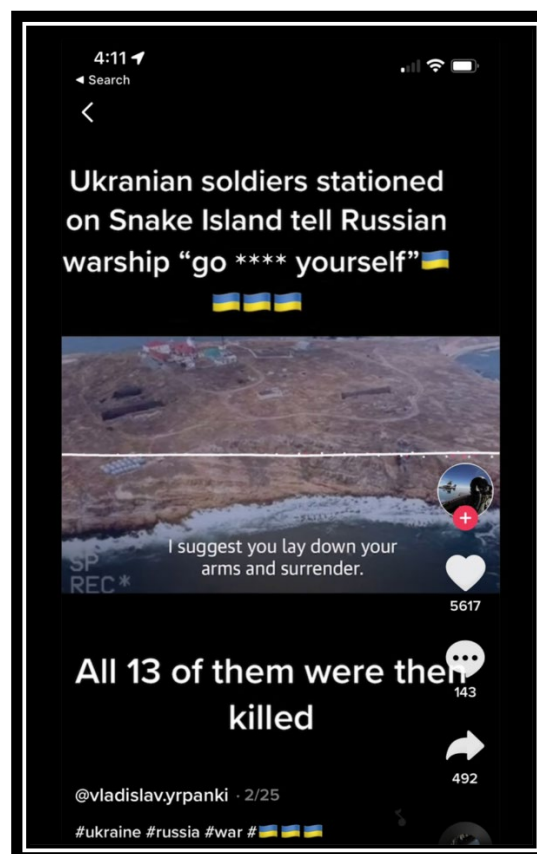
Figure 4: The False News of Zelensky's Presence in Border Areas



An image of a woman soldier became popular. It was claimed that the woman was the wife of the Vice President of Ukraine. This turned out to be fake. Ukraine doesn't have a Vice President. The photo was taken during a military parade practice on 22 August last year to commemorate Ukraine's 30th Anniversary of Independence.

In a widely reported incident, on an island in the Black Sea in which Ukrainian Border Guards were described to have resisted Russian soldiers wherein a Russian voice warns the guards that they will be attacked if they don't surrender President Zelensky cited the story, saying that 13 guards had "died heroically", promising to recognise each with the title "Hero of Ukraine." However, one day later, after Russian media reported that they were taken as prisoners, Ukraine's State Border Guard Service informed on its Facebook page that the guards may have survived.³⁸

Figure 5: The Recording



Ukrainian officials have also shown videos of captured Russian soldiers begging for forgiveness for Russia's assault.

Conclusion

As the saying goes, "There are three sides to every story: your side, my side, and the truth". They may just have different viewpoints, but that's not what's going on in Ukraine.

In a land war like this, much noise comes out of the battlefield. Internet is full of propaganda and conspiracy theories. It is difficult to get the correct picture. There is ample evidence of media manipulation, disinformation and misinformation. However, fake videos are being identified in real-time by trained investigators from news channels and volunteer organisations.

Open-source investigators have shown that Russia's online propaganda and influence operations are not as effective with non-Russian audiences as was envisaged earlier. Writers and journalists in South Africa, Venezuela, Brazil, and elsewhere have adopted stances that are more critical of Ukraine and the US than Russia. In China and India, the world's two most populated countries, Ukraine is not winning any information war.³⁹ The Russia-Ukraine War looks different depending on where you are in the world. While the West has found unity in facts and information, a completely different narrative is present outside English language social networks.

"Social media has rewired the central nervous system of humanity. From world leaders to troops to ordinary citizens, everyone is now connected to an information ecosystem that is hard to suppress and easy to manipulate. As a result, the war for the hearts and minds of the world will be won or lost, largely on Facebook, Twitter and Telegram, over grainy cell phone footage and shocking accounts of atrocities, setbacks and victories against all odds".⁴⁰ Few Russian fake news campaigns may be successful. But Russia's propaganda mechanism was caught flat-footed by the invasion, and it has not been able to ramp up.

In this conflict for the news stream, Twitter has been dominant. A lot of the sources of information come from Telegram. It certainly played a very significant role in getting information out there. TikTok has been quite significant in the build-up to the war because everyone was filming Russian convoys to get clicks, which is always useful.

The US administration alerted the world of Russia's invasion plans well in advance. By early February, Kyiv and other strategic areas were full of international journalists and camera crews anticipating the invasion. Ukraine was open to the global press. News networks didn't have to rely on their Moscow bureaus.⁴¹

This conflict has shown that it is extremely difficult to wage a successful information war when you are on the wrong side. Russia's invasion and the disturbing images of the devastation of Ukrainian cities have created a worldwide crisis and a moral consensus. Ukrainians have also done well in telling the world with a blend of fact and mythmaking what's happening to them.

We must remember that in the information war being fought along with the ground war, there is a lot we don't know or cannot see and what Donald Rumsfeld once famously stated, there are a lot of unknown unknowns.

The war is about more than four weeks old. Many major media houses already suggest that Ukraine is winning the information war. As Russia's powerful military employs massive firepower and new tactics to take Ukrainian cities, a closer look at the battlefield situation suggests a worrying situation for Ukraine. Ukraine's success in the information sphere could outpace its battlefield performance. The power of the narrative could make some people believe that things are going better than they are, which could hurt the Ukrainians in the end. What is happening on the ground is what matters most.

The current shortcomings of Russia's overhyped disinformation apparatus don't mean that Russia won't find a way to win the information war, achieve its military aims or continue to inflict devastation in the region. But they didn't anticipate an army of Ukrainians and international reporters in their path, ready to tell another story.

It is too early to declare winners and losers in this information war.⁴²

End Notes

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