

**SATURDAY 26 FEBRUARY 2022****SAT 00:00 BBC News (w172xzk1m98zsb)**

The latest five minute news bulletin from BBC World Service.

**SAT 00:06 The Newsroom (w172xyz79fclyl)**

The world's Newsroom brings you global events as they happen

**SAT 00:30 BBC News Summary (w172xzk1bwzc7q)**

The latest two minute news summary from BBC World Service.

**SAT 00:32 The Coming Storm (w3ct3k11)**

QAnon: The plot to break reality. The Coming Storm is a journey into the dark undergrowth of modern America. From conspiracy-soaked barrooms in 1990s Arkansas, via spies in hotel rooms in the shadow of the Kremlin, to anarchic chatrooms on the early internet, this is a search for the origins of the story that drove the Capitol Insurrection in Washington DC in January 2021, a search for the answer to one big question: did this just happen, or is somebody trying to break reality? For reporter and presenter Gabriel Gatehouse, it starts with a chance encounter. On the night of Halloween 2020, Gabriel signs up for a witch-themed drawing class. In the class he learns about a book, a dark fantasy written in the 15th Century about witches and a conspiracy with the devil. Thanks to the invention of the printing press, the book went viral, and sparked an orgy of misogynistic violence amid the social upheaval of the transition to the modern world. A week after the drawing class, Gabriel travels to America to cover the 2020 presidential election. There he meets a man draped in furs with horns on his head and a sign saying: 'Q sent me'. The man speaks of a coming storm, a battle against an evil cabal of satanic paedophiles, led by Hillary Clinton, who are conspiring to steal democracy. He seems like an oddball on the fringes. But two months later, on January 6 2021, as Gabriel watches the crowds storm the Capitol in Washington DC attempting to overturn the result of the election, there he is again: same furs, same horns, same story. Hundreds are there with him, thousands more outside, and millions believe his conspiracy narrative. 500 years after the witch craze began, America is in the grip of a new dark fantasy, a story so implausible and yet so compelling it threatens the very foundations of American democracy. How has that happened? And where will it lead?

**SAT 01:00 BBC News (w172xzk1m993qg)**

The latest five minute news bulletin from BBC World Service.

**SAT 01:06 Business Matters (w172xvqvc66h15)**

Thousands flee Ukraine as Russian invasion continues

As Russia's invasion of Ukraine continues we look into Mr Putin's strategy with Sergei Markov, former MP with Putin's United Russia Party and now Director of the Institute of Political Studies in Moscow. And the SWIFT banking system is in the spotlight with calls to withdraw Russia's access to it; Germany however appears reluctant because of the country's reliance on Russian gas. We get analysis from Jakob Schlanz, editor in chief of the energy section of the Tagespiele newspaper in Berlin. The BBC's Adam Easton brings us the latest from Poland, where thousands of Ukrainians are fleeing to. And we're joined throughout the programme by Norman Hermant, ABC's Social affairs reporter who's based in Melbourne; Jyoti Malhotra, National & Strategic Affairs Editor at The Print in Delhi and Erin Delmore, a political reporter in New York. (Picture description: Ukrainian refugees are seen crossing the Polish border in Medyka. Picture by Attila Husejnow via Getty Images)

**SAT 02:00 BBC News (w172xzk1m997gl)**

The latest five minute news bulletin from BBC World Service.

**SAT 02:06 The Newsroom (w172xyz79fevfv)**

The world's Newsroom brings you global events as they happen

**SAT 02:30 BBC News Summary (w172xzk1bwzlcqz)**

The latest two minute news summary from BBC World Service.

**SAT 02:32 Stumped (w3ct1lcv)**

Cricket is keeping me in Kyiv

Alison Mitchell, Charu Sharma and Jim Maxwell speak to the chief executive of the Ukraine Cricket Federation, Kobus Olivier, as Russia launches a major military assault on the country. Olivier has been working to secure Ukraine associate member status from the International Cricket Council, which he says could be just months away.

Plus the Stumped team also discuss the latest changes to the structure of India's men's Test cricket team, with Rohit Sharma named as Virat Kohli's captaincy successor, and we continue

our preview of the Women's World Cup.

(Photo: Ukraine's biggest flag flies some 90 metres above the city as it has been installed on the eve of State Flag Day, which is marked on 23 August and the Independence Day on 24 August. Credit: Aleksandr Gusev/Getty Images)

**SAT 03:00 BBC News (w172xzk1m99c6q)**

The latest five minute news bulletin from BBC World Service.

**SAT 03:06 The Newsroom (w172xyz79fcz5z)**

The world's Newsroom brings you global events as they happen

**SAT 03:36 HARDtalk (w3ct1n2l)**

Leonid Volkov: How strong is Putin's grip on Russia?

Stephen Sackur speaks to Leonid Volkov, a prominent figure in Russia's anti-Putin opposition. Russia's military invasion of Ukraine represents a gamble by the Kremlin - projecting regional supremacy will come at a high price. Just how strong is the president's grip on Russia?

**SAT 04:00 BBC News (w172xzk1m99gyv)**

The latest five minute news bulletin from BBC World Service.

**SAT 04:06 The Real Story (w3ct1ht)**

The global debt crisis

This month the G20 came under criticism for failing to deliver a promised \$100bn of additional funds to poorer countries to help with the economic fallout of the pandemic. Many of these countries suffered a significant financial crunch as their exports dropped while the price of imports went up. The World Bank says the recession of 2020 led to the largest single-year surge in global debt in decades. The Bank says the debt burden of 70 low income countries has risen by more than 12 percent. Countries that are considered middle-income and have relatively stable economies have also been hit. Last month Sri Lanka appealed to China, one of its biggest creditors, to reschedule its debts. Its foreign reserve shortage has led to a sharp reduction of oil imports, resulting in regular power cuts and further undermining economic activity. So how did the pandemic worsen the debt crisis? How much of the problem can be blamed on long-term economic mismanagement and corruption? And what should be the role of creditors like China, which has been criticised for the way it negotiates debt relief.

Join Ritula Shah is joined by a panel of experts.

Producers: Paul Schuster and Junaid Ahmed

**SAT 05:00 BBC News (w172xzk1m99lpz)**

The latest five minute news bulletin from BBC World Service.

**SAT 05:06 The Newsroom (w172xyz79fd6p7)**

The world's Newsroom brings you global events as they happen

**SAT 05:30 BBC News Summary (w172xzk1bwzyc)**

The latest two minute news summary from BBC World Service.

**SAT 05:32 The Conversation (w3ct1p9w)**

Dementia: Women breaking the silence

How can we help people with dementia? Kim Chakanetsa talks to two women from Singapore and the UK about how they've adapted to living with the condition and why they now want to help others understand dementia better.

Wendy Mitchell was diagnosed with young onset dementia at the age of 58. She wrote a bestselling memoir, *Somebody I Used to Know* about the slow realisation that she was changing, and the adaptations she needed to make to her life to cope. She's a vocal advocate for people with Alzheimer's and other dementia and promotes better understanding and care. Surprised by the lack of information available to her and her family, she's written a second book, *What I Wish People Knew About Dementia*.

Emily Ong is from East Malaysia but now lives in Singapore. She first noticed something was wrong when she forgot how to make French toast, but it took her years to get a proper diagnosis for young onset dementia. Now 54 years old, she advocates for greater understanding of the disease and belongs to the Voices for Hope programme, helping people who are newly diagnosed or already have dementia. She says it's rare for Asians to speak about dementia and it's important to be open and spread understanding.

Produced by Jane Thurlow

(Image: (L) Wendy Mitchell, credit Jo Hanley. (R) Emily Ong,

credit Clara Tan/The Perfect Statement)

**SAT 06:00 BBC News (w172xzk1m99qg3)**

The latest five minute news bulletin from BBC World Service.

**SAT 06:06 Weekend (w172xytgd0n3q6)**

Fighting has broken out in Kyiv

Ukrainian authorities say fighting has broken out on the streets of Kyiv, hours after President Zelensky said Russian forces were preparing to storm the capital.

Also in the programme The International Committee of the Red Cross has warned that Afghanistan is inching towards economic collapse six months after the Taliban seized power.

Joining Anna Holligan to discuss these and other issues are Julie Norman, Lecturer in Politics and International Relations and Director of the BSc programme in Politics and International Relations at the University College London, and Nick Kochan, a contributing editor to Thomson Reuters regulatory Intelligence and author of books on corruption and money laundering.

(Image: Military vehicle with Russian saboteurs shot by Ukrainian forces of Territorial Defence in Kyiv, Ukraine. Credit: Getty Images)

**SAT 07:00 BBC News (w172xzk1m99v67)**

The latest five minute news bulletin from BBC World Service.

**SAT 07:06 Weekend (w172xytgd0n7gb)**

Gun battles in Kyiv

Day breaks in Ukraine to the sound of a gun battle on the streets of the capital, Kyiv.

Also, it's been a long and sleepless night for many hiding in their homes or underground shelters.

Plus, thousands are on the move feeling to safety. We hear from two young sisters who made it to Hungary.

Joining Anna Holligan to discuss these and other issues are Julie Norman, Lecturer in Politics and International Relations and Director of the BSc programme in Politics and International Relations at University College London, and Nick Kochan, a contributing editor to Thomson Reuters regulatory Intelligence and author of books on corruption and money laundering.

(Image: A view of the left bank of Kyiv, Ukraine. Credit: Getty Images)

**SAT 08:00 BBC News (w172xzk1m99yye)**

The latest five minute news bulletin from BBC World Service.

**SAT 08:06 Weekend (w172xytgd0nc6g)**

Gunfire continues to rock Kyiv

Day breaks in Ukraine to the sound of a gun battle on the streets of the capital, Kyiv.

Also, last night, President Zelensky warned that Russian forces were preparing to storm the city.

Plus, more analysis from a Russian opposition politician and a former head of NATO.

Joining Anna Holligan to discuss these and other issues are Julie Norman, lecturer in Politics and International Relations and Director of the BSc programme in Politics and International Relations at University College London, and Nick Kochan, a contributing editor to Thomson Reuters regulatory Intelligence and author of books on corruption and money laundering.

(Image: A general city view during a curfew imposed from in Kyiv, Ukraine. Credit: Getty Images)

**SAT 09:00 BBC News (w172xzk1m9b2ph)**

The latest five minute news bulletin from BBC World Service.

**SAT 09:06 The Newsroom (w172xyz79fdpnr)**

The world's Newsroom brings you global events as they happen

**SAT 09:30 BBC News Summary (w172xzk1bx0fyw)**

The latest two minute news summary from BBC World Service.

**SAT 09:32 Music Planet (w3ct3hgl)**

China - Sichuan and Yunnan

Chinese singer-songwriter Yijia Tu is our guide to the music of the Yi people of Sichuan and Yunnan provinces in southwest China. The Yi people are among the largest ethnic groups in China and number around 9 million. In this Road Trip we hear how artists have set out to both preserve and update some of the traditional styles and instruments associated with the Yi people, with music that combines the sound of these ancient bamboo flutes and stringed instruments with modern production and electronic beats.

To listen online, visit [bbcworldservice.com/musicplanet](http://bbcworldservice.com/musicplanet)

#### SAT 09:50 Over to You (w3ct112t)

A series about bringing peace in conflict zones

Listeners' thoughts on the four part series Women Building Peace and the story of those trying to bring calm to conflict zones around the world. We speak to the show's presenter. Plus, more on our ongoing debate about background music in programmes! Listeners ask if revealing the title of what is being used is the answer.

Presenter: Rajan Datar  
Producer: Howard Shannon

#### SAT 10:00 BBC News (w172xzk1m9b6fm)

The latest five minute news bulletin from BBC World Service.

#### SAT 10:06 Sportshour (w172y0qgjjngsmg8)

What now for sport in Ukraine?

We speak to the Ukrainian Tennis player Illya Marchenko who tells us that, for him, this is sadly all too familiar. His war started eight years ago when he was forced to flee from his home in Donetsk. He and his wife packed a bag and have never returned. Despite what Russia is doing as a country, Illya explains why he wouldn't necessarily support a ban on Russian sportspeople competing internationally – he says he has Russian friends in the Tennis world and they don't necessarily agree with what their country is doing.

After Uefa announced that the 2022 Champions League Final would be taken away from St Petersburg, and Formula One stated it would be "impossible" to stage the Russian Grand Prix, we examine the future of sporting events – both those due to feature teams representing Ukraine, and also those events that would normally be welcoming Russian participants or relying on the country as a host. Would sporting sanctions work? Richard Mills, an Associate Professor in Modern European History from the University of East Anglia, explains the parallels already apparent behind the events of this week and what happened during the wars in Yugoslavia in the 1990s.

Away from the events in Ukraine, we're joined by the Beijing Olympic Ice Hockey gold medalist, Brienne Jenner. She explains what Canada's victory on the ice means for women's Ice Hockey in North America, as well as what it's done for wider issues around representation and LGBTQ visibility and how, hopefully, it's changing the world that her baby daughter June will grow up in.

This week, US Soccer settled its long-running legal dispute over equal pay with the US Women's National Team. An American soccer legend, Brandi Chastain, tells us just how significant this moment is and what should happen next.

Staying in the States, the new MLS season kicks off on this weekend – with the League welcoming a brand new franchise. Christian Fuchs is among those that Adam Samuel has spoken to for a package all about Charlotte FC.

And ... why not join us in the metaverse? What are we talking about? It's Manchester City's plan to create a 'virtual stadium' in which fans from all over the world can watch City's live matches. Nuria Tarre from the City Football Group does her best to explain.

Image: Roman Yaremchuk of SL Benfica celebrates with teammates after scoring a goal during the Round Of Sixteen Leg One - UEFA Champions League match between SL Benfica and AFC Ajax at Estadio da Luz on February 23, 2022 in Lisbon, Portugal. (Photo by Gualter Fatia/Getty Images)

#### SAT 11:00 BBC News (w172xzk1m9bb5r)

The latest five minute news bulletin from BBC World Service.

#### SAT 11:06 The Newsroom (w172xyxz79fdy50)

Ukraine crisis: Kyiv under attack

Analysis and reaction to Russia's military assault on Ukraine.

Photo: Firefighters work by a damaged apartment building in Kyiv which was hit by a recent shelling during Russia's military

intervention Credit: Getty Images

#### SAT 12:00 BBC News (w172xzk1m9bfwx)

The latest five minute news bulletin from BBC World Service.

#### SAT 12:06 The Documentary (w3ct2gez)

Breaking through

Breaking, also known as break-dancing, borne in New York City in the 1970s, is set to make its debut at the Olympic Games in Paris in 2024.

Four-time breaking world champion, BoxWon (Benyaamin Barnes McGee), traces how breaking went from Bronx block parties to NYC's downtown art scene, to the world.

Speaking to legends of the scene, such as Rock Steady Crew's Ken Swift and B-Boy Glyde from Dynamic Rockers, BoxWon reveals how punk impresario, Malcolm McLaren, helped breaking become a worldwide craze in the 1980s - before it vanished. But breaking didn't die. It just went back underground, only to re-emerge a decade later more extreme than ever.

When the International Olympic Committee proposed breaking as a new sport for the Olympic Games in Paris 2024, the general public were taken by surprise. As it attracts global corporate sponsorship and demands for more stringent rules and regulations, we hear about the scene's own internal battle to maintain its integrity.

Presenter: BoxWon/Benyaamin Barnes McGee  
Producer: Simona Rata  
Research: Emmanuel Adelekan

(Photo: Break Dancer at The Venue, London 27 November 1982 Credit: David Corio/Redferns/Getty Images)

#### SAT 13:00 BBC News (w172xzk1m9bkp0)

The latest five minute news bulletin from BBC World Service.

#### SAT 13:06 Newshour (w172xv5m51jtzm)

Ukraine crisis: Kyiv under attack

Analysis and reaction to Russia's military assault on Ukraine

Photo: Firefighters work by a damaged apartment building in Kyiv which was hit by a recent shelling during Russia's military intervention Credit: Getty Images

#### SAT 14:00 BBC News (w172xzk1m9bpf4)

The latest five minute news bulletin from BBC World Service.

#### SAT 14:06 Newshour (w172xv5m51jtqr)

Ukraine crisis: Kyiv under attack

Analysis and reaction to Russia's military assault on Ukraine

Photo: Firefighters work by a damaged apartment building in Kyiv which was hit by a recent shelling during Russia's military intervention Credit: Getty Images

#### SAT 15:00 BBC News (w172xzk1m9bt58)

The latest five minute news bulletin from BBC World Service.

#### SAT 15:06 Sportsworld (w172y0tr9kwkfx2)

Live Sporting Action

Lee James presents live Premier League commentary of Manchester United against Watford at Old Trafford. We'll also bring you updates on Saturday's other games, as well as discussing the day's action in the Six Nations, the Dubai Tennis Championship final, as well as looking ahead to the start of the Women's Cricket World Cup in New Zealand.

Image: Cristiano Ronaldo of Manchester United gets to the ball ahead of Kiko Femenia of Watford during the Premier League match between Watford and Manchester United at Vicarage Road on November 20, 2021 in Watford, England. (Photo by Alex Pantling/Getty Images)

#### SAT 18:00 BBC News (w172xzk1m9c5dn)

The latest five minute news bulletin from BBC World Service.

#### SAT 18:06 The Newsroom (w172xyxz79ffscx)

Ukraine crisis: Kyiv under attack

Analysis and reaction to Russia's military assault on Ukraine

Photo: Firefighters work by a damaged apartment building in Kyiv which was hit by a recent shelling during Russia's military intervention Credit: Getty Images

#### SAT 18:30 BBC News Summary (w172xzkw1bx1jp1)

The latest two minute news summary from BBC World Service.

#### SAT 18:32 World of Wisdom (w3ct2zwl)

Self-confidence

Is self-love the key to developing confidence? If so, how does it work? Nadia, from Colombia, doesn't trust in her own ability to succeed, especially in her career and feels trapped by her lack of self-esteem. She speaks to Sufi Teacher Imam Jamal Rahman, who shows her ways to help develop self-love. He suggests that by getting used to focussing on the present moment, rather than the past or the future she can become more confident. He also says that by acknowledging painful feelings rather than trying to fix them, she may find that they lose their power.

Presented by the BBC's Sana Safi.

Produced by Charlie Taylor and Ruth Edwards.

#### SAT 18:50 Sporting Witness (w3ct119l)

The Queen of Paralympic Snowboarding

Bibian Mentel-Spee became a national hero in the Netherlands after campaigning for snowboarding to become part of the Winter Paralympics and then winning Gold the first time the event was held, at Sochi in 2014. Mentel-Spee had switched to Paralympic sport after cancer forced her to have a leg amputated. She would win two more gold snowboarding medals at the next games in Pyeongchang in 2018, just weeks after another gruelling round of cancer treatment. Mentel-Spee died in 2021. Matthew Kenyon speaks to her husband, Edwin Spee, and to Canadian Paralympic snowboarder, Michelle Salt.

PHOTO: Bibian Mentel-Spee in action in 2014 (Getty Images)

#### SAT 19:00 BBC News (w172xzk1m9c94s)

The latest five minute news bulletin from BBC World Service.

#### SAT 19:06 The Evidence (w3ct2zqm)

Coronavirus: The Evidence

Drug-resistant superbugs

Today, Claudia Hammond and her panel of experts focus on what's been called "the silent pandemic", the threat to modern medicine of anti-microbial resistance or AMR.

Infections are increasingly resistant to life-saving drugs like antibiotics and many believe the very future of modern medicine is hanging in the balance.

In a series produced in collaboration with Wellcome Collection, this edition of The Evidence is recorded in front of a live audience in the Reading Room at Wellcome Collection in London.

Just last month, a new global study covering 204 countries and territories published in The Lancet reveals the scale of AMR to human health. The number of lives lost is double previous estimates.

The latest data reveals 1.3 million deaths caused directly by resistant infections in just one year, 2019, and five million more deaths were linked with AMR.

The figures are shocking, especially because one in every five deaths were in children, under five years old, with the highest number of deaths in Western Sub-Saharan Africa.

But this is a pandemic that threatens everybody, wherever they live.

Everly Macario a public health researcher from Chicago in the United States shares her family's story: the death of their 18 month old son, Simon, to a drug-resistant strain of the bacterial infection MRSA (Methicillin-resistant Staphylococcus aureus). The loss of Simon spurred Everly to campaign against the misuse of antibiotics, particularly in agriculture and farming, which contributes to the rise in AMR.

Leaders in the global fight against AMR join Claudia to discuss the threat to human health and address the paradox that while AMR claims millions of lives, so many die each day because they can't get access to basic, life-saving drugs like antibiotics.

And Wellcome Collection's Research Development Lead, Ross Macfarlane, delves into the archives and shares the warning from the inventor of the first antibiotic, penicillin, Alexander

Fleming as he accepted his Nobel Prize in 1945, that mis-use would lead to resistance developing.

The new super drug was destined to spawn the new super bug.

Claudia's guests include the UK Special Envoy on AMR, Professor Dame Sally Davies; the World Health Organisation's Assistant Director General for Anti-Microbial Resistance, Dr Hanan Balkhy; Senior Research Manager for Drug Resistant Infections at Wellcome, Dr Janet Midega and the Director of ReAct Africa, Dr Mirfin Mpundu.

Produced by: Fiona Hill, Anand Jagatia and Maria Simons  
Studio Engineers: Duncan Hannant and Emma Harth

Picture: Professor Alexander Fleming, Discoverer of Penicillin, 1943, Credit: Daily Herald Archive/Getty Images

**SAT 20:00 BBC News (w172xzk11m9cdwx)**

The latest five minute news bulletin from BBC World Service.

**SAT 20:06 The Arts Hour (w3ct1rvb)**

Writer and poet Lemn Sissay

On this week's Arts hour, British and Ethiopian poet and writer Lemn Sissay joins Nikki Bedi to talk about his children's book "Don't Ask The Dragon"

Nikki goes 'under the bonnet' of film-making with actor turned director Rebecca Hall to discover the joys and the problems of shooting a film in black and white.

We'll dissect the sound of cinema through composer Nathan Johnson's work on Guillermo del Toro's Nightmare Alley.

We hear from the American TV writer and producer Jason Katims, whose new series, As We See It, is about three roommates who are all somewhere on the autistic spectrum and are played by neurodiverse actors.

Also on the show, Nikki talks to New Zealand comedian Rose Matefeo.

And there is music, improvised on the spot, by South African cellist and composer Abel Selacoe.

(Photo: Lemn Sissay, Credit: Hamish Brown)

**SAT 21:00 BBC News (w172xzk11m9cjm1)**

The latest five minute news bulletin from BBC World Service.

**SAT 21:06 Newshour (w172xv5m51jvbyn)**

Ukraine Crisis: Kyiv imposes curfew while fighting intensifies

The Ukrainian capital is braced for another night of attacks after Russian forces failed to break through overnight on Friday, but Kyiv's mayor imposes a curfew until Monday. We also visit other parts of the country to know what the situation is like outside the capital.

Also in the programme: Ukraine's bordering countries see big lines of refugees, we hear how Moldova is coping. And what is the military situation for both Russia and Ukraine?

(Photo: A Ukrainian serviceman takes up position to defend near of Kiev, Ukraine. Credit :EPA) .

**SAT 22:00 BBC News (w172xzk11m9cnd5)**

The latest five minute news bulletin from BBC World Service.

**SAT 22:06 The Newsroom (w172xyx4sktryy4)**

Ukraine crisis: Kyiv under attack

Analysis and reaction to Russia's military assault on Ukraine

Photo: Firefighters work by a damaged apartment building in Kyiv which was hit by a recent shelling during Russia's military intervention Credit: Getty Images

**SAT 22:20 Sports News (w172y0xsvv8x0ks)**

BBC Sport brings you all the latest stories and results from around the world.

**SAT 22:30 BBC News Summary (w172xzk11m9cnd5)**

The latest two minute news summary from BBC World Service.

**SAT 22:32 The Cultural Frontline (w3ct1pv0)**

Digital reshaping art: Refik Anadol, the KAWS gallery in Fortnite

Turkish, LA-based media artist Refik Anadol who uses data and AI to make new types of artwork, rethink art spaces, and visualise computer 'dreams'. In his studio, he describes his work – which creates NFTs, 'data paintings' and 'sculptures', and digital immersive galleries, and is now moving to the metaverse.

Plus, the gallery in the metaverse: the KAWS street art exhibition where art lovers are joined by virtual cartoon visitors – and which is now the first art show in Fortnite.

And we hear from the women and non-binary creatives who want to make NFTs more diverse to improve representation in art.

Producer: Emma Wallace

(Photo: KAWS, SEEING, 2022, augmented reality sculpture at Serpentine North Gallery. Credit: KAWS and Acute Art)

**SAT 23:00 BBC News (w172xzk11m9cs49)**

The latest five minute news bulletin from BBC World Service.

**SAT 23:06 Music Life (w3ct1hd8)**

Carnaval do Brasil, with Thiago França, Beto, Maíra Freitas and Flaira Ferro

Thiago França, Beto, Maíra Freitas and Flaira Ferro discuss what it's like to be a musician during Brazil's carnival season, how the festivities vary across the country, why it's so closely linked to cultural identity, its magical rhythms, and why the festival also has a serious side.

Thiago França, a composer, arranger, and multi-instrumentalist living in São Paulo, plays saxophone for the Afro-samba-punk trio Metá Metá and has contributed to albums by artists such as Criolo, Elza Soares and former Music Life guest Céu. He also runs A Espetacular Charanga do França, one of the biggest blocos (or street parades) in the Sao Paulo carnival.

Roberto Barreto – also known as Beto – is a guitarist and composer who runs the independent DIY musical collective BaianaSystem, based in the Brazilian state of Bahia. BaianaSystem combine classic Brazilian Carnival sounds with dub-heavy beats from Africa and the Caribbean.

Maíra Freitas is a singer and pianist from Rio de Janeiro who initially trained to be a classical musician, but then developed a taste for Música Popular Brasileira (Brazilian popular music), also known as 'MPB'. She is also the daughter of samba master Martinho da Vila.

Flaira Ferro is a singer-songwriter and dancer of the Frevo style, a high-energy artform which originated in the Recife and Olinda carnivals. Her music is inspired by MPB, Gilberto Gil, and Antonio Nóbrega.

**SUNDAY 27 FEBRUARY 2022**

**SUN 00:00 BBC News (w172xzk11m9cwwf)**

The latest five minute news bulletin from BBC World Service.

**SUN 00:06 BBC OS Conversations (w3ct2d73)**

Ukraine

When the Russian attacks began, after all attempts at diplomacy had failed, Ukrainians were awoken in their beds by the sound of explosions. On this edition, host James Reynolds share the stories of ordinary Ukrainians over the course of an extraordinary week.

We hear from men and women in different parts of the country as they prepare for war and try to go about their lives as normal while packing emergency bags, filling their cars with petrol and drawing money from banks. Once war begins, Ukrainians describe their fears and hopes for the future - including its effect on families and children. One small child asked his mother how to draw a tank.

These conversations and messages offer an insight into a state of mind after months of intimidation with Russian troops amassed at the border and in the days before and after the increasing likelihood of war turned into a reality. From the historian prepared to fight for his country and the baker in downtown Kyiv with staff to reassure, to those who remain at home as history unfolds.

(Photo: Handout photo issued by Maia Mikhaluk of damage to property in Kyiv, Ukraine, caused by an explosion during Russia's invasion of Ukraine. Issue date: Friday February 25, 2022. Credit: Maia Mikhaluk/PA Wire)

**SUN 00:30 BBC News Summary (w172xzk11m9cwwf)**

The latest two minute news summary from BBC World Service.

**SUN 00:32 World of Wisdom (w3ct2zwl)**

[Repeat of broadcast at 18:32 on Saturday]

**SUN 00:50 Over to You (w3ct1l2t)**

[Repeat of broadcast at 09:50 on Saturday]

**SUN 01:00 BBC News (w172xzk11m9d0mk)**

The latest five minute news bulletin from BBC World Service.

**SUN 01:06 The Science Hour (w3ct1lywl)**

Reforming the 'China Initiative'

A scheme in the US designed to prevent industrial espionage and the theft of intellectual property, is to be refocused after it was accused of unfairly targeting Chinese American scientists. We speak to Gang Chen, a professor from MIT who was falsely accused of financial crimes, and Holden Thorp Editor in Chief of the Journal Science who tells us why the 'China Initiative' is at odds with the reality of international scientific collaboration.

And a huge study of farmed animals in China, from raccoon dogs to porcupines and Asian badgers, reveals that they carry a wide range of pathogens, including forms of avian flu and coronaviruses. Virologist Eddie Holmes from the University of Sydney, who was involved in the analysis, says these viruses may have the potential to jump species and infect humans – possibly leading to another pandemic.

Controlling fire was a turning point in the development of human civilisation. But how did fire become part of the human toolkit? It's a question that has got Crowdspring listener Joseph wondering. He wants to know how humans first made fire and how that knowledge spread around the world, eventually developing into our industrial civilisations today.

Archaeologists have many different ideas and theories about this. Did humans learn the skill millions of years ago, and carry it with them as they migrated out of what is now Africa? Or was it a skill developed much later, after different groups had settled in different locations? Did people share the skill with each other or did different groups of people discover it individually?

Marnie Chesterton speaks to experts to try to piece together the archaeological clues to discover what kindled humankind's relationship with fire and flame. She hears about the early evidence of fire from Anand Jagatia, who visits Wonderwerk Cave in South Africa, and she speaks to an archaeologist who has found remains of burned flint suggesting campfire locations dating back hundreds of thousands of years in Israel. Marnie also tries her hand at making fire, Neanderthal style.

(Image: Students. Credit: Getty Images)

**SUN 02:00 BBC News (w172xzk11m9d4cp)**

The latest five minute news bulletin from BBC World Service.

**SUN 02:06 The Newsroom (w172xyxz79fgrby)**

The world's Newsroom brings you global events as they happen

**SUN 02:30 BBC News Summary (w172xzk11m9d4cp)**

The latest two minute news summary from BBC World Service.

**SUN 02:32 Health Check (w3ct1nwn)**

Why measles is sweeping through Afghanistan

This week on Health Check, polio makes an unwelcome return to the African continent and measles cases are soaring among children in Afghanistan. We hear from WHO spokesperson Dr Margaret Harris and Médecins Sans Frontières' Sarah Vuylsteke and Maxime Pirard who are based at Herat Regional Hospital in western Afghanistan.

We also hear how the pandemic has impacted children worldwide, from disruption to routine vaccination services to studies suggesting high mortality rates among children with Covid-19 in sub-Saharan Africa.

Now Covid-19 has exposed gaps in health care systems and inequalities in societies around the world. We discuss how the pandemic has galvanised calls for healthcare independence for African countries, and Dr Yen Lam Minh and Dr Louise Thwaites tell us about the Oxford University Clinical Research Unit programme which will develop high-quality intensive care in Vietnam.

Our guest is public health expert Dr Tabitha Mwangi who managed the Cambridge Africa programme at Cambridge University.

Presenter: Marnie Chesterton

Producers: Samara Linton and Ilan Goodman

(Picture: Afghan internally-displaced children stand outside their mud house at Shaidayee refugee camp in Herat province in February 2022. Photo credit: Wakil Kohsar/AFP/Getty Images.)

**SUN 03:00 BBC News (w172xzk1m9d83t)**

The latest five minute news bulletin from BBC World Service.

**SUN 03:06 The Documentary (w3ct2gcz)**

[Repeat of broadcast at 12:06 on Saturday]

**SUN 04:00 BBC News (w172xzk1m9dcvy)**

The latest five minute news bulletin from BBC World Service.

**SUN 04:06 From Our Own Correspondent (w3ct1mw7)**  
Putin's Soviet ambitions

It's been three decades since the end of the Soviet Union. Ever since then, Russia has been grappling with how to keep its old empire close and how to retain influence. Andrew Harding lived and worked in Russia during the 1990s, reporting on the aftermath of the Soviet collapse. Now, he reflects on how those years may have influenced recent events.

Events in Ukraine are being followed closely in the small nation of Georgia just across the Black Sea. Mr Putin sent troops into Georgia in 2008 and occupied two separate regions, recognising both Abkhazia and South Ossetia as "independent republics". Experts call it a frozen conflict, which Russia can stir up at any time, as Andrew North discovered when he visited a village on the boundary between areas under Georgian and Russian control.

The Philippines is holding elections in May and the son of the late military dictator, Ferdinand Marcos Jr has taken a strong lead in the polls. Sarah Duterte, the daughter of the country's incumbent authoritarian leader is his running mate. The pair have embarked on a fervent campaign to rebrand their respective family's legacies. Howard Johnson reports from a rally.

The United Nations International Children's Emergency Fund was set up in the aftermath of World War II, to help children and young people whose lives and futures were at risk. Today UNICEF works in over 190 countries and territories. Last year, the charity procured and supplied goods and service to the value of \$4.468 billion. Storing and transporting those goods is a big logistical operation and UNICEF has warehouses in Dubai, Brindisi and Panama, the biggest by far is in Denmark. Sandra Kanthal met the people and the robots keeping it running. You can find out more by listening to The Documentary on the BBC World Service on Tuesday 1 March.

Producer: Diane Richardson  
Editor: Emma Close

(Image: A military cargo truck in central Kyiv, 24 February 2022. Credit: Daniel Leal/AFP via Getty Images)

**SUN 04:30 BBC News Summary (w172xzk1bx2r4b)**

The latest two minute news summary from BBC World Service.

**SUN 04:32 The Cultural Frontline (w3ct1pv0)**

[Repeat of broadcast at 22:32 on Saturday]

**SUN 05:00 BBC News (w172xzk1m9dhm2)**

The latest five minute news bulletin from BBC World Service.

**SUN 05:06 The Newsroom (w172xyxz79fh3lb)**

The world's Newsroom brings you global events as they happen

**SUN 05:30 BBC News Summary (w172xzk1bx2vvg)**

The latest two minute news summary from BBC World Service.

**SUN 05:32 The Documentary (w3ct3tps)**

Jobfished

It is 2020. Covid Britain is in lockdown and the world is working from home. In the depths of the deadly pandemic and when people were at their lowest - someone spots an opportunity. This is the story of how people from all over the world were hired to work for a seemingly glamorous and successful design agency...but the whole thing was fake.

The company was built on fakery and its office was not real. But its own staff had no idea. For months they slugged as unwitting victims of an elaborate online con, tricked into believing they had good jobs at a successful company. They had been jobfished.

If the whole thing was a game it wasn't a funny one. Workers got into debt waiting for paychecks that never arrived. They lied to thousands of people trying to get new business for the company. Others were promised life-changing visas to the UK. But all of it was a lie, and it was only uncovered after curious staff did some digging. Who was behind the con? And what on earth were they trying to achieve?

Investigative journalist Catrin Nye and her team expose a tangled web of lies, confronting the boss to get to the truth of what really happened.

**SUN 06:00 BBC News (w172xzk1m9dmc6)**

The latest five minute news bulletin from BBC World Service.

**SUN 06:06 Weekend (w172xytgd0r0m9)**

Ukraine: Kyiv under attack

The Ukrainian capital, Kyiv, came under fresh attack overnight following reports of several powerful explosions just outside the city.

Also in the programme: The United Nations refugee agency says over 150,000 people have now fled Ukraine since the invasion began.

Anna Holligan is joined by two guests to discuss the unfolding war in Ukraine and other topical news stories: Olga Oliker, Program Director, Europe and Central Asia for the International Crisis Group, and Orysia Lutsevych, the Head of Ukraine Forum, Russia and Eurasia Programme at Chatham House.

(Photo: Police officers inspect the remains of a missile that fell in the street, after Russian President Vladimir Putin authorized a military operation in eastern Ukraine, in Kyiv, Ukraine February 24, 2022. REUTERS/Valentyn Ogirenko)

**SUN 07:00 BBC News (w172xzk1m9dr3b)**

The latest five minute news bulletin from BBC World Service.

**SUN 07:06 Weekend (w172xytgd0r4cf)**

Ukraine: Russia attacks oil and gas facilities

Russian forces have targeted Ukrainian oil and gas facilities in different parts of the country, as the war entered a fourth day. A Russian rocket hit an oil terminal in Vasykiv, thirty kilometres southwest of the capital, Kyiv. In the east, invading Russian forces blew up a natural gas pipeline in Ukraine's second largest city, Kharkiv.

Also in the programme: Analysis on why Russian president Vladimir Putin launched the war against Ukraine.

Anna Holligan is joined by two guests to discuss the unfolding war in Ukraine and other topical news stories: Olga Oliker is the Program Director, Europe and Central Asia for the International Crisis Group and Orysia Lutsevych, the Head of Ukraine Forum, Russia and Eurasia Programme at Chatham House.

(Photo: Service members of the Ukrainian Armed Forces fire a Javelin anti-tank missile during drills at a training ground in an unknown location in Ukraine, in this handout picture released February 18, 2022. Ukrainian Joint Forces Operation Press Service/Handout via REUTERS)

**SUN 08:00 BBC News (w172xzk1m9dvg)**

The latest five minute news bulletin from BBC World Service.

**SUN 08:06 Weekend (w172xytgd0r83k)**

Russian troops enter key Ukraine city Kharkiv

Russian troops have entered the Ukrainian city of Kharkiv with the United Nations refugee agency saying thousands of people have fled the country since the start of the Russian invasion. Many have fled west, to cities such as Lviv crossing the border onto to Poland, Romania, Hungary, and Slovakia.

Also in the programme: a look at how the conflict in Ukraine is affecting the wider region.

Anna Holligan is joined by two guests to discuss the unfolding war in Ukraine: Olga Oliker is the Program Director, Europe and Central Asia for the International Crisis Group and Orysia Lutsevych, the Head of Ukraine Forum, Russia and Eurasia Programme at Chatham House.

(Photo: Armed men, believed to be Russian servicemen, drive an armoured vehicle onto the territory of a military airbase as they attempt to take over in the Crimean town of Belbek near Sevastopol March 22, 2014. REUTERS/Shamil Zhumotov)

**SUN 09:00 BBC News (w172xzk1m9dzll)**

The latest five minute news bulletin from BBC World Service.

**SUN 09:06 The Newsroom (w172xyxz79fhkvw)**

The world's Newsroom brings you global events as they happen

**SUN 09:30 BBC News Summary (w172xzk1bx3bvw)**

The latest two minute news summary from BBC World Service.

**SUN 09:32 Outlook (w3ct1ky9)**

Soweto Uprising: What happened to my dad?

In 1976, the Johannesburg township of Soweto erupted into protest. Students were furious with the government decision to make Afrikaans a language of instruction in South African schools. Afrikaans was associated with apartheid and white rule by many black South Africans, and not everyone could speak it. The protests were met with brutal force by the police, and hundreds of students died in the ensuing gunfire. In the midst of the chaos was Dr Edelstein, a white man involved in various humanitarian causes in the township. Students who had fled the gunfire suddenly turned their anger on him, and he was killed in the street. His daughter Janet was just 12 at the time, and she's spent many years trying to find answers about what happened that day. After the end of apartheid she spoke at South Africa's Truth and Reconciliation Commission, telling her father's story and giving an emotional plea for more information. Now she's followed in her father's footsteps, and is working to help young people in Soweto. First broadcast 2019.

Get in touch: outlook@bbc.com

Presenter: Mpho Lakaje  
Producer: Harry Graham

(Photo: The Edelstein family. Credit: The Edelstein family)

**SUN 10:00 BBC News (w172xzk1m9f3bq)**

The latest five minute news bulletin from BBC World Service.

**SUN 10:06 Deeply Human (w3ct3bvg)**

Deeply Human Series 2

Dance

Why do our bodies react to rhythm? From rain dances to raves, dance has been a social tool for sexual selection and community cohesion. Dessa explores the neuroscience of music and movement, learns how dance therapy is used to treat motor disorders, and takes a lesson in butoh - the Japanese form sometimes called the Dance of Darkness.

Image: People dancing in club, Credit: Getty Images

**SUN 10:30 BBC News Summary (w172xzk1bx3gm3)**

The latest two minute news summary from BBC World Service.

**SUN 10:32 Heart and Soul (w3ct3hh8)**

The Sikh whistleblower

Pav Gill, a Sikh lawyer living in Singapore, joined the Wirecard financial services empire in 2017. Wirecard had global ambitions to become a big player like Google or Amazon. But it did not take long until Pav realised that there were fraudulent business practises going on.

To investigate and examine the financial wrong-doing he had discovered, Pav commissioned an independent report - with damning results. Advised by his mother, Sokhbir Kaur, a woman of strong Sikh faith, Pav eventually decided to blow the whistle on Wirecard. At which point things turned very ugly.

In conversation with Mike Wooldridge, Pav Gill and Sokhbir Kaur recall what it took for them to do the right thing and expose Wirecard's fraudulent practises and ultimately bring down the company - and what the cost was to their own lives.

Presenter: Mike Wooldridge

Producer: Lore Windemuth

(Photo: Exterior view of the Wirecard AG building in Aschheim, Germany. Credit: Roland Krivec/DeFodi Images/Getty Images)

A CTVC production for BBC World Service

**SUN 11:00 BBC News (w172xzk1m9f72v)**

The latest five minute news bulletin from BBC World Service.

**SUN 11:06 The Newsroom (w172xyxz79fhv23)**

The world's Newsroom brings you global events as they happen

**SUN 11:30 BBC News Summary (w172xzk1bx3lc7)**

The latest two minute news summary from BBC World Service.

**SUN 11:32 The Compass (w3ct3fnk)**

It's a Bird's World

It's a Bird's World: Viruses and infection

Just like us, birds can become infected with viruses – and some of these can be transferred to us. As we've seen with the coronavirus pandemic, there are real challenges when it comes to controlling the spread of viral infections. Any attempt to try and stay one step ahead of a virus requires really good monitoring, especially as many birds travel long distances and migrate. Birds are invaluable as sentinels in our attempt to map and control the spread of infection. In this episode we look at how water birds, poultry, jays and sage grouse have alerted us to the spread of diseases which affect them and us in the environment.

(Photo: A chicken)

**SUN 12:00 BBC News (w172xzk1lm9fhtz)**

The latest five minute news bulletin from BBC World Service.

**SUN 12:06 The Evidence (w3ct2zqm)**

[Repeat of broadcast at 19:06 on Saturday]

**SUN 13:00 BBC News (w172xzk1lm9fgl3)**

The latest five minute news bulletin from BBC World Service.

**SUN 13:06 Newshour (w172xv5m51jxfwq)**

Ukraine invasion: Fighting in Kharkiv

Analysis and reaction to Russia's military assault on Ukraine.

Photo: Destroyed military vehicles on a road in Kharkiv, Ukraine Credit: Reuters

**SUN 14:00 BBC News (w172xzk1lm9fhtz)**

The latest five minute news bulletin from BBC World Service.

**SUN 14:06 The Forum (w3ct1rkm)**

Franz Liszt: Hungarian pianist and painter in sound

A proud Hungarian by birth, Franz Liszt was a pioneer both in his piano playing and in his compositions. He was also the nearest thing to a rock star that classical music had in the 19th century. Fans would reportedly swarm over him, try and grab his gloves, even smoke his discarded cigars! Liszt lived up to his public image in his private life, with hectic touring schedules and colourful relationships with numerous women. But he was also generous to a fault – for example, frequently teaching for free – and he was a great champion of other composers.

Rajan Datar is joined by three people for whom Liszt and his music occupy a central position in their professional lives: Dr. Rena Mueller, a musicologist emerita at New York University who is working on a complete thematic catalogue of Liszt's music; Dr. Éva Polgár who teaches at Azusa Pacific University in California and is a pianist noted for her championing of not just Liszt's works but all the music from her native Hungary; and professor Kenneth Hamilton, Head of School of Music at Cardiff University, who is not just a distinguished pianist but also an author and broadcaster.

Examples from Liszt's works used in the programme:

Mazeppa (S.138) played by Leslie Howard  
Totentanz performed by Krystian Zimerman, Boston Symphony Orchestra, Seiji Ozawa  
La Campanella (Études d'exécution transcendente d'après Paganini, S.140) played by Leslie Howard  
Apparition No. 2 played by Ashley Wass  
Sonetto 123 del Petrarca (Années de pèlerinage II) played by Wilhelm Kempff  
Chase Neige (12 Études d'exécution transcendente, S.139) played by Boris Berezovsky  
Wilde Jagd (Études d'exécution transcendente, S.139) played by Daniil Trifonov  
Mazeppa (orchestral version, S. 100) performed by Wiener Philharmoniker, Giuseppe Sinopoli  
Ballade No. 2 played by Kenneth Hamilton  
Hungarian Rhapsody No. 2 played by Arcadi Volodos  
Csardas Obsinée played by Éva Polgár  
Les jeux d'eau à la Villa d'Este (Années de pèlerinage III) played by Egon Petri

(Image: Detail from a 19th-century caricature of Franz Liszt, Bibliothèque-Musée De L'Opéra National De Paris-Garnier. Credit: DeAgostini/Getty Images)

**SUN 14:50 Over to You (w3ct1l2t)**

[Repeat of broadcast at 09:50 on Saturday]

**SUN 15:00 BBC News (w172xzk1lm9fgl3)**

The latest five minute news bulletin from BBC World Service.

**SUN 15:06 Music Life (w3ct1hd8)**

[Repeat of broadcast at 23:06 on Saturday]

**SUN 16:00 BBC News (w172xzk1lm9fhtz)**

The latest five minute news bulletin from BBC World Service.

**SUN 16:06 Sportsworld (w172yotr9kwngk9)**

Live Sporting Action

Sportsworld Sunday is live at Wembley as Liverpool face Chelsea in the final of the Carabao Cup. This will be the eighth League Cup tie between the sides with Liverpool looking to win the League Cup for a record ninth time.

Plus we will bring you all of the reaction to the early kick off in the Premier League where West Ham face Wolves. And we will be live in Ireland as they play Italy in the 6 nations.

Image: Antonio Ruediger of Chelsea battles for possession with Mohamed Salah of Liverpool during the Premier League match between Chelsea and Liverpool at Stamford Bridge on January 02, 2022 in London, England. (Photo by Catherine Ivill/Getty Images)

**SUN 19:30 BBC News Summary (w172xzk1bx4kb8)**

The latest two minute news summary from BBC World Service.

**SUN 19:32 Comedians vs. the News (w3ct3jsr)**

Tim Fontaine and José Antonio Badía

Jess Salomon and Eman El-Husseini are joined by Mexican comedian and podcaster José Antonio Badía and one of Canada's sharpest political satirists, Tim Fontaine.

They're finding out what's going on with the ban on Mexican avocados, and asking why there's been an attack on a Canadian gas pipeline.

Join #ComediansvsThenews for the funniest take on the headlines you've heard this week.

**SUN 20:00 BBC News (w172xzk1lm9fgl3)**

The latest five minute news bulletin from BBC World Service.

**SUN 20:06 The Real Story (w3ct1hht)**

[Repeat of broadcast at 04:06 on Saturday]

**SUN 21:00 BBC News (w172xzk1lm9fgl3)**

The latest five minute news bulletin from BBC World Service.

**SUN 21:06 Newshour (w172xv5m51jydv)**

Ukraine invasion: EU steps up response

Analysis and reaction to Russia's military assault on Ukraine.

Photo: Smoke rising after shelling on the outskirts of the city is pictured from Kyiv, Ukraine Credit: Reuters

**SUN 22:00 BBC News (w172xzk1lm9gk98)**

The latest five minute news bulletin from BBC World Service.

**SUN 22:06 The Newsroom (w172xyx4sktvv7)**

The world's Newsroom brings you global events as they happen

**SUN 22:20 Sports News (w172y0sxv8zgxw)**

BBC Sport brings you all the latest stories and results from around the world.

**SUN 22:30 BBC News Summary (w172xzk1bx4xkn)**

The latest two minute news summary from BBC World Service.

**SUN 22:32 Outlook (w3ct1ky9)**

[Repeat of broadcast at 09:32 today]

**SUN 23:00 BBC News (w172xzk1lm9gp1d)**

The latest five minute news bulletin from BBC World Service.

**SUN 23:06 Deeply Human (w3ct3hgv)**

[Repeat of broadcast at 10:06 today]

**SUN 23:30 BBC News Summary (w172xzk1bx519s)**

The latest two minute news summary from BBC World Service.

**SUN 23:32 Music Planet (w3ct3hgl)**

[Repeat of broadcast at 09:32 on Saturday]

**SUN 23:50 More or Less (w3ct2dl)**

Did lockdowns save any lives?

Lockdown. A word we've all become overly familiar with over the past two years. Lockdowns were intended to protect people, especially societies most vulnerable, from the risks associated with contracting Covid. However, a new study has been making headlines which claims to show that mandatory lockdowns have only reduced Covid-19 mortality by 0.2%, or one death in five hundred. We examine the evidence behind the claim.

**MONDAY 28 FEBRUARY 2022**

**MON 00:00 BBC News (w172xzk1ywl1p)**

The latest five minute news bulletin from BBC World Service.

**MON 00:06 From Our Own Correspondent (w3ct1mw7)**

[Repeat of broadcast at 04:06 on Sunday]

**MON 00:30 BBC News Summary (w172xzkwdm690b2)**

The latest two minute news summary from BBC World Service.

**MON 00:32 Heart and Soul (w3ct3hh8)**

[Repeat of broadcast at 10:32 on Sunday]

**MON 01:00 BBC News (w172xzk1ywl1r)**

The latest five minute news bulletin from BBC World Service.

**MON 01:06 World Business Report (w172xzlvpvszcz2)**

The EU imposes fresh economic sanctions on Russia

We started off the programme by asking the independent banking analyst Frances Coppola how in practical the newly announced EU sanctions work. Then we moved on to the Russian economy and asked Kallum Pickering, a global economist for Berenberg bank here in London how it would be affected by these sanctions.

Next, our Markets Report guest Michael Hughes, an independent economist, told us that the cost of agricultural goods was going to be something to watch when markets re-open in the coming hours.

We then have a look at the British multinational energy giant BP. It announced Sunday afternoon it was to quit its 20 per cent stake in the Russian state oil firm Rosneft, with its chief exec Bernard Looney quitting the Rosneft board too. Our correspondent Katie Prescott told us more.

Moving on from energy, we look at how during an emergency parliamentary session on Ukraine on Sunday, Chancellor Scholz announced an additional \$113bn for the German army. He also announced pivots on energy policy, and laws about the export of German made arms - in what he called a turning point brought about by the war in Ukraine. Dr Liana Fix is a Resident Fellow at the German Marshall Fund in Washington DC and told us more about the move.

Our programme ends with our correspondent, Lucy Williamson on a report from Moldova looking at the influx of Ukrainian refugees into the country.

Presenter: Will Bain

Producer: Will Bain and Gabriele Shaw

(PHOTO CREDIT: GETTY)

**MON 01:30 BBC News Summary (w172xzkwdm69426)**

The latest two minute news summary from BBC World Service.

**MON 01:32 Discovery (w3ct3jzb)**

Tooth and claw: Spotted hyena

Cursed as a worthless scavenger and cast as villainous cowardly

sidekicks in Disney's *The Lion King*, the spotted hyena is one of the world's most misunderstood of all predators. It may scavenge at night on a giant rubbish tip on the outskirts of Mekelle in Ethiopia, but it earns its top predator status when it takes down its prey in Kenya's Masai Mara National Reserve. Adam Hart and guests polish up the spotted hyena's tarnished reputation.

Professor Kay Holekamp, a behavioural ecologist at Michigan State University, and Chinmay Sonawane, a biologist at Stanford University in California

Picture: Spotted Hyena puppies and adult male with each other in Masai Mara. Credit: Manoj Shah/Getty Images  
Producer: Beth Eastwood  
Presenter: Professor Adam Hart

**MON 02:00 BBC News (w172xzk1ywlwlyj)**  
The latest five minute news bulletin from BBC World Service.

**MON 02:06 The Newsroom (w172xyzkqphj6)**  
The world's Newsroom brings you global events as they happen

**MON 02:30 BBC News Summary (w172xzkwdm697tb)**  
The latest two minute news summary from BBC World Service.

**MON 02:32 The Climate Question (w3ct2drr)**  
How quickly is battery technology advancing?

The need to be able to store electricity as part of our low carbon future, has increased dramatically as the use of renewable energy has expanded. Both solar and wind energy rely on sunlight and weather, only providing intermittent power. Electric cars need to be able to travel greater distances on one charge and cost less to have mass market appeal. It's clear batteries are a key - but evolving - technology. Improvements still need to be made to their safety, power and cost.

Megawatt batteries are being built in many countries, in a step toward creating a renewable energy back-up for the grid. But these batteries are made using Lithium, which is limited because of their size, the length of their lifespan, and their track record in causing fires.

We look at the limitations of the batteries that exist right now, and what new technology in the field is expected to bring in the coming 10 to 15 years. We also visit a hydro-pump powered energy storage system in Israel, where the company, Augwind, is developing an interesting alternative to electric batteries.

Presenters Kate Lamb and Jordan Dunbar are joined by:

Susan Babinec is Program Lead in Energy Storage at the Argonne National Laboratory  
Sandra Chavez is Director Partnerships at Powerhouse  
Gary Yang is Founder of UniEnergy Technologies  
Eshhar Chetsrony is the VP Business Development at Augwind

Producer: Dearbhail Starr  
Reporter: Roni Dori  
Researchers: Lizzie Frisby  
Series Producer: Alex Lewis and Rosamund Jones  
Editor: Emma Rippon  
Sound Engineer: Andrew Garratt

**MON 03:00 BBC News (w172xzk1ywlm092)**  
The latest five minute news bulletin from BBC World Service.

**MON 03:06 Deeply Human (w3ct3hgv)**  
[Repeat of broadcast at 10:06 on Sunday]

**MON 03:30 BBC News Summary (w172xzkwdm69ckg)**  
The latest two minute news summary from BBC World Service.

**MON 03:32 Music Planet (w3ct3hgl)**  
[Repeat of broadcast at 09:32 on Saturday]

**MON 03:50 More or Less (w3ct2dlld)**  
[Repeat of broadcast at 23:50 on Sunday]

**MON 04:00 BBC News (w172xzk1ywlm416)**  
The latest five minute news bulletin from BBC World Service.

**MON 04:06 The Newsroom (w172xyzkqpr0g)**  
The world's Newsroom brings you global events as they happen

**MON 04:30 BBC News Summary (w172xzkwdm69h9l)**

The latest two minute news summary from BBC World Service.

**MON 04:32 The Conversation (w3ct1p9x)**  
Women running family businesses

Family businesses play a crucial role in economies across the world. It is estimated that they account for more than half of global GDP – but few family firms are led by women. Kim Chakanetsa meets two women who've become the first females in their family to take over at the top.

Caroline Fattal Fakhoury is on the Board of Directors of the Fattal Group in Lebanon. The firm started as a small company in Syria in 1897, and it went on to become one of the leading distributors in the Middle East, delivering food, beauty and pharmaceutical products across eight countries. She was the first woman to join the family business in 100 years and was named one of the region's most powerful women by Forbes Middle East. She's also the founder of Stand for Women, an NGO supporting women's economic empowerment.

Priyanka Gupta Zielinski is the executive director of MPIL Steel Structures, a steel manufacturing company with headquarters in India and the UAE. Priyanka joined her father's company in 2008, when she was in her 20s - one of the very few women working in this sector. Under her lead, the company was completely transformed, grew and branched out in other countries. Priyanka wrote a book - *The Ultimate Family Business Survival Guide* - and is a member of Women in Family Business, an initiative providing support and networking opportunities to women around the world.

Produced by Alice Gioia.

(Image: (L) Caroline Fattal, credit Michel Rawadi. (R) Priyanka Gupta courtesy Priyanka Gupta.)

**MON 05:00 BBC News (w172xzk1ywlm7sb)**  
The latest five minute news bulletin from BBC World Service.

**MON 05:06 Newsday (w172xv3564119r2)**  
The Ukrainian military says it has suffered a difficult time in the latest fighting

We are continuing our coverage of the conflict in Ukraine, which as it enters its 5th day, shows no sign of the violence slowing. The international response to the situation is continuing, and increased financial sanctions have led to a steep drop in the Russian rouble.

On Monday, the United Nations is set to gather a special session of the General Assembly, to allow all 193 members to express a view on the war in Ukraine.

We'll bring you the latest from Ukraine's capital Kiev, and take you to Ukraine's borders as people try to leave the country.

**MON 06:00 BBC News (w172xzk1ywlmcjg)**  
The latest five minute news bulletin from BBC World Service.

**MON 06:06 Newsday (w172xv356411fk6)**  
Russian rouble plunges amidst sanctions

The impact of sanctions is beginning to be felt in Russia and on global financial markets, with the rouble plunging in value and oil prices surging. We'll hear all about that from our business desk.

Also more on the strong reaction to all this in Europe and we'll hear from the former Prime Minister of Finland.

And from Moscow we hear from President Putin's former spokesman.

**MON 07:00 BBC News (w172xzk1ywlmh8l)**  
The latest five minute news bulletin from BBC World Service.

**MON 07:06 Newsday (w172xv356411k9b)**  
Russian economy hit by sanctions

The Ukrainian military says Russian forces have repeatedly tried to storm the outskirts of Kyiv without success. We hear from the country's former Defence Minister in Kyiv.

Also, Russia is feeling the impact of sanctions as their currency crashes. We'll have the latest on how the economic blockades imposed by the EU have affected the country and the global financial markets.

And we'll hear more from Ukrainians who are trying to flee the country amid the invasion.

**MON 08:00 BBC News (w172xzk1ywlmm0q)**  
The latest five minute news bulletin from BBC World Service.

**MON 08:06 HARDtalk (w3ct1n74)**  
Iván Fischer: The power and joy of music

Stephen Sackur speaks to the renowned Hungarian conductor and composer Iván Fischer. Much of the world is transitioning from locking down to living with Covid-19. And that means cultural life is returning to cities like London. Performers can return to the stage, audiences can gather again. After the pandemic, how easy is it to find the magic in music-making?

(Photo: Iván Fischer)

**MON 08:30 BBC News Summary (w172xzkwdm69z93)**  
The latest two minute news summary from BBC World Service.

**MON 08:32 Business Daily (w3ct1j64)**  
Sanctions against Russia take bite

How the latest penalties for invading Ukraine will hit Russia, and may also spill over into the world economy.

Ed Butler explores what the democratic world hopes to achieve with their targeting of the Russian Central Bank's currency reserves, as well as the exclusion of major Russian banks from the global communications network Swift. Elina Ribakova, deputy chief economist at the Institute of International Finance, says it will put a huge strain on Russia's economy and finances, although the authorities may be able to fend off the worst effects for months yet.

Meanwhile, historian Adam Tooze notes that Russia's biggest export - oil and gas exports - have been carved out of the latest round of sanctions, softening their impact. While lawyer Nigel Kushner explains how hard it may be for the Russian authorities and oligarchs to circumvent the new restrictions.

(Picture: A demonstrator holds a poster reading "Ban Russia from SWIFT" during a protest against Russia's invasion of Ukraine; Credit: Hans Punz/APA/AFP via Getty Images)

**MON 08:50 Witness History (w3ct1x27)**  
Economic 'shock therapy' in Russia

President Vladimir Putin came onto the Russian political scene in 1999 after a decade of chaos following the collapse of the Soviet Union. This included a disastrous experiment with free market reforms in 1992, which led to an increase in poverty for ordinary Russians and the emergence of an elite of super-wealthy oligarchs. In 2018, Dina Newman spoke to one of the architects of this "shock therapy" - Andrei Nechaev, who was then the Minister for Economic Development.

(Photo: Old women selling cigarettes on the streets of Moscow in 1992. Credit: BBC)

**MON 09:00 BBC News (w172xzk1ywlmqrv)**  
The latest five minute news bulletin from BBC World Service.

**MON 09:06 The Newsroom (w172xyzkqqr3)**  
The world's Newsroom brings you global events as they happen

**MON 09:30 BBC News Summary (w172xzkwdm6b317)**  
The latest two minute news summary from BBC World Service.

**MON 09:32 CrowdScience (w3ct1prt)**  
How did we discover fire?

Controlling fire was a turning point in the development of human civilisation. But how did fire become part of the human toolkit? It's a question that has got Crowdscience listener Joseph wondering. He wants to know how humans first made fire and how that knowledge spread around the world, eventually developing into our industrial civilisations today.

Archaeologists have many different ideas and theories about this. Did humans learn the skill millions of years ago, and carry it with them as they migrated out of what is now Africa? Or was it a skill developed much later, after different groups had settled in different locations? Did people share the skill with each other or did different groups of people discover it individually?

Marnie Chesterton speaks to experts to try to piece together the archaeological clues to discover what kindled humankind's relationship with fire and flame. She hears about the early evidence of fire from Anand Jagatia, who visits Wonderwerk Cave in South Africa, and she speaks to an archaeologist who has found remains of burned flint suggesting campfire locations

dating back hundreds of thousands of years in Israel. Marnie also tries her hand at making fire, Neanderthal style.

## Contributors:

Dr Andrew Sorensen, Leiden University  
Prof Nira Alperson-Afil, Bar-Ilan University  
Prof Richard Wrangham, Harvard University  
Dr David Morris, McGregor Museum  
Candice Koopowitz, Simon Fraser University  
Dr Katharine MacDonald, Leiden University

Presented by Marnie Chesterton and Produced by Hannah Fisher for BBC World Service

Image Credit: Getty Images

**MON 10:00 BBC News (w172xzk1ywlmvhz)**

The latest five minute news bulletin from BBC World Service.

**MON 10:06 The Cultural Frontline (w3ct1pv0)**

[Repeat of broadcast at 22:32 on Saturday]

**MON 10:30 BBC News Summary (w172xzkwdm6b6sc)**

The latest two minute news summary from BBC World Service.

**MON 10:32 World of Wisdom (w3ct2zwl)**

[Repeat of broadcast at 18:32 on Saturday]

**MON 10:50 More or Less (w3ct2ldl)**

[Repeat of broadcast at 23:50 on Sunday]

**MON 11:00 BBC News (w172xzk1ywlvmz83)**

The latest five minute news bulletin from BBC World Service.

**MON 11:06 The Newsroom (w172xyxzkql7c)**

The world's Newsroom brings you global events as they happen

**MON 12:00 BBC News (w172xzk1ywlvn307)**

The latest five minute news bulletin from BBC World Service.

**MON 12:06 Outlook (w3ct1jvg)**

My stolen 'magic' guitar, found after 45 years

Randy Bachman is behind some of the biggest rock hits of the 60s and 70s. He was lead guitarist for The Guess Who, frontman of Bachman-Turner Overdrive and, all the while had his beloved Gretsch guitar beside him. He first laid eyes on the guitar as a teenager and after years mowing lawns and washing cars he saved enough money to buy it. But in 1976, Randy's guitar was stolen and disappeared without a trace. He spent years desperately trying to track it down. Almost half a century later, an amateur sleuth - bored during the coronavirus lockdown - decided to take on the hunt and crack the mystery.

Presenter: Emily Webb  
Producer: Maryam Maruf  
Get in touch: outlook@bbc.com

(Photo: Randy Bachman with his son Tal and his Gretsch guitar in 1971. Credit: Courtesy of Randy Bachman)

**MON 12:50 Witness History (w3ct1x27)**

[Repeat of broadcast at 08:50 today]

**MON 13:00 BBC News (w172xzk1ywlvn6rc)**

The latest five minute news bulletin from BBC World Service.

**MON 13:06 The Newsroom (w172xyxzkqqtqm)**

The world's Newsroom brings you global events as they happen

**MON 13:30 BBC News Summary (w172xzkwdm6b10r)**

The latest two minute news summary from BBC World Service.

**MON 13:32 CrowdScience (w3ct1prt)**

[Repeat of broadcast at 09:32 today]

**MON 14:00 BBC News (w172xzk1ywlbnbh)**

The latest five minute news bulletin from BBC World Service.

**MON 14:06 Newshour (w172xv5mj9v49t3)**

Russia-Ukraine war continues amid peace talks

It's now Day 5 of Russia's invasion in Ukraine. While the

fighting continues, key talks are also being held between the two nations. Meanwhile, citizens in Ukraine are fleeing with the UN reporting more than half a million people have fled. Plus, Russians feel the squeeze of Western sanctions.

We bring you the latest developments in Kyiv; ask how successful diplomatic talks may be; and what impact may western sanctions now hitting Russia have on the conflict?

(Photo: Belarus hosted Russia for war games there earlier this month Credit: Getty Images.)

**MON 15:00 BBC News (w172xzk1ywlwng7m)**

The latest five minute news bulletin from BBC World Service.

**MON 15:06 Newshour (w172xv5mj9v4fk7)**

Russia-Ukraine war continues amid peace talks

It's now Day 5 of Russia's invasion in Ukraine. While the fighting continues, key talks are also being held between the two nations. Meanwhile, citizens in Ukraine are fleeing with the UN reporting more than half a million people have fled. Plus, Russians feel the squeeze of Western sanctions.

We bring you the latest developments in Kyiv; ask how successful diplomatic talks may be; and what impact may western sanctions now hitting Russia have on the conflict?

(Photo: Belarus hosted Russia for war games there earlier this month Credit: Getty Images.)

**MON 15:30 BBC News Summary (w172xzkwdm6btj0)**

The latest two minute news summary from BBC World Service.

**MON 15:32 World Business Report (w172y48g7mk6pcg)**

Western sanctions impact Russia's economy

Russia's central bank hiked interest rates to 20% as the rouble's value plunged up to 30%. We bring you up to speed with all the latest sanctions that have been imposed on Russia as a result of its invasion of Ukraine, and we explore their potential long-term impact with Adnan Vatansever of King's College, London, who is an expert on the Russian economy. Also in the programme, we hear from Olga Shapoval, who is executive director of the city of Kharkiv's IT cluster, in northeastern Ukraine. And we get an update from Oleg Chernyak of the software development company CHI Software, who we've been speaking to since the crisis in Ukraine began, and is now in the Carpathian mountains in the west of the country. Plus, as Germany reviews its energy policy with a view to moving away from a heavy reliance on Russian gas, we find out more from Jakob Schlandt who is an energy expert at the German paper Tagesspiegel.

Today's edition is presented by Rahul Tandon, and produced by Benjie Guy, Ivana Davidovic and George Thomas.

(Picture: Rouble notes in a cashier's drawer. Picture credit: Getty Images.)

**MON 16:00 BBC News (w172xzk1ywlwlnkrz)**

The latest five minute news bulletin from BBC World Service.

**MON 16:06 BBC OS (w172xxy116q3ky6)**

Ukraine conflict: Half a million flee

On the fifth day after Russian troops invaded Ukraine, fighting continues while talks are being held between Ukrainian and Russian delegates on the border of Belarus. We bring the latest developments. The UN says more than half a million people have now fled Ukraine for neighbouring countries.

After the lifting of a weekend curfew, we hear the experiences of people in Kyiv as they are able to go outside, go shopping and check their properties.

We also hear the stories of African students who have complained of racist treatment as they have attempted to leave Ukraine. Our population correspondent has also been looking at the story and she provides some of the context.

Our correspondent will answer your questions on nuclear weapons after President Putin put his country's nuclear forces on "special alert".

(Photo: A woman feeds a baby in one of the shelters of Okhmadet Children's Hospital, as Russia's invasion of Ukraine continues, in Kyiv, Ukraine February 28, 2022. Credit: Umit Bektas/Reuters)

**MON 17:00 BBC News (w172xzk1ywlwlpqw)**

The latest five minute news bulletin from BBC World Service.

**MON 17:06 BBC OS (w172xxy116q3ppb)**

Ukraine conflict: Half a million flee

On the fifth day after Russian troops invaded Ukraine, fighting continues across the country. We bring you the latest developments. The UN says more than half a million people have now fled Ukraine for neighbouring countries. After the lifting of a weekend curfew, we hear the experiences of people in Kyiv as they are able to go outside, go shopping and check their properties. We also hear the stories of African students who have complained of racist treatment as they have attempted to leave Ukraine. Our population correspondent has also been looking at the story and she provides some of the context. Our correspondent will answer your questions on nuclear weapons after President Putin put his country's nuclear forces on "special alert". (Photo: People arrive at the border crossing in Medyka, Poland 28 February 2022. Credit: European Pressphoto Agency)

**MON 18:00 BBC News (w172xzk1ywlwlnth0)**

The latest five minute news bulletin from BBC World Service.

**MON 18:06 BBC OS (w172xxy116q3ftg)**

Ukraine conflict: Half a million flee

On the fifth day after Russian troops invaded Ukraine, fighting continues across the country. We bring you the latest developments. The UN says more than half a million people have now fled Ukraine for neighbouring countries. After the lifting of a weekend curfew, we hear the experiences of people in Kyiv as they are able to go outside, go shopping and check their properties. We also hear the stories of African students who have complained of racist treatment as they have attempted to leave Ukraine. Our population correspondent has also been looking at the story and she provides some of the context. Our correspondent will answer your questions on nuclear weapons after President Putin put his country's nuclear forces on "special alert". (Photo: People arrive at the border crossing in Medyka, Poland 28 February 2022. Credit: European Pressphoto Agency)

**MON 19:00 BBC News (w172xzk1ywlwny74)**

The latest five minute news bulletin from BBC World Service.

**MON 19:06 The Newsroom (w172xyxzkqrk6d)**

The world's Newsroom brings you global events as they happen

**MON 20:00 BBC News (w172xzk1ywlwlp1z8)**

The latest five minute news bulletin from BBC World Service.

**MON 20:06 Newshour (w172xv5mj9v518w)**

Ukraine's second city, Kharkiv, is bombarded by Russian forces

Air raid sirens have sounded again in the capital, Kyiv. Meanwhile the Secretary General of the UN General Assembly has demanded an immediate ceasefire in Ukraine.

Also on the programme; President Putin has banned Russians from moving money abroad as he tries to halt a plunge in the value of the rouble. We examine the effectiveness of the sanctions which have been imposed. We also hear from the US Ambassador to the OSCE, the Organisation for Security and Co-operation in Europe. Both Russia and Ukraine are members.

(Picture: A destroyed Russian Army all-terrain infantry mobility vehicle on a road in Kharkiv. Credit: Reuters / Gnidyi)

**MON 21:00 BBC News (w172xzk1ywlwlp5qd)**

The latest five minute news bulletin from BBC World Service.

**MON 21:06 Newshour (w172xv5mj9v5510)**

Air raid sirens have sounded again in the Ukraine capital, Kyiv.

Ukraine's second city, Kharkiv, is bombarded by Russian forces. Meanwhile the Secretary General of the UN General Assembly has demanded an immediate ceasefire in Ukraine.

Also on the programme; President Putin has banned Russians from moving money abroad as he tries to halt a plunge in the value of the rouble. We examine the effectiveness of the sanctions which have been imposed. We also hear from the US Ambassador to the OSCE, the Organisation for Security and Co-operation in Europe. Both Russia and Ukraine are members.

(Picture: A destroyed Russian Army all-terrain infantry mobility vehicle on a road in Kharkiv. Credit: Reuters / Gnidyi)

**MON 22:00 BBC News (w172xzk1ywlwlp9gj)**

The latest five minute news bulletin from BBC World Service.

**MON 22:06 The Newsroom (w172xyxzkqxf)**

The world's Newsroom brings you global events as they happen

**MON 22:30 BBC News Summary (w172xzkwdm6cnqx)**

The latest two minute news summary from BBC World Service.

**MON 22:32 World Business Report (w172yrcvy5p6s2g)**

The US sanctions the Central Bank of Russia

Russia's central bank has been targeted with sanctions by the United States in an attempt to cripple the Russian economy following the invasion of Ukraine. The measures block Americans from engaging in any transactions involving Russia's central bank, finance ministry or national wealth fund. It comes on top of action by the US and EU to bar some of Russia's banks from the SWIFT international payments system. The ruble has plunged as a result to less than one ruble to one US cent. The stock market in Moscow failed to open on Monday. We asked Oleg Vyugin former First Deputy Chairman of the Central Bank of Russia if these sanctions would affect the financing of the war in Ukraine.

Next, in a strange twist the war in Ukraine may well give an extraordinary push to the adoption of carbon free renewable energy in Europe, as countries, in particular Germany accelerate their move away from Russian gas. Holger Schmieding, Chief Economist at Berenberg Bank, told us whether the change in Germany would filter through to other economies on the continent.

We then have a look at a volatile day with the American markets moving in an indecisive fashion and the NASDAQ ending the day up by half a percent, as was explained to me by Peter Jankowskis of Arbor Financial

The ostentation wealth of the Russian oligarchs has come in for intense scrutiny from regulators and financial watchdogs. From the massive yachts in the Bahamas to the stately homes and London mansions these people are obvious targets. We spoke to Oliver Bullough the author of Moneyland: Why Thieves and Crooks Now Rule the World and How to Take It Back about whether the latest sanctions would hit these targets.

Also in the programme, we hear from Olga Shapoval, who is executive director of the city of Kharkiv's IT cluster, in north-eastern Ukraine.

Lastly we asked, Andreas Clenow if Switzerland has broken its pledge of neutrality with its announcement of joining the EU in its sanctions. Andreas is a Swiss author, entrepreneur and asset manager, based in Zurich, where he is the Chief Investment Officer of a family office.

(Picture credit: Getty Images.)

**MON 23:00 BBC News (w172xzk1ywlpf6n)**

The latest five minute news bulletin from BBC World Service.

**MON 23:06 The Newsroom (w172xyxzkqsf15x)**

The world's Newsroom brings you global events as they happen

**MON 23:30 BBC News Summary (w172xzkwdm6csh1)**

The latest two minute news summary from BBC World Service.

**MON 23:32 The Conversation (w3ct1p9x)**

[Repeat of broadcast at 04:32 today]

**TUESDAY 01 MARCH 2022****TUE 00:00 BBC News (w172xzk1ywlpjys)**

The latest five minute news bulletin from BBC World Service.

**TUE 00:06 The Newsroom (w172xyxzkqsf4y1)**

The world's Newsroom brings you global events as they happen

**TUE 00:30 BBC News Summary (w172xzkwdm6cx75)**

The latest two minute news summary from BBC World Service.

**TUE 00:32 Discovery (w3ct3jzc)**

Tooth and Claw: Venomous snakes

Adam Hart discovers why rattlesnakes make good mothers and how deadly their venom is. There are over 600 different species of venomous snakes around the world with fearsome fangs delivering deadly venoms. Up to a third of the world's population lives in fear of snakes, but are these reptiles misunderstood? And while Adam

living in the UK where there are very few snakes, finds them fascinating, we shouldn't forget that an estimated 7,400 people every day are bitten by snakes, and somewhere between 220-380 people die as a result. That's around 2.7 million cases of venomous snake bites, and between 80,000 and 140,000 deaths a year - mostly in poorer communities in the developing world.

But with habitat loss and persecution rife, do snakes have more to fear from us than we do from them. Perhaps we should change from Tooth and Claw to Fangs and Scales as we dive into the world of snakes with Dr Emily Taylor, Professor of Biological Sciences at California State Polytechnic State University - she's a specialist in rattlesnakes and their maternal skills and Hiral Naik, the Africa programme manager for Save the Snakes currently studying for a PhD on snake behaviour at University of Witwatersrand

Picture credit: Hiral Naik

**TUE 01:00 BBC News (w172xzk1ywlpnpx)**

The latest five minute news bulletin from BBC World Service.

**TUE 01:06 Business Matters (w172xvqvtmhm10m)**

The US sanctions the Central Bank of Russia

Russia's central bank has been targeted with sanctions by the United States in an attempt to cripple the Russian economy following the invasion of Ukraine. The measures block Americans from engaging in any transactions involving Russia's central bank, finance ministry or national wealth fund. It comes on top of action by the US and EU to bar some of Russia's banks from the SWIFT international payments system. The ruble has plunged as a result to less than one ruble to one US cent. The stock market in Moscow failed to open on Monday. We asked Oleg Vyugin former First Deputy Chairman of the Central Bank of Russia if these sanctions would affect the financing of the war in Ukraine.

Also in the programme, we hear from people in the midst of the chaos in Ukraine. First, we speak to Olga Shapoval, who is an executive director of the city of Kharkiv's IT cluster, in north-eastern Ukraine. We then hear from Oleg Chernyak of the software development company CHI Software. He is normally based in Kharkiv and has been trying to run his business as the war intensifies. Now he is in Carpathian Mountains in the West of the Country.

The ostentation wealth of the Russian oligarchs has come in for intense scrutiny from regulators and financial watchdogs. From the massive yachts in the Bahamas to the stately homes and London mansions these people are obvious targets. We spoke to Oliver Bullough the author of Moneyland: Why Thieves and Crooks Now Rule the World and How to Take It Back about whether the latest sanctions would hit these targets.

Next, we asked Andreas Clenow if Switzerland have broken their pledge of neutrality in regards to it's announcements of joining the EU in it's sanctions. Andreas is a Swiss author, entrepreneur and asset manager, based in Zurich, where he is the Chief Investment Officer of a family office.

Lastly, in a strange twist the war in Ukraine may well give an extraordinary push to the adoption of carbon free renewable energy in Europe, as countries, in particular Germany accelerate their move away from Russian gas. Holger Schmieding, Chief Economist at Berenberg Bank, told us whether the change in Germany would filter through to other economies on the continent.

In today's programme we are joined by Jyoti Malhotra in Delhi & Mitchell Hartman in Oregon.

(PICTURE CREDIT: GETTY)

**TUE 02:00 BBC News (w172xzk1ywlpsg1)**

The latest five minute news bulletin from BBC World Service.

**TUE 02:06 The Newsroom (w172xyxzkqsf9)**

The world's Newsroom brings you global events as they happen

**TUE 02:30 BBC News Summary (w172xzkwdm6d4qf)**

The latest two minute news summary from BBC World Service.

**TUE 02:32 The Documentary (w3ct40sg)**

Inside the world's biggest humanitarian warehouse

Each year Unicef, the United Nations children's charity, procures billions of dollars of goods for delivery to those most in need all over the world. Many of those supplies will either have come from, or been organised by, the men and women working on the outskirts of Copenhagen in the biggest humanitarian warehouse in the world.

The world's disasters roll through here in waves, and as they do the warehouse takes on a purpose of its own. The facility is intimidatingly large, and can store more than 36,000 pallets of life saving equipment. The unsung heroes of the facility are two huge robots, Robert and Roberta, which pick and pack many of the thousands of items shipped out on a weekly, such as schools in a box, a piece of kit which can run a classroom for 40 children and a huge variety of medical supplies. They also organise the millions of syringes, safety boxes and ultra-cold chain freezers necessary for the Covax initiative, the programme delivering Covid-19 vaccines to low and middle income countries. There is also an innovation lab which designs items needed in natural disasters, such as disabled toilets.

In this documentary, Sandra Kanthal visits the warehouse to hear from the people who work there, and find out how their efforts matter both inside and beyond the warehouse walls.

Producer/presenter: Sandra Kanthal

(Photo: The packing area at the Unicef Global Supply Hub in Copenhagen. Credit: Mansour/Unicef/UN0470463)

**TUE 03:00 BBC News (w172xzk1ywlpx65)**

The latest five minute news bulletin from BBC World Service.

**TUE 03:06 The Newsroom (w172xyxzkqsfj5f)**

The world's Newsroom brings you global events as they happen

**TUE 03:30 BBC News Summary (w172xzkwdm6d8gk)**

The latest two minute news summary from BBC World Service.

**TUE 03:32 CrowdScience (w3ct1prt)**

[Repeat of broadcast at 09:32 on Monday]

**TUE 04:00 BBC News (w172xzk1ywlqy9)**

The latest five minute news bulletin from BBC World Service.

**TUE 04:06 The Newsroom (w172xyxzkqsfmxk)**

The world's Newsroom brings you global events as they happen

**TUE 04:30 BBC News Summary (w172xzkwdm6dd6p)**

The latest two minute news summary from BBC World Service.

**TUE 04:32 Newsday (w172xv3564144mb)**

Ukraine: Russian troops bear down on Kyiv

We go to the capital of Ukraine where residents brace for a renewed onslaught as a massive military column makes its way towards the city.

The Ukrainian president, Volodymyr Zelensky, accuses Russia of war crimes as bombs rain down in Kharkiv.

We hear about a Nigerian medical student named Peace who is studying in Kyiv. She left the city on Friday morning and has been on the move since.

**TUE 05:00 BBC News (w172xzk1ywlq4pf)**

The latest five minute news bulletin from BBC World Service.

**TUE 05:06 Newsday (w172xv3564146q5)**

Ukraine: air raid sirens heard across several cities

Coming up: A former Russian Foreign Minister tells this programme the worst is yet to come from President Putin.

We will get reaction to what he said from our Russian service in Moscow.

We'll also head to Ukraine's second city Kharkiv - in the East of the Country where there has been heavy fighting - and allegations of war crimes.

And we go to Kiev where - new satellite pictures released by a US technology firm show a massive Russian military convoy closing in on the Ukrainian capital.

**TUE 06:00 BBC News (w172xzk1ywlq8fk)**

The latest five minute news bulletin from BBC World Service.

**TUE 06:06 Newsday (w172xv356414bg9)**

Russian military closes in on Ukrainian capital

New satellite pictures released by a US technology firm show that a huge Russian military convoy stretching for more than sixty kilometres is closing in on the Ukrainian capital. We'll

have a special report from the frontlines.

Meanwhile, the Ukrainian ambassador to the UN, Sergiy Kyslytsya, accuses Russia of attacking civilians in Kharkiv.

And the prosecutor at the International Criminal Court says he plans to investigate alleged war crimes in Ukraine as a matter of urgency.

**TUE 07:00 BBC News (w172xzk1ywlqd5p)**  
The latest five minute news bulletin from BBC World Service.

**TUE 07:06 Newsday (w172xv356414g6f)**  
Ukraine: Russian military convoy targets Kyiv

We'll get the latest about events unfolding in Kyiv as a huge Russian military convoy stretching for more than sixty kilometres is closing in on the Ukrainian capital.

President Zelensky of Ukraine has accused Russia of deliberately targeting civilians during its bombardment of the city of Kharkiv.

And we hear why the United States is sending a military delegation to Taiwan.

**TUE 08:00 BBC News (w172xzk1ywlqhtx)**  
The latest five minute news bulletin from BBC World Service.

**TUE 08:06 People Fixing The World (w3cszv1f)**  
Prison Voicemail: Messages from behind bars

The Prison Voicemail app connects inmates and their families, helping them stay in touch throughout a sentence.

We hear a mum and daughter using the messages to rebuild their relationship, and find out how it helps children who are separated from their dad.

Producer/ reporter Ruth Evans

**TUE 08:30 BBC News Summary (w172xzkwdm6dw66)**  
The latest two minute news summary from BBC World Service.

**TUE 08:32 Business Daily (w3ct1jh5)**  
Women and NFTs

Non-fungible tokens - or NFTs as they're known - are already big business, whether you've heard about them or not. But when it comes to those creating them, there's a huge gender disparity.

We hear from two female artists - Michele Pred in Oakland and Yiyi Lu from San Francisco - plus Liana Zavo who runs her own PR and marketing company. Women make up just 16% of all NFT artists - according to ArtTactic, a London-based company that focuses on research and data in the world of art. Anders Pettersen from the group explains why. Plus Maliha Abidi, an artist, author and activist, and the creator of Women Rise NFT, says she's determined to make a change.

Presenter: Tamasin Ford  
Producer: Sarah Treanor

(Picture: A woman looks at a NFT by Larva Labs titled "CryptoPunk 7523"; Credit: Timothy A Clary/AFP via Getty Images)

**TUE 08:50 Witness History (w3ct1x6r)**  
Putin's war in Chechnya

When Vladimir Putin was appointed prime minister in August 1999, he was a political unknown. He quickly made his name by ordering Russian Federation forces to re-take control of the breakaway republic of Chechnya, which just years earlier had fought and won autonomy from Moscow. It would herald the start of a brutal conflict known as the Second Chechen war. We hear an eyewitness account of the war and its brutal aftermath.

Photo: A Russian soldier walks through the streets of the destroyed Chechen capital Grozny, February 25, 2000. (Photo by Oleg Nikishin/Getty Images)

**TUE 09:00 BBC News (w172xzk1ywlqmny)**  
The latest five minute news bulletin from BBC World Service.

**TUE 09:06 The Newsroom (w172xyxzkqt7n6)**  
The world's Newsroom brings you global events as they happen

**TUE 09:30 BBC News Summary (w172xzkwdm6dzyb)**

The latest two minute news summary from BBC World Service.

**TUE 09:32 The Documentary (w3ct40td)**  
Ukraine: How did we get here?

The invasion of Ukraine is, according to the man behind it, a war all about history. President Putin has been explicit in his - highly contested - view that Ukraine is, and has always been, part of the Russian nation. So ideas about the past are crucial to what happens on the ground. As Europe endures its first major war of the millennium, Edward Stourton and a panel of guests explain the steps that have led to the conflict. They explore the deep history of the origins of the Slavic nations and the myth-making around it. They follow through to the present day, charting the emergence of a distinctive Ukrainian identity - amidst fierce opposition from those Russians who believe the spiritual and religious heart of their nation still lies across the Ukrainian border.

The panel:  
Liudmyla Sharipova: Assistant Professor, University of Nottingham  
Timothy Garton Ash: Professor of European Studies, University of Oxford  
Anna Reid: Author of Borderland: A Journey Through The History of Ukraine.

Producers: Sandra Kanthal and Jim Booth  
Production Coordinator: Gemma Ashman  
Editor: Hugh Levinson

(Photo: The Ukrainian national flag is seen in front of a school which, according to local residents, was on fire after shelling, in Kharkiv, Ukraine, 28 February, 2022. Credit: Vitaliy Gnidy/Reuters)

**TUE 10:00 BBC News (w172xzk1ywlqrf2)**  
The latest five minute news bulletin from BBC World Service.

**TUE 10:06 The Arts Hour (w3ct1rvb)**  
[Repeat of broadcast at 20:06 on Saturday]

**TUE 11:00 BBC News (w172xzk1ywlqw56)**  
The latest five minute news bulletin from BBC World Service.

**TUE 11:06 The Newsroom (w172xyxzkqth4g)**  
The world's Newsroom brings you global events as they happen

**TUE 11:30 BBC News Summary (w172xzkwdm6f7fl)**  
The latest two minute news summary from BBC World Service.

**TUE 11:32 In the Studio (w3ct1tfd)**  
Twyla Tharp

Legendary dancer and choreographer Twyla Tharp has been creating dances for half a century, as well as for Broadway musicals and Hollywood hits like Amadeus and Hair. Since starting her own company in 1965, Twyla has been expanding our idea of what dance can be by combining a huge variety of movement from jazz, ballet and even boxing into her work. She's won Emmys and a Tony, and is still working aged 80.

Clem Hitchcock joins Twyla as her latest performance, Twyla Now, opens at New York City Centre. Back in 1973, it also staged Twyla's Deuce Coupe, her revolutionary breakthrough work scored to music by the Beach Boys, which mixed classical and modern dance to become the first 'crossover' ballet.

For this performance, Twyla is drawing on dances from her mighty back catalogue, some famous, some never seen before. In a rare interview, Twyla chats with Clem Hitchcock about refreshing the dances of her past by collaborating with some of the superstars of American dance today. We hear from two of them: New York City Ballet principal dancer Sara Mearns, and James Gilmer from Alvin Ailey American Dance Theatre.

This includes a version of a dance Twyla first choreographed for herself and Mikhail Baryshnikov back in 1992, but this time switching around the gender of the two leads. She discusses the need for inclusivity and diversity in dance companies, and why for this show she was also keen to work with younger emerging dancers she found on the internet.

Never one to stand still, Twyla looks back at how the last two years have been surprisingly productive, including choreographing a 'Zoom ballet', and reflects on her lifelong commitment to broadening the appeal of ballet to new audiences through evolving a relaxed, looser, more accessible way of moving.

Image: Twyla Tharp (Credit: Richard Avedon/Courtesy of The Richard Avedon Foundation)

**TUE 12:00 BBC News (w172xzk1ywlqzxb)**  
The latest five minute news bulletin from BBC World Service.

**TUE 12:06 Outlook (w3ct1jxq)**  
The violin that saved a Jewish family

Natalie Cumming's violin helped her family survive starvation, persecution, and torture. It accompanied them in their year long trek across Russia as they sought refuge from the Bolsheviks. Her grandfather would play in payment for food and shelter. The violin then followed Natalie's young Aunt Rosa to Germany, where it would help her survive the Nazi concentration camps and allow her to tell her story of what happened there.

Even though its history is marked by many horrors, the violin has now been given a new life, giving a voice to bright young musicians inspired by its story.

Natalie has written a book about her family and the violin called: The Fiddle.

A warning that there are shocking and distressing descriptions in this programme.

Get in touch: outlook@bbc.com

Presenter: Jo Fidgeon  
Producer: Gaia Caramazza and Andrea Kennedy

(Photo: Natalie Cumming (R) with her family's violin. Credit: Barnet Council)

**TUE 12:50 Witness History (w3ct1x6r)**  
[Repeat of broadcast at 08:50 today]

**TUE 13:00 BBC News (w172xzk1ywlr3ng)**  
The latest five minute news bulletin from BBC World Service.

**TUE 13:06 The Newsroom (w172xyxzkqtmq)**  
The world's Newsroom brings you global events as they happen

**TUE 13:30 BBC News Summary (w172xzkwdm6fgxv)**  
The latest two minute news summary from BBC World Service.

**TUE 13:32 Discovery (w3ct3jzc)**  
[Repeat of broadcast at 00:32 today]

**TUE 14:00 BBC News (w172xzk1ywlr7dl)**  
The latest five minute news bulletin from BBC World Service.

**TUE 14:06 Newshour (w172xv5mj9v76q6)**  
Ukraine invasion: Kharkiv hit by Russian strikes

Ukraine's president, Volodymyr Zelensky, has accused Russia of war crimes and state terrorism, after missile and rocket attacks in the country's second city, Kharkiv.

A woman who has been sheltering in the centre of Kharkiv tells us what she saw and heard.

Also in the programme: we hear from worried mothers trying to move their children out of a hospital in the capital Kyiv; and what do Russians think about the war and the global response to it?

Photo: A destroyed school close to the centre of Ukraine's second-largest city Kharkiv Credit: Getty Images

**TUE 15:00 BBC News (w172xzk1ywlrc4q)**  
The latest five minute news bulletin from BBC World Service.

**TUE 15:06 Newshour (w172xv5mj9v7bgb)**  
Ukraine invasion: Kharkiv hit by Russian strike

Analysis and reaction to Russia's military assault on Ukraine.

Photo: A destroyed school close to the centre of Ukraine's second-largest city Kharkiv Credit: Getty Images

**TUE 15:30 BBC News Summary (w172xzkwdm6fqf3)**  
The latest two minute news summary from BBC World Service.

**TUE 15:32 World Business Report (w172y4bxktckhf)**  
Russia's bombardment of Kharkiv escalates

Russia has continued its onslaught against the northeastern

Ukraine city of Kharkiv. Olga Shapoval is executive director of the city's IT cluster, and tells us what life is like for people there now. Also in the programme, as Western sanctions on Russia continue to bite, we hear how businesses in the country are responding from Chris Weafer, founder of Macro Advisory, who is based in Moscow. A number of Western companies are taking steps to divest or otherwise disengage from involvement with Russia, and the BBC's Rob Young has a roundup of who is doing what. Plus, Ukraine is one of the world's top wheat exporters. We explore what impact Russia's invasion of the country could have on global food security with Andrey Sizov of the grain research firm SovEcon in Moscow.

Today's edition is presented by Rahul Tandon, and produced by Nisha Patel, Russell Newlove and George Thomas.

(Picture: The damaged Kharkiv City Hall. Picture credit: Getty Images.)

**TUE 16:00 BBC News (w172xzk1ywlrgv)**  
The latest five minute news bulletin from BBC World Service.

**TUE 16:06 BBC OS (w172xxy116q6gv9)**  
Ukraine conflict: Missiles hit Kharkiv

Ukraine's second city Kharkiv has been hit by a Russian strike as a huge convoy of Russian armoured vehicles is slowly advancing on the capital Kyiv.

The European parliament has given a standing ovation to Ukraine's president, Volodymyr Zelensky, as he told them by videolink that his people would not be broken by Russia's invasion. He's called Russia's shelling of the city of Kharkiv a war crime.

We get updates from our correspondents on the ground and hear accounts of people witnessing the fighting. We also hear from our reporters and from the people arriving at the borders.

We speak to people heading to Ukraine as volunteer fighters, many joining up the reserves despite not having military experience. We also continue to explain the background to the conflict and the key terms regularly mentioned in our coverage.

(Photo: Medics walk outside the regional administration building, which city officials said was hit by a missile attack, in central Kharkiv, Ukraine, March 1, 2022. Credit: Vyacheslav Madiyevskyy/Reuters)

**TUE 17:00 BBC News (w172xzk1ywlrlmz)**  
The latest five minute news bulletin from BBC World Service.

**TUE 17:06 BBC OS (w172xxy116q6llf)**  
Ukraine conflict: Warning of attacks on Kyiv

The Russian defence ministry has warned residents in Kyiv that it is preparing to hit targets in the Ukrainian capital. Ukraine's second city, Kharkiv, has been hit by a strike, causing a huge explosion. Meanwhile, the European parliament has given a standing ovation to Ukraine's president, Volodymyr Zelensky, as he told them by video link that his people would not be broken by Russia's invasion.

We get updates from our correspondents on the ground and hear accounts of people witnessing the fighting. We look at what's happening at Ukraine's borders and speak to people heading to Ukraine as volunteer fighters, many joining up the reserves despite not having military experience.

We also continue to explain the background to the conflict and the key terms regularly mentioned in our coverage.

(Photo: A Ukrainian soldier walks with A Ukrainian national flag in downtown Kiev (Kyiv), Ukraine, 01 March 2022. Credit: ZURAB KURTSIKIDZE/EPA)

**TUE 18:00 BBC News (w172xzk1ywlrgd3)**  
The latest five minute news bulletin from BBC World Service.

**TUE 18:06 BBC OS (w172xxy116q6qbk)**  
Ukraine conflict: Deadly blast at Kyiv TV tower

Ukraine says five people have died after Russia attacked a TV tower in Kyiv, hitting nearby broadcast facilities, and Ukraine's second city Kharkiv has been hit by a Russian strike. We get updates from our correspondents on the ground and hear accounts of people witnessing the fighting.

The European parliament has given a standing ovation to Ukraine's president, Volodymyr Zelensky, as he told them by video link that his people would not be broken by Russia's invasion. He's called Russia's shelling of the city of Kharkiv a war crime. We speak to our correspondent in the Hague where the prosecutor at the International Criminal Court has said he

plans to investigate Russia in connection with those alleged war crimes in Ukraine

We also hear from our reporters who have been speaking to Ukrainian refugees arriving in the neighbouring countries.

(Photo: A TV tower explodes following an attack by Russian forces, amid Russia's invasion of Ukraine, in Kyiv, Ukraine March 1, 2022 in this still image taken from a video obtained from social media. Credit: Youtube MEDplus/via REUTERS)

**TUE 19:00 BBC News (w172xzk1ywlrv47)**  
The latest five minute news bulletin from BBC World Service.

**TUE 19:06 The Newsroom (w172xxyzk1qvg3h)**  
The world's Newsroom brings you global events as they happen

**TUE 19:30 BBC News Summary (w172xzkwdm6g6dm)**  
The latest two minute news summary from BBC World Service.

**TUE 19:32 Sport Today (w172y0nv0gkvpyl)**  
2022/03/01 GMT

BBC sports correspondents tell the story behind today's top sporting news, with interviews and reports from across the world.

**TUE 20:00 BBC News (w172xzk1ywlryw)**  
The latest five minute news bulletin from BBC World Service.

**TUE 20:06 Newshour (w172xv5mj9v7y5z)**  
Russia attacks TV tower in Ukrainian capital

On the sixth day of the war in Ukraine, there seems to have been an intensification of the Russian attacks. In Kharkiv, Ukraine's second city, there was a strike on Freedom Square in the centre, causing a huge explosion. At least ten people were killed, according to the Ukrainian authorities, and the president, Volodymyr Zelensky, described the attack as a war crime. We hear from a former security official who says a huge Russian military convoy now approaching the capital will meet stiff resistance and we speak to a resident of Kharkiv which has come under heavy attack today.

Photo: Smoke rises after a blast in a TV tower in Kyiv amid Russia's invasion of Ukraine Credit: Reuters/Carlos Barria

**TUE 21:00 BBC News (w172xzk1ywl2mh)**  
The latest five minute news bulletin from BBC World Service.

**TUE 21:06 Newshour (w172xv5mj9v81y3)**  
Russia attacks TV tower in Ukrainian capital

On the sixth day of the war in Ukraine, there seems to have been an intensification of the Russian attacks. In Kharkiv, Ukraine's second city, there was a strike on Freedom Square in the centre, causing a huge explosion. At least ten people were killed, according to the Ukrainian authorities, and the president, Volodymyr Zelensky, described the attack as a war crime. We hear from a former security official who says a huge Russian military convoy now approaching the capital will meet stiff resistance and we speak to a resident of Kharkiv which has come under heavy attack today.

Photo: Smoke rises after a blast in a TV tower in Kyiv amid Russia's invasion of Ukraine Credit: Reuters/Carlos Barria

**TUE 22:00 BBC News (w172xzk1ywl6cm)**  
The latest five minute news bulletin from BBC World Service.

**TUE 22:06 The Newsroom (w172xxyzk1qvtbw)**  
The world's Newsroom brings you global events as they happen

**TUE 22:30 BBC News Summary (w172xzkwdm6gkn0)**  
The latest two minute news summary from BBC World Service.

**TUE 22:32 World Business Report (w172xspcx8zdv)**  
Deadly blast at Kyiv TV tower

Five people have died after Russia attacked a TV tower in Kyiv, hitting nearby broadcast facilities. It comes after Russia warned residents that it was preparing to hit targets in the Ukrainian capital. It said it was planning attacks on Kyiv technology centres, urging people to stay away. We hear from the journalist Igor Kossow there.

Russia has also continued its onslaught against the north-eastern Ukraine city of Kharkiv. Olga Shapoval is executive director of the city's IT cluster, and tells us what life is like for people there now.

Also in the programme, the European Bank for Reconstruction and Development plans to suspend the access of Russia and Belarus to its finance and expertise in response to Russia's armed invasion of Ukraine.

Plus, Ukraine is one of the world's top wheat exporters. We explore what impact Russia's invasion of the country could have on global food security with David Laborde, a senior research fellow at the International Food Policy Research Institute in Washington DC.

And, the role of China in the Ukraine crisis appears to be shifting. Before the Beijing Olympics Presidents Putin and Xi Jin Ping declared that the friendship between Russia and China had "no limits". However, China on Tuesday said it was extremely concerned about the harm to civilians inflicted by the invasion. We hear from Yun Sun from the Stimson Center in the US.

PHOTO: A TV tower explodes following an attack by Russian forces. Credit: Youtube MEDplus/via REUTERS

**TUE 23:00 BBC News (w172xzk1ywl3br)**  
The latest five minute news bulletin from BBC World Service.

**TUE 23:06 The Newsroom (w172xxyzk1qvy30)**  
The world's Newsroom brings you global events as they happen

**TUE 23:30 BBC News Summary (w172xzkwdm6gpd4)**  
The latest two minute news summary from BBC World Service.

**TUE 23:32 In the Studio (w3ct1tfd)**  
[Repeat of broadcast at 11:32 today]

### WEDNESDAY 02 MARCH 2022

**WED 00:00 BBC News (w172xzk1ywl3fvw)**  
The latest five minute news bulletin from BBC World Service.

**WED 00:06 The Newsroom (w172xxyzk1qvw1v4)**  
The world's Newsroom brings you global events as they happen

**WED 00:30 BBC News Summary (w172xzkwdm6gt48)**  
The latest two minute news summary from BBC World Service.

**WED 00:32 The Documentary (w3ct40td)**  
[Repeat of broadcast at 09:32 on Tuesday]

**WED 01:00 BBC News (w172xzk1ywl3km0)**  
The latest five minute news bulletin from BBC World Service.

**WED 01:06 Business Matters (w172xvqtmhpxxq)**  
Deadly blast at Kyiv TV tower

Five people have died after Russia attacked a TV tower in Kyiv, hitting nearby broadcast facilities. It comes after Russia warned residents that it was preparing to hit targets in the Ukrainian capital. It said it was planning attacks on Kyiv technology centres, urging people to stay away. We hear from the journalist Igor Kossow there. Russia has also continued its onslaught against the north-eastern Ukraine city of Kharkiv. Olga Shapoval is executive director of the city's IT cluster, and tells us what life is like for people there now.

Apple has stopped all product sales in Russia. The tech company also limited Apple Pay and other services in the country, and removed state-backed news outlets RT and Sputnik from its App Store outside Russia.

Plus, Ukraine is one of the world's top wheat exporters. We explore what impact Russia's invasion of the country could have on global food security with David Laborde, a senior research fellow at the International Food Policy Research Institute in Washington DC.

And, the role of China in the Ukraine crisis appears to be shifting. Before the Beijing Olympics Presidents Putin and Xi Jin Ping declared that the friendship between Russia and China had "no limits". However, China on Tuesday said it was extremely concerned about the harm to civilians inflicted by the invasion. We hear from Yun Sun from the Stimson Center in the US.

Presenter Jamie Robertson is joined by guests Kimberly Adams and Shuli Ren.

**WED 02:00 BBC News (w172xzk1ywlspe4)**

The latest five minute news bulletin from BBC World Service.

**WED 02:06 The Newsroom (w172xyy5114r08t)**

The world's Newsroom brings you global events as they happen

**WED 03:00 BBC News (w172xzk1ywls38)**

The latest five minute news bulletin from BBC World Service.

**WED 03:06 The Newsroom (w172xyxzkqwf2j)**

The world's Newsroom brings you global events as they happen

**WED 03:30 BBC News Summary (w172xzkwdm6h5cn)**

The latest two minute news summary from BBC World Service.

**WED 03:32 The Compass (w3ct3fnl)**

It's a Bird's World

It's a Bird's World: Noise pollution

When noise levels rise, birds react. Noise is one of the top environmental hazards to which humans are exposed. It has also been linked to reduced breeding success and population decline in birds. So what happened to birds during the coronavirus pandemic lockdown when our cities fell silent? Many people said they could hear birds as they were singing louder. Did their singing change and if so, how and why? What can we learn about noise pollution and its effects on us from the birds?

Presenter: Mya-Rose Craig

Producer: Sarah Blunt

(Photo: Zebra Finch Zebra Finch - Poephila (also: Taeniopygia) guttata. Credit: Science Photo Library)

**WED 04:00 BBC News (w172xzk1ywlsxdv)**

The latest five minute news bulletin from BBC World Service.

**WED 04:06 The Newsroom (w172xyxzkqwjtn)**

The world's Newsroom brings you global events as they happen

**WED 04:30 BBC News Summary (w172xzkwdm6h93s)**

The latest two minute news summary from BBC World Service.

**WED 04:32 Newsday (w172xv3564171jf)**

President Biden describes Vladimir Putin as a dictator

In his State of the Union address, President Biden has accused the Russian leader Vladimir Putin of launching a premeditated and unprovoked attack on Ukraine.

As fighting in Ukraine enters its seventh day, Russian troops are reported to have seized control of the city of Kherson.

Hundreds of thousands of Ukrainians have left the country, we hear about the impact on Ukraine's border nations.

**WED 05:00 BBC News (w172xzk1ywl11j)**

The latest five minute news bulletin from BBC World Service.

**WED 05:06 Newsday (w172xv3564173m8)**

Ukraine: Russian paratroopers attack Kherson

Fighting continues with Kherson in the south falling to Russian forces, and reports of paratroopers in Kharkiv.

The Russian invasion of Ukraine has forced many nations to look closely at their loyalties and interests - we look at Georgia, a country where the government is wary of criticising Russia but popular opinion is more blunt.

International sanctions have triggered a steep fall in the value of the Russian currency, and a surge in oil prices.

**WED 06:00 BBC News (w172xzk1ywl15m)**

The latest five minute news bulletin from BBC World Service.

**WED 06:06 Newsday (w172xv3564177cd)**

Ukraine: Russia continues invasion into seventh day

As Russia continues to bombard Ukraine's cities, we hear from a Ukrainian MP about her nation's fight against the Russian

invasion.

From the south-east of the country the front line is creeping closer to Dnipro, we hear how the city is preparing to meet the expected Russian attack.

And we look at the impact the war is having on the price of oil, and moves to release reserves into the market to bring down the price.

**WED 07:00 BBC News (w172xzk1ywl192s)**

The latest five minute news bulletin from BBC World Service.

**WED 07:06 Newsday (w172xv356417c3j)**

Ukraine: First key city reportedly falls to Russia

In his State of the Union address, President Biden has accused the Russian leader Vladimir Putin of launching a premeditated and unprovoked attack on Ukraine.

As fighting in Ukraine enters its seventh day, Russian troops are reported to have seized control of the port city of Kherson.

The World Bank and the IMF are preparing a multi-billion-dollar package of emergency support for Ukraine.

**WED 08:00 BBC News (w172xzk1ywl1dtx)**

The latest five minute news bulletin from BBC World Service.

**WED 08:06 HARDtalk (w3ct1ncn)**

Andrey Kurkov: Putin's attack on Ukraine's identity

Stephen Sackur speaks to Ukrainian novelist Andrey Kurkov. He was born in Russia, writes in Russian and now fears for his life at the hands of Russian troops. What does his personal story tell us about Moscow's attempt to undermine Ukraine's independence and identity?

**WED 08:30 BBC News Summary (w172xzkwdm6hs39)**

The latest two minute news summary from BBC World Service.

**WED 08:32 Business Daily (w3ct1jpy)**

Russian money in London

What will new legislation to crack down on "dirty money" in the UK be worth? Western governments have applied unprecedented sanctions on Russia following the invasion of Ukraine. But is it time they did more to address the corrupt money invested in their own countries? Ed Butler speaks to investigative journalist Tom Burgis, author of Kleptopia: How Dirty Money is Conquering the World. (Picture: Money laundromat. Credit: Getty Images)

**WED 08:50 Witness History (w3ct1x90)**

Boris Yeltsin's surprise resignation

On New Year's Eve 1999 the Russian President went on TV and announced he was leaving office. Tired and emotional, he apologised to the people for the state of the country. Boris Yeltsin's departure paved the way for his chosen successor, Vladimir Putin. Dina Newman spoke to the former Russian president's widow, Naina Yeltsina, about that day.

PHOTO: Boris Yeltsin in 1999 (Getty Images)

**WED 09:00 BBC News (w172xzk1ywl1j1)**

The latest five minute news bulletin from BBC World Service.

**WED 09:06 The Newsroom (w172xyxzkqkx4k9)**

The world's Newsroom brings you global events as they happen

**WED 09:30 BBC News Summary (w172xzkwdm6hwvf)**

The latest two minute news summary from BBC World Service.

**WED 09:32 Digital Planet (w3ct1l1t)**

Ukraine's massive global tech presence

Did you know that the tech behind your door bell was likely to have been designed in the Ukraine? Or that Grammarly's founders are Ukrainian. It's probably easier to list the tech that we all use that has Ukrainian roots: What's App, Paypal, CleanMyMac, Revolut App and the masking tech in Snapchat to name but a few. We spoke to Mike Sapiton, Forbes Ukraine Technology Editor, about the massive influence of Ukrainian developers on our everyday lives.

Detecting COVID from your mobile

As people begin to return to work in some countries, COVID

cases continue to rise in others. Testing is still key to monitoring the spread of the virus and detecting any mutations. A Chilean start-up company called Diagnosis Biotech have developed an accurate, non-invasive and low-cost method of testing for COVID 19 called Phone Screen Testing – also known as POST. Our reporter Jane Chambers went to find out more.

How to access blocked online content

Internet content is blocked by many governments around the world, Russia's current block is again highlighted in the press, yet President Putin's regime isn't able to control their information agenda as it did before. So how are people accessing what the authorities may not want them to see? We speak to Abdallah al-Salmi, Strategy Analyst, Systems Integration at the BBC World Service who tells us how the BBC is ensuring it's content remains accessible including how they've made a copy of all the BBC News websites on the dark web that can be accessed via the TOR browser.

The programme is presented by Gareth Mitchell with expert commentary from Bill Thompson.

Studio Manager: Sue Maillot

Producer: Ania Lichtarowicz

Picture credit: Getty Images

**WED 10:00 BBC News (w172xzk1ywl1nb5)**

The latest five minute news bulletin from BBC World Service.

**WED 10:06 The Documentary (w3ct2gcz)**

[Repeat of broadcast at 12:06 on Saturday]

**WED 11:00 BBC News (w172xzk1ywl1ts29)**

The latest five minute news bulletin from BBC World Service.

**WED 11:06 The Newsroom (w172xyxzkqxd1k)**

The world's Newsroom brings you global events as they happen

**WED 11:30 BBC News Summary (w172xzkwdm6j4bp)**

The latest two minute news summary from BBC World Service.

**WED 11:32 The Shutdown (w3ct3hgg)**

Misinformation

It is often claimed that shut downs are required to stop the spread of misinformation online, particularly during times of uncertainty or protest. In India, one of the world's largest democracy, internet shutdowns are a regular occurrence. According to data published by Access Now, an international digital rights, non-profit organisation, India has been responsible for more shutdowns each year than any other country. In part, this is because there is legal provision for the Indian authorities to disrupt internet access in certain cases.

Felicia Anthonio, a campaigner for Access Now, identifies and verifies internet shutdowns as they happen around the world, and works to raise awareness of the human rights implications. She hears from the ordinary people who are affected by internet shutdowns in times of crisis. The United Nations has condemned internet shutdowns as a breach of international human rights law.

Producer: Beatrice Pickup

Reporter in Delhi: Anish Ahluwalia

(Photo: Delhi gate at the Red Fort in Delhi, India. Credit: Richard Sowersby/BBC)

**WED 12:00 BBC News (w172xzk1ywl1twf)**

The latest five minute news bulletin from BBC World Service.

**WED 12:06 Outlook (w3ct1jzz)**

The Texan princess and the priceless villa

Rita Boncompagni Ludovisi grew up on a Texas ranch, but ended up as an Italian princess. Along the way she reinvented herself many times. She was caught up in a scandal that took Washington by storm, posed for Playboy, worked with Donald Trump on a \$900 million deal, and later became an actor. Her final act saw her falling in love and marrying an Italian prince, with whom she renovated one of Rome's most historic villas filled with priceless art and invaluable historical relics. She talks to Emily Webb about now having to say goodbye to her beloved Villa Aurora, one of the most expensive houses ever to be sold.

Steve Burnett makes violins in the classical Italian tradition that have won praise from the likes of Nigel Kennedy and Maxim Vengerov. Passionate about history and the environment, Steve has previously made violins in honour of Wilfred Owen.

Siegfried Sassoon and Arthur Conan Doyle. He tells Antonia Quirke about his most recent project, a violin for the centenary of explorer Ernest Shackleton, made from the floorboards of Shackleton's Edinburgh home. You can read more about Steve's work at [burnettviolins.co.uk](http://burnettviolins.co.uk)

Get in touch: [outlook@bbc.com](mailto:outlook@bbc.com)

(Image: Princess Rita Boncompagni Ludovisi outside Villa Aurora, Rome, Italy  
Credit: Remo Casilli/Reuters)

**WED 12:50 Witness History (w3ct1x90)**  
[Repeat of broadcast at 08:50 today]

**WED 13:00 BBC News (w172xzk1ywlv0kk)**  
The latest five minute news bulletin from BBC World Service.

**WED 13:06 The Newsroom (w172xyxzkqxmjt)**  
The world's Newsroom brings you global events as they happen

**WED 13:30 BBC News Summary (w172xzkwdm6jety)**  
The latest two minute news summary from BBC World Service.

**WED 13:32 Digital Planet (w3ct1ftg)**  
[Repeat of broadcast at 09:32 today]

**WED 14:00 BBC News (w172xzk1ywlv49p)**  
The latest five minute news bulletin from BBC World Service.

**WED 14:06 Newshour (w172xv5mj9vb3m9)**  
Russia steps up attacks on Ukrainian cities

Russia steps up its attacks on Ukrainian cities, with Mariupol and Kharkiv coming under sustained bombardment.

We also hear from the port of Kherson in the south, which Russia says it's taken and the capital Kyiv where there's been continued fighting on the outskirts. There will be a second round of talks between Ukraine and Russia later today.

Also in the programme: In Russia, the jailed opposition leader, Alexei Navalny, has called on Russians to hold daily demonstrations against the war; and the governing body of the Paralympics has said Russian and Belarusian athletes already in Beijing for the winter games can compete, but as neutrals.

(Photo shows the area near National University after shelling in Kharkiv, Ukraine. Credit: Ukrainian State Emergency Services)

**WED 15:00 BBC News (w172xzk1ywlv81t)**  
The latest five minute news bulletin from BBC World Service.

**WED 15:06 Newshour (w172xv5mj9vb7cf)**  
Interviews, news and analysis of the day's global events.

**WED 15:30 BBC News Summary (w172xzkwdm6jmb6)**  
The latest two minute news summary from BBC World Service.

**WED 15:32 World Business Report (w172y4d4qx8hc3g)**  
Global energy prices touch fresh highs

Global energy prices have surged as Russia intensifies attacks on key Ukrainian cities. As the oil producers' cartel OPEC plus Russia stick with a planned 400,000 barrel per day increase in production from April, we explore the thinking behind the latest announcement with Carole Nakhle, chief executive of advisory and research firm Crystal Energy, which is based in London. Also in the programme, as more and more firms announce that they will curb their engagement with Russia, following Western sanctions on the country, emerging market economist Liam Peach of Capital Economics tells us what the overall impact of the sanctions are likely to be on Russia. With Vladimir Putin's government imposing ever stricter measures on media outlets within Russia, we find out how ordinary Russians are staying up to date with developments in the Ukraine conflict from Veronica Snoj, of BBC Monitoring in Moscow. Plus, the BBC's cyber reporter Joe Tidy fills us in on the role of cyber warfare, as the conflict unfolds.

Today's edition is presented by Mike Johnson, and produced by Benjie Guy, Sara Parry, and Russell Newlove.

(Picture: A pair of oil pumps. Picture credit: Getty Images.)

**WED 16:00 BBC News (w172xzk1ywlvcy3)**  
The latest five minute news bulletin from BBC World Service.

**WED 16:06 BBC OS (w172xxy116q9crd)**  
2022/03/02 16:06 GMT

BBC OS gives a vibrant account of the day's events with explanation and reaction from those involved.

**WED 17:00 BBC News (w172xzk1ywlvhk2)**  
The latest five minute news bulletin from BBC World Service.

**WED 17:06 BBC OS (w172xxy116q9hhj)**  
2022/03/02 17:06 GMT

BBC OS gives a vibrant account of the day's events with explanation and reaction from those involved.

**WED 18:00 BBC News (w172xzk1ywlvm96)**  
The latest five minute news bulletin from BBC World Service.

**WED 18:06 BBC OS (w172xxy116q9m7n)**  
2022/03/02 18:06 GMT

BBC OS gives a vibrant account of the day's events with explanation and reaction from those involved.

**WED 19:00 BBC News (w172xzk1ywlvr1b)**  
The latest five minute news bulletin from BBC World Service.

**WED 19:06 The Newsroom (w172xyxzkqyc0l)**  
The world's Newsroom brings you global events as they happen

**WED 19:30 BBC News Summary (w172xzkwdm6k39q)**  
The latest two minute news summary from BBC World Service.

**WED 19:32 Sport Today (w172y0nv0gkylvp)**  
2022/03/02 GMT

BBC sports correspondents tell the story behind today's top sporting news, with interviews and reports from across the world.

**WED 20:00 BBC News (w172xzk1ywlvvsg)**  
The latest five minute news bulletin from BBC World Service.

**WED 20:06 Newshour (w172xv5mj9vbv32)**  
Ukraine conflict: Russia steps up attacks

Russia has continued its invasion of Ukraine. The mayor of Kharkiv, a city in eastern Ukraine, has said Russian shelling is inflicting heavy casualties on the civilian population. The United Nations General Assembly has voted to condemn the Russian invasion of Ukraine.

Also in the programme: the crackdown on the media in Russia; and Roman Abramovich announces his intention to sell Chelsea Football Club.

(Photo shows the area near National University after shelling in Kharkiv, Ukraine. Credit: Ukrainian State Emergency Services)

**WED 21:00 BBC News (w172xzk1ywlvjzj)**  
The latest five minute news bulletin from BBC World Service.

**WED 21:06 Newshour (w172xv5mj9vbv6)**  
Ukraine conflict: Russia steps up attacks

Analysis and reaction to Russia's military assault on Ukraine (Photo shows the area near National University after shelling in Kharkiv, Ukraine. Credit: Ukrainian State Emergency Services)

**WED 22:00 BBC News (w172xzk1ywlw38q)**  
The latest five minute news bulletin from BBC World Service.

**WED 22:06 The Newsroom (w172xyxzkqyq7z)**  
The world's Newsroom brings you global events as they happen

**WED 22:30 BBC News Summary (w172xzkwdm6kgk3)**  
The latest two minute news summary from BBC World Service.

**WED 22:32 World Business Report (w172yct338lfjji)**  
City of Kherson said to be under control of Russian forces

The mayor of the strategically important Ukrainian port of Kherson says Russian forces are now in control - making it the

first major city to be taken by the Russians. In a message posted on Facebook, Igor Kolykhaev wrote that Russian troops had forced their way into the city council building. He urged Russian soldiers not to shoot at civilians, saying there were no Ukrainian forces in the city. In the east, the mayor of the besieged city of Kharkiv has said Russian shelling is inflicting heavy casualties on the civilian population, but he said the city would not fall to Vladimir Putin's invasion force.

Also in the programme, as more and more firms announce that they will curb their engagement with Russia, following Western sanctions on the country, emerging market economist Liam Peach of Capital Economics tells us what the overall impact of the sanctions are likely to be on Russia.

With Vladimir Putin's government imposing ever stricter measures on media outlets, we find out how the war in Ukraine is reported in Russia.

And, we talk to Jason Hungerford, partner at London-based law firm Mayer Brown International, about the potential liability of crypto exchanges in the context of sanctions.

Plus, Russian oligarch Roman Abramovich has announced he will sell Chelsea Football Club, which he has owned for almost two decades. We discuss the implications of this with Trevor Watkins, the Head of Global Sports at the law firm Pinsent Masons and a former Chairman of the English club AFC Bournemouth.

PHOTO: Reuters

**WED 23:00 BBC News (w172xzk1ywlw70v)**  
The latest five minute news bulletin from BBC World Service.

**WED 23:06 The Newsroom (w172xyxzkqyv03)**  
The world's Newsroom brings you global events as they happen

**WED 23:30 BBC News Summary (w172xzkwdm6k197)**  
The latest two minute news summary from BBC World Service.

**WED 23:32 The Shutdown (w3ct3hgq)**  
[Repeat of broadcast at 11:32 today]

#### THURSDAY 03 MARCH 2022

**THU 00:00 BBC News (w172xzk1ywlwbrz)**  
The latest five minute news bulletin from BBC World Service.

**THU 00:06 The Newsroom (w172xyxzkqyyr7)**  
The world's Newsroom brings you global events as they happen

**THU 00:30 BBC News Summary (w172xzkwdm6k1c)**  
The latest two minute news summary from BBC World Service.

**THU 00:32 Health Check (w3ct1nwp)**  
Helping children cope with headline anxiety

Health issues and medical breakthroughs from around the world. Hundreds of thousands are fleeing the conflict in Ukraine, and not all of them are Ukrainians. The country has a sizeable population of overseas medical students, many from African and Asian countries. Mathew Kalu is a Nigerian-born medical doctor who has lived in Ukraine for 12 years. He tells us why Ukraine is the go-to destination for so many future doctors and how he is helping them leave the country safely.

Is the news cycle making children anxious? Consultant Clinical Psychologist Jane Gilmour tells us that children may be more aware of the news cycle than we may think and shares tips for comforting them in the face of uncertainty.

And Monday marked Rare Disease Day. We hear from Alan Bentley, whose rare skin condition baffled more than a dozen doctors, and how Professor Ediel O'Toole helped him access a life-transforming drug.

This week's guest is Dr Graham Easton, family doctor and Professor of Clinical Communication Skills at Queen Mary University.

Presenter: Marnie Chesterton  
Producer: Samara Linton

(Main Image: Children watching television. Image credit: Peter Cade / Getty Images)

**THU 01:00 BBC News (w172xzk1ywlwgj3)**  
The latest five minute news bulletin from BBC World Service.

**THU 01:06 Business Matters (w172xvqvtmhstt)**  
Fears for the strategic port of Kherson

The mayor of the strategically important Ukrainian Black Sea port of Kherson said that Russian forces were now in control - making it the first major city to be taken by the Russians. In a message posted on Facebook, Igor Kolykhaev wrote that Russian troops had forced their way into the city council building. However, we hear from Andriy Zagorodnyuk, Ukraine's former defence minister, who believes that the Ukrainian and Russian forces are still battling for control.

Also in the programme, with Vladimir Putin's government imposing ever stricter measures on media outlets, we find out how the war in Ukraine is reported in Russia.

And, we talk to Jason Hungerford, partner at London-based law firm Mayer Brown International, about the potential liability of crypto exchanges in the context of sanctions.

Plus, Russian oligarch Roman Abramovich has announced he will sell Chelsea FC, which he has owned for almost two decades. We discuss the implications of this with Trevor Watkins, the Head of Global Sports at the law firm Pinsent Masons and a former Chairman of the English club AFC Bournemouth.

Presenter Fergus Nicoll is joined by guests Alison Van Diggelen and Peter Ryan

PHOTO: Reuters

**THU 02:00 BBC News (w172zsk1ywlw187)**  
The latest five minute news bulletin from BBC World Service.

**THU 02:06 The Newsroom (w172xyzkzqz67h)**  
The world's Newsroom brings you global events as they happen

**THU 02:30 BBC News Summary (w172zskwdm6kyjm)**  
The latest two minute news summary from BBC World Service.

**THU 02:32 Assignment (w3ct1gqx)**  
India's living dead

What would it be like if everyone believed you were dead? Lal Bihari knows exactly what that feels like. When he was 22 years old the Indian farmer was told by his local government office that he was dead and no protestations that he was standing before them would persuade the bureaucrats otherwise – after all, his death certificate was there as proof. Whether the victim of a scam or a clerical error, the end result for Bihari was to lose his business and all the land he was hoping to inherit. It took him more than two decades to reinstate himself among the living during which time he tried everything from going on hunger strike to kidnapping someone in the hopes that the police would be forced to concede that a dead man could not be arrested. Today, more than a quarter of a century later, Bihari runs the Association for the Living Dead of India through which he says he has helped thousands of people who have fallen victim to the same thing. He tells his extraordinary story to Chloe Hadjimatheou for Assignment.

Production Team in India: Ajit Sarathi; Kinjal Pandya; Piyush Nagpal and Praveen Mudholkar  
Editor: Bridget Harney

(Image: Lal Bihari holding a banner for the Association of the Living Dead. Credit: Piyush Nagpal/BBC)

**THU 03:00 BBC News (w172zsk1ywlwq0c)**  
The latest five minute news bulletin from BBC World Service.

**THU 03:06 The Newsroom (w172xyzkzqz9zm)**  
The world's Newsroom brings you global events as they happen

**THU 03:30 BBC News Summary (w172zskwdm6l28r)**  
The latest two minute news summary from BBC World Service.

**THU 03:32 The Food Chain (w3ct1rh2)**  
The recipe collectors

What is a recipe? A simple question... with many answers. It could be a set of instructions on how to make a dish – but also so much more. Recipes can reveal how we lived in the past, and how we are living today. They are part of our sense of identity, belonging and loss and they are portals we can use to travel to different cultures.

This week, Ruth Alexander speaks to three recipe collectors in India, Ghana and the USA to find out why they are preserving their nation's recipes. What can you learn by documenting these

culinary guides? How do you even capture a recipe that has never been written down? And what is at stake if they are lost?

(Picture: Cookbook with utensils. Credit: Getty/BBC)

If you would like to get in touch with the show please email thefoodchain@bbc.co.uk

Contributors:

Abena Offeh-Gyimah, writer and food entrepreneur, Ghana

Megan Elias, cultural historian and director of the Gastronomy programme at University of Boston, USA

Muskaan Pal, co-founder, Indian Community Cookbook Project at Flame University in Pune, India

**THU 04:00 BBC News (w172zsk1ywlwtrh)**  
The latest five minute news bulletin from BBC World Service.

**THU 04:06 The Newsroom (w172xyzkzqzfq)**  
The world's Newsroom brings you global events as they happen

**THU 04:30 BBC News Summary (w172zskwdm6l60w)**  
The latest two minute news summary from BBC World Service.

**THU 04:32 Newsday (w172xv356419yfj)**  
Kherson becomes first major Ukrainian city to be taken by Russian troops

The mayor of the Ukrainian city of Kherson admits the area is under control of Russian forces.

The United Nations General Assembly votes to condemn Russia's invasion as the International Criminal Court opens an investigation into potential war crimes.

Will the pressure of sanctions and isolation encourage some to challenge President Putin's decision?

**THU 05:00 BBC News (w172zsk1ywlwyhm)**  
The latest five minute news bulletin from BBC World Service.

**THU 05:06 Newsday (w172xv35641b0jc)**  
Ukraine: huge explosions have been heard in the capital

One week after Russia launched its attack on Ukraine, huge explosions have been heard in the capital Kyiv.

The UN says a million people have fled Ukraine since the attack began.

The International Criminal Court has opened an investigation into possible war crimes committed in Ukraine.

**THU 06:00 BBC News (w172zsk1ywlx27r)**  
The latest five minute news bulletin from BBC World Service.

**THU 06:06 Newsday (w172xv35641b48h)**  
Ukraine's southern city of Kherson falls under Russian control

As Russian military advances continue, 141 member states of the UN General Assembly vote to condemn Russia's invasion.

The Swift banking system says will cut off Russian banks on March 12th as part of economic sanctions over the war in Ukraine.

Russian billionaire Roman Abramovich says he's selling Chelsea Football club saying proceeds will go towards helping Ukrainian victims of the conflict.

**THU 07:00 BBC News (w172zsk1ywlx5zw)**  
The latest five minute news bulletin from BBC World Service.

**THU 07:06 Newsday (w172xv35641b80m)**  
War intensifies in Ukraine as the conflict enters second week

As the Russian invasion of Ukraine enters a second week fighting is growing in intensity in the north, east and south of the country with huge explosions in the capital, Kyiv.

The southern port city of Kherson is now under the control of Russian forces and hundreds of people are feared dead in the southern port of Mariupol following hours of sustained shelling according to the city's deputy mayor.

And the Russian billionaire Roman Abramovich announces he's selling Chelsea Football club saying proceeds will go towards helping Ukrainian victims of the invasion.

**THU 08:00 BBC News (w172zsk1ywlx9r0)**  
The latest five minute news bulletin from BBC World Service.

**THU 08:06 The Inquiry (w3ct1z3d)**  
Will sanctions stop Russia in Ukraine?

As economic sanctions are applied to Russia over its invasion of Ukraine, will they help force it to change course? While they are credited with helping end apartheid in South Africa they have had mixed success when applied to other countries.

With Charmaine Cozier.

Produced by Bob Howard

(Protesters hold up placards in support of Ukraine, Trafalgar Square London UK, 27 Feb 2022. Credit: Leon Neal/Getty Images)

**THU 08:30 BBC News Summary (w172zskwdm6lp0d)**  
The latest two minute news summary from BBC World Service.

**THU 08:32 Business Daily (w3ct1jbn)**  
War in Ukraine: the cyber frontier

How the conflict in Ukraine is playing out in cyberspace. With the conflict in Ukraine still raging following Russia's invasion Ed Butler speaks to hackers from Ukraine including Vlad Styrn of Berezha Security Group, one of the people tasked with fending off digital attacks on Ukraine. Dyma Budorin, CEO of cybersecurity firm Hacken.IO, tells Ed he left the country before the current conflict broke out, to carry out a programme of "offensive operations" against Russian targets. Chester Wisniewski of internet security firm Sophos says the Russian intelligence services occasionally work with existing groups of hackers to carry out targeted attacks. And Lemnat Maschmeyer of the Center for Security Studies in Zurich explains why he thinks some people are overestimating the Russian state's cyberwarfare capabilities.

(Photo: How the conflict in Ukraine could play out in cyberspace; Credit: Getty Images)

**THU 08:50 Witness History (w3ct1x4h)**  
The takeover of NTV in Russia

NTV, the only nationwide independent TV channel in Russia, was taken over in April 2001. It lost its independence despite a vigorous protest campaign mounted by its staff. In 2017, Dina Newman spoke to the head of NTV at the time, Yevgeny Kiselev.

PHOTO: An NTV broadcast in 2001 (Getty Images)

**THU 09:00 BBC News (w172zsk1ywlx4h)**  
The latest five minute news bulletin from BBC World Service.

**THU 09:06 The Newsroom (w172xyzkzkr01gd)**  
The world's Newsroom brings you global events as they happen

**THU 09:30 BBC News Summary (w172zskwdm6lsrj)**  
The latest two minute news summary from BBC World Service.

**THU 09:32 Health Check (w3ct1nwp)**  
[Repeat of broadcast at 00:32 today]

**THU 10:00 BBC News (w172zsk1ywlxk8f)**  
The latest five minute news bulletin from BBC World Service.

**THU 10:06 The Forum (w3ct1rml)**  
Vincent van Gogh: The struggling artist

The Dutch post-Impressionist painter Vincent van Gogh is one of the most influential painters in western art. His series of still life sunflowers are known around the world today but during his lifetime in the 1800s he lived in poverty, selling very little of his work, some say just one painting, and suffered several serious breakdowns. One of his most famous works, The Starry Night, is said to be the view from his room in a French psychiatric hospital where he'd admitted himself shortly after severing his own left ear. This programme looks at the man behind these iconic paintings, explores how and why he became a painter and picks apart the various theories around his death from a gunshot

wound at the age of just 37.

Joining Bridget Kendall to discuss van Gogh's life and work are Louis van Tilborgh, Senior Researcher at the Van Gogh Museum in Amsterdam and Professor of Art History at the University of Amsterdam; van Gogh biographer and co-author of Van Gogh: The Life, Steven Naifeh; and British art historian Lucrezia Walker.

(Image: Self-Portrait by Vincent van Gogh. Credit:Getty Images)

**THU 10:50 Sporting Witness (w3ct19m)**

The first Winter Paralympic Games

The first Winter Paralympics were held in the Swedish town of Örnsköldsvik in 1976. Nearly two-hundred competitors came from 16 countries. Rachel Naylor speaks to two blind skiing competitors with very different experiences - Finnish multi-gold medallist, Pertti Sankilampi, and Londoner Mike Brace, who learnt his sport shortly before the Games.

PHOTO: Paralympic skier Larry Kuntz in the 1970s (Getty Images/Denver Post)

**THU 11:00 BBC News (w172xzk1ywlxznz)**

The latest five minute news bulletin from BBC World Service.

**THU 11:06 The Newsroom (w172xyxzlkr08yn)**

The world's Newsroom brings you global events as they happen

**THU 11:30 BBC News Summary (w172xzkwdm6m17s)**

The latest two minute news summary from BBC World Service.

**THU 11:32 The Food Chain (w3ct1rh2)**

[Repeat of broadcast at 03:32 today]

**THU 12:00 BBC News (w172xzk1ywlxsnj)**

The latest five minute news bulletin from BBC World Service.

**THU 12:06 Outlook (w3ct1k4h)**

Becoming an elder in the community I was stolen from as a baby

Dianne O'Brien was born in the 1940s and grew up in an Irish-Australian family near Sydney. But when she was just 14, her world was torn apart: her beloved mother died, her father abandoned her and she discovered she was adopted. She was sent to a notorious children's home, where she gave birth to her first child, the result of a sexual assault. Years later, she went in search of her birth family and discovered she was Indigenous, part of the Stolen Generation and a descendant of celebrated Indigenous Australian politicians. Dianne eventually went on to become a leader in her own right in the community she was taken from so many decades before. Dianne has written a book about her life, Daughter of the River Country. A warning that this interview contains descriptions of physical and sexual violence.

Professor of Philosophy and Music David Rothenburg likes to jam...and his bandmates are birds. David is fascinated by birdsong and he visits outdoor spaces to play with the birds living there. He even likes to imitate their sounds, such as those made by pheasants and nightingales. This interview was first broadcast in 2019.

(Photo: Dianne O'Brien with her mother, aged two. Credit: Courtesy of Dianne O'Brien)

**THU 12:50 Witness History (w3ct1x4h)**

[Repeat of broadcast at 08:50 today]

**THU 13:00 BBC News (w172xzk1ywlxsgn)**

The latest five minute news bulletin from BBC World Service.

**THU 13:06 The Newsroom (w172xyxzlkr0jfx)**

The world's Newsroom brings you global events as they happen

**THU 13:30 BBC News Summary (w172xzkwdm6m8r1)**

The latest two minute news summary from BBC World Service.

**THU 13:32 Health Check (w3ct1nwp)**

[Repeat of broadcast at 00:32 today]

**THU 14:00 BBC News (w172xzk1ywl16s)**

The latest five minute news bulletin from BBC World Service.

**THU 14:06 Newshour (w172xv5m9vf0jd)**

Ukraine conflict: Russia besieges key cities

Russia's attack on Ukraine moves into a second week - in Mariupol, a strategic port near the Russian border, people are trapped by intense shelling. We'll talk to the city's deputy mayor. Also, as the International Criminal Court starts gathering evidence of possible war crimes, we'll look at Russia's use of prohibited weapons; and as Kherson becomes the first Ukrainian city to fall to the Russians, we'll hear from a young woman there.

**THU 15:00 BBC News (w172xzk1ywl4yx)**

The latest five minute news bulletin from BBC World Service.

**THU 15:06 Newshour (w172xv5m9vf48j)**

Interviews, news and analysis of the day's global events.

**THU 15:30 BBC News Summary (w172xzkwdm6m79)**

The latest two minute news summary from BBC World Service.

**THU 15:32 World Business Report (w172y49pdqgjbqp)**

Russia's bombardment of Ukraine continues

With Russia's Ukraine invasion in its second week, fighting continues across the country. Since the start of the conflict, we've been hearing from Olga Shapoval, who is executive director of the northeastern Ukraine city of Kharkiv's IT cluster. With the city facing intense Russian bombardment, she brings us up to speed on the latest. Also in the programme, the world's critical supply chains are once again under strain, as countries and companies close their doors to ships from Russia. Guy Platten is secretary general of the International Chamber of Shipping, and tells us what impact the crisis is having on the global movement of goods. Yuriy Vitrenko is chief executive of Ukraine's biggest energy company, Naftogaz, and makes the case for the rest of the world to stop buying Russian oil and gas. The war in Ukraine is being fought in the air, on land and at sea, but also in cyberspace, and the BBC's Ed Butler has been speaking to people on the virtual front lines. Plus, one striking aspect of Wednesday's UN draft resolution condemning Russia's invasion of Ukraine was the number of African countries that were reluctant to support the measure. Steven Grudz is from the South African Institute of International Affairs in Johannesburg, and discusses Russia's influence in Africa, both military and economic.

Today's edition is presented by Mike Johnson, and produced by Benjie Guy, Russell Newlove and Gabriele Shaw.

(Picture: A bomb-damaged building near Kyiv. Picture credit: Reuters.)

**THU 16:00 BBC News (w172xzk1ywl8q1)**

The latest five minute news bulletin from BBC World Service.

**THU 16:06 BBC OS (w172xxy116qd8nh)**

Ukraine port city of Mariupol under attack

Civilians are trapped by intense shelling in Mariupol, a strategic southern port near Ukrainian's border with Russia. We'll explain the latest military action and its significance. We continue to hear the voices of people who are living through what's happening.

We also hear conversations between Ukrainian parents about how they're looking after their children during the conflict and how they're explaining the war.

And we discuss what the Russian Ministry of Education is telling Russian children in a special broadcast today, putting across the Russian authorities' justification for what they're calling a "special military operation".

(Photo: Mariupol under seige. Credit Maxim, a resident in the city)

**THU 17:00 BBC News (w172xzk1ywl4g5)**

The latest five minute news bulletin from BBC World Service.

**THU 17:06 BBC OS (w172xxy116qddd)**

Ukraine port city of Mariupol under attack

Civilians are trapped by intense shelling in Mariupol, a strategic southern port near Ukrainian's border with Russia. We'll explain the latest military action and its significance. We continue to hear the voices of people who are living through what's happening.

We also hear conversations between Ukrainian parents about how they're looking after their children during the conflict and

how they're explaining the war.

And we examine some of the latest economic waves of the conflict, with our business correspondent looking at how prices of commodities are changing as a result of the war - and why.

(Photo: Mariupol under seige. Credit Maxim, a resident in the city)

**THU 18:00 BBC News (w172xzk1ywl16j9)**

The latest five minute news bulletin from BBC World Service.

**THU 18:06 BBC OS (w172xxy116qd4r)**

President Zelensky asks Putin for talks

Ukraine's President Zelensky has asked Vladimir Putin for one-to-one talks as the humanitarian situation worsens. We'll explain the latest military action and its significance, including the intense shelling of the strategic southern port city of Mariupol. We'll continue to hear the voices of people who are living through what's happening.

We talk to our team verifying footage on social media to talk about the latest videos appearing of the conflict. We'll explain what they've verified to be true and what they've debunked as false in the past 24 hours.

We hear conversations between Ukrainian parents about how they're looking after their children during the conflict and how they're explaining the war.

And we speak to a BBC journalist who has been looking at claims by some African students in Ukraine that their universities actively discouraged them from leaving the country until it was too late to be able to flee.

(Photo: Ukrainian President Zelensky speaks about current situation in the Ukraine-Russia conflict. 03/03/2022 Credit: EPA)

**THU 19:00 BBC News (w172xzk1ywl1ymf)**

The latest five minute news bulletin from BBC World Service.

**THU 19:06 The Newsroom (w172xyxzlkr17xp)**

The world's Newsroom brings you global events as they happen

**THU 19:30 BBC News Summary (w172xzkwdm6n06t)**

The latest two minute news summary from BBC World Service.

**THU 19:32 Sport Today (w172y0nv0gl1hrs)**

2022/03/03 GMT

BBC sports correspondents tell the story behind today's top sporting news, with interviews and reports from across the world.

**THU 20:00 BBC News (w172xzk1ywl1yprk)**

The latest five minute news bulletin from BBC World Service.

**THU 20:06 Newshour (w172xv5m9vfr05)**

Interviews, news and analysis of the day's global events.

**THU 21:00 BBC News (w172xzk1ywl1ywfj)**

The latest five minute news bulletin from BBC World Service.

**THU 21:06 Newshour (w172xv5m9vfr9)**

Ukraine: Officials in Mariupol warn of a humanitarian crisis

President Putin has given a strident defence of Russia's military invasion of Ukraine. He claimed the campaign was on schedule and going to plan. Earlier, President Macron of France told Mr Putin that he was making a serious mistake.

We will hear from people in Ukraine's capital, Kyiv, and in other cities that have seen the heaviest fighting.

We have an interview with a former speechwriter for Vladimir Putin, who says his old boss has made a miscalculation.

And as the International Criminal Court starts an investigation, are war crimes charges likely?

(Photo: Residents of Mariupol say they are under continuous bombardment.)

We get the latest from our correspondent in the capital Kyiv.

**THU 22:00 BBC News (w172xzk1ywlz05t)**

The latest five minute news bulletin from BBC World Service.

**THU 22:06 The Newsroom (w172xyxzlkr1m52)**

The world's Newsroom brings you global events as they happen

**THU 22:30 BBC News Summary (w172xzkwdm6ncg6)**

The latest two minute news summary from BBC World Service.

**THU 22:32 World Business Report (w172yys8njzv40d)**

As shelling continues, defiant MPs gather in Kyiv

With Russia's Ukraine invasion in its second week, fighting continues across the country. The Ukrainian MP Kira Rudik tells us about the extraordinary parliamentary gathering which took place in Kyiv.

In Russia, martial law and a possible mandatory call-up for men of eligible age has been circulating wildly on social media in and around Russia itself. And people are leaving the country because of it. We hear from a small business owner Dmitry, who's travelled to Israel, leaving his family behind, rather than face financial ruin and possible conscription back home.

Also in the programme, Yuriy Vitrenko, chief executive of Ukraine's biggest energy company, Naftogaz, makes the case for the rest of the world to stop buying Russian oil and gas.

Plus, David Malpass from the World Bank tells us about the planned \$350 million support package for Ukraine.

And, during the past two years of the coronavirus pandemic, we've all experienced some aspects of the fragility exposed in a previously smooth global supply chain. Will the conflict in Ukraine add to that fragility? Craig Fuller the CEO of FreightWaves explains.

(Picture: A bomb-damaged building near Kyiv. Picture credit: Reuters.)

**THU 23:00 BBC News (w172xzk1ywlz3xy)**

The latest five minute news bulletin from BBC World Service.

**THU 23:06 The Newsroom (w172xyxzlkr1qx6)**

The world's Newsroom brings you global events as they happen

**THU 23:30 BBC News Summary (w172xzkwdm6nh6b)**

The latest two minute news summary from BBC World Service.

**THU 23:32 The Food Chain (w3ct1rh2)**

[Repeat of broadcast at 03:32 today]

**FRIDAY 04 MARCH 2022****FRI 00:00 BBC News (w172xzk1ywlz7p2)**

The latest five minute news bulletin from BBC World Service.

**FRI 00:06 The Newsroom (w172xyxzlkr1vnb)**

The world's Newsroom brings you global events as they happen

**FRI 00:30 BBC News Summary (w172xzkwdm6nlyg)**

The latest two minute news summary from BBC World Service.

**FRI 00:32 Science In Action (w3ct1l53)**

Covid -19 origins

Wuhan's Huanan Seafood Market is associated with many of the first cases of Covid- 19, but data on precisely how and from where the virus might have first spread has been difficult to find.

However a re-examination of the earliest samples collected from the market seem to pinpoint where the virus first showed itself. Sydney University virologist Eddie Holmes says this evidence will be crucial in determining which animals may have initially passed the virus to humans.

Humans are known to have passed the Sars-Cov-2 virus to other animals, including cats, mink and deer. Canadian researchers have recorded the first incident of a modified form of the virus passing back from deer to humans. Virologist Samira Mubareka from the University of Toronto explains the implications.

Chernobyl, the site of the worlds worst nuclear accident is back in the news as the Russian invasion of Ukraine led to a stirring up of nuclear material when troops entered the site. Ukraine has a number of nuclear reactors, Claire Corkhill, professor of nuclear materials at Sheffield University explains the potential

risks from the current conflict and safeguards in place.

And we hear from Svitlana Krakovska Ukraine's representative on the Intergovernmental panel on Climate Change, on her thoughts on the prospects for climate action and scientific progress in Ukraine.

Image: Disinfection Work At Wuhan Huanan Wholesale Seafood Market, China 4 March 2020.

Credit: Zhang Chang / China News Service via Getty Images.

Presenter: Roland Pease

Producer: Julian Siddle

**FRI 01:00 BBC News (w172xzk1ywlzcf6)**

The latest five minute news bulletin from BBC World Service.

**FRI 01:06 Business Matters (w172xyvqtmhwqpx)**

Why are some people leaving Russia?

With Russia's Ukraine invasion in its second week, fighting continues across the country. The Ukrainian MP Kira Rudik tells us about the extraordinary parliamentary gathering which took place in Kyiv.

In Russia, martial law and a possible mandatory call-up for men of eligible age has been circulating wildly on social media in and around Russia itself. And people are leaving the country because of it. We hear from a small business owner Dmitry, who's travelled to Israel, leaving his family behind, rather than face financial ruin and possible conscription back home.

Also in the programme, Yuriy Vitrenko, chief executive of Ukraine's biggest energy company, Naftogaz, makes the case for the rest of the world to stop buying Russian oil and gas.

Plus, we've heard about the relentless Russian pressure on Ukraine's southern Black Sea coast. They've mounted strong attacks from occupied Crimea - west through Kherson towards Odessa and east towards Melitopol and Mariupol. To understand the military and economic advantages of this territory to both defenders and attackers, we spoke with Dr Stephen Blank, a Senior Fellow at the American Foreign Policy Council.

And, during the past two years of the coronavirus pandemic, we've all experienced some aspects of the fragility exposed in a previously smooth global supply chain. Will the conflict in Ukraine add to that fragility? Craig Fuller the CEO of FreightWaves explains.

Presenter Fergus Nicoll is joined by guests Yoko Ishikura in Japan and Diane Brady in the US.

PHOTO: A half empty check in area is seen at the Sheremetyevo International Airport. The European Union has shut down its airspace for Russian-owned, Russian-registered or Russian-controlled aircraft in response to the Russian military operation in Ukraine. Getty Images

**FRI 02:00 BBC News (w172xzk1ywlzh5b)**

The latest five minute news bulletin from BBC World Service.

**FRI 02:06 The Newsroom (w172xyxzlkr234l)**

The world's Newsroom brings you global events as they happen

**FRI 02:30 BBC News Summary (w172xzkwdm6nfvq)**

The latest two minute news summary from BBC World Service.

**FRI 02:32 World Football (w3ct1v0g)**

Escaping Ukraine: The story of Lluís Cortes

The coach of Ukraine's women's team, Lluís Cortes, talks about his dramatic journey out of Ukraine following the Russian invasion. We also discuss the future of Chelsea after owner Roman Abramovich confirmed that he will sell the club.

(Photo: Lluís Cortes on the touchline during a Uefa Champions League match between Barcelona and Paris Saint-Germain in 2021. Credit: Pedro Salado/Quality Sport Images/Getty Images)

**FRI 03:00 BBC News (w172xzk1ywlzlxg)**

The latest five minute news bulletin from BBC World Service.

**FRI 03:06 The Newsroom (w172xyxzlkr26wq)**

The world's Newsroom brings you global events as they happen

**FRI 03:30 BBC News Summary (w172xzkwdm6nz5v)**

The latest two minute news summary from BBC World Service.

**FRI 03:32 Heart and Soul (w3ct3jyn)**

An estate agent for spirits

In Thailand, intricately designed homes for protective spirits are ubiquitous – and perhaps nowhere are these houses as noticeable as in the capital Bangkok, where they sit alongside a rapidly modernising city. Journalist Teirra Kamolvattanavith explores how the spirit house tradition has been passed down through generations, how it has endured, and how people interpret the tradition differently.

Teirra sets out on a tour of the spirit houses of Bangkok, meeting the believers, spiritual consultants, sellers and manufacturers, to uncover the web of spirituality, the blend of Hinduism and animism (the belief that everything, from objects to places, has a spiritual essence) that underpins this belief in spirits and the existence of spirit houses.

Presenter: Teirra Kamolvattanavith

Producer: Sasha Edey-Lindner

(Photo: A spirit house on the beach front in south Thailand. Credit: Raimund Franken/ullstein bild/Getty Images)

A Novel production for BBC World Service

**FRI 04:00 BBC News (w172xzk1ywlzqnl)**

The latest five minute news bulletin from BBC World Service.

**FRI 04:06 The Newsroom (w172xyxzlkr2bmv)**

The world's Newsroom brings you global events as they happen

**FRI 04:30 BBC News Summary (w172xzkwdm6p2xz)**

The latest two minute news summary from BBC World Service.

**FRI 04:32 Newsday (w172xv35641dvbm)**

Ukraine accuses Russia of 'nuclear terror'

There's been a fire at Europe's largest nuclear power plant, Zaporizhzhya in southern Ukraine, after it was shelled by the Russian military.

Ukraine's president accuses Russia of wanting to 'repeat' the Chernobyl nuclear disaster.

Also, an update from the city of Sumy in north-east Ukraine where there has been intense fighting for some days.

**FRI 05:00 BBC News (w172xzk1ywlzvdq)**

The latest five minute news bulletin from BBC World Service.

**FRI 05:06 Newsday (w172xv35641dxfg)**

Russian forces blamed for fire at Ukraine's Zaporizhzhya nuclear plant

A fire that broke out at the Zaporizhzhia nuclear power plant, the largest in Europe, is now secure; Ukrainian officials say it was caused by Russian troops shelling the plant.

Meanwhile, the Ukrainian President Zelensky asks for face-to-face talks with Russian President Putin.

And a humanitarian crisis has gripped the port city of Mariupol, whose power and water supplies have been cut off by relentless Russian shelling.

**FRI 06:00 BBC News (w172xzk1ywlz4v)**

The latest five minute news bulletin from BBC World Service.

**FRI 06:06 Newsday (w172xv35641fl15l)**

Russian shelling blamed for Zaporizhzhya nuclear blaze

President Volodymyr Zelensky of Ukraine accuses Russia of "nuclear terror" after it shelled the country's biggest nuclear power station; a nuclear analyst considers the possible motive for such an attack.

Also to the Ukrainian Black Sea port of Odessa which is threatened by Russian warships - we speak to a member of parliament there.

And yet more diplomacy over Ukraine as European Union Foreign Ministers meet later today in Brussels.

**FRI 07:00 BBC News (w172xzk1ywm02wz)**

The latest five minute news bulletin from BBC World Service.

**FRI 07:06 Newsday (w172xv35641f4xq)**

Russian forces take control of Europe's largest nuclear power

plant

As the fighting in Ukraine intensifies, Russian forces have seized Europe's largest nuclear power station in the south of the country.

Russian advances along the Black Sea coast has seen the city of Kherson fall to the invaders, we'll hear what life is like under occupation.

The war in Ukraine has put the Nato military alliance on high alert - we'll be on board a surveillance plane patrolling the military alliance's eastern border.

**FRI 08:00 BBC News (w172zsk1ywm06n3)**

The latest five minute news bulletin from BBC World Service.

**FRI 08:06 HARDtalk (w3ct1n2m)**

David Miliband: Is the West doing enough to respond to Putin's invasion?

Hour by hour, Vladimir Putin intensifies the scale and violence of the Russian military assault on Ukraine. Civilian buildings hit by rocket fire, towns and cities encircled, and the capital Kyiv now facing a vast build-up of Russian firepower. Stephen Sackur speaks to David Miliband, head of the International Rescue Committee and former British Foreign Secretary. Is the West doing enough in response to Putin's invasion?

**FRI 08:30 BBC News Summary (w172zskwdm6pkxh)**

The latest two minute news summary from BBC World Service.

**FRI 08:32 Business Daily (w3ct1j1m)**

Could Europe turn off Russian gas?

The Ukraine invasion is forcing the European Union to completely rethink its energy policy.

Tamasin Ford asks how easily the continent could wean itself off Russian fossil fuels. After all, Europe's oil and gas purchases from Russia helped to fund this war in the first place, according to Kristine Berzina of the German Marshall Fund in Washington DC.

The immediate task is to slash dependence on Russian gas before winter returns in nine months, and Simone Tagliapietra of Brussels-based think tank Bruegel says that is doable. However, it's a much tougher task to stop Russian oil exports, according to Jason Bordoff of Columbia University, given that oil - unlike gas - is an integrated global market with many buyers.

Nonetheless, there is optimism that the invasion mark a turning point in the Western world's transition to carbon-free energy. Although Rosie Rogers of Greenpeace fears that in the short term, the scramble to turn off the gas pipelines could actually see European carbon emissions increase.

Producer: Laurence Knight

(Picture: Frozen gas pipeline valve; Credit: Getty Images)

**FRI 08:50 Witness History (w3ct1wzz)**

Russia's war in Georgia in 2008

In August 2008, Russia went to war with another former Soviet republic, Georgia. The conflict began after Georgia attempted to recapture the breakaway region of South Ossetia, which had fought a separatist war with Tbilisi during the 1990s. As fighting escalated, Russia sent in troops - seizing control of South Ossetia and also of Georgia's other breakaway region, Abkhazia. The five-day war ended in humiliation for Georgia - several towns, a Black Sea port and military airfields were bombed by the Russian air force. Several hundred people were killed and thousands of ethnic Georgians displaced. Nick Holland reports.

PHOTO: Russian troops on their way to South Ossetia in 2008 (Getty Images)

**FRI 09:00 BBC News (w172zsk1ywm0bd7)**

The latest five minute news bulletin from BBC World Service.

**FRI 09:06 The Newsroom (w172xyxzk2ych)**

The world's Newsroom brings you global events as they happen

**FRI 09:30 BBC News Summary (w172zskwdm6ppnm)**

The latest two minute news summary from BBC World Service.

**FRI 09:32 Science In Action (w3ct1I53)**

[Repeat of broadcast at 00:32 today]

**FRI 10:00 BBC News (w172zsk1ywm0g4e)**

The latest five minute news bulletin from BBC World Service.

**FRI 10:06 The Real Story (w3ct1hvt)**

Europe's energy future beyond Russia

The war in Ukraine has cast a spotlight on Europe's energy dependency on Russia. Nearly half of Europe's gas, along with petroleum and coal, come from the Russian Federation. But with no resolution to the war in sight, there is concern that Moscow will reduce its gas supply in retaliation to the tough sanctions imposed by the EU. Countries like Germany, Austria and Bulgaria would face severe economic consequences. Gas prices are already at record high and any supply shortage will have a direct impact on households and businesses. Despite the uncertainties, the president of the European Parliament has called for an accelerated transition to greener energy as an alternative to the bloc's reliance on Russian gas. The EU wants to shore up strategic fuel reserves, build more Liquid Natural Gas terminals and streamline its power grids. So how did Europe become so dependent on Russia and what are its options as it tries to build a new energy network? Join Ritula Shah and a panel of experts as they discuss energy security in Europe away from Russia.

**FRI 11:00 BBC News (w172zsk1ywm0kwh)**

The latest five minute news bulletin from BBC World Service.

**FRI 11:06 The Newsroom (w172xyxzk35vr)**

The world's Newsroom brings you global events as they happen

**FRI 11:30 BBC News Summary (w172zskwdm6py4w)**

The latest two minute news summary from BBC World Service.

**FRI 11:32 World Football (w3ct1v0g)**

[Repeat of broadcast at 02:32 today]

**FRI 12:00 BBC News (w172zsk1ywm0ppm)**

The latest five minute news bulletin from BBC World Service.

**FRI 12:06 The Fifth Floor (w3ct20gc)**

Ukraine around the world

We look at how the BBC's language services are reporting the war in Ukraine, and the impact in their countries and regions.

Luis Fajardo of BBC Monitoring in Miami explains why there are fears in Colombia that the conflict with Venezuela could turn into a proxy war, and the impact it is having on Colombia's presidential election.

Shekiba Habib of BBC Afghan tells us that the conflict has prompted praise for President Volodymyr Zelensky for staying with his people, unlike former Afghan President Ashraf Ghani.

BBC Serbian editor Aleksandra Niksic explains the country's complicated approach to the current conflict, with ties to Russia, Ukraine and the EU. And she shares the story of Montenegro, which has the world's highest density of luxury second homes owned by Russians and Ukrainians.

Giang Nguyen, editor of BBC Vietnamese explains Vietnam's long historical association with Russia, and looks at attitudes to the war across the region.

From Bangkok, Issariya Praithongyaem says BBC Thai has been reporting on why some men are so determined to join the fight on the side of the Ukrainians.

Janhavee Moole of BBC Marathi and Victoria Uwonkunda of BBC Africa Daily share stories of the many students from their areas who were trapped in Ukraine. We hear why they chose to study in Ukraine and the difficulties they faced trying to escape the war.

(Photo: A residential building destroyed by shelling in Borodyanka, north west of Kyiv, Ukraine. Credit: Reuters/Maksim Levin)

**FRI 12:50 Witness History (w3ct1wzz)**

[Repeat of broadcast at 08:50 today]

**FRI 13:00 BBC News (w172zsk1ywm0tcr)**

The latest five minute news bulletin from BBC World Service.

**FRI 13:06 The Newsroom (w172xyxzk3fc0)**

The world's Newsroom brings you global events as they happen

**FRI 13:30 BBC News Summary (w172zskwdm6j5n4)**

The latest two minute news summary from BBC World Service.

**FRI 13:32 Science In Action (w3ct1I53)**

[Repeat of broadcast at 00:32 today]

**FRI 14:00 BBC News (w172zsk1ywm0y3w)**

The latest five minute news bulletin from BBC World Service.

**FRI 14:06 Newshour (w172xv5mj9vhxfh)**

Ukraine war: Foreign ministers meet to assess their response

The meeting took place after Russian forces captured Ukraine's largest nuclear plant. The IAEA says it is deeply concerned about the situation.

Also on the programme: officials in the besieged port city of Mariupol have accused the Russians of deliberately creating a humanitarian crisis to force its surrender. Meanwhile Russia's parliament has approved a law imposing stiff penalties on anyone who challenges the official account of the fighting.

(Picture: The Italian Foreign Minister arrives for an extraordinary meeting on the Russian invasion of Ukraine at the NATO headquarters in Brussels. Credit: EPA / Di Meo)

**FRI 15:00 BBC News (w172zsk1ywm11w0)**

The latest five minute news bulletin from BBC World Service.

**FRI 15:06 Newshour (w172xv5mj9vj15m)**

Interviews, news and analysis of the day's global events.

**FRI 15:30 BBC News Summary (w172zskwdm6qf4d)**

The latest two minute news summary from BBC World Service.

**FRI 15:32 World Business Report (w172y4772jnkbbx)**

Russia seizes Ukraine's largest nuclear plant

Following overnight shelling Russia has seized Ukraine's largest nuclear power plant. Vitaly Shevchenko is Russia editor for BBC Monitoring, and explains the implications. We get reaction to the seizure from Ukraine's finance minister, Serhiy Marchenko, who also calls for tougher Western sanctions to be imposed on Russia for its invasion of Ukraine. Also in the programme, with many European countries still heavily dependant on Russian energy supplies, we find out what it would take for the continent to find alternative sources from Simone Tagliapietra, who is an energy expert at the Brussels research group Bruegel. We hear from a Russian businessman who has fled to Israel, amid widespread rumours that there may be a mandatory military call-up for men of eligible age. Plus, we explore Russia's crackdown on independent media freedom, where a new law has been passed making it a criminal offence to spread "false information" about the armed forces. Vera Krichevskaya was a co-founder of Dohzd, which until it was shut down earlier this week was the only independent news channel in Russia, and gives us her perspective on the latest developments.

Today's edition is presented by Mike Johnson, and produced by Nisha Patel and Russell Newlove.

(Picture: Part of Ukraine's Zaporizhzhia nuclear plant. Picture credit: Press service of Energoatom.)

**FRI 16:00 BBC News (w172zsk1ywm15m4)**

The latest five minute news bulletin from BBC World Service.

**FRI 16:06 BBC OS (w172xxy116qh5kl)**

Ukraine: Russian forces seize nuclear plant

On the ninth day of Russia's invasion, Ukrainian authorities have said several people were "killed and injured" in a fire at the Zaporizhzhia nuclear plant, the largest of its kind in Europe. We update you on this, and give you the very latest as we continue our special coverage of what's happening across the country.

Over a million people have now left Ukraine, with over half of them fleeing into neighbouring Poland. At train stations in these countries people are waiting to help refugees in any way they can. We'll hear a conversation with two families in Germany and Poland who have taken in Ukrainians fleeing the war.

As the Russian state continues a crackdown on media freedom and anti-war protests, some Russians are leaving the country.

We'll speak to a man who has left and gone to Armenia. We also hear from a woman trapped in Kyiv, who feels unable to leave the city while she cares for her blind husband.

And we'll speak to our correspondents who are covering every angle of the invasion, including science correspondent Victoria Gill who will answer listener questions about the seizure of the Zaporizhzhia plant.

(Photo: Smoke, fire, damage to the exterior of administrative building of the Zaporizhzhia plant. Credit: YouTube via Reuters)

**FRI 17:00 BBC News (w172xzk1ywm19c8)**  
The latest five minute news bulletin from BBC World Service.

**FRI 17:06 BBC OS (w172xxy116qh99q)**  
Ukraine: Russian forces seize nuclear plant

On the ninth day of Russia's invasion, Ukrainian authorities have said several people were "killed and injured" in a fire at the Zaporizhzhia nuclear plant, the largest of its kind in Europe. We update you on this, and give you the very latest as we continue our special coverage of what's happening across the country.

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And we'll speak to our correspondents who are covering every angle of the invasion, including science correspondent Victoria Gill who will answer listener questions about the seizure of the Zaporizhzhia plant.

(Photo: Surveillance camera footage of smoke from a flare landing at the Zaporizhzhia nuclear power plant. Credit: YouTube via Reuters)

**FRI 18:00 BBC News (w172xzk1ywm1f3d)**  
The latest five minute news bulletin from BBC World Service.

**FRI 18:06 BBC OS (w172xxy116qhf1v)**  
Ukraine: Russian forces seize nuclear plant

On the ninth day of Russia's invasion, Ukrainian authorities have said several people were "killed and injured" in a fire at the Zaporizhzhia nuclear plant, the largest of its kind in Europe. We update you on this, and give you the very latest as we continue our special coverage of what's happening across the country.

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And we'll speak to our correspondents who are covering every angle of the invasion, including science correspondent Victoria Gill who will answer listener questions about the seizure of the Zaporizhzhia plant.

(Photo: Zaporizhzhia nuclear power plant, Ukraine. Credit: AP Photo)

**FRI 19:00 BBC News (w172xzk1ywm1jvj)**  
The latest five minute news bulletin from BBC World Service.

**FRI 19:06 The Newsroom (w172xyxzk1kr44ts)**  
The world's Newsroom brings you global events as they happen

**FRI 19:30 BBC News Summary (w172xzkwdm6qx3x)**  
The latest two minute news summary from BBC World Service.

**FRI 19:32 Sport Today (w172y0nv0gl4dnw)**  
2022/03/04 GMT

BBC sports correspondents tell the story behind today's top sporting news, with interviews and reports from across the world.

**FRI 20:00 BBC News (w172xzk1ywm1nlm)**  
The latest five minute news bulletin from BBC World Service.

**FRI 20:06 Newshour (w172xv5mj9vjmx8)**  
Interviews, news and analysis of the day's global events.

**FRI 21:00 BBC News (w172xzk1ywm1sbs)**  
The latest five minute news bulletin from BBC World Service.

**FRI 21:06 Newshour (w172xv5mj9vjrmnd)**  
Russian forces have captured the Zaporizhzhia nuclear power plant in southeastern Ukraine - the largest nuclear power plant in Europe - after firing on it. There's widespread condemnation at an emergency meeting of the UN Security Council.

Also in the programme: defiance from the Mayor of Ukraine's Black Sea port of Mykolaiv as Russian forces attack; and Moscow passes a new law threatening up to 15 years in prison for spreading "fake" information about the invasion. The editor of a Russian TV channel forced to close tells us why he and other independent journalists are leaving the country..

**FRI 22:00 BBC News (w172xzk1ywm1x2x)**  
The latest five minute news bulletin from BBC World Service.

**FRI 22:06 The Newsroom (w172xyxzk1kr4j25)**  
The world's Newsroom brings you global events as they happen

**FRI 22:30 BBC News Summary (w172xzkwdm6r8c9)**  
The latest two minute news summary from BBC World Service.

**FRI 22:32 World Business Report (w172yerg6td7qh6)**  
Russia seizes Ukraine's largest nuclear plant

Following overnight shelling Russia has seized Ukraine's largest nuclear power plant. Vitaly Shevchenko is Russia editor for BBC Monitoring, and explains the implications. We get reaction to the seizure from Ukraine's finance minister, Serhiy Marchenko, who also calls for tougher Western sanctions to be imposed on Russia for its invasion of Ukraine. Also in the programme, with many European countries still heavily dependant on Russian energy supplies, we find out what it would take for the continent to find alternative sources from Simone Tagliapietra, who is an energy expert at the Brussels research group Bruegel. We hear from a Russian businessman who has fled to Israel, amid widespread rumours that there may be a mandatory military call-up for men of eligible age. Plus, we explore Russia's crackdown on independent media freedom, where a new law has been passed making it a criminal offence to spread "false information" about the armed forces. Vera Krichevskaya was a co-founder of Dohzd, which until it was shut down earlier this week was the only independent news channel in Russia, and gives us her perspective on the latest developments.

(Picture: Part of Ukraine's Zaporizhzhia nuclear plant. Picture credit: Press service of Energoatom.)

**FRI 23:00 BBC News (w172xzk1ywm20v1)**  
The latest five minute news bulletin from BBC World Service.

**FRI 23:06 The Newsroom (w172xyxzk1kr4mt9)**  
The world's Newsroom brings you global events as they happen

**FRI 23:30 BBC News Summary (w172xzkwdm6rd3f)**  
The latest two minute news summary from BBC World Service.

**FRI 23:32 World Football (w3ct1v0g)**  
[Repeat of broadcast at 02:32 today]