Leveraging Digital Tools for Journalism Practice

Media Rights Agenda

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ACKNOWLEDGEMENTS

PREFACE

In an age defined by rapid technological change and the pervasive influence of digital tools and platforms, journalism is undergoing profound transformation.

The traditional newsroom is now supplemented by digital environments and, in many cases, even being completely replaced. These new environments demand new skills, tools, and approaches.

For journalists, the digital era presents both unprecedented opportunities and significant challenges - from the ability to report stories in real time and reach global audiences or even previously marginalized communities, to navigating constantly evolving online threats, including surveillance, online harassment and trolling, hacking and account takeovers, misinformation, disinformation, deepfakes, and censorship, among others

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At Media Rights Agenda, we recognize the critical importance of equipping journalists with the knowledge, skills and tools needed to cope and thrive in this evolving landscape.

This publication, *Leveraging Digital Tools for Journalism Practice*, is part of our ongoing commitment to supporting media professionals in embracing innovation while upholding the core values of the journalism profession such as accuracy, fairness, balance, integrity and accountability, while also protecting themselves and defending media freedom.

Through this resource, we have outlined some of the digital tools and technologies that can enhance journalistic work - from news and information gathering to news processing and fact-checking as well as telling compelling stories and disseminating the stories and engaging audiences. It also contains information about tools that enhance the security of media professionals, their sources of information, their devices and materials.

This publication is designed not only as a guide, but also as a call to action; for journalists to build their digital capacity and leverage available digital tools and technological devices, for media organizations to invest in digital literacy and, in appropriate cases, provide or procure the required devices and equipment for their journalists, where those tools and devices are not free or where premium versions would best serve the needs of journalists.

It is, of course, also imperative that policymakers adopt measures to protect those who inform the public in the digital age, by safeguarding their rights and ensuring that they have the enabling environment to carry out the professional functions.

It is our hope that *Leveraging Digital Tools for Journalism Practice* will serve as a valuable resource for journalists and media organizations as well as all those working to strengthen free, independent, resilient, and rights-respecting media.

Edetaen Ojo
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Lagos

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INTRODUCTION

The digital age has fundamentally reshaped the landscape of journalism. The explosion of the internet, mobile technologies, and social media platforms has transformed how news is gathered, produced, distributed, and consumed.

For journalists around the world, particularly in Nigeria and the rest of Africa, the digital transformation offers immense opportunities while also presenting complex challenges.

This publication, *Leveraging Digital Tools for Journalism Practice*, is conceived as a practical and strategic guide to help journalists navigate, function and thrive in this dynamic digital environment. It provides numerous examples of technological devices and digital tools that can enhance journalistic work as well as those that can be leveraged to mitigate the risks that come with working online.

Over the past two decades, the tools, devices and platforms used in journalism have evolved at an extraordinary pace. Traditional reporting methods, across the entire spectrum of information gathering, processing and dissemination, are now augmented by a wide range of digital tools for:

- Real-time communication and collaboration
- Multimedia storytelling, including audio, video, data visualisation, etc.
- Investigative research, verification and fact-checking
- Information dissemination as well as audience engagement
- Safety and digital security

These tools have expanded the capacity of journalists to report from remote locations, tell more compelling stories, and engage directly with audiences in ways that were previously unimaginable. At the same time, they have introduced new layers of complexity, which are forcing journalists to consider data privacy, online harassment, platform algorithms, and digital literacy as integral parts of their work.

This publication aims to serve as a comprehensive resource material, primarily for journalists, but also for journalism students, media trainers, and

newsrooms, particularly within the Nigerian and broader African context.

Its objectives are to:

- Introduce key digital tools and platforms that are essential for modern journalism practice.
- Demonstrate how these tools can enhance journalistic efficiency, accuracy, and safety.
- Provide guidance on ethical considerations, digital security, and the protection of sources in the digital space.
- Encourage innovation in storytelling, newsroom collaboration, and audience engagement.
- Foster resilience in the face of online threats, censorship, and disinformation.

While the digital transition in journalism is global, its impact is shaped by local realities. In many African countries, including Nigeria, journalists often face limited access to resources, low digital literacy in some regions, infrastructure challenges, and repressive legal environments.

At the same time, the continent is home to a young, tech-savvy population, rapidly growing internet access, and a vibrant culture of online civic engagement.

This duality presents a unique opportunity for media professionals. With the right tools and strategies, journalists can harness technology not only to improve their craft but also to play a critical role in strengthening democracy, promoting transparency, and amplifying underreported voices.

The chapters that follow cover a wide range of practical tools, including:

- Digital tools for newsgathering and research
- Social media for reporting and audience building
- Fact-checking and combating misinformation and disinformation
- Digital safety and security for journalists, their confidential sources of information and journalistic materials.
- Data journalism and multimedia storytelling
- Managing online harassment and ensuring physical safety and mental health

Each section or chapter covers a specific device or tool that journalists can immediately apply in their work.

Some of the digital tools featured in the publication are free of charge while others are paid with some of them offering a mix of both through what is called a freemium model, that is platforms and tools that have limited free access for basic features, as well as versions with advanced features that require payment to use.

Many of the tools, although completely free, nonetheless have high quality utility or offer robust free versions that can be extremely useful for journalists and other media practitioners. Some of the tools are primarily for newsrooms or teams conducting investigations, and they often require paid licenses to use them.

However, there are many media assistance or media development organizations that provide support for non-profit journalism and offer free access for journalists to premium tools through fellowships or grants. There are also student and educator discounts available for some of the tools while open-source alternatives are available in some cases and may be used in place of the more expensive paid versions.

But journalists can do a lot with the free and low-cost tools, especially when they are starting out. However, newsrooms and investigative reporters may need to invest in premium versions where their reporters need such tools for more complex work.

The key is to choose tools strategically, based on the scope of your work, your security needs, and the budget available to you.

As journalism continues to evolve, so too must the knowledge, skills, mindsets and equipment of those who practice it. Leveraging digital tools is no longer optional. It is essential in this digital age.

Journalists who embrace digital tools can improve their efficiency and effectiveness, extend their reach, enhance the quality, impact, and credibility of their work while also contributing to a more informed, connected, engaged and accountable society.

This publication invites journalists to approach the digital transformation with curiosity, courage, and a commitment to ethical reporting. It is a companion for those seeking not just to adapt, but to lead in a fast-changing media landscape.

Mapping and Geolocation Tools

1.   Google Maps
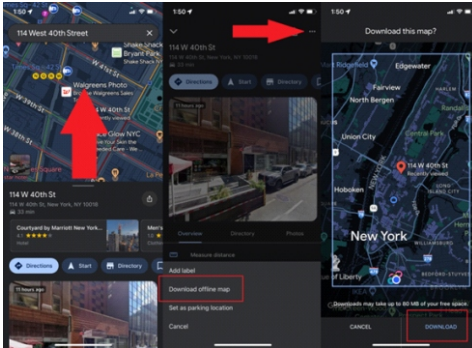
Google Maps is a free web and mobile application developed by Google that provides detailed geographical information, including maps, satellite images, street views, and route planning. It allows users to find locations, get directions, and access information about places of interest. In addition to conventional road maps, Google Maps offers aerial and satellite views of many locations, including street views comprising photographs taken from vehicles. One great feature of Google Maps is that it offers spoken, turn-by-turn directions for drivers, bikers, walkers, and users of public transportation travelling from one specific location to another. Google Maps is not limited to one state or country; it provides maps for almost every country in the world.

How to use Google Maps
To get the Google Maps app for your smartphone, you can download it for free from the App Store on iPhone and iPad, or the Google Play Store on Android devices. Google Maps works best if you have locations turned on. You can turn on locations in the Settings menu on iPhone and iPad. To turn on locations on Android, swipe down from the top of the screen with two fingers. Then tap the "Locations" icon that resembles a map marker. Note that locations are not available when using Google Maps on a desktop browser.

You can also access Google Maps on a computer by visiting the website in a web browser. However, Google Maps in a web browser can not track your location or give you turn-by-turn directions.

Getting Directions:
Type an address or name of a place in the search bar. The search bar is at the

top of the screen on smartphones and tablets, and in the upper-left corner in a desktop web browser. Type an address or landmark name into the search bar. This displays a list of search results below the search bar.

Tap a location in the search results. This marks the location on the map using a red map maker icon.

You can zoom in and out on the map by placing your thumb and index finger on the screen and moving them apart or bringing them closer together. On a web browser, use the mouse wheel, or the plus (+) or minus (-) keys to zoom in and out.

Tap **Directions**. This displays a line on the map that highlights the route to the location you searched for. The colour of the line indicates traffic conditions (blue for no traffic and red for traffic).

Note that here is no "Directions" button when using Google Maps on a web browser. However, it will display directions to your location automatically.

Tap **Start**. This starts navigation directions to your locations. Google will tell you where to turn to get to your destination.

If you get multiple routes, tap the one that you wish to use. Often, Google Maps will offer you more than one route from the starting point you choose to your destination. For each route, it will display an estimated travel time for the trip and a short description of the route. Pick the route from the list that is most appealing to you. This may be the shortest one, the one that avoids highways, tolls, or traffic congestion.

Location Sharing
Location sharing can enhance your safety by allowing others to know your whereabouts, especially in emergency situations like field assignments or when traveling alone. It can facilitate quick assistance and provide peace of mind for both you and your loved ones, ensuring help arrives promptly when needed.

To share your live location on Google Maps:
▪   Open Google Maps on your device.
▪   Tap your profile picture or icon.

- Select "Location sharing."
- Tap "Add people" or "Share with specific people."
- Choose the contacts you want to share with or enter their email/phone number.
- Set the duration for sharing (e.g., for 1 hour, until you turn off).
- Tap "Share."

The selected contacts will see your live location on Google Maps.
To stop sharing:
- Go to "Location sharing."
- Tap the contact or group.
- Select "Stop sharing."

Use Google Maps in Incognito Mode

You can also use the Incognito mode when you do not want your activity, like the places you search for or navigate to, to be saved to your Google Account. This controls your privacy on Google Maps. When the Incognito mode is on, Google Maps will not save your browsing or search history in your account, or send notifications, update your Timeline, or use your activity to personalise Maps.

However, note that turning on Incognito mode in Maps does not affect how your activity is used or saved by internet providers, other apps, voice search, and other Google services.

Android or iPhone/iPad

On your Android phone or tablet or iPhone/iPad, open the Google Maps app
In the top right, tap your profile picture.
Tap Turn on Incognito mode.

Turn off Incognito mode for Google Maps

On your Android phone or tablet or iPhone/iPad, open the Google Maps app Maps.
In the top right, tap your profile picture.
Tap Turn off Incognito mode.

Tip: During Maps incognito mode, the Google Assistant microphone is not available in navigation, but "Ok Google" will continue to work as expected. Google Assistant is a system feature that is not a part of Incognito mode for

Maps, so any information you share with it will be saved as usual.

View (and Delete) Your Google Maps History
Google maintains a very detailed record of your digital activities. If you would rather lose your Maps data, you can erase it on desktop or mobile. On a desktop, go to maps.google.com. Click the menu icon, and select Your data in Maps. You will end up on a page with **See and delete activity**, follow the prompts to delete all your location history permanently.

Downloading Offline Maps on Google Maps
Need to navigate without internet? Downloading offline maps on Google Maps is a lifesaver!

On Android/iOS:
- Open Google Maps.
- Search for the area you want to download.
- Tap the menu (three lines or dots).
- Select "Offline maps" or "Download offline map."
- Choose the area to download.
- Tap "Download."

The map will be saved for offline use. You can access it even without the internet.

2.   Google Earth

Google Earth is a virtual globe and geo-browser developed by Google. It allows users to explore the Earth in a 3D format using satellite imagery, aerial photography, topography, and other geographic data. It also offers features like street view, allowing users to explore locations at street level.

How do you use Google Earth?

Download and open the Google Earth programme on the Apple App Store (iPhone) or the Google Play Store (Android). A web version is also available. Search for specific locations in the search box and drag the map to move from location to location. Zoom in to see more details, and enter Street View to see the location from the street. Use the layers feature to toggle other elements such as weather and 3D buildings.

Using the Software

Download and install the Google Earth app on your device. Open Google Earth once it has downloaded.

Perform searches from the search box at the top left side of the programme. You can type a place name, zipcode or a postcode (for US or Canadian cities), a town/city name, an airport (three-letter code or full name), or you can even try to type in a latitude-longitude location (in decimal format). Once you press the Enter key, you will be "flown" to that destination. Be creative with your searches, but try to be realistic as to things you would actually find on a city/county/country map worldwide.

Drag the map around to move from one area to another. Utilise the zoom out and zoom in options from the buttons on the right-hand side of the screen. Turn the wheel in the top right corner to spin the item to a better understood angle. To move from an aerial view to a view as if looking from the Earth, use the horizontal bar in the right-hand corner. Look for the date the picture was taken from the bottom left-hand corner of the screen, and scroll through the dates to see all the satellite images from different days of the year. Zoom to a place on the map where the satellite image has a date, click the "View" menu

from the menu bar, and click the "Historical Imagery" button to enable the feature. Drag the location of the toggle slider switch in the top left corner to a different date and see what the area was like.

3.   <u>What3words</u>

This is a proprietary geocode system designed to identify any location on the surface of Earth with a resolution of approximately 3 metres. The system encodes geographic coordinates into three permanently fixed dictionary words. What3words is regarded as the easiest way to describe any precise location. It has divided the world into 3 metre squares and given each one a unique identifier made from three words. Its precise location sharing capability makes it very useful in rural or dangerous areas. The inherent sophistication of the what3words system lies in its algorithm, which intelligently allocates three distinct words to each square without revealing any discernible pattern to users, thus safeguarding against guesswork and maintaining the integrity and security of the geocoding mechanism.

How to use What3words
▪ Open what3words in your browser or download the app on the Apple App Store (iPhone) or the Google Play Store (Android).
▪ Click the search bar, enter a street address, postcode, or place name, then select the correct search result.
▪ Zoom in, switch to satellite mode, and then drag the map to find the exact location you want.
▪ Tap the square you need to see its 3-word address displayed in the centre of the screen.

How to Use what3words With Google Maps
Using what3words with Google Maps is easy and adds a layer of precision that is especially useful when exact locations matter. Here is how to use them together:
▪ Open the what3words app, enter an address, or tap on the map to select the exact 3x3-meter square. The app will display a unique

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three-word address. If you already have the three-word address of a location, you can just paste it in the search bar instead.
- Tap the Navigate option within what3words and select Google Maps from the list of available apps.

Google Maps opens with the location loaded, allowing you to start navigation and access turn-by-turn directions, arrival times, and traffic updates.

Safety and Security

1.   Signal

Signal is an app you can install on your iPhone, Android phone, or computer. It lets you send secure texts, images, and phone or video chats with other people or groups of people, just like iMessage, Google Messages, WhatsApp, and other chat apps. It provides end-to-end encrypted messaging and voice calls, ideal for source protection, which means that only the sender and the receiver can read messages. It is designed to securely delete data when you are done with it, not to keep it. The app's code is open source, meaning anybody can check it to make sure there are no vulnerabilities that hackers could exploit. Signal's "disappearing messages" feature allows users to set a time period for how long their messages remain visible before they are deleted from the chat.

How to use Signal
Download the Signal app in the Google Play Store or Apple App Store. After Signal has finished installing, launch the app.

Register and Verify your Phone Number
After an introductory screen with information about the Terms and Privacy Policy, you will see a dialogue explaining why Signal requests the "Contacts" permission on your phone.
Signal can check your contacts list to see who is using Signal. To do this, Signal uses a private contact discovery system. The data uploaded to Signal is immediately deleted after your contacts are matched up. If sharing your contacts with Signal is a concern, you can deny the contacts permission. If you do not allow this permission, you can still use Signal, but you have to manually enter phone numbers to begin chatting with people. You can change

this in the future, but for now, to choose to allow or deny access:

On Android: Tap "Not now" to deny access or "Continue" to grant access to your contacts.

On iPhone: Tap "Do not Allow" to deny access or "OK" to grant access to your contacts.

Signal requires a working phone number to set up. While Signal does not use SMS, your phone number is used to verify who you are and limit you to one account. By default, your phone number is not visible in your Signal profile unless someone already has that number in their address book. You can also optionally create a username to share with others instead of your phone number.

On Android: Enter your phone number and tap "Continue," then tap "OK" when asked to confirm that your number is correct.

On iPhone: Enter your phone number and tap "Next," then "Yes" when asked to confirm that your number is correct.

In order to verify your phone number, you will be sent an SMS text with a six-digit code. Enter that number to verify your phone number.

Creating a profile and PIN
Next up is creating a profile and a PIN. The profile image and name you choose will be shown to any contacts you have saved in your address book, when you initiate or accept new chats, and when you join new groups. While a first name (either genuine or made up) is required, the image and last name are optional. A PIN keeps your information safe on Signal's servers, and if you switch phones, you will be able to recover your settings, profile, and contacts using it.

On Android: Enter your profile information in this step and tap "Next." On the next screen, you are asked to create a PIN. Choose a secure PIN or Passphrase and then tap "Next." You will need to confirm the PIN one more time.

On iPhone: The first step is to create your PIN. Choose a secure PIN or

Passphrase and then tap "Next." You will need to confirm the PIN one more time. Next, enter your profile information, and then tap "Next." You will next see a prompt asking for access to your local network. This is to help transfer an account from an old phone to a new one. You can tap "Don't Allow" if you do need to move an account over.

On both Android and iPhone, you also have the option on this screen to limit who can find you by your number. By default, this is set to "Everybody," meaning that anyone who has your phone number in their phone's address book will automatically find you on Signal. If you do not want it to work like this, tap "Who can find me by my number?" and change the setting to "Nobody." Unless you also set up a username, nobody will be able to initiate a chat with you if you set this to "Nobody." Once a username is set up, people will only be able to start a chat with you if they have your username.

Using Signal
In order to use Signal, the person you are contacting must have Signal installed. But otherwise, using Signal works essentially the same as other chat and phone apps you have used. Alongside text, you can send stickers, photos, voice memos, GIFs, files, and more. All of these are also end-to-end encrypted.

Start a New Message
To start a message:

On Android: From the chat tab, tap the pen icon in the bottom-right corner.

On iPhone: From the chat tab, tap the pen icon in the top-right corner.
If you previously allowed Signal access to your contacts, you will see a list of all the registered Signal users in your contacts. Pick the person you want to message, or type in a phone number. From this screen, you can start chatting, or initiate a phone (or video) call. If you are using Signal on Android, you can initiate calls from the call tab, as well.

Voice and video calls in Signal work just like any other communication app and offer the same end-to-end encryption protection as the messaging does. You can also create a "Call link" that you can share with others to join a call.

Manage Your Group Chat Preferences

Alongside one-on-one chats, Signal also supports group chats and group video calls. Once in a group chat together, anyone in that group can direct message anyone else in the group, but they will still need to send a message request. Both of these are end-to-end encrypted. Creating a new group works the same on both Android and iOS:

- From the "Chats" tab, tap the pen icon, then "New Group."
- Tap the names of your contacts you would like to add to the group.
- On the next screen, you are asked to create a name for your group, select a duration of time for disappearing messages (more on these below), and then tap "Create." As long as you added at least one person to the group chat, you will go to the main chat screen.

If you do not add anyone into the group right away, you may see a screen with two options:

Approve new members: Enable this if you want the ability to approve or deny new members.

Enable and share link: Tap this if you want the ability to share a link to the group chat with people. This way, new members can join from the link instead of being added manually by an administrator. If you do not want this feature enabled, tap "Cancel." If you click cancel, administrators of the group chat are the only people who can add new members. You can do so by tapping the group chat name, then "Add Members."

If you enable the share link and change your mind, you can always delete the link or reset it. This is helpful if the link was shared by someone you do not want in the group. Tap the group chat name, then "Group Link" to change these settings.

You can also set the permissions of the group chat to restrict people from renaming the group or adding new members. Tap the group chat name, then "Permissions," and change the settings however you prefer.

Additional Security Settings

Signal's default setup is relatively secure, but there are a few things to consider changing, and some features you may want to adapt to suit your

needs.

Registration Lock
Enabling "Registration Lock" prevents your phone number from being registered on a different device without the PIN you set up when you first installed Signal. Make sure you write this PIN down, because without it, you will not be able to get back into your Signal account for at least seven days if you change phones.

What to do
On Android: Tap your profile picture, then Account. If you have not already created a PIN, you may need to do so by tapping the "Create a PIN" option. Then set the "Registration Lock" toggle to on.

On iPhone: Tap your profile picture, then Settings > Account. Then set the "Registration Lock" toggle to on.
Signal will occasionally ask you to verify your PIN to help you remember it.

Set or Change Your Username
Despite the name, Signal's usernames do not work like you may be used to on social media accounts, nor do they work exactly like a phone number. Think of your username more like a "discovery handle." It is a way for people to easily find you without requiring you to hand your phone number to them, and you can change it as often as you like. By default, after you set up a username, anyone you chat with will not be able to see your phone number unless they already have your number in their phone's address book.

What to do
To set up or change your Signal username:
On Android: Tap your profile picture, then tap your name at the top of the screen, then the @username option.

On iPhone: Tap your profile picture, then Settings, then tap your name at the top of the screen, then the @username option.

Here, you can set up or change your username to whatever you want, as long as someone else does not have that same name. You will always have to have at least two numbers at the end of your username. For example, your username cannot be SSD, it would have to be SSD.01.

You can change your username anytime you want without losing the chats and contacts you have already started, but if someone only has your old username and tries to contact you, they will not find you. Note that if someone whom you have blocked changes their username, they will continue to be blocked.

When you want to share your username with someone, you can tap [profile picture in the top left] > [box with your name at the top of the screen] > QR Code or Link to share a link or a QR code.

Hide Your Phone Number
If you have privacy concerns around sharing your phone number with people you chat with on Signal, you can change who can search for you by your phone number and who can see your phone number.

What to do
On Android: Tap your profile picture, then Privacy > Phone Number, and you can change who can see your number and who can find you by your number.

On iPhone: Tap your profile picture, then Settings > Privacy > Phone Number, and you can change who can see your number and who can find you by your number.

"Who Can See My Number" controls whether or not your phone number is visible to people (or groups) you message. For example, if set to "Everybody," when you are in a chat with someone, even if you previously only exchanged usernames, they can see your phone number. This is set to "Nobody" by default.

"Who Can Find Me By Number" controls whether someone can type your phone number into the search bar to find you or pull up your phone number through their address book. This is set to "Everybody" by default. If you set it to "Nobody," then even people who do have your number in their address book will not be able to easily find you on Signal. You will instead have to share your Signal username with them.

Disappearing Messages
Signal has a feature called "disappearing messages," which ensures that

messages will be removed from your device and the device of your contact(s) in a chat after a chosen amount of time, provided the messages are viewed (the countdown starts when the recipient opens the message, not after you send it). If you are concerned about someone, such as law enforcement or family members, physically accessing your phone to see the messages on your device, then this is a useful feature to enable. But remember that those you are chatting with can log or take screenshots of your conversation, even if you have enabled disappearing messages.

What to do
You can set up a default period for disappearing messages for every new chat you create:

On Android: Tap your profile picture, then Privacy > Disappearing messages and choose the time period you want. Tap "Save" when you are done.

On iPhone: Tap your profile picture, then Settings > Privacy > Disappearing messages and choose the time period you want. Tap "Set" when you are done.

You can also change the length of time before a message disappears in each of your chats. The process is the same on both Android and iPhone:

Open up the chat, then tap the contact's name or the chat name > Disappearing Messages.

Select the length of time you would like. You can do this in both one-on-one chats and in group chats.

Disappearing messages rules apply to any sort of communication you do in a chat, including text, files, photos, location, GIFs, and whatever else. But when you delete a reply to a message, the behaviour can be a little different than what you may expect.

You can also set a photo or video so the recipient can only view it once.
- In a chat, select a photo or video you want to send.
- Tap the infinity icon above the text box to switch it to the view once mode. The symbol should now be a "1," and the text box will read "View Once Media."

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Now, when you send the photo or video, the recipient can only view that content one time, but keep in mind, they can still take a screenshot of it.

Change What is Visible in Notifications
Depending on the settings on your phone, push notifications can reveal the text of a conversation you are having with someone who can see your phone, even without unlocking it. You can tweak these settings on a system level on both iPhone and Android, but when it comes to Signal, it is easier to change this behaviour in the app. This gives you more precise control over what is displayed on your lock screen, or what (if anything) gets summarised by a phone's "artificial intelligence" notification summary features.

What to do:
On Android: Tap your profile picture, then Notifications > Show.

On iPhone: Tap your profile picture, then Settings > Notifications > Show.

On this page, choose whichever option for notification content suits your needs. The options range from showing no name or content information to showing both the sender's name and the contents of the message.

Hide Your IP Address from Another Caller
If you are in a circumstance where you are calling someone you do not trust (or they are calling you), consider changing how Signal routes your call. By default, Signal uses peer-to-peer calling, which can leak your IP address to the other caller. If that caller is not in your contacts list, Signal defaults to an option that relays the call through their service, hiding your IP address. But you can also enable this for every call, if needed. But note that the increase in privacy comes at the cost of call clarity.

What to do
On Android: Tap your profile picture, then Privacy > Advanced, and enable "Always Relay Call."

On iPhone: Tap your profile picture, then Settings > Privacy > Advanced, and enable "Always Relay Calls."

2. ProtonMail
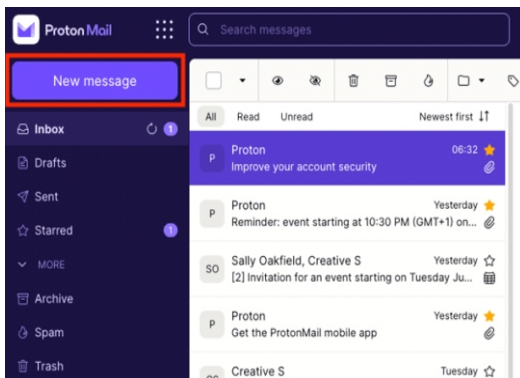
Proton Mail is an encrypted email service. It offers end-to-end encryption and lots of other great security features to keep your communications private. It offers both free and paid plans, and is known for its strong security and emphasis on user privacy, ensuring that no one, not even Proton Mail, can access your email contents.

How to send an encrypted email with Proton Mail

Emails sent between Proton Mail users are automatically end-to-end encrypted (E2EE).

If you send an email to someone not on Proton Mail, it will not be E2EE encrypted by default. But you can send an end-to-end encrypted email to a non-Proton Mail user using Password-protected Emails or PGP. You can see the encryption status of any message you send or receive by checking the lock icon in the To field.

Send an email on the Proton Mail web app

To send a message on the web app:
- Log in to your Proton Mail account at mail.proton.me (new window).
- Click the New message button. This will open the email composer window.
- Enter your recipient's email address in the **To** field. As you type a recipient's address, Proton Mail will suggest addresses from your Proton Contacts using auto-complete.

Once you have entered a contact in the **To** field, double-click the contact's name or email address to edit it. You can also right-click on the name or address to copy the address, edit the address, view contact details, or remove the address from the **To** field. You can enter multiple recipients in the **To** field (up to 100).

If you wish, you can also add Carbon Copy (CC) or Blind Carbon Copy (BCC) by clicking on CC or BCC.

- Enter an email subject line in the Subject field.
- Type your message in the main composer window. You can change the font and text size using the formatting ribbon above the message window.
- Click Send. If you click Send by mistake (or have second thoughts about sending the message), you can use Undo Send, which gives you a few seconds to cancel sending the message.

The web app has a selection of keyboard shortcuts that allow you to quickly perform the tasks you do the most in Proton Mail.

Sending an Email on iPhone or iPad with Proton Mail

Tap the Compose email icon (looks like a pen) to start composing your message.

Tap the downward arrow next to the **To** field to add **CC** and **BCC** recipients, and tap the Send button (looks like a paper airplane) to send.

Sending an Email on Android with Proton Mail

Tap the Compose email icon (looks like a pen) to start composing your message.

Tap the downward arrow next to the **To** field to add **CC** and **BCC** recipients, and tap the Send button (looks like a paper airplane) to send.

NOTE: You can not change the font and text size in the Android or iOS apps. But you can add multiple attachments, send Password-protected Emails to people who are not on Proton Mail, and set a message expiration timer.

3.   <u>Threema</u>

It is a secure alternative to WhatsApp with a stronger privacy policy. It allows you to communicate securely and, if desired, anonymously, without providing a phone number or email address. Threema is designed to generate as little data on servers as technically possible. To provide full transparency, the Threema apps are open source. Also, it is not necessary to grant access to the address book to use the app. In Threema, all your communication is end-to-end encrypted not just text messages and voice and video calls but also group chats, media files, and even status messages. The downside to this app is that it does not support 2FA (two-factor authentication) and there is no free trial. It costs N9,900 on the Apple App Store and N10,500 on the Google Play Store.

Using Threema
After installing Threema from the Google Play Store or the Apple Store, you will need to create your Threema ID to use the app. You do this by moving your finger randomly on a designated area of the device screen. This generates the ID, as well as helping create a unique asymmetric key pair that the app will use to encrypt/decrypt your messages. A copy of your public key is automatically stored on the Threema servers. People communicating with you will use that to encrypt messages they send to you. Your private key remains on your device at all times, and no one, not even Threema, can see it. Because of this, no one else can read your messages unless they somehow get access to your device. You must complete the finger-wiggling process to create your ID and create a username and password to log in to the app. The other settings (entering an email address or phone number, giving the app access to your contacts) are optional. Unless you have a strong reason to do so, it is advisable to skip these options and use the service anonymously, with only your random ID visible to the rest of the world.

If you have ever used WhatsApp or similar messaging apps, you already

know how to use Threema. If you did not give the service access to your contacts, you will need to enter people's Threema IDs manually the first time you message them.

Finding and Adding Contacts:
Sync with your contacts: Threema can sync with your phone's contact list, making it easy to find friends who are also using the app.

QR code scanning: You can scan a Threema user's QR code to add them as a contact.

Manual ID: You can manually enter a Threema ID to add a contact.

Communication Features:
Messaging: Send and receive text, image, video, and audio messages.

Calls: Make voice and video calls with other Threema users.

Sharing: Share files, including documents, images, and audio.

Group chats: Create and participate in group chats.

Pinned chats: Pin important chats to the top of the chat list.

Quoting messages: Quote a message to create a context for your reply.

Private chats: Mark chats as private to access them with a passcode, fingerprint, or Face ID.
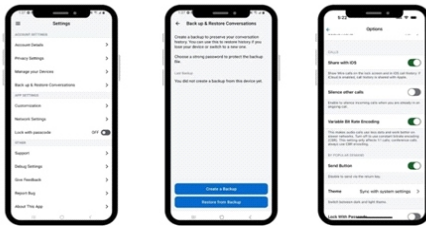
Other Features:
Threema Work: A business-focused version of Threema with additional features.

Desktop app: Connect your mobile device to a computer to use Threema on a desktop.

Notes: You can create notes in Threema by creating a group chat without any members.

4. Wire

This is another secure alternative to WhatsApp, also with a stronger privacy policy. Wire is a private messaging app built for businesses, but its free version is useful for staying in touch with family and friends across various platforms. Wire makes end-to-end encrypted messaging easy, ensuring that only the intended recipients can read or access the content.

Wire is available on multiple platforms, including iOS, Android, Windows, macOS, and web browsers, allowing users to stay connected across different devices seamlessly. It supports group chats and collaboration features, making it suitable for both personal and professional communication. Users can share files, images, and videos easily within groups. Wire's code is open source, which allows for transparency and community scrutiny regarding security and privacy practices.

Users can manage multiple accounts within the app, which is beneficial for those who need to separate personal and professional communications.

Getting started with Wire
Download the Wire app from the App Store (iPhone) or Google Play Store (Android).
When you first launch the app on your phone, it will ask you to register a personal account by verifying your phone number.

iPhone users: Type in your number and click the arrow button. You will receive a verification code through SMS text message. Type this code into the app, and click the forward button again. Continue through the welcome screen.

Android users: Type in your number and click the arrow. Wait for the app to verify your phone number.

Note: If you do not want to use your phone number, you can instead navigate to the Wire website to create an account. Click "Create an account" and then

type in your desired email and password. You will receive a confirmation email; type in the code to complete your registration.

After registering an account, you can choose your username, display name, and even a custom profile photo. You can always change them later. After you are all set up, you will land on your "conversations" homepage.

Using the icon in the bottom corner, you can add new people to your Wire contact list by importing other Wire users from your phone contact list or by searching and inviting a user to a conversation. After clicking on the person you want to talk to, click "open" to start a conversation with your new contact. Once you join a conversation, you can start an encrypted voice or video call using the icons at the top right. You can also send a text message at the bottom of the screen.

More Wire Features
Group Messaging
From the contact menu, you can add more than one member to start a new group message. After opening a group chat, you can customise the group by clicking on the list of group members' names at the top of the conversation. From here, click the settings menu at the bottom right of the screen (three dots). You can rename the group, mute the conversation, delete it, or leave the conversation.

Wire on Desktop
You can use Wire on your desktop as well! Note that if you are having highly sensitive conversations and think you may have malicious software on your personal computer, you probably do not want to feed your encrypted messages (or your Wire account registration information) into that infected machine. However, if your device is safe, you can download Wire for your desktop.

Make Messages Disappear
If you want to delete a specific message, press and hold the message. When the menu pops up, click "Delete." If you click "Delete for Me," it will only delete the message locally, and anyone else in the conversation will still have it. If you sent a message, you can delete it for all conversational participants by clicking "Delete for Everyone." If you and your conversational partner want to automatically delete messages after a certain amount of time, click

the timer icon to the right of the message box. From here, you can choose how long you would like the messages in this conversation to be visible, anywhere from five seconds to one day.

Lock screen notification security
Even when your phone is locked, someone with physical access can still read the message and sender name on your lock screen. You can fix that by navigating to Settings > Options > "Message Previews." On this page, you can have Wire display the sender's name and message, the sender's name only, or no name or message.

Session Verification
On most messengers, there is no way to know that your message is not intercepted by a third party. With Wire, you can verify that the current conversation is secure for both messages and calls. You can verify that you are talking to the right person using device verification. Open a conversation, and click on the username at the top. Navigate to "devices" to see the user's fingerprint, a unique code that corresponds to your partner's device. You and your partner can be sure that you have both got the right devices by double-checking your fingerprints over a different channel, such as Facebook, Twitter DMs, or a regular old phone call. If you read your partner's device fingerprint and it matches the one they see on their screen, you are encrypting to the right device. While you are at it, your partner should also check your device fingerprint. If their fingerprint does not match the one you are seeing for their device, something is wrong.

You will not need to verify fingerprints again until someone starts a new session (e.g., when someone gets a new phone).

Threat Detection and Surveillance Protection

1.   Maltego
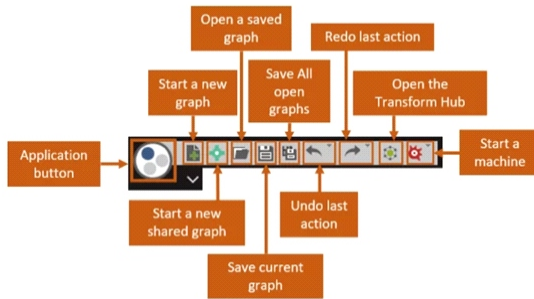
This is an investigative tool to map digital footprints and detect tracking. Maltego is one of the best information-gathering and data mining tools. In Maltego, users can query all types of data due to data integrations with Shodan, WHOIS, TinEye, The Wayback Machine, VirusTotal, ATTandCK, MISP, Pipl, Orbis, and more. With Maltego, you can find any sort of information available in open-source. It has easily editable graphs. It can easily find information about Domain Names, IP addresses, and many more things. Currently, Maltego is available in three versions: Community, Professional, and Enterprise. The community version is free to use, and the others are paid for with more features.

How to use Maltego
You can always download Maltego for Windows, Linux, or Mac. You can install Maltego as any general software. After installing it, you have to create an account on Maltego to log in to the application. When you open Maltego after setting it up, there are some buttons in the top left corner. The Application button will open an application menu. Maltego uses graphs to show data and information it collects.

Graphs in Maltego
To create a new graph, you can go to the application tab and click on new graph, or you can also select the new graph option from the top left corner. Once you have created a new graph, you will get a fresh page within a new tab, surrounded by a range of control windows. Now, just select the entity you want, like a domain name or DNS system, including People, Groups of people (social networks), Companies, Organisations, Websites, Domains,

DNS names, Netblocks, IP addresses, Phrases, Affiliations, Documents and files, and a lot more.

Transform Hub
Now, if you right-click after selecting an entity, it will open up a context menu or transform hub where you can search all sorts of things about the domain and fetch the available information. Maltego will add all the information in the form of a tree, which is really easy to read and understand.

2.   Malwarebytes Mobile
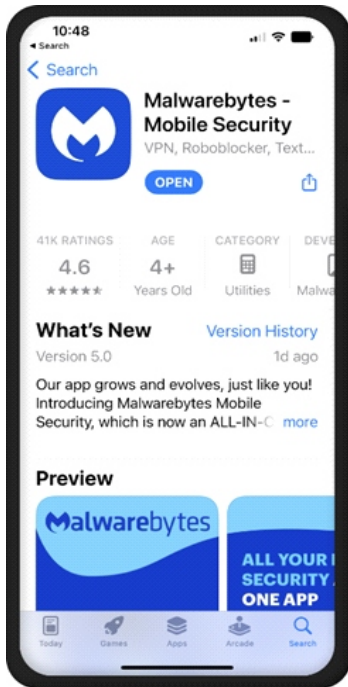
This is a stalkerware detection tool that can be used to check for spyware on mobile devices. The software is designed to detect and remove malware, spyware, ransomware, and other malicious threats from devices. Malwarebytes offers products for various platforms, including Windows, macOS, Android, and iOS. The mobile version of Malwarebytes provides features

such as malware scanning, real-time protection, and privacy audits. It can help protect your device from various threats that may compromise your data or device functionality.

The app is generally user-friendly and has a good interface. It does not typically consume excessive resources, making it suitable for mobile devices. Using Malwarebytes on your phone is generally considered safe. It is regularly updated to address new threats and vulnerabilities, and it is available directly from the Google Play Store or App Store, ensuring that you are downloading a legitimate version. Please note that the app has a free and premium version.

How to use Malwarebytes Mobile on iOS Devices
Before installing the app, check if your device is compatible with the Mobile Security requirements.

Install the app on your device: Go to the Apple App Store, and search for Malwarebytes Mobile Security. Get the app, then tap Open.

Allow notifications: Tap Allow to get real-time security updates.

Get Started: Swipe to review the features of Mobile Security. Then tap See pricing to start a trial or tap **Already have a Subscription** to activate your subscription.

Turn on Security features: On the app's Dashboard, tap each Security feature to activate your protection. If prompted, allow the required system permissions.

Turn on VPN: To browse the internet privately and securely connect to a Malwarebytes VPN server. Under VPN, tap Activate or Upgrade, then toggle VPN On. If prompted, follow the instructions.

You have now activated Mobile Security on your iOS device.

How to use Malwarebytes Mobile on Android Devices
Before installing the app, check if your device is compatible with the Mobile Security \

Install the app on your device: Go to the Google Play Store and search for Malwarebytes Mobile Security. Install the app, then tap Open.

Swipe to review the features of Mobile Security. Then tap Get Started or I have a Subscription.

Allow notifications: Tap Allow to get real-time security updates.

Buy a subscription: Select a plan, confirm your subscription details, and then complete the purchase.

Turn on Security features: On the app's Dashboard, tap each Security feature to activate your protection. If prompted, allow the required system permissions.

Scan device: Run a scan to check your device's apps and files for threats. Tap Scan now to start a scan. If prompted, allow the Storage access permission. Learn more about scans and acting on scan results.

Resolve security issues: At the top of the Dashboard, tap Boost your score. Review each issue and take the recommended actions to resolve it.

Turn on VPN: To browse the internet privately and securely connect to a Malwarebytes VPN server. Under VPN, toggle VPN On or tap Upgrade. If prompted, follow the instructions.

You have now activated Mobile Security on your device.

Managing Mobile Security Settings on iOS Devices

Block Malicious Websites with Web Protection
Web Protection uses a Malwarebytes database to block malicious websites so you can not access them while using your Safari browser. This feature is available to paid and trial users.
- On the Mobile Security Dashboard, tap Web Protection.
- If it is your first time enabling Web protection, tap Activate.
- Go to Settings on your device.
- Scroll down and tap Apps.
- Scroll down and tap Safari.
- Tap Extensions.
- Toggle Malwarebytes - Web Protection on.

To disable Web Protection:
- On the Mobile Security Dashboard, tap Web Protection.
- Turn the toggle Off.
- On the confirmation screen, tap Turn protection off.

Avoid scam calls with Call Protection
Call Protection warns you if a suspected scammer attempts to contact you on your iPhone or iPad. Configure this feature to ensure calls from known numbers are not affected. This feature is available to paid and trial users.
- On the Mobile Security Dashboard, tap Call Protection.
- Tap Activate. Instructions to enable Call Blocking and Identification displays.
- Go to Settings on your device.
- Scroll down and tap Apps.

For iPhones, scroll down and tap Phone. For iPads, scroll down and tap Facetime.
- Scroll down and tap Call Blocking and Identification.
- Turn On the Malwarebytes toggle.
- Return to the Mobile Security app to configure Call Protection.
- Under Fraudulent call and Spoof call settings, select Flag to be notified of an incoming fraudulent call, or Block to block the incoming call.

- Next to My Phone number, tap Add. Enter your phone number.
- Next to Access to contacts, tap Give access. In the next screen, tap OK.

To disable Call Protection:
On the Mobile Security Dashboard, tap Call Protection.
- Turn the toggle Off.
- On the confirmation screen, tap Turn protection off.

Turn on Ad Blocking to stop ads and trackers
Ad blocking uses a content filter to block ads and trackers that advertisers use to target you while you browse the web or perform a search. Ads and trackers are blocked in the background, without generating a notification. Mobile Security cannot see what websites you visit or what content is being blocked. Enable Ad blocking to stop ads and trackers when browsing the internet with Safari browser on your mobile device.

On the Mobile Security Dashboard, tap Ad Blocking.
Tap Activate.
- Go to Settings on your device.
- Scroll down and tap Apps.
- Scroll down and tap Safari.
- Tap Extensions.
- Toggle Malwarebytes - Ad Blocking on.
- Toggle Block Google-sponsored ads on for complete protection.

To disable Ad blocking:
- On the Mobile Security Dashboard, tap Web Protection.
- Turn the toggle off.
- On the confirmation screen, tap Turn protection off.

Turn On Text Message Filtering to Detect Spam Messages
Text Message Filtering in Mobile Security can detect SMS spam messages and sort them into Transactions, Promotions, and Junk dedicated folders on your iPhone. Enable Text Message Filtering to start sorting text messages from potential scammers. Apple does not provide a method for Mobile Security and other third-party apps to determine if spam filtering is turned on for SMS messages. As a result, Mobile Security's Dashboard cannot display whether Text Message Filtering is on or off.

- On your device, open the Settings app.
- Scroll down and tap Apps.
- Scroll down, tap Messages.
- Under Message Filtering, tap Unknown and Spam.
- Toggle Filter Unknown Senders on, then tap Malwarebytes.
- In the confirmation screen, tap Enable.

To disable Text Message Filtering:
- On your device, open the Settings app.
- Scroll down and tap Apps.
- Scroll down, find and tap Messages.
- Under Message Filtering, tap Unknown and Spam.
- Turn the Filter Unknown Senders toggle off.

Manage Mobile Security Settings on Android Devices

Block Malicious Apps with Real-Time Protection
Real-Time Protection blocks malicious files and apps, as well as ransomware threats with its Ransomware Protection capability.

On the Mobile Security Dashboard, under Security, toggle On Real-Time Protection.

If the Usage Access permission prompt displays, tap Enable now to grant the required permission.

Manage Ransomware Protection
The Ransomware Protection capability is automatically enabled and disabled along with Real-Time Protection. However, users can toggle Ransomware Protection on and off anytime without affecting Real-Time Protection.

To manage Ransomware Protection:
- On the Mobile Security Dashboard, tap Settings.
- Tap Security
- Tap Protection
- Toggle Ransomware Protection on or off.

Note: Ransomware Protection can be unintentionally triggered by plugging in headphones and power cords or adjusting volume settings. If this happens,

use the steps above to turn off Ransomware Protection.

Detect Malicious Websites with Safe Browsing Scanner
Safe Browsing Scanner detects malicious websites when using a Chrome browser on mobile devices.

On the Mobile Security dashboard, under Security, toggle On Safe Browsing Scanner.
If the Accessibility Services permission prompt displays, grant this permission by toggling on Safe Browsing Scanner on your device's Accessibility screen. Different devices may require different steps to enable this feature.

Avoid Spam Messages with Text Protection
Text Protection in Mobile Security alerts you when you receive a suspicious text message and warns you not to open it to protect you from fraud or phishing attempts. After you get an alert about a suspicious text message, it is recommended that you block the spam number and delete the text message.

Note: The Text Protection setting will not appear if your phone or tablet does not have a SIM card.

To turn on Text Protection:
- On the Mobile Security dashboard, toggle On Text Protection.
- Tap Go to settings to grant Malwarebytes permission to alert over other apps.
- Tap **Give Permissions**, then tap **Allow** to allow the app to scan your text messages.

Once both permissions are granted, the Text Protection feature is active.

Location and Field Safety

1.   <u>Briar</u>

This is a decentralized messaging app that works via Bluetooth or Wi-Fi in low/no connectivity zones. Briar is a messaging app designed for activists, journalists, and anyone else who needs a safe, easy and robust way to communicate. Unlike traditional messaging apps, Briar does not rely on a central server as messages are synchronised directly between the users' devices. If the Internet is down, Briar can sync via Bluetooth, Wi-Fi or memory cards, keeping the information flowing in a crisis. If the Internet is up, Briar can sync via the Tor network, protecting users and their relationships from surveillance. If you are offline when you receive a message, it goes to your Briar Mailbox app on a different device. When you are back online, your Briar app loads your missed messages. It is not the most convenient way to send or receive messages, but it keeps your data off a central server, which is helpful. Briar does not require personal data at sign-up and disables screenshots. Note that the app is only available on Android-enabled devices.

Create an Account
When you open the Briar app for the first time, you will be asked to create an account. Your account will be stored securely on your device, encrypted with your password. Choose your nickname carefully, as you can not change it later. You can choose the same nickname as someone else, just like in real life.

Choose a password that is hard to guess but easy to remember. If you forget your password, there is no way to regain access to your account. If you need to delete your account in a hurry, just uninstall the Briar app.

Battery Settings

After choosing your nickname and password, Briar will ask for permission to disable battery optimisations so it can run in the background. This is necessary because there is no server to receive messages on your behalf while Briar is in the background: Briar needs to receive those messages itself. On Huawei and Xiaomi devices, you will be asked to take extra steps to let Briar run in the background. Please follow the instructions carefully.

Add a Contact

After creating your account, you will see an empty contact list. To add a contact, press the plus button (+). There are two options, depending on whether the person you want to add is nearby. If the person you want to add is nearby, choose "Add contact nearby". If the person you want to add is not nearby and you have Internet access, choose "Add contact at a distance".

Add a contact nearby

When you choose "Add contact nearby", Briar will ask for permission to use your camera so it can scan your contact's QR code. Briar will also ask for permission to access your location so it can connect to your contact via Bluetooth. Briar does not store, share, or upload your location, but this permission is needed for discovering nearby Bluetooth devices. Finally, Briar will ask for permission to turn on Bluetooth and make your device visible to nearby Bluetooth devices for a short time. After granting all these permissions, Briar will show a QR code and a camera viewfinder. Scan your contact's QR code and let them scan yours. After about 30 seconds, your devices should connect, and your contact should be added to your contact list. If your devices fail to connect, both of you should go back to the contact list and start the process again.

Add a contact at a distance

When you choose "Add contact at a distance", Briar will show a link that you should send to the person you want to add. You can send the link via another app such as Signal. Your contact also needs to send you their link. Paste your contact's link and choose a nickname for them. If you and your contact are both signed into Briar and have Internet access, then your contact should be added to your contact list within a few minutes.

Send a Message

After adding your first contact, tap their name in the contact list to send your

first message. The circle next to your contact's name will be green when Briar is connected to your contact via Internet, Wi-Fi, or Bluetooth.

Introduce your Contacts
You can use the introduction feature to introduce your contacts to each other so they do not have to meet up in person to add each other.

Write a Blog Post
You can use the blog feature to write posts that all your contacts can see. You can also reblog other people's posts to let all your contacts see them. Bear in mind that you can not delete blog posts after they have been sent.

Create a Forum
You can use the forum feature to create group discussions and invite your contacts to join. Anyone who belongs to a forum can invite their contacts to join.

Communicate Offline
The range of Bluetooth and Wi-Fi is around 10 metres, depending on obstacles. Clearly, this is not enough for communicating across a city or even a large building. So, when Briar receives a message from a nearby contact, it stores the message and can later pass it on to other contacts when they come within range (for example, when you move from one place to another).

Please note that Briar will only synchronise messages with your contacts, not with nearby strangers who are running Briar. And it will only sync the messages you have chosen to share with each contact. For example, if you invite your contacts X and Y to join a forum, and they accept, then messages in that forum will be synced with X or Y whenever they are within range. So, you can receive forum messages from X in one location, travel to another location, and deliver those messages to Y. But this does not work for private messages: they are only synchronised directly between the sender and recipient.

Connect to your Contacts Offline
When you meet up with one of your Briar contacts, you can use the "Connect via Bluetooth" feature in the conversation screen to make a Bluetooth connection between your devices. After doing this, your devices should connect automatically in the future, but this may take a minute or two after

your contact comes within range. If you do not want to wait, you can use the "Connect via Bluetooth" feature again to make a connection immediately. If a group of people within Wi-Fi range want to communicate, it can be useful to create a Wi-Fi hotspot on one person's phone. Even if the hotspot does not have Internet access, Briar can use it to communicate with contacts who are connected to the same hotspot. If it is too risky to carry your phone from place to place (e.g., checkpoints), you can sync encrypted messages using a USB stick or SD card to carry them more discreetly.

Use a Forum for Offline Communication

A forum is a good way for a group of people to keep in touch without Internet access. To make sure that forum posts are synced between all members of the forum, introduce all the members so they become contacts, and make sure that everyone invites everyone else to the forum and accepts the invitations, even if they already belong to the forum. This will ensure that whenever two members are within Bluetooth or Wi-Fi range, they can synchronise the forum messages they have received.

Share the app

If someone in your group needs to install Briar and does not have Internet access, you can share the app with them by choosing "Share this app offline" from Briar's main menu. This creates a Wi-Fi hotspot without Internet access where they can download the app from your device.

Save Battery and Data

Briar uses a lot of battery and data for connecting to your contacts via the Internet. So if you are on the move, especially if you have limited mobile data, you should consider whether you need to use Briar for online and offline communication, or whether it would be better to use something like Signal for online communication and use Briar when offline. You could agree on a time of day when you and your contacts will be online in Briar and keep it offline the rest of the time. You can control whether Briar uses the Internet by choosing "Settings" and then "Connections" from Briar's main menu. There are also options to connect to the Internet only when charging or only when connected to Wi-Fi, to save battery and data.

2. Life360

This is a communication, location, and alert app for smartphones that allows users, such as journalists and family members to share their locations with trusted contacts, especially during assignments. The app works on Android and iOS (iPhone and iPad) devices and is easy to use. Life360 is easy to set up and use. The best part about using Life360 is that kids and non-tech-savvy users do not really have to do a lot on their end for the app to work. As long as Life360 is properly configured, it tracks location in the background without the user needing to lift a finger. Life360 uses a global positioning system (GPS), Wi-Fi, and cellular networks to track members' locations. When circle members are located in areas with multiple Wi-Fi access points, Life360 uses Wi-Fi to pinpoint their location. When members move away from urban areas, Life360 uses GPS or cellular signals to pinpoint users' locations.

Getting Started

Download Life360 from the App Store (iPhone) or the Play Store (Android). Each user will need to download the Life360 app. Once the app is installed, tap Get Started to create an account. If you already have an account, tap Log In to sign in now. Follow the on-screen instructions to create your account. You will be walked through providing your phone number, email address, password, and adding a profile photo. Enable location sharing, notifications, and other features. Most features of Life360 are reliant on the app knowing where you are located. After adding your photo, follow the on-screen instructions to allow the app to access your phone or tablet's location. Grant any permissions requested to display notifications, as these notifications can alert you to emergencies involving people in your circle. Depending on your phone or tablet, you may also be asked to give Life360 permission to access things like your motion and fitness activity.

If someone in your circle has already created a circle, enter the 6-digit circle code when provided. If not, tap Create a New Circle to set one up now. If

someone in your circle has already created a circle, you can have them perform the following steps in their Life360 app to send you an invitation:

- Tap + and select Invite.
- Tap Send Code.
- Select an app to share the code with.
- Enter a recipient and send the message. The recipient will receive the code and enter it when setting up the app.

If you are creating a new circle, tap +Add a New Member when prompted to invite your first member. To send the code, tap Send Code, select an app to share with, and then send the code to the desired person.

You can invite additional members to your circle at any time. If you created a new circle, follow the on-screen instructions to add locations (such as your home, work, or school) to the map. The locations you add will be shared with all members of your circle. Once you finish this step, your account will be ready to use.

Creating a Circle

Make sure you are an admin: Only circle administrators can invite or remove family members. If you created the circle, you are already an administrator. If someone else created the circle, have them follow these steps to update your account:

- Tap the gear icon at the bottom-right corner.
- Tap Circle Management.
- Tap Change Admin Status.
- Toggle the switch On for anyone you wish to make an admin.

Add someone to the circle: When you add someone to your circle, they will show up on the family map and be able to use all available app features. Life360 recommends adding no more than 10 people to a circle for the best possible map accuracy. Here is how to invite someone:

- Tap the plus +.
- Tap Invite.
- Tap Send Code.
- Select a messaging app and send the code. Once the person receives the invitation, they can then download Life360, create their account, and then enter the code when prompted to join.

Add another circle: You can create and/or be a member of multiple circles if you wish. Here is how to create a new circle:

- Tap the circle switcher drop-down menu at the top-center part of the map.
- Tap Create a Circle.
- Give the circle a name and invite new members.

When you want to switch between circles in Life360, tap the circle switcher drop-down menu and select the desired circle.

Remove a circle member: If you do not want someone to be a part of a circle, follow these steps:

- Tap Settings at the bottom-right corner.
- Tap the circle switcher menu at the top-center part of the screen.
- Select a circle to edit.
- Tap Delete Circle Members.
- Tap the member you want to remove and follow the on-screen instructions.

<u>Using the Map</u>

Open Life360 on your phone or tablet. Launching the app will automatically load the app for your circle. If you are a part of multiple circles, tap the circle switcher drop-down menu at the top-center part of the screen to switch between maps.

Tap a circle member's location on the map to view their details. This is where you can see how long they have been at their current location, as well as a historical list of places they have visited. You can also send a message to a circle member on this screen. Circle members' locations will update automatically on the map as they move from place to place. If a circle member has stopped sharing their location, you will see "Location paused" or something similar below their name on the map. Since Life360 is opt-in, there is no way to force a family member to keep their phone or tablet's location services enabled.

Tap the Places tab to manage family locations. Family locations are specific addresses that members of your family visit often. Everyone in the circle will receive a notification each time a circle member visits one of these locations (unless they disable this feature).

To add a place, tap one of the preset destination types (e.g., Home, Gym, etc.) or tap ADD (for a custom destination). Enter the address of the location to save it to the map. To edit a location, tap it on the Places tab and then make your changes. You can delete the location by tapping Delete at the bottom.

Tap the + and select Check In to announce your location. This option sends a notification to all circle members to let them know where you are. You will have the option to send your phone or tablet's location or enter a different address.

Using Safety Features
Tap the Safety tab. It is at the bottom of the screen. This displays the safety information for members of the circle.

Many safety features, including car crash detection, local crime reports, and roadside assistance, require a paid subscription to Life360 Driver Protect. To subscribe, tap the star at the top-left corner of the Safety tab, choose your subscription, and follow the on-screen instructions. All members of the circle will have access to the safety features. If you have upgraded to Driver Protect, your circle members will benefit from all paid features.

Tap the Trigger Help Alert in the event of an emergency. Any family member can activate this feature at any time to send an alert to everyone on the emergency contact list. You can also send a help alert by tapping the + at the bottom-center part of the map and selecting Help Alert. Help alerts do not require a paid subscription.

Tap Emergency Contacts to manage emergency contacts. It is at the bottom-left corner of the screen. This is where you can manage the people who should be contacted if a member of the circle triggers a help alert. Emergency contacts do not have to be members of the family and do not need the Life360 app.

Tap Get Roadside Assistance if your vehicle is disabled. As long as the circle has been upgraded to Life360 Driver Protect, tapping this option will dial Life360's direct roadside assistance line. Roadside assistance covers 2 service calls (circle-wide) per year at no cost.

You can use this feature to get help with flat tires, lockouts, gas (up to 3

gallons), jumpstarts, and tows to service centers. Towing is free for up to 5 milesadditional miles will incur a small mileage fee.

Tap Weekly Driver Report to view driver insights for the circle. This is where you will find information on each family member's driving habits, including whether anyone in your family is engaging in unsafe driving behaviours. This feature relies on your circle members enabling Drive Detection in their apps. Driving detection is on by default, but if you want to disable it, tap the Settings option at the bottom-right corner of the app, select Drive Detection, and then toggle the switch to the Off position.

Life360 Pricing
Life360 has a free version and two paid plans: Gold and Platinum. The free plan gives you a two-day location history and allows you to define two places with unlimited alerts. You also get SOS help alerts and crash detection with the free plan, but other features are restricted. The paid version offers a seven-day free trial, which allows you to get a first-hand feel of the premium features. After the trial, you can opt for monthly or annual billing.

3.   Glympse

This is a mobile app that allows users to temporarily share their real-time location and estimated arrival time with others. Users can choose how long their location is visible, with the maximum duration being 12 hours. It is a simple way to answer the question "Where are you?" and has a dynamic map that updates in real-time. Unlike other apps, Glympse does not require the recipient to download the app, making it a hassle-free choice for instant location sharing. Additionally, Glympse works across both Apple and Android devices, making it easy to transfer accounts and get the entire family connected.

What is a Glympse Account?
A Glympse account is used to confirm your identity for access to a private Glympse group. Creating an account is designed to provide security, privacy, and reassurance to group members that everyone who shares their location is who they say they are. Glympse account verification also allows people to link different phones/devices to the same Glympse account.

To create a Glympse account, you will need to enter your email address when prompted to authenticate your Glympse account. At this time, Glympse will send you a one-time confirmation code to your email account. You simply place this code in the Glympse app.

Step 1: Welcome to the free Glympse app. Enter your email address. You will receive an email with a confirmation code.

Step 2: Enter the confirmation code from your email address into the Glympse app.

Step 3: You are verified. Start using Glympse.

What does a Glympse Account give you?

 Temporarily delegate access to your whereabouts (the same process will be under your control). There is no need for recipients to download an app. Location browsing can be done using their device's built-in browser. The link to view the location can be shared however they prefer. Ability to track real-time location on a map. Integration with navigation apps for route retrieval. Function for requesting feedback from link recipients.

How Does Glympse Work?

▪ **Installing the app**: You install the Glympse app on your smartphone (available for iOS and Android) or use the web version of the service on your computer.

▪ **Creating a session:** After launching this tracker, you create a new session, specifying the time during which you want to share your location (from a few minutes to several hours).

▪ **Setting up receivers:** You choose who you want to share your location with (contacts from the address book, email, or SMS).

▪ **Sending a link:** Glympse generates a unique link that you send to selected contacts. When they click on this link, they can see your location on the map in real time. You can send a Glympse on iPhone via WhatsApp or on Android via another app, or vice versa.

▪ **Location Update:** While the session is active, your device periodically sends location data to the Glympse servers, which update the information for the link recipients.

▪ **Session termination:** After the set time expires or when the session is forcibly terminated, the location update stops, and recipients can no longer see your location.

If you are concerned about sharing location information in the Glympse app, please be aware that you can select the appropriate option in the app, and the tracking will stop when you reach your destination. Please note that Glympses only remain visible for 48 hours, after which they are irrevocably deleted. If you want to delete your location information immediately, you have the option to delete the current Glympse on the "Recent" screen in the app. Once deleted, your Glimpse will immediately become invisible to everyone.

C h a p t e r   F i v e

Data and Information Security

1.   Tella
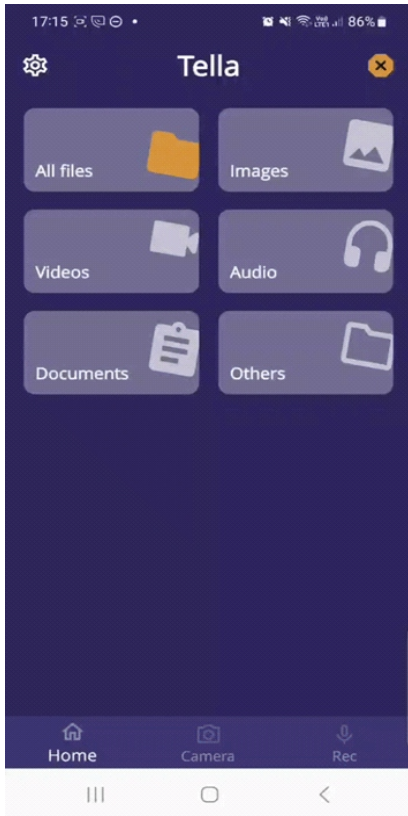
This is a mobile app designed to protect users documenting human rights violations and other sensitive information in challenging environments. It offers features like encryption, secure data storage, and the ability to connect to organisational servers, making it easier and safer to document events and collect data. It can be used to encrypt all the data on your phone, such that even if your phone is stolen and seized by security agents, your information or data will not be compromised. Tella is designed to work in places where the internet is unreliable or where the government is able and willing to shut down the internet altogether. The app, therefore, supports fully offline data collection, so that users can document events around them no matter what the connectivity situation is like. They can then send the documentation to their organisation once they reach a reliable internet connection. The code for Tella is open-source and publicly available so that researchers, security analysts, and developers can freely audit and reuse it.

Tella is designed for those whose safety is at risk. It is free to download and use, and is currently available in 21 languages.

Features of Tella
Encrypt your files: Tella automatically encrypts your photos, videos, and audio recordings as soon as they are captured.

Hide your files in the device: your files are inaccessible from the phone's regular gallery or file explorer. You can only access them in the app.

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Lock your files: set a PIN or password to protect your files. Entering the correct lock is the only way to decrypt the files stored in Tella.

Mask the app: change the look of Tella to hide it from people searching your phone.

Camera and recorder inside Tella: take photos, record videos, and audio directly in Tella so that your files are immediately encrypted and hidden in the app. Tella integrates with Uwazi, Open Data Kit, Tella Web, Google Drive, Dropbox, and Nextcloud. Pick the platform that best suits your needs and collect data directly in Tella.

Offline mode: In areas with limited or no internet connection, you can save your data and submit it when you reach a reliable internet connection.

Getting Started on Tella on Android

Download and install Tella on your device.

Create Your Lock

The first time you open Tella you will see a guided tour of the app functionalities: Camera, Recorder and Encrypted files and folders. You will also be asked to choose how you will lock Tella. Without this lock, it is not possible to open Tella and access any of the files stored in Tella.

Password: an alphanumeric password is the most secure way to lock your App.

PIN: a numeric sequence of more than six (6) digits.

Pattern: a numeric pattern of at least six (6) dots.

Avoid using your name, date of birth, or anything that is easy to guess (like "Password", "123456", or "000000"). Keep in mind that if you forget this lock, there is no way to access the app or its content.

Grant Permissions to Tella

The first time you use each functionality; you will be asked to grant Tella some permissions:

To take photos, record videos, or record audio, you will need to grant permission to access your phone camera and microphone.

To import files into Tella or export files from Tella to your phone, you will need to grant access to your device file system.

To use "verification mode" or send your location, you will need to grant access to your device location. You can do this by going into Tella's settings and then General > Verification Mode.

If you decline granting Tella these permissions, you can grant permissions later by going to your Android settings and navigating to Settings > Apps > Tella > App permissions.

Protect Your Files
After granting permissions, you are ready to start collecting documentation. We recommend you to explore the following features:

Use the Camera to take pictures or videos and the Audio Recorder to record audio. All media taken by Tella will be encrypted instantly, which means that the file will not be accessible outside of Tella. All media collected inside Tella will not show on your phone gallery or phone files. There is no particular storage limit for Tella, the available space will depend on the space available on your device.

Import your files to Tella: Go to any of the folders inside Tella and tap the + Button > Import from device. Choose the file you would like to keep inside Tella and a copy of the file will be stored encrypted and hidden on Tella. You will be asked to choose if you want to delete or keep the original file from your device. Tella will be unlocked while you choose your files for a maximum of three (3) minutes.

Create folder: To make it easier to find your files, you can organise files into folders. Go to All files > + > Create a new folder and type a descriptive name for the folder. Then use the Select multiple button at the top of the screen, choose the files you want to move to the new folder, then click the three (3) dots button and Move to a different folder, navigate the file structure to find the folder and then press Move here.

Rename files: Another way to keep your data organised is to rename files to be more descriptive. By default, files receive an auto-generated name. You can change it by clicking on the three (3) dots that are next to each filename and then tap Rename.

Camouflage Tella
It is possible to camouflage Tella to hide it on your device in two ways:

You can change the name and icon of the app to make it look like another app (like a game or weather app). There are 28 names and icons available to hide Tella.

You can hide Tella behind a fully functional calculator. There are 4 different themes to match your phone's default and help hide Tella. In order to open Tella, the user must input their PIN into the calculator, followed by =. The Calculator camouflage is only possible if the user uses a PIN lock. It is not possible to camouflage Tella as a Calculator if a pattern or password is used.

Share Your Information
To share information using Tella, you can use the Share button. Just select the file or files you want to share, press Share, and choose the app you want to share the files with. Take into account that Tella will share the files unencrypted, so make sure to use disappearing messages (for example, on WhatsApp or Signal) or delete the messages after the other person receives them.

<u>Getting Started on Tella on iOS</u>
Download and install Tella

Create Your Lock
When you open Tella for the first time, you will be asked to choose how you will lock Tella. Without this lock, it is not possible to open Tella and access any of the files stored in Tella.

Password: An alphanumeric password is the most secure way to lock your App.

PIN: a numeric sequence of more than six (6) digits.
Avoid using your name, date of birth, or anything easy to guess (like "Password", "123456", or "000000"). Keep in mind that if you forget this

lock, there is no way to access the app or its content.

Grant Permissions to Tella
The first time you use each functionality; you will be asked to grant Tella some permissions:

To take photos, record videos, or record audio, you will need to grant permission to access your phone's camera and microphone. If you do not grant Tella these permissions, you can do it later by going to your iPhone settings and navigating to Settings > Tella > Allow Tella to access to Camera, microphone, and files.

Protect Your Files
After granting permissions, you are ready to start collecting documentation. It is recommended that you explore the following features:

Use the Camera to take pictures or videos and the Audio Recorder to record audio. All media taken by Tella will be encrypted instantly, which means that the file will not be accessible outside of Tella. All media collected inside Tella will not show in your phone gallery or phone files. There is no particular storage limit for Tella; the available space will depend on the space available on your device.

Import your files to Tella: Go to any of the folders inside Tella and tap the + Button > Import from device. Choose the file you would like to keep inside Tella, and a copy of the file will be stored encrypted and hidden on Tella. You will be asked to choose whether you want to delete or keep the original file from your device. Tella will be unlocked while you choose your files for a maximum of three (3) minutes.

Create folders: To make it easier to find your files, you can organise files into folders. Go to All files > + > Create a new folder and type a descriptive name for the folder. Then use the Select multiple button at the top of the screen, choose the files you want to move to the new folder, then click the three (3) dots button and Move to a different folder, navigate the file structure to find the folder, and then press Move here.

Rename files: Another way to keep your data organised is to rename files to be more descriptive. By default, files receive an auto-generated name. You

can change it by clicking on the three (3) dots that are next to each filename and then tapping Rename.

Share your information: To share information using Tella, you can use the Share button. Just select the file or files you want to share, press Share, and choose the app you want to share the files with. Take into account that Tella will share the files unencrypted, so make sure to use disappearing messages (for example, on WhatsApp or Signal) or delete the messages after the other person receives them.

2.   Veracrypt
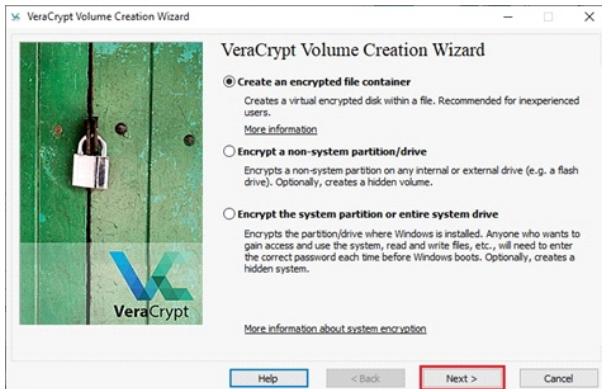
This is an open-source tool for encrypting entire folders or drives. The main function of VeraCrypt is to create a virtual encrypted disk within a file and mount it as a real disk on your computer system. All files stored in this virtual disk are automatically encrypted on the fly while they are being written or read. Data and files are encrypted before being stored and decrypted only after being loaded, hence an additional level of security is considered for every operation. This enables the user to retain data privacy as any kind of data, ranging from personal files such as images and videos to complex company data, can all be encrypted using this system. VeraCrypt is available for Windows, macOS, and Linux, and the software is also open-source.

How to use VeraCrypt
Download and Install
Go to the download page on the platform's website and install the version for your operating system. In macOS, you also need to download and install a small (7.5MB) companion software app called OSXFUSE. The link is on the VeraCrypt page. One thing worth mentioning here: never install VeraCrypt from another website. Always install the version on the VeraCrypt website. When the software is installed, click on it in your software folder (in the case of macOS, "Applications").

Create a New Volume: When you open it up, you will see a button that says "Create a New Volume." Click on that, then click on Create an Encrypted File Container.

Standard or Hidden: The next option is whether you want your standard volume or the hidden one.

Select File: Click the button and go to the area of your computer where you

want to make the encrypted volume. This volume can be moved anywhere you want later. It will not be tied to wherever you choose during the setup process. Give the volume a name (this can be changed later).

Encryption Options: Now, you have to decide which encryption strength you are going with. If you drop down the menu, you will see various options, but the industry standard is AES. VeraCrypt automatically defaults to it. Leave the "Hash Algorithm" as it is and click "Next."

Volume Size: You have to decide how big the encrypted volume needs to be. This has to be done right at the start because you can not change it later. If you decide later that the volume needs to be bigger or smaller. You need to delete the volume and start over. Think about what you would be using the volume for. Video? Files? Images? Audio? Then decide how much you need. Obviously, you would need the space on your hard drive to accommodate the file as well.

Set the Password for the Volume: There is no point building a high wall around your sensitive files if someone can just come along and kick the wall down. So, it would help if you had a strong password. Choose a password of 25-30 characters to be on the safe side.

Generate Encryption Keys: Now, you have to generate your encryption keys. As VeraCrypt says, you have to move your mouse around the window rapidly and randomly. The more you do that, the stronger the keys will be. Keep doing it until the blue bar reaches the end. Then click "Format." You will now see a second blue bar showing the progress of the formatting. When it is done, click "Exit."

Opening Your VeraCrypt Volume
Choose a Drive Number: First, choose a drive number from the VeraCrypt interface. It does not matter which one, but if you use a Windows computer, do not choose a partition letter already being used (such as the C drive).

Find and Select the Volume: Now, click "Select File" and navigate to the location on your computer where the new volume is located. Click on it. You will now see the volume's path in the VeraCrypt window. Now click the "Mount" button. You are saying, "let me in."

Enter the Password: You will now be prompted for the password. Please enter it. Assuming you got it right, you will now see your open volume in the VeraCrypt user interface.

Go to Your Hard Drive/Finder: Either go to your hard drive (or Finder in the case of macOS) or double-click the volume in VeraCrypt. Either way, you get to the same destination. You will now see your volume.

Adding and Removing Files: Adding and removing files is simple. You can either drag them with your mouse or trackpad from another folder. Or copy from the other folder to the VeraCrypt folder, and choose "Paste" from your right-click menu. To remove them, drag them out with your mouse or trackpad. Or delete the file in question.

Closing Your VeraCrypt Volume Again: To close your VeraCrypt volume again, click the "Dismount" or (if you have more than one volume open at the same time) "Dismount All." The folder will then close and encrypt itself again.

Once the volume has been made, you can move it about onto USB sticks, various other folders, removable hard drives, or cloud storage.

3.   Cryptomator
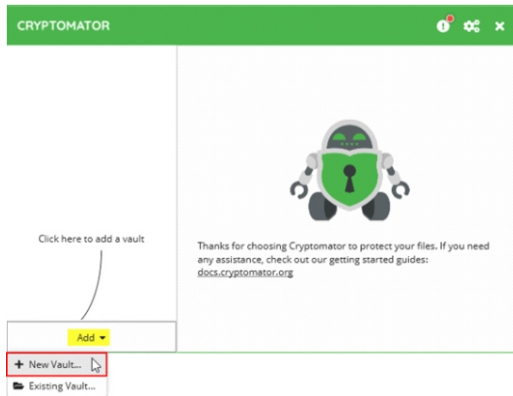
Cryptomator is a free and open-source software application that allows users to securely encrypt and store data in the cloud. It works by creating an encrypted "vault" (a folder) that you can use as a virtual drive, and any files you put into that vault are automatically encrypted before being uploaded to your chosen cloud storage provider, such as Dropbox, Google Drive, or OneDrive. This ensures that even if the cloud service provider accesses the data, it remains unreadable without the correct password. It provides a way to protect your sensitive data while still using the convenience of cloud storage services.

How to use Cryptomator?
Download Cryptomator on your device. There are also versions for other operating systems, such as macOS or Linux. By opening the .exe file that you have downloaded, you start the installation of Cryptomator. After you have installed Cryptomator, you can directly start the programme.

Create a New Vault: Start Cryptomator. Select "Add" and "New Vault." Choose a name for the vault**.** Enter a name for your vault and confirm by clicking "Next". Via "Choose a storage location", you can select the desired storage location for your vault. Confirm your selection by clicking "Next". Then you have to choose a password for your vault. Choose a secure password with at least 10 characters. You can also create a recovery key. If you have forgotten your password, the recovery key is the only option to unlock your vault. Print your recovery key or copy it to a password management programme or on a USB stick. Third parties must not be able to access the key. The key must also not be stored together with the encrypted vault.

Unlocking a vault: After you have created a new vault, you can unlock the vault by entering your password. After you have unlocked the vault, you can see its contents. Now, you can add, edit, or delete files. Lock the vault if you

have finished editing the files.

Open existing vault: To add an existing vault, click "Add" and "Existing Vault." Select the file "vault. Cryptomator" Open the desired vault and select the file "vault. cryptomator". If you enter your password, you can unlock the vault and see the content. Then you can open, edit, or delete the files in the folder or add new files to the folder.

Reset your password: If you have forgotten your password, you need the recovery key to reset your password. Select "Vault options" in the relevant folder. In the "Password" tab, you have the option to recover your password.

4.   OnionShare
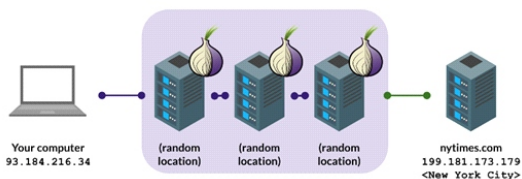
This allows for secure and anonymous file sharing via the Tor network. OnionShare, a free file-sharing application, makes it easy to send and receive files without revealing your identity. It also allows you to set up private chat rooms and host websites on the Tor network. OnionShare allows journalists to protect the identities of their sources without spending resources on IT infrastructure. You only need an internet connection and a laptop or phone. It relies on the Tor network to obscure your connection. Before your computer connects to the destination website host, Tor encrypts and routes your traffic through several volunteer-run "relays" or servers. The connection would appear as coming from a relay instead of your computer.

Getting started with OnionShare
You can use OnionShare on devices running Windows, macOS, Linux, Android, and iOS. Tor Browser is recommended to visit links created by OnionShare. To start, navigate to the official OnionShare website and download the installer.

After installing the application, enable "Auto-connect to Tor" and then click "Connect to Tor." After connecting to Tor, you should see the main OnionShare page. Here you can send and receive files, organise a chat room, and even host an anonymous website on the Tor network. These websites would end in ".onion" and are only accessible through the Tor Browser.

Sending Files
On OnionShare, you can send files and folders from your device. This takes the form of a downloadable file that is shared with an .onion link and private key, a cryptographic key similar to a password, automatically generated by OnionShare. As long as your computer stays online and runs this service, the files will remain available for download.

To send files, click on "Start Sharing." You will be prompted to upload your files or folders. After doing so, you will see a menu containing your uploaded files and a list of options. Here, you can schedule the file-sharing service, make the link public, write a custom title, and set the link to self-destruct after being sent.

To generate a shareable link and private key, click on "Start Sharing." Now, send this .onion link or QR code to your intended recipient, along with the private key. It is recommended that you do this over an end-to-end encrypted service such as Signal. After visiting this link, the recipient must type in the private key to access the files. If successful, the recipient can now download your files!

Receiving Files
OnionShare can also transform a computer into a Dropbox, where someone can upload files without repeatedly sending OnionShare links. For this, go to the main menu. Click on "Start Receiving." OnionShare warns you against opening unknown files, as they may contain malware. For most people, enabling a private session minimises such risk since it requires a private key. Click on "Start Receive Mode." After sending the private key and OnionShare address to the recipient, tell them to visit this website. They can upload their files or write a message there. Note that folders cannot be uploaded into a Dropbox. Circling back to your screen, you should see an arrow in the upper right corner of the window. Click on that to expand the sidebar. Select "Read Message" to find your message. Click on the folder icon beside the uploaded file to download it.

Settings
When Sharing, Receiving, and Website modes are off, you can adjust the Settings in the top right corner of the screen. Many custom settings are for advanced users, but here are a few useful settings that can help most users:
- To allow people to download files without a password (e.g., to share files on social media), visit General settings and check Public mode.
- To use the same URL every time you share and receive (e.g., to share files with the same people on multiple occasions), visit Onion settings and check Use a persistent address.
- To allow people to download individual files and to allow multiple people to download your files, visit Sharing settings and uncheck Stop sharing after files have been sent.

Safe Browsing and Online Anonymity

1.   Tor Browser
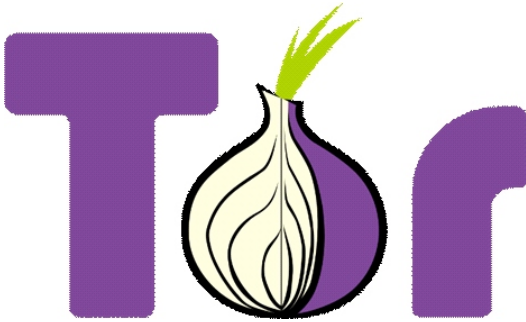
This browser basically routes internet traffic through multiple encrypted layers to protect identity. The Tor (an acronym for The Onion Router) Browser utilises the Tor network to safeguard your privacy and anonymity. Using the Tor network has two main properties:

▪   Your internet service provider and anyone watching your connection locally will not be able to track your internet activity, including the names and addresses of the websites you visit.

▪   The operators of the websites and services that you use, and anyone watching them, will see a connection coming from the Tor network instead of your real Internet (IP) address, and will not know who you are unless you explicitly identify yourself.

In addition, Tor Browser is designed to prevent websites from "fingerprinting" or identifying you based on your browser configuration. By default, Tor Browser does not keep any browsing history. Cookies are only valid for a single session (until Tor Browser is exited or a New Identity is requested).

How Tor Works
Tor is a network of virtual tunnels that allows you to improve your privacy and security on the Internet. Tor works by routing your traffic through three randomly selected servers (also known as relays) within the Tor network. The last relay in the circuit (the "exit relay") then sends the traffic out onto the public Internet. The browser supports Windows, iPhone, and Android devices.

Running Tor Browser for the First Time
Choose Display Language
When you launch Tor Browser, the display language is set to the default language of your system. Tor Browser is available in multiple languages, and you can change the display language by clicking on "Change Language".

Change Tor Browser's display language: In the "Language" settings, select your desired display language from the dropdown menu. Select the display language of Tor Browser.

Connect
When you start Tor Browser, you will see the Connect to Tor window. This offers you the option to either connect directly to the Tor network or to configure Tor Browser for your connection. Toggle on "Always connect automatically" to allow Tor Browser to connect to the Tor network automatically with the previously saved connection settings, every time the browser is launched.

Click 'connect' to connect to Tor: In most cases, choosing "Connect" will allow you to connect to the Tor network without any further configuration. Once clicked, a status bar will appear, showing Tor's connection progress. If you are on a relatively fast connection, but this bar seems to get stuck at a certain point, try the 'Connection Assist' or see the Troubleshooting page for help solving the problem. Or, if you know that your connection is censored or uses a proxy, you should click on "Configure Connection". Click 'Configure Connection' to adjust network settings.

Connection Assist
If Tor is blocked in your location, trying a bridge may help. Connection Assist can choose one for you using your location. If Connection Assist is unable to determine your location, you can select your region from the dropdown menu and click on 'Try a Bridge'.

Configure
Tor Browser will take you through a series of configuration options. The Connection Assist informs you about the state of your Internet connection and your connection to the Tor network. The first toggle is 'Always connect automatically'. If toggled on, every time you open Tor Browser, it will try to connect with your previously saved connection settings. If you know your

connection is censored, or you have tried and failed to connect to the Tor network and no other solutions have worked, you can configure Tor Browser to use a pluggable transport. 'Bridges' will display the Circumvention section to configure a pluggable transport or to connect using Bridges.

Other Options

If your connection uses a proxy, you can configure it by clicking on 'Settings ...' against 'Configure how Tor Browser connects to the Internet'. In most cases, this is not necessary. You will usually know if you need to select this checkbox because the same settings will be used for other browsers on your system. If possible, ask your network administrator for guidance. If your connection does not use a proxy, click "Connect".

2.   Virtual Private Networks (VPNs)

A Virtual Private Network, or VPN, is an encrypted connection over the Internet from a device to a network. The encrypted connection helps ensure that sensitive data is safely transmitted. It prevents unauthorised people from eavesdropping on the traffic and allows the user to conduct work remotely. A VPN extends a network through encrypted connections made over the Internet. Because the traffic is encrypted between the device and the network, traffic remains private as it travels.

How VPN Works
VPN servers essentially act as your proxies on the internet. Because the demographic location data comes from a server in another country, your actual location cannot be determined. Additionally, most VPN services do not store logs of your activities. Some providers, on the other hand, record your behaviour, but do not pass this information on to third parties. This means that any potential record of your user behaviour remains permanently hidden. VPNs, such as NordVPN, ProtonVPN, Mullvad, etc., are used to secure and anonymise internet traffic, especially on public Wi-Fi.

3.   DuckDuckGo

DuckDuckGo is a privacy-focused search engine and web browser that blocks ad tracking and does not store personal data. It aims to offer a secure browsing experience that protects user privacy, acting as an alternative to traditional search engines like Google or Bing. DuckDuckGo is free to use, like most other browsers and search engines, because it makes its revenue through advertising and affiliate revenue. However, since the company does not collect and store data about its users, the ads you see will not be personalised to you based on your search history or browsing behaviour. It is available for use on Mac, Windows, iOS, and Android. It comes with seamless privacy protection built in, including private search, tracker blocking, increased encryption, email protection, and more.

How to add DuckDuckGo to your Browser
If you want to try out DuckDuckGo, type duckduckgo.com into your browser's address bar and enter your search query. Use it for a while and see if you like it. Once you are ready to make the switch, you can either select DuckDuckGo as your default search engine or add the appropriate app or extension to your browser.

Adding DuckDuckGo to Chrome
Chrome users have two options for using DuckDuckGo on the desktop. The simplest option, if you are looking only for the private search function, is to make DuckDuckGo the default search engine. Go to Settings (the three vertical dots at the top right of your browser bar) > Search engine > Manage search engine. Click the vertical dots next to DuckDuckGo and select Make default. This will also make DuckDuckGo the default search engine in your address search bar.

An alternative for extra privacy is to install the DuckDuckGo Chrome extension. This will block hidden trackers and connect you to encrypted versions of websites if available. If you change your mind about

DuckDuckGo, both the default setting and the browser extension can be disabled in Chrome's settings.

Adding DuckDuckGo to Firefox
To make DuckDuckGo your default search engine in Firefox, open the Settings options with the three horizontal lines to the far right of your address bar. Click 'Preferences' and open the Default Search Engine drop-down menu to select DuckDuckGo. This will change the settings for search in your address bar. Like Chrome, Firefox has an add-on called DuckDuckGo Privacy Essentials that has extra privacy features.

Adding DuckDuckGo to Other Browsers
Safari users can simply tap the magnifying glass in the search bar, which will bring up a drop-down to select the default search engine. You can also add the DuckDuckGo extension from the App Store.

With Brave, open the hamburger menu at the top right and go to Settings > Search Engine. Open the dropdown menu at the top of the page and select DuckDuckGo as your default.

In Microsoft Edge, click the three horizontal dots (they look like " … ") in the top right and select Settings. On the next page, click the three stacked lines in the top left and select > Privacy, Search, and Services. Scroll down the page and, under the Services heading, click Address Bar and Search. Open the dropdown menu next to Search Engine Used in the Address Bar and select DuckDuckGo. You can also get the Privacy Essentials add-on.

Adding DuckDuckGo on Mobile
DuckDuckGo has browsing apps for both iOS and Android. If you prefer to use DuckDuckGo as your default search engine within Safari, Firefox, or Brave, follow the steps on DuckDuckGo's help pages.

How to use DuckDuckGo
DuckDuckGo is not all that different from any other search engine. Type your query into the search bar and get your results. As with Google, you can narrow your search to images, videos, news, maps, and shopping. DuckDuckGo's results pages look fairly similar to Google's, with knowledge panels, news carousels, and related searches. However, you will get more with Google search results, such as recent tweets, People Also Ask, and videos, than you will get with DuckDuckGo.

Investigative Tools and Productivity Enhancers

1.   Wayback Machine
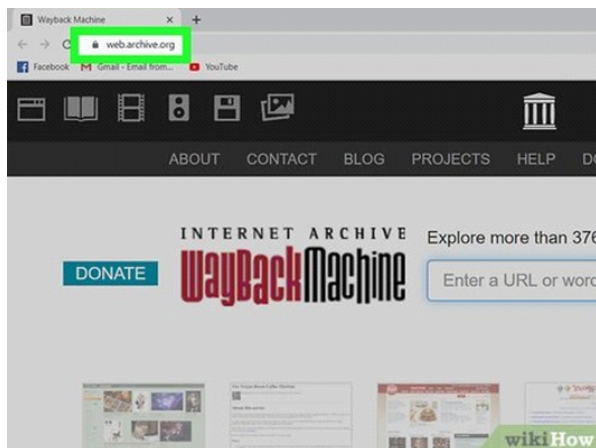
It is essentially used to retrieve deleted or altered web pages. The WayBack Machine is an online tool that allows users to access archived versions of websites from the past, providing a timeline of snapshots to analyse the evolution and growth of a website, as well as retrieve information that may no longer be available on the current website.

How to Use the Wayback Machine
Go to archive.org and enter a URL into the "Wayback Machine" search bar. Select a year from the timeline, then click a date on the calendar to view a snapshot of the website from that date.

Viewing Archived Websites
Go to archive.org. Enter the website you want to view and press Enter. You can type the full URL into the field labeled "Enter a URL or words related to a site's homepage." If you do not know the address of the website, type its name (or some keywords that describe it) into the field instead. If you search for a name or keyword, you will see a list of suggested sites to peruse. Click or tap the URL and then continue to the next step.

Alternatively, you can click the Web tab at the top of the page and use the drop-down menu to search for archived websites or archive an existing website.

Select a year on the bar graph. By default, you will be taken to the current year

on the bar graph that runs along the top of the page. There are black bars that show how many times the Wayback Machine archived the page during that year. Click an area above a year to see a 12-month calendar showing each date in that year.

Note: If there are no black bars on the year you want to view, no website snapshots were taken that year.

Depending on the site you search for, you will usually see green and/or blue circles around some of the calendar dates. If a date is circled, a snapshot of the site is available from that date.

If a website was archived multiple times on one day, the circle around the date will be a little larger. Hover your mouse cursor over the date to see the list of archive times, then select a time to view that version.

If you see an error when you click a date or time, the site may be set up to ignore the Wayback Machine's web crawler. Errors can also mean that the website was unreachable at the time.

Depending on how the site was archived, you may be able to click links on the page to see other archived content. Unfortunately, clicking links on an archived site will usually produce an error.

The bar graph from the previous page runs along the top of the archived website. You can use it to check out the same site on other dates. Use the blue arrows to jump to the previous or next archived snapshot, or click a different date to view it.

<u>Archiving a Website</u>
Go to archive.org in your web browser. You can use a computer, phone, or tablet to tell the Wayback Machine to take a snapshot of a specific website. This feature is handy if you plan to use the site's current form as a citation in the future. Type the URL of the site you want to save into the "Save Page Now" field. It is in the bottom-right portion of the page.

Tip: Be specific when entering an address. The Wayback Machine only archives content on one page, not other linked pages.

Click the SAVE PAGE button. This displays the website and the text "Saving page now" at the top-left corner. That text will disappear once the site is saved.

Note: The Wayback Machine cannot archive some websites due to their configuration. If you see an error, it is usually because the site's owner has chosen to ignore the Wayback Machine's web crawler.

2.   Archive Today

Archive Today is an online archiving service, similar to the Wayback Machine, that stores snapshots of web pages. It is particularly useful for preserving pages with JavaScript or for domains that might be blocked from other archiving services, like the Wayback Machine. It simultaneously records two different 'snapshots' of a web page. One is "Webpage," which includes any functional live links that are in the original. The other is "Screenshot," which provides a static and non-interactive visualization of the representation. Archive.today records only text and images, excluding video, XML, RTF, spreadsheet (xls or ods), and other non-static content. It keeps track of the history of snapshots saved, returning to the user a request for confirmation before adding a new snapshot of an already saved Internet address.

Archiving a Website
Go to the Archive Today website, enter the URL of the web page you wish to archive into the "My url is alive and I want to archive its content" field (the red one).

Click the "Submit" button. When the archiving process completes (it usually takes 515 seconds), you will be sent to the archived page.

It is recommended that you view the archived page to check if the archive process has been successful.

3.   Hunchly
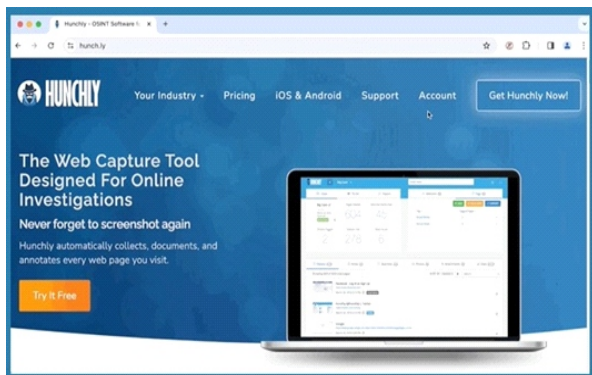
This is a browser tool for capturing and preserving online investigations. Hunchly is a web preservation tool for online investigators that is simple, secure and accessible. Hunchly is a browser-based tool that excels in capturing and documenting your digital journey. It runs silently in the background, ensuring you never lose track of where you have been and what you have discovered. By automating the process of documentation, Hunchly allows you to focus on the most crucial aspect the analysis of the information.

How it Works
Hunchly automatically collects the URL, timestamps, and hashes of every page you visit and makes full-page captures of sites, searches, and social media. No more forgotten screenshots or hunting through countless open tabs.

Note that the Hunchly extension is not free, but you can download a 30-day trial from their website. After your trial expires, you can buy a license on the website.

Installation is straightforward, you can download the installer for Windows, macOS (Apple Silicon and Intel-based Macs available), or Linux. You install it on the device that you use for your investigations, and you install the browser plugin. Hunchly requires Google Chrome to be installed on one of the supported operating systems.

How Does Hunchly Work?
Hunchly works by integrating into your browser and silently recording every webpage you visit. It captures full-page screenshots and stores URLs, time stamps, and even HTML content. It does all this without interrupting your workflow so that you can concentrate on your investigation. Once you turn

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on Capture mode, it will record all your browsing, and you will have certain manual options to add (e.g., Notes and Captions for images downloaded). You can, at any given time, visit the Dashboard. Once you visit one of the pages you have visited during your research work, you can dive deeper into that, within the Hunchly App. You will see multiple tabs, including Info, Path, Data, Notes, and Images. Info is divided into Page Preview, Source, and JavaScript, it will contain the browsed site, recorded for review. This means that even if the site is altered or deleted later, you have this as a copy in your case files. At any time, you can export the page into, for example, a PDF file, to include in your forensics reports.

4.   Datawrapper

This is used to create data visualisations with no code or design skills required. It can help users to turn raw data into stunning charts, maps, or tables in only a few simple steps. The add-in also allows the user to create and edit visualisations within PowerPoint. It is designed for journalists, researchers, businesses, and educators, making it easy to turn raw data into visually appealing graphics. Datawrapper is a user-friendly, open-source web tool that you can use to create basic interactive charts. You can upload data from spreadsheets or databases and customise visualisations using an intuitive drag-and-drop editor. Datawrapper supports bar charts, line graphs, heatmaps, and geographical maps, making it a versatile tool for data storytelling. It also ensures responsive design, allowing charts to be embedded seamlessly across websites and reports.

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Key Features of Datawrapper

▪ **No-Code Data Visualisation:** You can create professional charts, maps, and tables without writing a single line of code, making it

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accessible for non-technical users.

- **Wide Range of Chart Types**: Datawrapper supports bar charts, line graphs, scatter plots, heatmaps, pie charts, and more, allowing you to present data in various formats.
- **Interactive and Responsive Design:** Charts and maps automatically adjust to different screen sizes, ensuring a seamless experience across devices.
- **Geographical Maps and Heatmaps:** Create custom maps with location-based data, colour gradients, and interactive hover effects for better geographic insights.
- **Easy Data Import:** Upload data directly from spreadsheets, CSV files, Google Sheets, or copy-paste from other sources for quick visualization.
- **Seamless Embedding and Exporting:** Publish your charts by embedding them into websites, reports, or exporting them as PNG, PDF, or SVG files.
- **Automatic Updates with Live Data:** Connect to Google Sheets or external databases to keep visualizations updated in real-time.
- **Accessibility and Compliance**: Datawrapper ensures charts and maps meet accessibility standards, making them readable for all audiences, including those using screen readers.

Pricing of Datawrapper

- **Free Plan**: Ideal for individuals and small teams who need basic data visualisation. Includes unlimited chart, table, and map creation, PNG exports, and a "Created with Datawrapper" attribution on all visualizations.
- **Custom Plan ($599/month or $5,990/year)**: Designed for professional teams that need branding control and better export options. Includes full design customisation, SVG, PNG, and PDF exports, removal of Datawrapper attribution, and 10 user licenses (additional licenses at $21 per user/month).
- **Enterprise Plan (Custom Pricing)**: Best for large organisations needing advanced security and control. Includes all Custom Plan features, plus self-hosting options, Single Sign-On (SSO) integration, and service-level agreements (SLAs). Pricing is customised based on company needs.

How to Create Your First Datawrapper Chart

You will need to open Datawrapper. To do so, go to datawrapper.de in your browser. Now, click on the Start creating button. You can use Datawapper without being signed in, but you will need to sign up to publish the chart you build.

Clicking on the Start Creating button will bring you directly into the chart editor. Here, you can see four steps on the top: Upload Data, Check and Describe, Visualise, and Publish and Embed. You will walk through these four steps to build your chart.

How to Upload Data for Your Chart

Every data visualisation needs data, so that is what Datawrapper asks us to upload first in the Upload Data step. You can simply copy and paste your data in the white text field at the right, or you can upload an Excel file or link to a Google Spreadsheet or another external data set. Then go to **Check and Describe**. To do so, click on Proceed at the bottom right, or on Check and Describe in the arrow above; now you see your data in a proper table. Click on **Visualise** to get to the next step, where Datawrapper automatically visualises your data as a line chart, which can be changed to whatever chart you prefer.

How to Refine and Style Your Chart

To do so, click **Refine** at the top of the chart types. This brings you to a page with different settings. Play around with them! You can turn Thicker bars on, for example, or see what happens when you turn on Show values > Visibility: on hover. Let us assume you want to change the colours. To do so, click on **Customise Colours** right below **Appearance**. This will open a little list of categories that you can colour differently. Click on a category, then click on the little colour rectangle that appears to its right. Then, select a colour and then check the little checkmark in the lower right. Choose some colours and see if and how they improve the chart.

How to Change the Title and Description of Your Chart

Your chart needs a proper title. To add one, go to the **Annotate** tab. Here you can add a title, description, notes, a data source, byline, and an alternative description for screen readers. Almost everything is already filled out. To give the chart a different title, click in the first text field and start typing.

Note that you need to keep in mind how your data visualisation will appear on different screen sizes. That is why Datawrapper offers these three buttons below each chart: With these buttons, you can check how the chart looks for mobile readers, tablet readers, and readers on desktop computers.

How to Publish Your Chart
To do so, click on the arrow 4: **Publish and Embed.** If you are not signed in yet, you will need to enter your email address if you want to publish your chart. Once you have done that, check your emails; you will get an email, and you can then create a Datawrapper account by setting a password. Once you have a Datawrapper account, you can now see a big button that says **Publish chart**. As soon as you click that button, you can embed your chart and get a link to share it.

How to Share Your Chart
Now, you can see some **Share and Embed** options. The "Responsive iframe" is great for embedding your chart in an online article. If you want to share your chart on social media or in an email to a coworker, choose the **For sharing** option.

5.   Flourish
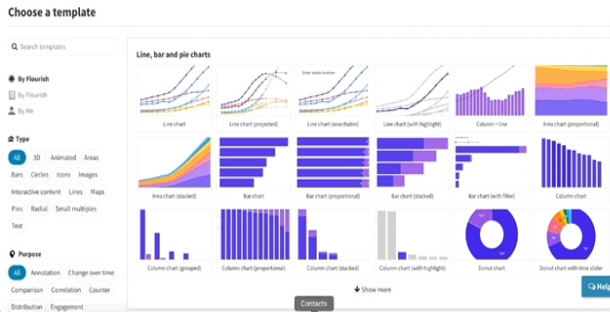
This is a powerful online data visualisation platform that helps the user to turn complex datasets into engaging and informative visuals in an easy way, thereby enabling them to tell stories with data. **It also** enables the creation of captivating data stories and provides a wide range of user-friendly templates for animated charts, detailed maps, and rich data explorers. Flourish's data visualisation tools provide users with a large amount of flexibility when visualising data. The results are easily embeddable within most websites, automatically resizing based on the user's screen size and device. Flourish is not limited to showing one visualisation at a time. Multiple visualisations can be combined to create an interactive slide show called a "story." Stories allow you to create narratives with your data, seamlessly connecting each slide with animations. It also lets you show data on a map, and you can use stories to change and animate the map to illustrate the data. You can also upload voice-overs to explain the data being shown. Adding voice-overs can make a visualization seem like a video file, with the added benefit of allowing users to interact with the illustration as it animates.

Creating a Visualisation

Creating a visualisation in Flourish is the first step toward making a stunning data-driven project, and you can do this in a matter of seconds! To create a visualisation, go to your projects page and click on **New Visualisation**. This will bring up the Flourish template chooser; if you are looking for a specific template, just search for it, and it will pop up! You can also filter all templates by their type. If you know the relation you want to visualise but are still figuring out which template fits best, you can filter by purpose.

Choosing a template opens the visualisation editor. Each Flourish template comes with some sample data, so you can see the template in action. The visualisation editor has four main parts:

Preview tab: This is where you can see what your project will look like when it is published.

Data tab: This is where you should upload your data. If you edit or replace any information within these cells, your visualisation will instantly reflect these changes.

Column bindings: This lets you control which columns of data are used in the visualisation, and in what way
.
Preview settings panel: This lets you change the look and feel of the visualisation. The settings at the top of the page are usually template-specific, whereas the bottom options (Layout, Header, Footer, Accessibility) work in the same way in all templates.

Once you have uploaded your data, explored the different settings in the Preview tab, and customised the chart according to your branding guidelines or personal preferences, you can add your visualisation to a story or publish and embed your project.

6.   Open-Source Intelligence (OSINT)

The Ultimate OSINT Collection
https://start.me/p/DPYPMz/the-ultimate-osint-collection

NixIntel's OSINT Resource List
https://start.me/p/rx6Qj8/nixintel-s-osint-resource-list

Technisette's OSINT Tools
https://start.me/p/wMdQMQ/tools

BBC Eye Forensics
https://start.me/p/m6OJgv/the-bbc-africa-eye-forensics-dashboard

Cyber Training
https://start.me/p/1kAP0b/osint-resources

OSINT Resources in Canada
https://start.me/p/aLe0vp/osint-resources-in-canada

This is the practice of gathering, analysing, and disseminating information from publicly available sources to address specific intelligence needs. It involves using various tools and techniques to collect data from websites, social media, news articles, and other public sources. This information can be used for different purposes, including cybersecurity, threat intelligence, investigative journalism, and even competitive intelligence. The OSINT framework encompasses a directory of tools for investigating people, social media, and digital footprints.

How Does Open-Source Intelligence (OSINT) Work?

- **Collection**: OSINT collection involves gathering publicly available information from a variety of sources such as social media, news articles, government reports, academic papers, and commercial databases. This process can be done manually by searching for and reviewing sources, or through automated tools that can search and aggregate information.
- **Processing**: Once the information is collected, it is processed to remove duplicate, irrelevant, or inaccurate data. This step involves filtering and categorising the information based on relevance and importance.
- **Analysis**: The processed information is then analysed to identify trends, patterns, and relationships. This can be done through data visualisation tools, data mining, and natural language processing to extract meaningful insights from the data.
- **Dissemination**: The final step in the OSINT process is disseminating the intelligence to decision-makers. This can be done in the form of reports, briefings, or alerts, depending on the organisation's needs.

OSINT is an iterative process that involves constantly refining the collection, processing, and analysis of information based on new data and feedback.

OSINT Techniques

The key to internet research is following the digital breadcrumbs that people leave behind online. This site provides numerous free open-source resources for researching and analysing information.

Visit https://www.osinttechniques.com/osint-tools.html to view pages designed to assist with discovering OSINT resources.

7.   TweetDeck
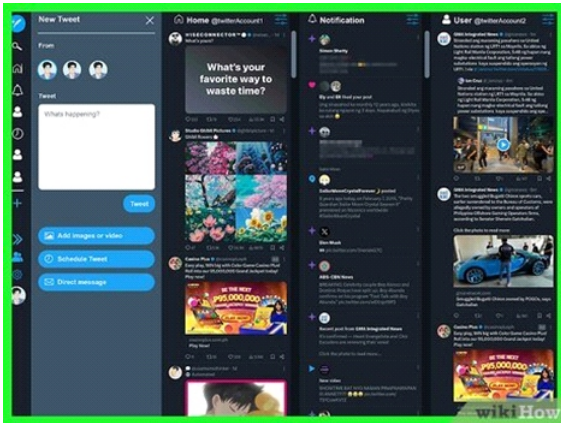
Officially **X Pro** since 2023, TweetDeck is a proprietary social media dashboard for the management of Twitter (now X) accounts. It is used for real-time monitoring of Twitter for news leads and source verification. Originally an independent app, TweetDeck was subsequently acquired by Twitter Inc. and integrated into Twitter's interface. It had long ranked as one of the most popular Twitter clients by percentage of tweets posted, alongside the official Twitter web client and the official apps for iPhone and Android. The TweetDeck interface allows you to manage multiple accounts, filter parts of your feed into their columns, and stay on top of topics more easily than with the Twitter website alone.

How to use TweetDeck
Go to https://tweetdeck.twitter.com in your web browser.

Click Log in. It is on the right side of the page. If you are already signed in to Twitter on your web browser, skip to step 4.

Log in with your X username and password. You can use X Pro to manage an unlimited number of X accounts, but X recommends signing in with an account that you do not share with others.

Browse the four columns. X Pro creates 4 columns the first time you log in:
Home: This is the normal tweet stream that you see on Twitter.com or the X app. This stream shows tweets from everyone you follow.

Notifications: Here is where you will find all interactions, such as people tweeting at or following you. This is the same as clicking Notifications on X.
Messages: All your Direct Messages appear in this column. Double-click a message to view its contents and send a reply.

Activity: This is the stream of actions being performed by users you follow, such as when they follow someone, favourite a tweet, or add someone to a list.

Adding Additional Accounts
Click the Accounts icon in X Pro. It is the icon that looks like two people's heads near the bottom-left area of the page.

Click **Link another account you own**. It is in the new Accounts column on the left side of the page.

Review the pop-up message and click Continue. This message explains that linking another account will allow your main account (the one currently logged in) to take actions on behalf of other accounts you link. This includes tweeting, sending Direct Messages, and making administrative changes.

Log in with the new account's login credentials. Enter the username and password for the account you want to add, and then click **Authorize** to confirm. This adds the other account to X Pro.

You will see a list of all accounts your primary account can manage at the bottom of the Accounts column. You can keep adding more accounts in the same manner. When you compose a new tweet, you will be able to select which user account you want to tweet as.

Managing Your Columns
Click + to add a column. It is the plus symbol on the icon bar that runs along the left side of X Pro.

Select a column type to add. You will see several options for additional columns that can be added to your X Pro view. In addition to the default column types you have already learned about, you will find:

User: This creates a column that displays the tweets of any user you manage.

List: You will be able to choose any existing Twitter list you have set up with the app or on Twitter.com.

Collection: Here, you will have the option to curate a list of tweets for the world to see.

Likes: A running list of everything an account liked on Twitter.

Mentions: It is like the Notifications column, but only displays tweets that contain your X @username.

Followers: A running list of people who start following your account.

Scheduled: Any scheduled tweets that have yet to be sent will appear here. The tweet will disappear from the column when the scheduled time arrives.

Messages (all accounts): Displays direct messages to any logged-in account in a single column.

Mentions (all accounts): The same principal as Messages, but with tweets that contain the handles of any logged-in account.

Trending: Shows a list of popular hashtags.

Select a user: If you have multiple accounts logged in, you will have to choose the user whose information will appear in the new column. For example, if you are adding a User column, you will choose which user's tweets you want to see in the column (e.g., your primary account or one of your linked accounts).

If you selected Mentions (all accounts) or Messages (all accounts), you will not have to choose a user.

Click the settings icon at the top of any column. It looks like two horizontal lines with hollow circles over each. This is where you can modify or delete the contents of the column. You will see some different options depending on the types of columns you have.

Click **Notification types** at the top of the settings menu to adjust which notifications appear in the column. This option appears in the Notifications and Activity columns.

Click **Tweet authors** at the top of the menu to filter what appears in the column based on a certain X user. You can also use the "Mentioning" menu to see certain types of tweets or exclude them based on criteria of your choice.

Click **Preferences** in the menu to adjust other settings, such as toggling notification sounds on and off and adjusting media sizes in tweets.

Drag your columns to rearrange them. There is a thin gray bar at the top-left corner of each column. If you would like to move a column to a different location in your X Pro view, hover the mouse cursor over that bar for a moment, and then drag the bar left or right. Lift your finger to drop the column into its new place.

To delete a column entirely, click the settings icon above the column, click Preferences on the menu, and then click X Remove.

<u>Sending Tweets</u>
Click the feather icon to create a new tweet. It' i the blue-and-white icon at the top-left corner of the X Pro page. The New Tweet column will slide out to the right of the feather icon.

To reply to a tweet, you see in one of your columns, click the chat bubble icon just beneath the contents of the tweetthis adds the recipient's account info to the New Tweet column.

To retweet, click the double-arrow retweet button beneath a tweet instead.

Select an account to tweet from. Each linked account's profile icon appears at the top of the New Tweet column. Click the photo of the account you would like to tweet from.

Compose your tweet. Like using the X app or website, there is a 280-character limit on tweets.

To add an image or video clip to your tweet, click Add Images or videos below the typing area, select the file you want to attach, and then click Open. If you would rather schedule the tweet for a different time and/or date, click the Schedule Tweet button, enter the desired time, and then select the date.

Click Tweet to send the tweet. If you scheduled your tweet for a different time, you do not have to click this buttonyour tweet will be sent automatically at the scheduled time.

Sending Direct Messages

Click a Direct Message to send a reply. You can skip this step if you want to create a brand-new message. If you want to respond to an existing message in the Messages column for any linked account, click the message to open the typing area, enter your message (and attach a photo or video clip if desired), and then click Reply to send it.

If you do not see the Messages column for the account you want to use, click the +, select New Column, and select the Messages column type. Click the user's profile icon and select Add column to view that inbox.

Click the feather icon to create a new message. If you want to create a brand-new Direct Message, you will click the blue-and-white icon at the top-left corner of the X Pro page. The New Tweet column will slide out to the right of the feather icon.

Click the Direct Message button. It is the last button on the New Tweet column. This changes the column from "New Tweet" to "New Message."

Select an account to use. Each linked account's profile icon appears at the top of the New Message column. Click the photo of the account you would like the message to come from.

Enter the recipient's username into the "To" field. Start typing a name or username into the field, and X Pro will display matching results. Click the recipient's account when you see it.

You can add additional recipients if you would like. Just click the white space next to the recipient and start typing another name.

Type your message. This goes into the "Message" box and can be up to 280 characters.

If you would like to attach a photo, click Add image below the typing area, select a file, and then click Open.

Click the Send message button. It is below the typing area. The message will be sent to the selected recipient(s).

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<u>Searching Tweets</u>

Click the magnifying glass icon to open the search bar. It is at the top-left corner of X Pro.

Type your search criteria. You can search for any text, including usernames and hashtags.

You can use an asterisk (*) in place of a word. For example, type "The best restaurant in Portland is *" (including the quote marks) to see results like "The best restaurant in Portland is Pizza World."

Press Return or Enter. The results of your search will appear in a column at the end of your existing columns. If you have a lot of columns, you will need to use the horizontal scrollbar at the bottom of the page to scroll to the right.

Filter the results. By default, the results will appear as a list of tweets. You can refine the results based on several criteria. Click the settings icon at the top-right corner of the search column (the two horizontal lines with circles) and then choose one or more of the following filtering options:
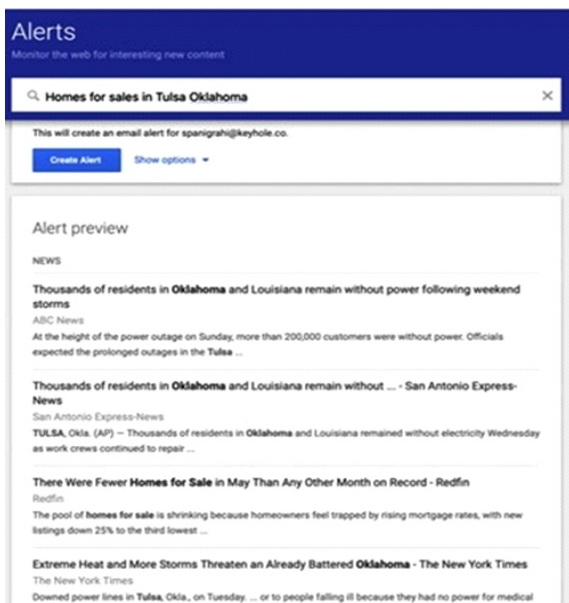
Click **Tweet Content** to filter by information in the tweet, such as certain words, date ranges, and whether or not to include retweets.

Click **Location** to choose a region to display tweets from.

Click **Tweet authors** to show only tweets by a certain user.

Click **Engagements** to filter by the number of replies, likes, or retweets.

8.   Google Alerts

Google Alerts is a free service from Google that monitors the web for any new content that matches a particular search query. At regular intervals, you receive alert emails with links to newly discovered content. You can set the frequency to at most once a day, at most once a week, or as soon as it appears. Google Alerts is a powerful tool that helps you stay on top of all the things that are important to you. Think of it as a way to monitor the web for specific topics, keywords, or mentions of you or a topic of interest. You can use the service to track news sources, blog posts, the web, videos, books, discussion forums and so on in any language and region of your choice.

How to Create Google Alerts
Visit the Google Alerts website: https://www.google.com/alerts and log in with your Google Account.

Enter the search term that you want Google to track and alert you about. This term could be your brand name, product name, your own name, or any related term from your industry. The term can be a word or phrase. Google will bring up a preview of the sort of alerts you might see.

Click on "Show Options" to customise the alert further. From the options provided, you can filter out the alerts to suit your requirements. These include things like language, region, frequency, and sources, among others.

Finally, click on the "Create Alert" button to create your alert. You can follow the same process for every alert you want to create.

Once the alert is created, you can come back to the page regularly to manage the keywords. You have the option to edit or delete each keyword. By clicking on the pencil icon, you can change the customisations for your alert.

<u>Optimising Google Alerts</u>
To optimise your Google alerts for better results, there are a few best practices you should implement. These include:
- Be specific with keywords
- Do not limit your alerts
- Use Google's filters
- Use quotation marks to combine terms that are more than one words

9.   Google Dorks

This refers to advanced search techniques to find specific, often hidden, information. They are combinations of keywords recognised by the Google search engine, used by advanced search operators. These combinations are used to refine search criteria and are particularly popular with attackers during the detection phase of an attack. For example, they can be used to quickly identify any Excel document containing the term "password", whose title contains the word "confidential", and originates from a particular company. Google Dork leverages advanced search operators to refine and pinpoint search results. When combined with keywords or strings, these operators instruct Google's search algorithm to search for particular information. This method can be used to find files of a particular type, search within a specific website, look for certain keywords in the title of a web page, or even find pages that link to a particular URL.

Different Google Dorking Techniques
Google Dorking techniques primarily involve using specific search operators. Below are some of the most commonly used methods:

Filetype: This operator searches for specific file types. For example, `filetype:pdf` would return PDF files.

Inurl: This operator can be used to find specific words within the URL of a page. For example, `inurl:login` would return pages with 'login' in the URL.

Intext: With this operator, you can search for specific text within the content of a web page. For example, `intext:"password"` would yield pages that contain the word "password".

Intitle: This operator is used to search for specific terms in the title of a

webpage. For example, `intitle:"index of"` could reveal web servers with directory listing enabled.

Link: This operator can be used to find pages that link to a specific URL. For example, `link:example.com` would find pages linking to example.com.
Site: The `site:` operator allows you to search within a specific site. For example, `site:example.com` would search within example.com.

These techniques are powerful tools for information gathering and should be used responsibly. While Google Dorking is legal and can be used for legitimate research and security purposes, misuse can violate privacy and potentially be illegal.

10.   NewsAssist AI:

The platform offers features like instant audio/video transcription, document and article summarisation, headline generation, and AI-powered writing assistance all from a single interface. Initially built for journalists and newsrooms, it has proven highly valuable for a wide range of users, including researchers, bloggers, legal professionals, students, and more. What sets NewsAssist AI apart is its ability to streamline content creation while preserving original sources to help avoid plagiarism, a common issue with many other tools. Supporting 16 languages (with more to come), it offers a seamless experience for users working across diverse content formats and fields. The web app transcribes audio/video, summarises articles to extract the best SEO headlines, extracts key info from large docs, and crafts story angles or full stories with a single prompt, in minutes. Whether you are editing, writing, researching, or creating, NewsAssist AI is a reliable and efficient companion designed to boost productivity and creativity. It is also free for now. The downside to the platform is that you have to accept the data policy to access the web app.

11. InVID-WeVerify

InVID toolkit

InVID Open InVID

Video Urls

Images Urls
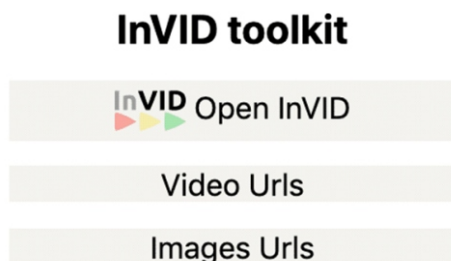
The InVID-WeVerify plugin is a robust, browser-based verification tool designed to assist journalists, fact-checkers, and researchers in authenticating visual content shared on social media platforms. Dubbed the "Swiss army knife" of digital verification, it offers a suite of features tailored for scrutinising images and videos. It is available free of charge for all Chrome-based browsers. It also includes a classroom section with educational content, videos, and gamification, as well as a demonstration section that allows users to practice verifying manipulated images and videos on their own.

Launching Invid-WeVerify
When clicked, the launcher gives the user three options.

Open InVID launches the plugin.

Video URLs display the URL of a video present on a web page.

Image URLs display the URL of an image present on a web page.

The latter two options can be particularly useful if a photo or video is embedded in a news site, for instance. Copy and paste the URLs to use them when InVid-WeVerify is opened.

Opening Invid-WeVerify
Once the tool is opened, you will see several tabs:

The **Analysis** tab is an enhanced metadata viewer for YouTube, Twitter, and Facebook's public videos. It allows the user to retrieve contextual information, location (if detected), most interesting comments, and apply a reverse image search and check for tweets on the video (on YouTube). For Facebook, the user needs to be logged in to a Facebook account to be able to process links.

The **Keyframes** tab allows you to copy a video URL (from YouTube, Twitter, Facebook, Daily Motion, or Dropbox) or to upload a local video file (in MP4, WebM, AVI, MOV, WMV, ogv, mpg, flv, and mkv format) to segment the video into keyframes. Once segmented, the keyframes can be searched with a left click on Google Image Search or with the contextual menu (right click) on Google, Yandex, Tineye, Bing, Karma Decay (for Reddit), and Baidu images.

The **YouTube Thumbnails** tab allows you to quickly trigger a reverse image search on Google, Bing, Tineye, or Yandex Images with four thumbnails extracted from a YouTube video. Up to four tabs (according to the number of thumbnails available) are opened automatically in the browser with the results of the reverse image search, while the four thumbnails are also displayed on the plugin page. This tab is somewhat redundant with what can be done with the Analysis tab, but it is very fast and efficient if you need to find out whether a YouTube video has been published before.

The **Twitter** search tab is an enhanced Twitter advanced search for keywords or hashtags using the **since** and **until operators** to narrow down the time interval of a query to within a minute. It automatically translates the calendar date, hour, and minute into a Unix timestamp to facilitate the query. The tab also includes other features from Twitter's advanced search, such as geocode, near, from, language, and various filter operators.

The **Magnifier** tab allows a user to display an image through its URL and to zoom or apply a magnifying lens on the image to help decode and read hard-to-see details in an image, such as car registration plates, military insignia, signs, and banners. The user can either enter the image URL or upload an image from a local drive with the local file button. Once the image is displayed from a URL, you can Google, Yandex, Tineye, and Baidu reverse image search on it or use the Image Forensic tab explained below. Other tools available in this tab are sharpen, image flip, and crop.

The **Metadata** tab allows the user to check the Exif data of a JPEG picture or the metadata of a video in MP4/m4v format. This is either through a link or a local file.

The **Forensic** tab provides eight different filters that can be applied to images to help the user detect digital image tampering, such as the use of Photoshop editing software. This requires advanced knowledge of how image filters

work, so the tab is not recommended for use by beginners to open open-source investigations.

The Contextual Menu
The InVid-WeVerify plug-in also brings a contextual menu to your browser. This is activated by a right-click on an image or a video URL when online. This menu allows the user to trigger this plug-in on a still image or on a YouTube video link. On an image, a right-click will propose either to open the picture in the Image magnifier to examine it more closely, or to launch forensic analysis or reverse image searches of this image. On a video link, a right-click will propose either an InVID-WeVerify video analysis or the YouTube thumbnail reverse search.

Essential Devices for Mobile and Field Reporting

- Smartphone with dual SIM and expandable memory: For switching networks and secure backup.
- Rugged power bank / solar charger: For power during field assignments.
- Faraday bag: Blocks all wireless signals and is, therefore, useful for securing devices from tracking or remote wipes.

Audio/Video Recording and Editing

1.   Shure MV88 or Zoom H1n:

The **Shure** MV88 is a stereo condenser microphone that plugs straight into your Lightning-equipped iPhone, iPad, or iPod touch. The mic incorporates AD conversion (16-bit/44.1kHz or 24-bit/48kHz) but no headphone output and needs Shure's free MOTIV app (iOS 8) for proper use. This provides adjustment of mic gain, mic pickup pattern (stereo, mono cardioid, mono figure 8 and raw mid-side), and M/S balance for the stereo option. Meanwhile, the **Zoom** H1n features 1-touch button controls that make it easy to record songs, audio for film, lectures, podcasting, and much more. Plus, it has a great monochromatic 1.25" LCD that is easy to read, even in the brightest lighting conditions. It comes equipped with an advanced onboard limiter that offers distortion-free signal recording of up to 120 dB SPL, for clean recording of even the loudest of bands. Also, a low-cut filter helps eliminate pops and unwanted low-frequency rumble. Its Playback Speed Control can assist you with transcribing music, interviews, and other types of recordings, all with no alteration of pitch. The H1n's USB port provides a digital output of the stereo mix and allows data to be sent to and from your computer. It also allows the H1n to be used as a USB microphone and a microSD card reader.

Please note that both devices cost about N150,000-N200,000, each.

2.   LumaFusion

LumaFusion is a mobile video editing powerhouse with an intuitive, easy-to-understand UI/UX. From cutting a video to exporting directly to YouTube, LumaFusion offers a whole video editing experience that you can easily use anywhere. It is available on Android (N14,000) and iOS (N39,900); note that these purchases are one-off.

Getting Started with LumaFusion
First, open LumaFusion. The interface is similar across iOS and Android devices, with slight variations depending on your screen size. You can use the touchscreen, a keyboard, and trackpad, or an Apple Pencil for editing. To start a new project, click the plus sign in the bottom left corner and create a new project. You can name your project and drag your first clip to the timeline. LumaFusion will automatically use the clip settings to create the project.

Understanding the LumaFusion Interface
The LumaFusion interface is user-friendly and customisable. Here are the main components:

Import Area: Located in the top left corner, this is where you import your video footage, audio files, and other media.

Playback Window: This is your preview area for edits, located at the top of the screen.

Timeline: The main timeline is at the bottom, where you arrange your clips and audio.

Menus, Tools, and Settings: Access various editing tools, menus, and settings at the bottom of the screen.

You can change the layout of the interface by clicking the layout icon in the bottom right corner. Experiment with different preset layouts or resize elements to suit your preferences.

Editing Your Video in LumaFusion

Before you start editing, check the settings in the bottom right corner to ensure they are correct. You can customise frame rates, aspect ratio, and color space.

Trimming and Arranging Clips:

Identify the Starting Point: Use the visual representation of the audio wave to identify where you want your video to start.

Trim the Beginning: Drag the white arrow across the clip to trim off the unwanted portion.

Adjust the Clip Size: Double-pinch on the screen to zoom in or out of the timeline and adjust the clip size.

Remove Unwanted Sections: Use the scissors tool or two-finger tap to cut the clip and remove unwanted sections.

Rearrange Clips: Tap, hold, and drag clips to rearrange them on the timeline.

Adding B-roll and Overlay Footage:

B-roll is supplementary footage used to enhance storytelling and engagement in your videos. It is often used as cutaway shots to provide context, illustrate a point, or smooth transitions, essentially complementing the main "A-roll" footage.

Import B-roll: Go to the import area and select your B-roll footage.

Trim B-roll Clips: Use the mini timeline to specify start and end points for your B-roll clips.

Drag and Drop: Drag your B-roll clips to the timeline and place them on a layer above your main footage.

Mute B-roll Audio: Use the track controls to mute the audio on your B-roll layer.

Adding Titles and Text:
Add a Title: Click the plus icon at the bottom of the screen and choose "Add Main Title."

Customise the Title: Double-tap on the title clip to open the effects editor and customise the text, font, color, and shadow.

Adjust Position and Duration: Drag the title to the desired position on the timeline and adjust the in and out points to control its duration.

Adding Transitions and Effects:
Select Transitions: Go to the top left corner and choose "Transitions."

Apply Transitions: Drag and drop transitions between clips on the timeline.

Adjust Transition Duration: Select the transition in the timeline and drag the arrows to adjust its duration.

Add Zoom Effects: Double-tap on a clip, go to "Size and Position," and scale up the clip to create a zoom effect.

Adjusting Audio Levels:
Set Primary Audio: Ensure your primary audio track is set to the correct level.

Adjust Music Volume: Use the volume slider to adjust the volume of your music track.

Mute Unnecessary Audio: Mute any unnecessary audio tracks, such as B-roll audio.

Monitor Audio Levels: Play your video and monitor the audio bars to ensure the levels are not too loud or too quiet.

Use Audio Ducking: Enable audio ducking to automatically lower the music volume when there is spoken audio.

Colour Correction:
Open Colour and Effects: Double-tap on a clip and go to the "Colour and Effects" area.

Use Presets or Manual Adjustments: Choose from various presets or manually adjust brightness, colours, saturation, contrast, and levels.

Save Colour Presets: Save your custom colour adjustments as presets for future use.

Apply Colour to Multiple Clips: Use the multi-select tool or clipboard to copy and paste colour effects to multiple clips.

Exporting Your Video
Once you have finished editing, it is time to export your video.

Click the Share Button: Click the share button at the bottom of the screen.

Choose Export Destination: Choose to save the video to your device, YouTube, Vimeo, or another destination.

Adjust Export Settings: Review and adjust export settings, such as resolution, frame rate, and bit rate.

Render and Preview: Click the share button to render your video. Once it is done, play it back to ensure everything looks and sounds good.

LumaFusion offers fast rendering times, allowing you to quickly export your videos.

3.   KineMaster

KineMaster is a mobile video editing app available on IOS and Android devices. Packed with everything from standard templates and tools to AI background removal, KineMaster's geared toward making your mobile edit as painless as possible. It is a user-friendly app, which makes it great for beginners. The interface is what you would expect from a video editing app, and it offers full-screen editing to boot if you want to feel like you are editing on a desktop, this is the app for you. The KineMaster app can be downloaded and used for free. Android users can download the app from Google Play, while those with an iPad or iPhone can head to the App Store. However, using the free version of KineMaster comes with its limitations. One of the main things to point out is the watermark, which will appear on any content you create, you will also see ads from time to time.

On top of that, the free version does not include premium assets, nor does it grant you cloud storage. KineMaster Premium gets rid of the watermark and ads, offers unlimited access to premium assets, and gives you 10 GB of cloud storage. It is available on a monthly or yearly basis for less than N10,000, monthly.

How do you use KineMaster?
Download and/or open KineMaster. Create an account under the 'Me' section. This step is not essential, but if you are going to use KineMaster regularly, it will help you store information more conveniently. You can create your account with your Apple, Google, or email credentials.

Open a new project. You can name your video and select the aspect ratio. Select your media. If you are comfortable doing so, allow KineMaster full access to your device's media library. This will save time if you are importing multiple clips. To add more media to the timeline, hit the 'Media' button at the top of the options wheel. If you would like to capture footage in-app, click the

red shutter button in the middle of the options wheel to open your device's camera. You can also record a voiceover directly to the app tap the microphone button to do so. Tap individual clips to bring up the editing menu trim, split, and adjust to your heart's content.

Add text, transitions, and effects. Some of these are housed in the same section as the editing menu, while others can be found in the 'Layer' section.

Add logos and captions. These can also be found in the 'Layer' section. You can also generate auto-captions under a clip's individual effects menu. If you are using the free version of KineMaster, your options may be limited, and you may need to download plug-ins to use some of these features. Save the video to your device. If you are on KineMaster Premium, you can save your project to the KineCloud.

4.   Adobe Premiere Rush

This is an all-in-one video creation tool that you can use to capture, edit, and share professional-looking videos quickly on your social channels, such as YouTube or Facebook. Premiere Rush is ideal for creating short videos (20 minutes or less) that you can share online with your social media followers or friends. Create and share content with high-quality motion graphics, audio, and colour for YouTube, Facebook, Instagram, and more. You can use Rush for free on mobile with feature limitations, while using it on the desktop requires a subscription. The app is available for Android, iOS, macOS, and Windows.

How to get started
Premiere Rush has an intuitive and easy-to-use interface. To get started, launch the product and go through the one-minute interactive tutorial that walks you through the basics of editing your first video. The tutorial covers all of the key steps and features in Premiere Rush that you need to create and share your video. Shoot videos and images or photos right from within the app or bring in media stored on your device. You can then edit the clips in Premiere Rush, refine colour and audio with easy-to-use controls, and add titles, audio, and transitions. When your video is ready, save or export your video or share it directly on various social channels, such as YouTube or Facebook.

Capture Footage or Import Media
You can capture footage using any phone, DSLR, or mirrorless camera and bring the footage into Premiere Rush. Premiere Rush automatically separates the scenes for you into clips. You can also bring in audio files saved on your phone or use the Premiere Rush soundtracks that are available from within the product. When using Premiere Rush on a mobile device (such as iPhones, iPads, or Android phones), you can use the capture experience built right into the product. This feature gives you access to more control if you need it and a seamless experience of bringing your captured media quickly into a project.

Edit, Refine, and Export Video

You can edit and refine your videos in Premiere Rush in many ways. You have access to the same editing capabilities across your mobile and desktop devices. After you have brought in your video clips, you can keep the good parts, cut out the slow or boring parts, shuffle scenes around, and add audio and animated titles or motion graphics.

Edit Your Video in the Timeline

After bringing your footage into your Premiere Rush project, you can view the clips in the timeline and make changes. You can add more clips, such as additional videos, images, graphics, or music. You can split clips, move them around, or trim them right in the timeline.

Add and Edit Transitions

Add transitions between clips to smoothly move from one clip to another. Generally, you use a simple cut to move from shot to shot, but you can also add transitions between shots by phasing out one and phasing in another. Premiere Rush provides a few transitions that you can apply to your clips to enhance your video.

Add and Edit Titles

Easily add text overlays and animated motion graphics to your videos, and customise things like font, font style (bold/italic/underline), font size, and colour. Easily edit text, and move, scale, and rotate title and graphic templates directly on the Preview monitor. Take advantage of the professionally designed, built-in Motion Graphics templates and access more customisable animated titles, lower-thirds, transitions, and graphics from Adobe Stock right from within the app.

Add Audio Clips or Record Voiceovers

Import music and audio clips into your Premiere Rush projects. Or, you can record voice-overs directly into your timeline. Premiere Rush also comes with 10 royalty-free soundtracks that you can import and use in your video.

Adjust Colour

Premiere Rush includes several colour presets that you can easily apply to clips to give them a certain look and feel. Click a colour preset to apply it to your selected clip, and if you like, you can tweak the intensity of the preset. You can also use additional editing tools to refine colour further.

Adjust Speed

Speed up or slow down your videos to highlight impactful moments and add drama to your video.

Crop, Scale, Feather, and Tweak Opacity

You can transform your clips in multiple ways. You can position your clips, change their height, width, or opacity, and crop or rotate video using Premiere Rush's transform controls. You can also feather (smooth or blur the edges of) your clip. Feathering is a great technique to spotlight the middle of the video frame and focus the viewer's attention on that point.

Export or Share Video

After you have created your video, you can save it on your computer or directly share it on social media channels, such as YouTube, Facebook, Instagram, and more.

5.   CapCut
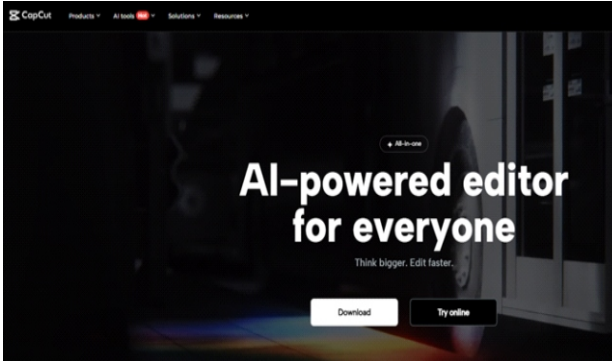
This is an AI-powered creative platform that helps users edit videos and image designs. The platform offers easy-to-use video editing functions and tools such as free fonts and effects, and

advanced features like keyframe animation, smooth slow-motion, and high-quality graphics. It is a user-friendly and accessible video editing app that offers a variety of editing tools that help users cut, merge, and enhance their videos with filters, effects, and music. CapCut allows users to connect their accounts on multiple platforms such as TikTok, Facebook, and Google, and you can also link your email. It suits all skill levels and is compatible with online, Windows, and mobile editing. What makes CapCut exceptional is its knack for enhancing videos not just for TikTok, Facebook, and Instagram but also for YouTube, ensuring a polished, professional result. CapCut provides a lot of features to bring your vision to life, including editing tools, transitions and effects, text and stickers, or filters and beauty effects. Moreover, you can explore various music and sound effects, speed adjustment possibilities, high-quality export, as well as overlay and background customization options.

CapCut video templates are easy-to-use, pre-designed setups within the CapCut video editing app. These templates include things like clips, animations, and transitions to boost the look of your videos instantly.

How Does CapCut Work?

Mobile Version:
- Install the CapCut app and launch it on your device.
- Tap the "New Project" icon.
- Add one or multiple video clips to your project.
- Start your editing process on the timeline.

The CapCut interface comprises four key components: the Preview Window, Timeline, Main Toolbar, and Sub Toolbars. The Preview Window lets you play back videos and interact directly with clips. The timeline is your workspace for arranging and editing video, audio, overlay, effects, and text tracks. The Main Toolbar appears when no clip is selected. Finally, the Sub Toolbars are tailored for different tracks and clips on the timeline.

CapCut automatically saves your project drafts, allowing you to pause and resume editing at your convenience.

Using CapCut on your desktop is just as simple:
- Go to CapCut.com.
- Click "Download" for Windows or Mac.
- Run the installer.
- Log in to CapCut for PC with your existing account or create a new one.

Once logged in, you will unlock the full spectrum of CapCut's media editing capabilities. The CapCut PC version features a user interface similar to the mobile app, making it a seamless transition. You can effortlessly add animated text, stickers, transitions, effects, and filters as you would on your phone.

CapCut exports include watermarks by default; removing them requires a monthly subscription of N9,900.

Getting Started with CapCut
Download the app. CapCut is available to download on iPhone and Android devices. Navigate to your respective application store (i.e., Apple App Store or Google Play Store. Give CapCut access to your camera roll. This allows you to insert the video clips you want to edit! Open the app and tap on the "New Project" button at the top of your screen. Tap on the green 'Confirm' button. This acknowledges that CapCut needs access to your photos. On the next pop-up window, tap the button that allows access to all photos. You will only need to complete this step the first time you open the app!

Familiarising Yourself with the Interface
- **Start a New Project:** After opening the app, tap on the "New Project" button - a new screen will pop up that displays your camera roll videos.

- **Select a video clip:** Locate which video clip you want to add to your project by scrolling through the new page that shows your camera roll. Tap on the thumbnail of your desired video and tap the "Add" button in the lower right corner of your screen.
- **Get to know your workspace:** CapCut directs you to your primary workspace after you upload your first clip. This is where you will spend most of your time in the app. From top to bottom, there is the preview panel, timeline, and toolbar.
- **View the preview panel:** This is the top half of your screen, and it displays a preview of what your edited video clip will look like.
- **View the timeline and toolbar**: These are the bottom half of your screen. The timeline is below the preview panel, and it is where you will perform all your edits. The toolbar at the very bottom of your screen contains all your editing tools, like split, audio, text, stickers, effects, and more.

Completing Basic Editing

Trim video clips: "Trimming" in video editing is when you shorten the beginning or end of your video. To trim the beginning of your clip, drag your finger from right to left on the timeline until the playhead is where you want the video to start. The playhead is the white line underneath the play button. Next, tap on the clip and drag the thick white line on the left to meet the adjusted playhead. Your video will now start at the location where you put the playhead. Trimming means that the part of your clip that used to be between the thick white line and the adjusted playhead will be completely cut out. To trim the end of your video, perform this step on the right side. Drag the timeline to the place you want the video to end (indicated by the playhead). Then tap on the clip and drag the thick white line on the right to meet the playhead.

Join video clips: If you want to add more clips to your project, use the 'Join' tool to do so. Tap on the white "plus" button on the right of the timeline. Then select another clip, tap on its thumbnail, and click "Add" in the lower right corner. You will now see the new clip located to the right of the old clip on your timeline. If you want to switch around the chronological order of your clips, simply press, hold, and drag a clip in the timeline to your desired location.

Split video clips: To split a clip in two, drag the timeline until the playhead is

where you want to split. Tap on your clip, and then on the "Split" icon in the toolbar. Your result will now display two separate clips, rather than one. This can be helpful if you want to place a separate clip in the middle of one. Split the original clip where you want the other one to go, then use the Join tool to add a new video. Drag this new clip in between the split you just created.

<u>Applying More Advanced Edits</u>

Change the speed of your video: Tap on a clip in your timeline, then tap on the "Speed" button in the toolbar - the icon looks like a small circle inside a larger circle. Something to keep in mind when slowing down a clip is that it may affect the quality of your video, depending on the frame rate of your original clip.

Use "Normal" speed editing: CapCut has two types of speed edits: "Normal" and "Curve." Tap on "Normal" to speed up or slow down the entire clip. You will see a slider with speeds ranging from 0.1x to 100x. Simply drag the blue circle along this slider to whichever speed you want, then tap the bottom right check mark. Anything below 1.0x will slow it down, and anything above 1.0x will speed it up.

Use "Curve" speed editing: Tap on "Curve" to vary the speed throughout different parts of your clip. Tap on any of the pre-made templates CapCut provides, or create your curve. To create a custom curve, tap on "Custom" and manipulate the yellow line by dragging each of the four dots up or down. Placing a dot higher (causing the curve to go up) will speed up that section of the clip, and placing it lower (guiding the curve down) will slow it down. Tap on the bottom right check mark when you are done.

Reverse a clip: To put your video clip in reverse, tap on the clip and then select "Reverse" in the toolbar - the icon looks like a triangle inside a circle.

Tap "Audio" in the toolbar to add some background audio: CapCut has four options for types of additional audio. Tap "Sounds" for music, "Effects" for sound effects, "Extracted" for the audio from any video in your camera roll, or "Voiceover" for a voiceover recording.

Download sound effects or music: For "Effects" and "Sounds," browse through CapCut's different categories and tap on any sound effect or song to preview the audio. Once you find one you want to add, tap the download

button next to the sound you pick. Proceed to tap on the plus sign button, which will appear on screen once the download is complete.

Add sound effects or music: For "Effects" and "Sounds," browse through CapCut's different categories and tap on any sound effect or song to preview the audio.

Extract audio from a video in your camera roll: After tapping on "Extracted," you will see a page of all your camera roll videos. Tap on a video that you want to take audio from, then tap on "Add" in the bottom right corner. The sound from that video will now appear as audio in your project.

Record a voiceover: First, drag the playhead to wherever you want the voiceover to start. Tap on "Voiceover," then tap and hold the blue circle icon with the microphone to start recording. simply release your finger to stop recording. Tap the bottom right check mark when you are done.

Move around your audio: Any audio you add will appear below your clip(s) in the timeline. Tap, hold, and drag the audio to your desired location in the timeline. You can also trim the clip if you like.

Add a filter, text, or stickers for a final touch: Put your creative skills to the test and overlay different customisable items onto your video. In your toolbox, tap on icons including "Text," "Stickers," "Effects," and "Filters." CapCut lets you move these effects around in the timeline to change their duration and placement. Simply tap on it in the timeline and manipulate it as you would a clip.

Type out text: Tap "Text," type something out, and then tap on the text in the preview screen. Now you can change its appearance by tapping on any of the icons in the toolbar. These include "Style" (changing colour, font, size, etc.), "Effects," "Bubble," and "Animation." To change the placement, tap on the text in the preview panel and drag it to your desired location.

Browse the stickers: CapCut provides a wide array of stickers to place on top of your video. After tapping "Stickers," browse through the different categories by swiping left or right on the panel displaying all the stickers. To add one, tap on a sticker, then tap the check mark on the right side of your screen. CapCut lets you change the placement and size of stickers. Tap on it

in the preview panel, and then drag it around and/or pinch it with two fingers.

Add different effects: CapCut's effects are separated by "Video effects" and "Body effects." "Video effects" overlay the effect on the entire video screen, while "Body effects" detect any bodies within your clip (adding effects specifically to those figures). Test these out and tap on the bottom right check mark to add them.

Apply a filter: CapCut also gives you a plethora of filters to change the overall colour appearance of the video. Select a category (including styles such as "Food," Movies," or "Retro"), then tap on any filter within that category. Again, tap on the bottom right check mark to apply it.

Undo an edit: If you ever complete an edit that you do not want to keep, you can easily undo it. Simply tap on the back arrow located directly above the timeline to reverse an action.

Export your video
Once you are happy with your edits, tap the "Export" button to save your video to your desired resolution. Your finished video will be saved to your device for easy sharing.

6.   YouCut

YouCut is a mobile video editing app that stands out for its user-friendly interface and efficiency, making it an excellent choice for social media content creators and casual editors. The app provides all the essential editing tools you needsuch as clip trimming, merging, and adding transitionswhile also offering creative features like filters, text overlays, and background music integration. Its streamlined design allows users to quickly piece together engaging videos without a steep learning curve, catering to both beginners and those who prefer a straightforward editing process.

Beyond its intuitive editing suite, YouCut delivers fast performance with minimal lag, ensuring that even longer edits remain smooth and responsive. The app's output quality is impressive, and while it may include watermarks on free exports, these can typically be removed through in-app purchases. Although YouCut might not offer the advanced functionalities found in professional desktop editors, its balance of ease-of-use, robust basic features, and efficiency makes it an ideal mobile solution for quickly creating polished video content on the go. It is available on iOS and Android devices.

Secure Backup and Storage

- **Encrypted USB drives:** For secure file transport and storage.
- **Portable SSD with hardware encryption:** For backup in sensitive assignments.

1. Dropbox

Dropbox is a cloud storage service that enables users to store files securely online and access them from virtually anywhere with an internet connection. Dropbox is designed to be straightforward to use, regardless of skill level. Dropbox allows users to save files within online folders and sync them across devices. Automatic file backup means users do not risk losing or misplacing a file. It also helps to save precious storage space as it bypasses the user's hardware. You can use Dropbox links to share files and folders with other people without sending large attachments. Dropbox offers a free plan that includes 2 GB of storage. You can pay to increase that to as much as 3 TB with a subscription.

How Does Dropbox Work?
Installing the App: You can use Dropbox directly from your web browser, but for the best experience, it is recommended to install the Dropbox app on your devices. The app is available for Windows, macOS, iOS, and Android.

Creating an Account: To get started with Dropbox, you need to create an account. You can sign up for free, which gives you a limited amount of storage, or choose from various paid plans that offer more storage and additional features.

Uploading Files: Once you have the app installed, you can start uploading

files. Simply drag and drop your files into the Dropbox folder on your computer, or use the upload button on the web interface.

Syncing Files: Dropbox automatically syncs your files across all your devices. This means that any change you make to a file in your Dropbox folder is instantly updated everywhere else.

Sharing Files and Folders: To share a file or folder, right-click on it and select the share option. You can then generate a link that you can send to others, or invite people directly via their email address.

Google Drive: Google Drive is a cloud-based storage service that enables users to store, access, and share files and folders online. The web service provides a centralised cloud storage hub where changes to content are automatically saved and synchronized across all connected devices. This allows multiple users to collaborate on the same content in real time and always see the latest version of each file.

How to Add Files and Folders to Your Dropbox Account

Once you have downloaded the mobile and desktop apps, it is time to put Dropbox to work by adding your files, pictures, and videos.

Add a file or folder to your account via dropbox.com

Once you have signed in at dropbox.com, adding files to your account is as easy as dragging and dropping from your computer's file system. Or, just follow these steps to upload a file or folder from your computer:
- Log in to dropbox.com.
- Click Upload under the search bar at the top.
- Click Files or Folders: If you choose Files, select as many files as you like and click Open. If you choose Folder, select a folder and click Upload.

Add files or folders to Dropbox from your computer

Drag and drop files or folders into the Dropbox folder on your desktop. Or, use the Save As menu option in most applications to save files directly to your Dropbox folder. Files and folders in your Dropbox folder will automatically sync to dropbox.com, and to the Dropbox desktop or mobile apps on any other devices you have connected to your account.

Add a file or folder from your desktop to your Dropbox account
Drag and drop the file or folder into the Dropbox folder on your hard drive.

Select the Dropbox folder when using the Save As option in most applications.

Like to use Microsoft Office? Dive into the "General" area of "Preferences" and you can make Dropbox a default "Save As" location.

Add a file or folder using the Dropbox mobile app
You can manually upload files, photos, and videos to your Dropbox account using the mobile app. The steps you take to manually upload files on your mobile device will vary slightly depending on the type of device you use.

Android phone or tablet
- Open the Dropbox mobile app.
- Open the folder where you would like to save your files.
- Tap "+" (plus).
- Tap Upload files.
- Find the files you want to upload, and tap to select them for upload.
- Tap Upload.

iOS phone or tablet
- Open the Dropbox mobile app.
- Open the folder where you would like to save your files.
- Tap "+" (plus).
- Tap Create or Upload File.
- Tap Upload File.
- Tap Browse and find the file you would like to upload.
- Select the location where you would like to save the file in your Dropbox account.
- Tap Upload.

How to automatically upload photos from the Dropbox mobile app
You can turn on camera uploads to automatically save photos and videos from a mobile device to Dropbox.
Android:
- Open the Dropbox mobile app.
- Tap the menu button.

- Tap Settings.
- Under Camera uploads, tap Turn on camera uploads.
- Tap Allow.

iOS:
- Open the Dropbox mobile app.
- Tap the account button.
- Tap Camera Uploads.
- Tap Ok to give Dropbox access to your photos and videos.
- Choose what you would like to back up and whether you would like to use cell data.
- Tap Backup my photos.

How to Back Up Your Computer

You can automatically create a backup of key folders stored on your computer in your Dropbox account. After the initial backup, any changes you make to those folders or their contents will be automatically updated on your computer and your Dropbox folder. You can access the folders, which are backed up under "Mac" or "PC", from anywhere you use Dropbox, such as dropbox.com, the Dropbox mobile app, and the Dropbox folder in File Explorer (Windows) or Finder (Mac).

How to Create a Folder in Dropbox

Create a folder on dropbox.com
- Log in the Dropbox.com.
- Click Create folder.
- Name your folder.
- Click Create.

Create a folder on the Dropbox mobile app
Android:
- Open the Dropbox mobile app on your Android device.
- Tap the "+" (plus sign).
- Tap Create new folder.
- Type a name for your folder.
- Click Create.

iOS:
- Open the Dropbox mobile app on your iOS device.

- Tap the "+" (plus sign).
- Tap Create folder.
- Next to the Folder name, tap New folder to name your folder.
- Type a name for your folder and tap Done when finished.
- Click Create.

How to share a file or folder from your Dropbox account
- Share a file or folder from dropbox.com
- Log in to dropbox.com.
- Hover over the item you would like to share.
- Click the Share icon that appears.
- Type the email or name of the person, people, or group you would like to share with.
- Select Can edit or Can view from the dropdown menu.
- Click Settings to customise who has access or disable downloads. You can require a password and set an expiry date too.
- Click Share file or Share folder. Recipients will receive an email invitation to the content you shared.

You can also click Copy link (If a link has not been created yet, click Create and copy link). The link will be copied to your clipboard. You can then paste it into an email, chat, or other message.

Share a file or folder from the Dropbox folder from the Dropbox desktop app
- Open the Dropbox folder on your computer.
- Click Share.
- Type the Email, name, or group of the person (or people) you would like to share with.
- Select 'Can edit' or 'Can view' from the dropdown menu.
- Click Share. They will receive an email with a link to the file or folder.

Share a file or folder using the Dropbox mobile app
- Navigate to the file or folder you want to share.
- Tap "…" (ellipsis).
- Tap Share.
- Tap Create a link.

If a link was already created for this content, tap Share link next to Anyone

with the link can view. Select the way you would like to share the link from the options: Can edit or Can view. Either option will allow them to comment.

How to Scan Documents and Upload Them Straight to Dropbox from the Mobile App
Easily upload, organise, and share your scans with the Dropbox doc scanner. You can even search for text within your scans thanks to Optical Character Recognition (OCR). Follow these steps to scan and save a doc from your phone:

Open the Dropbox mobile app on your Android or iOS device.

Tap "+" (plus).

Choose Scan Document (on Android devices, you will need to select Allow when prompted).

Take a picture of the content you want to transform into a document. You can also select an existing image from the iOS Camera Roll or Android, tap the photos icon.

Dropbox Automation Options
To create an automated folder:
- Log in to dropbox.com.
- Click Create in the upper-left.
- Click Automated folder.
- Name the folder and select an automation option.

Options provided will be Files added to a folder are saved as PDFs, Files added to a folder are unzipped, Files added to a folder are tagged, Files added to a folder are saved as images, Files added to a folder are saved as videos, and Files saved to a folder are sorted based on category.
Follow the prompt(s), then click Create.

How to Add Automation to an Existing Folder
To add automation to a folder:
- Log in to dropbox.com.
- Hover over the folder and click "…" (ellipsis).
- Click Add automation.

- Select the automation option and click Next.
- Follow the prompt(s), then click Add.

Note: You must have editing abilities for a folder to add, edit, or delete automations.

How to Share an Automated Folder

Automated folders can be shared in the same way as any other folder. The folder automation will remain for anyone in the folder list. Once an automated folder has been shared with someone, they will see notation that the folder is automated, as well as which automation option was selected.

Audio/Video Transcription

1.   Google Pinpoint Transcription
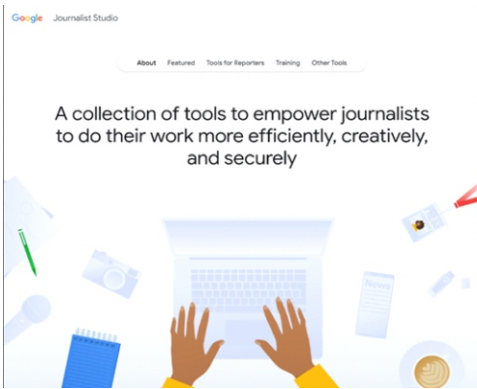
Pinpoint is a free AI-powered tool from Google Journalist Studio designed to help you manage and analyze large collections of documents. The transcription feature is an integral part of Pinpoint, which allows you to transcribe audio and video files. You can load the files directly from your computer or Google Drive. Once processed, Pinpoint creates a text transcript for your uploaded audio. This transcript is searchable within your Pinpoint collection. Audio files up to 2 hours long can be uploaded and transcribed into searchable text files. Pinpoint supports 15 languages for audio transcription.

Sign up
Go to journaliststudio.google.com/. Journalist Studio is a collection of all of our tools that reporters can use for telling stories in a single location. Scroll down through the tools until you see Pinpoint, or go to journaliststudio.google.com/pinpoint/ and click get started. You will need to use a Gmail address to request access. The Google team aims to review all access requests within 24 hours.

Pinpoint is divided into two sections: "My Workplace," where you can upload and work on your documents, and "Explore" where you can search through available collections.

Transcription
Using the add documents button, you can upload audio files to your collection. Supported formats include: .MP3, .WAV, .FLAC. and .WAV.

Once your audio file is uploaded, Pinpoint will automatically create a transcription. You can playback the audio in the tool and click on the blue timecode to jump to the corresponding piece of audio. The menu in the top right gives you options on your recording, including: Download transcription and Download audio file.

2.   **Restream Transcription**
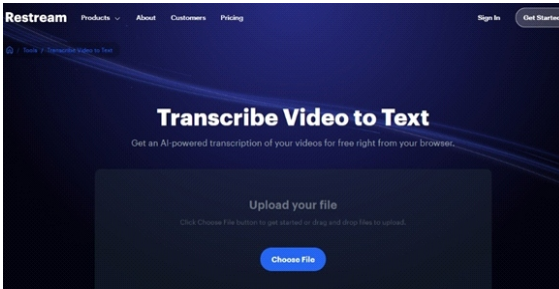
Restream's free transcription feature allows you to easily turn your audio or video files into text.   All tools are available for free. You can upload multiple file formats, including MP4, MOV, MKV, WEBM, AVI, MPEG, and more (videos) or MP3, WAV, FLAC, AAC, and more (audio). Your transcribed content will be downloaded in TXT format. There is no duration limit to the files that can be transcribed. The transcription supports 15 languages. It works directly

from your browser without requiring additional software or sign-ups, and transcribed files are automatically deleted from Restream's servers after transcription to ensure privacy. This transcription tool is web-based and compatible with any device running a modern browser, including Windows, macOS, Linux, and mobile devices.

How to Transcribe an Audio File or Podcast to Text
- Click Choose File to upload your file.
- Click Transcribe.
- Click Download.

How to Transcribe a Video File to Text
- Click Choose File to upload your file.
- Click Transcribe.
- Click Download.
- The audio and video transcription tool can be accessed via the Restream website.

Picture Editing

1.   Snapseed

Snapseed is a photo-editing app developed by Google, available for Android and iOS. It offers a wide range of tools and features to enhance and transform images, making it suitable for casual users and professional photographers. You can take photos in the app and edit them, or edit pictures already in your camera roll, including photos in JPG and RAW formats.

Applying Looks in The Snapseed App
Something we now find in most mobile photo editing apps is filters. These are used to apply a style to a photo quickly. You will find filters in Snapseed, but they are called Looks. The Looks are easy to apply to a photo. They appear as a series of thumbnails below the image, showing a preview of how it will look when applied. Just tap the thumbnail you want to use to make the change. This opens as a larger preview of the image, which you can then accept or cancel.

When we apply a look to a photo in the Snapseed app, you may notice that it is created from a series of edits that flash up in the app interface. These edits are created using the Snapseed Tools. These are individual editing adjustments you can select and apply to an image.

The Individual Snapseed Tools
The individual editing tools in Snapseed are accessed from the Tools link at the bottom of the interface. Tapping the Tools link then displays a large

selection of editing tools/ We now see a grid of icons representing the 24 different Snapseed editing tools. These are the same tools that were used to produce the Looks we discussed earlier. Tap an icon in the grid to apply one of the Tools from the list. The image then opens in the Tool with the default settings applied.

The Snapseed Undo Feature

Something else that is useful about the Snapseed app is its Undo feature, as it allows you to edit the effects you have applied to the image. Although Snapseed's Undo feature allows you to perform the obvious actions like Undo, Redo, and Revert to the original image, it also has something else. When you click the "View Edits" option, you are presented with a list of the edits you have applied to the image. The simple screen has a lot of hidden power you can use to check and adjust your editing. First, it lets you see all the edits applied to the image. This includes the individual adjustments that make up any Looks you applied. This list can be used as a history list. Tap on one of the edits to see how the image looked at that point in the editing.

Please note that Snapseed is free in the Android and iOS app stores, and is only available on smartphones as an app, with no desktop or web version.

Using Snapseed

You can download Snapseed from the App Store for free. There are no hidden in-app purchases or subscription fees.

Open an Image in Snapseed Photo Editor

In the Snapseed app, tap Open.

Tap **Open From Device** to access your iPhone's photo library and albums. Or swipe across the row of image thumbnails to see your recent images. Tap on the photo you want to open.

There are two Snapseed photo editing areas within the app: Looks and Tools. Switch between these areas by tapping Looks or Tools at the bottom of the screen.

Enhance Colour, Exposure and Detail

In this section, you will discover how to improve colour, exposure (brightness levels), and detail in your photos. With a few simple edits, you can turn an

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ordinary, dull photo into a spectacular masterpiece. Open a photo, then tap **Tools**. You will see the menu of Snapseed photo editing tools.

Tune Image

The Tune Image tool allows you to get perfect colour and exposure in your photos. This is the tool you will use most often in Snapseed editing because it greatly improves any photo. In the Tools section of Snapseed, tap Tune Image. Swipe up or down on your photo to open the Tune Image menu. Select the tool you want to use, e.g., Brightness, Contrast, etc.

Here is how the Tune Image tools affect color and exposure in your photo:
- **Brightness**: Darken or brighten the entire image.
- **Contrast**: Increase or decrease the difference between the dark and bright areas.
- **Saturation**: Make the colours more or less vibrant.
- **Ambiance**: Adjust colour saturation and contrast at the same time.
- **Shadows**: Darken or lighten only the shadows (dark areas) in your image.
- **Highlights**: Darken or lighten only the highlights (bright areas) in your photo.
- **Warmth**: Add a warm orange or cool blue colour cast to your image.

When you have chosen a tool, swipe left or right over your photo to adjust. You will see the setting value at the top of the screen. To open the Tune Image menu again, swipe up or down. Choose another tool, then swipe left or right to adjust the setting. Repeat this process to use any other tools in the menu. Compare the before and after versions of your photo using the icon at the top right. Tap and hold the icon to see the original photo. Release your finger to return to the edited image. When you are happy with your Snapseed edit, tap the checkmark.

White Balance

The White Balance tool lets you enhance your photo by applying different color tints. Use these tints to enhance colors, correct unwanted color casts, or change the mood of a photo. In the **Tools** section of Snapseed, tap **White Balance**. Swipe up or down to open the White Balance tools, then select a setting from the menu. There are two White Balance tools:

Temperature: Make the colours in your photo cooler (more blue) or warmer

(more orange).

Tint: Add a green or pink colour tint to your image.

When you have chosen a tool, swipe left or right to adjust the setting. Temperature is also useful for correcting warm or cool color casts. When you have finished using the White Balance tool, tap the checkmark to apply your edits.

Details

The Details tool brings out the texture and fine detail in your photos. This tool works well on photos with an interesting texture, such as rust, wood grain, peeling paint, etc. In the Snapseed **Tools**, tap **Details**. Swipe up or down, and select the setting you want to change. In most cases, **Structure** produces better results. The **Sharpening** tool often reduces the quality of your image by introducing grain. If you do use Sharpening, use it in moderation. Like the other Snapseed tools, swipe across the screen to adjust the setting. When using the Details tool, zoom in to see your adjustment more clearly. To zoom in, place two fingers on the screen then pinch outwards (drag your fingers apart). While zoomed in, check that your adjustment has not introduced quality issues such as grain.

Modify Individual Edits

Snapseed uses "non-destructive editing," which means you can delete or modify any individual edit at any point in the future. After you have applied some edits to a photo, tap the Edit History icon (square with a curved arrow) at the top of the screen. Then tap View Edits in the menu. At the bottom right, you will see the edit stack. This contains all of the edits you made, with the latest edit at the top of the stack. Tap any edit in the stack to reveal three options: Use the **Trash** icon to delete that edit from your photo. Tap the **Sliders** icon to modify the edit. This opens up the editing tool, where you can change the settings you originally applied. The **Brush** icon opens up the masking options. Masking allows you to apply the edit to selected parts of the image. When you tap an edit in the stack, the edits above it are temporarily removed from your image. But you can bring these edits back by tapping them in the stack. When you have finished modifying edits, tap the back arrow at the top right to exit the Edit History screen.

Improve Composition

In this section, you will learn how to improve the composition of your photos with Snapseed editing tools. The **Crop, Rotate,** and **Perspective** tools help you turn an amateur snapshot into a high-quality professional image.

Crop

The Crop tool lets you cut away the edges of your image. It is like cutting off the edges of a printed photo with scissors. Cropping removes distracting elements or empty space from the edges of the frame. It can also improve composition and emphasise the essential aspects of the photo. In the Snapseed Tools, tap Crop. Select an aspect ratio, e.g., Original, Square, 4:3, etc. Or select Free if you prefer to crop without being restricted to particular dimensions. Drag the corner handles to adjust the crop position. Tap the **checkmark** to complete the edit.

Rotate

The Rotate tool in Snapseed makes it easy to straighten your image. In the Snapseed Tools, tap **Rotate**. Snapseed analyses your image and attempts to automatically rotate and straighten it. Sometimes Snapseed does not get the rotation right. Or it does not automatically rotate your photo. To rotate your photo manually, drag your finger over the image. Use the gridlines to help you get the image straight. When you rotate a photo, the tilted edges get cropped. Check that you are not going to lose any important elements from the edges of the frame. If you are happy with the edit, tap the **checkmark**. The Rotate tool is perfect for straightening horizons in your landscape photos. But you can use it to fix any photo where the important elements are not of the same level.

Perspective

The Perspective tool offers more ways to straighten elements and correct perspective problems. Open the Snapseed **Tools**, and tap **Perspective**. Select the Tilt option beneath your image. To correct the vertical perspective, drag down over your photo until the lines become parallel. To correct horizontal perspective, drag left or right. Tap the **checkmark** when you are done. When adjusting perspective, be aware of the black areas that appear around the edges. Snapseed will automatically fill in these empty spaces. It uses pixels from the surrounding area to fill in the gaps. If the edges of your image are fairly plain, such as sky, grass, or sea, it usually does a good job of filling these gaps. But if the edges have a lot of detail, you may not get good results. When

applying perspective correction, always check the edges of your image. If the results are not good, undo the edit and try again. Or crop the edges of your photo using the Crop tool.

Clean up Your Photos for Flawless Edits

In this section, you will discover two Snapseed photo editing tools for creating flawless images. The **Healing** tool removes unwanted objects from your photos. And the **Portrait** tool is perfect for enhancing your portrait photos.

Healing

The Healing tool in the Snapseed app lets you easily remove unwanted objects from your photos. It is perfect for removing small objects, spots, and blemishes. You will get the best results when the object you want to remove is surrounded by plain detail, such as skin, sky, or sea. In the Snapseed Tools, tap **Healing**. Pinch outwards with two fingers to zoom in on the object you want to remove. Use your finger to brush over the object. The area you brush over appears highlighted in red. When you release your finger, the highlighted object gets replaced with pixels from the surrounding area. If the result is not perfect, tap Undo (curved back arrow) at the bottom of the screen. Then try brushing over the object again. Sometimes it can take a few attempts to get a great result.

Portrait

You have seen how the Healing tool can remove blemishes in portrait photos. But you can take your portrait photo editing further in the Snapseed app. The Portrait tool is an amazing tool for enhancing your portrait photography. Use it to brighten faces, create smoother skin, and make eyes sparkle. In the Snapseed **Tools**, tap **Portrait**. Select a preset beneath your image, e.g., Spotlight 1, Smooth 1, etc. Next, swipe up or down to access the Portrait tools: Face Spotlight, Skin Smoothing, and Eye Clarity. Select the option you want to change, then drag left or right to adjust the setting. Here is what each setting does:

- **Face Spotlight:** Brighten your subject's face while making their surroundings slightly darker.
- **Skin Smoothing**: Make your subject's skin appear smooth and flawless.
- **Eye Clarity:** Make your subject's eyes sparkle.

Be especially careful not to overdo the skin smoothing and eye clarity. You still want your subject to look natural after editing.

Use Selective Editing Tools

Selective editing tools let you edit different parts of your photo separately. The ability to edit your photos selectively is incredibly powerful. Mastering these tools will take your Snapseed editing to a whole new level.

Brush

The Brush tool gives you ultimate control over selectively adjusting brightness and colour. It is perfect for photos where different parts of the scene need brightening or darkening. In the Snapseed **Tools**, tap **Brush**. If you do not see the brush tools beneath your image, tap the Brush icon at the bottom of the screen. Select the **Dodge and Burn** brush to brighten or darken certain areas of your photo. Tap the up or down arrows to adjust the tool's value. A minus value darkens the image, while a plus value brightens it. Use your finger to brush over the areas you want to adjust. To see which areas you have adjusted, tap the Eye icon. Any areas that you have brushed over appear highlighted in red. If you made a mistake, you can erase your edits. Tap the up or down arrows until the value is set to **Eraser**. Then brush over the red areas to remove your edits. Switch off the Eye icon to hide the red highlight.

Selective

The Selective Tool lets you edit different colours in your photo individually. After selecting a particular area of colour, you can adjust its brightness, contrast, saturation, or structure. This tool is useful when you want to apply different types of adjustments to different coloured areas. In the Snapseed **Tools**, tap **Selective**. Tap on the area of colour you want to adjust. This adds an adjustment point (small circle) to your image. Pinch in or out with two fingers to adjust the scope of the selection. The areas that will be affected by your edits appear highlighted in red. Now, swipe up or down to access the four adjustment tools. From top to bottom, the letters stand for **Brightness**, **Contrast**, **Saturation**, and **Structure**. Select a tool, then drag left or right to adjust the setting. Only the area of the colour you selected will be affected by the edit. To edit a different coloured area, tap the + icon at the bottom of Snapseed. Then tap on the image to position your new adjustment point. Pinch to change the size of the selected area. Swipe up or down to choose a tool. Then swipe left or right to adjust the setting. You can add as many adjustment points to different coloured areas as you like. Tap the Eye icon to

view your image without the adjustment points. When you are happy with your Snapseed edit, tap the **checkmark**.

Masking
Masking allows you to apply any Snapseed edit selectively. With masking, you could apply saturation, brightness, or warmth to only certain areas of your photo. You could bring out detail in a textured subject while leaving the rest of the image untouched. Or you could turn a photo black and white, while keeping the main subject in colour. First, you apply your adjustment to the entire image. Then you use the Mask tool to apply that edit selectively.

Vignette
The Vignette tool allows you to subtly darken or brighten the inner or outer parts of your image. It is most commonly used to darken the outer edges of a photo. If vignetting is overdone, it can ruin a photo. But when used carefully, a vignette helps to draw the viewer into the image and toward the main subject. In the Snapseed **Tools**, tap **Vignette**. Drag the blue circle to the area you want to keep bright. You can change the size of the vignette area by pinching in or out with two fingers. Swipe up or down to open the vignette tools: **Outer Brightness** and **Inner Brightness**. These let you control the brightness of the areas inside and outside the vignette area. By default, Outer Brightness is set to -50. A minus number darkens the image, while a plus number brightens it. To adjust brightness, swipe left or right. The brightness value appears at the top of the screen.

<u>Change the Mood with Snapseed Filters</u>
Snapseed filters allow you to quickly change the look and feel of your photo. With a single tap, you can change the mood of your image or add an artistic touch. Each filter is fully customisable, making Snapseed one of the best filter apps.

Vintage: These filters offer an easy way to create faded, vintage-style edits. In the Snapseed **Tools**, tap **Vintage**. Tap on the different coloured gradients beneath your image to try out the range of vintage filters. To customise the filter, swipe up or down, then select a tool from the menu. Swipe left or right to adjust the setting. To add a subtle blur around the edge of your image, tap the **Blur** icon at the bottom of the screen.

Other filter categories to try out include Black and White, Retrolux, Grunge,

Noir, and Glamour Glow. The Grunge filters are particularly unique as they add grungy textures to your image. You would not want to apply these filters to every image. But they are worth experimenting with if you want to get creative. All of the filters work similarly. Select the filter you want to use, then swipe up or down to access the customisable settings. Use the icons at the bottom of the screen to access more filter options.

Use Looks as a Starting Point for Your Edits
The Looks section of Snapseed contains a collection of preset edits that you apply with a single tap. If you are not sure how to edit an image, trying out some different Looks is a good way to get started. You can then modify the Look to fine-tune the edit. You can even create your Looks based on edits that you have made. This is useful if you want to edit several photos using the same or similar effects.

Apply a Look to Your Photo
Tap Looks at the bottom of the screen.

Tap on the different Looks beneath your photo to see how they alter the image.

If you are happy with the edit, tap the **checkmark**. To cancel the edit, tap the X. Or customise the Look using the instructions below.

Customise a Look
To customise a Look, first apply it to your photo and tap the checkmark.

Tap the Edit History icon (square with a curved arrow) at the top of the screen. Select View Edits. The edits that make up this Look appear in the edit stack at the bottom of the screen. Tap any edit in the stack for more options. Use the Trash icon to delete the edit. Tap the Sliders icon to modify the edit. Or tap the Brush icon to apply the edit selectively using masking.

Create Your Custom Looks
Creating your Looks is also a great way to come up with new ideas for editing your photos. You can quickly apply them to new images to see which edit looks best. This is an easy way to test out different edits that you might not have thought of otherwise. To create your Look, first edit your photo using any combination of Snapseed editing tools. When you are done editing, tap

Looks at the bottom of the screen. Swipe across to the far right of the Looks, then tap the Add Look (+) icon. Type a name for your Look, then tap OK. Your new custom Look appears in the Looks section at the bottom of the screen. You can apply this Look to any photo that needs similar editing in the future.

Save Your Snapseed Edit
When you have finished editing your photo, you will need to save it. Saving your Snapseed edit ensures the image gets stored in your phone's built-in Photos app. Tap **Export** at the bottom of the screen. Snapseed has three saving options: Save, Save A Copy, and Export.

Save overwrites your original photo with the edited version. You will no longer see the original unedited image in your Photos app. The photo is saved with "non-destructive editing," so your edits can be removed or modified at any time.

Save A Copy saves your edit as a separate photo. You will have both the original and edited versions of the image in your Photos app. The image saves with "non-destructive editing," so your edits can be removed or modified in the future.

Export saves your edit as a separate photo with permanent changes. Your edits can not be undone or changed after saving.

The best option is to **Save A Copy**. Your original, unedited image will remain in the Photos app. And the edited version is saved with non-destructive edits. These edits can be removed or modified at any point in the future.

2.   Picsart
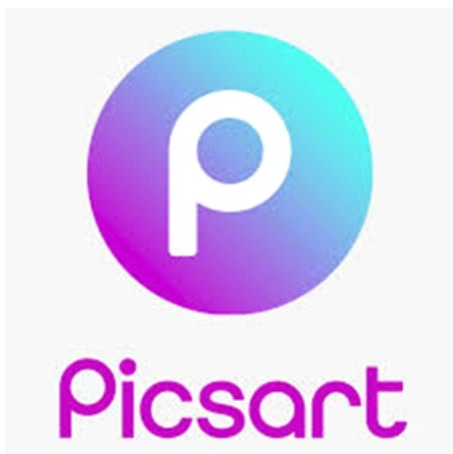
Picsart is a comprehensive, all-in-one creative platform for photo and video editing. It offers a wide range of tools for editing images and videos, creating collages, making stickers and memes, and more. The app is available on both mobile devices and the web, catering to users of all skill levels. Picsart's interface is simple. With its intuitive design tools, even beginners can quickly learn to edit photos and videos. The AI-powered tools make complex edits easy. Remove backgrounds or create art from text with just a few taps. Save time with tons of design templates. Create social media posts, flyers, or invitations in minutes. Use the AI generator to turn text into images. There are three plans available: Free, Plus, and Pro. The free plan allows unlimited use of standard photo and video editing tools, free images, videos, and templates. You can even try some of the AI tools in a limited capacity. However, if you want to get more out of Picsart, you can sign up for Plus. It offers more image and video assets, mobile and web-based tools, and full access to hundreds of premium templates for a monthly subscription. Unfortunately, you will not have access to AI tools with Plus. For that, you will need to sign up for Picsart Pro, which grants you access to everything on the other plans and unlimited access to their full suite of AI tools for a monthly subscription.

Features of Picsart
Crop
The Crop tool is perhaps the most basic editing tool out there, but it is also incredibly important. With Crop, you can adjust the framing of your photograph. This can be especially helpful when you are preparing a picture for social media and need it to fit into very specific dimensions. This tool is also great for highlighting the composition of your picture. By adjusting its framing, you can also adjust the overall composition of the image.

Straighten

Similar to the Crop tool, Straighten is very basic but endlessly helpful when you are editing a photo. Especially when we are taking pictures with a smartphone, it can be hard to achieve ideal angles. An otherwise great image can be flawed by a slight tilt to the right or left, or maybe you have captured your picture from below instead of straight on. Well, with the Straighten tool, you can subtly adjust your photo's angles so that they become level and pleasing to the eye.

Brightness

Light is everything when it comes to photography. The amount of light within your photo can affect the mood of the image, as well as the amount of detail that is captured. When we take a picture with a phone camera, it can be difficult to control the light at the moment. If you are working with a DSLR, then you might be able to do a lot of manual adjustments. But if you have already taken a picture and are unhappy with the amount of light in the image, the Brightness tool can help you make needed adjustments.

Contrast

With the Contrast adjustment, you heighten the shadows and highlights in an image, creating a bolder, more eye-catching aesthetic. You can also go the opposite route and reduce the contrast of an image, achieving a more mellow and muted look. Either way, the Contrast tool can dramatically alter a photograph with very minimal editing.

Saturation

The Contrast and Saturation tools can be used in tandem to kick up the drama in a picture. While contrast will enhance the light and dark tones of an image, saturation will deal directly with colour. If you bring up the saturation of an image, you will be enhancing its colours, making them brighter and more intense. If you reduce saturation, your photo will look more washed out and even black and white.

Clarity

If you are taking pictures with a professional lens, you can create some highly detailed and focused images. But what happens if you are working with a phone camera that has a less-than-stellar lens? This is where the Clarity tool comes in. By adjusting the clarity of your image, you will essentially be heightening the sharpness of the picture. If you were working with bad

lighting or need to enhance text in your image, the Clarity tool can be a huge help.

Shadows
When you are editing a photograph, you have to think about its disparate parts and how they interplay. For example, you should consider how the shadows of an image are functioning, and how that image would change if you reduced or amplified its shadows. You may have guessed it already, but the Shadows tools can help you do this very thing, reduce or amplify the darker tones of your image to achieve a more bold or muted final result.

Highlights
The Highlights tool works exactly like the Shadows tool, except that it changes the lighter tones in a photograph as opposed to the darker ones. If you have a picture that is over-exposed, the Highlights tool can help you reduce the glare of the image. Or, if you have an image that is too dark, the Highlights tool can help give a little extra life to hidden bits of light in the photograph.

Temperature
The Temperature tool allows you to adjust the white balance and colours of your image, making them warmer or colder. Warm images tend to be more popular on social media as they remind us of natural light and have a warm, pleasant feeling. Colder images are more often associated with editorial photographs or certain retro styles, like Polaroid photos. You can achieve amazing results with both warmer and colder tones. It is up to you to find the right balance that will enhance and complement your subject.

<u>How to Crop an Image</u>
- Open the Picsart app.
- Tap on + at the bottom toolbar to upload the photo you want to crop.
- Tap Tools at the bottom toolbar, then tap on Crop.
- Crop your image using the preset size templates at the bottom or use your fingers to crop manually.
- Tap Apply at the top right.
- Save your cropped photo by tapping Next or the downward-facing arrow at the top.

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Optical Character Recognition (OCR) Tools

1.   Prepostseo

Prepostseo is a popular website providing content and SEO-based tools. This website offers about 150 tools for different purposes, with most of them free to use. There are some restrictions on some of the tools, which can be unlocked by buying the premium plans. One of the biggest advantages of this brand is that it offers its tools for multiple devices, including a Browser (through the web interface), Chrome extension, Android Smartphones. iOS devices, and WordPress widgets. There are different categories of tools and some of the categories include: Writing and Education, SEO Tools, Domain Tools, Calculators and Converters, and Programming tools. Majority of the tools on this website are free of cost but some of the tools like plagiarism checker is restricted to 1000 words per search on the free version. One major tool of this website is the Image to Text Converter.

Image to Text Converter by Prepostseo
Image to Text is a free online tool that lets you copy text from images. It features the latest OCR technology to convert pictures to text with a single click. It can extract text from any image format, such as PNG, JPG, BMP, GIF, JPEG, TIFF, and WebP.

How To Use This Tool?
Visit this PrepostSeo website and navigate to the Image to Text tool.
Upload or drag and drop a file from your local storage, or even paste the URL of a website to fetch text from an online image.
Click on the **Extract** button.

<u>Features</u>

It can fetch text even from low-resolution images using the advanced programming of artificial intelligence

It is equipped with the latest programming to recognise old and new fonts

No need for a subscription unless you are looking for large documentation

You can utilise the extracted text in different formats, such as a .txt file, download it as an official document, or simply copy it to any clipboard.

2.   ILovePDF
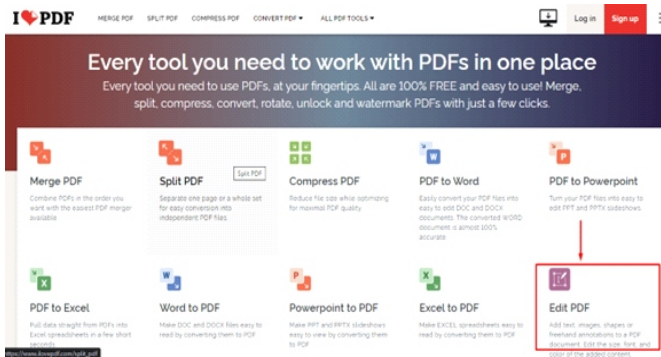
It is a versatile online platform and app (available for iOS and Android) that offers a suite of tools for working with PDF files, including conversion, editing, organisation, and security. It is designed to make managing PDF documents easier, offering features such as merging, splitting, compressing, and converting PDFs to various formats like Word, Excel, and PowerPoint. As an online tool, ilovePDF can be used from any device with an Internet connection, allowing users to work from anywhere. Its intuitive design makes it easy to navigate and use the different functions, even for those who have no previous experience in managing PDF files. As a web-

based service, there is no need to download or install additional software, which saves space on the device and simplifies the usage process.

Features of iLovePDF
Among the features of iLovePDF, we can highlight the following:

Merge: iLovePDF allows users to quickly and easily combine multiple PDF files into a single document. With just a few clicks, users can combine multiple documents into a single PDF file.

Split: This function allows you to quickly and easily split a single large document into several smaller parts.

Compress: The compression feature allows you to reduce the size of your PDF file without compromising its quality. This can help users save disk space and reduce the size of their files to email or share on the Internet.

Unlock: The unlock feature helps users regain access to password-protected

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PDFs. It can help users recover important documents or files without having to go through the process manually.

Protect: iLovePDF also offers a feature that helps protect your documents by adding passwords and watermarks. This can help users improve the security of their documents, making it harder to access them without permission.

Convert: iLovePDF also allows you to quickly and easily convert your PDFs to other file formats, such as Word, Excel, JPG, HTML, and PowerPoint. This can be useful for those who need to edit or make changes to their documents.

One unique feature of this tool is that you do not need to sign up to access its features.

3. CamScanner

It is a mobile app that transforms your phone into a portable scanner, allowing you to digitize documents by taking photos and converting them into various formats like PDF, JPG, Word, or TXT. It offers features like OCR (Optical Character Recognition) for text extraction, document editing, sharing, and syncing across devices. It captures documents, forms, slides, and whiteboards into high-quality PDFs using your mobile phone. With various capture modes, you can get the best scans every time. CamScanner also uses advanced technology to automatically remove background from your scans, flatten pages, and provide filters to retouch and improve the scans. With this tool, you can instantly convert text from images into editable text. It supports recognition in 41 languages, including English, Chinese, Japanese, and Korean. You can also sync and back up files for easy access on all your devices, anytime, anywhere.

How to Use CamScanner
Install and Open CamScanner: Download the CamScanner app from the Play Store for Android or the App Store for iPhone. Open the app and grant it permission to access your camera.

Scan a Document:
- **Single Page:** Click the camera icon to scan a single page.
- **Multiple Pages**: Click the badge icon to select "Batch" mode, which allows you to scan multiple pages and create a single document.
- Position your phone so that the edges of the document are within the camera frame.
- Tap the camera button to take the photo.
- **Adjust and Crop the Image:** CamScanner will automatically detect the document's edges and create crop lines. You can manually adjust these crop lines by dragging the handles or using the crop and rotate

options. Tap the check mark to apply the adjustments.
- **Save and Share:** CamScanner will automatically save the scanned document as a new file. You can rename the file and then share it as a PDF, image, or via other supported methods.

Additional Features:
Smart Scan: Allows you to scan documents and automatically enhance the quality of the scan.
- **PDF Tools:** Offers features to edit, merge, and share PDF files.
- **Image to Text:** Converts text from images into editable text.

Note that CamScanner has a free and paid version, and the free version carries the CamScanner watermark.

4.   TinyWow

TinyWow offers a comprehensive suite of over 250 tools, including PDF editing, AI writing assistance, video processing, and various image editing utilities. While the core tools are free to use, users can opt for premium plans to unlock benefits such as unlimited usage, faster processing, an ad-free experience, and access to advanced features.

TinyWow's PNG to JPG converter is a free, browser-based tool designed for quick and easy image format conversion without requiring any software installation or user registration. Users can upload PNG images and convert them to JPG format in just a few clicks, making it ideal for tasks such as web optimisation, email attachments, or social media uploads. The platform ensures user privacy by automatically deleting all uploaded and processed files within one hour of upload.

AI Presentation/Design Tools

1.   Gamma AI
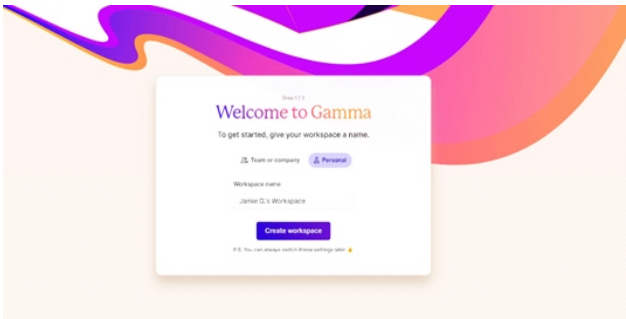
It is an innovative software platform designed to revolutionise how you can create presentations, documents, and web pages. With its advanced AI capabilities, Gamma AI can effortlessly generate polished and professional content from a simple prompt. You can also upload files or paste content to provide additional context. This allows the AI to craft customised presentations tailored to specific needs. The platform offers a wide array of stylish presentation themes and one-click templates, making it easy to transform the look and feel of any deck. Gamma offers a free version, which gives users access to 400 AI credits (one-time use), PDF and PPT export functionalities, unlimited users, and basic analytics. Users who want to unlock more AI credits and advanced features can subscribe to Gamma's paid plans: Plus and Pro. With the Plus plan, users can access 400 AI credits per month, unlimited folders, a 30-day change history, and the ability to remove watermarks. Meanwhile, with the Pro plan, users get unlimited AI generation, advanced AI models, custom fonts, in-depth analytics, unlimited change history, and priority support. Downloading presentations from Gamma AI is easy. After you have generated your presentation and done with the edits, you can click the three dots at the upper right corner of the dashboard, then click "Export." From there, you can opt to export the presentation as a PDF or PPT file.

How to Create AI Presentations on Gamma
Sign up using your email or Google account. After verifying your email, you will be taken to your Gamma workspace.
Click "Create New AI" at the top of the screen.

Choose how to build your presentation.
Describe what kind of presentation you want.

Use Gamma's prompt editor to refine your input. You have many editing options here expand your outline, specify the tone, adjust the count, card size, language, etc. Click "Continue" when you are finished.

Choose a presentation theme. On this page, you can preview what each theme looks like. The preview also works as a mini-tutorial for the layout and fonts. You can preview a theme by clicking on it or using shuffle. Click "Generate" to create the presentation draft.

Finally, use Gamma's various tools to edit, share, and download your AI-generated presentation.

2.   <u>Canva</u>
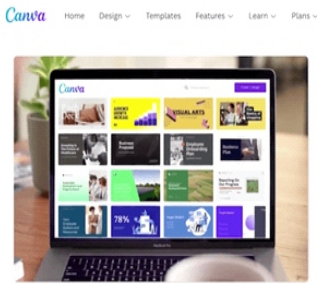
Canva is an online graphic design platform that allows anyone, regardless of experience, to create professional designs in just minutes. From social media posts to presentations, invitations, logos, and infographics, Canva lets you bring your ideas to life effortlessly. Canva allows for image editing and project-based learning using a simple drag-and-drop interface. Canva offers a comprehensive free plan with thousands of templates and design tools. However, users who need premium features, team collaboration, and exclusive design elements can opt for Canva Pro or Canva for Teams. You can share your designs so that others on your team can edit. Or if you created a design you love, you can share it as a template so others on your team can use it for their creations. The app supports iOS, Android, and web devices.

How to use Canva
Create a Canva account (if you do not have one): The first step is super simple; it is just creating a Canva account (unless you have one, in that case, you can sign in). To create a Canva account, you will navigate to Canva.com, click "Sign up," enter your information, and you are all set. Technically, you can use Canva without creating an account, but we suggest creating one because it will save all your designs in one place and allow you to log in from different browsers or the app to continue editing and creating your designs.

Choose your design type (or determine your custom size): To begin using Canva, simply click the "Create a Design" button. From here, you have three choices:

Choose from a suggested templated size (such as Instagram post, Facebook cover photo, and more)

Create your custom dimensions

Upload a file or photo to begin editing

Choose the option that works best for the design you are hoping to create to get started.

Look through pre-made templates: One of the biggest benefits of Canva is that you have a library of design templates at your fingertips, even when you create a design using custom dimensions. This makes creating new designs simple, and you can easily edit the template to align with your brand identity. You can find templates on the left-hand side of your page. You can scroll through the options or search for some templates that meet your needs, such as: Quotes**,** Promotions**,** Events**,** Contests**,** and more.

Choose a template, or decide to design from scratch: To select a template, you will simply click on the design you want. If you are using the free version of Canva, you will want to make sure you select a free template. You can see if a template is free by hovering over the design and looking for the FREE designation in the lower right-hand corner. If you want to test multiple templates, you can add a new page by clicking "+ Add page" and clicking on the next template you want to try. If there are not any templates you are interested in, you can also start your design from scratch. For beginners, I suggest choosing a template that has some elements you like so you can get a feel for your options. Remember, you can edit anything in the design, including font, all colours, shapes, and more.

Add or edit design elements: Now that you have chosen a template (or decided to start from scratch), it is time to add or edit your design elements. You will want to get familiar with the editing pane at the top of your pagethis is where you will be able to choose the types of edits and changes you want to make. Here are the controls you have available for design elements:
Colour: This is where you will choose the colour of the element or your background. You can choose from a colour wheel.

Edit Image: If you have any type of image in your design, such as for the background or in a frame, you can edit the image by removing the background (paid feature), adjusting the brightness, contrast, or saturation, adding a filter, adding a colour tone, and more.

Crop: You can crop your image or design element.

Flip: You can flip your image or design element either horizontally or vertically.

Animate: This is a cool feature that allows you to add some movement to your design. If you use this feature, you will need to download your design as an MP4 Video or a GIF.

Position: This lets you choose whether an image is behind or in front of other design elements. You can also align elements to the page or other elements within your design. This is helpful when you have textboxes or want to make sure your designs are spaced evenly.

Copy style: This allows you to apply a style or format to a specific element. It applies to colour, font, image filter, and more. This can help you easily match your design elements for cohesion.

Transparency: This allows you to adjust the transparency of your specific design element or image.

Link: You can add hyperlinks to your designsthis might be useful if you are creating a PDF or a presentation.

Lock: This allows you to lock specific elements of your design so they can not be moved or changed.

Copy: This lets you make a copy of a specific element.

Group/Ungroup: If you select multiple elements, you will also get the option to group or ungroup items. This will let you move or resize them together.

How to change or edit an element: To change an element, you simply click on what you want to change and select the edit you want to make.

How to replace or add an image: To upload an image, all you have to do is drag your image from your desktop over to Canva or click "Uploads" on the left-hand control panel. You can also create specific folders and upload images to the folder of your choice. Next, you will drag your newly uploaded image to the frame. Once your image has replaced the old image, you can double-click it to make adjustments such as zooming in or zooming out of

your image or repositioning it within the frame.

How to add a new element: If you want to add more elements to your design, Canva makes it easy! You click "Elements" in the left-hand control panel, and you can either search for what you are looking for or scroll through the suggested element options. If you are using the free version of Canva, you will want to choose an element marked as FREE. Then you can move the element wherever you would like on the page, click on it to change the colour, and resize or flip it.

Add or edit text: Now that your design is in a good place, it is time to edit your text. You have even more options for editing when it comes to your text. In addition to the options we already covered for editing a design element (which you have for editing a text element), you also have:

- **Font**: You can change the font of your text. Canva has pre-loaded free fonts, and you can even upload your fonts if you have a premium subscription.
- **Font size:** You can specify the font size in the box, or you can drag and stretch your text box to make the font larger.
- **Font styles:** You can choose from Bold, Italic, Underline, and Uppercase (meaning all your letters will be uppercased) for font styles.
- **Alignment**: You can choose from left-justified, centred, and right-justified.
- **Lists**: You can add bullets or numbered lists.
- **Spacing**: You can make the letter and line spacing closer or further.
- **Effects**: You can choose from specific text effects such as Shadow, Neon, Hollow, and more.

How to edit text: To edit existing text in a design, you will click into the text box and add your text. You can copy and paste or type in directly. When you are in the text box, you can also change the font, size, and colour and apply any of the styles we covered.

- **How to add new text:** Adding new text is also simple. You can either click into an existing text box and click "Copy" or you can go to "Text" in the left-hand control and choose from text styles. After you have added the new text to your design, you can make edits or changes.
-

Download your Canva creation: Once your design elements and text elements have been edited, changed, and added, it is time to give your design a final look before you export it! (But, do not worryyou can make changes after downloading). Downloading your design is really easy:

Click "Download" at the top right-hand of the page.

Choose your file type. You can choose from PNG, JPG, PDF Standard, PDF Print, SVG (for premium subscribers), MP4 Video, and GIF.

If you have more than one page in your design, choose the pages you want to export. If you export more than one page, it will export as a zipped/compressed file.

Click "Download."

Language and Writing Enhancement Tools

1.   Grammarly

Grammarly is an AI writing tool that checks your writing for everything from grammar and punctuation slip-ups to issues with word choice, clarity, and style. With a browser extension, desktop apps, and integrations within popular platforms, it seamlessly improves your writing wherever you work. Add it to Chrome (it also works on Safari, Firefox, and Explorer), and you can use Grammarly in your email, social media, and Google Docs. In its most basic form, it uses AI features to help spark ideas, fix grammatical and spelling errors, and rephrase text. It is not a complete replacement for proofreading, but Grammarly is a tool that helps writers deliver cleaner work in less time. It goes beyond basic spell-checkers by offering suggestions for word choice, sentence structure, and even tone. Grammarly offers a free version with limited features and a premium version with more advanced features. You can use Grammarly Free for as long as you want, and you can upgrade to Grammarly Pro at any time. Visit the Grammarly Prices and Plans page for more information on your options. Grammarly Pro is a subscription-based service. The type of account you currently have (Free or Pro) is indicated every time you log in.

Key Features:
- **Grammar and Spelling Check:** Identifies and corrects errors in grammar, spelling, and punctuation.
- **Style and Clarity Suggestions:** Offers improvements for readability, wordiness, and flow.
- **Word Choice Suggestions:** Suggests stronger synonyms or alternative words to improve clarity and impact.
- **Tone Detection:** Analyzes the tone of your writing and suggests adjustments to ensure it is appropriate for your audience.

- **Plagiarism Detection:** (Premium feature) Checks your writing against a vast database to identify potential plagiarism.
- **Generative AI:** (Premium feature) Helps generate ideas, drafts, and even complete documents.
- **Mobile Keyboard:** Available on iOS and Android, provides real-time grammar and spelling suggestions as you type in any app.

Getting Started:

Create an account on Grammarly's website or through their app. You can use your email, Google, Facebook, or Apple account. Install the browser extension, download the desktop app, or add the Microsoft Office add-in, depending on your needs.

Using Grammarly:

If you are using the web app or the desktop app, you can start typing directly in Grammarly. You can also copy and paste text from other programmes into Grammarly for checking. Upload Word documents or other file types to Grammarly. Grammarly will highlight potential errors and provide suggestions in real-time or when you review the document. You can accept suggestions by clicking on them, or ignore them if you prefer to keep the original wording.

Grammarly is available as a web app, browser extension, desktop app, Microsoft Office add-in, and mobile keyboard.

2.   Google Translate

Google Translate is a free online translation service that instantly converts text, speech, and images from one language to another. Google Translate uses something called Neural Machine Translation, basically artificial intelligence that reads e n t i r e   s e n t e n c e s   a n d understands context before translating.

How to Access and Use Google Translate
Web Version: Visit translate.google.com on any browser. No account required, no download needed. Just start translating immediately.

Mobile Apps: Download the free Google Translate app from the App Store (iOS) or Google Play (Android). The mobile version includes all the advanced features, like camera translation and conversation mode.

Browser Integration: If you use Google Chrome, it can automatically detect foreign language websites and offer to translate them with one click.

Voice Assistant Integration: Ask Google Assistant on your phone, smart speaker, or other devices to translate phrases for you.

Steps to use Google Translate:
Open Google Translate: You can access it through the Google Translate website or the mobile app for Android and iOS.

Select Languages: Choose the languages you want to translate from and to.

Enter or Speak Text: You can type the text directly in the box, or use the microphone to speak your words.
Translate: Google Translate will automatically translate the text.

Use Features: You can listen to the translation, copy it, or share it.

Tap to Translate (Android): On Android, you can enable "Tap to Translate" to translate copied text directly within other apps.

Additional Tips:
Webpages: You can also translate entire webpages by entering the URL.

Conversations: The Google Translate app can also translate conversations in real-time, enabling you to converse with someone in a different language.

Camera Translation: The app also enables real-time text translation by simply pointing the camera at the text.

Best Practices
- Regularly update all software and firmware.
- Use multi-factor authentication (MFA) for all your accounts.
- Conduct risk assessments before high-risk assignments.
- Keep physical and digital backups of critical materials.

Conclusions and Recommendations

Conclusions

It is clear that the future of journalism is digital. However, while the future of journalism is irrevocably intertwined with the evolution of digital technologies, the essence of journalism must remain timeless.

From the integration of emerging technologies such as artificial intelligence and automation to data-driven storytelling and real-time audience engagement, digital tools now shape every facet of how journalism is practiced, delivered, and consumed.

The chapters of this publication have explored a vast array of tools available to today's journalist - tools that enhance accuracy, boost efficiency, protect safety, and amplify reach. They show how innovation and creativity, when matched with professional ethics, including a commitment to truth, accuracy, fairness, and balance, can elevate journalism in ways previously unimaginable.

Yet, the digital age brings with it new responsibilities and challenges. Journalists must now grapple with the perils of disinformation and other forms of information disorder, the threats of online harassment, the erosion of privacy, and the ethical dilemmas posed by algorithmic bias and AI-generated content. These are not peripheral concerns as they are central to the integrity and future of journalism.

Embracing digital tools is not just about adopting new technologies; it is also about strengthening the foundations of journalism, such as truthful reporting, accuracy, accountability, fairness, balance, social justice, and public service. Digital innovation must strive to serve these values and not undermine them.

The current digital reality must therefore be seen as a call to action for a new generation of journalists who are empowered by technology, but led by principle.

Recommendations

To achieve these lofty objectives that are at the heart of journalism, it is recommended that:

Journalists, editors and other media professionals should remain curious, adaptable, and ethically grounded while adopting and experimenting with digital tools as the technological landscape continues to evolve. They should be proactive and intentional about protecting their data, sources, and personal safety. The use of two-factor authentication, secure messaging platforms , and anti-surveillance tools is encouraged. They should also endeavour to remain alert to online harassment, phishing, and hacking risks.Journalism is moving away from the traditional method of newsgathering and reporting. It is therefore, imperative that journalists keep learning and developing their digital skills.

Further to the above, journalists and other media professionals should identify and seek out digital journalism training opportunities and make efforts to participate in such training. They should follow industry experts and leaders, and experiment with multimedia and data-driven storytelling.

Media organizations should invest in continuous training, digital infrastructure, and safety mechanisms for their staff to enable them to realize the full potential inherent in this digital environment. They should also adopt security best practices include these in their editorial processes, by ensuring that everyone understands how to use encrypted communications and secure devices, especially when dealing with sensitive investigations. They should also emphasise accuracy, fairness, consent, and transparency as core values in digital practice.

Media organisations should provide access to high-impact digital tools and equipment for their staff, especially those involved in investigative journalism, multimedia reporting, and those who need secure communications. The purchase of premium versions or provision of stipends to staff for subscriptions to digital tools and devices is also encouraged.

Journalism educators and trainers should integrate digital competencies and critical thinking into journalism curricula, develop their own capacities to

deliver training programmes that are relevant to the digital environment and context in which the media is now operating and will likely operate for the foreseeable future.

Policy makers should enact supportive policies, laws or other frameworks that promote access to technology, safeguard freedom of expression, and protect journalists, especially in the online space.

Civil society organizations and actors need to keep advocating for digital rights and media freedom as interconnected pillars of democracy.

Media
Rights
Agenda