

Digital Footprint

How they enable data breaches and
cyber fraud
by **Chinedu Ukaibe**

©2023 Norrenberger

Norrenberger is regulated by the Securities and Exchange Commission (SEC)

**Strictly private and confidential, for discussion purposes only*





VISION

To simplify wealth creation.

MISSION

To positively unlock opportunities in the society.



FRIENDLINESS

Friendliness is the bedrock on which we build our relationships.



INNOVATION

We are dedicated to evolving as a people and providing better and improved solutions that add value to our clients.



RESPONSIVENESS

We are responsive to our client's needs and inquiries. Providing solutions and resolutions quickly and efficiently.



SIMPLICITY

We have simplified our solutions, making them easy for our clients to adopt and implement.



TRUST

Trust is at the core of who we are. On this, we are uncompromising.

F

I

R

S

T

Chinedu Ukaibe

IT Security & Compliance Manager

Chinedu is an IT professional with a proven track record in IT Risk, Security and Control, IT Operations, Project Management, Database Administration, and Web Design/Development. With over 7 years of experience, he has delivered value by driving technological advancements, ensuring cybersecurity, and optimizing IT operations to align with business objectives.

His educational background includes a BSc in Political Science & Public Administration, which underlines his dedication to holistic growth through a wealth of experience. He holds professional certifications such as Certified Control Objective for Information & Related Technology (COBIT/ISACA), Information Technology Infrastructure Library (ITIL/Service Management), and Certified AWS Cloud Practitioner.

When Chinedu is not working, he enjoys hiking, football and movies for leisure.



What is a Digital Footprint?

The digital footprint also known as a "digital fingerprint", "digital shadow", or "digital dossier", is the data you generate when using the Internet for any type of activity that is linked to your individual identity.

Your digital footprint includes:

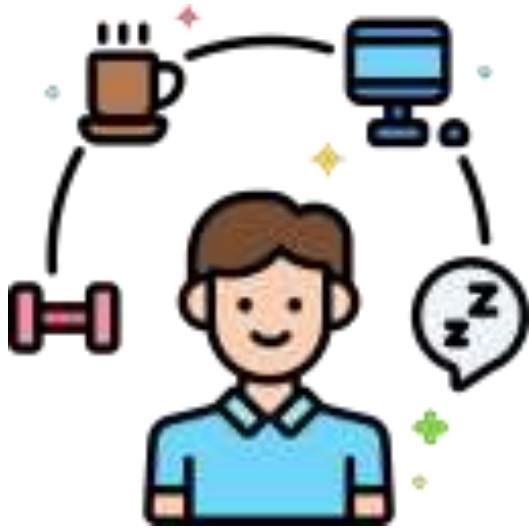
- each and every click you make.
- each website you visit.
- each social media post you make.
- each email you send.

anything you share online, and any information about you that is put online by others. More generally, your digital footprint is influenced by the impression that your actions leave behind online.





“Anyone with access to a search engine, or advanced software like a skip tracing tool, can track your activities, behavior, preferences, opinions, and much more by following your trails of data.”



Our Digital Footprint Connects to our Way of Life

Your digital imprint is connected to your way of life, even if it is not a true reflection. It is normal to worry about how you come across because our reputation affects our social relationships, our standing in society, and our chances for professional advancement. No matter if they are private or public, organizations are subject to the same rules.

- Why do we block HR team from seeing our status or post?
- Why do we post qualifications and achievements on social media?
- Why do we crave birthday wishes on social media so much we post studio pictures?
- Why do we disable birth year while month and day is visible on social media?

Passive Digital Footprint:

Your passive digital footprint on the Internet is created by everything you "touch". This is the information you mistakenly publish online (often referred to as metadata), and it consists of the following information:



IP address of the user (which also reveals your location)



You've made purchases online.



Specifications of the gadget you're using (model, version, etc.)



Your search term requests

- Your online activity (your browsing history)
- Actions you take on these websites (how many times you have visited, pages you spent the most time on, buttons and links you clicked)
- What type of browser you're using and what version it is (also called a browser fingerprint)





Active Digital Footprint:

Your digital activity, or the information you choose to share over the Internet, is another source of data in addition to the data you generate passively. This produces your active digital footprint when combined with your digital identity.

increases the amount of personal information you knowingly disclose online.



Every email you write,



Every video you post



web form you complete



Every social network connection you make



Over time, these active data traces accumulate and form a more complete picture of your identity, possessions, interests, history, lifestyle, and connections.

It's never completely gone:

Experts say that you should be very careful about what you post on the Internet because it may be online permanently.

It's publicly accessible:

Anyone with access to a device and a search tool can look up a digital footprint.

It determines reputation:

For example, a controversial opinion expressed on a public forum many years ago can determine how others view you.



Information can be widespread

You may lose track of your digital footprint fast if you're maximizing your passive and active digital footprints.

Credibility:

Your digital footprint can affect your credibility. People may find you less trustworthy if they find problematic elements in your digital footprint.

Exploitation of information

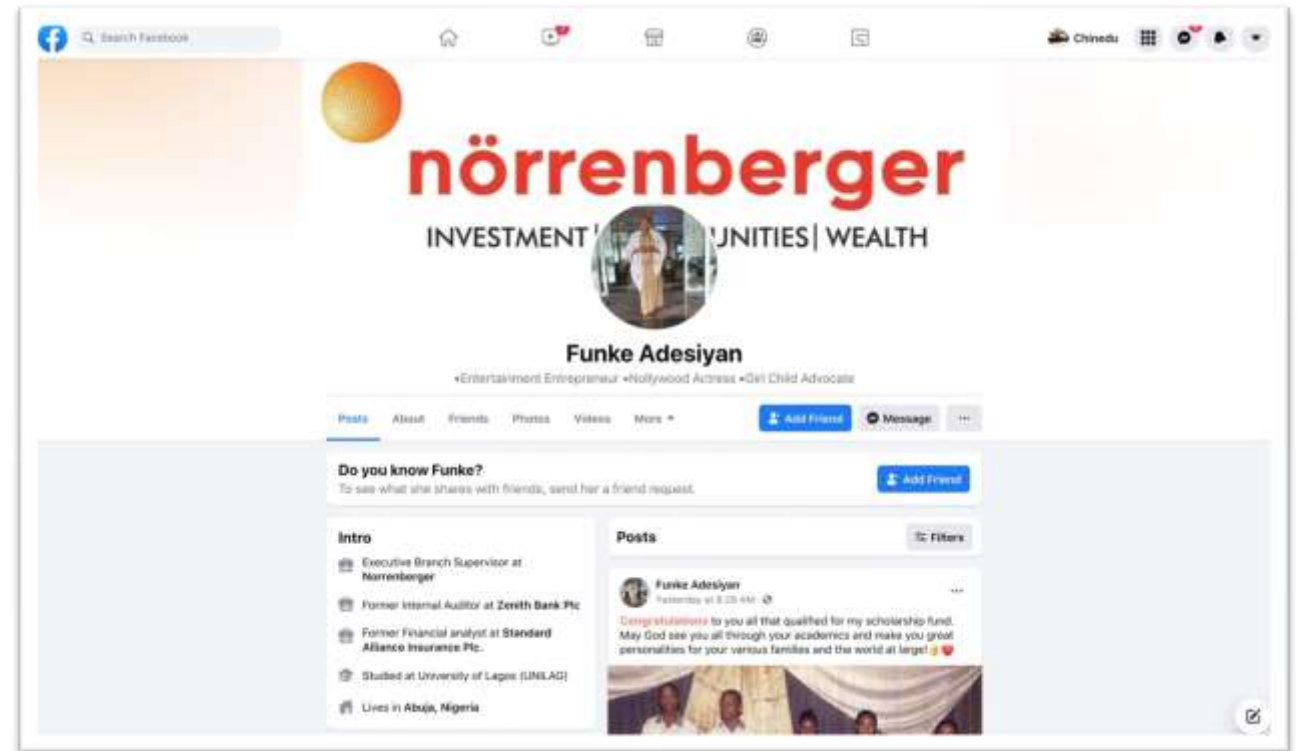
- A bad actor can exploit your information in several ways. For example, they may use your data to learn more about you and formulate a spear-phishing attack.
- Businesses, marketers, platforms, and websites can exploit your information too. For example, a website may leverage your passive digital footprint to target you with advertising.

Attacks & consequences of a digital footprint



This occurs when someone steals your personal information—such as your NIN Number, bank account number, credit card information or clone a social media account of yours, all for the purpose of fraud.

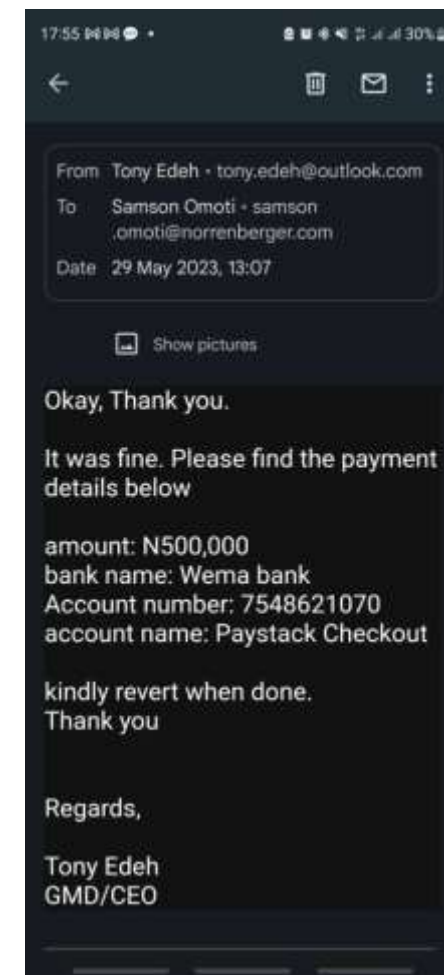
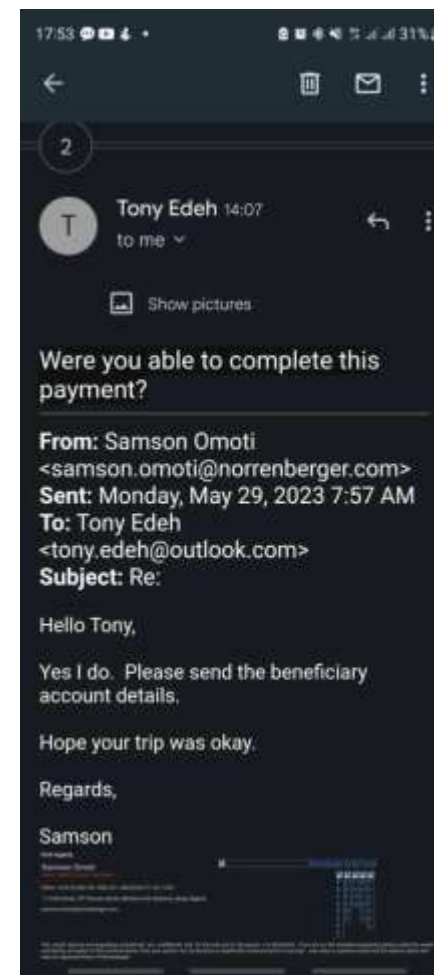
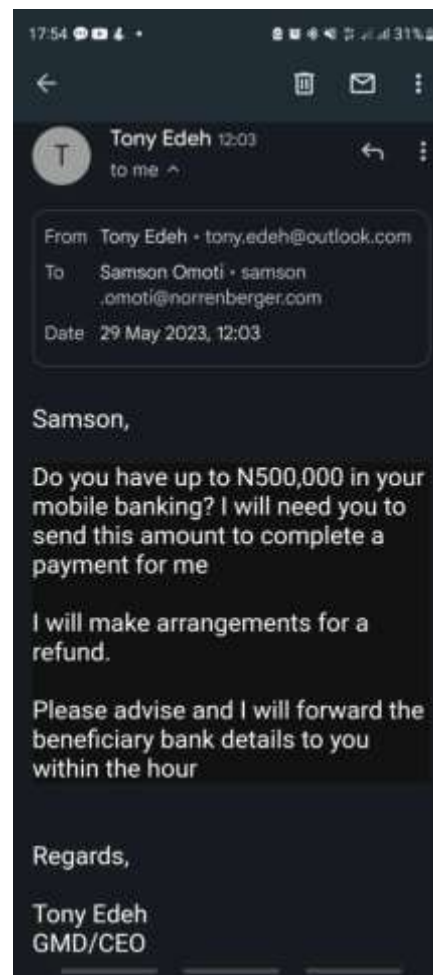
- The account number 1474160472 is a wallet number with no BVN linked to the number.
- We were able to get a phone number linked to the wallet account: 08085324257.
- A true caller check on the number returned an identity of SHUGA MILLIE.
- A check on the name (Shuga Millie) on social media. No significant hit on Facebook but on Instagram we found a suspicious account
- We tracked the phone number down to Edo state.



Spare Phishing Attacks

A new cyber vulnerability known as **“Executive Digital Footprints”**, the digital footprints of high-net-worth Individuals has been said to be an underestimated vulnerability in the corporate world.

Executives are desirable targets because they have both access to critical areas of a company and essential proprietary knowledge and approval privileges.



Credit Card Theft:

Unauthorized users gain access to an individual's credit card information in order to make purchases, other transactions

Cybersecurity vulnerability:

A threat actor can leverage your digital footprint to attack you or harvest your information for a dictionary attack to crack your passwords.

Embarrassment or blackmail:

Threat actors can use sensitive information to embarrass or blackmail their victims.



Damaged reputation:

Data that shows you in a negative light can result in a damaged reputation.

Data breach:

An old password bought on the Dark Web can be manipulated by hackers to attack an organization for data exfiltration.

Fraud:

For example, with your data, someone can apply for a loan, credit card, or government subsidy in your name.



Today's threat actors are smarter, more sophisticated, and more well-resourced than they have ever been in the history of cybersecurity.

Benefits of Digital Footprints

Digital footprints can relate to both individuals and companies or organizations. Digital footprints have both advantageous and disadvantageous effects, just like any online service. Below are some of the benefits of a digital footprint.



Digital footprints raise awareness of brands



your digital presence forges and strengthens ties between you and other people.

Based on customer browsing patterns, retailers create personalized advertising materials, enhancing the return on advertising efforts.



What do they have in common?

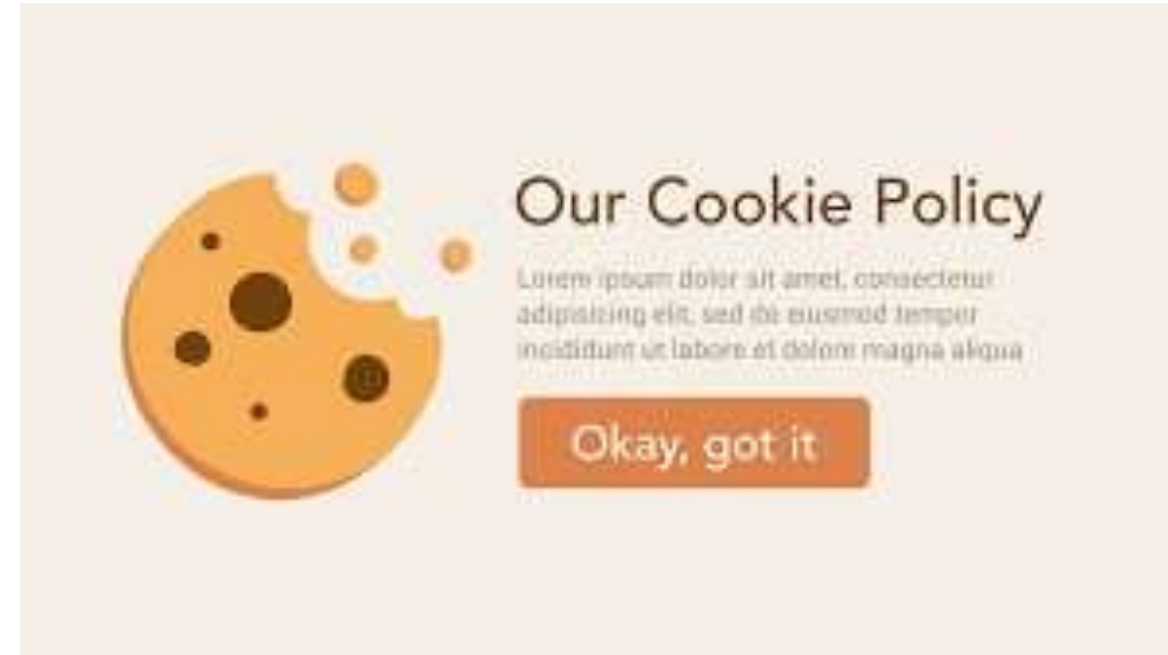
- Use search engine to examine your footprint
- Don't provide as much info as possible:
- Check your privacy settings once more:
- Don't share too much on social media:
- Awareness



- Skip dangerous websites:
- Don't share sensitive information on public Wi-Fi:
- Remove previous accounts:
- Before posting, consider:
- Apply a Virtual Private Network:

Cookies are small pieces of text sent to your browser by a website you visit. They help that website remember information about your visit, which can both make it easier to visit the site again and make the site more useful to you.

- Cookies do not act maliciously on computer systems.
- They are merely text files that can be deleted at any time
- They are not plug ins nor are they programs.
- Cookies cannot be used to spread viruses
- They cannot access your hard drive.



This does not mean that cookies are not relevant to a user's privacy and anonymity on the Internet.

How cookies impact data security and personal security?

Cookies cannot read your hard drive to find out information about you; however, **any personal information that you give to a Web site, including credit card information, will most likely be stored in a cookie unless you have turned off the cookie feature in your browser.** In only this way are cookies a threat to privacy.



Cookies do store your password and other information.





If the information from cookies falls into the wrong hands, your data is at risk of being hacked, targeted by ransomware, and a host of other extremely serious cybersecurity concerns.


- **Use Secure Connections Only.** Members of your organization should only be accessing company information with a safe and well-monitored internet connection.
- **Update Your Settings.** You can disable the storage of cookies in your browser settings to reduce risk.
- **Install Ad Blockers, Third-Party Cookie Blockers, and Antivirus Software.** Ensure that you have the necessary software protections in place.





END



Contact Us

 **Head Office**
11 Volta Street,
Off Thames Street,
Ministers Hill,
Maitama, Abuja, Nigeria.

 +234 (0) 908 781 2026

 **Lagos Office**
4th Floor,
FF Towers,
13/14 Ligali Ayorinde Street,
Victoria Island, Lagos, Nigeria.

+234 (0) 813 864 1702

 **Port Harcourt Office**
10, Evo Road,
GRA II,
Port Harcourt,
Rivers State, Nigeria.

+234 (0) 908 781 2026

 customerservice@norrenberger.com  www.norrenberger.com     @norrenberger