GUIDE DOGS SINGAPORE
ENABLING THE VISUALLY IMPAIRED

Basic Terminologies

We have found it useful to understand the following terms when learning to use our smartphones:

1. PHONE CONNECTION

1a. Bluetooth

Bluetooth is a short-range wireless technology. We use Bluetooth when we want to move data from one device to another over a short distance without using wires. Imagine your data (for example, your homework) moving from your tablet to the printer via an invisible bridge. That's how Bluetooth works. Other examples are Bluetooth headphones, Bluetooth keyboards, and Bluetooth speakers. Note that Bluetooth is one of several forms of wireless technology.

1b. Wireless

Wireless communication is referred to as wireless or cordless. It transmits information between two or more points without the use of a wire (or electrical conductor). The wireless transmission can be in the form of light, sound, or a magnetic or electric field.

The most common wireless technologies used today is radio waves. Radio waves encompass various types of fixed, mobile, and portable applications, including smartphones and other electronic devices. With radio waves, distances between two points can be short, such as a few meters in the case of Bluetooth. Or as far as millions of kilometres for deep-space radio communications.

1c. Wi-Fi

Wi-Fi is a wireless networking technology. Using radio waves, it allows nearby devices like smartphones, tablets, laptops, and desktop computers to interface (or connect) to the internet via a router.

Wi-Fi is found in homes and offices if it has been subscribed. It is also found at wireless access points in public places like coffee shops, libraries, and hotels. This is to provide visitors with Internet access for their mobile devices.

2. PHONE ELEMENTS

2a. SIM-card

A SIM-card (full form Subscriber identity Module) is a microchip inserted into the SIM-card tray on a mobile phone. The SIM card enables the phone to connect to the wireless mobile network.

SIM-cards provided by phone companies contain identifying information. This information includes serial numbers, your phone number, the phone carrier you use (such as: Singtel, M1, StarHub, SIMBA etc), and other important information. The SIM card also enables the user to make phone calls, send text messages, surf the internet, and more.

2b. Biometrics recognition

Biometrics recognition is meant for security when accessing smartphones. It can be carried out via Fingerprint reader, Face recognition or Iris recognition, depending on the model of smartphones used.

The main purpose of biometrics recognition is to help in locking/unlocking your device. It is also commonly used to authenticate your identity for financial transactions or other highly private and confidential transactions.

2c. Fingerprint Reader

A fingerprint reader (or fingerprint scanner) is a hardware sensor that uses fingerprints for biometric authentication.

Biometrics grants or doesn't grant the user to lock/unlock their smartphones, access information, or to approve transactions. In short, a fingerprint reader is a form of biometric security. On today's smartphones, the most common type of sensor is the fingerprint reader. This takes the form of a fingertip-sized pad that reads the fingerprint with a single touch.

2d. Face ID

Face ID is an authentication facial recognition system designed and developed by Apple for iPhone and iPad. The system allows biometric authentication for unlocking a device, making transactions, and accessing information. Face ID is enabled by scanning the user's face with the state-of-the-art TrueDepth camera system. The system then accurately maps out the geometry of the user's face. And with just a single glance, Face ID will securely unlock the iPhone or iPad. Other operating systems also use facial recognition technology for biometric authentication, but they are known by other names.

2e. Near-field Communication (NFC)

The Near-field Communication (NFC) is a short-range wireless technology. It allows devices, such as smartphones, to exchange a small amount of data with other devices, and to read NFC-equipped cards/tags over a short distance.

Typically, this distance must be within 4cm or less to initiate a connection. With NFC, users can easily transfer information between devices quickly with a single touch, such as when making payment, and downloading or sharing information.

2f. AirDrop

AirDrop is unique to Apple's iOS (iPhone operating system), as well as Apple's iPad OS and mac OS. With AirDrop, users can transfer files from one AirDrop-supported Apple device to another easily. For example, we can transfer photos or other files from one iPhone to another iPhone, or from an iPhone to a MacBook. However, it requires Wi-Fi or Bluetooth connection for AirDrop to work.

3. ONLINE STORAGE AND WORKSPACE

3a. iCloud

iCloud is the service developed by Apple, which enables users to store and sync data across all iOS devices, such as iPhone, iPad, MacBook etc.

Users don't need a physical storage device like an external hard disk or a thumb drive. Instead, storage is in data centres. So, users can access their data from anywhere, even when using someone else's computer or smartphone.

With iCloud, users can securely store their photos, files, notes, passwords, and other data in the cloud. It also automatically updates data stored across all their devices under the same registered Apple ID. You can register for an Apple ID using a valid email address.
iCloud also makes it easy to share information, including photos and documents, with friends and family. Users can also back up all information for their iOS devices by using iCloud. iCloud offers users 5 GB of free storage and may be upgraded to 50 GB, 200GB, or higher data storage and additional features through optional paid plans.

3b. Google Drive

Google Drive is an online or cloud-based storage and synchronization service developed by Google. It allows users to create, edit, and save

files online, and to access them remotely from any mobile device, such as smartphones, tablets, or laptops.

Google Drive also allows users to collaborate with others on the same document. To do this, users send an invitation to the person they wish to collaborate with. When the invited person accepts the invitation, users and guests can immediately work on the same document at the same time, even if they are thousands of kilometres apart.

Users with a Google account will be given a 15 GB of free storage on Google Drive, it also offers users to upgrade to 100GB, 200GB and more through optional paid plans.

Google Drive is also integrated with Google's office suite of cloud-native apps, which are similar to Microsoft Office. The apps include Google Docs, Sheets, Slides, Forms, and more.

4. SMARTPHONE OPERATING SYSTEM

4a. iOS

iOS was originally called iPhone OS. It is a mobile operating system (OS) created and developed by Apple. iOS is the world's second-most popular mobile OS after Android. it is used to power the iPhone, iPad, and iPod Touch.

4b. Android (Operating System)

The Android operating system was first developed by Android Inc., a software company located in Silicon Valley. In 2005, Google acquired Android Inc.

Android's primary use is for touchscreen devices, smartphones, and tablets. And it is a Google product. Android users can link their mobile devices to other Google products, including cloud storage and email platforms.

5. APPLICATIONS (APPS)

5a. Mobile Applications (Apps)

A mobile application or app is a computer program or software application. It is designed to be installed and run on a smartphone, tablet, or other electronic device.

Most apps have one specific function (example, Shopee is a shopping app and Google maps is a wayfinding app). But some other apps carry multiple functions (such as Google Drive for accessing files and for sharing files and folders across users, and Grab, an app for food delivery and ride hailing).

There are three types of apps. The first type is called “Web-based” apps, Those are applications that require internet connection for complete use, such as Google Docs. The second type is called “Native” apps, they are apps created for a certain mobile platform (such as Calculator and Clock in iOS devices). The last type of apps is made to support both native and web-based technologies (i.e. different operating systems) and it has a combination of both web-based and native applications, it’s called “Hybrid” apps, examples are Instagram, Twitter, and Gmail.

5b. Apple App Store (App Store)

Apple App Store or App Store, is Apple’s app marketplace. It is a digital shop where users can buy or download approved apps for their Apple devices such as iPhones, iPads, Macs, and Apple Watches. The apps add to what Apple devices can do. For example, a bus app can tell iPhone users when the next bus they want will reach their bus stop. To get to Apple Store on an iPhone, open the App Store app icon on the device.

5c. Google Play

Google Play, also known as the Google Play Store, was formally known as Android Market. Simply put, the Google Play Store is Google’s official digital store. There, Android users can buy or

download apps, books, games, movies, music and other content for their Android devices. To get to Google Play on an Android phone or tablet, open the Play Store app icon on the device.

(Compiled by Jacqueline Siow, Sherriza Jalil & Amanda Chong from the co-design research team.)

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