

#### (ADVANCED) SMART EDUCATIONAL RESOURCES

Adopting mobile devices and adapting strategies
Selecting apps and web tools to enhance motivation and learning

June 8<sup>th</sup> to 12<sup>th</sup>, 2019, Faro

#### Mobile device's fundamentals





### **Network authentication**



**Network:** ualg-conferencias

User: acjit2019c

Password: 69283625



#### **Contents**

#### Mobile devices

- What are they?
- Technical features
- Operating systems
- Applications



### **Mobile devices**

What are they?

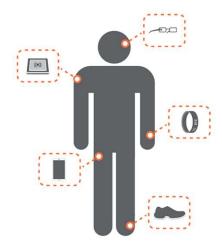
Small portable or pocket computing devices that can be used on the hands.





### **Mobile devices**

- Formats:
  - Tablets;
  - Smartphones;
  - Wearables;
  - Others







### Common technical features

- Dimensions and weight;
- Screen size, resolution and technology;
- Processor (number of cores and speed);
- RAM memory;
- Internal Memory and expandability;
- Estimated battery life;
- Wireless communications;
- Peripherals and sensors;
- Operating system and version.



### Wireless features

- GSM (Global System for mobile communications): conversation, SMS e MMS exchange;
- 2G/3G/4G standards for Internet Access;
- *Wi-Fi*;
- Bluetooth;
- NFC (Near Field Communication), only supplied by some manufacturers;
- Infrared (deprecated);



## Peripherals and sensors

- Touch screen;
- Speakers and headphones;
- Camera (rear and front);
- Radio receiver;
- Accelerometer;
- Gyroscope;



## Peripherals and sensors

- Compass;
- GPS (Global Positioning System);
- Proximity;
- Color/light;
- Relative Humidity;
- Temperature.



## **Operating systems**









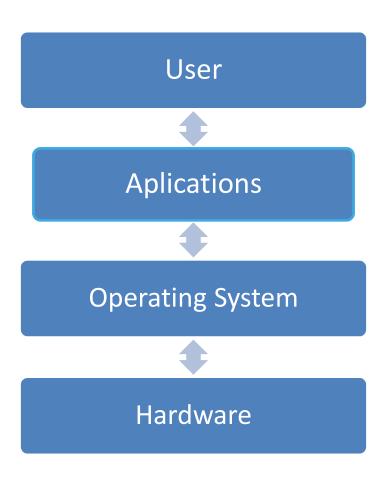






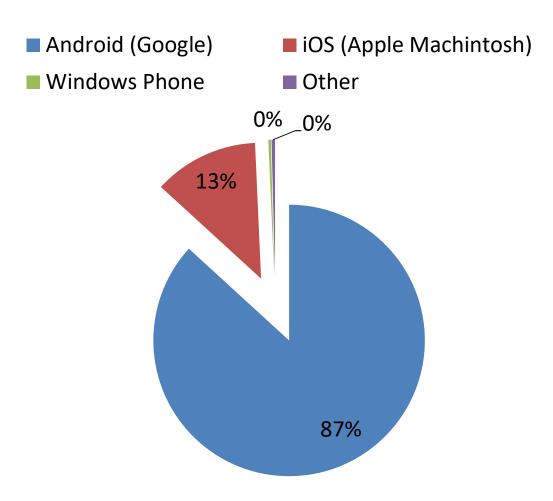
## **Operating systems**







# **Operating systems**





## Operating systems – versions and updates

| Android                | IOS         | Windows e Windows<br>Phone |
|------------------------|-------------|----------------------------|
| 1.0 (no code name)     | iPhone OS 1 | Windows Phone 7            |
| 1.5 Cupcake            | iPhone OS 2 | Windows Phone 8            |
| 1.6 Donut              | iPhone OS 3 | Windows Phone 8.1          |
| 2.0 Eclair             | iOS 4       | Windows Phone 10           |
| 2.2 Froyo              | iOS 5       |                            |
| 2.3 Gingerbread        | iOS 6       | Windows 8                  |
| 3.0 Honeycomb          | iOS 7       | Windows 8.1                |
| 4.0 Ice Cream Sandwich | iOS 8       | Windows 10                 |
| 4.1 Jelly Bean         | iOS 9       |                            |
| / / //:TI/~T           | ins 10      |                            |

## **Applications (Apps)**

- Obtaining and installing applications
  - Operating System Stores:
    - Google Play (Android);
    - App store (IOS);
    - (Windows) Store.
  - Other stores (Samsung App Store, Amazon App Store, ...)
- Direct file installation (.apk, .ipa, .exe)



## **Application Selection**

- Selecting applications:
  - In-store ratings (ratings, reviews, and number of ratings);
  - Evaluation by specialized websites.
  - Other reviews ...



## **Application Selection (Advanced)**

- How to evaluate applications for teaching:
  - Relevance;
  - Customization;
  - Feedback;
  - Cognitive skills development;
  - Ease of use;
  - Involvement;
  - Sharing facilities.





Vincent\_App\_Checklist

http://learninginhand.com/blog/ways-to-evaluate-educational-apps.html



## Native apps / Web apps

- Native applications (Operating system installed)
- Web applications
  - Platform (O.S.) independent;
  - Executed inside the web browser.

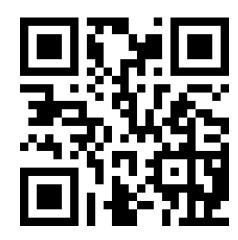




## Web applications: an example

### Individual activity:

- 1. Use the browser on your mobile device to access <a href="https://answergarden.ch/954513">https://answergarden.ch/954513</a>
  Enter a word that answers the question that is placed on the site and tap submit. Insert another, please;
- 2. Check the results on the projected image





## **Other Word Cloud generators**

- Collaborative
  - Mentimeter
  - Polleverywhere
- Not collaborative
  - Wordcloulds;
  - Wordart;
  - Worldle;
  - Tagxedo;
  - Tagul;
  - Word it out.

## **Lunch time**

