

# OS, Apps, Web apps, Chatbot



iOS



LINEAGE TIZEN™

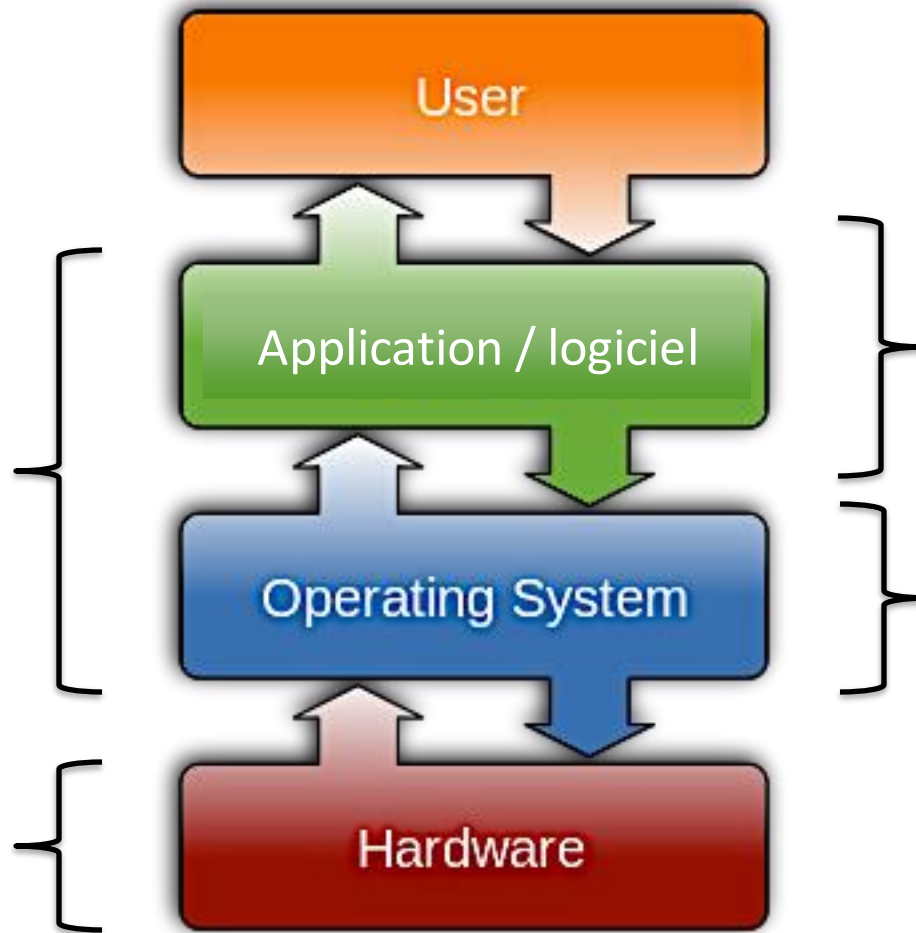


# Définitions

Contenu

Logicielle

Matérielle



- Apps
- Navigateur



# Plan du cours

Systeme d'exploitation



Application / logiciel

- App native
- Web App
- Chatbot



# OS libres vs. Propriétaires & Constructeurs

OS

Constructeurs



iOS

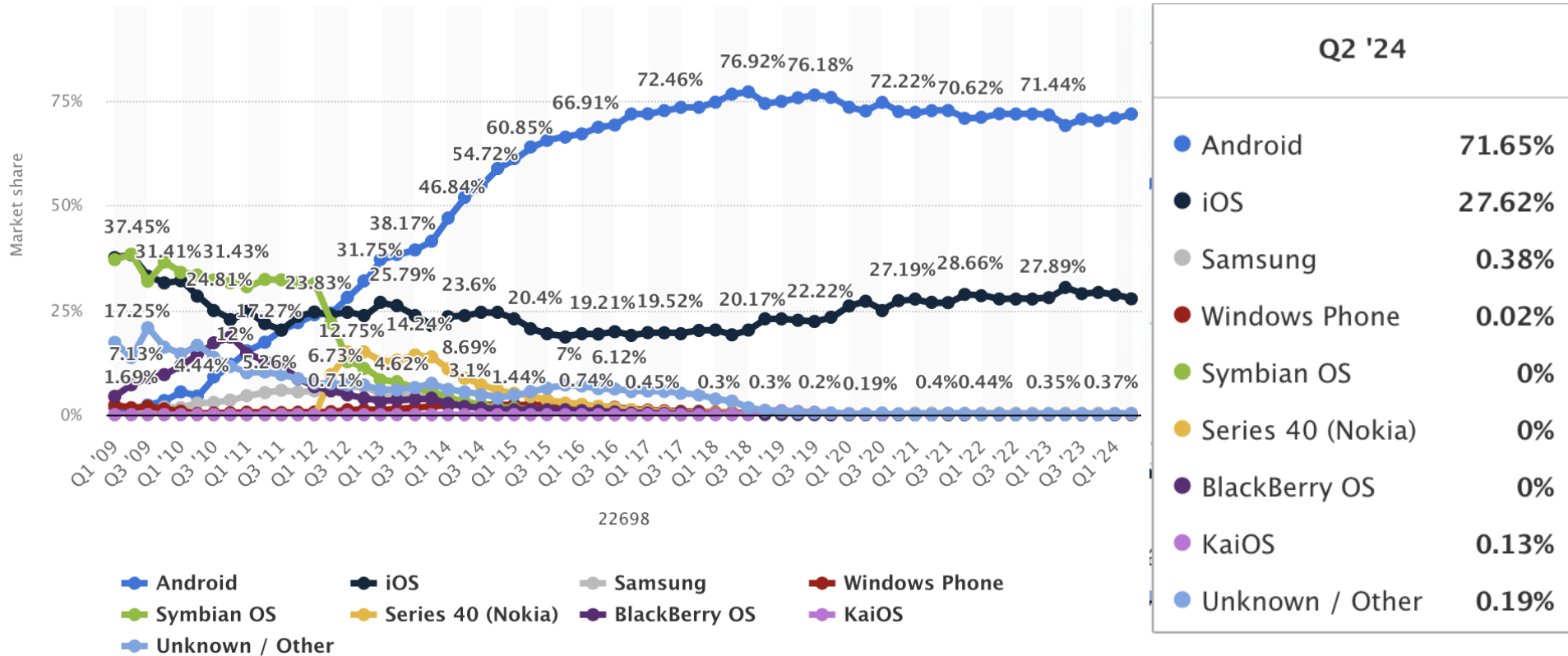


Windows 10



# Mobile Operating System Market Share

**Worldwide** 2009 to 2024



22698

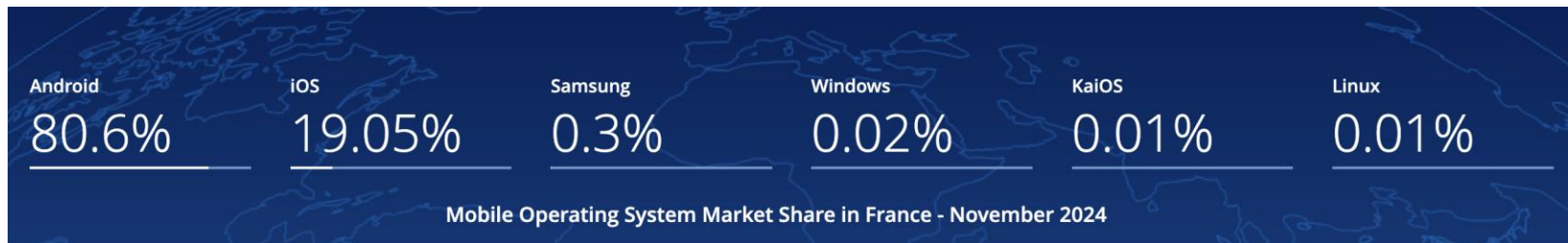
# Mobile Operating System Market Share

## Worldwide vs. France - Novembre 2024

### Worldwide



### France



# OS des objets connectés et des capteurs de l'Internet des objets



Apple



Contiki

The Open Source OS for the Internet of Things



O10ée

# Web vs. Apps





# Native

Advanced UI interactions  
Fastest performance  
App store distribution

## iOS



single platform

full capability

# Hybrid

Web developer skills  
Access to native platform  
App store distribution

multiple platforms



## HTML5

Web developer skills  
Instant updates  
Unrestricted distribution

partial capability





**Progressive Web Apps  
vs  
Native Apps**



# Applications natives

Native

Hybrid

No code  
App Builder





# Apps Native, SDK et Store

Environnement

Langage

IDE

Store



Objective-C et Swift



IDE : Xcode



<https://developer.apple.com/develop/>



Java et XML



 eclipse  
IDE : Android Studio



<https://developer.android.com/studio/index.html>



# Hybrid apps

## NATIVE CONTAINERS



iOS - xCode/Objective-C  
Android - Eclipse/Java  
Windows - Visual Studio/C#

## MOBILE WEB



HTML  
CSS  
JavaScript

## Hybrid Application



# Comparateur de Framework mobile

<http://mobile-frameworks-comparison-chart.com/>

mobile  
frameworks  
comparison  
chart

Twitter

Please contribute

Legal

What **platforms** would you like to develop for?

- |  |  |
|--|--|
| <input type="checkbox"/> Android             | <input type="checkbox"/> Tizen         |
| <input type="checkbox"/> Blackberry OS       | <input type="checkbox"/> Watch OS      |
| <input type="checkbox"/> Firefox OS          | <input type="checkbox"/> wearOS        |
| <input type="checkbox"/> iOS                 | <input type="checkbox"/> Windows Phone |
| <input type="checkbox"/> Progressive Web App |  |

What **languages** would you like to use?

- |  |  |
|--|--|
| <input type="checkbox"/> Action Script | <input type="checkbox"/> F#            |
| <input type="checkbox"/> C++           | <input type="checkbox"/> Lua           |
| <input type="checkbox"/> C#            | <input type="checkbox"/> PHP           |
| <input type="checkbox"/> Objective C   | <input type="checkbox"/> Python        |
| <input type="checkbox"/> Java          | <input type="checkbox"/> Ruby          |
| <input type="checkbox"/> Kotlin        | <input type="checkbox"/> Swift         |
| <input type="checkbox"/> Java Script   | <input type="checkbox"/> Visual Editor |

# No code App Builders

18 avril 2023

## CONSTRUCTEURS D'APPLICATIONS

Vous voulez créer une application mobile sans coder ? Nous avons dressé la liste des meilleurs outils qui vous permettront de créer une application mobile sans avoir besoin de compétences techniques et sans apprendre à coder. Ces plateformes vous permettront de créer n'importe quoi, d'une application de réseau social à une application de place de marché bilatérale comme AirBnB, sans code requis ! Si vous souhaitez en savoir plus sur le développement d'applications sans code, vous êtes au bon endroit.

**10 Meilleur No-Code Constructeurs d'applications:**

ADALO

GLISSER

EMPILEUR

SANS FIN

STUDIO BRAVO

BLOCS BETTY

BONBARBIER

BULLE

FLIPIET

STADE



# Web Applications – Web App



Web app  
(site  
mobile)

Progressive  
Web App



# Du WAP au HTML5



1997

Expérience propre au mobile



2004



2007

Expérience desktop & mobile



28 octobre 2014

## FEATURES

- YES** ✓ Feature available in your current browser  
**NO** ✗ Feature not available in your current browser



# What Web Can Do Today

Can I rely on the Web Platform features to build my app?  
An overview of the device integration HTML5 APIs

Filter

### Seamless Experience

- Offline Mode **YES** ✓
- Background Sync **YES** ✓
- Inter-App Sharing **NO** ✗
- Payments **YES** ✓
- Credentials **YES** ✓

### Surroundings

- Bluetooth **YES** ✓
- NFC **NO** ✗
- USB **YES** ✓
- Serial Port **NO** ✗
- Ambient Light **NO** ✗

### Operating System

- Offline Storage **YES** ✓
- File Access **YES** ✓
- Contacts **NO** ✗
- SMS/MMS **NO** ✗
- Storage Quotas **YES** ✓

### Screen & Output

- Virtual & Augmented Reality **YES** ✓
- Fullscreen **YES** ✓
- Screen Orientation & Lock **YES** ✓
- Wake Lock **YES** ✓
- Presentation Features **YES** ✓

### Native Behaviors

- Local Notifications **YES** ✓
- Push Messages **YES** ✓
- User Idle Detection **NO** ✗
- Permissions **YES** ✓
- Task Scheduling **YES** ✓

### Camera & Microphone

- Audio & Video Capture **YES** ✓
- Advanced Camera Controls **YES** ✓
- Recording Media **YES** ✓
- Real-Time Communication **YES** ✓
- Shape Detection **YES** ✓

### Input

- Touch Gestures **YES** ✓
- Speech Recognition **YES** ✓
- Clipboard (Copy & Paste) **YES** ✓
- Pointing Device Adaptation **YES** ✓
- Eye Dropper **YES** ✓

### App Lifecycle

- Store Distribution not testable
- Home Screen Installation **YES** ✓
- Run On Startup not testable
- Foreground Detection **YES** ✓
- Freeze/Resume Detection **YES** ✓

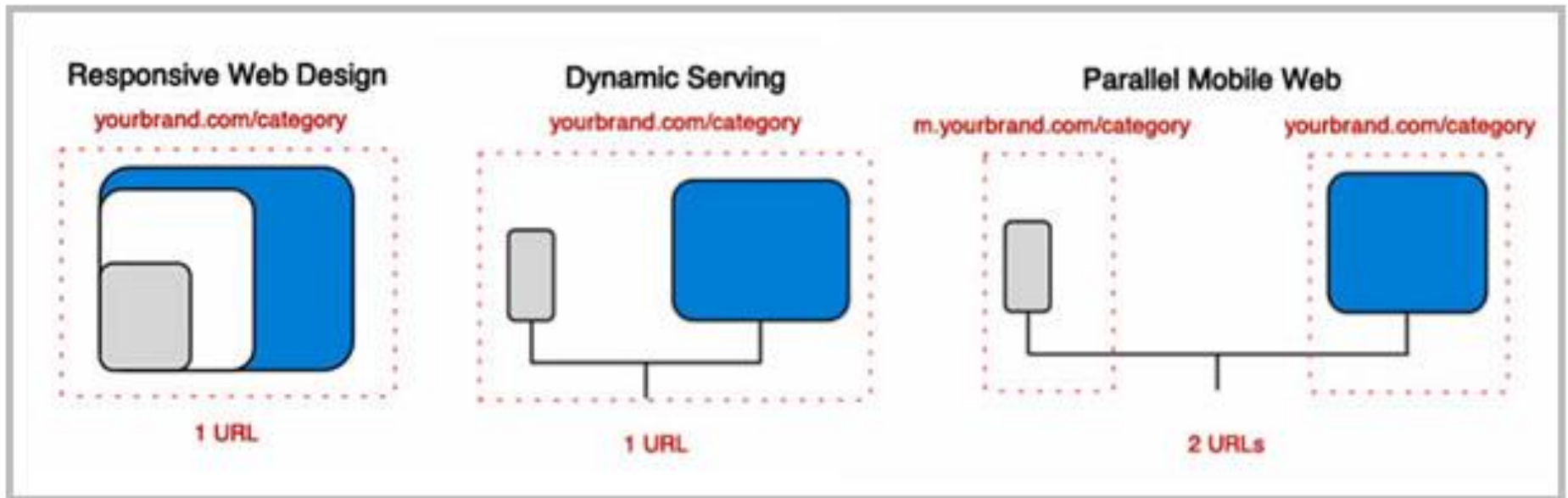
### Device Features

- Network Type & Speed **NO** ✗
- Online State **YES** ✓
- Vibration **YES** ✓
- Battery Status **YES** ✓
- Device Memory **YES** ✓

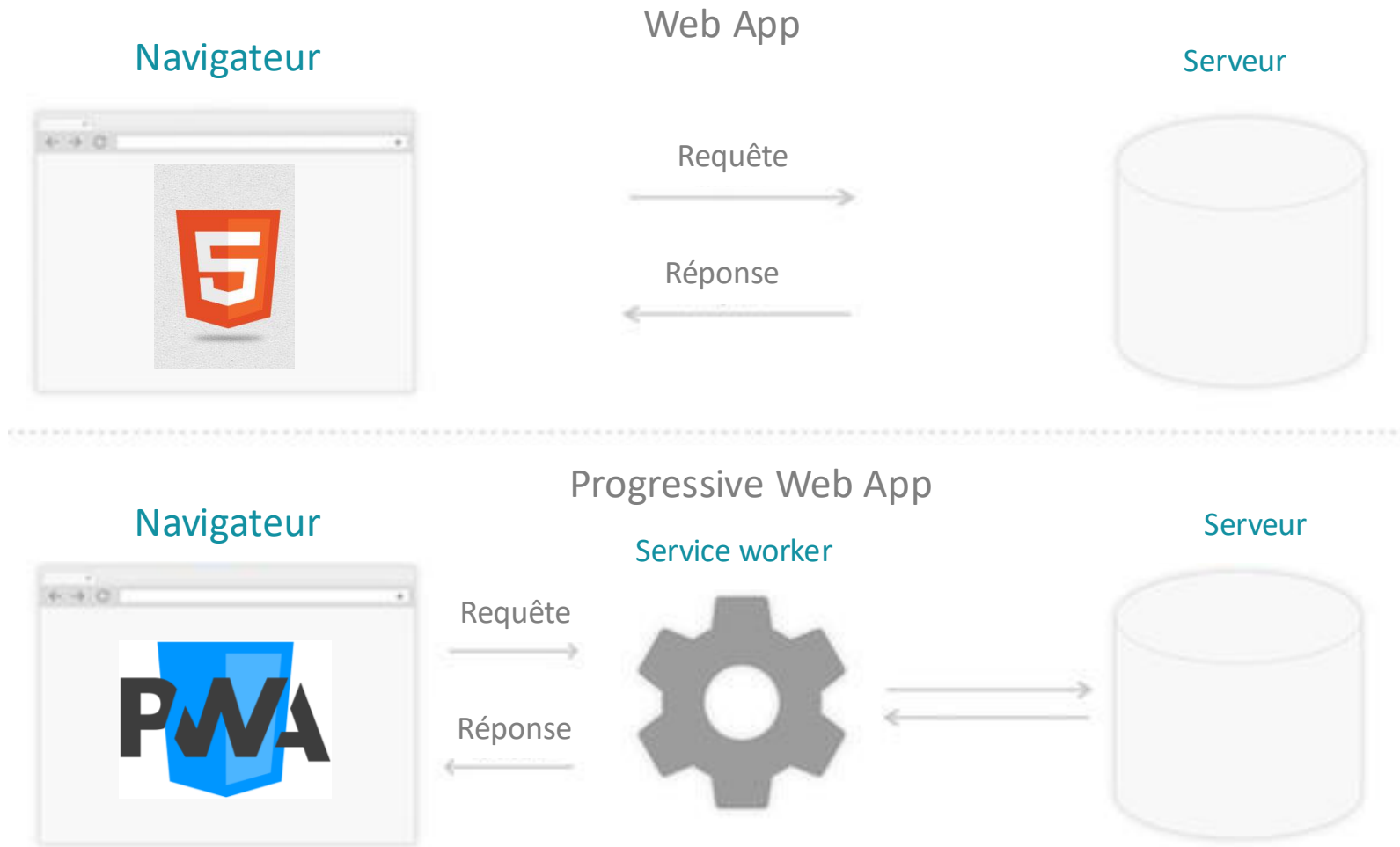
### Location & Position

- Geolocation **YES** ✓
- Geofencing **NO** ✗
- Device Position **YES** ✓
- Device Motion **YES** ✓
- Proximity Sensors **NO** ✗

# Stratégie de développement d'un site mobile



# Web app vs. Progressive Web App





# Qu'est-ce qu'une Progressive Web App ?



Progressive Web Apps  
3 key elements

App Shell



User Experience

Service Worker

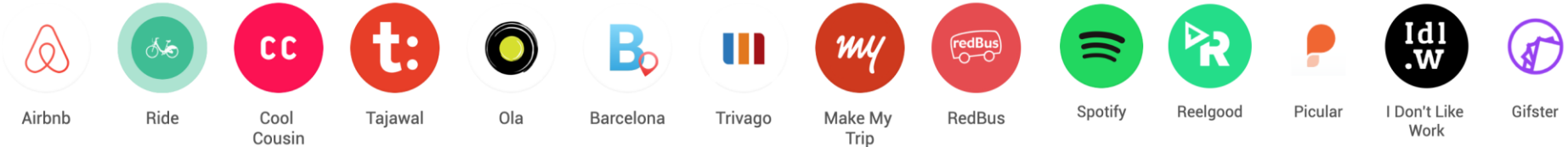


Content Accessibility

Manifest

```
<code>{
  "name": "Web Application Manifest Sample",
  "icons": [
    {
      "src": "launcher-icon-0-72x.png",
      "sizes": "72x72",
      "type": "image/png"
    },
    {
      "src": "launcher-icon-16x.png",
      "sizes": "16x16",
      "type": "image/png"
    },
    {
      "src": "launcher-icon-36x.png",
      "sizes": "36x36",
      "type": "image/png"
    },
    {
      "src": "launcher-icon-48x.png",
      "sizes": "48x48",
      "type": "image/png"
    },
    {
      "src": "launcher-icon-76x.png",
      "sizes": "76x76",
      "type": "image/png"
    },
    {
      "src": "launcher-icon-96x.png",
      "sizes": "96x96",
      "type": "image/png"
    },
    {
      "src": "launcher-icon-128x.png",
      "sizes": "128x128",
      "type": "image/png"
    }
  ],
  "theme_color": "#9E9E9E",
  "background_color": "#9E9E9E",
  "start_url": "index.html",
  "display": "standalone",
  "orientation": "landscape"
}
```

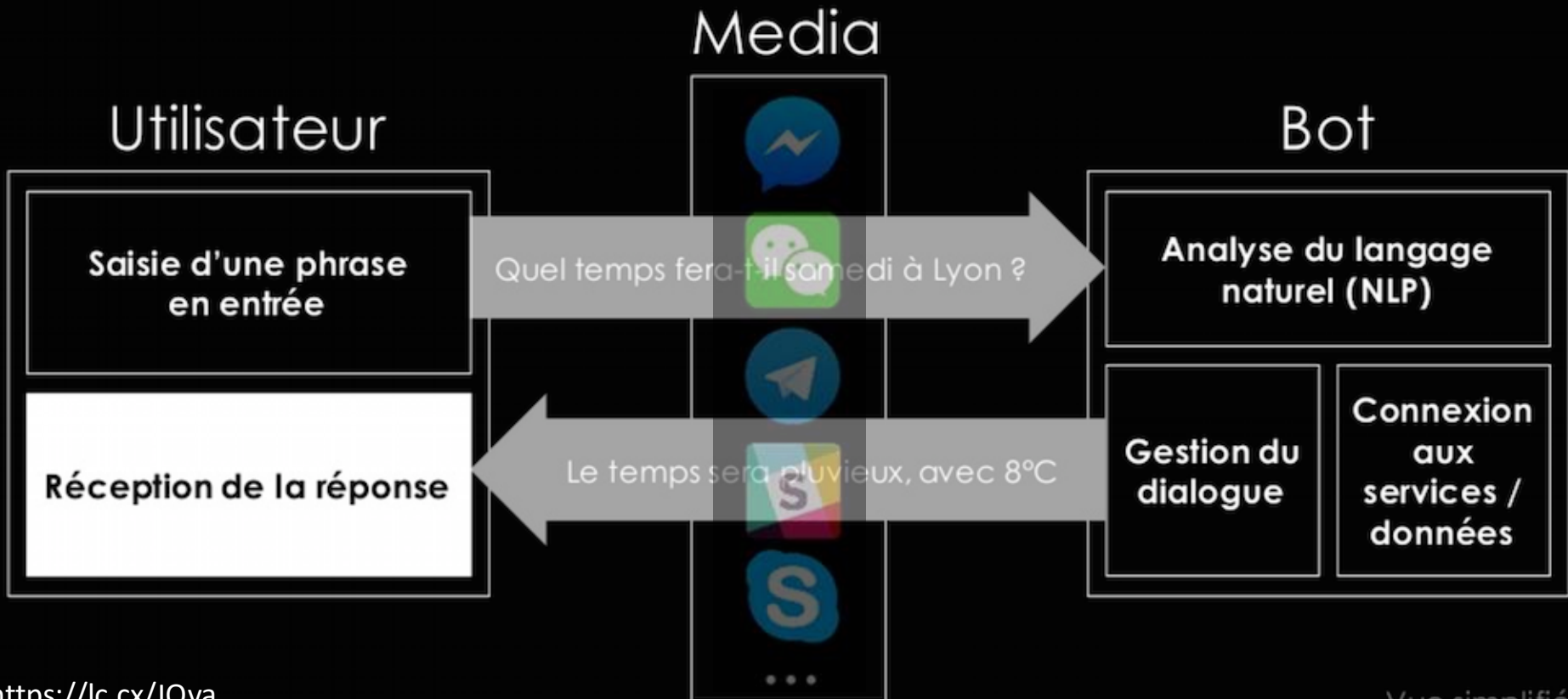
Applique Experience



# Les chatbots

Meetup IA Lyon - Introduction aux chatbots

## Fonctionnement d'un chatbot



# Services en ligne DIY / NoCode





# Maquette fonctionnelle

(wireframing)

*moqups*

<https://moqups.com/>

proto.io

<https://proto.io/>



<http://ninjamock.com/>

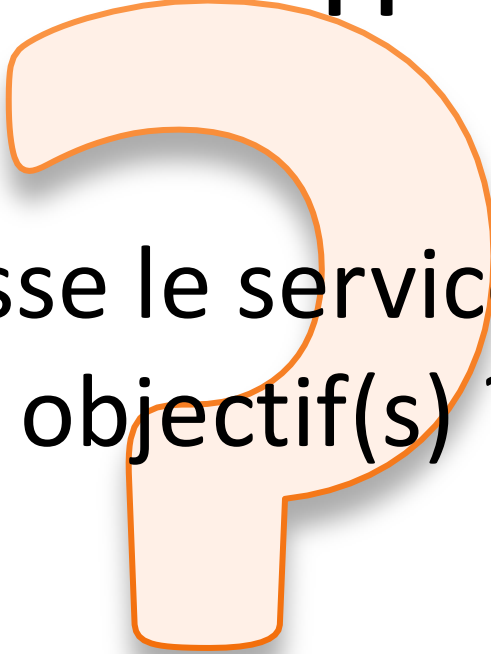
fluid

<https://www.fluidui.com/>

balsamiq®

<http://balsamiq.com/>

# Site responsive ? WebApp ? App Native ? Progressive Web App ? Chatbot ?



- ✓ A qui s'adresse le service mobile ?
- ✓ Avec quel(s) objectif(s) ?

*Et ensuite*

- ✓ Quelles sont les technologies sollicitées ? (caméra, capteurs etc.)
- ✓ Quel est le budget ?

Par équipe de 3

Création  
d'un  
chatbot

ou

Création d'une  
App / Progressive  
Web App

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Pour... Un projet personnel, professionnel ou alors pour

