BITM 2313
HUMAN COMPUTER INTERACTION

LAB 5: TRANSFORMING THEORY TO PRACTICE (PART 2)

BITM 2313	SEMESTER 2	SESSION 2020/2021

1.0 OBJECTIVE

To analyze how collaboration, coordination and communication are supported in multi-platform applications.

2.0 INTRODUCTION

We now live in a world surrounded by all kinds of devices, such as computers, smartphones, tablets, smartwatches, smart TVs, media streaming devices, gaming consoles and virtual assistants.

Human beings are inherently social. People will always need to collaborate, coordinate, and communicate with one another, and the diverse range of applications, web-based services, and technologies that have emerged enable them to do so in more extensive and diverse ways. Social media has brought about significant changes in the way people keep in touch and manage their social lives. A number of collaborative and telepresence technologies designed to support and extend these mechanisms, highlighting core interaction design concerns.

3.0 DEVELOPING CROSS-PLATFORM MOBILE APPS

Mobile computing has expanded from being primarily technical to now also being about usability, usefulness, and user experience. The seven (7) waves of mobile computing (Jesper Kjeldskov) are:

i. Portability
ii. Miniaturization
iii. Connectivity
iv. Convergence
v. Divergence
vi. Apps
vii. Digital ecosystems

Benefits of developing for multiple platforms (Syed Noman Ali, 2013) are:

i. Greater reach
ii. Easy marketing
iii. One instead of many
iv. Uniform look and feel
v. Use of known technologies
vi. HTML5 vs. mobile developers
vii. Reduced development costs

Meanwhile, the disadvantages of developing for multiple platforms (Syed Noman Ali, 2013) includes:

i. Different tools and languages
ii. User interaction
iii. Platform integration
iv. Trying to please everyone
v. Loss of flexibility

4.0 LAB ACTIVITY

In a group of four students, choose <u>one</u> multi-platform application provided below and answer the following questions:

Social issues:

i. **What kinds of conversations are supported? For example: online chatting, private messaging, calling, mobile group messaging, voice and video calls, voice messages.**
ii. **Does the mode of communication and interaction seem natural or awkward?**

Interaction design issues:

i. **What form of interaction and communication is supported, for instance, text, audio, and/or video?**
ii. **What other visualizations are included? For example: media, background image, send photos and videos instantly, document sharing.**

Design issues:

i. **What other features that you might include in the application to improve communication, coordination and collaboration?**

1. Instagram

The current iOS and Android versions of Instagram do look like twins, but there are still a few elements that set them apart. For example, the search bar, camera interface and Instagram's logo located.

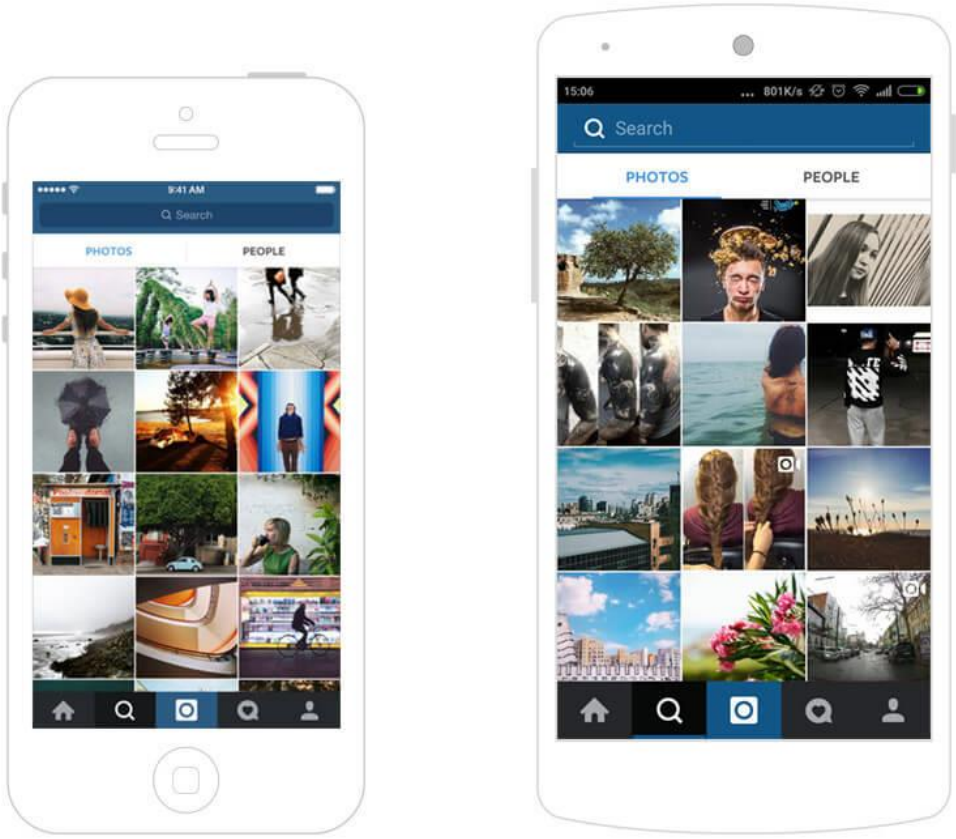

Figure 1: Instagram search interface iOS (left) and Android
(Source: https://www.smashingmagazine.com/2015/09/approaches-for-multiplatform-ui-design-adaptation/)

2. Telegram

Telegram is a popular messaging application. Telegram has a minimalist design style and supports a secure encryption protocol for private messaging which gives the app a great competitive advantage. Telegram launched on both iOS and Android at the same time, and chose to focus on functionality rather than looks. Therefore, its designers decided to stick to a platform-oriented approach.

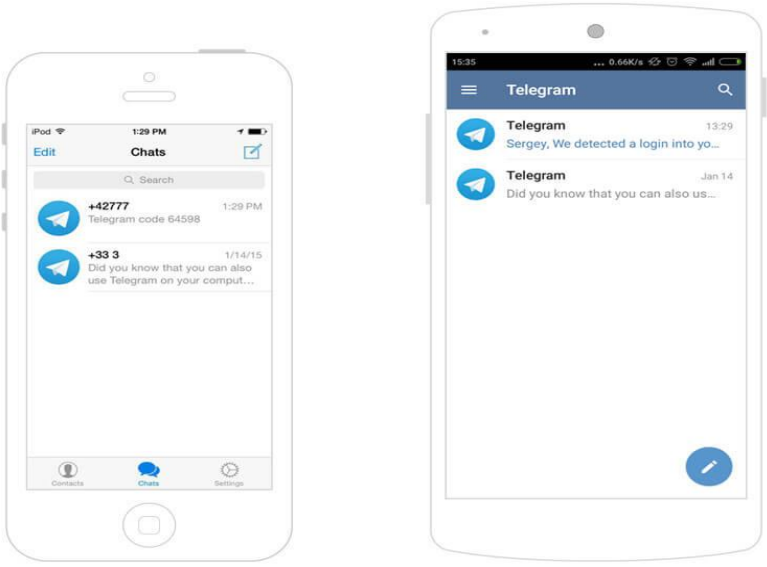

Figure 2: Telegram for iOS (left) and Android
(Source: https://www.smashingmagazine.com/2015/09/approaches-for-multiplatform-ui-design-adaptation/)

3. Whatsapp

Since WhatsApp is available on almost every platform, it's natural that it sticks to the platform-oriented method. The iOS and Android versions of WhatsApp look completely different from each other.

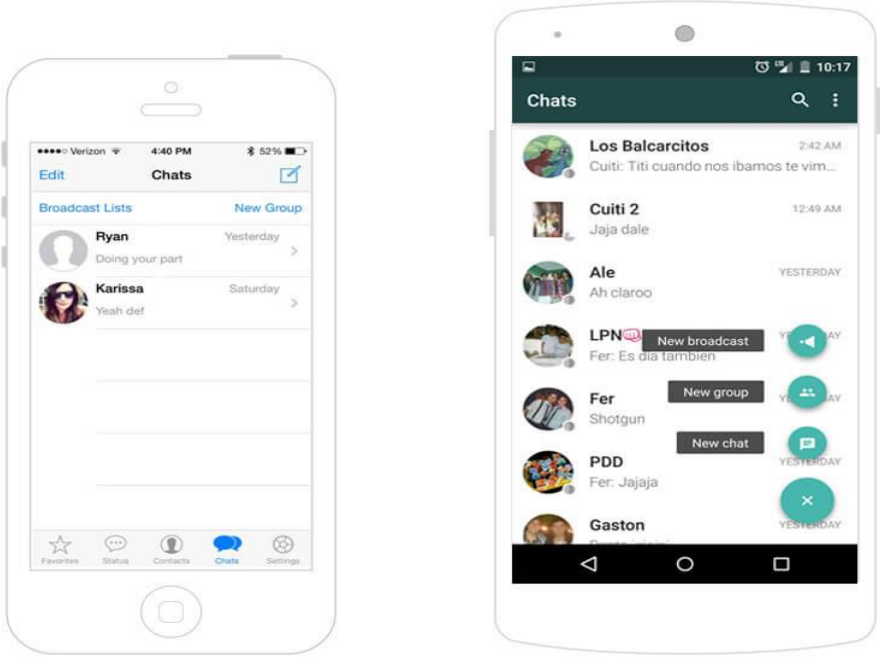

Figure 3: WhatsApp for iOS (left) and Android
(Source: https://www.smashingmagazine.com/2015/09/approaches-for-multiplatform-ui-design-adaptation/)