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COMP 3008

Assignment #1

Website: www.facebook.com

Part 1: Design Concepts

1. Causality

Definition – Users must be informed about whether an action they performed on the webpage, such as a button click, was successful and its consequence(s).
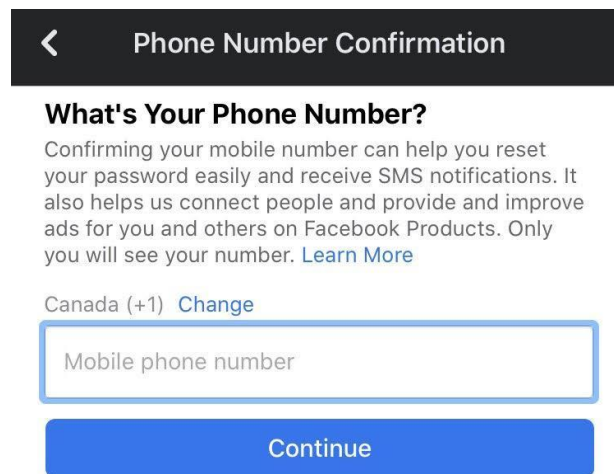
Application – As seen in the image below, on the top right-hand side of Facebook there are a series of circular buttons lined up closely each displaying distinct information to the user as a drop-down. When the "bell" button is clicked by the user, its icon color changes from black to dark blue and the space surrounding it changes color from gray to light blue. As only one button can be pressed at a time, this lets the user know exactly which button was pressed that brought forth the resulting Notifications menu.
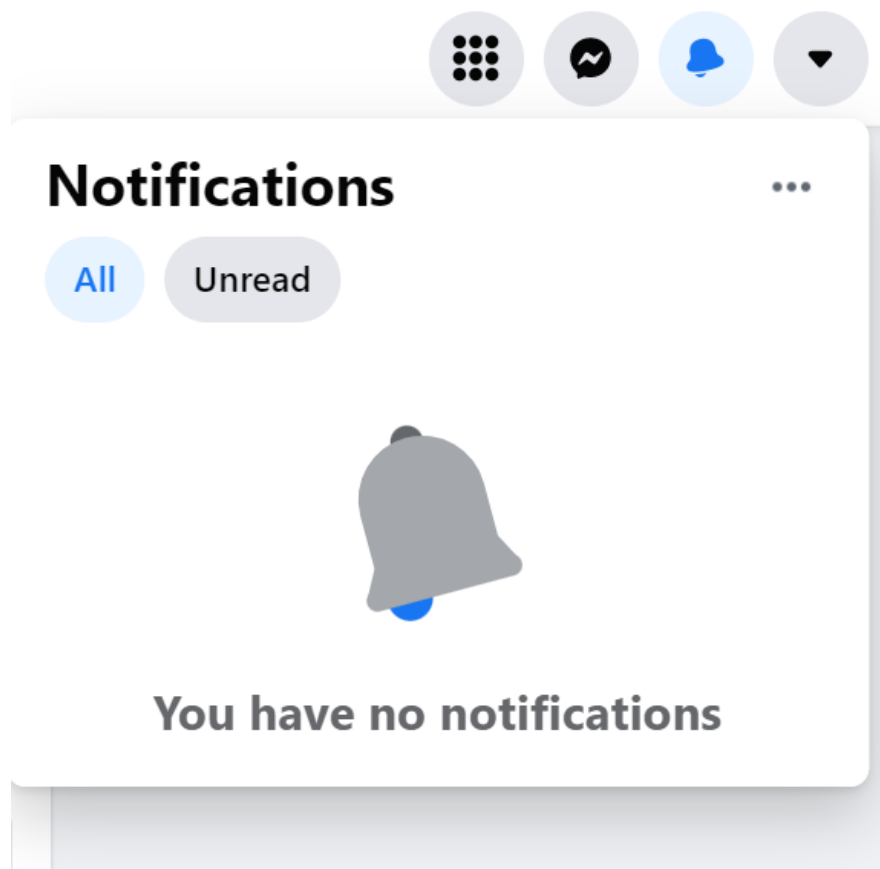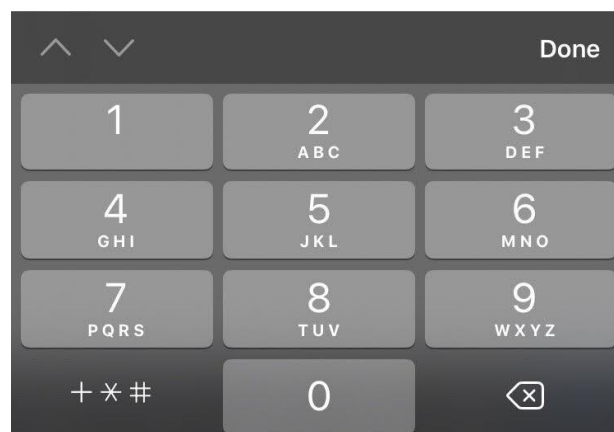
2. Constraints

Definition – Certain limitations must be set in order to prevent or stop user from attempting to do an impermissible task, such as feeding wrong input format.

Application – Within the settings of the Facebook Mobile app, the user looks to provide their phone number. When the input field is tapped, the pop-up keyboard displays only numbers as opposed to the regular QWERTY layout which forces the user to type their input in the required format, thus eliminating the potential issue of users entering their information in letters or other characters.

3. Mapping

Definition – Users must be able to make use of controls that can impact objects on the page. A poor mapping will leave the user frustrated.

Application – When searching for a particular item, such as a car, in the Facebook Marketplace, there is search filtering capability on the left-hand side of the page where the user has the choice to filter based on price range, year range, mileage, make, model, etc. Each time a filter is added, the right-hand side of the webpage automatically updates to show only the relevant postings that match the user's criteria.
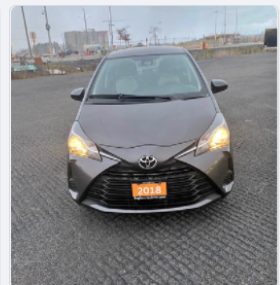
Part 2: Heuristic Evaluation

<u>Setting the context</u>

1. Facebook is targeted towards users of all ages, genders, and from demographics around the world who have access to the Internet.

2. As Facebook has been around for a long time and is providing its service to several billion users, the vast majority of Internet users can be expected to know the features of Facebook such as messaging friends, creating posts, subscribing to various groups, etc.

3. Due to its availability in various platforms, Facebook is readily accessible for users to use anytime and anywhere; whether they are at home, at school/work, or on-the-go.

4. Facebook users are most likely to be interested in sharing and viewing information, connecting with their friends, keeping up-to-date with events and people they are following, buying/selling on Facebook Marketplace, and more.

Heuristic evaluation

1.   User control and freedom

     Proper application – As seen in the image below, the user is in the middle of creating a post when they mistakenly click elsewhere in the system. Facebook offers users the freedom to either continue writing their post or leave.
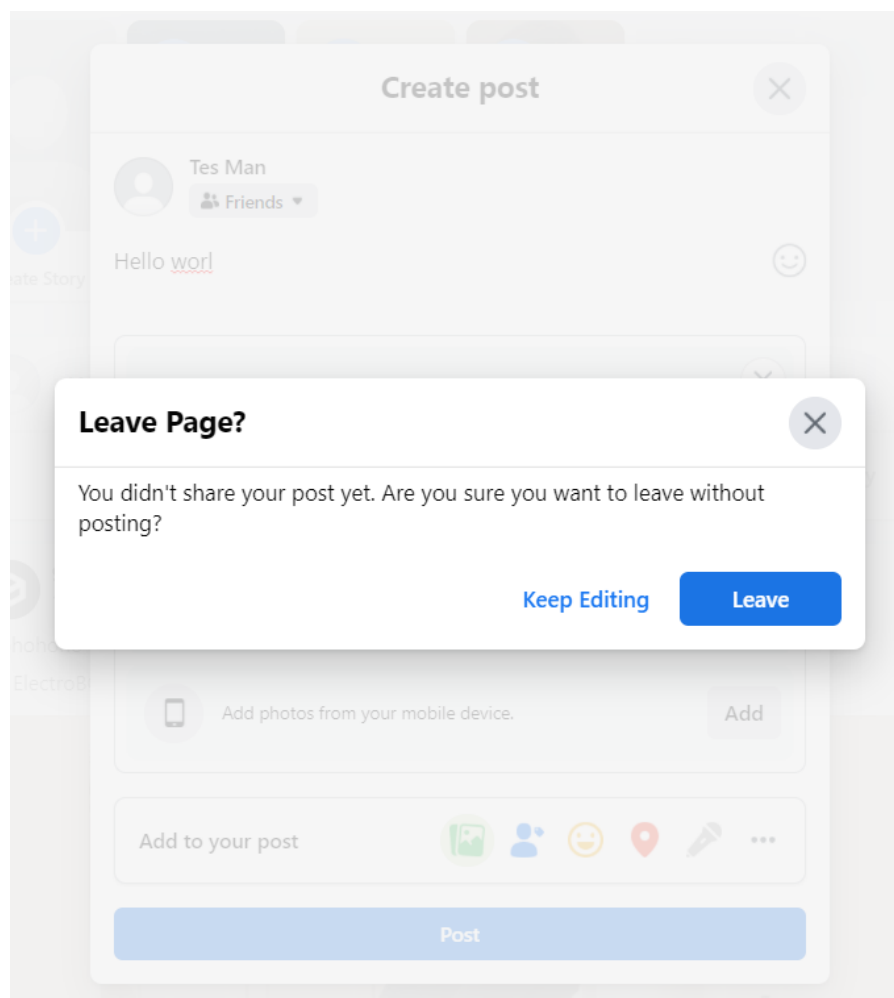
2.   Aesthetic and minimalist design

Violation of heuristic – In the image below, the layout looks aesthetically unpleasing and space-inefficient. The left-hand side of the page is cluttered with information that are not relevant enough to be shown to the user at all times. Additionally the news feed, which is in the center, is not given a larger space despite being the most important thing the user sees on this page.

Severity rating – 1; the issue is simply cosmetic, and it can be fixed relatively quickly.
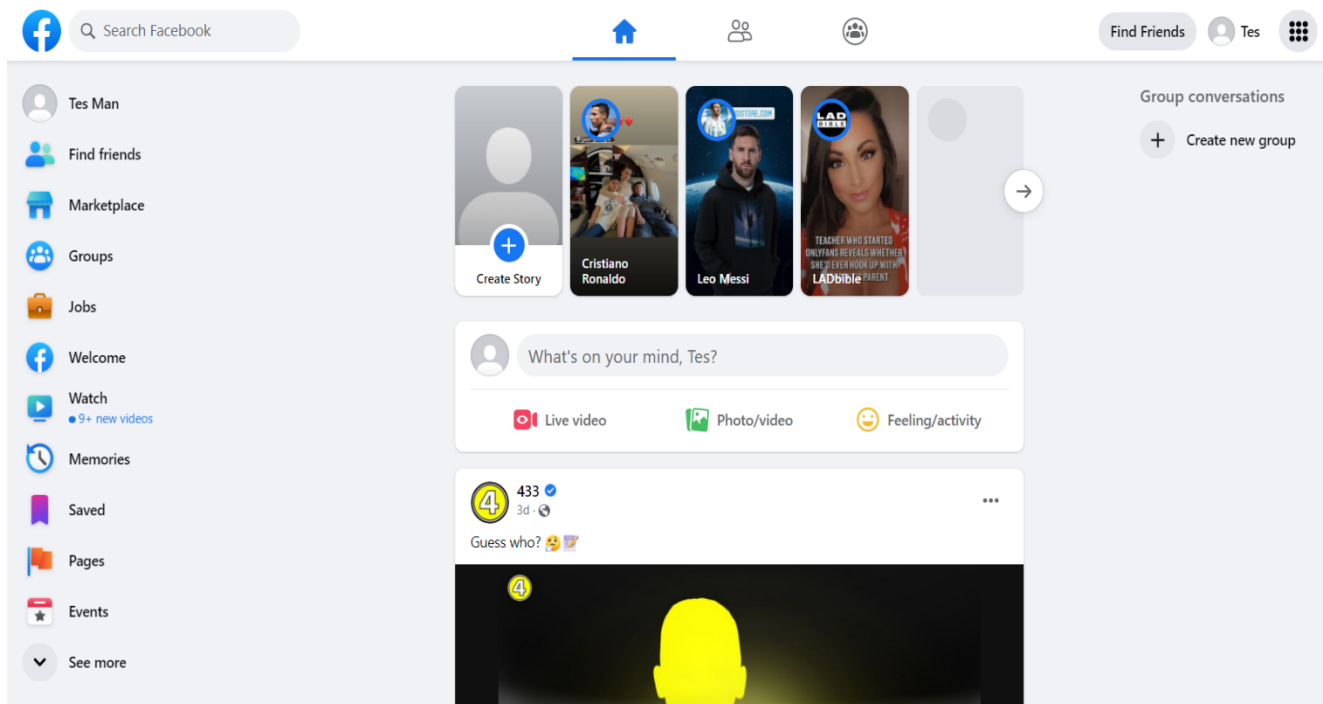
3. Help users recognize, diagnose, and recover from errors

    Proper application – If the user loses Internet connection while browsing, a dialog box appears at the bottom of the screen to inform the user that they are offline and also suggests a solution to refresh their network connection. Once the user is connected again, another dialog box appears to let them know about the successful connection.
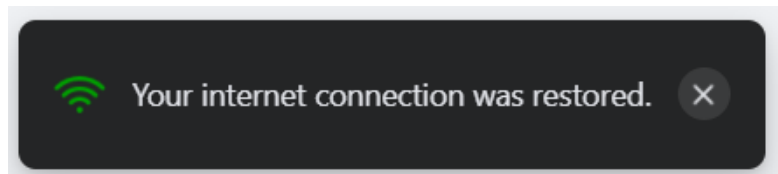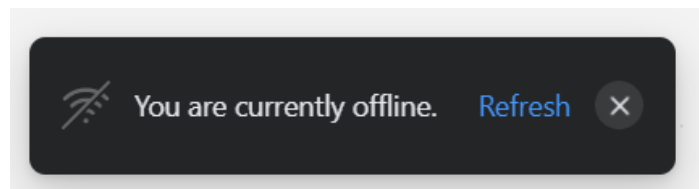
4.   Consistency and standards

Violation of heuristic – Users can be left puzzled when two different actions can be performed to achieve the same goal. In the image below, the text field labelled "What's on your mind, Tes?" and the "Post" menu option can both redirect the user to create a post. This creates confusion for the user and needlessly forces the user to remember that these are two different routes to perform the same task.

Severity rating – 2; this creates a minor usability problem for some users and should be addressed with a low priority.
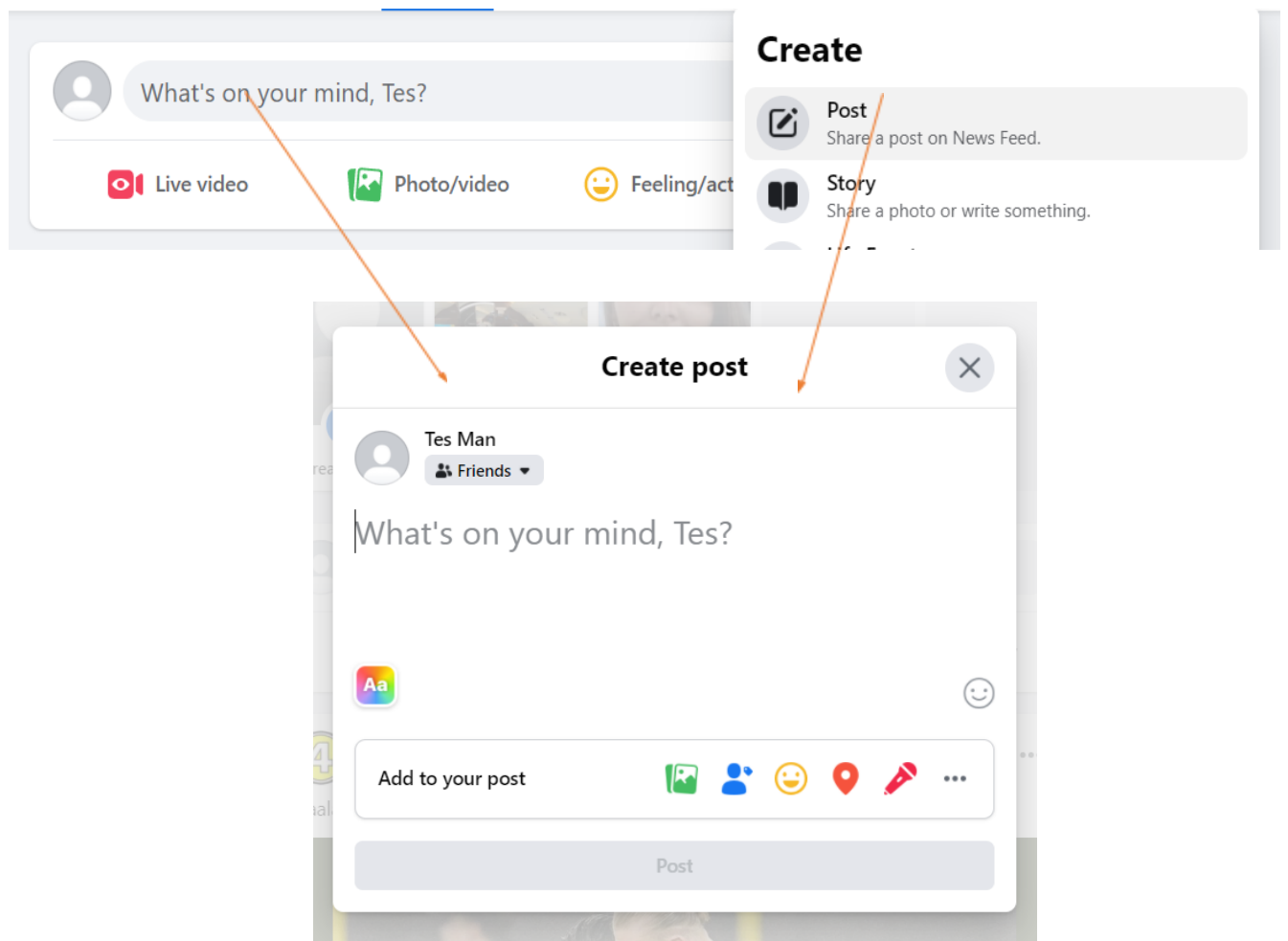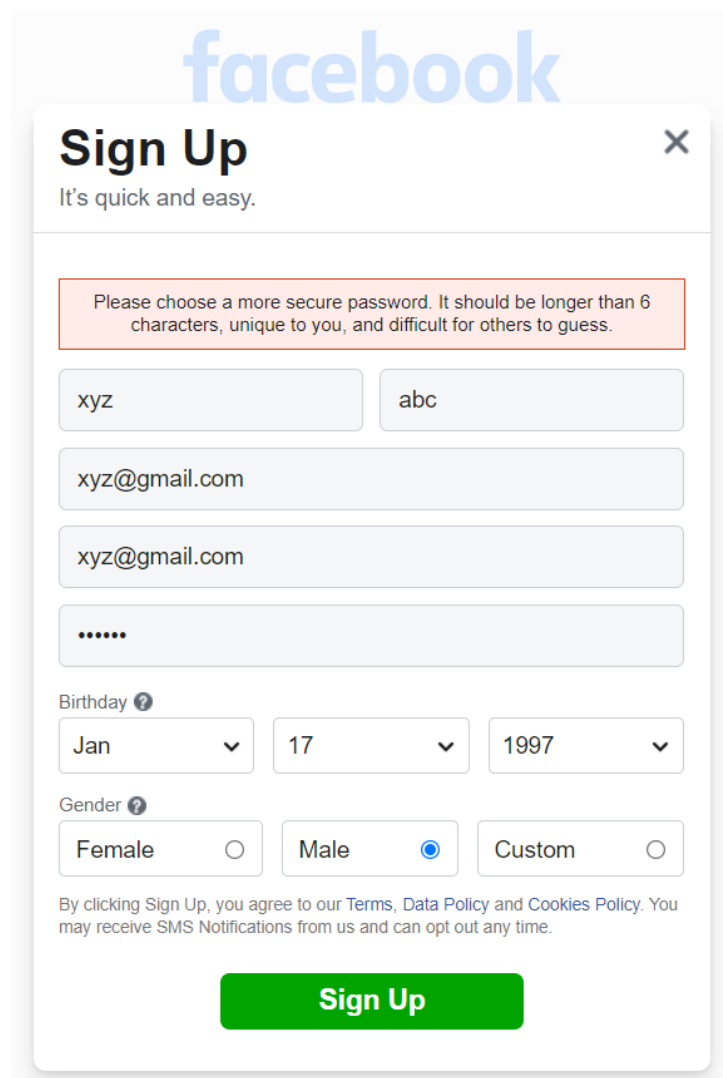
5.   Visibility of system status

Proper application – As seen in the image below, the user is immediately informed about the status of their recently submitted post through the help of a progress bar. Once the bar is filled in, the currently grayed-out post is visible in its original color.
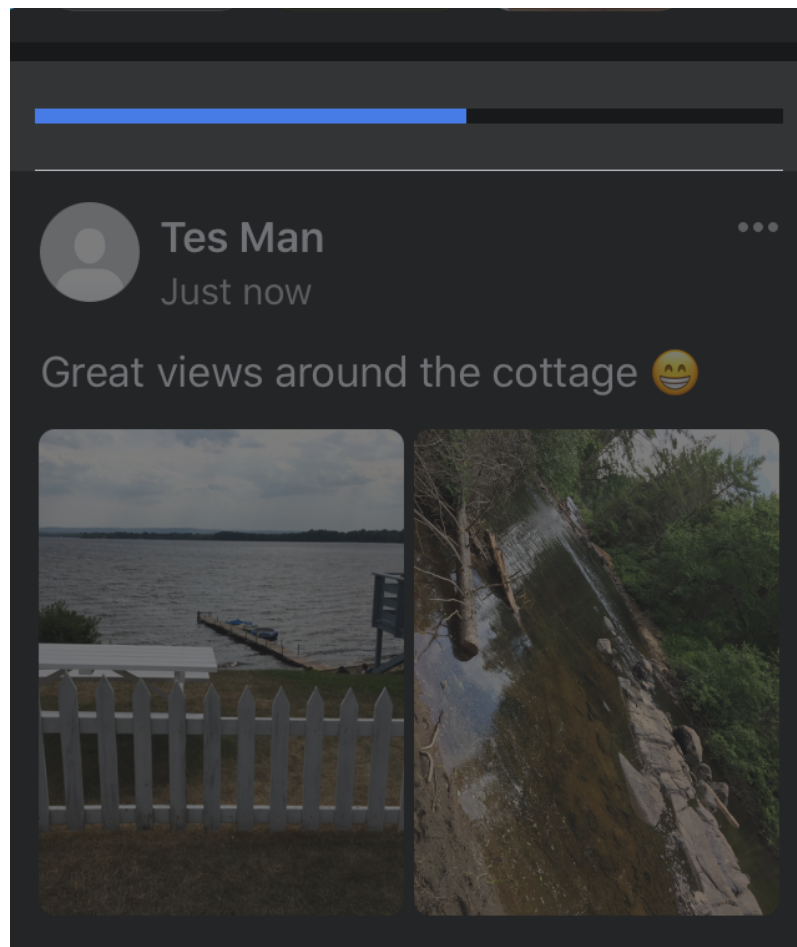
6.   Error prevention

Violation of heuristic – As discussed in the lectures, it is a better approach to create a design which prevents an error from occurring rather than display an error message to the user afterwards. In the example below, the user is notified of their weak password after they have filled in the entire form. This harbors an unpleasant user experience because the user is forced to go back to change the password.

Severity rating – 3; this creates a somewhat major usability problem for users and must be addressed with high priority. See suggested solution.

7.   Help and documentation

Proper application – Although a good user interface usually results in the user being able to browse through the website without having to refer to any documentations, it is still important to include for any users who may have little knowledge/experience starting out. As shown in the image below, Facebook categorizes common issues into boxes and also provides a search bar which makes it easier for the user to seek help with the problem they are facing.
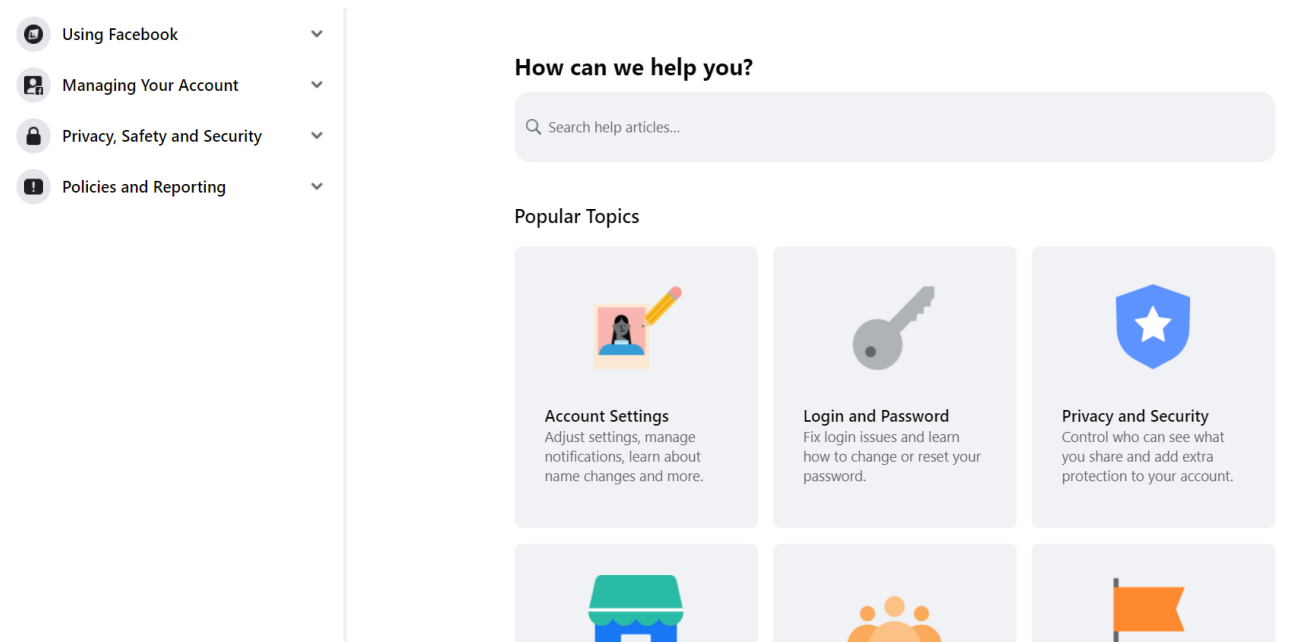
8.   Recognition rather than recall

Violation of heuristic – As discussed in the lectures, the user should not have to bear the burden of remembering information that could easily be visible and recognized after a glance. The image below shows the user inside the Facebook Jobs page searching for Web Developer positions. For a user who regularly comes back to this page to check for new positions, there is a major usability problem in that there is no indication provided as to whether they have already viewed a particular job posting before.

Severity rating – 3; this is a major usability issue for many users during their job hunting process as they would want to be able to quickly differentiate between the postings they have not visited and already visited. See suggested solution.
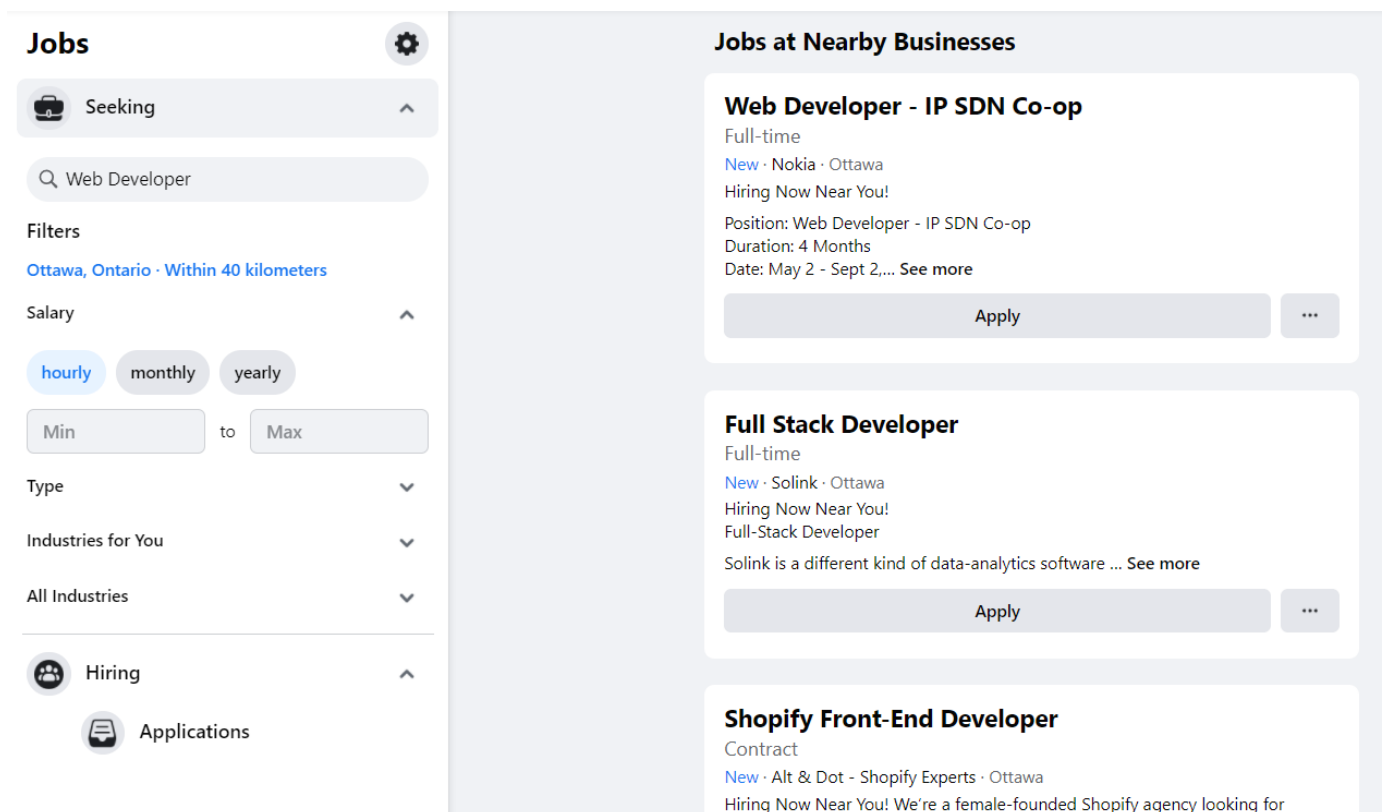
9.   Match between system and the real world

Proper application – Facebook has managed to reach all corners of the Earth. To accommodate its large set of users, Facebook offers the functionality to change the system language to one that the user may be more comfortable in. This allows any non-English-speaking user to understand Facebook terms such as 'Friends', 'Chat', 'Like', 'Comment', 'Groups', etc. in their own language. It is an effective way for Facebook to ensure that no user is left behind.
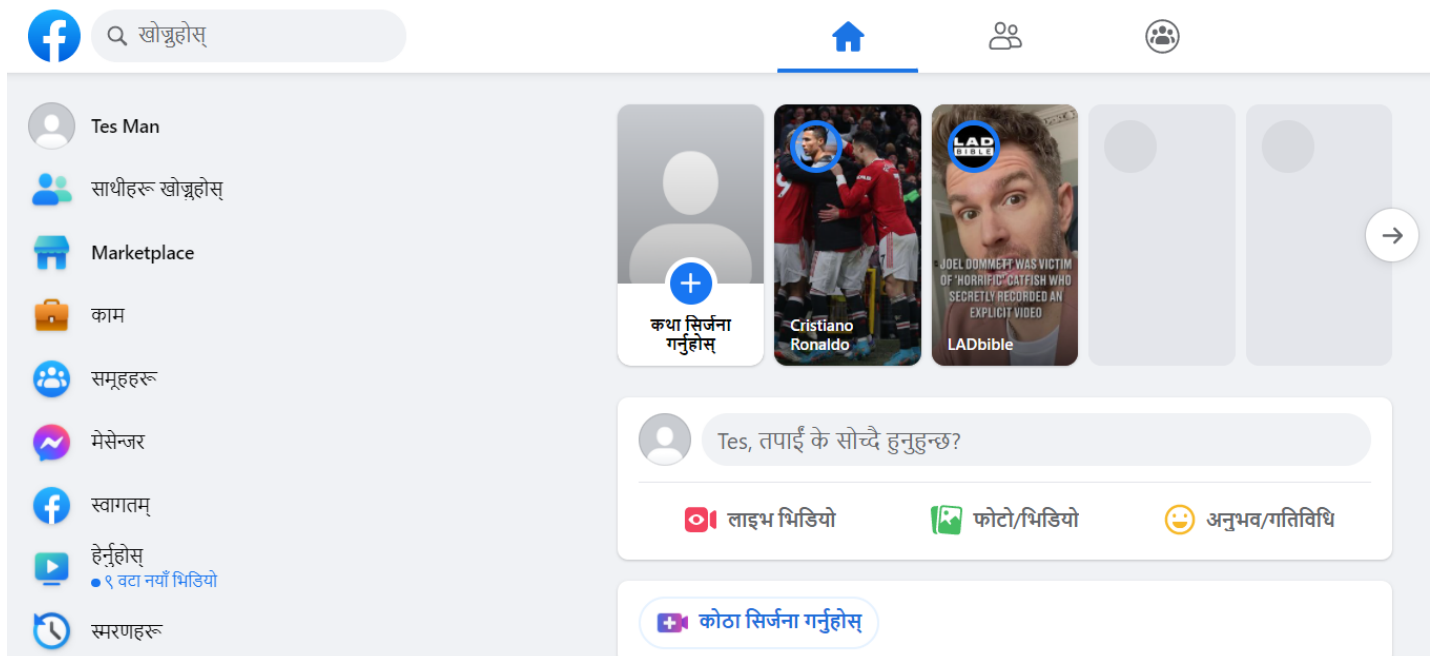
10.   Error prevention

Proper application – An instance of well-established error prevention occurs not after the user is done typing, but rather while the user types. As seen in the image below, the system recognizes that the user likely wants to spell "computer science" and displays relevant search results even though the spelling was incorrect.
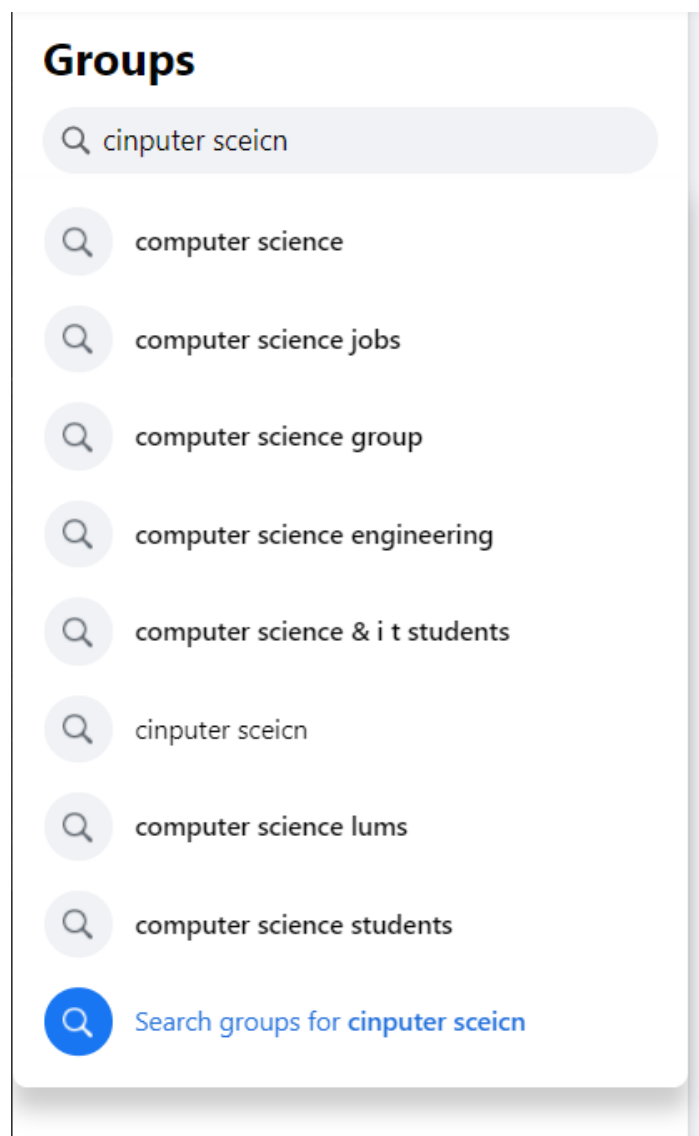
Part 3: Redesign

1. Error prevention ([Page 11](#))

    Violation – The user is forced to go back and change their invalid password after they have completed the rest of the form due to a badly implemented error prevention system which creates an unpleasant experience for the user.

    Suggested solution – A good way to prevent this issue is to check for invalid password while the user types it in. In the image below, the user has typed in a 5-character password. As soon as they stop typing, they are informed about the password rule. This ensures that they are immediately aware of their invalid password and make the necessary change.

2.   Recognition rather than recall ()

Violation – The user is not able to differentiate between links that they have already visited and have not yet visited which places a burden on the user to recall their past activity.

Suggested solution – This is an important feature that can be seen when using many other popular platforms such as Google and LinkedIn. The hyperlinks change color after they are clicked by the user. This lets the user quickly recognize whether they have already viewed a particular job posting before which saves them time.