Homework 4

Scenario:
The 22nd century phone I’m proposing to design is a phone without keypad or touch screen except the display and a small camera, and a small projector that can display a larger view than the screen of the cell phone. The phone will work based on the eye reorganization algorithm where the camera will detect the eye’s movement so the user can choose the number or send the text message based on his/her eye movement. Since there won’t be any keypad or some kind of mechanism to press the phone, the user can have a larger view and possibly chat with his/her mate by looking at the camera. Also, with the mobile projector inside the phone, it can have a mobile tele-immersive system where he/she can interact through the mobile phone to actually not just talking but feel like they are in the same virtual space. Also with the small projector inside the phone, the person can show some kind of 3D reconstruction of the opponent so the user can feel the 3D reconstruction of the person rather than having the 2D view that we used to have right now.

Outline of the functionality:
1. Camera recognizes the eye’s movement to pick the number or options of the phone.
2. 3D reconstruction based on the camera's computer vision algorithm rather than 2D view through the inside projector.
3. Apply tele-immersive environment for users to interact with the others.
4. No keypad or touching options.

Audience:
The audience can be anyone. Since the camera can recognize the movement of the eye and call the opponent, the person with disability can use his/her eye to call the opponent. Plus, people without hearing can use the screen to communicate with the sign language.

Motivation:
The motivation behind my design is based on the thinking of what will be the next design or user’s convenience after touching the screen. Also, how can people be benefited if the camera is applied to the phone.

Design:
The camera can be implemented below the screen so that the camera can recognize the eye’s movement. The design allow for completion of the intended task. For buttons, there
will be only one button to turn on the power and lock the screen. The user can carry the phone on the pocket or somewhere so he or she can see the camera and the screen.