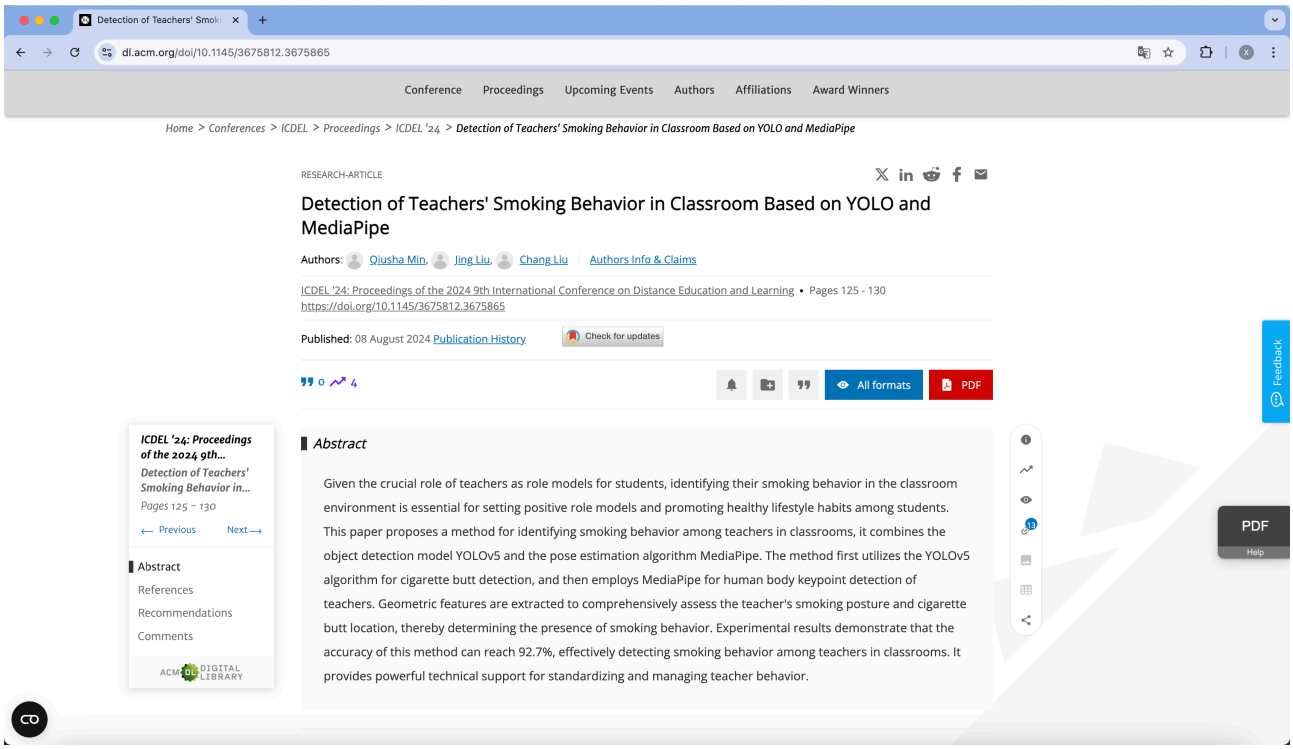
Source 1

Title: Detection of Teachers' Smoking Behavior in Classroom Based on YOLO and MediaPipe
Reference: https://dl.acm.org/doi/10.1145/3675812.3675865



Technology Inspiration:

1. YOLO (You Only Look Once): This can analyse and detect specific objects based on patterns, shapes, or features. Within our context, the tech can be used to detect objects such as cigarettes, lighters, cigarette packs, or vape packs.
2. MediaPipe: This tech is similar to YOLO, but specifically used to detect specific human gestures or movements. In the context of smoking detection, the tech can identify motions of bringing hands repetitively to the mouth.
3. In combination, the two techs are effective solutions in smoking detection, which can be used for smoking cessation.

Implications:

1. The article sets the role of teachers as a model for students. Reducing smoking behaviours among teachers can positively influence students and discourage them from smoking.
2. Real-time monitoring can be implemented in the uni's smoking area, with the prerequisite of ensuring ethical and privacy considerations.
3. The detection technology may not be 100% accurate.

Limitations and Challenges:

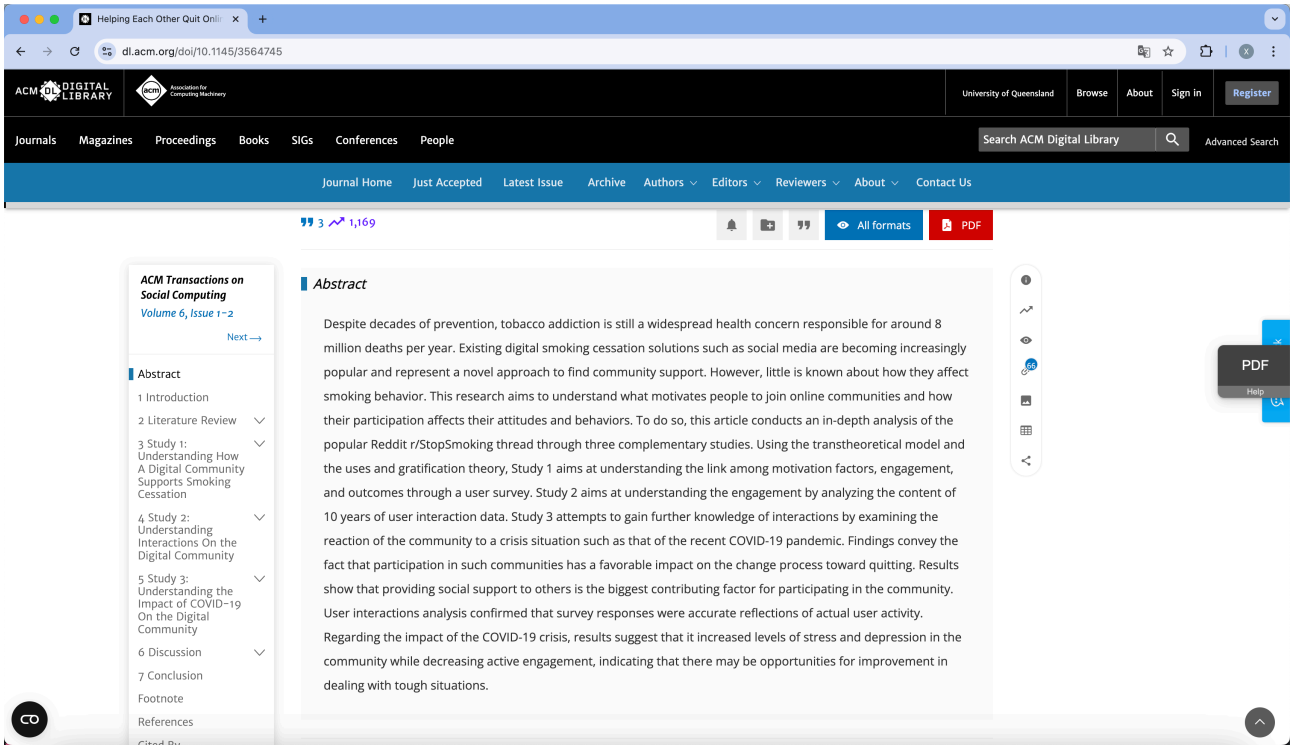
1. The detection technology may not be 100% accurate.
2. Ethical and privacy challenges.
3. Not effective in detecting behaviour change: the inspirations are only used for smoking detection, but no substantial solution in smoking cessation.

Design Inspiration:

Implementing such a smoking detection interface in smoking areas. The system can remind students how many cigarettes have they smoked within a day (or other time frames). The students can opt to log in with a student ID, and they will be rewarded with things like food with their student ID at the student centres when they reduce their smoking in the smoking area, but they can choose not to smoke in the smoking area, in which makes the rewarding mechanism challenging to implement.

Source 2

Title: Helping Each Other Quit Online: Understanding User Engagement and Real-life Outcomes of the r/StopSmoking Digital Smoking Cessation Community
Reference: https://dl.acm.org/doi/10.1145/3564745



Implications:

1. Community Interactions: the r/StopSmoking has a significantly high user engagement rate.
2. Support from community members: the support for quitting smoking mostly comes from the members, sometimes with professional support.
3. Emotional Impact: the community has an overall positive emotional impact on users' behaviour change, often encouraging.
4. Engaging with the community has a high smoking cessation rate compared to those who do not.

Limitations:

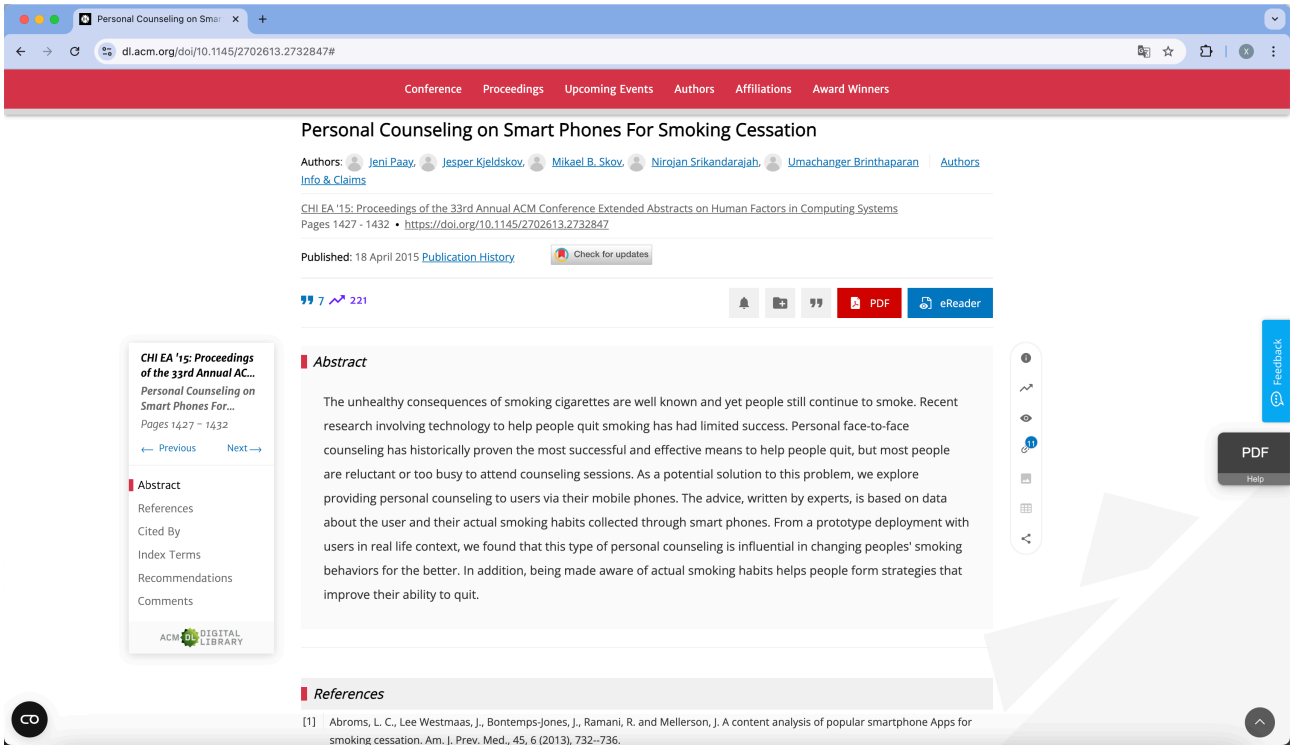
1. The smoking cessation rate may be exaggerated, as most of the statistics come from individual reports.
2. The suggestions that come from members can be varied in quality.

Design Inspirations:

We can think of having an online community that can connect the users, but I'm unsure if this is "social" enough for the course. There can be individual or group challenges, such as no smoking in 7 days. Once achieved, the users will receive badges or achievement representations.

Source 3

Title: Personal Counseling on Smart Phones For Smoking Cessation
Reference: https://dl.acm.org/doi/10.1145/2702613.2732847



Implications:

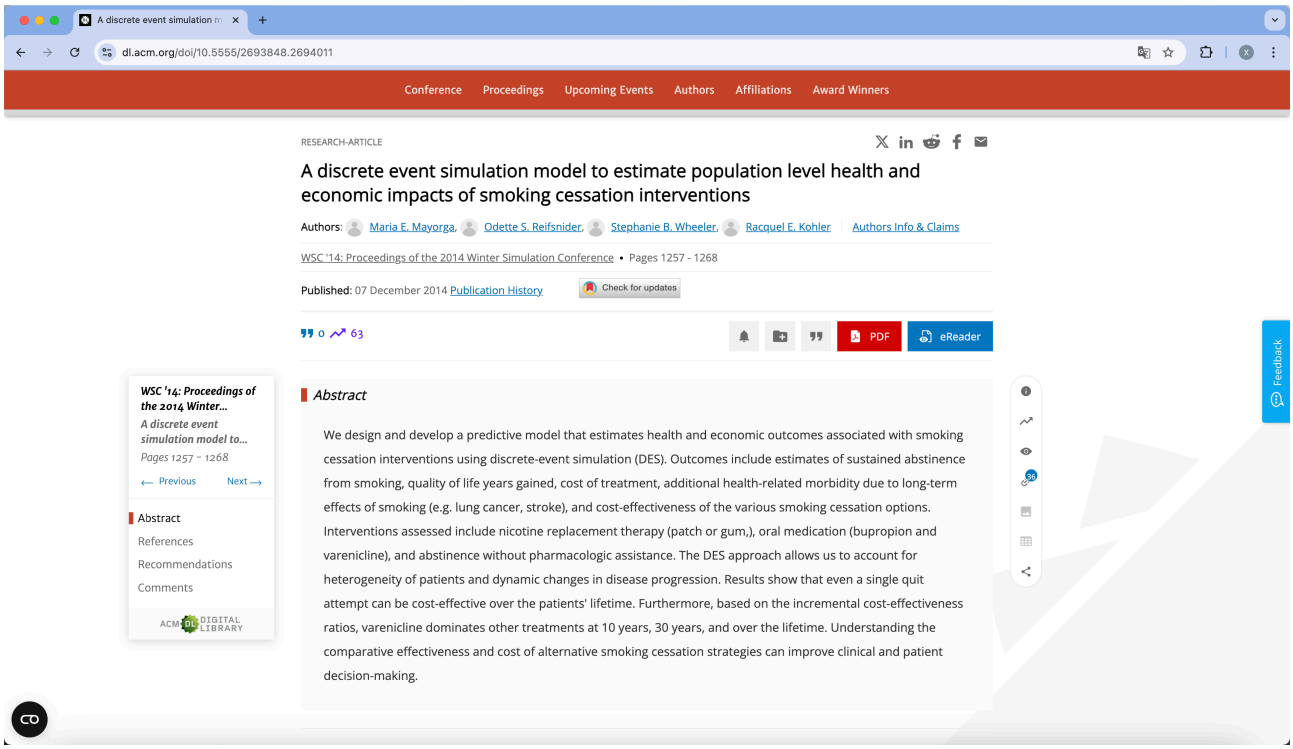
1. “Personal face-to-face counseling has historically proven the most successful and effective means to help people quit, but most people are reluctant or too busy to attend counseling sessions.”
2. Personalisation solutions: “As a potential solution to this problem, we explore providing personal counseling to users via their mobile phones.” (Personalisation based on user data collection)
3. Using mobile phones as the media can be site-specific.

Limitations:

1. The approach can be a lack of user engagement and motivation.
2. Personalised suggestions can be challenging for users to execute. Therefore, the expected outcome of behaviour change can be hard to achieve.

Source 4

Title: A discrete event simulation model to estimate population level health and economic impacts of smoking cessation interventions
Reference: https://dl.acm.org/doi/10.5555/2693848.2694011



Implication:

1. “Results show that even a single quit attempt can be cost–effective over the patients' lifetime.”
2. A predictive model for all smoking cessation–related data, such as financial data, health–related issues… etc.

Limitation:

1. The predictions made may not be applicable to all populations;
2. The predicted data may need further refinement to help motivate or inform the users. The data can be too general for users to understand.