NOTEFY

CSE 218
Anwaya Aras
Sanjeev Shenoy

CSE 118
Christine Do
Brian Soe
Xiaohui Tong
Stop lying.
You don’t pay attention to the whole lecture.
Because the professor goes too fast ...
Popular Note-taking apps are distracting
INTRODUCING
NOTEFY
We saw an opportunity here!

Simplifies the process of photo taking

Provides more than just what on the slides

Keep everything organized
What’s Next?

- How to use it
- Challenges and Design
- Features, Technologies, and Architecture
- User Testing and Evaluation
- Future Directions
How do you use NOTEFY?
Step 1
Take a picture with Glass
Step 2
Upload to Google Drive
Step 3

Check your referenced notes

The interior contents of cells is the cytoplasm. The cytoplasm is isolated from the surrounding environment by the cell membrane. The cytoplasm is a gel-like substance enclosed within the cell membrane and contains organelles, the cell's internal sub-structures. The cytoplasm is the location where most of the cell's metabolic activities take place.

**Cytoplasm**
- Summary: The cytoplasm comprises cytosol (the gel-like substance enclosed within the cell membrane) and the organelles, the cell's internal sub-structures.
- URL: https://en.wikipedia.org/wiki/Cytoplasm

**Membrane**
- Summary: A membrane is a selective barrier; it allows some things to pass through but stops others.
- URL: https://en.wikipedia.org/wiki/Membrane

**Prokaryote**
- Summary: A prokaryote is a single-celled organism that lacks a membrane-bound nucleus (karyon), mitochondria, or any other membrane-bound organelle.
- URL: https://en.wikipedia.org/wiki/Prokaryote

**Mitochondrion**
- Summary: Mitochondria are organelles that produce ATP (adenosine triphosphate), the energy currency of the cell.
Sounds easy
But what’s behind the scenes?
Challenges and Design
CHALLENGE
To make note-taking *ubiquitous*

DESIGN
Take a picture using a *few taps* on the glass!
CHALLENGE

Where students sit affects how slides are captured

DESIGN

Provide a zooming feature
CHALLENGE
To ensure that Glass keeps up throughout the entire duration of the class.

DESIGN
Move computation to the server.
Features & Technologies
Google Glass:
Zooming in and taking a photo
Google Glass:
Uploading the image to Google Drive
Server: Interaction with Google Drive
Server:
Character Recognition
Server:
Keyword Extracting & Searching
System Architecture
User Testing & Evaluation
User Testing & Evaluation

- 2 UCSD Students
- The Usual Issues
  - Constant app crashing
  - Glass overheating
- Most difficult part
  - Getting used to using Glass
User Testing & Evaluation

Results
- Unclear navigation/cues
- Association between text output and keywords are unclear
Future Direction
Real Time References

- The server returns the referenced note real-time
- The glass will display those immediately
Organization of Notes

- Aesthetical organization of lecture notes material on the drive
- A comprehensive list of all the notes on a website similar to Evernote
Vision for the future
Notefy - A Ubicomp Technology!

The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it.

— Mark Weiser —
Team structure
Meet the Team

Anwaya
Algorithms

Sanjeev
Glass

Christine
Server • User Testing

Tong
Glass • Algorithms

Brian
Server • Algorithms
Conclusion
Project Postmortem

What Went Right

- Basic functionality as planned
- Overall organization of the product: computation on server, picture on glass
- Algorithms to extract references, backend part

What We Learned

- OCR does not work on handwritten notes
- The practical limitations of Google Glass
Questions?