# (Floe) use cases

## Learner

### Individual setting

*The challenge*:

- Maria is a 22-year-old university student with uncorrectable blurry vision.
- Text needs to be larger for her, preferably in high contrast, and images with fine details need to either be enlargeable with details maintained, or have some text alternative.
- Maris is at home, working on an assignment which requires some research online.
- Maria uses Google to start her research.
- Like many users, she scans for a promising sounding link, and clicks through several before finding something appropriate.
- **More problematically, she spends additional time following promising links but ultimately filtering past them because of their usability (e.g., too many images without good resolution or alternatives, or non-adjustable contrast)**.

*Floe's role, if Maria has a **full prior profile***:

- Some time earlier, Maria spent time creating an exhaustive **profile of her learning and modality preferences**. These preferences included details about how she preferred text and visuals to be presented to her. **[2]**
- This profile existed outside of any one service, and **enables Maria to use it on various sites**. **[2]**
- As Maria searches for content, **content that is both relevant and appropriate to her preferences are bubbled closer to the top**. **[4]**
- Maria can also **scan through the labeled/tagged results for ones that appear to match her needs best**. **[1, 2]**
- Other results that may be relevant but not matching her modality preferences are shown, but are noted as "missing" transformability or alternatives (with varying levels). **[1]**
- For those results that are **missing some transformability or alternatives, Maria is given the opportunity to request** transformability or alternatives. These requests are explicit, and Maria can optionally be notified when such requests are fulfilled. A "hard" request is made. **[3]**
- When Maria tries to use a site that doesn't meet her needs and preferences, the **system can automatically make note that a user with particular preferences attempted to use an incompatible site and make a "soft" request**. **[3, 5, 6, 7]**
- *(How does Maria leave feedback about her experience? What can we do invisibly and implicitly, and what could we benefit from explicitly without burdening her?)*

*Floe's role, if Maria has a **partial prior profile***:

- Some time earlier, Maria **quickly created an incomplete profile** her learning and modality preferences. **[2]**
- *(See above for scenario implications of having a profile.)*
- Sometimes, Maria will run into a **site that is allegedly a good match, but it isn't**. This could be **because: 1) her profile was not detailed enough, and/or 2) the site had not accurately adapted to her preferences**. **[4, 5]**
- Maria can either: **1) adjust her preferences, and/or 2) provide the system feedback (implicitly or explicitly) to improve their adaptations**. **[2, 6, 7]**

*Floe's role, if Maria **does not have a prior profile***:

- Maria filters past many sites because of usability/accessibility issues, but **on one site with promising content, she discovers functionality to adjust the site to her liking** (e.g., via UI Options). **[2]**
- Maria uses the site comfortably. **[5]**
- Maria is given the **opportunity to abstract and export those adjustments into a global profile, which she can then continue to use and refine on other sites**. **[2, 6, 7]**

### Collective setting

*The challenge*:

- Edward is a 15-year-old blind high school student.
- Edward is in a classroom with other students.
- As part of demonstrating an idea, the instructor of the class plays a video for the class to watch. The video is on the web, and the instructor goes to the website to stream it in real-time (that is, the video is not offline).
- The video is composed primarily moving images and diagrams with little narration, and does not have caption or subtitle alternatives.
- **Edward needs this video described to him while most of his classmates do not**.

*Floe's role*:

- Earlier in the year, Edward's **teacher spent time with each student to create their "learning profile"**, describing the ways they learned best. This included both modality and learning style preferences. **[2]**
- Most students either preferred visuals or found them acceptable. Edward's profile included a requirement for alternatives to visuals. **[2]**
- When the instructor was looking for videos, the **system alerted her that this particular video was not a full match for all her students**. She was given the **opportunity to: a) author an alternative, b) link to an existing alternative, or c) request an alternative**. **[3, 4]**
- *(What does Edward do in the meantime? Can we crowdsource the authoring effort to the students, as an exercise or out of good will?)*

# Educator using content

*See "Collective setting" above.*

# Educator producing content

*The challenge*:

- Donald is an instructor who teaches online courses at a university. All of the class material he produces is online.
- Some of Donald's students have accessibility needs, while others sometimes prefer the material in a format that is congruent to those same needs.
- For instance, Louis is a blind student who needs captions for videos, and descriptions for other visual material. Other students like the portability of transcripts for videos so they can print and study from it on the go.
- **Donald needs a way to easily have alternatives available for those students, especially ones that definitively need it.**

*Floe's role*:

- Donald uses an **authoring tool that builds content flexibility and accessibility where it can**. **[1]**
- The authoring tool also **alerts Donald when content that could benefit from alternatives are missing such alternatives**. **[1]**
- When Donald has the time, he **creates the alternatives** himself. Other times, he **links to existing ones, or makes an open call or paid request** for alternatives. **[3]**

# Other use cases

- Crowdsourcing alternatives (who, when, how?)
- Learning profiles: mixing or separation of interaction vs. pedagogical preferences (where they overlap, where they're separate, etc.)

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**[3]** Alternatives request support
**[4]** OER matching
**[5]** Delivery of OER and alternatives
**[6]** Feedback
**[7]** Auto-improvement of labels/matching