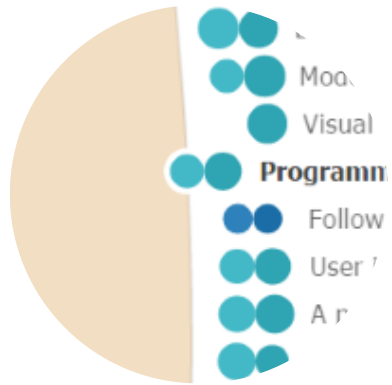




Antoine Ponsard

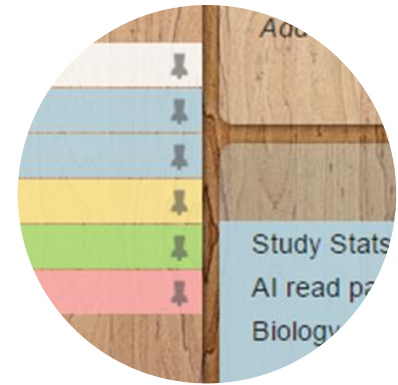
Interaction Designer



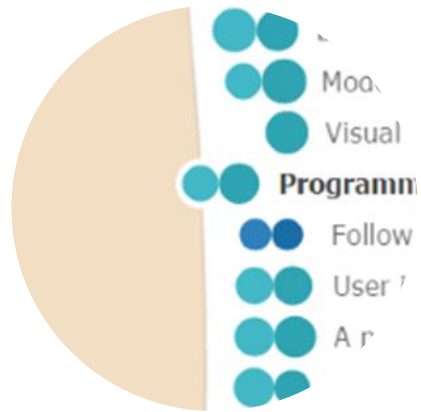
PaperQuest



Anchored
Customization



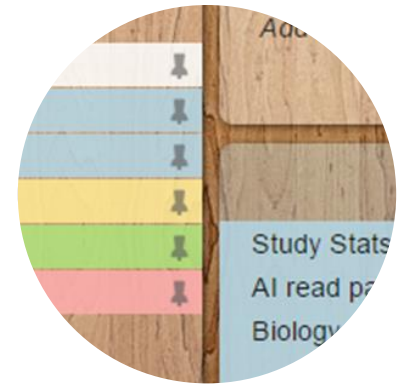
Calendar &
To-do lists



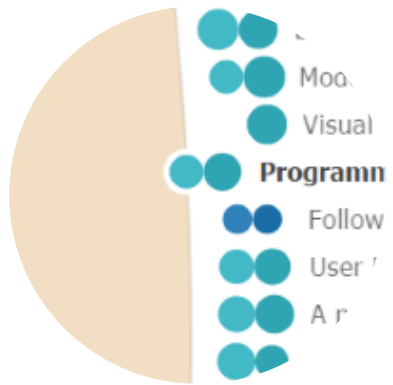
PaperQuest



Anchored
Customization



Calendar &
To-do lists



PaperQuest

A visualization tool to support literature review

GOAL

Help academics find relevant papers faster

PROBLEM

Any paper you read has dozens of references and citations

→ **“exponential explosion”**

Google Scholar is great for retrieving papers,
but does not take into account your research domain

→ lots of irrelevant search results

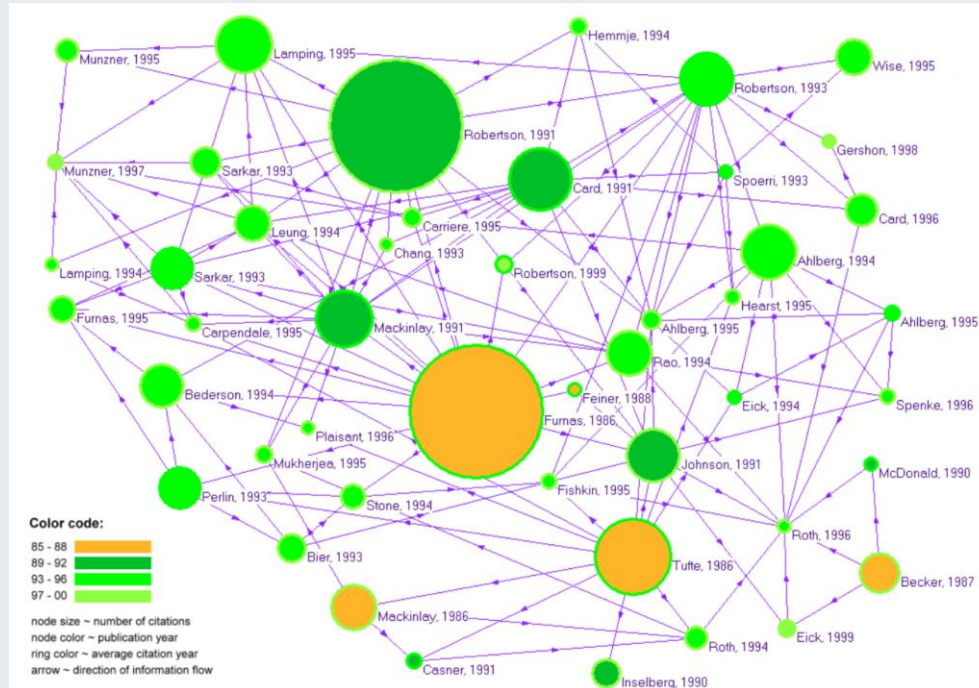
Contextual inquiry findings

An efficient literature review is a **multi-level decision process**

Academics need to maximize the **information gain** at each step

TASKS

1. Read paper title
2. If good, read authors and/or conference
3. If good, read abstract and/or watch video
4. If good, plan to read full paper
5. Repeat



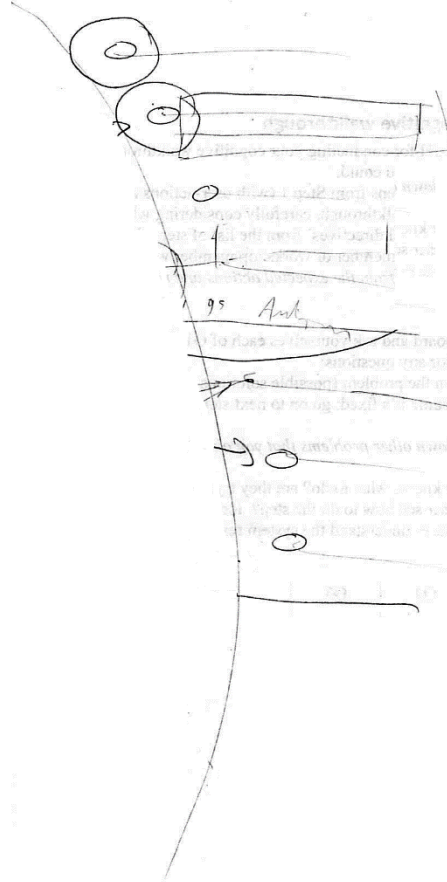
[Ke *et al.*, INFOVIS 2004]

DECISION 1

don't represent papers
as a node-link diagram

RATIONALE

reading paper titles
>> network topology



DECISION 1

Instead, show a list of papers with full titles

RATIONALE

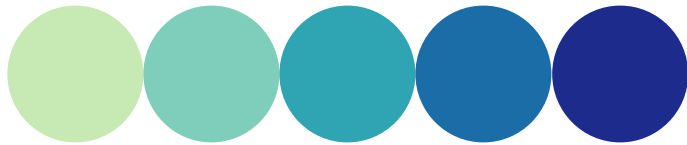
Title = most important info

Lists are easily skimmable



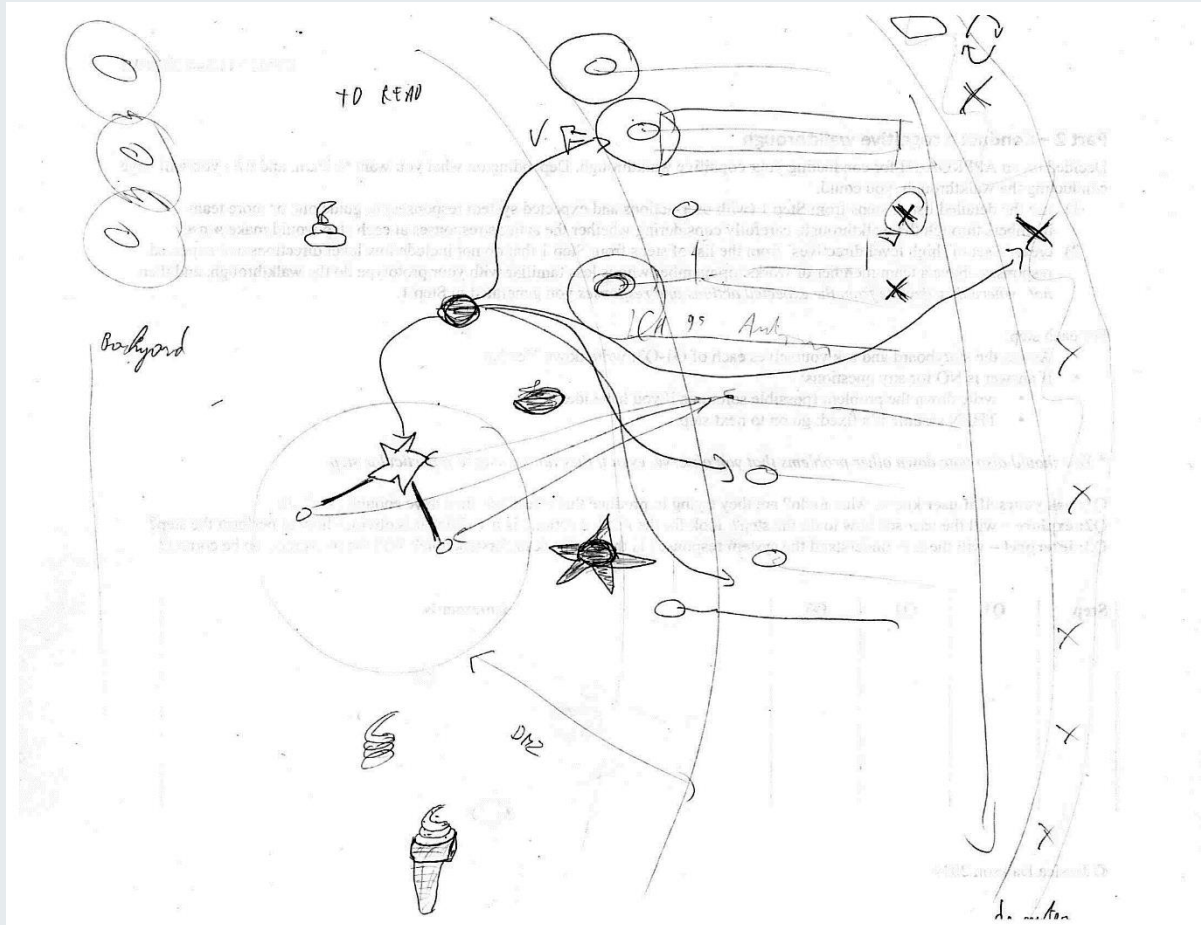
DECISION 2

Encode citation counts with size
Encode connectedness with color



RATIONALE

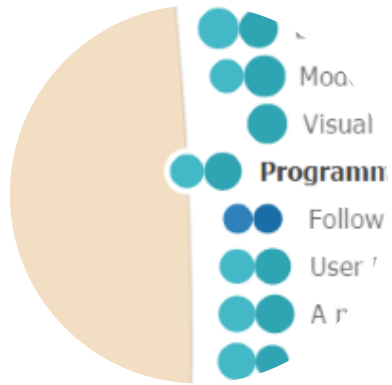
Two highly effective and
separable visual channels



CONCEPTUAL MODEL

every paper you read
expand your
“fringe of knowledge”

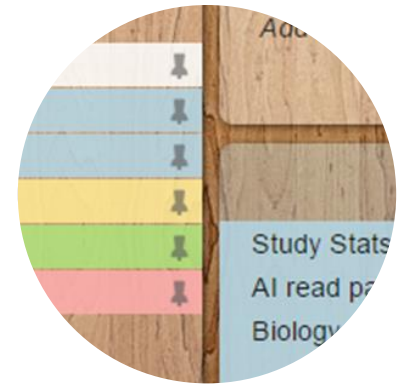
read | to read | fringe | The Unknown



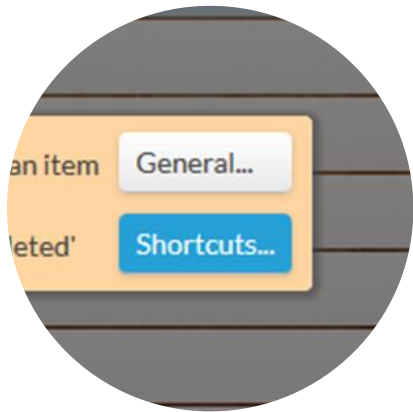
PaperQuest



**Anchored
Customization**



Calendar &
To-do lists



Anchored Customization

Anchoring settings to the application interface

GOAL

Improve the standard customization mechanism: settings panels

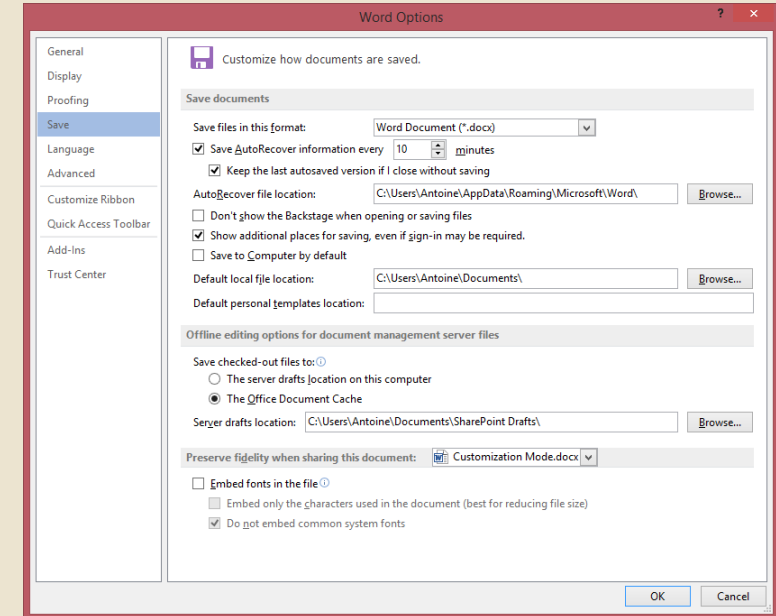
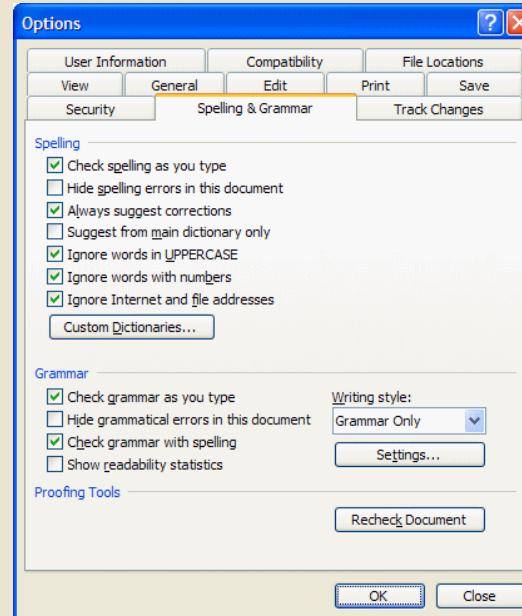
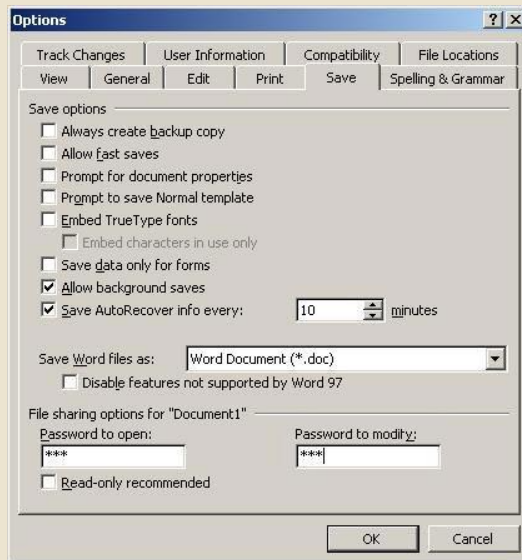
TASK

Customize an application by changing settings

PROBLEM

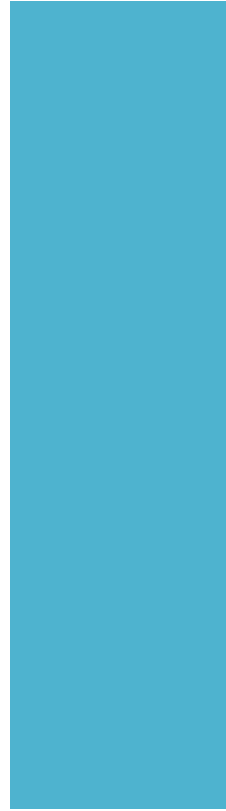
Settings panels are everywhere, but have serious **usability issues**:

- disconnected from what users are familiar with = the app interface
- vocabulary problem: rely on (often cryptic) text labels
- no affordance in the app: *"Can I customize this?"*
- deep gulfs of execution and interpretation



Minimal improvements over time

Settings



config file

Config files = most barebone representation of settings

Settings



categorize



Settings panel

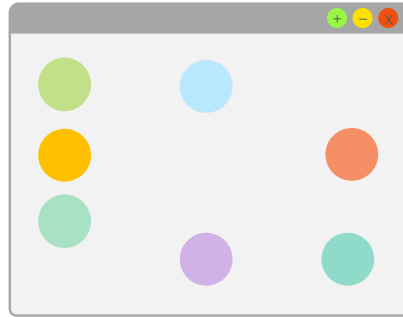


Settings panels = static **partition** of settings, based on abstract categories

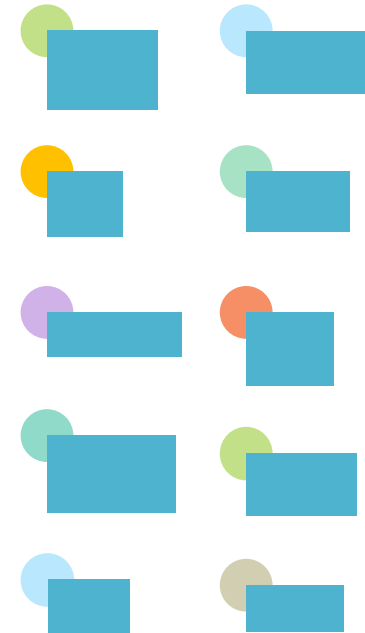
Settings



map to application UI

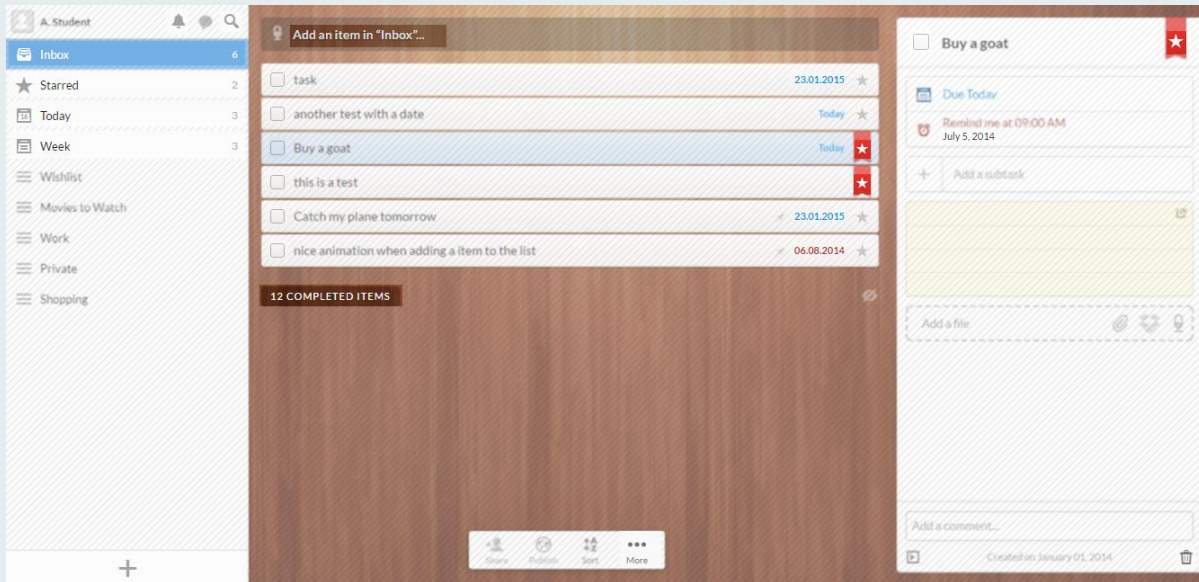


Anchored Customization



Anchored Customization = many-to-many **mapping** of settings to UI elements





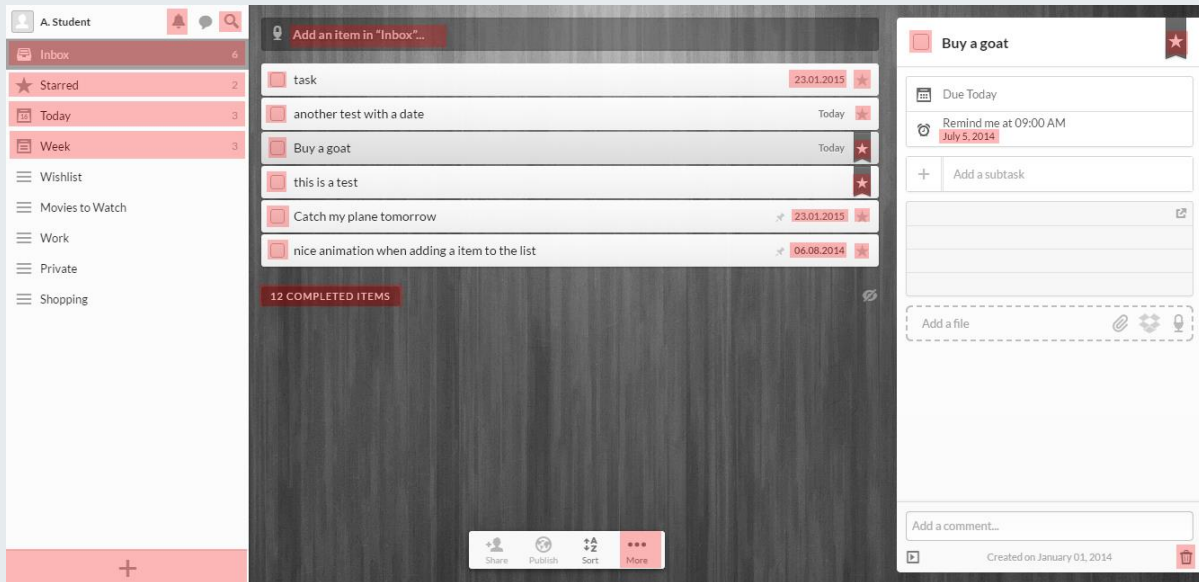
here, displayed on top of Wunderlist (version 1)

DECISION 1

Highlight UI elements mapped to a setting in a Customization Layer

RATIONALE

Provide a global overview of customization opportunities



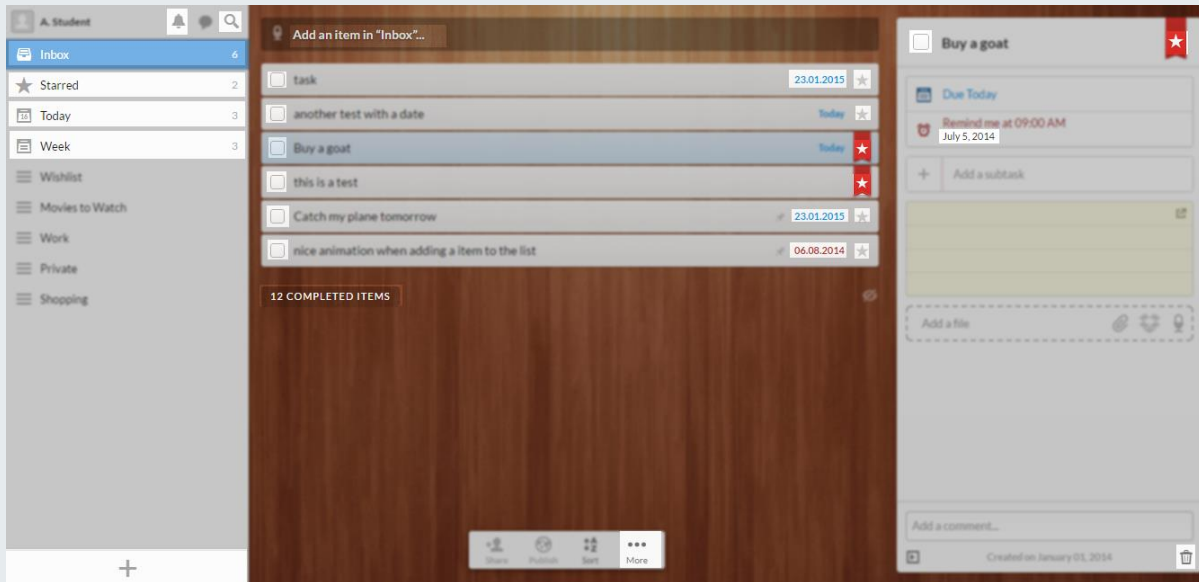
version 2: red markers over black & white app

DECISION 1

Highlight UI elements mapped to a setting in a Customization Layer

RATIONALE

Provide a global overview of customization opportunities



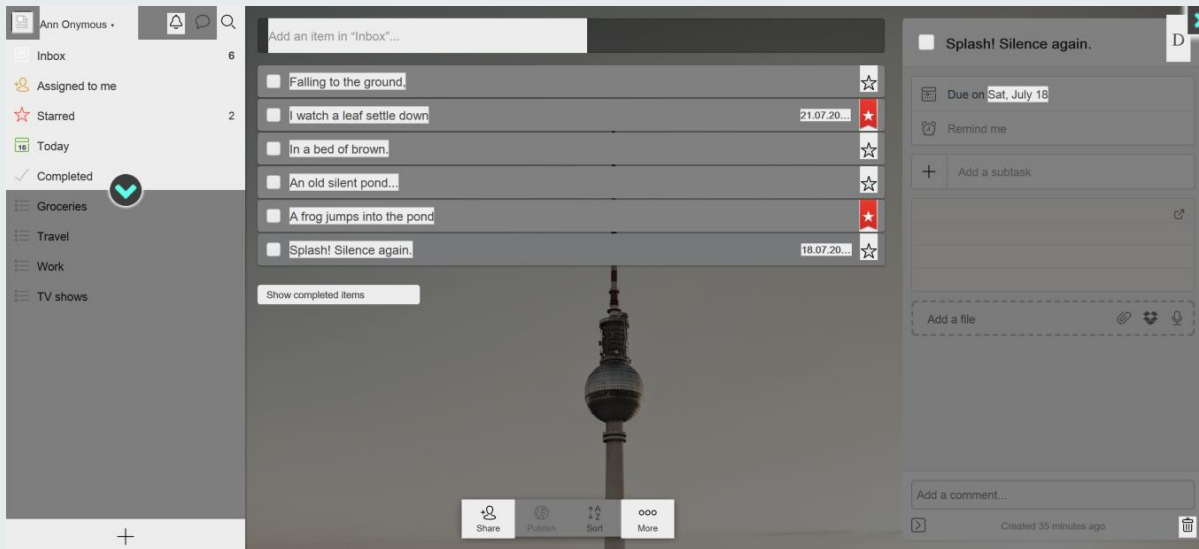
version 3: Gaussian blur and slightly darker

DECISION 1

Highlight UI elements mapped to a setting in a Customization Layer

RATIONALE

Provide a global overview of customization opportunities



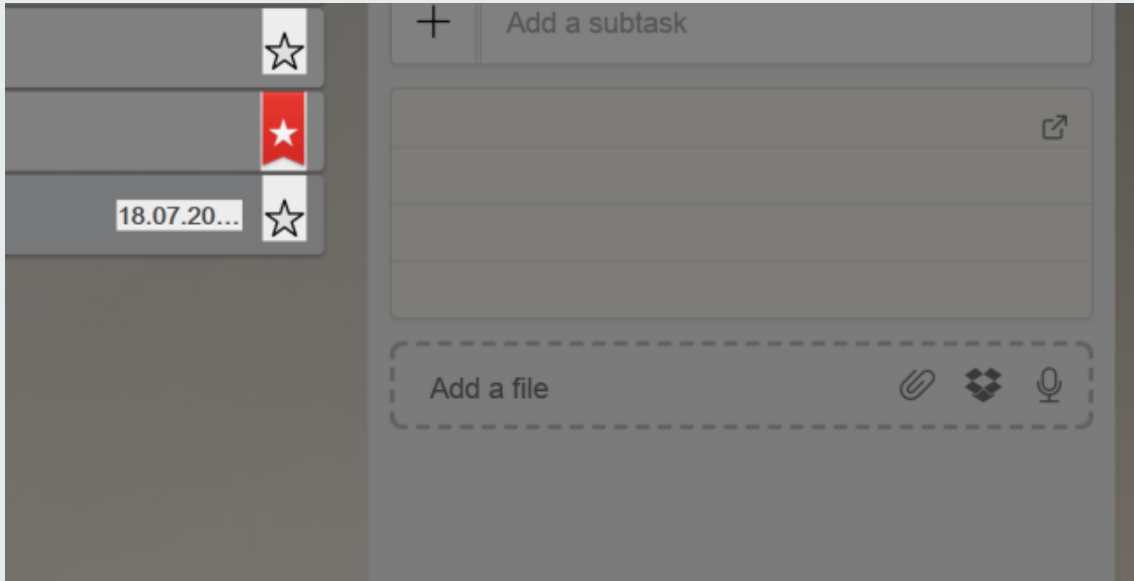
DECISION 1

Highlight UI elements mapped to a setting in a Customization Layer

RATIONALE

Provide a global overview of customization opportunities

final design: dark overlay, white elements backgrounds



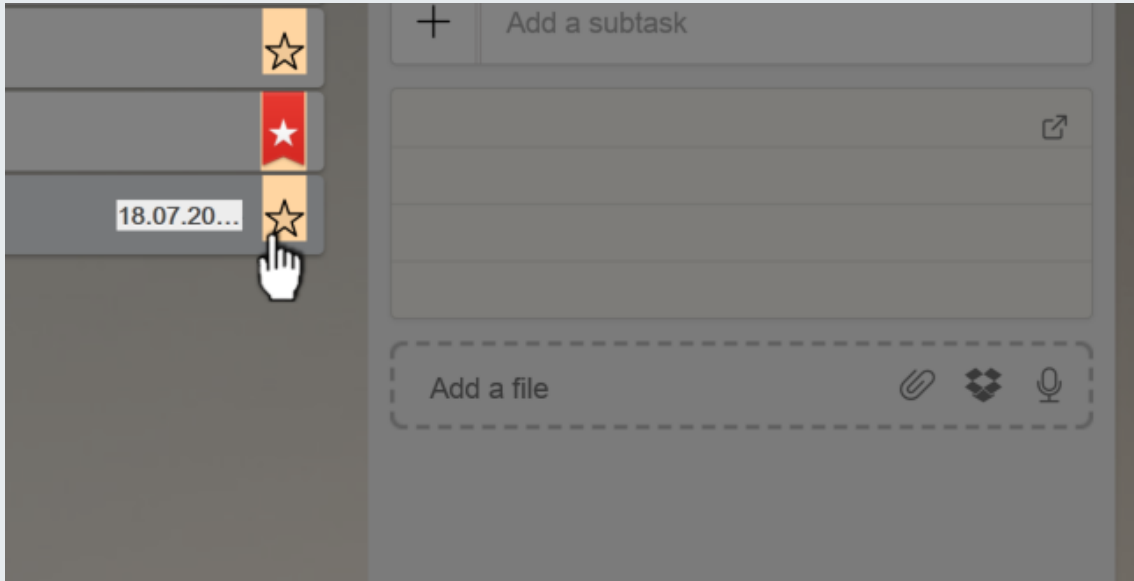
DECISION 2

Linked highlighting on hover

RATIONALE

Indicate if multiple anchors are mapped to the same setting

the 3 stars icons are “anchors” for the same settings



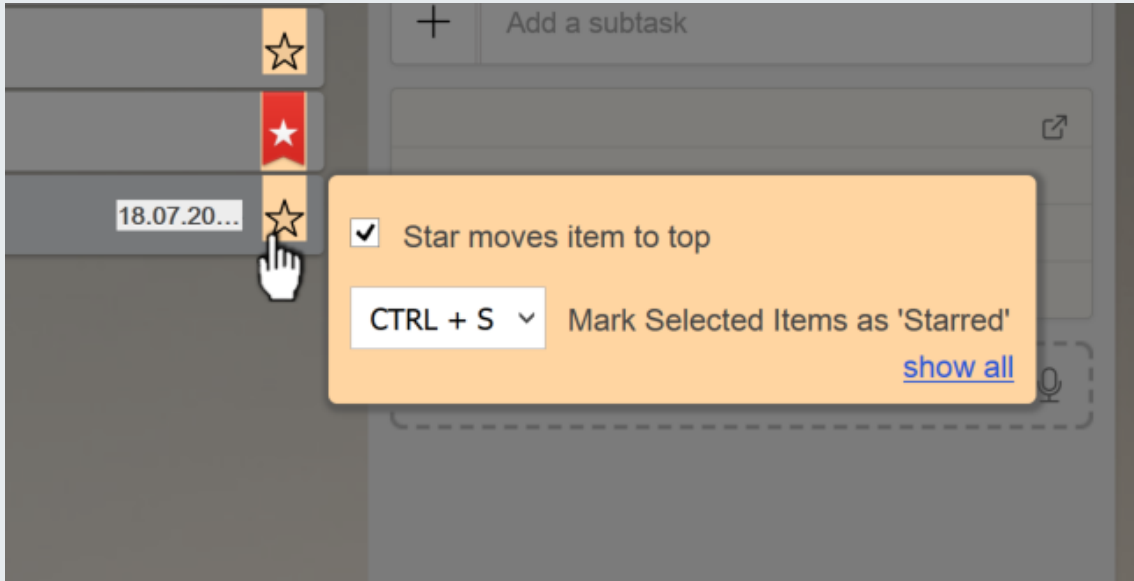
when one anchor is hovered, all three are highlighted

DECISION 2

Linked highlighting on hover

RATIONALE

Indicate if multiple anchors are mapped to the same setting



DECISION 2

Linked highlighting on hover

RATIONALE

Indicate if multiple anchors are mapped to the same setting

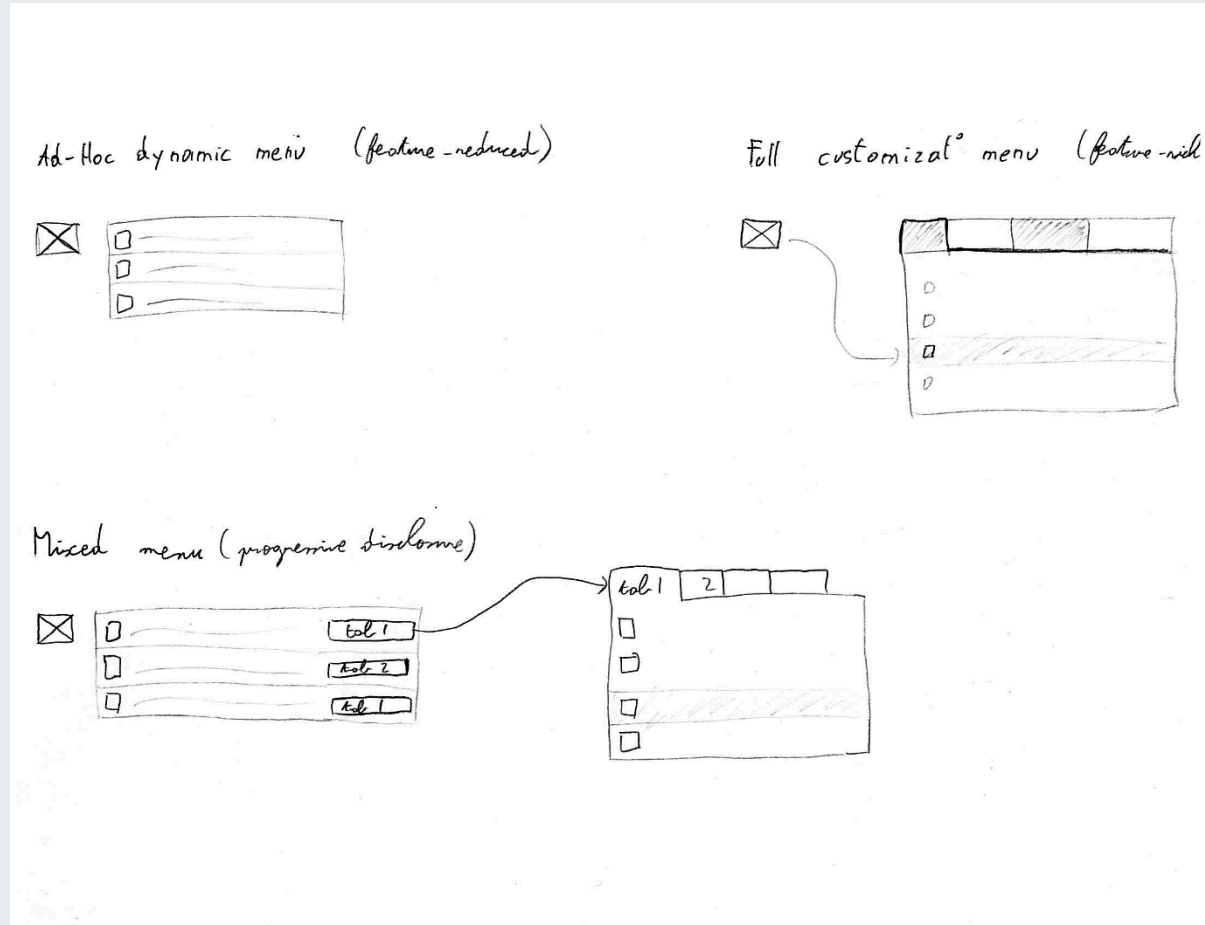
on click, show the settings mapped to these anchors

DECISION 3

Promote the subset of settings mapped to the anchor clicked; but the full settings panel must always be accessible.

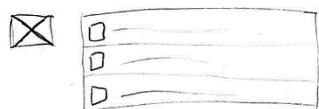
RATIONALE

Not all settings can be anchored
+ some users might prefer the familiarity of settings panels

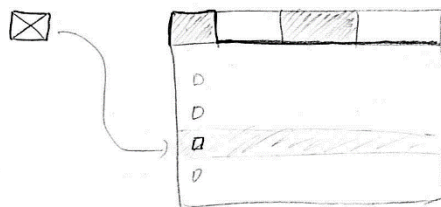


first description of the 3 variants

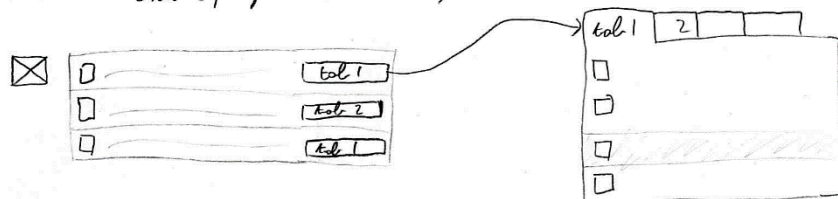
Ad-Hoc dynamic menu (feature-reduced)



Full customizal^o menu (feature-rich)

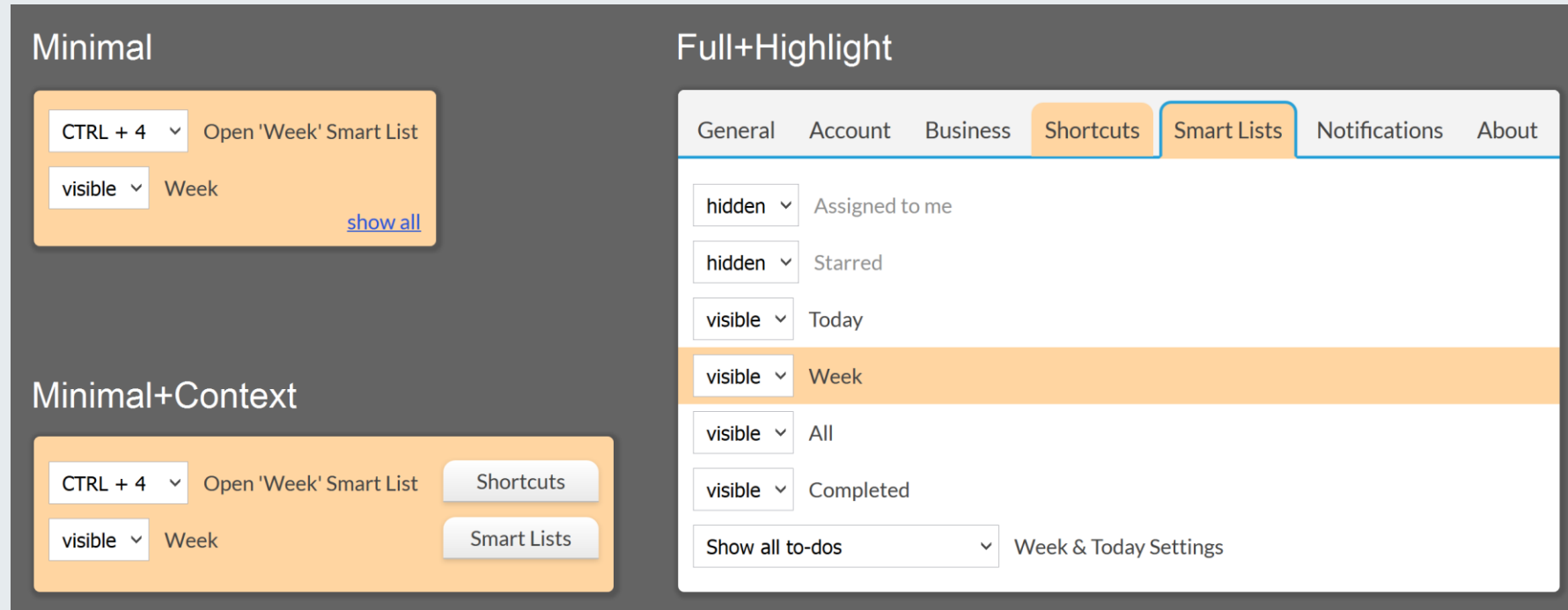


Mixed menu (progressive disclosure)

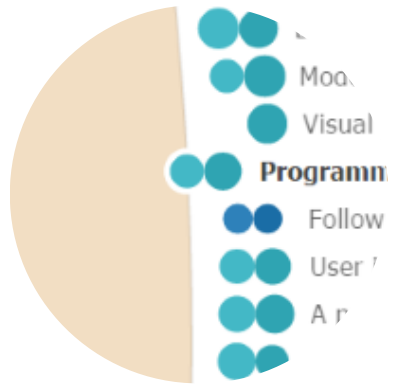


Exploring 3 variants of a **multi-layer interface** for displaying settings

Minimal, Minimal+Context, Full+Highlight



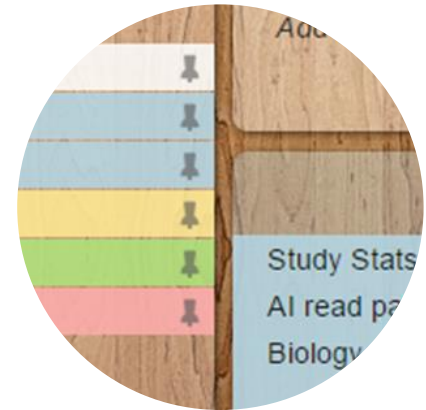
3 variants of a **multi-layer interface** for displaying settings



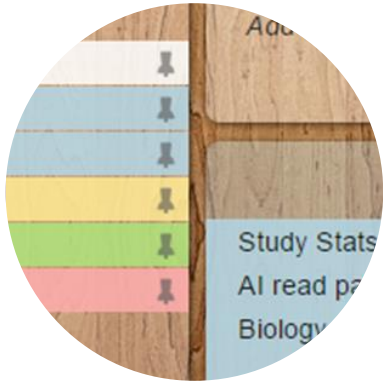
PaperQuest



Anchored
Customization



**Calendar &
To-do lists**



Calendars & To-do lists

Combining both to support time-sensitive tasks