

UX ARCHITECTURE FOR DATA COLLABORATION

Stibo Systems Case Presentation

Henrik Korsgaard

June 20, 2023

Outline

- ▶ UX research process
- ▶ Results and observations
- ▶ Information architecture
- ▶ Interaction design

As a newly hired UX architect, your initial task is to create an outline for the UX work in a project aimed at improving the UX of the **collaboration tooling** in an existing online Excel-like table system.

...assume that you have the necessary budget for it.

UX Research - key questions

Why, how, and when do users collaborate?

- ▶ What are the primary tasks and objectives?
- ▶ What are the different roles and responsibilities in collaboration?
- ▶ How do remote work impact the user experience?
- ▶ What other tools do they use to support the tasks – planning, communication, analysis etc.?



UX Research

Discover

1. Contextual interviews of collaborative session(s)
2. Task flow analysis
3. Internal/external research
4. Workshops (?)
5. Analytics (?)

Define

- ▶ Collaborative task objectives
- ▶ Scenarios, personas and user journeys
- ▶ Information concepts and architecture
- ▶ UX quality criteria and KPIs

Discover

Define

Prototype

Evaluate

Integrate

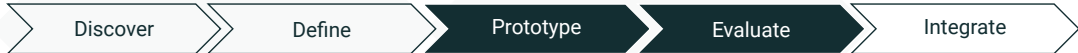
UX Research – iterate where needed

Prototype

- ▶ Collaborative user flow
- ▶ Information architecture and UI design
- ▶ Key UI components and technical features

Evaluate

- ▶ Internal review and testing
- ▶ User feedback (informal/think aloud)
- ▶ Review UX quality criteria and KPIs



Collaborative scenarios

1. Collaborative projects

- ▶ Peers collaborate on a larger project
- ▶ Different responsibilities and expertise
- ▶ Mixed focus collaboration with a high degree of coordination
- ▶ Multiple data views

2. Real-time collaboration

- ▶ Peers collaborate on smaller (urgent) tasks
- ▶ Real-time collaboration
- ▶ Shared task focus
- ▶ Few data views

3. Training

- ▶ Expert user provide training and onboarding of novices
- ▶ Focused on learning the application and/or data
- ▶ Tailored data views and exercises

Key UX qualities

- ▶ Collaboration should be responsive and clearly communicated
- ▶ Sharing with collaborators should include task assignment and notes
- ▶ Important to know who did what in a shared view (awareness, track changes, accountability etc.)
- ▶ Support sandbox experimentation and analysis before publishing
- ▶ Collaborative features should not compromise existing task/productivity features



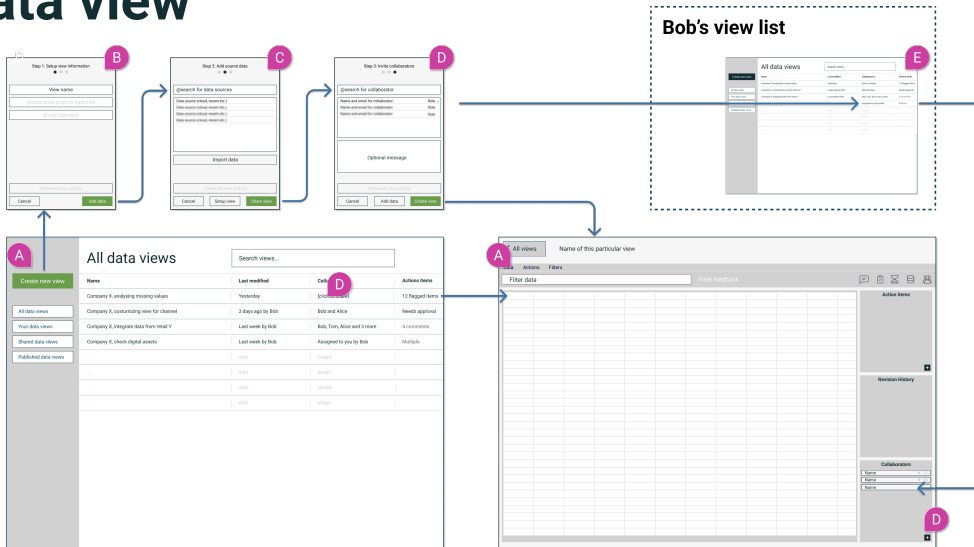
Information Design: Data views as first class objects

- ▶ Main information artifact when collaborating – it's what we share and work on
- ▶ A data view encapsulate a data source, users, and the revision history
- ▶ Views can be published in formats fitting the consumer needs

The screenshot shows a web interface for managing data views. On the left is a sidebar with a 'Create new view' button and a list of view categories: 'All data views', 'Your data views', 'Shared data views', and 'Published data views'. The main area is titled 'All data views' and contains a search bar and a table of data views. Annotations A through E highlight specific UI elements: A points to the sidebar, B to the title, C to the search bar, D to the 'Collaborators' column, and E to the 'Actions items' column.

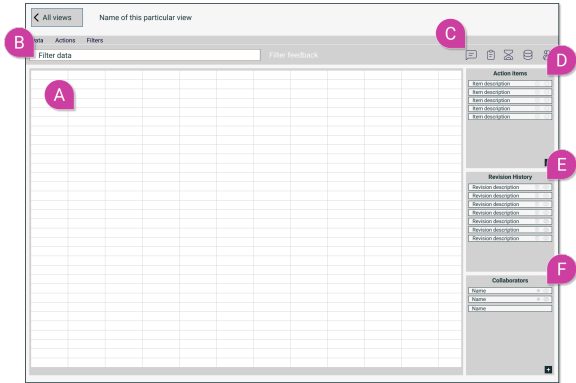
Name	Last modified	Collaborators	Actions items
Company X, analysing missing values	Yesterday	[click to share]	12 flagged items
Company X, customizing view for channel	3 days ago by Bob	Bob and Alice	Needs approval
Company X, integrate data from retail Y	Last week by Bob	Bob, Tom, Alice and 3 more	4 comments
Company X, check digital assets	Last week by Bob	Assigned to you by Bob	Multiple
...	date	people	
...	date	people	
...	date	people	
...	date	people	

Creating and sharing a data view



Collaborative tooling with tabular data

- ▶ **Action items** supports different roles and tasks
- ▶ **Revision history** supports shared track changes and accountability
- ▶ **Collaborator pane** supports awareness and social navigation



Assign action item to collaborators

Alice's view

Alice's view shows a data table with a yellow highlight on a row. A context menu is open over the highlighted row, with the 'Assign action item' option selected. This action opens a dialog box titled 'Assign action item' (labeled B). The dialog contains fields for 'Descriptive name', 'Type' (dropdown), 'Due date', and 'Short description'. It also has a 'Assign to collaborator' button and 'Advanced', 'Cancel', and 'Assign' buttons at the bottom.

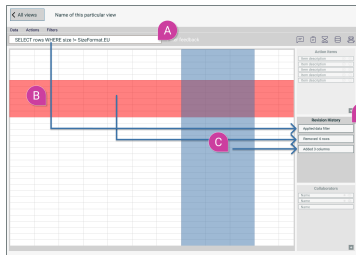
Bob's view

Bob's view shows a data table and a panel titled 'All data views' (labeled D). The 'All data views' panel lists various views with columns for 'Name', 'Last modified', and 'Last viewed by'. A context menu is open over the 'All data views' panel, with the 'Assign action item' option selected. This action opens a dialog box titled 'Assign action item' (labeled C). The dialog contains fields for 'Descriptive name', 'Type' (dropdown), 'Due date', and 'Short description'. It also has a 'Assign to collaborator' button and 'Advanced', 'Cancel', and 'Assign' buttons at the bottom.

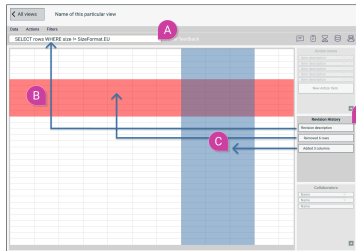
Revision history as key collaboration support

- ▶ Data operations as the replicated objects (CRDT)
- ▶ Support task resumption, accountability and finding stuff
- ▶ Support experimentation – you can always roll back changes
- ▶ A set of operations can be applied to other data views (macros)

Alice's view



Bob's view



THANK YOU