



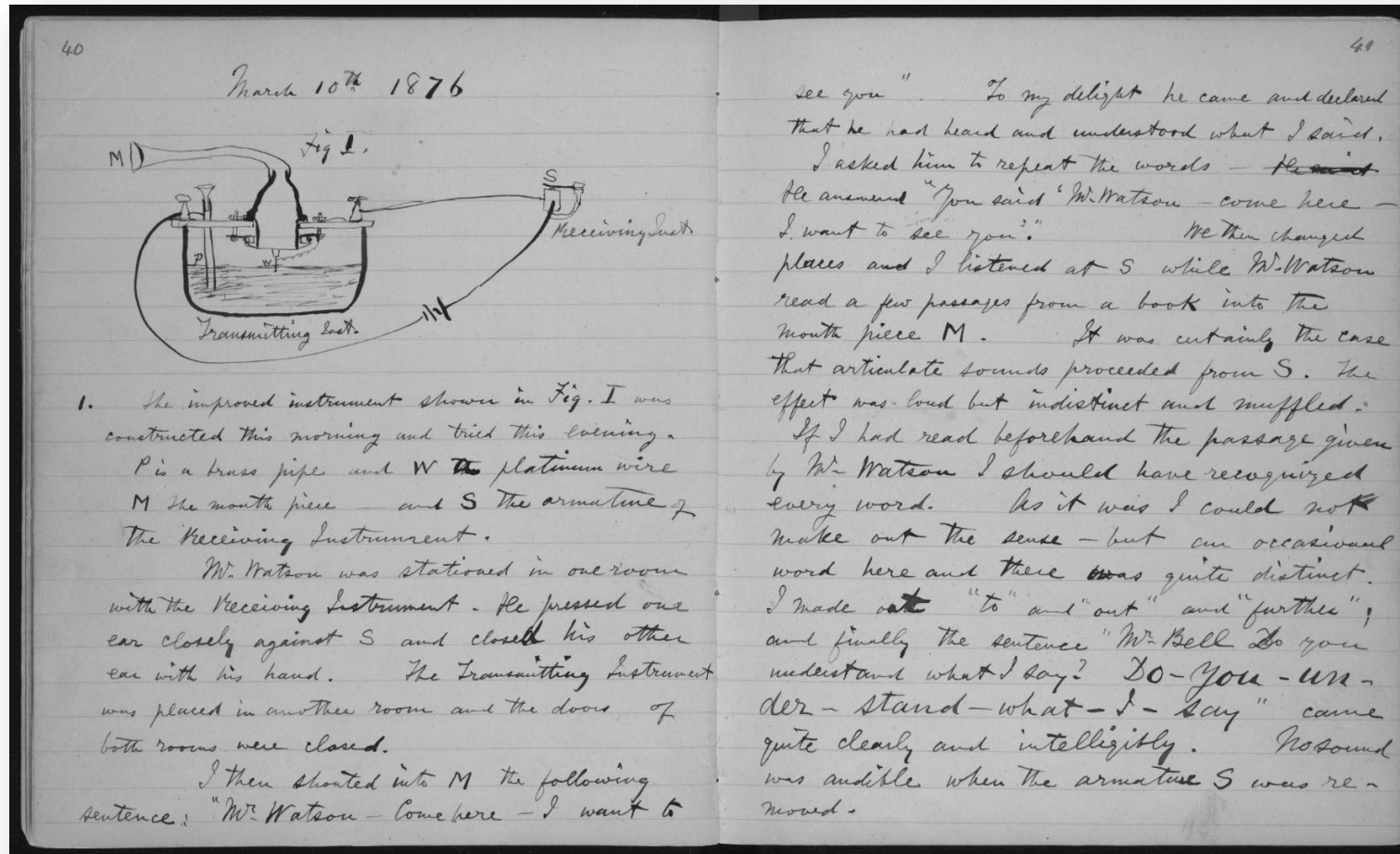
**elektronische  
Laborbücher**  
Eine Einführung  
am Beispiel eLabFTW

## Forschungsdaten ...



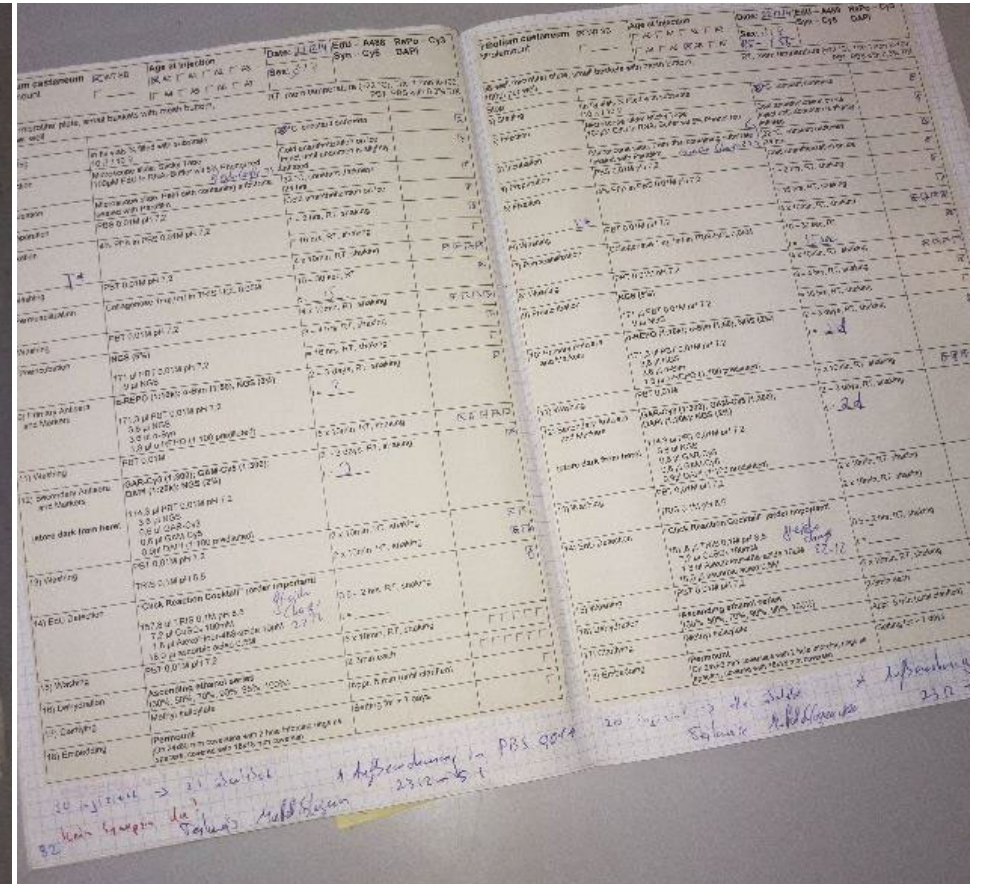
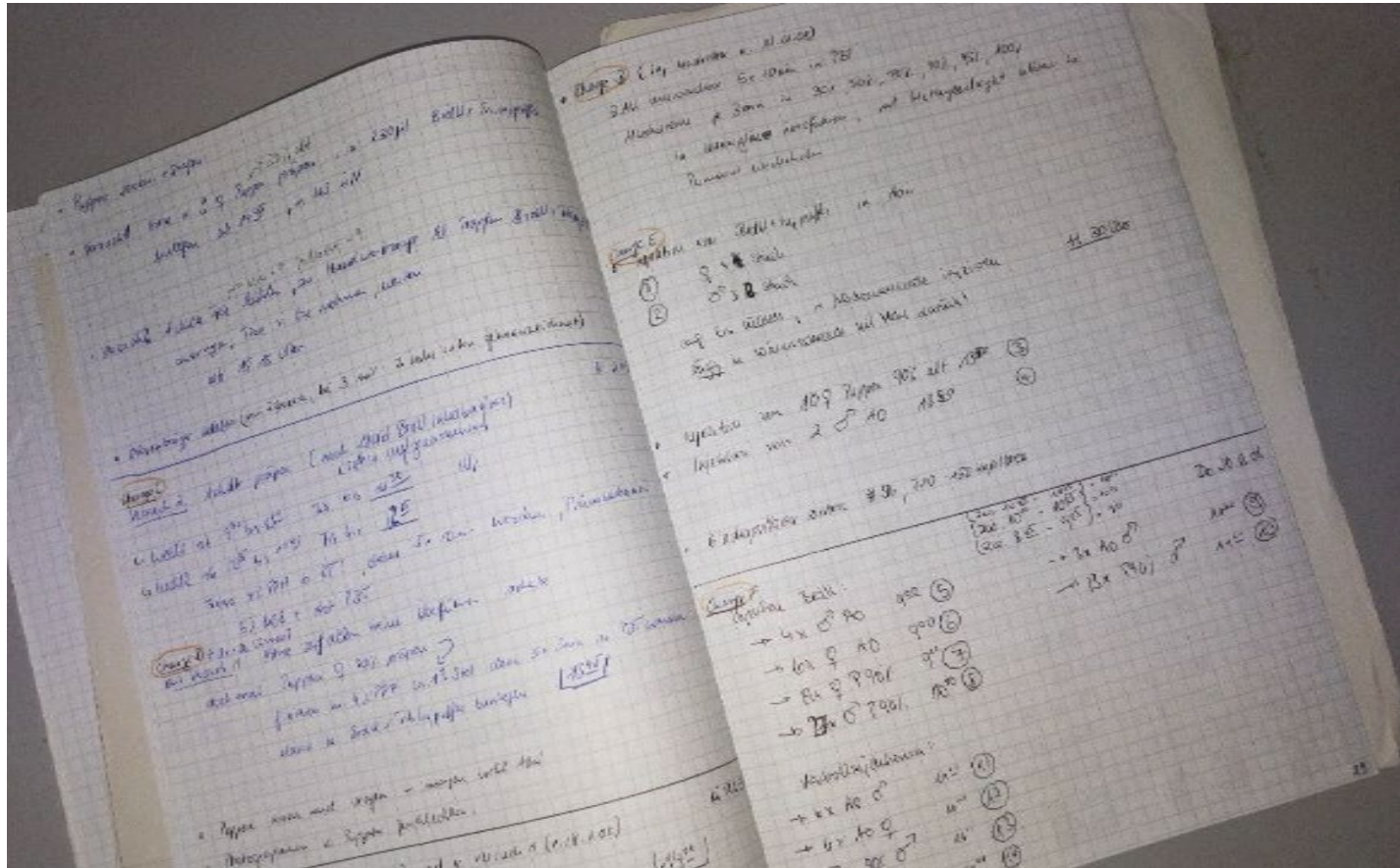


# Aufzeichnungen im klassischen Laborbuch



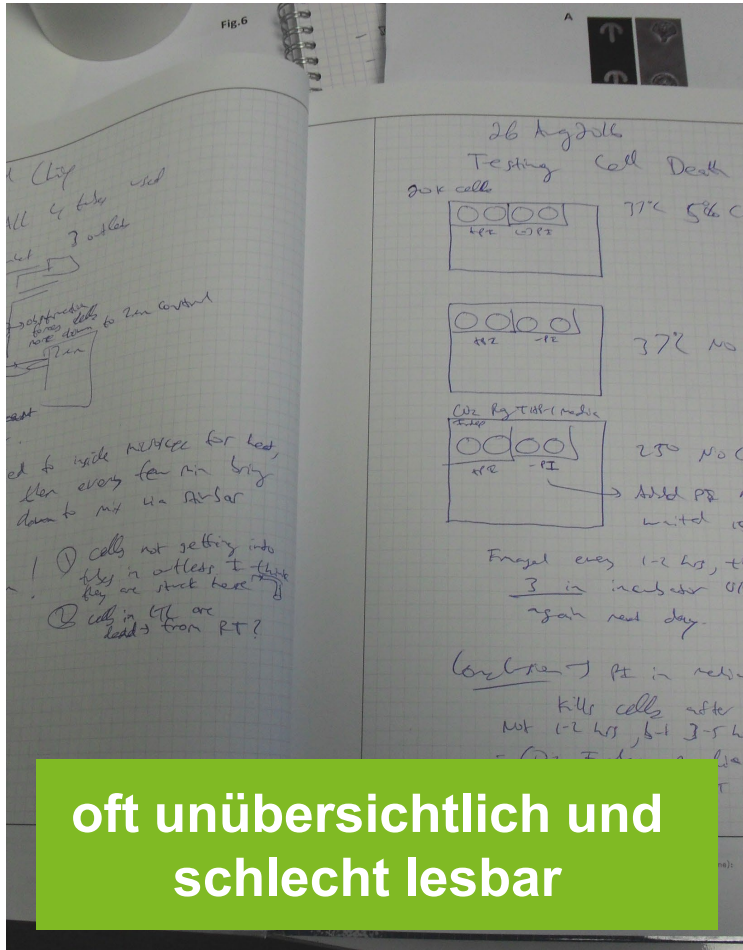
Alexander Graham Bell's Laborbuch (1875-76).  
[Alexander Graham Bell Family Papers in the Library of Congress' Manuscript Division](#)

# Aufzeichnungen im klassischen Laborbuch





# Probleme und Limitation des klassischen Laborbuchs



**oft unübersichtlich und schlecht lesbar**



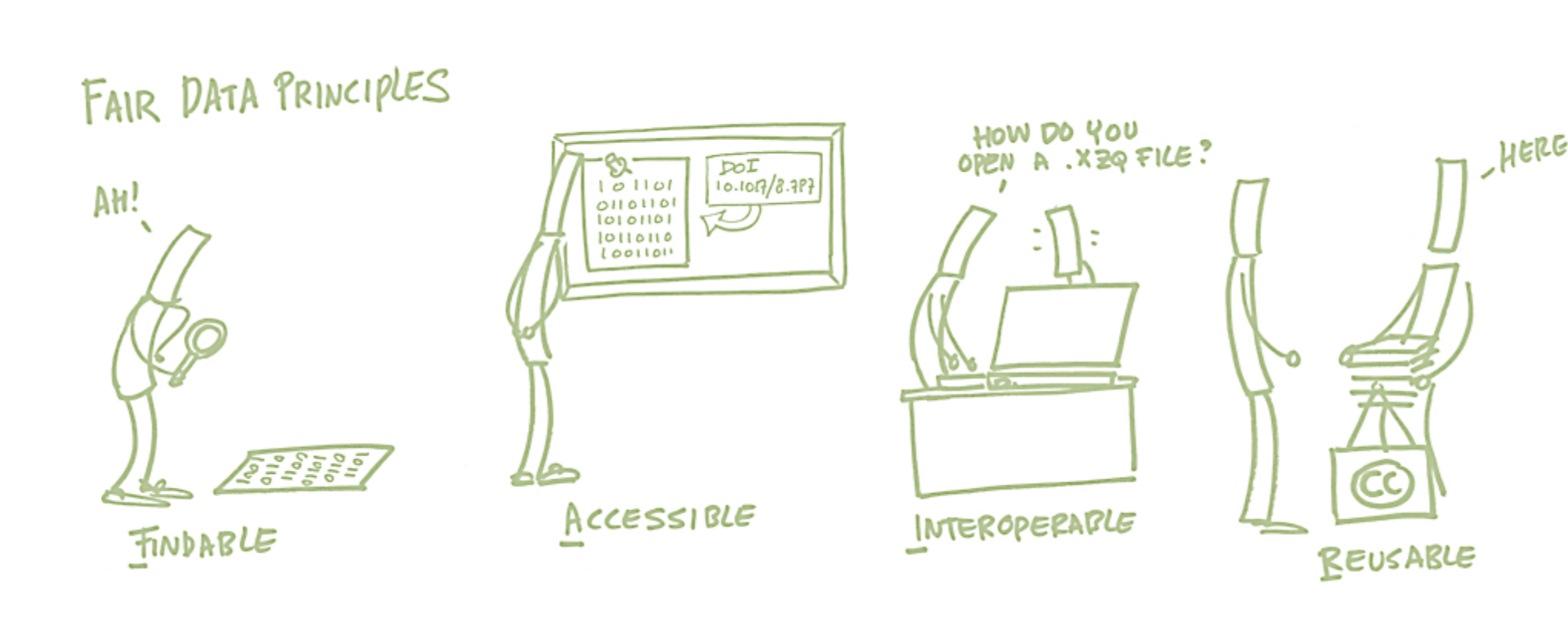
**oft kein Inhaltsverzeichnis**



**stark eingeschränkte Suchmöglichkeiten**

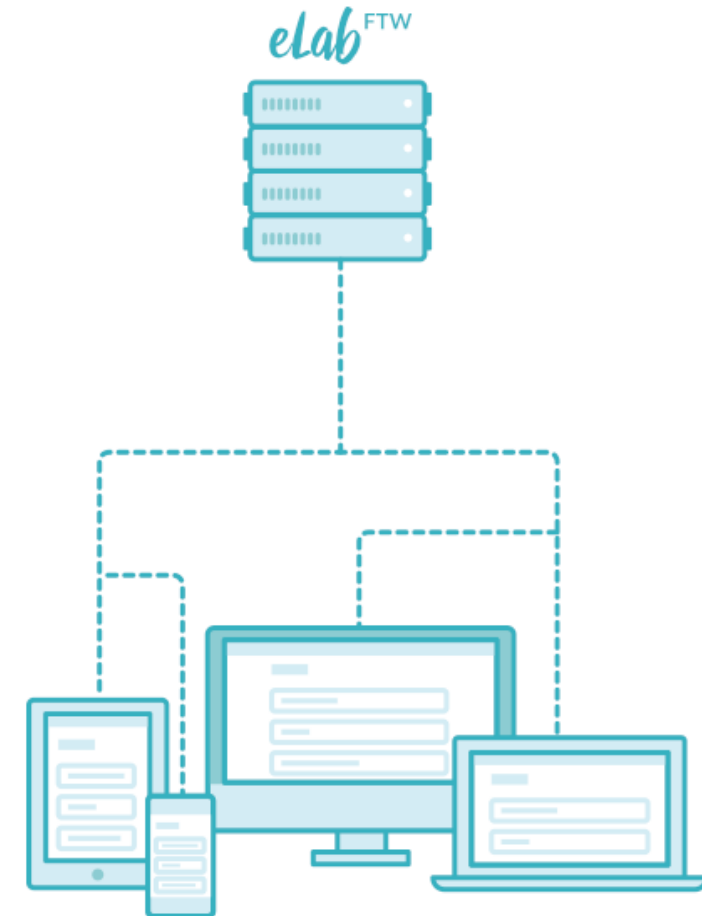
Bilder: eLabFTW / deltablot

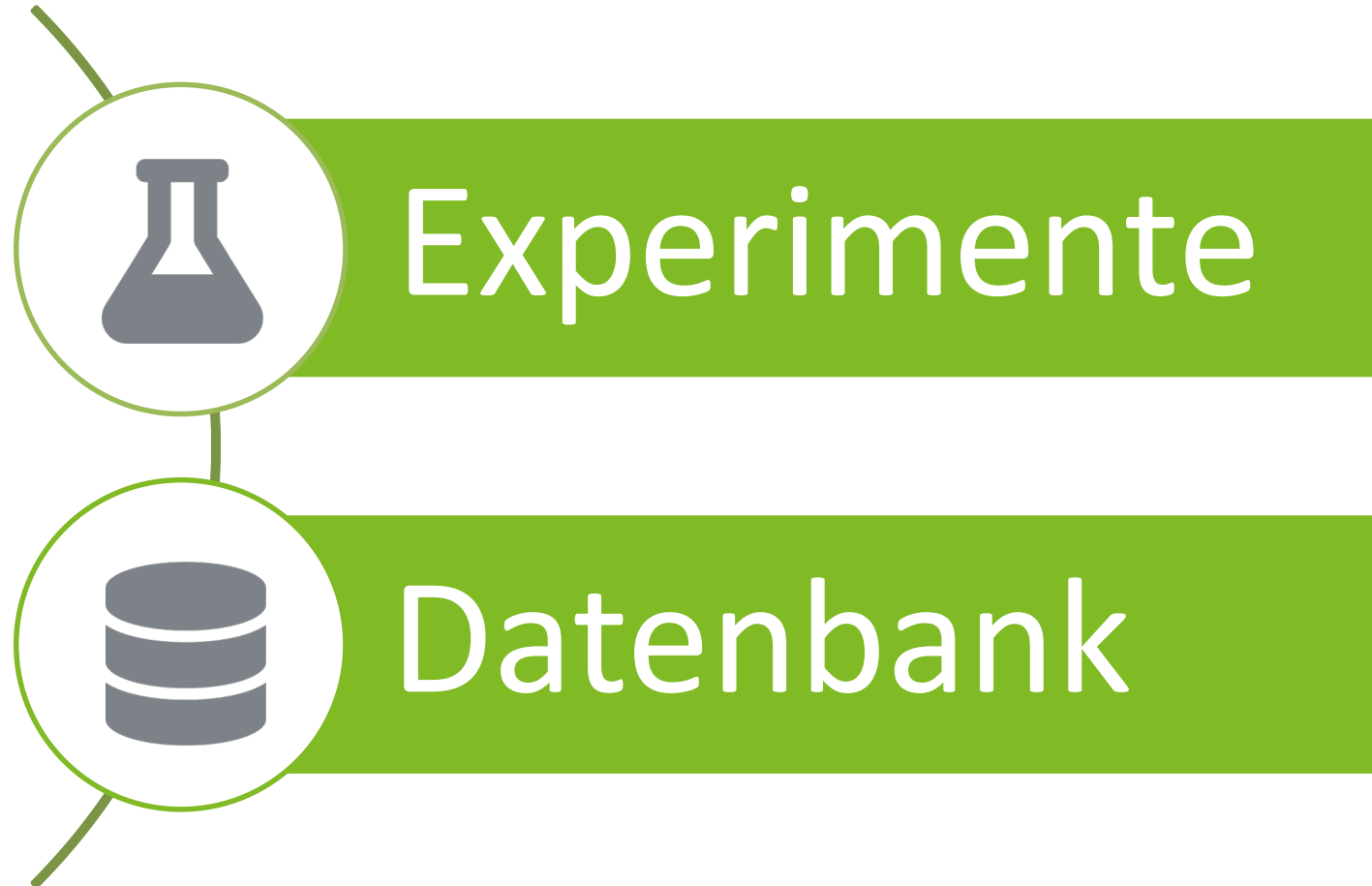
## Gründe für ein elektronisches Laborbuch (ELN)



## Warum eLabFTW?

- eLabFTW ist ein generisches ELN ← *Breite Nutzbarkeit*
- Open Source System mit großer Community
- Installation auf eigenen Servern ← *Datenhoheit!*
- Keine Clientsoftware notwendig da webbasiert ← *„mobiler“ Zugriff*
- Responsives Design (passt sich der Bildschirmgröße an)

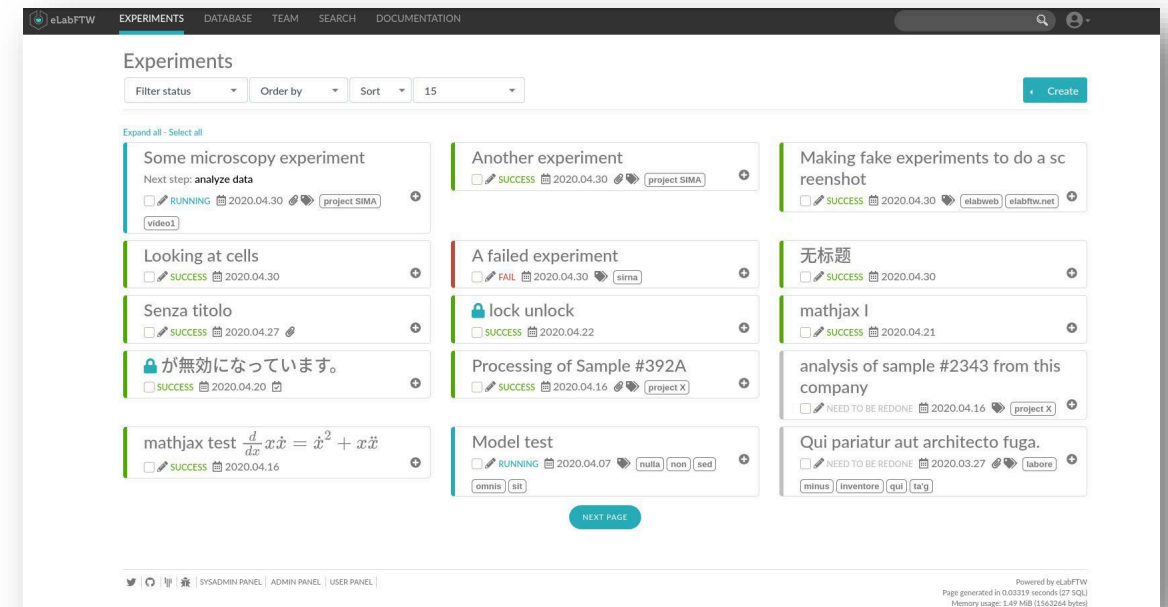






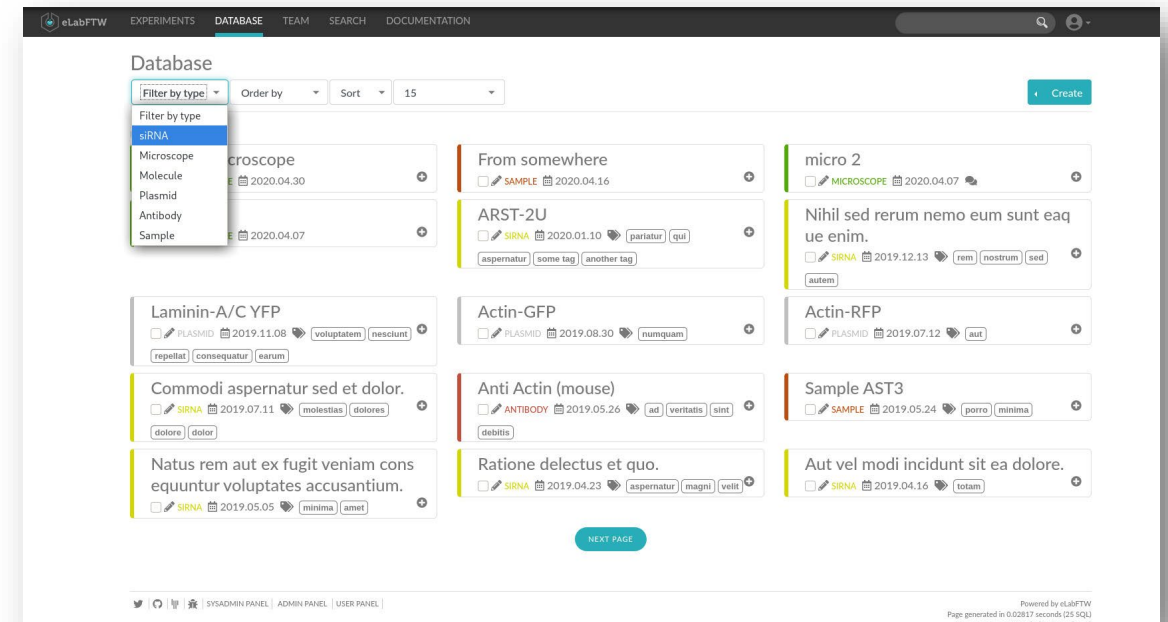
## Datenmodell: Experimente

- Frei definierbarer Status
- Fixierung Zeitstempel (RFC 3161) möglich
- Nutzung/Anlegen von Vorlagen und Schritten
- Verlinkung von Datenbankelementen
- Dateianhänge (i.d.R. kleine Dateien, wie Bilder, Hersteller Protokolle u. Ä.)
- Kategorisierung über Schlagwörter
- Kommentarfunktion



## Datenmodell: Datenbank

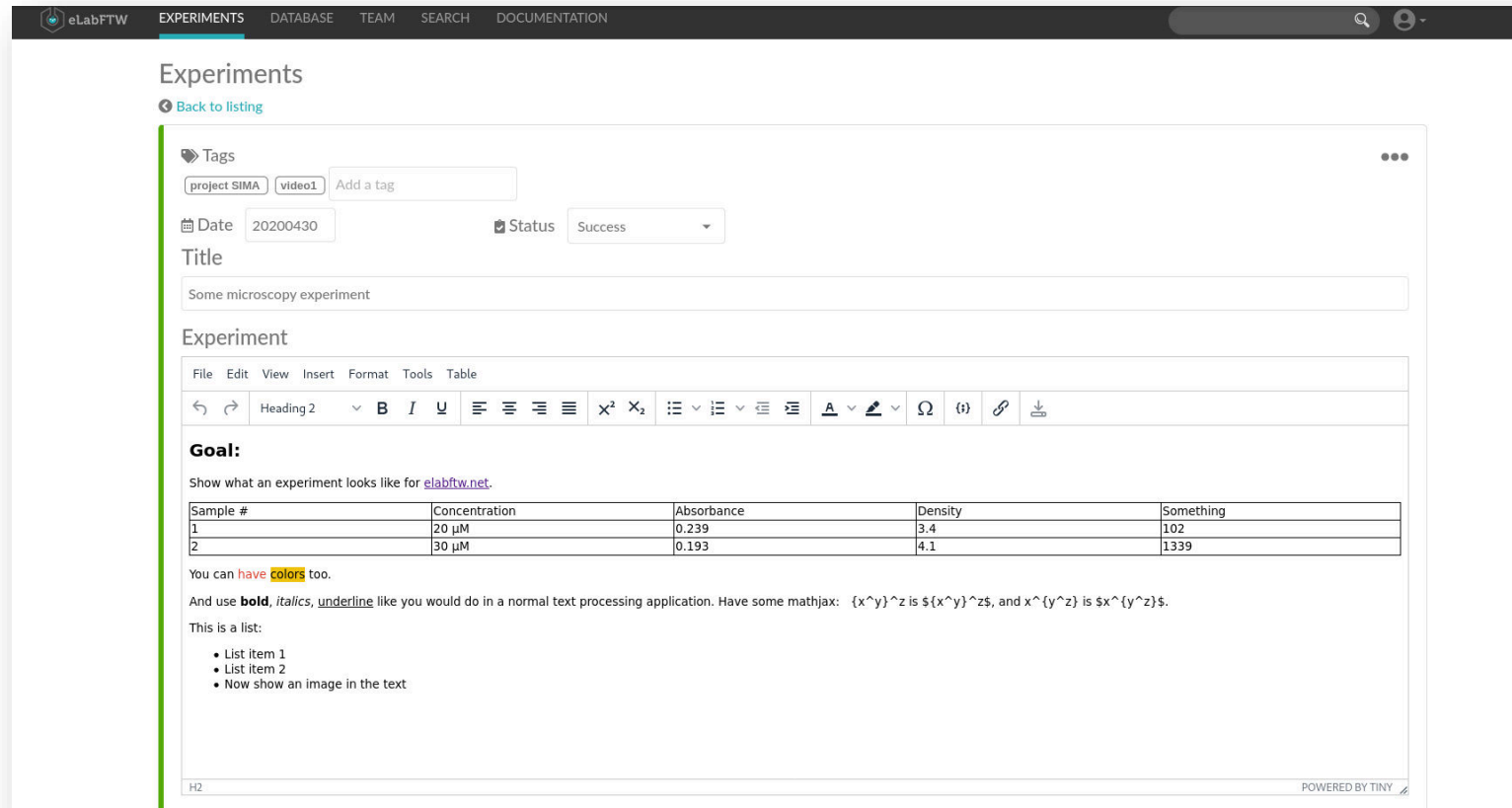
- Nutzbar für z.B. Laborinventar, Protokolle, Chemikalien, Proben, ...
- Buchungsfunktion
- Dateianhänge (i.d.R. kleine Dateien, wie Bilder, Hersteller Protokolle u. Ä.)
- Typen werden pro Team vorgegeben
- Kategorisierung über Schlagwörter
- Kommentarfunktion





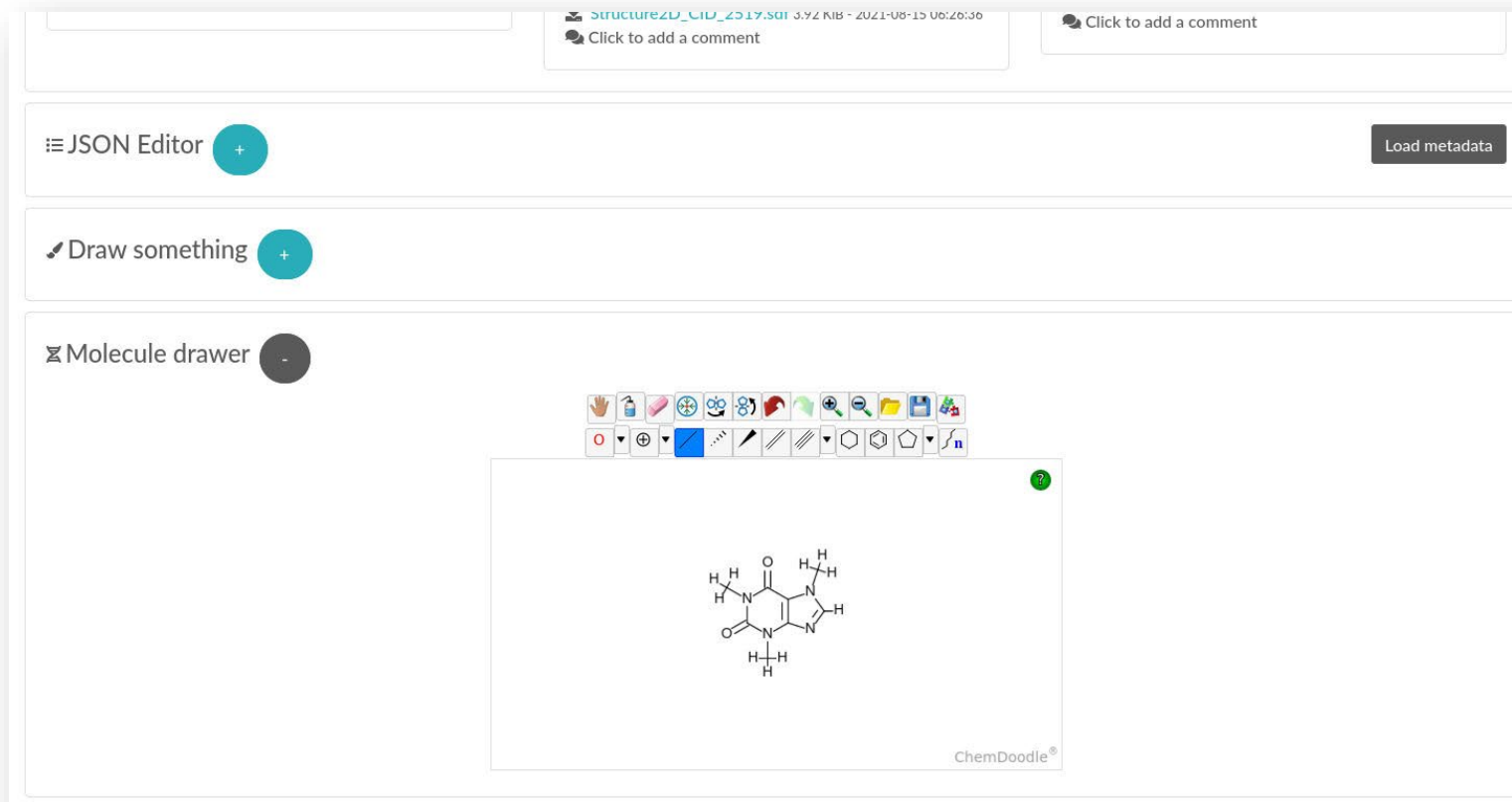
# Grundfunktionen

- Eingabe mit grafischen Texteditor oder als „Quelltext“ mit HTML und Markdown



## Grundfunktionen

- JSON Editor, Skizzeneditor, Moleküleditor



Structure2D\_CID\_2517.sdf 3.92 KiB - 2021-08-15 06:26:36

Click to add a comment

JSON Editor + Load metadata

Draw something +

Molecule drawer -

ChemDoodle®



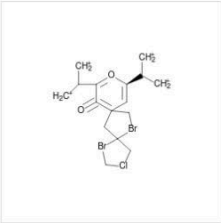





## Grundfunktionen

- Dateianhänge

Microscope - David's microscope

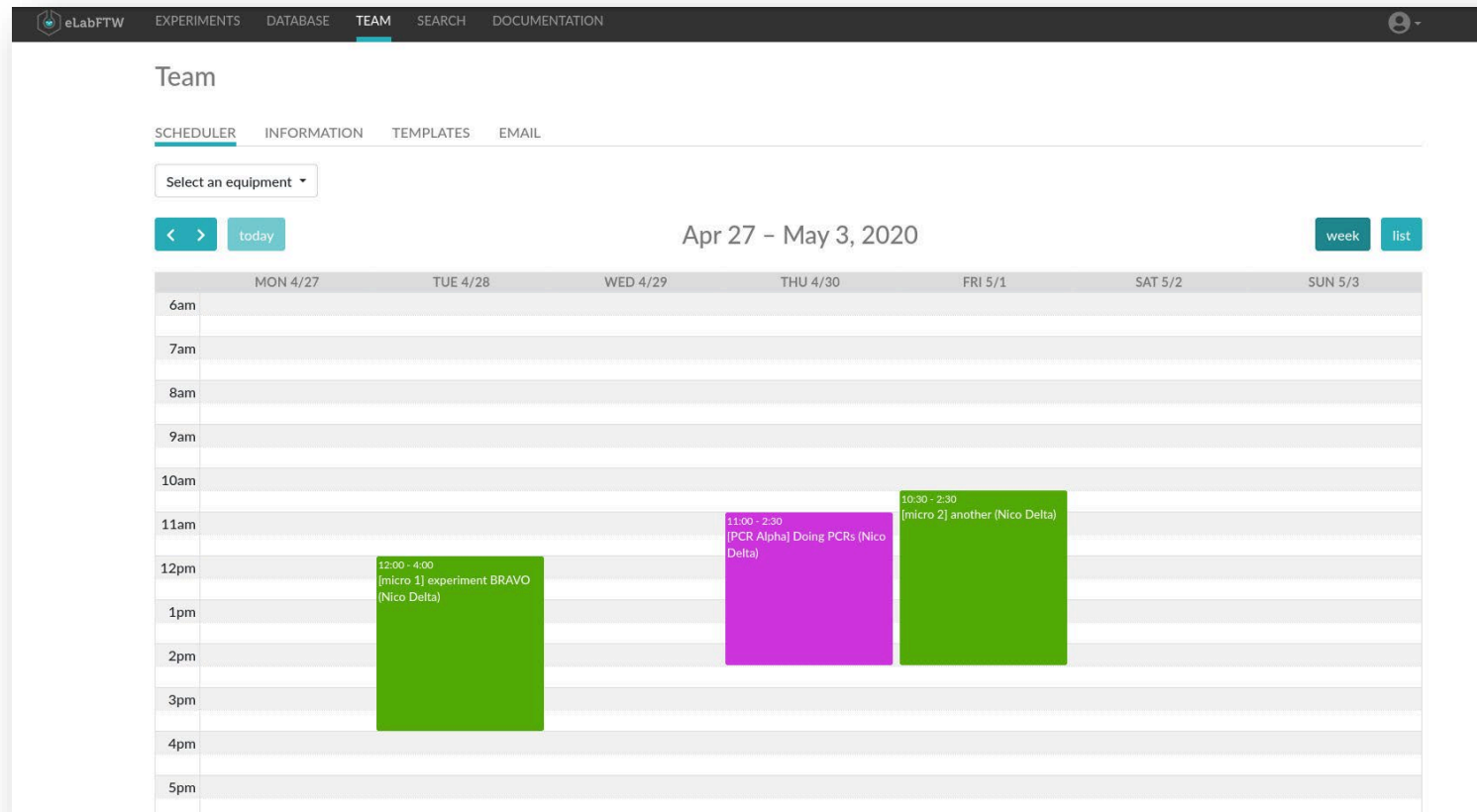
Last modified by Nico Delta (2020-04-30 18:34:18) Unique eLabID: 20200430-92cedf34b0cc05010d4af64583a5bfbcdf19270

Attached files

 <a href="#">example.mol</a> 1.62 KiB - 2020-04-30 18:33:55	 <a href="#">example.mp4</a> 179.83 KiB - 2020-04-30 18:34:00	 <a href="#">example.pdf</a> 926.75 KiB - 2020-04-30 18:34:03
 <a href="#">example.ppt</a> 158.50 KiB - 2020-04-30 18:34:07	 <a href="#">example.jpg</a> 44.25 KiB - 2020-04-30 18:34:11	<span>Style ▾</span>  <a href="#">example.pdb</a> 503.80 KiB - 2020-04-30 18:34:16

## Weitere Möglichkeiten

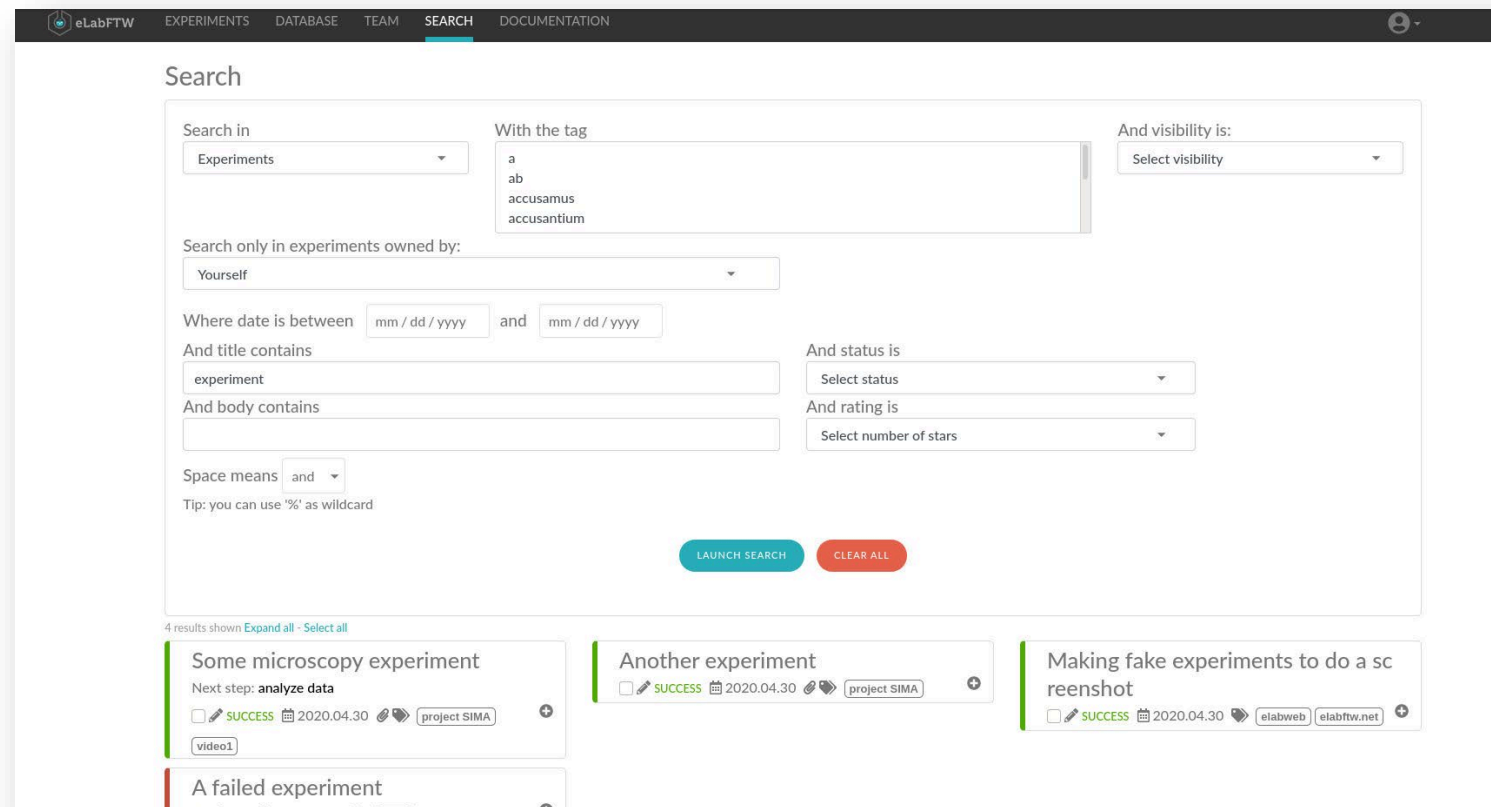
- Kalender (Buchungstool für Datenbankeinträge)





## Weitere Möglichkeiten

- Suchfunktion



The screenshot shows the search interface of the eLabFTW platform. The navigation bar at the top includes 'eLabFTW', 'EXPERIMENTS', 'DATABASE', 'TEAM', 'SEARCH', and 'DOCUMENTATION'. The search form is titled 'Search' and contains several filters:

- Search in:** A dropdown menu currently set to 'Experiments'.
- With the tag:** A text input field containing 'a', with a dropdown menu showing suggestions: 'a', 'ab', 'accusamus', and 'accusantium'.
- And visibility is:** A dropdown menu set to 'Select visibility'.
- Search only in experiments owned by:** A dropdown menu set to 'Yourself'.
- Where date is between:** Two date input fields in 'mm / dd / yyyy' format, separated by 'and'.
- And title contains:** A text input field containing 'experiment'.
- And status is:** A dropdown menu set to 'Select status'.
- And body contains:** An empty text input field.
- And rating is:** A dropdown menu set to 'Select number of stars'.
- Space means:** A dropdown menu set to 'and'.

Below the filters, there is a tip: 'Tip: you can use % as wildcard'. At the bottom of the search form are two buttons: 'LAUNCH SEARCH' (teal) and 'CLEAR ALL' (red).

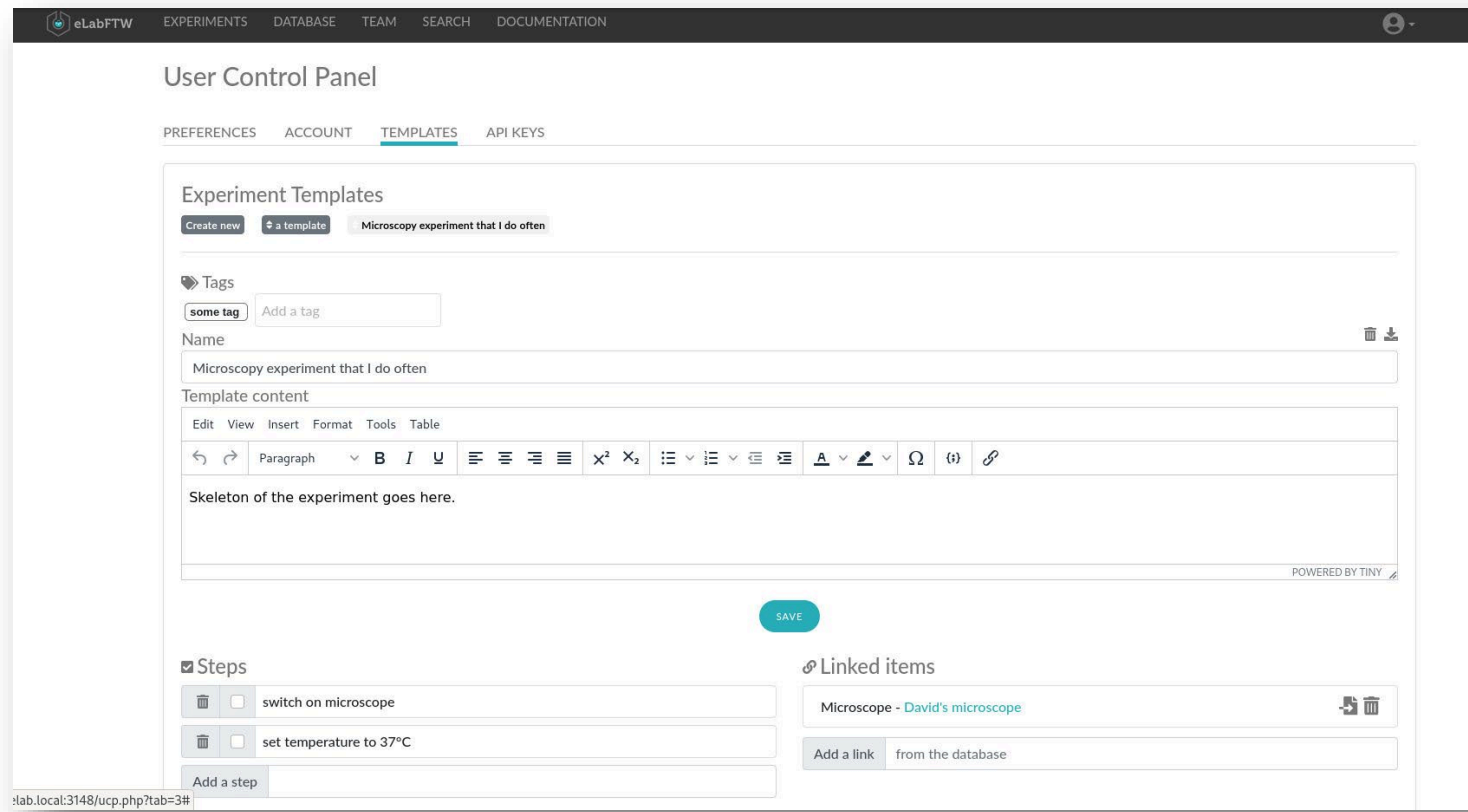
The search results section shows '4 results shown' with links for 'Expand all' and 'Select all'. Three results are visible:

- Some microscopy experiment:** Next step: analyze data. Status: SUCCESS. Date: 2020.04.30. Tags: project SIMA. Includes a video1 thumbnail.
- Another experiment:** Status: SUCCESS. Date: 2020.04.30. Tag: project SIMA.
- Making fake experiments to do a screenshot:** Status: SUCCESS. Date: 2020.04.30. Tags: elabweb, elabftw.net.

A fourth result, 'A failed experiment', is partially visible at the bottom.

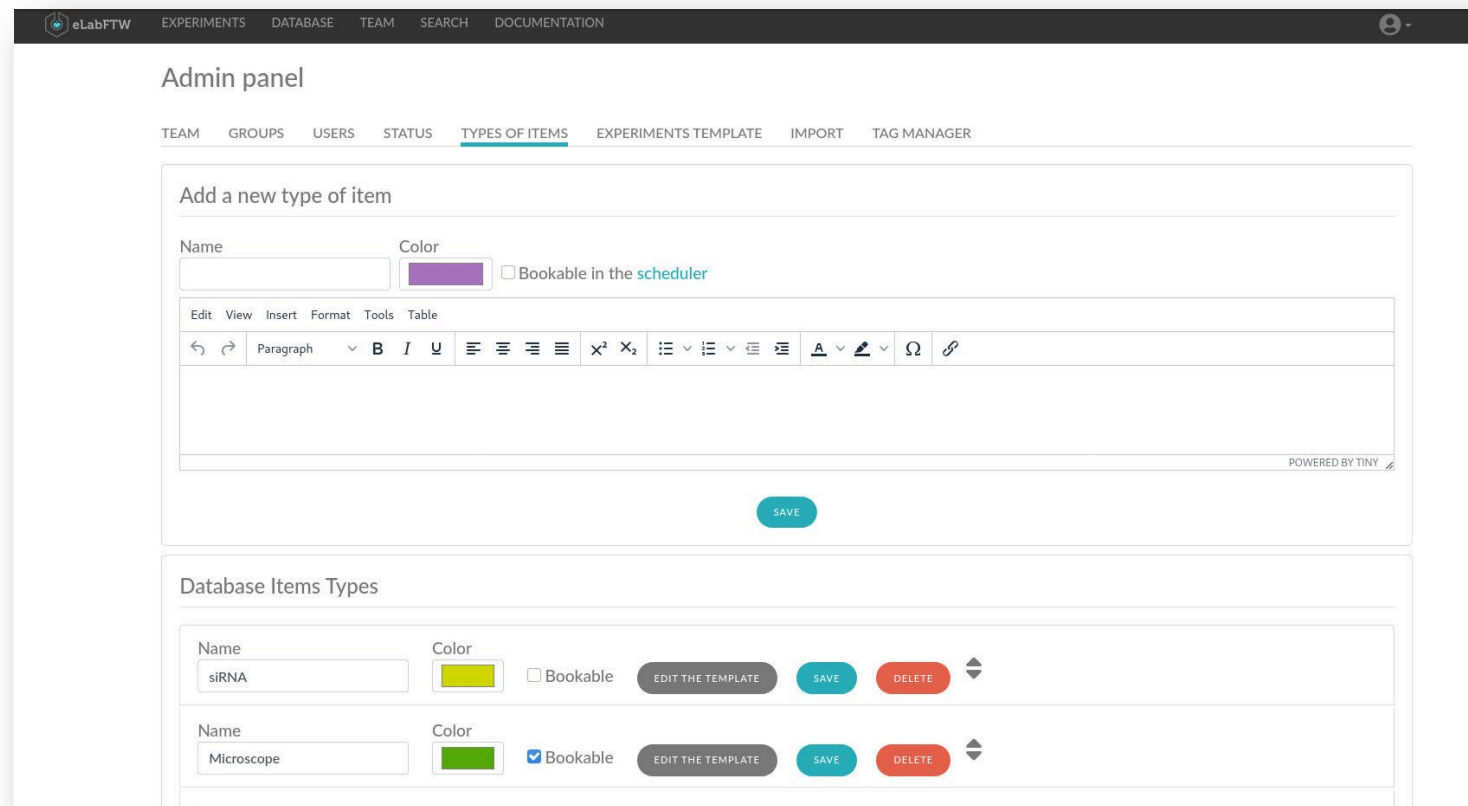
## Weitere Möglichkeiten

- Vorlagen für Experimente



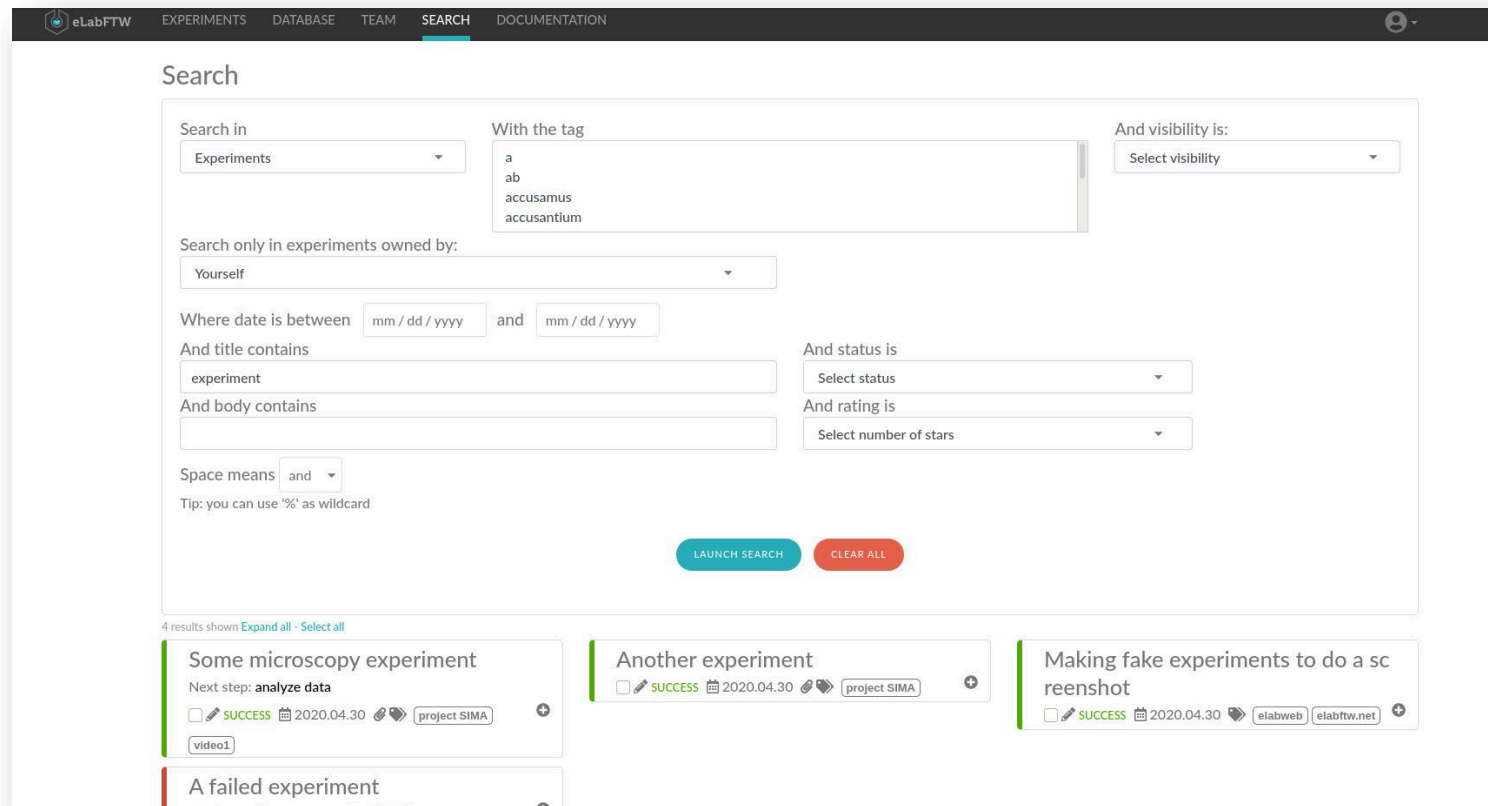
## Weitere Möglichkeiten

- Elementtypen für Datenbankeinträge



## Weitere Möglichkeiten

- API

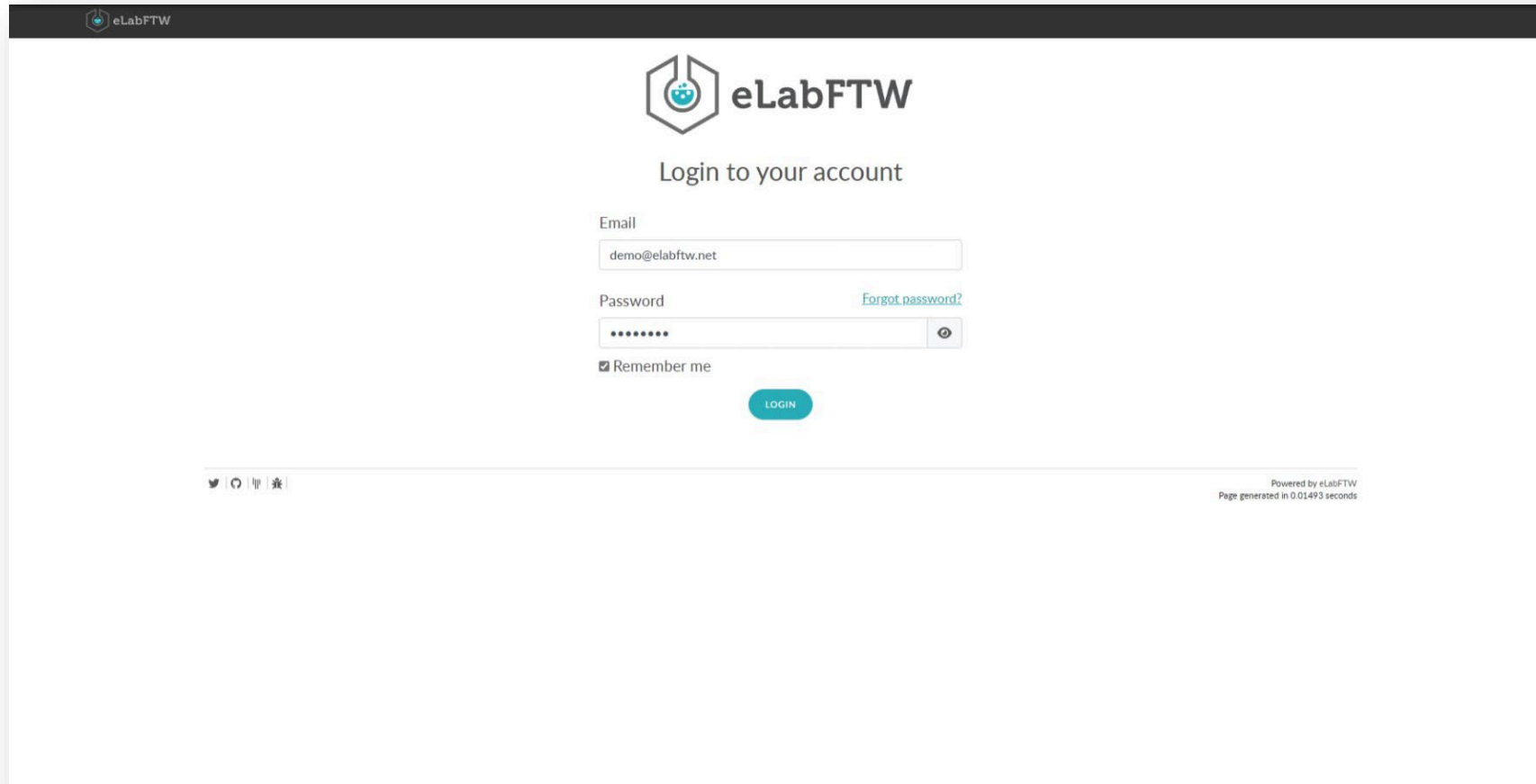


The screenshot shows the eLabFTW search interface. The top navigation bar includes 'eLabFTW', 'EXPERIMENTS', 'DATABASE', 'TEAM', 'SEARCH', and 'DOCUMENTATION'. The search page has a title 'Search' and a search bar. The search criteria are as follows:

- Search in: Experiments
- With the tag: a, ab, accusamus, accusantium
- And visibility is: Select visibility
- Search only in experiments owned by: Yourself
- Where date is between: mm / dd / yyyy and mm / dd / yyyy
- And title contains: experiment
- And body contains: (empty)
- And status is: Select status
- And rating is: Select number of stars
- Space means: and
- Tip: you can use '%' as wildcard

Buttons for 'LAUNCH SEARCH' and 'CLEAR ALL' are visible. Below the search bar, there are 4 results shown. The first result is 'Some microscopy experiment' with a next step of 'analyze data', a success status, a date of 2020.04.30, and a tag 'project SIMA'. The second result is 'Another experiment' with a success status, a date of 2020.04.30, and a tag 'project SIMA'. The third result is 'Making fake experiments to do a screenshot' with a success status, a date of 2020.04.30, and tags 'elabweb' and 'elabftw.net'. The fourth result is 'A failed experiment'.





The screenshot shows the login page of the eLabFTW application. At the top left, there is a small eLabFTW logo. The main heading is "eLabFTW" with a stylized logo to its left. Below the heading is the text "Login to your account". The form contains an "Email" field with the value "demo@elabftw.net", a "Password" field with masked characters and a "Forgot password?" link, and a "Remember me" checkbox which is checked. A blue "LOGIN" button is positioned below the form. At the bottom left, there are social media icons for Twitter, Facebook, and LinkedIn. At the bottom right, there is a footer that reads "Powered by eLabFTW" and "Page generated in 0.01493 seconds".

<https://demo.elabftw.net/login.php>

- Benutzende: [https://youtu.be/k30uyH2\\_LMM](https://youtu.be/k30uyH2_LMM)
- Team-Admins: <https://youtu.be/EyEX9nHNWsk>

## Diskussion & Fragen

