NCODeL 2022
7th National Conference on Open and Distance eLearning
Reimagining Education Futures
23-25 November 2022

# Collaborative Relational Database SaaS as Authoring Tools for Online and Offline OERs

*(a.k.a, using Airtable and Notion to hack your own LMS ... kind of)*

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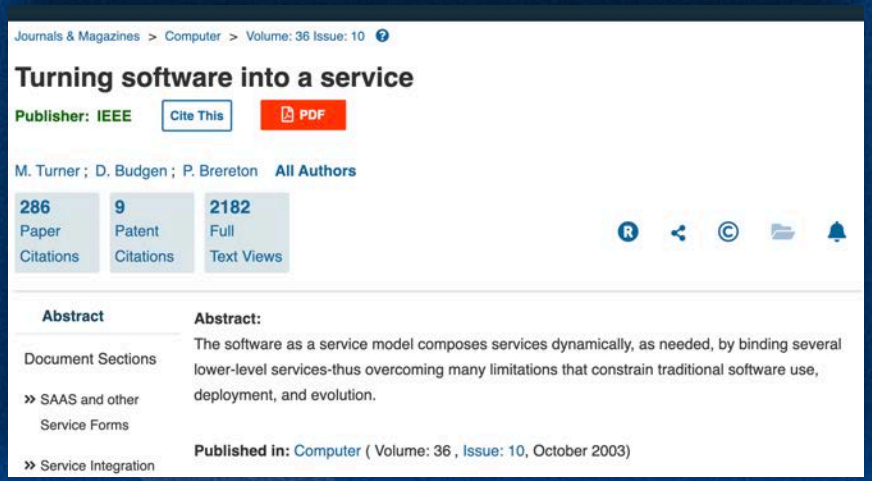
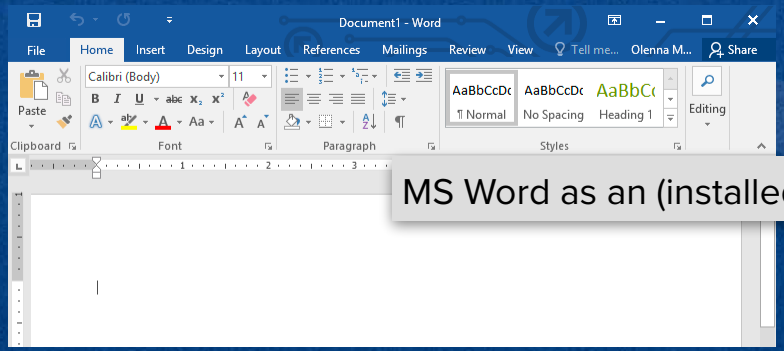
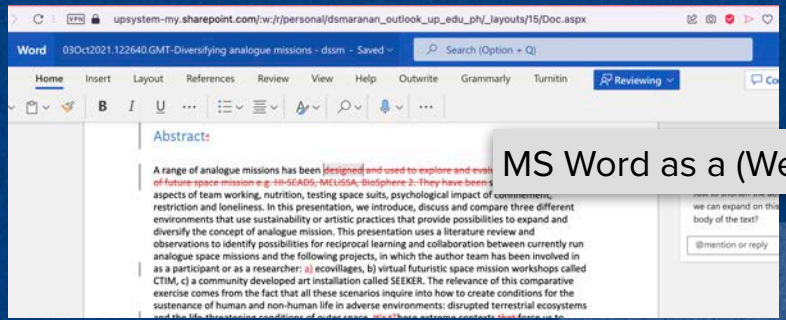
# Software as a service




MS Word as an (installed) product




MS Word as a (Web) service

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# Relational databases

CHAPTER FREE ACCESS

## Relational database: a practical foundation for productivity

**Author:** E. F. Codd Authors Info & Claims

ACM Turing award lectures • January 2007 • Year Awarded: 1981 • https://doi.org/10.1145/1283920.1283937

**Published:** 01 January 2007 Publication History

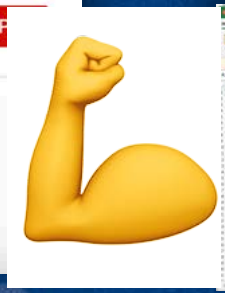
1 7,477 eReader

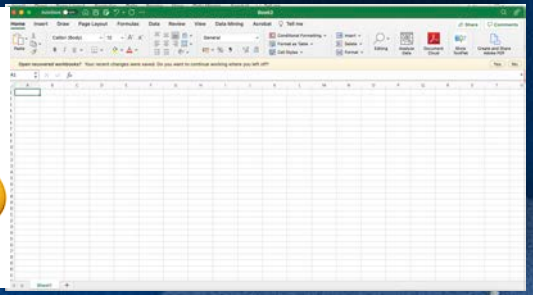
***ABSTRACT***

It is well known that the growth in demands from end users for new applications is outstripping the capability of data processing departments to implement the corresponding application programs. There are two complementary approaches to attacking this problem (and both approaches are

… a type of database that stores and provides access to data points that are related to one another

https://www.oracle.com/ph/database/what-is-a-relational-database/





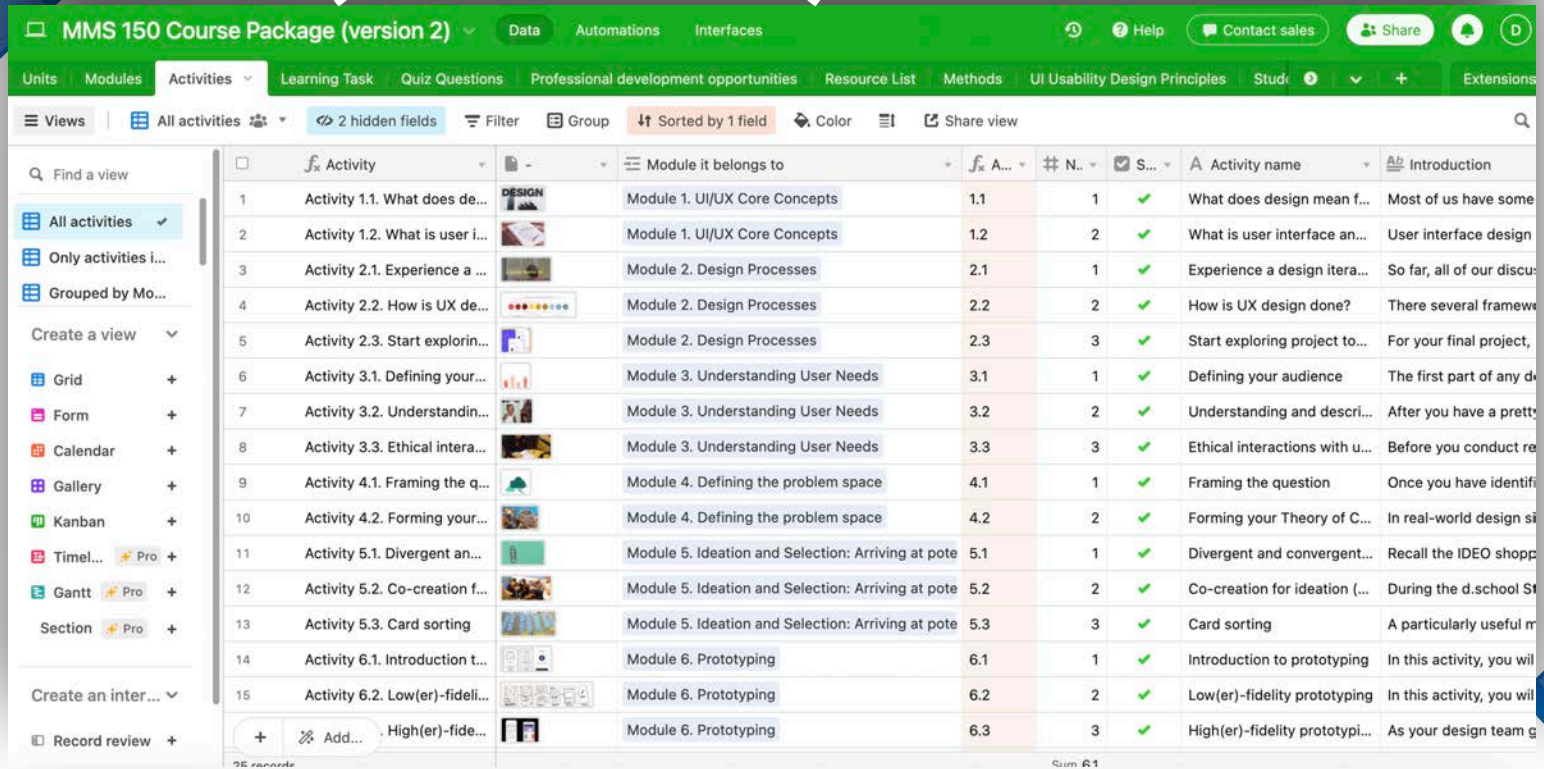
# Why make your own learning management system?

- Create new functionality that aren't available and/or free in existing LMSs
- Most LMS aren't the best content-authoring tools (limited rich media embedding features, limited formatting options)
- Adding or removing functionality is usually restricted to LMS administrators

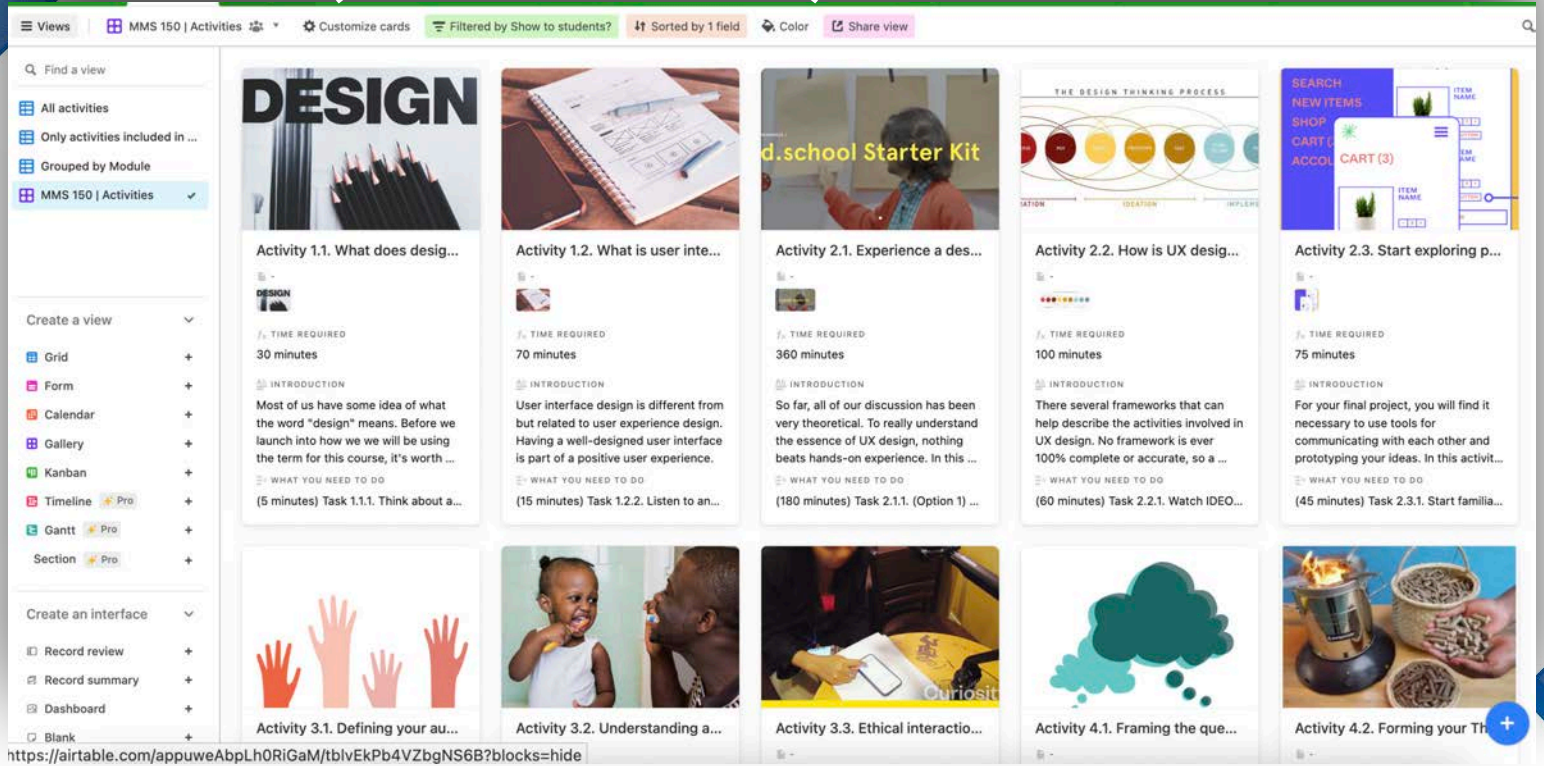
# Why relational database SaaS (and why Notion and Airtable in particular)?

- Chain data and chunks of data
- Create 1-is-to-1, 1-is-to-many, many-are-to-many relationships between data
- Provide different ways to display, sort, and filter learning content based on contextual needs
- Most of the sophisticated functionality in LMSs are just extended applications of relational databases

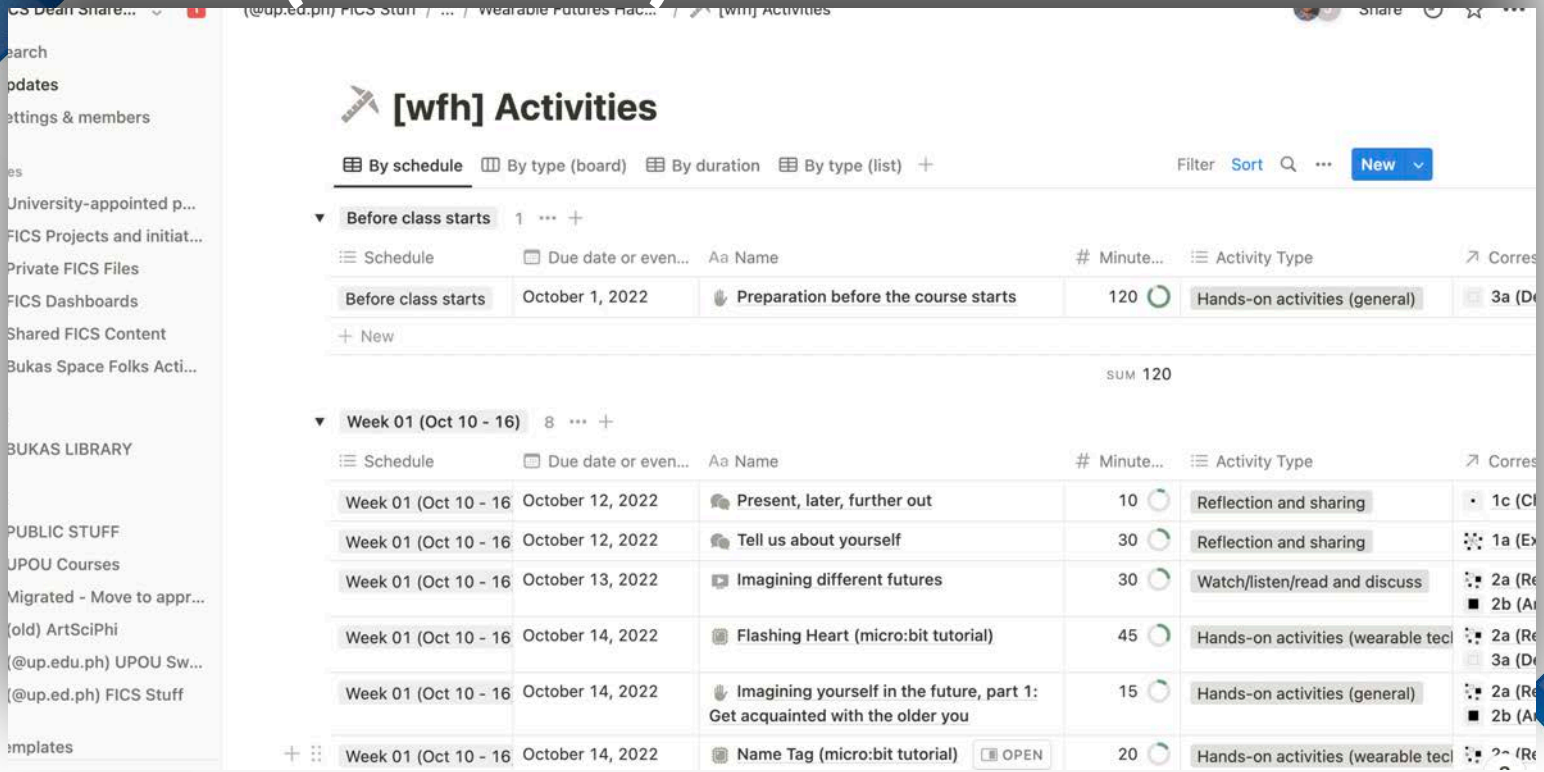
# Airtable (airtable.com)



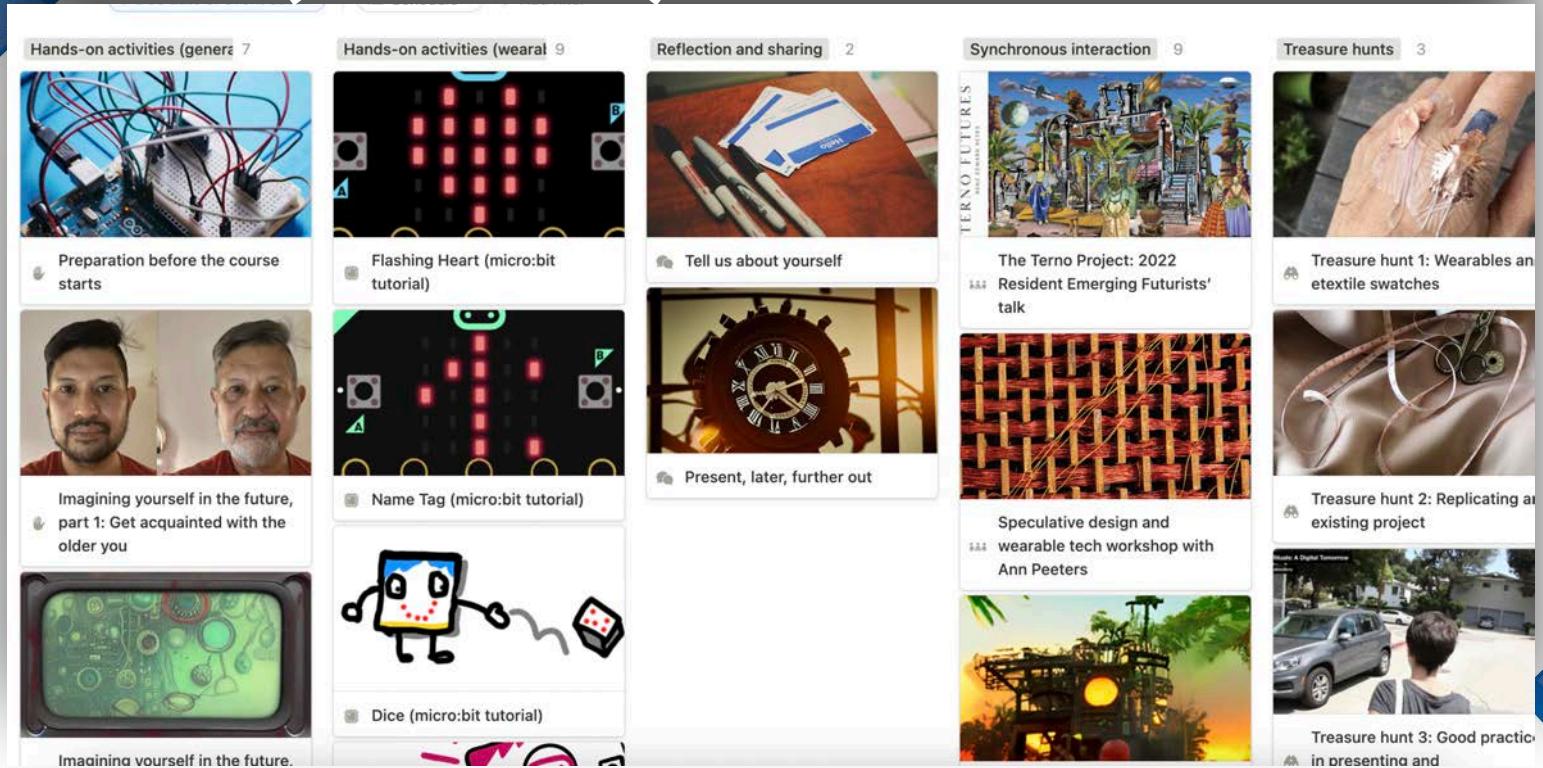
# Airtable (airtable.com)



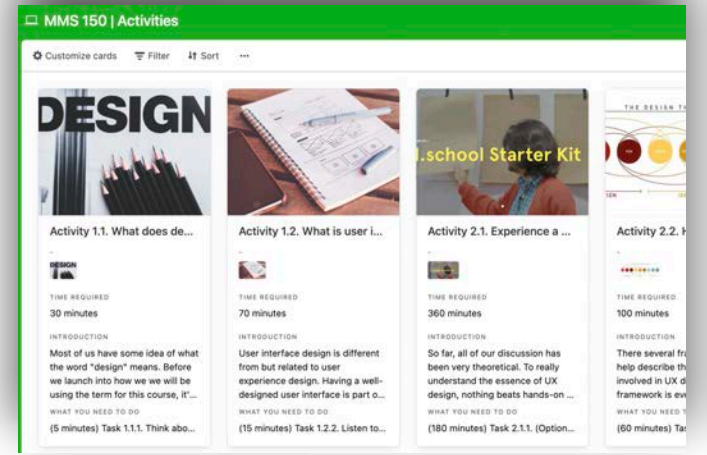
# Notion (notion.so)



# Notion (notion.so)

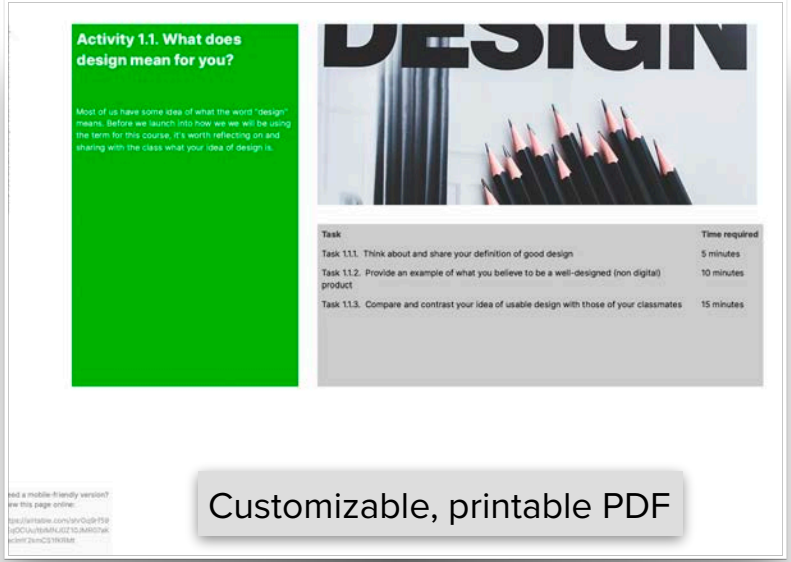


# Export functions and extensions to create offline analogues



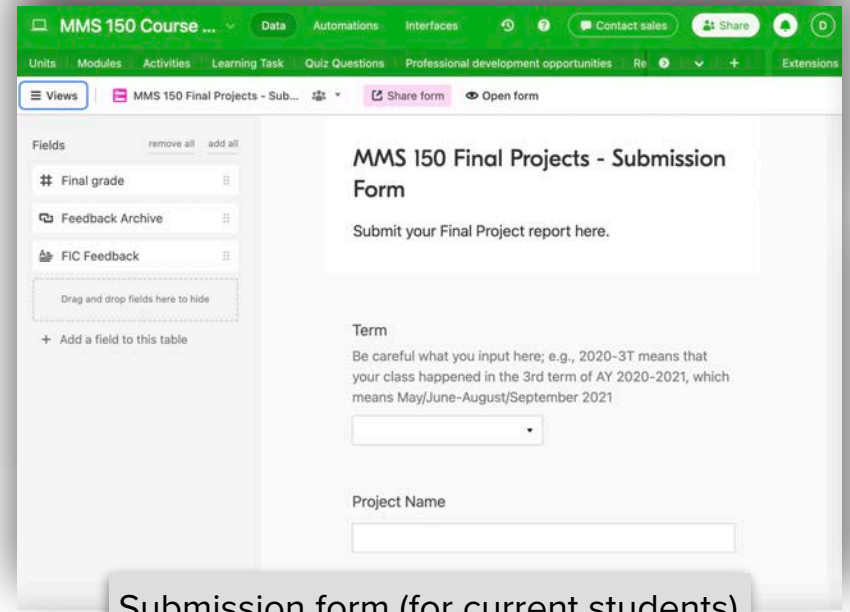

Browser


Mobile

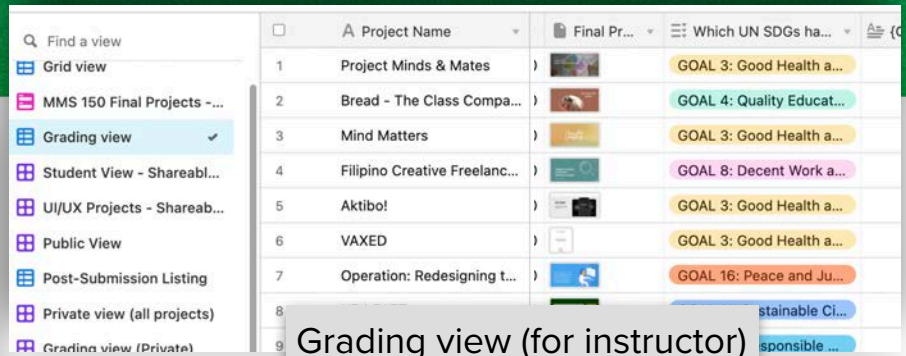



Customizable, printable PDF

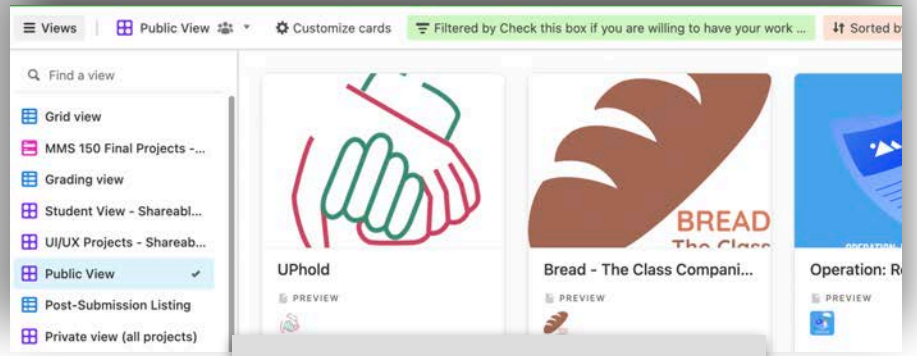
# Reusing student submissions as reference material




Submission form (for current students)



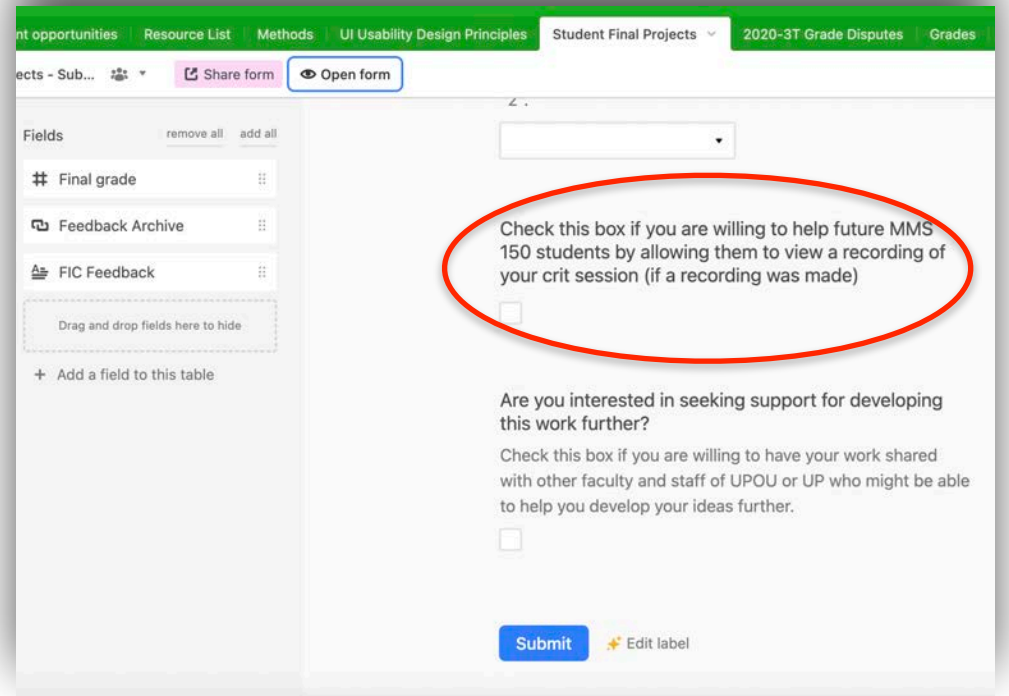

Grading view (for instructor)



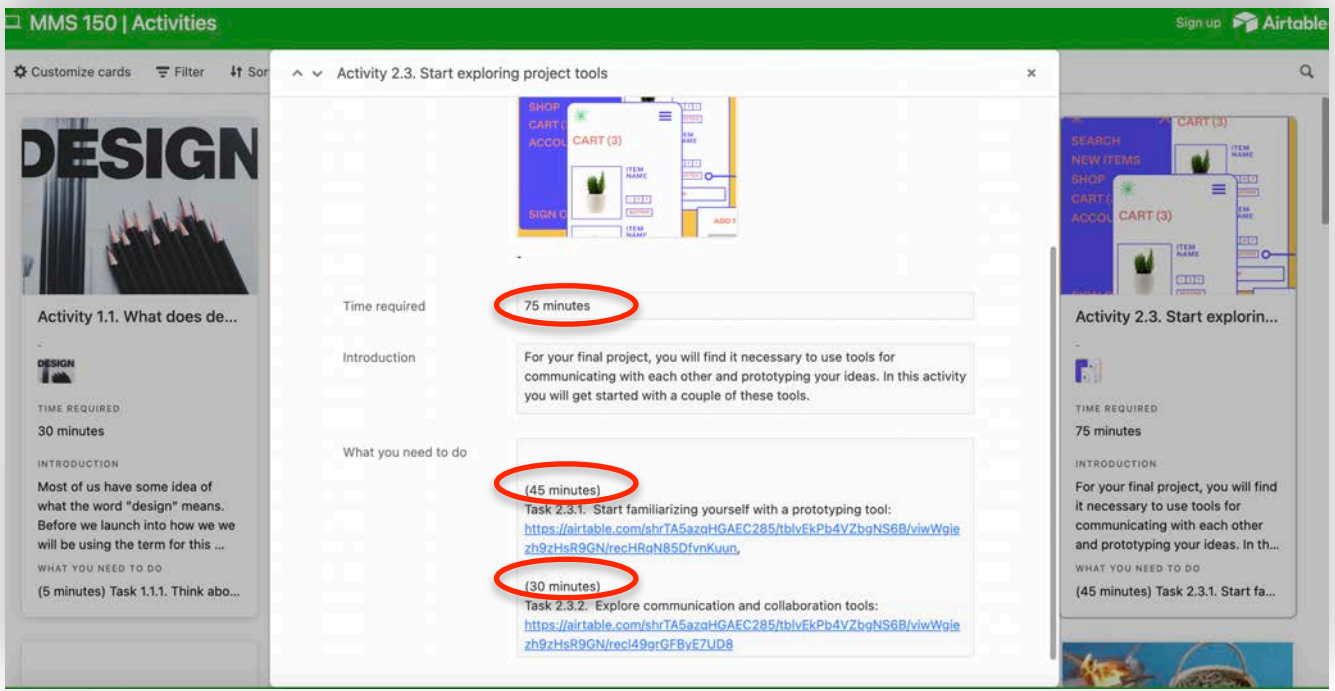

Public view (for future students)

# Reusing student submissions as reference material

- Obtain consent (via simple checkbox confirmation) to share student works for future courses
- Easily include previous student submissions in next year's coursework (even in printable PDF formats)



# Keeping track of demands of activities on students' time



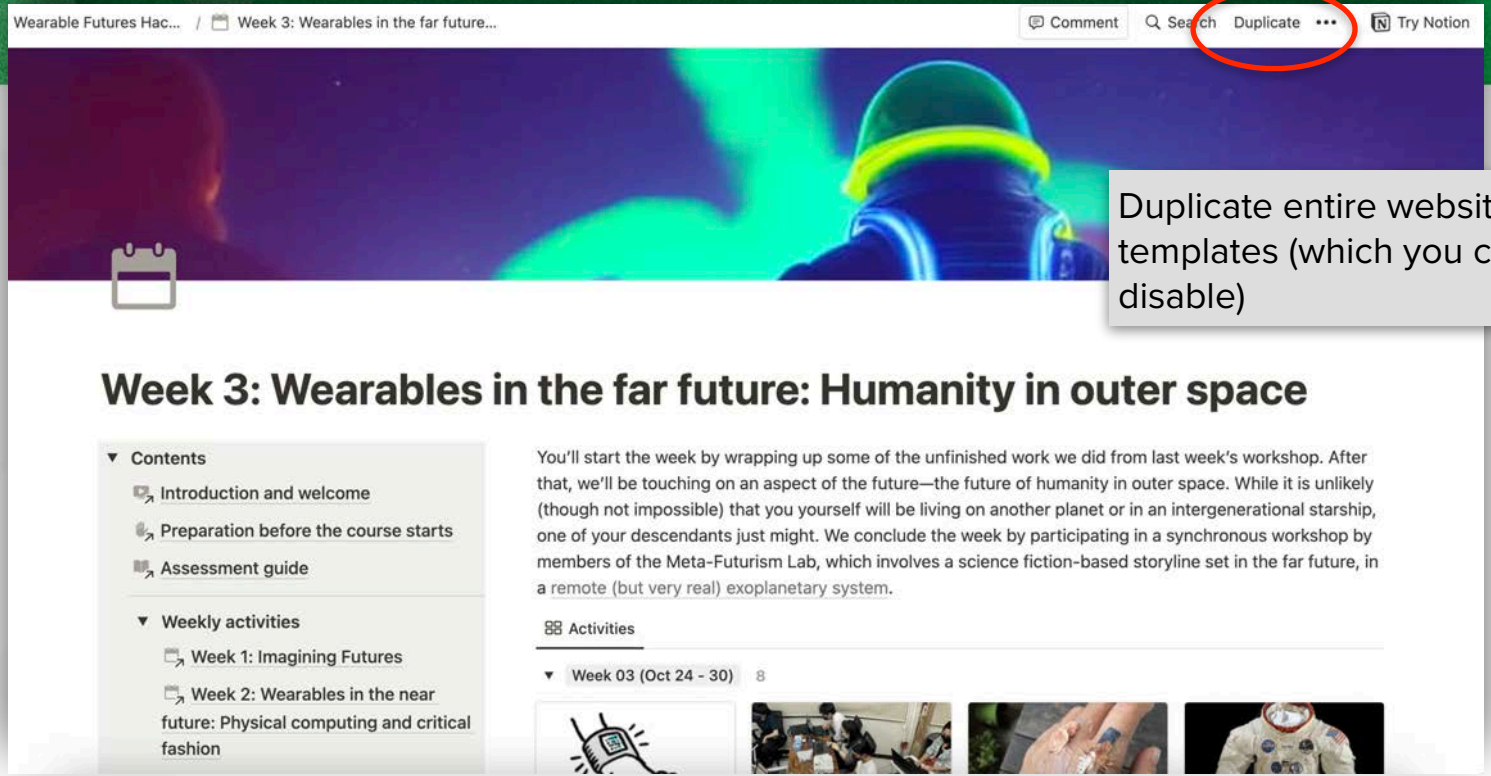
# Auditing to what extent course activities are *actually* contributing to expected learning outcomes

| Aa ELO | ELO Description | Notes | [wfh] Activities | Minute... | Total m... |
|---|---|---|---|---|---|
| 1a (Explore) | **How will I (as the instructor) plan to screen the topic they are working with (futures thinking and wearable tech)?** | I used the SEADS Stuff database, experience accumulated from previous training programs, and the Bukas Lab library database as a way to look at potential topics to cover. | Tell us about yourself<br>Tangible interfaces, embodied interaction, and wearable computing<br>The Terno Project: 2022 Resident Emerging Futurists' talk<br>The MFL workshop storyline<br>Meta-Futurism Lab workshop (1 of 2) | 30, 20, 134, 45, 120 | 349 |
| 1b (Organize) | **How will the student get an overview of their discoveries?** | Students were given opportunities both to freely structure the discoveries they will make (e.g., through Miro boards) as well as prestructured notes (via published Airtable galleries and tables). These overviews were also shared with other students to provide a course-level overview. | Treasure hunt 3: Good practices in presenting and communicating ideas<br>Treasure hunt 1: Wearables and etextile swatches<br>Treasure hunt 2: Replicating an existing project<br>Speculative design and wearable tech workshop with Ann Peeters<br>Meta-Futurism Lab workshop (1 of 2)<br>Meta-Futurism Lab Workshop (2 of 2)<br>Drop-in sessions @ Bukas space<br>Present your proposal for your final project (Bukas/Zoom) | 20, 90, 45, 270, 120, 120, 90 | 755 |
| 1c (Choose) | **How will the students sort and choose the knowledge relevant to the theme of futures and wearables?** | Students will be given structured questionnaires with both open-ended questions and as well closed- | Present, later, further out<br>Introducing Speculative Design (part 2): Probable, Possible, Plausible, and Preferable Futures | 10, 90, 90, 120 | 310 |

Which activities contribute to which learning goal

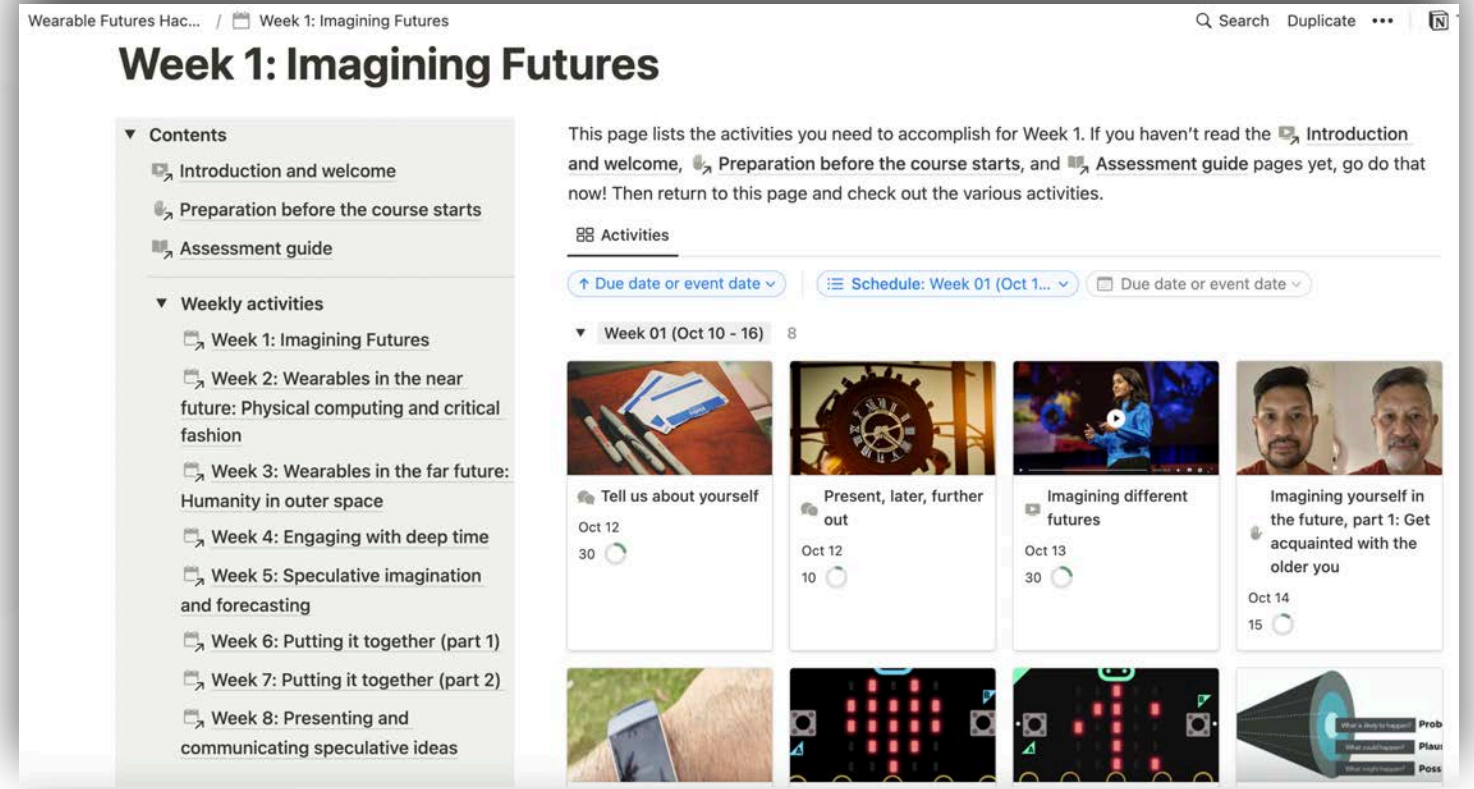
How many minutes are devoted to the learning goals

# Allowing reuse of Notion-authored material




Duplicate entire websites as templates (which you can disable)

# Customizing layout and activity presentation



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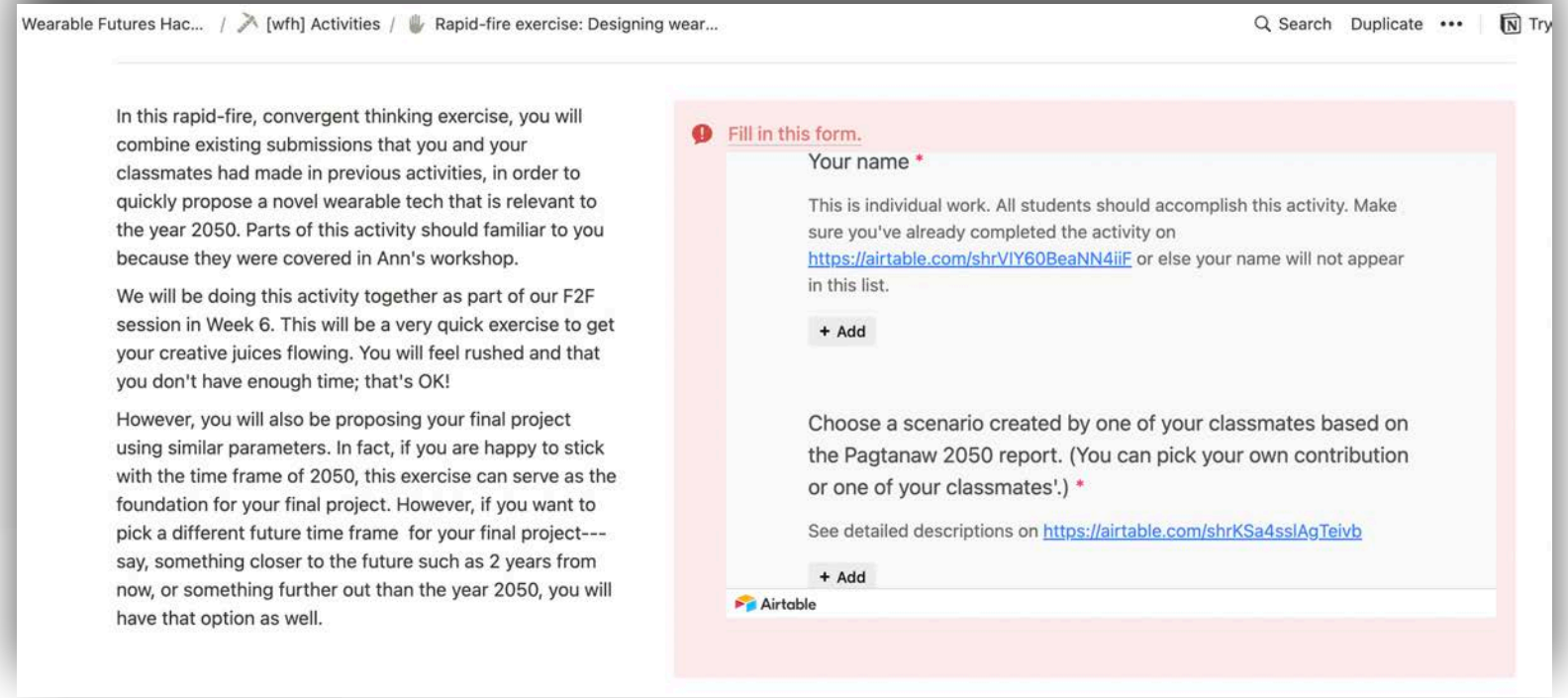
# Integrating Airtable in Notion: Facilitating student submission of work



# Integrating Airtable in Notion: Showing student submissions

Wearable Futures Hac... / [wfh] Activities / Rapid-fire exercise: Designing wear... Search Duplicate ••• Try

pick a different future time frame for your final project--- say, something closer to the future such as 2 years from now, or something further out than the year 2050, you will have that option as well.

Choose one or more objects/projects that you or one of your

Airtable

Class responses

| | Name | Image (Scenario) | Scenario t... | The situation | Issue | Your design interve |
|---|---|---|---|---|---|---|
| 1 | How can a wearable tech based on health tracker shoes ladies zipper pocket underpants be used by minimum wage workers who rely mainly on public transportation to move around in a heterotopic scenario involving "shelter, transportation, and other infrastructure" in the year 2050? |  | Heterotopic | In a heterotopic Philippines, I can imagine transportation and other public and private infrastructures are slowly improving a... | Shelter, Transport... |  |
| 2 | How can a wearable tech based on health tracker eyeglasses be used by students in a dystopic scenario involving "shelter, transportation, and other infrastructure" in the year 2050? |   | Dystopic | I can imagine in a dystopian Philippines; all public infrastructures are unable to properly serve the people. Structures like civilian ... | Shelter, Transport... |  |
| 3 | How can a wearable tech based on diy knee energy harvester, 2w at 2 mph! rings be used by health and enviroment enthusiasts in a dystopic scenario involving environment and climate change in the year 2050? |  | Dystopic | In the 2050 dystopian future, our earth was ravaged by overpopulation. With the increase of people, there is an increase in power... | Environment and ... |  |
| 4 | How can a wearable tech based on mutualence |  | Utopic | In the 2050 utopian future, the environment | Environment and ... |  |

https://unou.notion.site/Wearable-Futures-Hackathon-Course-Package-7fd6fd4bd53d4af38191e04a7d815eaa

# Gaps

- Asynchronous discussions (particularly in Airtable)
  - Threading
  - Moderating
  - Grading
- Identity authentication (particularly in Airtable, unless you pay for premium services)
- For Notion, offline course material generation is less customizable

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# Salamat

*Questions?*

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