Creating an online overview of models developed within Copernicus

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Objectives

Whilst a lot of models have been develop at the Copernicus, a comprehensive overview of these models is currently lacking. An online overview will be developed to mitigates this, which will have multiple advantages. First, it can facilitate logical and creative collaboration between different researchers, both within and outside of Copernicus. This speeds up scientific advancement in specific topics, and improves the position of Copernicus in the broader scientific community. Secondly, by having the models easily accessible they can more readily be used within education. This help students understand current modelling methods, and enables them to enhance the models currently developed by Copernicus.

Overview of Copernicus models

As mentioned above, an overview of the utilized models will be developed. This will consist of three components:

Dataverse overview: Dataverse is the existing research data repository utilized by the UU, as well as numerous researchers both in the Netherlands and around the world. [1].

     Within Dataverse, all the utilized models and corresponding data will be stored in a dedicated Copernicus page. This will have both all models as a list users can scroll through and pick ones of interest, and a search function to find ones desired. Upon selecting a model, users are redirected to the Model page.

Model page:

Within every model page following will be present.

1. Name
2. Description
3. Who worked on the model including contact details.
4. And, if applicable:
    a. Link to a file containing model description
    b. Link to input data
    c. Link to model output data
    d. Link to data visualization page
5. And, if feasible:
    a. Functionality to allow users to utilize the model themselves.

Copernicus overview:

On the Copernicus website, a more creative and illuminating overview will be given, in contrast to the vertical list supplied in the Dataverse overview. This will illustrate connections between the models, and creates an overview of the models within the Copernicus website. Exactly what this will look like depends on the number of models partaking and on further discussions. Here, models can be selected which will bring you to the specific model page in the Dataverse.

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[1] https://www.uu.nl/en/research/research-data-management/tools-services/tools-for-storing-and-managing-data/data-repository-finder/the-research-data-repository-dataversenl

Activities

The first step is to gather who would like to partake in this project. This will be done through a **google form**. Here, respondents are asked questions regarding:

1. Do they have a model they want in the overview?
2. What type of data do they want to display?
3. Are they open for an interview on further collaboration?

The second step (executed in parallel with the first step) is to **develop initial ideas** regarding each of the three components: Dataverse overview, model page & Copernicus overview. This will be done through sketches of actual webpages in figma, and sketching relationships between components in tldraw.

The third step is to **interview the interested survey respondents**. This interview will follow the three core components of the overview:

1. Ask them to deliver a description, the model and the data for the model page.
2. Discuss how to visualize the data of this model, and where/what type of data.
3. Discuss ideas regarding the Copernicus overview.

The fourth step requires that **decisions** are made. Firstly, the opinions of the interviewees and our own are weighted to decide on the format for the Copernicus overview. Secondly, which data types to show in what way is decided.

The fifth step is to **developed and populate the decided products**. This can be done in one of two ways, to be decided later on. Hardcoded vs automated. That means three components will be developed:

1. For each model, a Model page will be made in the Dataverse framework.
2. A link to a data visualization environment will be added to every Dataverse page, and the different data displays are made.
3. The creative and illustrative overview on the Copernicus website will be developed, and every model will be added. Here, models are linked with the Dataverse Model pages.

The sixth step regards **finalization**. In this step, a showcase of the overview will be held with participating model developers and other interested parties. Furthermore, a documentation will be made to allow future interested parties to add to/alter the created overview.

Time plan:

Activity	w 37	w 38	w 39	w 40	w 41	w 42	w 43	w 44	w 45	w 46	w 47	w 48	w 49	w 50	w 51	w 52
Project startup	■	■														
Orientation form		■	■	■												
Develop component ideas		■	■	■												
Interviews					■	■	■									
Decide on components								■								
Developing components			■	■	■	■	■	■	■	■	■	■	■	■	■	
Dev 1: Dataverse pages			■	■												
Dev 2: Copernicus overview					■	■	■	■	■	■	■					
Dev 3: Data visualization					■	■	■	■	■	■	■	■	■	■	■	
Finalization																■