Collaborations Workshop 2023 (CW23) #CollabW23 - 2023-05-02

Team Number 1 - H1-CW23

Forge RSE Skill Development Pathways

A - Aloe

This project is building on Matthew Bluteau's lightning talk, Dave Horsfall's pre-workshop thoughts, some of the discussion session speed-blogs, the BEARS collaborative idea, and other smaller ad-hoc discussions that have happened throughout the workshop.

Team members

Remote team members are denoted with an (R) after their name. The team split into four subteams to allow for parallel working.

Aleksandra Nenadic
Lieke de Boer
Paul K Korir
Eli Chadwick (R)
Matthew Bluteau
Nadine Spychala
Diego Alonso Álvarez
Iain Barrass
Aman Goel (R and in-room)
Dave Horsfall
Sean Marshallsay
Hannah Williams
Martin O'Reilly

Locations

In person location - Robinson Room
Zoom room - Team 1: A-Aloe
Team Slack Channel - #hack-forging-rse-skills-pathways

Links & Repos

Working document

- Project write up for judging (this document) - Team Number 1 - Google Docs
- Ideas collation - SSI CW23 Hack Day: Forge RSE Skill Development Pathways - HackMD (current)
- Ideas collation - A-Aloe - Google Docs (redundant)

Repo - RSEToolkit/training (github.com)

Presentation - SSI CW23 Hack Day: Forge RSE Skill Development Pathways - Google Slides

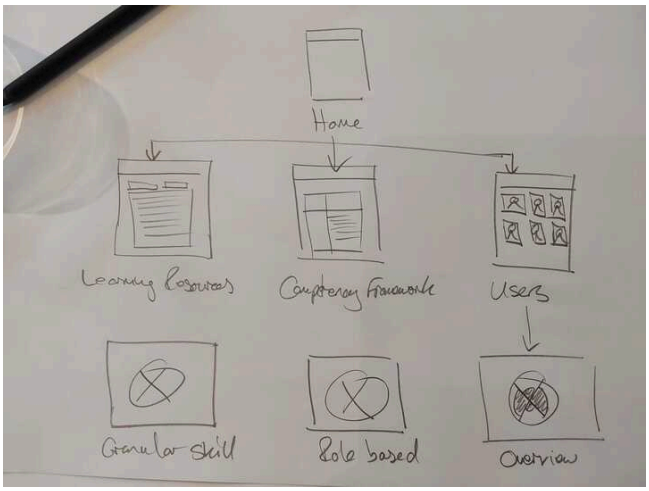
Product link - <link to the website, app, doc or other product produced at the Hack Day>

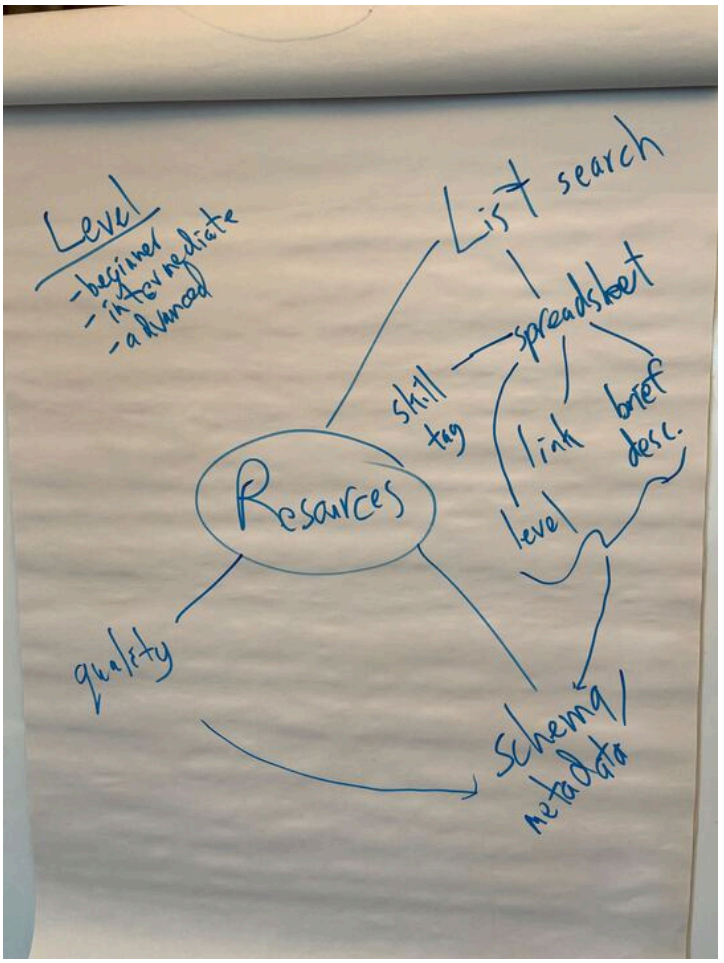
Spreadsheet - used by ST2 to collate training resources -
RSE skills & skill levels - resources

Miro board - used by ST1 for competency framework/skills categories - A-Aloe, Online Whiteboard for Visual Collaboration (miro.com) (only editable with a log-in) - this was chosen for the online ability to collaboratively work on a sticky-note style board

Team notes

The majority of working team notes were made in the two collaborative documents (linked above). On this page we have captured some diagrams that were drawn. (The hybrid team positioned the board in a visible place for the OWL to project the board.)







CW23 Hack Day Judging Criteria

Information about how the Hack will meet the judging criteria - https://www.software.ac.uk/cw23/hack-day. It's worth using this as a checklist and a note taking area when you are preparing your presentation. A quick glance at the start of the Hack Day is useful also to prepare for the journey ahead.

Novelty, creativity, coolness and/or usefulness

- Can you clearly define the problem that is being solved and how are you trying to solve it?
- Are you doing something new, better, slick or really useful to yourself or others?
- Is your solution purely self-serving, or is it enabling in some other way. You need to provide reasons as to how your Hack Day project benefits a wider community of potential users/developers to get the best marks during assessment.
- The advice here is indicative; other justifications in this space are welcome (within the constraints of presenting).

We recognise that this is not a particularly "novel" idea, however it has been apparent to participants during the Collaboration Workshops that some clearer guidance and definitions on assessing own and team capabilities would be

Description of current resources - what they do and why they don't fulfill our requirements

Implementation and infrastructure

Working document

Miro board

Git repository

Jekyll

- Are you following research software best practice for the use of infrastructure? Is a source code repository being used? Is there documentation? Are appropriate services and infrastructure being used (e.g. cloud computing, databases)?

- If you are building on existing work, it’s essential that you are clear about what was done during the Hack Day in terms of adding features and functionality etc. (If this is not clear you will lose marks).
- Does your solution work for the stated purpose - can this be shown during the demo?
- If your team is developing a standard, are you using collaborative techniques and tools to allow contribution from the whole team?
- For paper hackathons involving presentation of data or analysis, are you using reproducible frameworks for the paper authoring?
- For other research software related hacks, is it clear you are using best practice in the construction of the work?

Demo and presentation

- Did the presentation and demo show how your hack has fulfilled the judging criteria?
- Did your team communicate the essence of why they did what they did and why it was important?
- If your team were demonstrating results (e.g. from an analysis), were they appropriate for the data chosen?

Project transparency

All work was completed in shareable documents. We acknowledge that Miro is not an open-source tool, however the functionality it provided for ease-of-use for hybrid post-it-note taking.

- Was your source code available on an open repository at presentation time? Teams may choose to work open or work closed. If you happen to decide that you want a publication from this work then you may choose to be open about your methods but not your data, for example. However, building and being able to build on each other's work during the Hack Day will be viewed favourably.

- Ideally your repository should contain a README covering configuration, make and run instructions included with the code. In addition there should be a brief description of the project and what the software/scripts do, along with a license.
- These criteria may not be directly relevant for certain categories of entry; in this case other aspects of transparency and openness will be used as decided upon by the judging panel.

Future potential

- Was it clear how your work could be taken forward in the future, could it modify existing work, or be part of a new paper, initiative or bid?
- Were ideas of future steps provided?
- Was it mere fun or did the idea show usefulness in the long term?

How could this be used as an individual?

- As a confidence boost to see areas where they have strengths
- As a training indicator to determine which area they could focus on
- As a go-to for suggested resources

How could this be used as a line-manager?

- As a way to suggest ways of training/improvement

How could this be used as a team?

- Could be deployed within teams for team leads to assess competencies within teams (and determine what is lacking/needed).

Other uses

- Facilitate conversation about consistency/comparability across organisations

Extensions to current capability?

- Providing profiles of specific roles to allow individuals to see what radar-shape they should be working towards
- Testimonials for the displayed resources
- How to incorporate training that is institution specific and not open to all

- Is there consistency across institutions in terms of where they map junior/standard/senior etc to our competency framework levels (e.g. SFIA)?
- User profiles to generate your own profile, and compare
- This is currently based on self-assessment, and
- Three views
    - How do I view myself?
    - How does someone else view me?
    - If I do this training what does this do to my training/targeted training?
- What next?
    - We would like to take this back to each of our teams/organisations to see how current competency/skills frameworks map to what we have discussed.

Team work

- Was your team led well, were they able to involve all interested team members?
- Were non-technical members directed towards meaningful contributions; e.g. documentation, testing, usability and logo design in the case of more software-related hacks?
- Did your team's software practices support synchronised working and decrease duplication? Did your team achieve more together than would have been possible separately?
- Was your team atmosphere healthy: disagreements are fine, but were they conducted agreeably?
- Did it appear enjoyable and/or fun to be part of your team?

The team was softly led by the project proposers, Matt and Dave, however conversation was constructive and collaborative. We started Thursday morning with introductions and a comment on why participants were here and what they felt they could contribute. The consensus was that participants wanted support in identifying individual and team skill competencies and determining how to progress.

All members have been able to make meaningful contributions. Splitting into four subteams has enabled team members to join an area that is of most interest and where they can contribute. There was only one subteam that was dealing with code and infrastructure, and everyone else was working on collaborative documents, which also included creating GitHub issues.

Throughout Wednesday evening and Thursday various CW23 participants visited the tables and had prior commitments. To ensure all had a chance to contribute and stay updated on thoughts and progress we kept notes in the collaborating document (moving to hackmd for

accessibility) and all links shared in the slack channel were moved to the collaborative document. All team members were given space and opportunity to contribute. The Zoom room was displayed on the large screen in the room, and we used the OWL for volume and cameras. All resources that we looked at were shared on screen in the Zoom room. Online participants were actively asked for contributions and sharing the Zoom screen meant it was easier to identify when online hands were raised. For subteam working (ST1-4), one subteam was hybrid and gathered around the OWL, and the other subteams moved to other tables/rooms to reduce background noise.

Session 09:30 - 10:30: group discussion, continuing from Wednesday evening, to decide on specific goals for the day and a more indepth exploration of some selected relevant resources that looked at skills/competency frameworks and visualizations. After the judge visit we divided into four subgroups tasks into four groups:

- ST1: Competency framework / dividing skills into categories;
- ST2: Learning and development resource gathering;
- ST3: Web-development and visualization;
- ST4: Collating overall information and write-up, including being available for updating individuals who had prior commitments.

The intention was to work in subgroups for two hours, and then reconvene to provide updates and begin pulling the different aspects together.

Session 12:55 - 12:10: group catchup, questions, consolidating work and defining next set of targets

- ST1: Shared link to Miro board to support the resource gathering team in classifying the resources. Collated skills and competencies from a variety of resources and have attempted to group them. The next step was to decide how to define levels in terms of stepping up in ability in specific resources. Specific external resources CSSC, SFIAplus and Kings Lab frameworks. The Miro board contains five categories (technical, interpersonal, domain expertise, leadership & project management, communication) and skills have been grouped into these. A colour code has been used to depict competency levels. The levels range from 1 to 7. Team like the terminology used in SFIAplus because it is more granular and defined because of the difference that exists across institutions and therefore applicability across the board.
- ST2: Collated 45 resources in a spreadsheet (focussing on technical skills initially), and started identifying appropriate meta-data that could be used for a data schema to be able to filter training subjects. The next step is to nail down what the meta-data is that can feed into the website and fit into the competency framework, which will include joining up with ST2 progress. Also need to consider how to curate the resources and how to measure the quality of resources.
- ST3: Created a repo in the RSETookKit institution. Selected Jekyll for web deployment due to familiarity of team members, and used an open source bootstrap template. Talked through the flow of how the website should be structured (figure 1). Website contains page templates, and has spaces to upload training resource csvs.

There is scope to build this template up with additional columns and information, e.g. to allow filtering with meta-data from resources. The intention of the final product would be to link the training resources to the competency framework (not for today). Had a group discussion about the potential uses of this (noted in the future work ideas). Talked through an outline of the schema based on json file to create the profile wheel, and how it works to fulfill requirements from ST1.

- ST4: confirmation that project write up is taking place, and reminder of collaborative documents and git repo issues.