

Information Architecture and Web Usability

Improving Diamond Tree Testing

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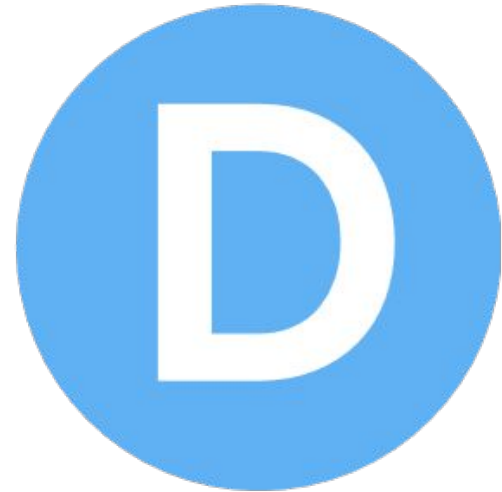
Sebastian Überreiter

Tree Testing

- Popular UX research technique
- Evaluation of a hierarchical structure of categories and labels
- Users are asked to find locations in the hierarchy (i.e., the tree) where ...
 - Specific tasks can be completed
 - Specific information can be found

Diamond Tool

- Helps evaluate findability and hierarchy of content.
- Currently provide Card Sorting and Tree Testing.
- Main focus in this study on Tree Testing:
 - Create study
 - Study overview
- Study analytics:
 - Participants
 - Task success and directness
 - Task analysis and destination analysis



Competitive Research

Major Players for Tree Testing

- Treejack
 - treejack.com
 - Uses Pietree for presentation
- UxTweak
 - app.uxtweak.com
 - Uses Pietree for presentation
- PlaybookUX
 - playbookux.com
 - <https://tester.playbookux.com/recruit-participants?token=8FP2YCDdHCkzqJKNVSShXk3A>

Different Statistical Analysis Tools

	Task statistics	Pietree	First Click	Paths	Destinations
Uxtweak	✓	✓	✓	✓	✓
Optimal Workshop	✓	✓	✓	✓	✓
PlaybookUX	✓		✓		

Uxtweak: <https://youtu.be/HGaVRJKoPjE>
Optimal Workshop: <https://youtu.be/tNgQ8zluJwc>
PlaybookUX: https://youtu.be/YuBY_APB1OM

Other Tree Testing Tools

Many tools will not provide a free demo to test:

- UserZoom
- Userlytics
- UserTesting

Request a demo

Our UX Insights System will give your team the solutions to source the right participants, ask them the right questions, and gain high-quality insights throughout the product development lifecycle.

Tell us a little about yourself and we'll connect you with a UserZoom expert.

- *Sign me up for UserZoom content!
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Implemented Changes

Workflow

- Forking repository from github.com/tugraz-isds/diamond.
- Working together with Mathias Blum as Lead Developer.
- Making pull requests which are reviewed and approved by Mathias.

Implemented Changes

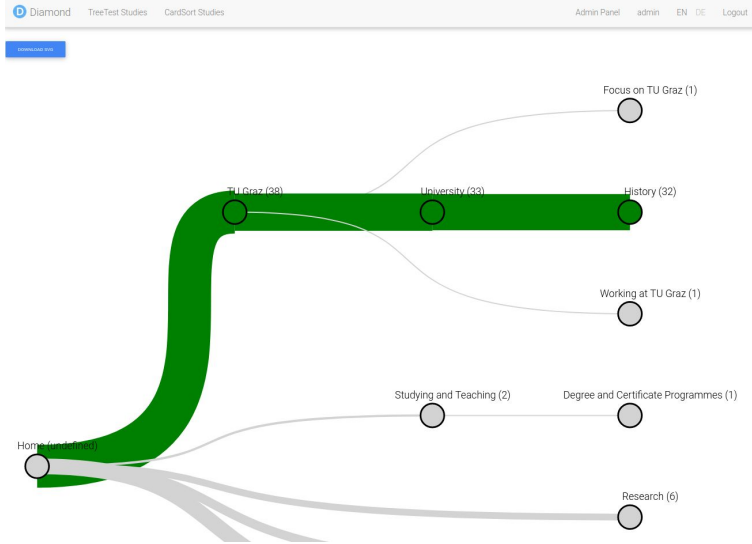
- Restyling of PathTree
- Make results table collapsable
- Add copy study function
- Make study creation process more intuitive
- Prevent unintentional ending of Study
- Add highlighting of current study kind
- Adjust heading titles in “Create Test” sections
- Add error message on failed import of studies
- Improve analytics, show participants chosen routes for each task.

PathTree Restyling

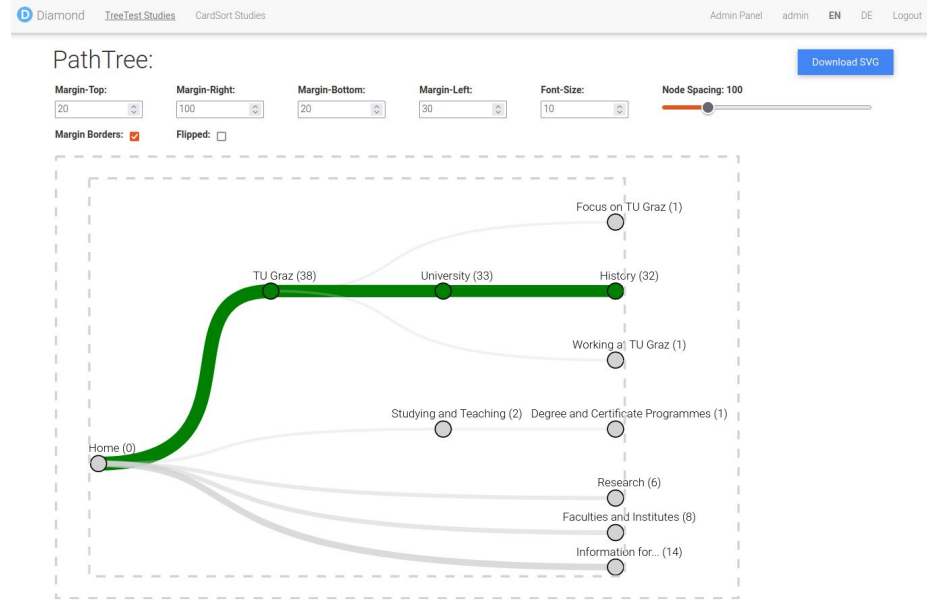
- Add title
- Give chart reasonable sizing
- Normalize line widths of paths
- Add minimum line width
- Refactor generation of SVG into own class
- Add margin and structured layout variables
- Add opacity for paths
- Add flipping functionality
- Reposition download button
- Add control layout for specifying:
 - Margins
 - Displaying margin borders
 - Font size
 - Node spacing
 - Orientation

Path Tree Restyling

Before Restyling:



After Restyling:



Make Results Table Collapsible

- Add new class for traversing tree: `TreeNode.ts`
 - Pass data array of nodes to new instance of class which builds up a hierarchy tree.
 - Now fill tree with test results.
 - Tree provides functionality for easily accessing data via one function call (helps avoiding high level nesting).
- Use new class for filtering out irrelevant nodes (no clicked node is in path).
- Provide additional feature for exporting only relevant nodes.

Analytics for the Participant's Chosen Paths

Paths Chosen

Name	Path
Robin Karlsson	TU Graz > University > History
Jarno Salonen	TU Graz < Faculties and Institutes < Information for... < TU Graz > I
Robin Karlsson	TU Graz > University > History
Vita Doler	Faculties and Institutes < TU Graz > University > History
Nico Schmid	Information for... < TU Graz > University > History
Benedikt Petutschnig	TU Graz > University > History
Burim Vrella	Faculties and Institutes < TU Graz > University > History
Simon	TU Graz < Information for... < TU Graz > Focus on TU Graz
Nika Čić	TU Graz > University > History
Olli-Pekka Riikola	Information for... < TU Graz > University > History
Dragana Mirković	TU Graz < Information for... < Faculties and Institutes < TU Graz > I

- Track the participant's node selection and visualize it in the "Analytics" section.
- Backward arrow indicates backtracking.

Live Demo

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