Digit 2.0

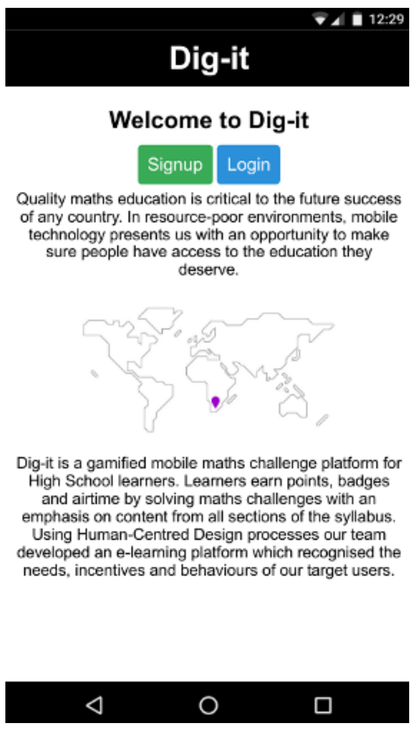
Mathematical content creation, management and optimisation

PRAEKELT·ORG
dig·it

Overview

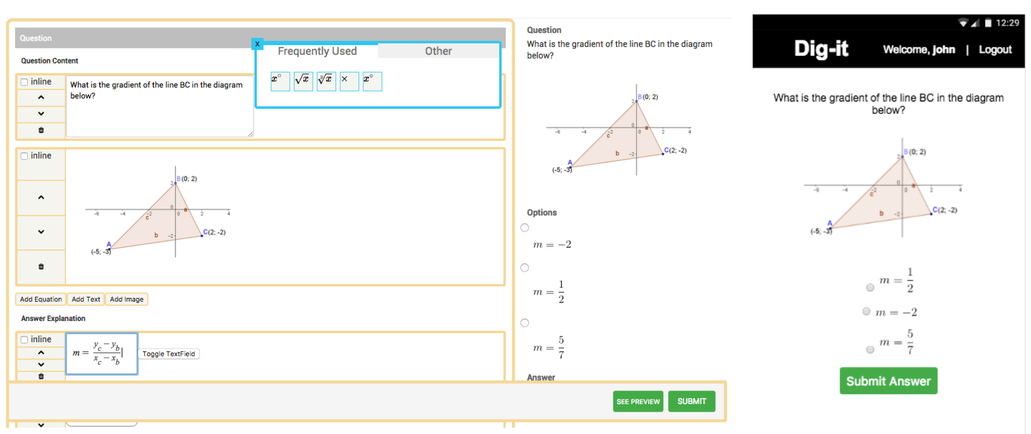
Dig-it is a mathematics mobi-site aimed at high school students. It supplies them with questions on a weekly basis and rewards them with airtime if a certain percentage of questions are answered correctly. Dig-it is created and managed by Praekelt.org. Its current content creation and management relied on a number of external tools which resulted in a convoluted system.

This project focused on optimising and replacing these systems. It resulted in a fully functional prototype that was well received by the client and will be used to inform the future design of Dig-it.



Content Creation and Optimisation

How could mathematical content be created from a browser, that allowed for optimised content?



Screenshots of the content creation tool and optimised content

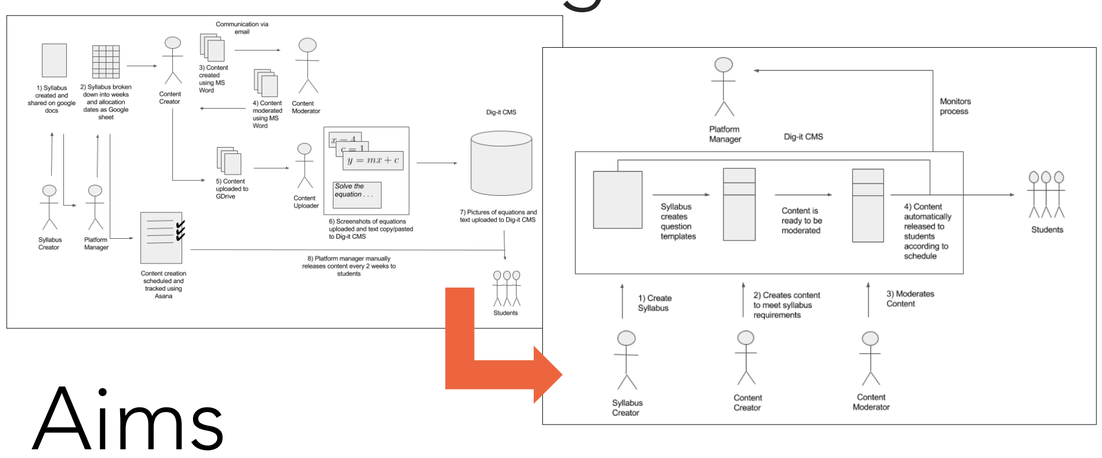
Aims

- Create an online tool with a WYSIWYG equation editor that store mathematical content as LaTeX
- Reduce the size of content as much as possible

Results

- The content creation tool met all of the functional requirements of the client and received a high usability score
- Page size was reduced to 41% of the original

Content Management



Aims

- Allow for automatic or semi-automatic content availability
- Improve the arrangement and selection of questions
- Reduce dependencies on tools external to the platform
- Create an inclusive system that manages the moderation of questions before their release

Results

- Received a high System Usability Scale score of 81.6
- The application successfully reduced reliance on external tools like Asana, Google Docs and Email, and improved overall workflow

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