# Future Work

Future expansions and research on ALAT can be split into two categories: “Technical improvements and additions” and “research and development”. The first category involves improvements and additions which can be implemented in ALAT in order to enhance stability, support and user experience. The second category consists of research topics which could then lead to further development and expansion of ALAT.

## Improvements & Additions

A number of improvements can be made to ALAT without the need of further research. Most of these improvements and additions have not been made due constraints in time and manpower or project focus. The most prominent of these improvements is extensive testing. ALAT has been tested by creating example applications and performing all possible actions in the interface. Yet no extensive test cases or unit tests have been set up in order to prove the correctness of applications ALAT generates and to find remaining bugs. In addition to this, the server-side of ALAT can be extended by adding more account security as well as public projects (accessible by multiple users). Lastly ALAT’s style could be further improved with the help of user interface experts in order to create a more polished look and feel.

A number of applications exploiting all different functionalities of ALAT should be created to showcase its capabilities and to give an indication as to how a finished project in ALAT looks. These showcase applications might prove valuable to provide insight in adaptive hypermedia authoring for new users.

## Research & Development

Further research could be conducted to determine a set of broad and general adaptation rules and concept blueprints which can serve as a foundation for new ALAT users. A closer examination of possible default Layout files for applications developed in ALAT could go in tandem with this research and development.

More research into authoring group adaptation and authoring adaptation to learning styles will benefit further extensions to ALAT. Providing support for these features would be valuable extensions authoring for GALE. On top of that it corresponds with the contents of the adaptive hypermedia course taught at TU/e [REF NATASHA RESEARCH].

A version of ALAT dedicated to be used for AEH purposes is a future expansion which could prove especially useful in the cooperation between TU/e and “De Roode Kikker”. As discussesd in [SECTION REF], educational hypermedia experts and teachers require a different authoring environment than academic users. Research could be conducted in order to find out what kind of project visualization, templates and user experience are required to create a version of ALAT suitable for these users.

More topics for research and development might start appearing as ALAT is taken in use. Student suggestions might result in a wide variety of new conceivable support features to further increase the possibilities of adaptation techniques in ALAT.