Transfer Portal at HFT Stuttgart - Digital Knowledge Transfer and Lessons Learned

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Abstract:

Through the M4_LAB project, funded by the program Innovative Hochschule, the Hochschule für Technik Stuttgart (HFT) has the opportunity to implement and evaluate different options of knowledge transfer. Since a lot of knowledge generated at HFT is digital such as software, data, or suchlike, the first option is to use the digital channel. Like in many other fields, the demand for digital collaboration is further increased by the Covid-19 pandemic. Therefore, the M4_LAB Project investigates bidirectionally, digital knowledge transfer between HFT and its surroundings. As part of the project, a Transfer Portal is developed that allows HFT members to cooperate and collaborate with partners and stakeholders and to make their project results accessible to the public. Another benefit of such a digital bridge is that it eases access to knowledge and experts as interested parties no longer need to travel to Stuttgart.

The development of the portal is carried out in three main phases. In Phase 1 "Conceptualization", we analyzed the needs of our stakeholders and investigated the technical feasibility of possible solutions to account for the identified requirements. In Phase 2 "Prototype Development", we built a prototype using an agile development approach: During cyclic iterations, we added functionality to the portal and demonstrated these to our users, who then gave feedback which we in turn incorporated into the further development. In the current Phase 3 "Portal Establishment", we are continuing the agile workflow to address robustness aspects of the system, improve the user experience and conduct a user experience study.

As the number of users and published project results is growing, the portal is accepted by HFT members and their project partners. Additional features of the portal consist of a 3D city model-based digital public participation platform, allowing city municipalities to run their public participation processes for further city development even in the times of COVID-19 and access to High-Performance Computing, allowing innovative projects that require computationally intensive algorithms. The portal is becoming part of an ecosystem for digital knowledge transfer at HFT which will, starting 2021, also feature a Current Research Information System for improving HFT's research management processes.

With the portal, HFT members have now a place to grant access to their results, and any kind of project team, from formal research projects to student teams, can collaborate with external partners. Nevertheless, three main challenges need further attention. Firstly, we need to further

empower our users, e.g. by expanding the portal's help section and providing guidance on optimally using the portal and other offers. Secondly, we need to improve the technology to let users work more efficiently with the portal, e.g. by automating functionality as much as possible. Thirdly, the portal is currently tailored to HFT members publishing their results. Now it needs to be enhanced for interested external parties to easily find these results. To summarize, the current acceptance of the digital offers is encouraging, but we are not done yet.