GRASSHOPPER EXCHANGE

RESEARCH PROPOSAL, SPRING 2014
DAN TAEYOUNG LEE

Architecture is a collaborative project, requiring the coordination of numerous parties: the client, the architect, engineers, consultants, contractors, managers, city agencies, inspectors, community boards. Such projects require the modification of spatial and system design in an inevitably iterative process. Collaborative technologies such as BIM have mobilized technological solutions for a heavily implementation and construction-oriented focus onto collaboration. But what about design? How can digital design processes be designed for collaboration, as to achieve a new mode of thinking together at the level of experimental and conceptual design?

The Grasshopper Exchange will be a digital collaboration plugin, a tool database, and social platform created to amplify and invent new modes of collaboration. Tying GitHub and Grasshopper together, the Grasshopper Exchange will enable designers to link data and geometry oriented processes together in real time. Much like GitHub, the Grasshopper Exchange will function as a repository for these new design tools. Also much like GitHub, the Grasshopper Exchange's promise lies in its potential beyond a database, as a flexible system that invites and generates nimble, distributed, open-source, non-hierarchical, experimental modes of collaboration -- that correspondingly produce new output and new creations.

--

The Grasshopper Exchange is composed of a database and a Grasshopper component. The database will be easily searchable by metadata tags, average rating scores and trending tool activity; it could also potentially be linked to the search function of the GSAPP course website to reach a broader audience.

The Grasshopper component will be a custom-coded compomenent that will maintain links with a GitHub repository and a Grasshopper component. As such, the component would allow a user to update a Grasshopper definition while maintaining the programmatic relationships already established within a Grasshopper patch. The component may incorporate further controls and display metadata, such as displaying the last few people to use the currently loaded definition, a sync function for inserting definition updates, and a link to a web page with instructions and a video tutorial.

As a whole, the Grasshopper Exchange could be used both as a repository of Grasshopper definitions with live and / or scheduled syncing and as a way to structure collaboration. For team efforts it allows individuals to work remotely while having their work linked to their teammates. It would also allow for a team to trade and exchange roles fluidly throughout the design process.