

## Catalyst Fund Idea

<b>Idea Title:</b>	Library and Internet of Things (IOT)
<b>ID:</b>	44
<b>Institution:</b>	UNC Charlotte
<b>Requestor:</b>	Bob Price, AD of Technology and Digital Strategies
<b>Budget:</b>	\$17,178
<b>Goal (as pulled from the application):</b>	"The idea is to leverage IOT devices to aid our patrons in discovery and use of our library and its systems."
<b>Description:</b>	<p>The Library can present many complex systems for our patrons to navigate and get assistance. The idea is to leverage IOT devices to aid our patrons in discovery and use of our library and its systems. A few examples are as follows:</p> <ol style="list-style-type: none"> <li>1. Amazon Alexa device to connect to library systems using voice (improve accessibility). We would build the connectors to library technology that others could leverage.</li> <li>2. Creation of IOT button technology to gain location based assistance.</li> </ol>
<b>Additional Details:</b>	<p><i>Note: if the idea is selected, LYRASIS will implement the project with engagement from UNC Charlotte and/or other members. The plan of work and budget below have been created by LYRASIS staff.</i></p> <p>Can we increase accessibility for visually impaired patrons by deploying voice enabled technology within our Library? Our idea is to deploy Amazon Echo and/or Google Home to voice activate our catalog system (as well as many other software based systems), such that a patron could search the catalog with voice commands, and get the top 4 or 5 results delivered verbally. The catalog application would communicate with Amazon Echo via automated programming interfaces(API's). For this particular proof of concept, we would integrate Amazon Echo with our catalog system Exlibris. The proof of concept workplan would be as follows: 1. Develop integration between API's. 2. Test integration in lab. 3. Deploy Amazon Echo within Library building. 4. Perform usability study to determine if this deployment is satisfactory to users: can it recognize multiple languages, is it easy to use, do patrons get the output they need, etc. 5. Write usability report and make adjustments to integration to improve. 6. Share results and code with community.</p> <p>Budget:          Development and testing: \$7,000          Usability study: \$10,000          Echo: \$49          Google Home: \$129          Total: \$17,178          Plan and budget provided by Michele Kimpton, Chief Strategist at LYRASIS</p>
<b>Comments from Field Reviewers</b>	<ol style="list-style-type: none"> <li>1. I think this is a good idea. Increasing accessibility for patrons is a worthwhile goal. And considering the low cost of voice activated technologies, if a library could develop interfaces that interact with the devices, it could easily be shared among libraries.</li> </ol>

	<p>2. This is a do-able, affordable project that has great potential to not only help UNC Charlotte patrons, but the library community as a whole. I would be very interested to read of UNC's experiences in implementing and assessing this service.</p>
	<p>3. Very interesting proposal and one with good potential. Have concerns over practicality as competing sounds impact voice recognition of these devices, and also privacy (data sent to Amazon / Google cloud services and some patrons may be wary of this -- it's possible for these devices to trigger "accidentally" and transfer information "without consent").</p>