

# LEGO® Play: Implementing a Culture of Creativity & Making in the Academic Library

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## Introduction

As libraries continue to grow and change in the 21<sup>st</sup> century, we are seeing an increased emphasis on outreach, engagement, creativity, and innovation for academic libraries. The author believes these ideas are crucial to the future of academic libraries and that making spaces can be fun, affordable and a new way to connect to communities and engage with patrons.<sup>1</sup> Creating innovative projects and engaging making events can help stimulate broader conversations among patrons and library employees about the value of academic libraries. These conversations can also be a way for library liaisons to connect to their faculty, students, and staff. The Art Library Lego Playing Station was created to stimulate creativity and innovation within the Rutgers University Libraries. This paper will look at the ideas of innovation, engagement, and making in the academic library as a means to connect with departments on campus to further educate students, faculty, and staff, about the benefits of using the Library.

In this paper the author will discuss the planning and implementation of the Lego® making station, including visual documentation and comments by makers and users of the Art Library Lego Playing Station. This paper will discuss working with the press, as well as developing partnerships to help implement the impact of this project. The author will show the value the Art Library Lego Playing Station, Legos, and hands on active learning activities have brought to a Big 10 academic research library.

## Making in the Academic Libraries

Although we see Makerspaces and making activities in many public libraries, such as the Chicago Public Library Maker Lab, which won a social innovative award in 2013, the act of making and makerspaces is a concept that is starting to get more attention in academic libraries. Erin Fisher believes that “Makerspaces emerged around 2005 as an off shoot of the Do-it Yourself (DIY) movement”.<sup>2</sup> Although I agree that the DIY movement has been a catalyst to Makerspaces, I believe it’s important to note that when it comes to the history of making we see making centric spaces happening in New York as early as 1873. The Gowanda Ladies Social Society who formed as a sewing, knitting, book discussing, and social circle later became the Ladies Library Association and received a state library charter as the Gowanda Free Library in 1900.<sup>3</sup> This may one of the first times we see making occurring in a library. In the context of this paper the author defines making as, “to bring into existence by shaping or changing material, combining parts.”<sup>4</sup> Although it is unlikely that the Gowanda Free Library had a 3D printer, it is important to note that this library began over the act of making, and in this case a sewing and knitting circle.

First let’s define a Makerspace. When searching the *Merriam-Webster dictionary online* the author was unable to find a definition for a Makerspace. When visiting *Wikipedia* the author did not find a definition but was re-directed to the term Hackerspace, which was defined as a community space where people with

common interests in technology come together to collaborate.<sup>5</sup> Fisher defines a Makerspace as “a place where individuals meet to access materials, tools, and technologies that allow for hands on exploration.”<sup>6</sup> She also notes that these can be referred to as “fablabs, hackerspaces, or tech shops.”<sup>7</sup> From this author’s perspective, a makerspace does not need to involve technology; but that the idea of Makerspace is more about exercising creativity and problem-solving skills in a community environment. Tod Coegrove from the University of Nevada also sees making as a way to deepen engagement in science and engineering but also art and design.<sup>8</sup> He notes that Makerspaces share aspects with home economics, art and design practices, and a science laboratory. Coegrove sees today’s libraries as “incubators, collaborators, the modern equivalent of the seventeenth century coffeehouse: part information maker, park knowledge warehouse, with some workshop thrown in for good measure.”<sup>9</sup> Similar to the thoughts of Coegrove, this author sees Makerspaces as a space that draws on concepts from a multi-disciplinary skill set. Coegrove’s comparison highlights elements of social learning and practical experience that are becoming increasingly important in present-day libraries.

As noted previously Makerspaces can be found across the US in many public libraries and now in some academic libraries. John J Burke, Director of Gardner-Harvey Library at Miami University Middletown, reported that 51% of Makerspaces are found in public libraries, 36% in academic libraries, 9% in school libraries, 4% chose other, and 0% selected special libraries.<sup>10</sup> He would most likely agree with Erin Fisher that Makerspaces are a relatively new concept and he reports that 46% of Makerspaces had been developed in last year.<sup>11</sup> But the question that has not yet been addressed is what is physically found in a makerspace. Makerspaces can include anything from computer software, to arts and crafting supplies, as well as expensive technology that one might not be able to afford. In 2012 Maura Smale said that “Makerspaces often include tools and equipment that are too expensive or specialized” and that they can also

“provide a gathering place for like-minded hobbyists to create and collaborate.”<sup>12</sup> When interviewed about the Chattanooga Public Library 3D printer, Justin Hoenke notes that the 3D printing is good but what he’s interested in is the learning and creativity skills that are exercised when using the 3D printer. He says “all someone needs is a roll of duct tape and some materials to start building.”<sup>13</sup> As Hoenke points out, what’s important to understand about Makerspaces is that they are fueled on the principles of learning and creativity, not by how much technology one has in a space. Burke found from his survey that the top 15 technologies or forms of making found in Makerspaces were: computer workstations, 3D printing, photo editing, video editing, computer programming/software, arts and crafts, high quality scanning, creating websites or online portfolios, digital music recording, 3D modeling, Knitting, Legos, and tinkering.<sup>14</sup> Although Burke’s list tends to uncover the physical use of technology and technological equipment that can be found in a Makerspace, the author agrees with Hoenke that it is the creative and problem skills that are exercised in a making space that are important, not what one physically finds in the space.

One of the biggest concerns often stated when talking about Makerspaces or Pop-up making spaces, is are these spaces scholarly and where do they fit into an academic research library. In an article “Do Makerspaces Add Value to Libraries”, Janet L. Balas notes that libraries are not only for quiet study.<sup>15</sup> In fact, libraries can be places where audio and video can be created and “in the case of some extremely innovative libraries, they can also be places for making actual physical objects.”<sup>16</sup> The author agrees with Balas and believes that we are starting to see academic libraries fostering more social and collaborative experiences such as the Rutgers Art Library Lego Playing Station. Fisher states that the academic landscape is shifting from a traditional teaching culture to a learning culture: “A teaching culture consists of an expert transferring knowledge to student, whereas a learning culture utilizes active learning techniques” and we can see active learning techniques at use in making

and Makerspaces.<sup>17</sup> This author believes that how a scholar works and what we see happening in academic libraries is drastically changing and that it's time to embrace social forms of learning and recognize that libraries are about more than books and journal articles. Academic Libraries must find new innovative and affordable ways to show the value of academic libraries. By creating innovative making projects and events that promote hands on active learning, library staff can further engage with students, faculty, and staff in more meaningful collaborative and creative ways.

Another problem the author sees with Makerspaces is that they can be expensive to create and require additional funding, maintenance, as well as manpower to manage and run the space. In a discussion with this author, an employee from the Rutgers Fordham commons, which includes a 3D printer, mentioned it was hard to find time to monitor the 3D printer as well as do her everyday job. She noted the 3D printer often breaks and that there are not enough people on our staff that know how to use the printers or fix them when something goes wrong. In the article "Implementing a Culture of Creativity Pop-up making spaces and participating events in the academic library", the author notes that an alternative to the Makerspace is a pop-up making space.<sup>18</sup> Stated in a previous article, "Pop-up making spaces can be easily put up, taken down, and sent from one library to another, and they use little space for storing materials"<sup>19</sup> In the article the author also discusses three pop up making spaces that were low cost, fairly easy to coordinate, and also included cross-disciplinary collaboration to help boost the impact of the events.

In a recent project at the Rutgers University Art Library the author used Legos and making as a catalyst to ignite engagement and innovation within the library. The author uses creativity and making as a mean to connect with Art & Design students as well to begin broader conversations with students about the Rutgers University Libraries. As we see changes in ideas about what the library is or can be, we begin to see the value and benefits that making activities can

bring to libraries as a deeper means for engagement. The author believes Erin Fisher stated it best, "learning with your hands builds creative and problem solving skills", and as the author notes, these are skills that are transferable when conducting scholarly research in an Academic Library.<sup>20</sup>

## Creation & Implementation

The Art Library Lego Playing Station began in March of 2014 when the author participated in a Lego® Serious Play® workshop at the "i2c2, Innovation, Inspiration, and Creativity" conference in Manchester, UK. During the workshop participants used Legos to solve real world challenges that librarians face daily in our libraries. Workshop attendees were asked to use Legos to depict the successes and pitfalls of working in our libraries, and for the final task all participants worked together to build a library of the future. Lego states that LEGO® SERIOUS PLAY® methodology is "based on research which shows that this kind of hands-on, minds-on learning produces a deeper, more meaningful understanding of the world and its possibilities."<sup>21</sup>

The LEGO® SERIOUS PLAY® workshop took a conceptual look at libraries and how we can use our imaginations and Legos to help solve problems. This brought the author great satisfaction as it was a perfect intersection to make sense of her life as an academic librarian and installation artist. Following the workshop the author could not help but wonder how else can Legos and the act of play or making fit into her work as an academic librarian.

Upon returning to the United States, the author began running Lego workshops similar to the one she had experienced, within the Rutgers University Libraries to share the possibilities of Legos and making in the academic library. After running three workshops and collecting roughly 100 pounds of free Legos donated by a local junk removal company the Rutgers Art Library Lego station was installed on the main floor of the Art Library in August 2014, see figure 1.

In the planning stages of this project, it was important to partner with local media to help publicize this new space. The author contacted Patti Verbanas,

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**FIGURE 1**  
**Art Library Lego Playing Station**

Photo by Megan Lotts



Principal Public Relations Specialist from Rutgers today, who agreed to help with publicity by creating a short video about the Art Library Lego Playing Station. In September 2014, shortly after installation, Cameron Bowman and two Rutgers undergraduates from Rutgers Today created a video *Lego Building Fosters Creativity on Rutgers Campus*.<sup>22</sup> The video was highlighted as a feature in *Rutgers Today* weekly email blast and as a top story on their website and following the release of the video the author noticed a spike in the “liking” of the Art Library Facebook page. Immediately after the release of the video the author also received multiple e-mails with questions, support, and further curiosity about the Lego Playing Station. The video spurred the local campus newspaper the *Daily Targum* to come to the Art Library to take photos of models made to post in the daily paper. The author believes it is important to publicize innovative projects and events in libraries because this can enhance the over-all media presence of the Rutgers University Libraries which can further demonstrate the value of our libraries.

Since Installation, the Art Library Lego Playing station has been the catalyst to many events, contests, course assignments, and workshops organized by the author. These events included: a Block Party, Create your own Lego Character coloring contest,

“Create your ideal Library out of Legos” contest, an assignment with an SAS honors colloquium course, an information literacy workshop with Academic Coaches from the Rutgers Learning Centers, and a collaborative project with 100 freshmen from the Department of Landscape Architecture who experienced the Lego Playing Station as a means to connect to their library liaison and learn more about the libraries. The Art Library Lego Playing station has been used unexpectedly to engage with Rutgers students, faculty, and staff. In one notable instance an introductory Printmaking course from the Mason Gross School of Visual Arts stumbled across a poster about the *Create your Ideal Library* contest while visiting the Zimmerli Art Museum. Upon learning about the Lego Playing Station and contest the course made a special trip to the Art Library to create a model to enter and win the competition. Because of the group’s enthusiasm, in other words they were being loud, the author approached them casually to find out more about who they were. After introducing herself as the Art Librarian, and their library liaison, the author and participants engaged in a twenty minute long meaningful conversation about the library including candy, library giveaways, and how the Art library could benefit their lives as artists. In figure 2 you can see an image of the print-making course. Multiple students mentioned dur-

**FIGURE 2**  
**Mason Gross Printmaking Class**

Photo by Megan Lotts



ing our conversation that they had never been to the Art Library but they would most certainly be coming back.

### **Working with the Landscape Architecture EDA course**

When the Art Library Lego Playing Station was installed, the author was looking for innovative ways to engage the Departments to whom she is a library liaison. The author was having difficulty connecting with Landscape Architecture and Mason Gross Visual Artists partly because of being located on a different campus than the Art Library. Often when talking with students from Landscape Architecture and Mason Gross Visual Arts, the author would hear of the challenges of conducting research in an inter-disciplinary field and having to commute a long distance to the Art Library. Because of the author's own personal experiences as a student in Art & Design, she was concerned that students in these departments were not fully aware of the possibilities of the academic library and what Rutgers University Libraries has to offer.

In the planning stages of the Art Library Lego Station, the author knew she would need buy in and saw the Lego Station as an innovative way to connect more closely with students. The faculty in the Landscape Architecture department understood the importance and value of the library and the author reached out to the Chair, Dr. Laura Lawson, for a potential collaboration. After a brainstorming session the author and Dr. Lawson came up with the idea of an active learning assignment that would incorporate the Art Library Lego Playing Station as well as physically get the students into the Art Library. The objective of the assignment was to introduce 100 incoming freshmen in the Landscape Architecture program to the author, the Art Library Lego Playing Station, and the resources the Rutgers University Libraries has to offer. In September 2014 the author was introduced to the Environment Design Analysis (EDA) course of 100 freshmen and gave a 30 minute lecture that included a conceptual overview of the physical space of the Art Library,

the kinds of resources available in all of the Rutgers University Libraries, an introduction to the Art Library Research guide, an introduction to the Art Library Lego Playing Station, and how to contact the author, their library liaison, to seek research assistance.

Following the author's presentation Dr. Lawson introduced the assignment, "*Exercise 2: Public Landscape Analysis: Traces, Behavior Analysis, Mapping, and Imagining.*" Students were asked to read chapters 7 and 8 from John Zeisel's *Inquiry by Design*, visit the Gateway Transit Village, Voorhees Mall, and the Art Library, all located on the College Ave campus to analyze the spaces and address the directions for the assignment. For their visit to the Art Library students were to observe and analyze the role of public space, and to question where does the library fit it when more and more information is available online. Students were encouraged to walk around the inside and outside of the Art Library and to casually observe the activities happening in the space including, students, faculty, library staff, and the general public. The students were asked how they might improve the space to fit the changing role of libraries in a multi-use learning and working space. When at the Art Library, students were required to visit the Art Library Lego Playing Station and to make a model that was inspired by the three locations they visited for the assignment. Students were encouraged to work with a friend on this part of the assignment as well take a picture and write a paragraph to reflect on their Lego model made. For the final part of the assignment each student was asked to write about their experiences with their fieldwork including what they learned and how their perception of previously known or unknown spaces changed.

Following the author's presentation and the introduction of the assignment the Art Library saw an immediate increase in play and model-making at the Art Library Lego Playing Station. In figure 3 one can see four students from the Landscape Architecture EDA course smiling and working collaboratively on making their models.

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**FIGURE 3****Students from Landscape Architecture EDA Course***Photo by Megan Lotts***Impact & Assessment**

Ephemeral experiences such as, making, and action based research can be difficult to quantify. When the author began this project, there was no certainty of outcome nor a distinct plan of how the Art Library Lego Playing Station would come to fruition or what kind of impact it might have on the Rutgers University Libraries.

Because of the author's experiences as a working artist, one of her objectives was to make sure the Lego Play Station was thoroughly documented. Since August 2014 the author has collected and taken over 400 images of models created. From analyzing these images the author has noticed that many of the models created at the Lego Playing Station include multiple Lego persons as seen in figure 4. The author believes this may be in part because of the way in which one plays and relates to Legos. The author wonders if playing with Legos can be used to see heightened awareness of the social aspects of learning. In a recent Lego workshop run by the author, many participants built models that reflected ideas of who they are and how they fit into the model. It could also be that in modern times one can find Lego characters in every flavor. In the fall of 2014 the author visited a Lego store in New York City and was able to create a character to represent her own likeness.

The author also noticed from the collection of 400 images that roughly twenty percent include the model maker(s) as seen in figure 5. Of those photos including humans most of them are smiling and appear to be having fun, as seen in figures 2, 3, and 5. But this also could be that smiling occurs often when photos are taken.

When the Lego Playing Station was installed, the author created the *Rutgers Art Library Facebook page* as a tool for individuals to post images of models made at the station. The author hoped participants would submit images to the Facebook page to create a Crowd sourced collection of images. The Lego station itself had signage inviting individuals to send an image of their model to the Art Library Facebook including a QR code to ideally, make it easy. Unfortunately the crowd-sourced collections of images for this project was unsuccessful with only 6 images of models posted to the Library's Facebook page. The author posted one image in hopes to start the trend of these Lego model images, but as noted this was not the case. Because of the failure of the crowd-sourced collection of images the author has questioned her choice of social media tools. For future projects the author may try a different tool like Instagram or Twitter, which do not rely on an individual having to first "like" the Rutgers Art Library Facebook page before posting an image. However the author has noticed when she posts im-

**FIGURE 4****Model Made at the Art Library Lego Playing Station***Photo by Megan Lotts*

**FIGURE 6**  
**Students posing at the Lego Playing Station**

*Photo by Megan Lotts*



ages of Lego models or information about Lego based contests these posts tend to get more “likes”. So perhaps the Rutgers Art Library Facebook Page is helping more with the publicizing of the Lego Playing Station as opposed to the hope it would be used as a tool to create a collection of crowd sourced images.

As the Art Library Lego Playing station was an innovative project that was not the norm for an academic library, it was important to provide an opportunity for patrons to leave feedback and suggestions about the station. Upon installation of the table the author placed a comment box with paper, pens, and a note on the box inviting individuals to leave a comment or e-mail me with any questions, or concerns. As you can see in *Table One*, over-all the comments from the box were positive. This could be in part because participants were feeling relaxed or happy from playing at the Lego Playing Station. Or maybe they were smiling because Legos are not something one expects to see in an Academic Library. There were a few negative comments in *Table One* including the noise factor. It is true that Legos are noisy and even more so when someone knocks a bin off the table and 500 plus Lego pieces tumble loudly onto the un-carpeted floor. In addition playing with Legos can cause noisy behavior and conversation, which is not the normal quiet behavior one expects and in some cases hopes to

experience in a library. One graduate student in particular was irritated by the noise and suggested that the table be moved, or at least put on carpet. She also suggested that covering the table in felt might help reduce the noise. The author has considered moving the Lego playing station because of noise; however, due to the over-whelming number of positive verbal comments she has received, the author decided to leave the table in its current location. However the author is looking into a new carpet to place under the table. Besides the twelve comments submitted to box the author found two drawings that were maps, obviously from the Landscape Architecture EDA course, an ink drawing of Bugs Bunny, an abstract pencil drawing, and a purple rubber bracelet in support of the Rutgers Undergraduate Programming Association (RUPA). The author assumes from her own personal experiences with comment boxes the non-comments were meant in fun and you never know what you will get when you leave and open box with pen and paper in public space.

Since the installation of the Art Library Lego Playing Station the author has seen an increase in involvement from the local community. Shortly after the Video by Rutgers Day was blasted across the Rutgers campuses and community the Art Library circulation desk received a call from a woman asking if she could bring her children to play at the Art Library Lego Playing Station. The Art Library branch manager was caught off guard by this because we don't see many children in the Art Library, most likely because we are an academic library and many individuals do not realize that a public funded university is open to the public. Alternately, maybe the Art Library doesn't see many children because we are an academic library and most individuals don't expect or think of Legos or activities children might enjoy being in a research library. The author and Art Library Branch Manager spent time discussing the idea of children in the Art Library, and we did not see a problem with this assuming they followed the Rutgers University Library policies of no children in the libraries without an accompanying adult. The Art Library will also be par-

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**FIGURE 6**  
**Comments from Collection Box between Aug. 12th, 2014–Jan. 12th, 2015**

<b>Comments from the Art Library Lego Playing Station Coment Box</b>
"Would Play Again"
"A Masterpiece"
"I love you, thank you"
"More Legos"
"I wish Alexander Library had Legos too"
"THIS IS AWESOME!! Great Idea"
"Legos are noisy"
"wish the Legos weren't at my favorite table"
"I never see anyone use these legos and they take up valuable space to study. I would most prefer to use this table to study. Thank you for your time"
"This is so cool"!
"Bus Stop + Voorhees Mall + Art Library. More people flow to bus stop and building than to the beautiful aspects of Voorhees Mall"
"it is a way to quiet to feel comfortable rummaging through buckets of legos. I love this idea though"

ticipating in the NJ Makers Day, which is a state wide initiative on Saturday March 23<sup>rd</sup>, 2015, including over 125 libraries who will invite the public in for a day of making and play. We do anticipate there being children present for this event and we hope they will come to the Art Library to make a Lego model as well as get a taste of the life they may one day lead as a student at Rutgers, the State University of New Jersey.

Since the implementation of the Art Library Lego Playing station, the author has seen an increase in reference questions from the Landscape Architecture Department as well as from the Mason Gross School of Visual Arts. The author believes this is in part due to her work in publicizing this project. In addition this project has served as a tool to help build a new brand for the Art Library. Further, the increase could be tied to the implementation of the Lego Playing Station because it has been the catalyst for many new innovations including the Art Library Photo Booth, and the Art Library Making Cart. In response to the increase in reference questions, the author has implemented

an embedded librarianship program in the Landscape Architecture Department and Mason Gross School of Visual Arts. Although the author is also a liaison to Art History, there is no need for an embedded Librarianship program within their department because they are located in the same building as the Art Library. From the embedded librarianship program, the author has become more involved and educated about two of the departments with whom she is a liaison. The author has recently been invited to serve as a committee member for a faculty search in the Landscape Architecture Department. Serving on a search committee can be an important activity in learning more about incoming faculty research needs as well as opportunity to educate current faculty about what the Rutgers University Libraries have to offer. The author also believes that she may be seeing an increase in reference questions because "making" is a language that Visual Artists and Design Students speak and therefore she is gaining more "street credit" within that department.



In short, the ideas of what happens in an academic library are changing at the Rutgers Art Library, and the author believes innovative projects and ephemeral experiences in the library has helped draw in a new audience of patrons that may not have seen the value or need for the libraries. In addition the Art Library Lego Playing Station has built a bridge and greater connection to the Art and Design students to whom she is a liaison.

## Conclusion

For the author, one of the most interesting parts of this project is coming into the Art Library every day to see what has transpired at the table. Some days it appears that a group of grubby young children have been let loose at the table and Legos strewn everywhere, including some on the floor. Other days the author finds elaborate models that tell stories about the students, their lives, their imaginations, and their dreams.

The Art Library Lego Playing Station has explored and expanded the conventional research functions of an academic library through encouraging creative and problem solving techniques associated with Art and Design. The author has shown that Legos can be a three-dimensional language that uses hands on active learning to communicate and build critical thinking skills, as well as an activity that makes people happy.

Overall the Art Library Lego playing station has been a catalyst for building bridges and making connections with students, faculty, and staff on the Rutgers campuses. These connections have led to a greater understanding of the possibilities of an Academic Research Library and how the act of making and implementing a culture of creativity can influence library patrons.

The next step in the author's research process is to continue to explore the possibilities "making" in Academic Research Libraries. The author hopes to expand her work with the Landscape Architecture EDA course to further study and analyze the written responses from their assignment. The author would like to use the assignment to learn more the ideas of what the library is and can be, both spatially and conceptually, from the perspective of Art and Design students.

## Notes

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