Gund Gallery Art Loan Software System – Project Proposal

Dev Akre , Joseph Duke-Cohan , Takashi Kanazawa , Youhui Pang

The Gund Gallery offers the Kenyon student body the opportunity to engage with a substantial and diverse art collection. The Art Loan program, in particular, allows students to host Galley art in their living spaces on campus for a semester. This lending program is intended to foster an appreciation of art and increase the Gallery's exposure as students personally care for the art and view it in their day-to-day lives, as opposed to exclusively in the Gallery. Meeting with Dr. Jodi Kovach and Robin Goodman - the latter, currently running the Art Loan program - we determined that while extremely successful, the program would benefit greatly from an improvement of its digital storage, online presentation, and selection process.

The aim of the developers in the project is to improve the current art lending software. . This would include altering or creating an online website, digital art storage, as well as tools helping in artwork borrower selection.

Specifically, there are the following major functions and important project attributes that we wanted to achieve:

1) We will make a database containing all artworks in the gund gallery art loan program.
2) Learning qualities of artwork like color, medium, and style using machine learning and categorizing them in some groups. This would happen automatically every time a new painting is added to the database
3) Selection system can use information provided by lendees and artwork grouping characteristics to make effective artwork suggestions.
    a) Include secondary search functions so lendees can search by terms related to art groupings.
4) Selection system can be a lendee-ranking system so people choose the top n pieces they like most to give them a higher chance of getting those pieces.
5) Changing the website to reflect the new features added. We'll try to work with her google site but might make a new one from scratch if that turns out to be difficult.
    a) There may be personalized suggestions based on the properties of artworks and the visitor's information.
    b) Presentation of artwork includes some manner of scale representation, such as a 3-D room, etc.

To accomplish this, the database we create will contain the following data that we store and process:

1) Artwork image itself. (This will be high quality jpegs, 5-10 MB each)
2) Basic information about the artwork. Such as:
    a) The name of the artist.
    b) The birth year of the artist.

      c) The title of the piece.
      d) The date of creation.
      e) Medium - The materials used in the creation.
      f) The AL number - The art loan id number.
      g) Framed dimensions.
      h) The date of acquisition.
3) The number of visitors who have viewed the piece. (To monitor the popularity of an art piece. It may be used to recommend unpopular works to users)
4) Machine learning data associated with the artworks. etc.

Stakeholders:

    Gund Gallery Staff and associates: The project shall assist the staff and associates in upkeep of the collection's digital database in an easy manner. Adding, removing or modifying artwork information should reflect changes in the website immediately.

    Kenyon student body: Students should have an intuitive and easy to follow user interface. The website should take their information and recommend artworks that pertain to their interests and recommend similar artworks if they like something. A selection process may be implemented that allows the students to apply for artworks on the site itself.

    Developers: The project needs to be maintainable for the current or the future developers associated with managing the website. The source code, and the database should be made in an easy to understand way. There may be documentation for complicated features.