#### **Group Work: Research Questions**

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# Digitization of Images, New Technologies, and Possibilities

The DPLA is still an unmatched source of historical images with potential for various digital history projects through analysis of large numbers of historical images. With regard to other collections with large quantities of images-The Smithsonian has an enormous collection. Their collection is divided under numerous topics and subtopics making it very easy to find what you are looking for, and this is also conducive to more targeted searches. However, the quality of many of their images is questionable. Many of the images are black and white and, while some scholars prefer this to color for issues of clarity, it seems less than modern and impacts the way we interpret the image. Additionally, many of the color images are blurry, dull, and, for images taken in situ, appear to have been taken from a less than desirable perspective. In addition, digital libraries of certain American Universities such as Harvard and Tufts are worth noting. Parallel to these often thematic collections—the DPLA, for instance, is by definition only concerned with images relating the United States— is the Google Images aggregation project that seeks not to store but to sort images from other sources in a way that allows to them to easily be searched and found.

When we talk specifically about large number of images, we are necessarily thinking about **innovative ways of analysis** rather than simply looking at these pictures one by one. If we are dealing with large sets of images this means that **technologies of image analysis** must be able to perform certain operations with a meaningful accuracy. Development of such technologies make it even a more important task that archival photographs and images be digitized. This task should not be limited to library archives and other public material, but also try to include as much of the privately held material as possible. Many people have non-personal photographs in their personal archives of various public places. If, through some sort of campaign, **digitization of privately held photos** could be achieved in a significant scale, the capabilities of these new technologies would increase exponentially.

With these thoughts in mind, we ask the following questions that can potentially be answered through analyzing large sets of images:

### Content- related questions:

- 1. How does the natural environment (trees, plants, shorelines) change > over time in a particular location?
- 2. How are the streets changing? (i.e. How crowded are they? What is > the gender distribution on the street?)
- 3. What type of shops are opening/closing at a certain neighborhood > over time? Does this signify an economic and/or social > transformation of the neighborhood?
- 4. How is the gendered division of labor changing at the street level? > (e.g. are there more female police officers seen on the street > over time in a certain country?)
- 5. Can we aggregate images to find some trends on fashion, consumer > goods, and architectural design, even attitude?
- 6. How can we analyze social movements and mobilizations through > images?
- 7. What does the digital depiction of isolated spaces like hospitals, > prisons, camps, detention centers tell?

#### Technical Questions:

- 1. What type of algorithms could be possible to categorize images in > accordance to certain keywords and themes in order to explore > transnational connections? For instance, in DPLA, there is a > Sultan Abdulhamid II photograph collection of the Ottoman Empire > in the late 19<sup>th</sup> century. Is it possible to compare the > portrayals by the Ottoman center with other collections such as > those of travellers, embassies, companies etc? (For Library of > Congress' Sultan Abdulhamid II collection, see: > https://www.loc.gov/collections/abdul-hamid-ii/about-this-collection/)
- 2. How good is face recognition in historical crowd images? Would it be > possible to identify certain historical figures in images of > critical moments such as revolutions and uprisings? If so, would > that be helpful to revise a certain narrative in terms of > identification issues for a controversial event such as 31st > March Incident in the Ottoman history?

## Ethical questions:

In addition to these research questions, some ethical concerns arise. These ethical concerns are addressed in the following questions:

- 1. Who will have access? Domestic/international; civilian/government, > etc.
- 2. Whose images are captured? Posed photos? Public cameras?
- 3. Which regions are privileged over others? Is there gender bias?
- 4. Who decides which images are included in the collection? Are there > images that would be ruled out, and if so for what reason?
- For what purpose will facial recognition be used? Ex. genealogical, > suspect identifications. Here is a
  link to public radio discussing > some of the problematic issues associated = > https://dp.la/item/763a1d19cf44d9c0597126204640
- 6. Subsequent to identification, if that person is still alive (or > their descendents), should they have rights over the image in some > way that supersedes a database? Permissions?
- 7. Are there groups, based on personal/religious beliefs, who are > exempt from participating. For example, if an indigenous person's > image is collected and there is a tradition of eschewing > photography, what is the procedure then?
- 8. Are there restrictions based on age? Or any other criteria?
- 9. Who polices the entirety of the collection? How are they selected > and by whom?
- 10. How often is facial recognition software wrong? In what > circumstances will it be used for security purposes? In > courtrooms? What is citizen recourse to privatizing their image?
- 11. If an incorrect identification is disseminated, what is the > procedure to make a correction? Is there a network to address > every copy with attached erroneous information?
- 12. How are issues of the available technology being addressed with > regard to clarity and equality?

- 13. Would there be some pitfalls in a research heavily relying on > collections that stem from government sources?
- 14. Who can we photograph and who can we not (morally, ethically)?
- 15. What are the ethical responsibilities of the photographer?