

# IMAGE-CENTERED, COMMUNITY-BASED LANGUAGE DOCUMENTATION

## Summary

Recent advances in imaging technology have made it possible for community organizations to capture, annotate, and share gigapixel-level images cheaply and easily. We report on efforts to use explorable high-resolution imagery as a tool for documentation of Iñupiaq, giving a visual focus for language elicitation and maximizing community empowerment.

## Abstract

Recent advances in imaging technology have democratized the high-resolution image, making it possible for community organizations to capture, annotate, and share gigapixel-level images with very little training and at very low cost (Schott 2008). Explorable, high-resolution imagery can contribute greatly to documentation of natural environments and cultural identity (LCT 2009, UNESCO 2009). The present paper explores how this technology can be used in community-based language documentation, pairing youth with elders to photograph, discuss, and textually document places and practices of cultural importance.

The project uses the GigaPan hardware and software platform for creating, annotating, and sharing high-resolution panoramic images ([www.gigapan.org](http://www.gigapan.org)). Gigapixel images are taken by mounting a standard digital camera on a robotic mount that manipulates the camera to take a grid of pictures, which are in turn "stitched" together using accompanying software. The robotic mount is commercially available, and the entire image creation process is consistently mastered by middle-school-level students within hours (Author, 2010). The interactive exploration component of the platform permits a very high level of zoom; for example, an image of a celebration can be zoomed into to examine fine detail in clothing, musical instruments, and food. The platform supports discussion, meaning that users can add detail or background to the annotations of another user, and ask and answer questions.

The key advantage to this approach is that it lets the community take the lead in the documentation, selecting what to photograph, which elements of the image to focus on, and how to engage speakers in the documentation process. By mitigating bias from an outside observer, and eliciting data naturally in the context of a culturally-relevant visual focus, it is anticipated that the language collected will be extremely natural and may capture linguistic constructs that would not arise in a different context.

We report on initial work with this platform for documentation of Iñupiaq in Barrow, Alaska. We will discuss three dimensions of the project: whether the language collected in the context of exploring an image exhibits different characteristics from language collected using traditional methods; technological and sociological challenges encountered; and how community empowerment in language documentation can be maximized by combining the technological skills of youth with the language and cultural expertise of elders.

## References

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