

Crowdsourced Representation

People's Drawings of Culture in a Globalized World

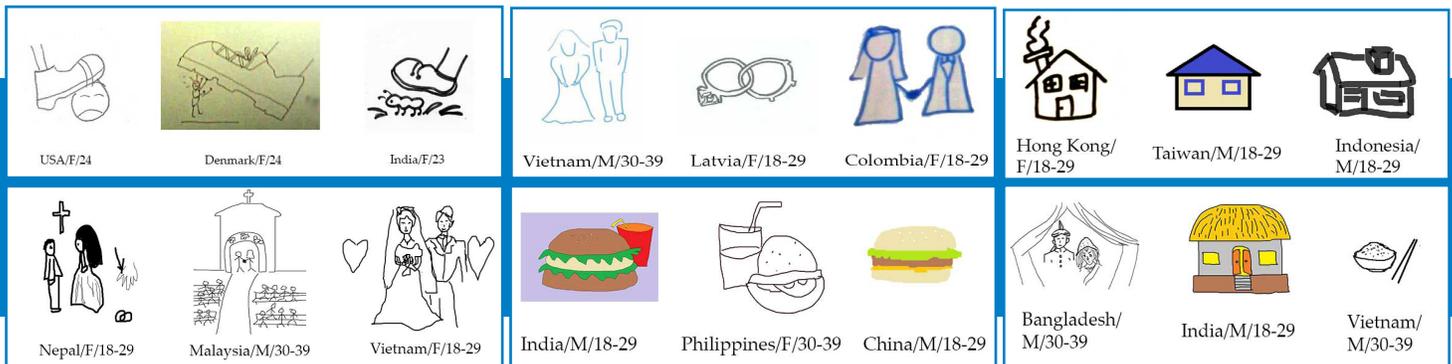
SCOTT McMASTER

Abstract

Imagery has never been consumed or circulated at the rate and latitude we see today making communication technologies and visually-based inquiry crucial to investigating visual, media and digital literacies that lie within these pictorial exchanges. Conducted over the Internet and with graphics at its heart, this qualitative study aims to help inform visually based literacy/media studies and promote image-based research, re-imagining research methodologies in visual culture, literacy, and art education. Review some of the preliminary findings of this doctoral dissertation that used visual methodologies coupled with image-based research and crowdsourcing technologies to collect drawings from over 61 countries, diverse in geography and culture. New perspectives of the visual-textual relationship, identity and representation in a globalized context were examined, guided by the questions; what tensions emerge between local and global ways of interpretation and meaning construction when participating online? To what degree does visual culture influence or change deeply ingrained ideas specific to geography and culture into normative global ideals? The paper highlights a selection of drawings from around the world that display intercultural representations of the words *meal*, *marriage* and *home*. It also showcases the methods and the technologies that abound and their potential for artistic and academic discovery.

Key words

crowdsourcing, visual methodologies, globalization, image-based research, visual culture



Context

As networked digital technologies continue to develop at near exponential rates, the only certainty today is that they consistently employ more visually based structures within which to frame and deliver traditional text based information. Often described as image saturation, icons and symbols have displaced titles and keywords. These visuals grant us access to the digital realm as well as guide us towards foods, clothing, products, homes, schools and everything in between; yet the true extent of their influence on us is not fully understood. Furthering the study of sociocultural phenomena using image and visually based heuristics seems not only logical but essential to provoking, uncovering and understanding the impact of imagery (Mitchell, 2011a, 2011b, Pink, 2013) in this 'always connected', easily permeable realm as we shift towards a post-industrial knowledge economy (Kellner, 2002). This study, building upon earlier pilot projects (McMaster, 2012, 2015), sought to not only expose the potential effects of a visually dominated world on culture, but to further inform the complex relationship between image consumption, knowledge and technology influenced by global visual cultural, delivered and intensified by networked digital communications. These advancements in communication media have augmented both the flow and dissemination of popular visual culture worldwide and continue to blur both geographic and cultural boundaries that were once thought to be static, intrinsic and locally driven (Rose, 2015).

To help frame the main study Critical Social Theory (Kinchole, 2005; Leonardo, 2004, 2010) is drawn upon to pin-point dominant sources of influence and in consideration of how imagery works to influence identity and effect our opinions and perspectives (Giroux and Pollack, 2010; Sung, 2012). The study also makes use of Network theory (Castells, 2010) to examine the flows of information on the web and supplements critical social theory's search for sources of hegemony, dominance and influence.

The Projects

Earlier Pilot Studies

The current doctoral research project was developed based on the design and findings of two earlier pilot projects (McMaster, 2012, 2015). McMaster (2012) initiated the original pilot which only sought to assess whether or not crowdsourcing platforms such as Amazon's Mechanical Turk (Mturk) were suitable to collect image-based data and conduct research online. The pilot study found that indeed, Mturk was a viable and salient option for both of these goals. The study also noticed an interesting correlation among the drawings participants submitted who otherwise differed in geographic location or culture.

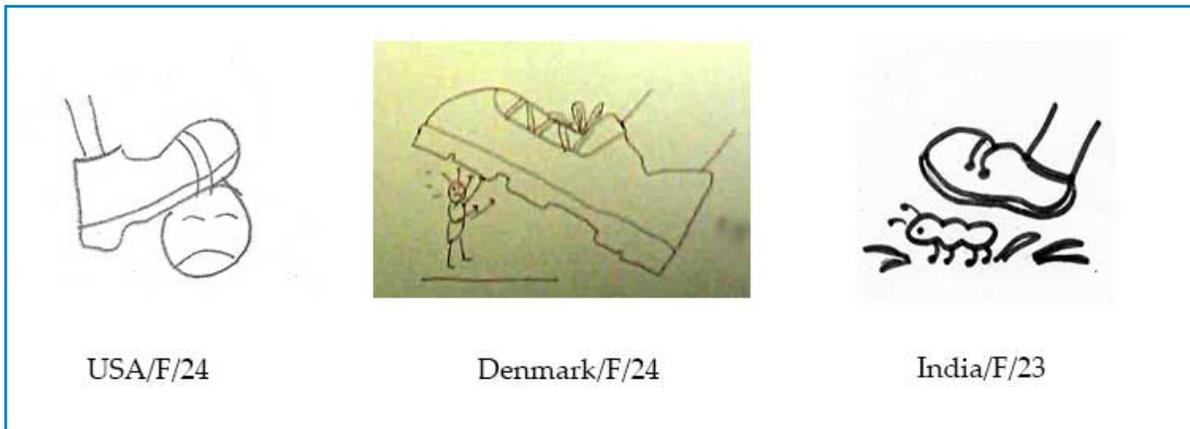


Figure 1: Drawings in response to the word ‘oppressive’ from Pilot #1.

In an attempt to further test the rigor of this method of image-based data collection/ survey a second pilot study was designed (McMaster, 2015), almost identical to the first, with the exception of the choice of word the participants were asked to draw. This time the study tried to elicit more culturally grounded representations by using a word set that was both more careful and might be linked to unique visual cultural icons. The words *marriage*, *meal* and *fun* were chosen for this task and again the findings revealed striking similarities across regions/cultures, pointing to the need for a larger more in-depth visual survey that would involve far more participants in addition to gathering significantly more demographics and data on how these diverse participants might have reached such consistently themed visual representations.

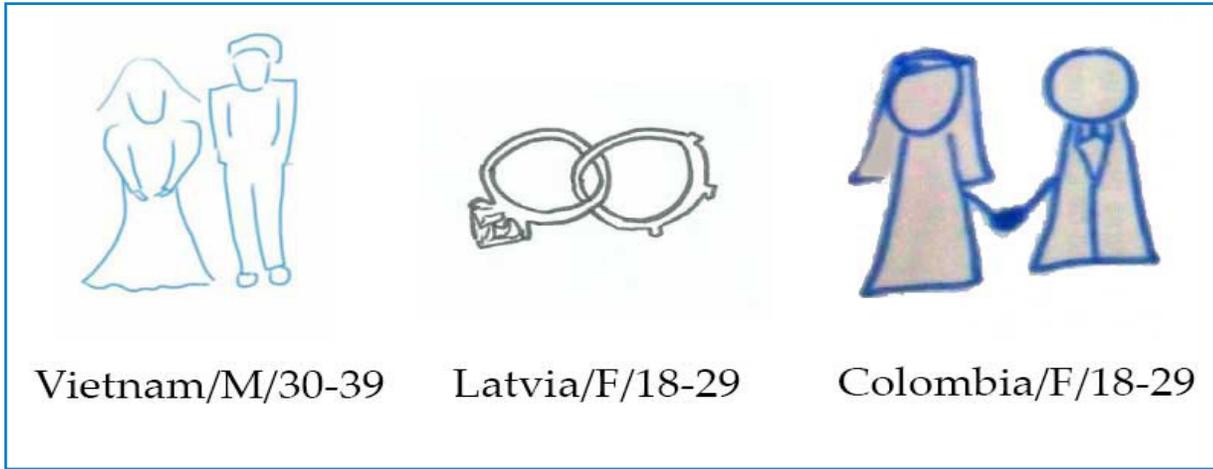


Figure 2: Drawings in response to the word ‘marriage’, from Pilot #2.

A subtext for developing the subsequent pilot and larger study were also to further support visually based inquiry as well as showcase the possibilities and qualities of online research and crowdsourcing technologies. Further details on the recruitment and data collection for the above pilots can be seen in McMaster (2012, 2015).

Large Scale Study

Although the large scale study was designed to be implemented within Mturk's online framework and coding structure it was discovered that Amazon had, in the wake since the last pilot, significantly changed its policies thereby excluding both researcher and international participants for lack of a US tax number. This led to additional research and after reviewing several options an alternative, called Crowdfunder, was found. This new platform had to be tested and the survey redesigned to accommodate an entirely different system, methods of retrieving and storing data as well as attracting and interacting with participants. This hurdle resulted in a significant delay in the start of data collection as well as requiring constant monitoring, screening and refinements by the researcher to ensure data integrity. At the conclusion of data collection the study had reached over 250 participants collecting over 1700 drawings from 61 different countries. The surveys also collected far richer and more detailed demographic data than the pilots and answered questions such as participant's top three frequented websites and whether or not they consumed foreign TV shows on or offline. The initial findings are described more fully below. Although this survey began with a request for ten drawings, this was later narrowed down to seven. During analysis the drawings were narrowed down further to a smaller word set of *marriage*, *meal* and *home*, which provided the most interesting and rich data. This was done to better address the research questions:

What tensions emerge between local and global ways of interpretation and meaning construction when participating online? To what degree does visual culture influence or change deeply ingrained ideas specific to geography and culture into normative global ideals?

The Technology

Crowdsourcing

Crowdsourcing is a new form of online mass collaboration that serves a variety of purposes, both commercial and non-profit, with a common goal of harnessing the power of the many to conveniently or expediently complete tasks, provide information, or raise money for a particular cause. Possibly the most well-known platform for this type of collaboration is Wikipedia, which could be considered the world's first crowdsourced encyclopedia. Other popular models, known as *crowdfunding sites*, include Kickstarter and Indiegogo which allow people to pitch ideas that need funding and appeal to registered users and the general public for donations to make their projects (art, travel, health, business) succeed. Another type of crowdsourcing, which was the principal one used in this study, are also known as *microtasking* sites. These sites include Mturk and are modeled on a request-fulfillment workflow, not unlike the posting of a

job ad. A crowdsourcing platform allows *requesters* to post ads for their projects, which can then be divided into many small (micro) tasks according to the type of work being varied out. The tasks are then published in the database and can then be found and completed by workers or *turkers* as they are nicknamed on Amazon's network. Workers who are registered on one of these platforms can search tasks from database –similar to searching on a message board or online forum– according to categories, interests, keywords or reward value. Rewards provided are also integral part of these microtasking sites and monetary sums run anywhere from a few cents to a few dollars depending on the type and duration of the task.

While many of the tasks encountered when originally exploring Mturk several years ago consisted of business style surveys, website ranking or categorization and translation, today these sites have attracted more qualitative researchers, such as various MIT projects (<http://mturk.mit.edu/tutorial/3.php>) and projects such as Aaron Koblin's *Sheep Market* (2009), that gathered 10,000 drawings of a sheep facing left and turned them into a large collaborative art installation. It was this artist (well ahead of MIT) that also piqued this researcher's interest and led to consideration of crowdsourcing as a method for qualitative inquiry.

Computer Assisted Qualitative Data Analysis Software (CAQDAS)

NVivo was the CAQDAS chosen after testing several different platforms such as *Atlas.ti*, *MaxDAQ* and *Dedoose*. The main reasons for making this choice was the way each program handled imagery, NVivo had an advantage as being able to host a very large selection of images in a single gallery as well as sub-divide images further into smaller categories. Although NVivo was used it does not mean it is the ideal way in which to analyze this type of data, in fact NVivo is a fairly complex and rather unintuitive piece of software that comes with many caveats, steep learning curve and lack luster customer support. Once trained on the software however its powerful tools were able to render comparisons, correlations and help uncover relationships within the data that may have been hard to see otherwise. It should be noted that anyone considering CAQDAS should begin testing before the project proposal is submitted to be sure it is the best option for your their and methodology.

Knowing how a CAQDAS processes different information and which file formats it accepts will allow the researcher to prepare accordingly and save considerable time later when it comes to organizing data and uploading it into the software for analysis. In terms of this study one of the primary functions the software provided was to run 'queries' that quickly showed intersections of participant survey data with drawings submitted, for example being able to see all drawings from a particular age group or ethnicity or to view how often a specific group drew 'single detached houses' to represent the word 'home'. Once a project is properly setup in the program, including coding, it can process these queries in seconds giving a sizable time savings and decreased margin for errors compared with trying to reach comparison using standalone excel files and image tagging programs or physically coding and comparing images by hand. In the end the surveys and image data were analyzed using NVivo 10 and visual content analysis meaning that iterative stages of codes were applied, then validated and the frequency of these codes counted and cross referenced with the open answers and demographics from the textual survey.

Preliminary Analysis and Discoveries

One of the most interesting visual discoveries among the drawings collected in this study was that of the representations of marriage, a pivotal life-event, provided by participants from non-western, Asian countries. The images depicted show an overwhelming prevalence of western style dress, icons and/or ceremonies, chiefly in the form of tuxedos and white wedding gowns. This supports earlier findings (McMaster, 2012, 2015) that suggested a homogenization of visual imagery is occurring, spurred by globalization and hastened by the Internet. This assertion of global forces creating trends and forming themes of cultural homogenization is popular among cultural and postcolonial theorists and researchers (Adams, 2011; Ashcroft, 2015; Embong, 2011; Kellner, 2002), however the reality of how these global forces are impacting culture may not be as simple as 'more of the same'. With regards to the other words, they also showed a similar frequency of non-localized iconography in their representations. It should be noted that despite collecting surveys from 61 countries the main analysis was limited to South, South East and East Asia, which resulted in an analysis of 106 participants' visual surveys. What follows is a breakdown of the three main images analyzed.

Marriage

The most significant codes attributed with the images drawn of the word marriage were associated with the code 'Western wedding' (see examples below) with almost half of all participants drawing this type of image. This is seen as one of the more important discoveries as all participants came from non-western countries; all within South, Southeast and East Asia. Also important are those drawings which depicted a traditional or localized wedding, only three drawings did this, somewhat reflecting what Rose (2012) would deem 'invisible opposites,' those visual representations that are underrepresented or not present at all. These outlying representations are discussed at the end of this section.

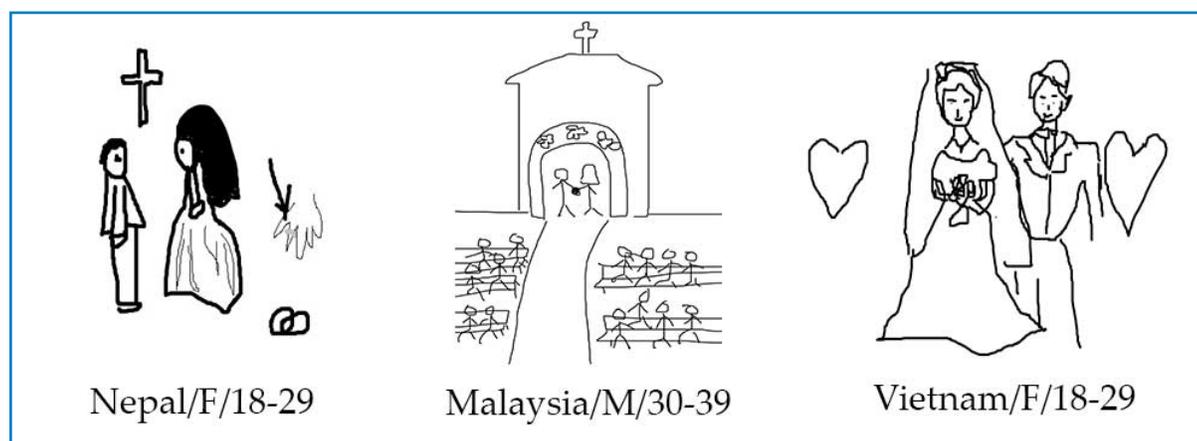


Figure 3: Drawings in response to the word 'marriage', from the full study.

Both males and females drew western representations of marriage with similar frequency, however it is worth mentioning that male participants were the only ones to draw non-western or localized images. One should also note that males outnumbered females more than three to one in this survey. Another difference was that women generally drew rings as wholly or as part of their images more than twice as often as men did.

For the most part, age did not seem to have as many distinctions, however only age groups 18-29 and 30-39 drew rings in their images,

which may indicate popularity or a trend among those generations. Marriage as drawn by various income groups also showed no noteworthy differences. In terms of regional representations the countries whose participants more frequently depicted western weddings were Indonesia, Sri Lanka, Vietnam, and Malaysia. Malaysia is also the only country in which participants did not draw rings, while Nepal drew rings most frequently. Christian symbols were underrepresented in the data overall but most frequently appeared in drawings from Vietnam followed by Nepal and Malaysia.

Meal

There were some notable differences between male and female representations of the word 'Meal', most interesting were the codes 'Fast-food' such as 'Hamburgers' drawn by women almost four times as frequently as men. One of more interesting observations was that for the codes 'Coke', 'McDonald's', 'Sandwich' and 'Pizza' only the age group 18-29 drew these elements in their images. Again income did not hold any interesting discoveries and this is in part to not having as many participants in the middle to upper income brackets so it is difficult to make any comparisons.



Figure 4: Drawings in response to the word 'meal', from the full study.

The word 'Meal' as drawn in different countries revealed Hamburgers to be drawn more often in

Nepal and Indonesia whereas Vietnam drew none. Other countries drew a hamburgers roughly twenty percent of the time. Fast food was also drawn at the same rate in Nepal with much lower frequency elsewhere. The drawing of a 'Plate Setting' (single plate with knives and/or forks) was most frequent in Indonesia and Sri Lanka with India close behind. This is interesting because, most of the countries listed do not set individual plates with knives

and/or forks rather many dishes are usually set up in a communal fashion with smaller plates for each person. Chopsticks or no utensils are also more common.

Although only a few brands like McDonald's and Coke were drawn, it is worthy of note due to the connection with the west; Coke was drawn only in India and China whereas McDonald's was drawn in India, Nepal and China.

Home

Of all drawing prompts the word 'Home' elicited the most homogenous results with a single detached house represented across demographic categories and countries, meaning ninety percent of all drawings were of this type. The similarities across all categories were striking although individual drawings did differentiate themselves in the number of details added to enhance the scene of the detached house. Examples of enhancements included gardens, chimneys, fences, colours, backgrounds, trees and weather. These elements also generated more codes and higher code totals assigned can indicate drawings and participant cases of particular interest, regardless of stylistic or artistic competence.



Figure 5: Drawings in response to the word 'home', from the full study.

There were a few countries that deviated slightly from the majority, those being Vietnam and China (at around seventy percent). In lieu of a detached house the drawings were of families or 'other' elements that were abstract or not easily categorized. The only other significant deviation was participants who drew 'A-type homes' (atypical) meaning that the homes were different than

majority of representations and appeared to depict a localized style of home design or layout. Of these representations Vietnamese participants drew their detached homes as localized or differing from majority most frequently while the other participants who drew similarly localized homes were Indian, Nepali and Bangladeshi. These last examples are significant not just for deviating from the normal representation but by providing localized cultural imprints in their drawings which could be seen as ‘sites of resistance’ (Rose, 2012).

Outliers

As mentioned earlier, the most frequent observations or codes should not always be valued above all others, including those that are not present. These are what Rose (2012) might call ‘invisible opposites’ in the case that they are not represented at all but for the following examples ‘outlier’ simply means those images that deviated from the majority of visual representations being that they were very few in both the frequency of which they occurred and in the number of these types of images submitted overall.

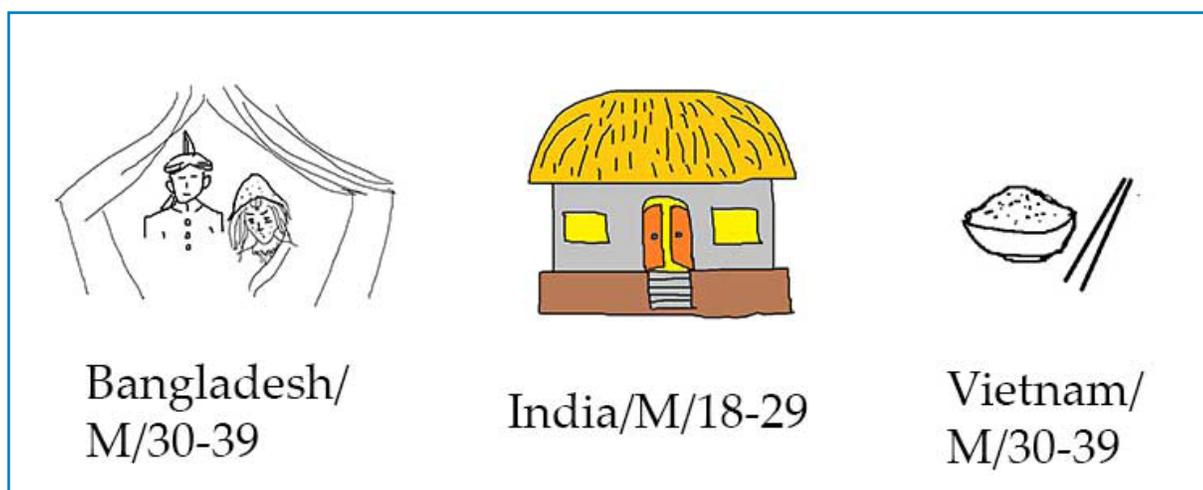


Figure 6: Drawings for marriage, home and meal, from the full study.

Although it is simpler to speculate as to why participants from non-western countries may have chosen to draw images containing many non-localized or hybridized/western iconography, such as exposure to TV, food chains or commercials both on and offline, but for these small handful of images (under ten percent) the reasons may be more elusive. Was it a conscious decision to represent something familiar and ignore other ideas or, as many remarked, did they come from memory or the first thing that popped into their head?

Possible sources of influence

The questionnaire portion of the survey attempted to tease out some of the possible influences or explanations for the sources of participants' imagery by asking them questions about what websites they frequented, if they watched foreign TV shows, and where they thought image itself came from. The most obvious use being participant interactions on the Internet, and even their participation on crowdsourcing sites that ask them to further explore non-localized websites, which may have an impact beyond the simple tasks they are completing. Most participants listed at least one microtasking site in their 'top three' and other popular Internet locales were; Google, Facebook, Youtube, Yahoo and Twitter; with the average number of hours reportedly spent online being about eight each day. Growing access to the Internet and an almost unfathomable repository of still and moving imagery from news and television programming to personal and public 'home' video is exemplified in sites like Youtube and could act as a system of informal education, establishing, reinforcing and transforming social models via the production, consumption and circulation of imagery (Duncum, 2014; Giroux and Pollack, 2010; Sung, 2012).

Foreign TV program consumption is also thought to be a mitigating source for the images drawn with seventy-seven percent reporting that they watched shows from other countries. Although this includes programs from other non-western countries there were many more examples (sports, drama, news, and comedy) provided that are currently aired in North America and Britain. Unfortunately this survey did not ask how often these shows were consumed however as many shows mentioned were series' it is quite possible it is with some regularity.

Future Directions

It is important to consider not only how individuals consume and internalize visual culture but also how they themselves become producers, disseminators, and/or users (Rose, 2015) of similar imagery by choosing or looking to non-localized, westernized or hybridized imagery to supplement and represent integral cultural concepts and norms. That is why future studies that follow this research will involve not only making and examining imagery but also collaborating in person in the production of visual representation (Mitchell, 2011) to reveal the links between the material, the social/symbolic, the cultural (Banks, 2001; Pink, 2013) and the digital (Rose, 2015). It is also hoped that these discoveries will lead to suggestions for more inclusion of popular visual culture in Art Educational paradigms and help inform the study of media and visual literacy.

If this essay has left you with more questions than when you began reading, then good, this was done purposefully with the intention of creating interest in the work with the hope that you will seek out and read the full study. This paper has provided only a brief snippet, a teaser if you will, of the larger study which is nearing its conclusion. To view all of images collected in their entirety please visit: <http://www.untitledartist.com/survey/participant-map/>. To read the detailed methodology, see a full analysis, findings and implications as well as more participant examples please look for the dissertation at Concordia University's Library after the fall of 2016, or check back online at the above address where the study will also be published and feature interactive ways of exploring the data.

Acknowledgements

The doctoral project “Visualizing Research: Crowdsourcing Technology for Global Understanding”, described here was funded by the *Fonds de Recherche du Québec – Société et Culture* (FRQSC), and the author also wishes to thank the generous support of the Art Education faculty and staff at Concordia University who aided this project in various stages from development to funding to thesis.

References

- Banks, M. (2001). *Visual Methods in Social Research*. London: Sage.
- Castells, M. (2010). *The rise of the network society*. Cambridge, MA: Blackwell Publishers.
- Embong, A.R. (2011). The question of culture, identity and globalisation: an unending debate. *Kajian Malaysia*, 29(1), 11–22.
- Kellner, D. (2002). Theorizing Globalization. *Sociological Theory*, 20(3), 285-305.
- Giroux, H. and Pollock, G. (2010). How Disney Magic and the Corporate Media Shape Youth Identity in the Digital Age. Retrieved from: <http://www.truth-out.org/archive/component/k2/item/91087-how-disney-magic-and-the-corporate-media-shape-youth-identity-in-the-digital-age?Itemid=228article>
- Kincheloe, J.L. (2005). *Critical Constructivism*. New York: Peter Lang
- Kolbin, A. (2009). The Sheep Market. Installation and online based exhibition. Retrieved from: <http://www.aaronkoblin.com/work.html>
- Leonardo, Z. (2004). Critical Social Theory and Transformative Knowledge: The Functions of Criticism in Quality Education. *Educational Researcher*, 33(6), 11-18.
- Leonardo, Z. (2010). *Handbook of Cultural Politics and Education*. Boston: Sense Publishers.
- McMaster, S. (2012). New Approaches to Image-based Research and Visual Literacy. In Avgerinou, Chandler, Search and Terzic (Eds.), *New Horizons in Visual Literacy: Selected Readings of the International Visual Literacy Association*, 43, 122-132. Siauliai, Lithuania: SMC Scientia Educológica.
- McMaster, S. (2015). Visualizing Research: Crowd Sourcing Technology for Global Understanding. *Visual Methodologies*, 3(1), 18-34.
- Mitchell, C. (2011a). What's participation got to do with it? Visual methodologies in 'girl-method' to address gender based violence in the time of AIDS. *Global Studies of Childhood*, 1(1), 51-59. <http://gsc.sagepub.com/content/1/1/51>
- Mitchell, C. (2011b). *Doing Visual Research*. London: Sage.
- Sung, S.L. (2012). The Role of Hallyu in the Construction of East Asian Regional Identity in Vienna. *European Journal of East Asian Studies*, II (2012), 155-171.
- Pink, S. (2013). *Doing Visual Ethnography*. London: Sage. Prosser, J. (2007). Visual methods and the visual culture of schools. *Visual Studies*, 22(1), 13-30.
- Rose, G. (2012). *Visual Methodologies: An introduction to researching with visual materials*. London: Sage.
- Rose, G. (2015). Rethinking the geographies of cultural 'objects' through digital technologies: interface, network and friction. *Progress in Human Geography* (Online First). Retrieved from: <http://oro.open.ac.uk/43319/>