



# Digital Artefacts: Researcher-Led Tools for Dialogue

In: **Participatory Visual Methodologies: Social Change, Community and Policy**

**By:** Claudia Mitchell, Naydene De Lange & Relebohile Moletsane

Pub. Date: 2018

Access Date: May 26, 2019

Publishing Company: SAGE Publications Ltd

City: 55 City Road

Print ISBN: 9781473947313

Online ISBN: 9781526416117

DOI: <https://dx.doi.org/10.4135/9781526416117>

Print pages: 121-146

© 2018 SAGE Publications Ltd All Rights Reserved.

This PDF has been generated from SAGE Research Methods. Please note that the pagination of the online version will vary from the pagination of the print book.

## Digital Artefacts: Researcher-Led Tools for Dialogue

---

### Introduction

As we highlighted in the [previous chapter](#), the explosion of digital technologies has changed the way we might carry out participatory visual research using online platforms. It has also changed the ways that, as researchers, we might think about involving participants in participatory analysis, engaging various audiences in dialogue, or disseminating findings in communities or at conferences. Indeed, the range of digital platforms and the relative user-friendly nature of various digital technologies has meant that increasingly research teams are likely to embark upon the production of digital artefacts ourselves. This is something that we discussed in [Chapter 5](#) where we focus on the pedagogy of screenings, drawing on the reflexive aspects of our own work in deepening our understanding of participant-led screenings. Framed in the context of digital scholarship, this work signals new possibilities for dialogue and engagement. Abby Smith Rumsey (2011, p. 2) defines digital scholarship as ‘the use of digital evidence and method, digital authoring, digital publishing and preservation, and digital use and reuse of scholarship.’ Clearly, as special issues of various journals such as the *McGill Journal of Education*, Vol. 49, no. 3 (Strong-Wilson, Asghar, & Yoder, 2015) and *Sociological Research Online*, Vol. 17, no. 1 (De Lange & Mitchell, 2012a) have highlighted, research and scholarship have taken on what might be termed a ‘digital turn’ (Mills, 2010).

While this digital turn has implications for many different types of research, we regard this work as particularly significant in the context of participatory visual methods where the digital already occupies a prominent place in participant-led production of cellphilms, digital stories, photography, the use of social media, digital archives, digital mapping and so on. As numerous researchers have highlighted, this can alter the relationship between participants and production, and especially the idea of greater autonomy on the part of participants to be already participating in digital production (Schwab-Cartas, 2012; Schwab-Cartas & Mitchell, 2014). But as we explore here this can also alter the relationship between researchers and production, alongside the idea of co-production with participants. Thus this chapter focuses on the production and use of digital dialogue tools, a digital artefact primarily produced by researchers drawing on the visual productions with the participants, to enable a variety of audiences (both the participants themselves and various stakeholders) to see the issues being raised, but also to engage in dialogue with the issue under study for the purpose of facilitating social change.

---

### Researcher-Produced Digital Productions: A Brief History

Our work with researcher-led production dates back to a video production that came out of Claudia’s collaboration with a film maker, Monica Mak. Mak’s video production entitled *Unwanted Images* (2006) drew together a selection of a set of drawings of gender-based violence created by children in the province of

Free State in South Africa, complementing a manual, *Opening our Eyes* (produced for and published by the Department of Education (2001) in South Africa) for teachers to address gender-based violence in schools. The video proved to be effective in training workshops with school leaders and teachers. Given the range of visual productions coming out of our later work (drawings, photographs, curated albums and drawings) we were motivated to further explore what we could do with such a tool particularly in relation to community dialogue and policy-making towards taking action and bringing about social change.

Our first digital production *Our Photos, Our Videos, Our Stories* (Mitchell, Mak, & Stuart, 2005), captured our participatory visual work in addressing HIV and AIDS and gender-based violence with a rural community in KwaZulu-Natal. We have screened this documentary dozens of times in order to contextualize our participatory visual work in seminars, workshops, conference presentations, and training sessions. Sometimes the responses have caught us off guard. We recall, for example, one of our colleagues simply stating, 'This is just very depressing. How is your work uplifting?' Others have been very moved by one scene or another. These differing reactions continue to be a reminder of the non-neutrality of data, and especially the visual.

Realizing how much easier it is to use a visual artefact to engage an audience, we have continued to consider ways of drawing the visual data such as participatory video together, and have coined the term 'composite videos' to describe a range of video productions that highlight participatory visual processes. As described by Mitchell (2011):

While there may be other terms for what a researcher-produced data-driven video text might be called, we regard the composite video as a specific genre: a research video, a research tool, a communication tool that is more than simply video data (or visual data captured on video). The composite video is a production in and of itself, with a clear beginning, middle and end. It includes a narrative (conveyed either through voice-overs, captions, subtitles or textboxes), samples of the actual visual data (photographs, participatory videos, drawings), plus the contextual data in the form of video footage taken during the research process and often a musical soundtrack in some part of the video. What is critical is producing something that allows for the various layers of work to come together as a composite. (p. 161)

The various writings by Ruby (2000), Pauwels (2002, 2006) and Rose (2001, 2012) on ethnographic representation have been very useful in thinking about the different types of productions (video, mixture of video clips, visual artefacts, the place of narration) created by researchers. Rose (2012) in particular draws attention to being an audience member at an academic conference, and how the viewing of an ethnographic text at a conference presentation informed her reading of articles and other writings to come out of a particular project. Beyond the use of these productions in conference presentations, we have used the composite videos to enable the participants to see for themselves what they as a collective have produced but also for them and others (especially community stakeholders) to use the productions as a catalyst or trigger to take action to address the issues under study.

The idea of studying researcher-led digital tools and artefacts being used in support of community dialogue builds on work across several broad areas of practice including arts-based inquiry, media making through digital and visual studies, focusing in particular on representing and re-representing data. Here we consider several different types of digital artefacts and platforms including digital dialogue tools, a term we coined to describe short composite type video productions and re-mix/reuse digital productions.

Another composite video we created was entitled *Our Stories*, which includes something of the rural context of the participants and the participatory video process, focusing on one participatory video, *Trust No One* (a video made by rural school youth about a teacher raping a schoolgirl), to make prominent the issue of sexual violence in their rural school community. A third composite video entitled *Seeing for Ourselves*, contained four videos on sexual violence (see Moletsane, Mitchell, Smith, & Chisholm, 2008). These four videos are titled, *Rape* (with a storyline about a girl who is raped by her boyfriend, who then calls his friends who also rape her); *Stop Abuse* (a story about a girl who is raped on her way to school and who becomes infected with the HI virus); *How raping got me HIV and AIDS* (a story about a young woman who is raped by a man who is infected with the HI virus and who is callous about infecting women and girls in the community) and *Protect the Children* (a story about a father who rapes his daughter while her mother is at work). We, the researchers, developed a story board for each of these two composite videos and a videographer created a rough cut which we then commented on to enable the videographer to develop the final videos.

Lassiter (2005) in Gubrium and Harper (2013), makes use of ‘dialogic editing’ – a technique developed by Feld (1987) – which is a process of negotiating and creating a collaborative text with participants. This he suggests can happen through a whole range of strategies:

[i]nvolving principal consultants as readers and editors; convening focus groups to review drafts; using collaborative ethnographer/consultants; holding community forums to present research findings; discussing drafts with community-based editorial boards, and co-writing texts. (p. 191)

What is important is that such collaborative editing emerges ‘as a dialogue’ (p. 191) between the researcher and participants and/or the community, leading to a product – or in our work here – a digital artefact which is sensitive to the participants and the community’s lived realities.

The idea for developing what we call a digital dialogue tool came when working in a project in eight informal settlements (also referred to as slum areas) of Nairobi with more than 100 children involved in creating drawings and photos on feeling safe and feeling not so safe in and around their homes and neighbourhoods. The recognition of the rich corpus of data and of the idea that it was important to go back to the children who produced this data inspired the project team to develop a digital tool that would allow us to: (1) engage in member checking with the children who participated; (2) give children across the eight communities an opportunity to see their own visual productions (drawings, mappings, and photographs of feeling safe and not so safe) as well as see how other children in the other slum areas see safety; (3) provide opportunities for them to suggest solutions – from their viewpoint – to the problem of safety and security in relation to housing; and (4) engage the parents, community leaders and local NGOs working in the area of housing. The resulting

digital production of the children's drawings, maps and photos of 'feeling safe and not so safe', *More Than Bricks and Mortar, Housing, The Way Children See It*, which we describe below, served as a model for later projects.

---

## Researcher-Produced Digital Dialogue Tools: Three Cases

### Case 1: Working with Children in Kenya: *More Than Bricks and Mortar, Housing, The Way Children See It*

#### Policy Context of Housing

The production of *More Than Bricks and Mortar* is located in the policy context of safety and security in relation to housing in informal settlements in Nairobi. Physiological needs (food, water, and shelter) and safety needs are two basic needs of every human being (Maslow, 1987). We wanted to see what views children growing up in the slum areas of Nairobi, Kenya, had of their safety, security, and well-being – in relation to housing. Whether children are growing up in urban, peri-urban, or rural areas, in formal housing, public housing, or informal settlements, in times of peace and war, or in extremely different neighbourhoods, they need to feel safe. Looking closely at the nature of the home and neighbourhood, if inadequate, it could expose children to health issues (Bashir, 2002); it could limit healthy outdoor play (Molnar, Gortmaker, Bull, & Buka, 2004) and physical activity (Bennett, McNeill, Wolin, Duncan, Puleo, & Emmons, 2007); it could diminish the potential to attend school (Davison, Werder, & Lawson, 2008); and it could exacerbate violence that children might experience (Ward, Martin, Theron, & Distiller, 2007).

While housing policies might contribute to an orderly development of a neighbourhood, they are not necessarily implemented in informal housing settlements (Mitchell, Chege, Maina, & Rothman, 2016). Noting the nature of the slum areas and reading about the dangers in the slum areas, the team was interested in how children see their own safety, security, and well-being in relation to their housing. More importantly, we also wanted to know how their voices could inform policy-making about housing. We envisaged that the children's safety in the area could be improved if their lived experiences were made visible to their parents, the community, and to policy makers.

#### The Visual Data Sets

The fieldwork was carried out by a group of postgraduate students (who were trained in participatory visual methodologies) from the School of Education of a local university. The data production yielded an abundance of visual productions. These included 100 drawings, 100 mappings, and a few hundred photographs in response to the prompt: 'feeling safe and not so safe'. Predictably, these mostly depicted feeling unsafe in terms of an unhealthy environment, the presence of dangerous gangs in the neighbourhood, being compelled to do child labour under unacceptable working conditions and not being able to attend school or complete

homework, experiencing domestic violence and neglect in the family, being exposed to sexual violence in the home and neighbourhood, as well as in public toilets. A few of the images did depict feeling safe within the home, but also in places of worship.

### **Producing the Digital Dialogue Tool**

The 7-minute-39-second-long digital dialogue tool has a simple storyline of showing how the hundred children in the eight slum areas see their housing in terms of feeling safe and feeling not so safe. A storyboard to plot a storyline and text to be narrated was created. We selected examples of the visual images, and identified what we as the team thought to be an appropriate soundtrack. We turned this over to a professional film maker and worked with her to produce a final video. The video opens with a scene of young Kenyan children playfully running along footpaths in the veld – seeming happy and carefree. A child's voice is heard singing in the background. This opening serves as a dramatic contrast to the images that the participants produce. The title frame appears with the video going on to provide information about the purposively selected group of child participants, along with still images of how they engaged with the methods – drawing and photovoice – to depict their feeling safe and feeling not so safe in the slum area in which they live. The voice-over of a male speaking in Kiswahili narrates the story with English subtitles provided. The video then reveals the seven themes – appearing in text – which emerged from the analysis of the visual productions, supported by examples of the drawings, mapping, and photographs the children had made. Six of the themes depict 'feeling not so safe' (child labour, domestic violence, sexual violence, toilet safety, environmental security, gangs), and one theme depicts 'feeling safe' (inside homes and at churches and mosques). The mood of the video, as the research team observes is very important:

Connotatively, the video is meant to be emotive. In the production of the digital dialogue tool we were seeking anything but non-neutrality and regarded audience engagement (especially the engagement of adults) as critical and deliberate. We did not want audiences to walk away without being moved by the children's visual productions. (Mitchell et al., 2016, p. 5)

### **Using the Digital Dialogue Tool**

It was important to first have the children to view *More Than Bricks and Mortar*, the video, to see their spaces of growing up as well as their own work in a digital format and on a big screen. During the project a total of five participatory workshops were organized with more than 300 children from the participating slum areas. The child participants first viewed the video, then were given time to draw how they thought the safety and security in their homes and communities could be improved. These drawings pointed to solutions which they individually or as a group of youths collectively could take up, such as cleaning up in and around the public toilets, and how the family and the community could be educated about child labour and abuse. They also made drawings about what they wished for and what could improve their well-being, for example, good education, a beautiful house, and running water ([Figure 6.1](#)).

Four screenings were held with adult audiences. In a first workshop approximately 30 community leaders

from the eight communities viewed *More Than Bricks and Mortar*, listened to a presentation on the preliminary results of the study, and then worked in small groups to generate responses to the results and video, and also to think and plan what they might do about the results. In a second workshop, senior managers/executives of the NGO responsible for the housing program through which community members received loans and support for their houses, engaged in a similar way. A third session with the postgraduate students from a local university who had participated as data collectors was held. These screenings and dialogues opened the eyes of the audiences as well as the researchers to the lived realities of the children and also enabled reflexivity among these groups, particularly in relation to how children could participate in housing planning. Beyond the period of funding, we have used the video with numerous international audiences (also an international NGO) while the NGO initially involved in the project also held several screenings and dialogues.

**Figure 6.1** *More Than Bricks and Mortar*



Screenshot produced by Noushin Nasri, Claudia Mitchell and Dorian Mitchell

Nasri, N., Mitchell, C., & Mitchell, D. (Producers). (2015). *More Than Bricks and Mortar: How Children See Housing in Kenya* [Video production]. Toronto: Rooftops Canada.

## **Case 2: Working with Girls in Vietnam: Picturing Inclusion, Voices of Girls With Disabilities**

Building on the success of *More Than Bricks and Mortar, Housing, The Way Children See It*, we embarked on a similar process in a project with girls with disabilities in Vietnam where we used drawing and photovoice as research methods, to produce a digital dialogue tool.

### Policy Context of Inclusive Education

This second example is framed in the policy context of inclusive education and work with girls with disabilities in Tu Liem district, Hanoi, Vietnam. The *United Nations Convention on the Rights of Persons with Disabilities* (UNCRPD) is aimed at protecting the rights of all persons with disabilities, also girls with disabilities. A lack of inclusion deepens their vulnerability to poverty, unwanted pregnancy, and other social concerns (UNICEF, 2013). The *Human Rights of Women and Children with Disabilities* (Human Rights Watch, 2012) further points to the experiences of gender-based violence of girls and women with disabilities. A Vietnamese policy which influences how girls with disabilities are treated, is the *Law on Persons with Disabilities*, which defines disability as ‘a deficiency in the bodily structure that results in difficulties in work, life, and studies’ (Social Republic of Vietnam, 2010, Article 2.1). Such a biomedical definition is discriminatory and puts people with disabilities, including girls, at a disadvantage. Furthermore, despite the reforms in Vietnam, there is no reference to girls with disabilities in the relevant laws and policies, which in a way perpetuates a gender hierarchy (Nguyen, Mitchell, De Lange, & Fritsch, 2015), leaving girls behind. It is within this broader policy context that we turn to education policy in particular, that is, the *Education for All* (EFA) movement of the World Education Forum in Jomtien in 1990, reconfirmed in Dakar in 2000, and recently in Incheon, Republic of Korea, in 2015. The Incheon Declaration, ‘Education 2030: Towards inclusive and equitable quality education and lifelong learning for all’, clearly advocates for transformation through inclusive education:

to transform lives through education, recognizing the important role of education as a main driver of development...We commit with a sense of urgency to a single, renewed education agenda that is holistic, ambitious and aspirational, leaving no one behind...We recognize education as key to achieving full employment and poverty eradication. (UNESCO, 2015, para 5)

It is within this global and local policy context, and with the understanding that girls with disabilities are still being disadvantaged and excluded from public education in Vietnam (Rydstrom, 2010), that we wanted to explore the lived experiences of girls with disabilities – in terms of being included in education – in Tu Liem, a district of Hanoi, Vietnam.

### The Visual Data

We worked with 21 purposively selected girls with disabilities from the Tu Liem district, an area just outside Hanoi. The project leader, a Vietnamese woman and academic herself, initiated our working with a Vietnamese partner, the Action to Community Development Center (ACDC), which is a Disabled People’s Organization (DPO) led by women with disabilities. ACDC recruited eight women to be trained as fieldworkers, who assisted in generating the data with the children. Here too, we made use of participatory visual methods, such as drawing (draw ‘Me and my community’ in an attempt to explore individual expressions of inclusion and exclusion in the family and community), photovoice (take photographs of ‘feeling included and feeling not included in my school’ to explore individual expressions of being included and excluded at school) and finally, producing policy posters (in a group ‘create a “policy poster” with a message for policy makers and other community leaders’). From this work 21 drawings with captions were produced,

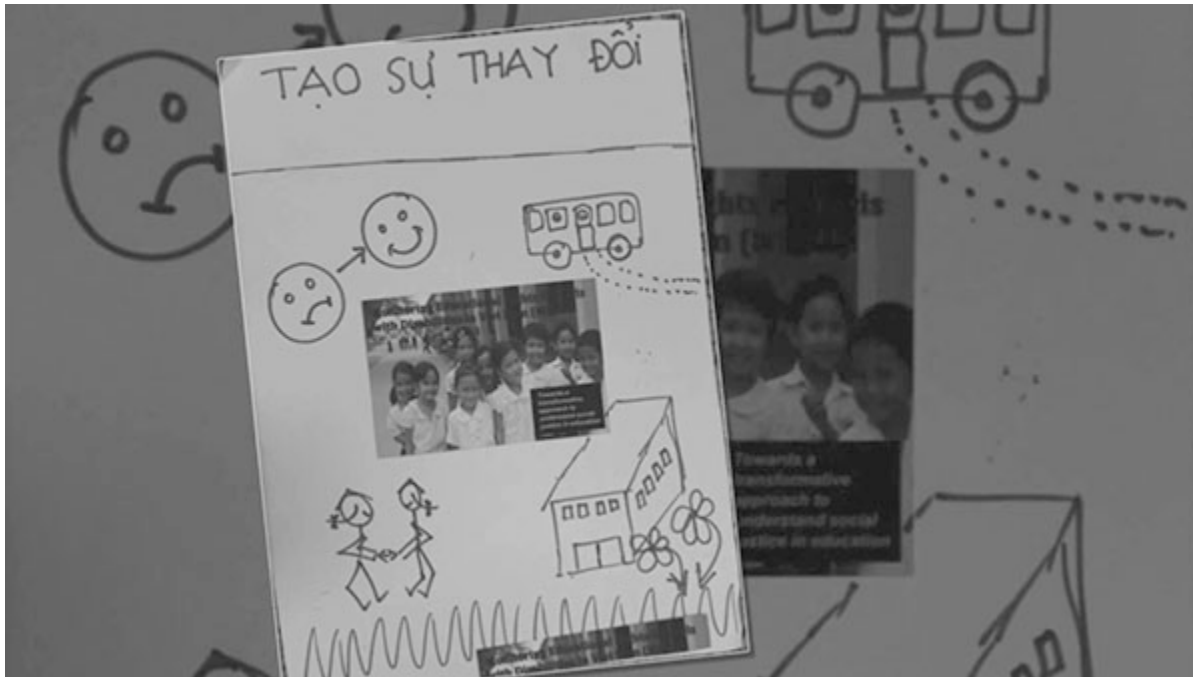


21 sets of photographs each with one photograph depicting inclusion and one depicting exclusion along with a written caption, and seven policy posters. A catalogue, *Our Voices, Our Hopes* (De Lange, Nguyen, Mitchell, & Nguyen, 2014) containing the data sets was produced – with both English and Vietnamese captions – to complement any exhibition that we held to engage policy makers and other stakeholders.

### Producing the Digital Dialogue Tool

The digital dialogue tool was plotted out on a storyboard by the project team. The storyboard and footage was turned over to the videographer, a young Vietnamese man who is himself disabled, who developed a rough cut for the research team to look at and comment on, and to suggest changes. The research team decided on a soundtrack as background to the video – the production of the digital dialogue tool was intended for use first of all with the girls themselves, enabling them to see their work in a professionally produced digital format, and for us to continue with a participatory analysis of their data, and to deepen the dialogue which had been initiated. With such a tool the girls could take the dialogue back into their community.

*Picturing Inclusion, Voices of Girls with Disabilities*, provides an overview of the project (Monitoring Educational Rights for Girls with Disabilities), the process, and the visual productions (drawings, photographs, and the policy posters) the girls had made. The final video, *Picturing Inclusion, Voices of Girls with Disabilities*, is 15 minutes and 20 seconds long, is narrated in Vietnamese, and has subtitles in English and Vietnamese, so as not to exclude people who are deaf. The video begins with some footage of the neighbourhood where the girls with disabilities are growing up – in the Tu Liem district of Hanoi. The context of the research project and the process of doing participatory visual research with the girls with disabilities are shown. The visual data is then presented in themes, giving an analysis of the exclusion in terms of marginalization, violence, discrimination, exclusion and environmental issues. The visual data also show the hopes and dreams, family relationships, relationships in the context of education, inclusion and participation, and accessibility. The policy posters with recommendations to policy makers refer to raising societal awareness, their right to health, and right to education. The video then shows footage of the first exhibition where they view their exhibited work and where some of them talk about their work to the other girls. The video ends with the credits to acknowledge participating institutions, individual persons, but also the girls and women with disabilities who contributed to the research. The video has been uploaded on YouTube<sup>1</sup> (see [Figure 6.2](#)) and accessible through Facebook and is publicly available (Monitoring Educational Rights for Girls with Disabilities (MRDG) Report, 2016).

**Figure 6.2 Picturing Inclusion, Voices of Girls with Disabilities**

Screenshot produced by Claudia Mitchell, Thuy Nguyen and Nghiem Trang

Mitchell, C., Nguyen, T., & Nghiem, T. (Producers). (2015). *Picturing Inclusion, Voices of Girls with Disabilities* [Video production]. Halifax: Mount Saint Vincent University.

### Using the Digital Dialogue Tool

The first use of the digital dialogue tool was with the girls we worked with and the women who helped generate the data. The video was shown and the girls reflected on what they liked, did not like and what they would like changed. They also created new messages for building inclusive schools and communities (MRDG Report, 2016).

Several dialogues have been facilitated with international audiences in Vietnam and also in Canada. For example, a global inclusive dialogue was held at an international institute for community development in Nova Scotia which not only opened dialogue about the inclusion of girls (it was pointed out by a member of the audience that boys and men also need to be included in the project) but also about the value of using and extending the use of participatory methodologies in contexts of the global south.

## Case 3: Working with Children and Mental Health in Canada: How We See It

This third example of a digital dialogue tool, *How We See It*, is situated within the policy framework of the mental health of 'very young adolescents', a term used by the Population Council to refer to young people

between the ages of 10 and 14. We focus here on a school-based intervention in Canada, but acknowledge the implication of this work for broader community studies as well in terms of promoting dialogue.<sup>2</sup>

### **Policy Context of Children and Mental Health**

The emerging policy framework in Canada and internationally for school-based interventions that take account of gender, violence prevention and mental health is critical. Research studies indicate that up to one in five Canadian children and youth experience mental health issues that have a significant impact on their academic, social, and family life (Kutcher & McDougall, 2009). Of particular relevance is the time of the middle childhood years or 'very young adolescence' (ages 10–14). The social features of this age range pose particular challenges as children transition into their adolescence. Children and young people at this age are often faced with increasing demands and concerns related to peer and family relationships as well as in relation to such issues as sexuality, body image, eating disorders, depression, and substance use and abuse, along with increasing issues of violence (Watt, Dickey, & Grakist, 2004). The role of gender and the ways in which boys and girls differ in their experiences of being 'very young adolescent' has not been a major feature of violence prevention interventions in schools, in spite of the extensive bodies of sociological and psychological literature that highlight the differing social contexts for 'growing up girl' and 'growing up boy'. The bullying literature, for example, often takes a gender-neutral position (see Gillander, 2013).

There are numerous studies that point to the links between the mental health and well-being of teachers and students (see Ross, Romer, & Horner, 2012; Spilt, Koomen, & Thijs, 2011). A recent study by Froese-Germain and Riel (2012), *Understanding Teachers' Perspectives on Student Mental Health*, highlighted the concerns of close to 3,000 teachers in relation to the mental health of students, with 79 per cent noting that stress and anxiety were key issues in the lives of their students. Another study, *Teaching the Way We Aspire to Teach: Now and in the Future*, by Freiler, Hurley, Canuel, McGahey, Froese-Germain, and Riel (2012) found that the number one aspiration of Canadian teachers was to make a difference in the lives and learning of their students, and identified the importance of teacher collaboration and participation in carrying out this work. The study used focus groups and an online survey with more than 4,000 teachers. Teachers envisioned policies and processes that would enable the development of more opportunities for working together in ways that current school structures do not always allow or promote. Many expressed the desire to collaborate on cross-grade, interdisciplinary units, tasks, and projects that connected both teachers and students in new and diverse ways.

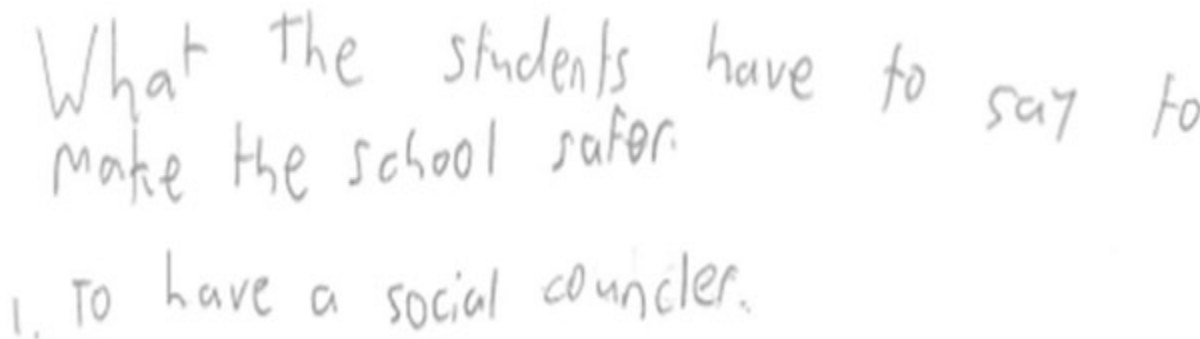
### **Visual Data Sets**

The actual project was a first step in connecting teachers and two classes of fifth-grade students (most aged 10 or 11) from two elementary schools in Montreal. In each of the four groups (two boy groups and two girl groups), children first had the opportunity to draw individually how they saw issues of 'feeling good', followed by a photovoice session in which they worked in groups to take photos in both single-sex and mixed-sex groupings on 'feeling safe' and 'feeling not so safe'.

The children produced drawings which focused on feeling good at school, and drew pictures of friendships, improving your own work, being creatively engaged in drawing, being with someone you love, and when playing soccer with friends. They also produced photographs of feeling safe at school, where everyone is seen as unique and different, and when they are with their teacher. In their groups they used their photographs about feeling not so safe to make photo-narratives of bullying at school, being picked on for being fat, saying unkind things about each other, being in physical fights, being in violent relationships, being picked on, cyberbullying, unsafe in toilets, unsafe at road crossings, in deserted alleyways, and around strangers. They continued to work in their small groups to participate in what was termed 'from the ground up' policy-making wherein they offered their recommendations for change to make their schools safer (see [Figure 6.3](#)).

Some of the recommendations to policy makers included employing a social counsellor, ensuring that nurses are at school every day, preventing bullying in schools, anger management training, problem solving training, relationship training, ensuring that there are more books in the school (to keep children busy), make school fun, establish a club where bullying is addressed, i.e. the 'Make a difference club', helping each other, learn to build friendships, appoint lunch-time monitors, encourage obedience, be a role model and inspire other kids, respect others, and put up a fence around the school grounds.

**Figure 6.3 Recommendations in *How We See It***



What the students have to say to  
make the school safer.  
1. To have a social councler.

Screenshot produced by Simone Viger and Claudia Mitchell

Viger, S., & Mitchell, C. (Producers). (2016). *How We See It!* [Video production]. Participatory Cultures Lab, Montreal: McGill University.

### **Producing the Digital Dialogue Tool**

This video, *How We See It*, is a five minute long digital dialogue tool that was created as part of a school-based project in Montreal, Canada with fifth-grade students involved in photovoice and drawings related to mental health, particularly in relation to safety and security. Produced by the research team, the video is divided into four main parts: (1) visual and audio components on how the children were involved in creating images in the first place; (2) footage of the children in action creating photo-narratives of their work; (3) images of key issues identified by the children; and (4) the children's recommendations (for what they could do and what the school administration could do) (see [Figure 6.4](#)).

### Using the Digital Dialogue Tool

The production and subsequent screening of *How We See It* to each of the classes and to groups of fifth- and sixth-grade teachers was just one of several post-production activities in this project. For the teachers it was ‘an eye-opener’ as they commented that they had not realized how much the children actually knew about bullying, and they were particularly impressed with the recommendations. Similarly a curriculum specialist working with the school board who had visited the project ‘in progress’ but had not seen all the work that the children had done, considered some of the follow-up steps that could be taken to engage children even more in ‘from the ground up’ policy-making.

**Figure 6.4** *How We See It*



Screenshot produced by Simone Viger and Claudia Mitchell

Viger, S., & Mitchell, C. (Producers). (2016). *How We See It!* [Video production]. Participatory Cultures Lab, Montreal: McGill University.

---

## A Co-Production: Researchers and Teachers Working Together on a ‘Re-mix’ Video

The idea of remixing existing visual data and upcycling it and repurposing it for a different or further use draws on Jenkins, Purushotma, Weigel, Clinton, and Robison’s (2006) notion of participatory cultures. This has been

taken up in areas such as social media and participatory video more at a meta-level. This chapter focuses on the significance of such upcycling in education and at community level – exploring how working with the data in a public way contributes to community dialogue towards social change. Jenkins et al. (2006) and others note that there is a blurring of boundaries of the public and private when using visual images created in a research project and used in a public way, but making the private public might be necessary in a policy context where change is required.

## Youth-led Community Dialogue on Sexual Violence in the Age of AIDS

We offer an example of how we worked with three teachers, who were participants in the research project, to re-mix and reuse participatory videos produced by rural school youth, to produce a ‘video of videos’ to address issues of gender-based violence in their schools and community (see De Lange & Mitchell, 2014). A criticism which is often levelled against participatory visual research is that while it is an exciting methodology which raises the level of participation and enables the participants to see for themselves what they can do to bring about change, it often leaves the participants without ways in which to sustain the work when the researchers leave the field. We draw on some of the conversations during the video production process which informed the way we proceeded.

### Policy Context of Gender-Based Violence in Schools

The example is located in the policy context in South Africa, a country with a high prevalence of gender-based violence (Jewkes, Dunkle, Nduna, & Shai, 2010), including school-related gender-based violence (Burton & Leoschut, 2013). These realities are reflected in the small rural community in KwaZulu-Natal where the two schools we have been working with since 2004 are located. Hamilton – one of the three teachers who produced the digital dialogue tool – in referring to his community, points this out:

Hamilton: ...really, violence is prevalent. You see when I’m teaching these Grade 10–12 learners during Sunday school time, if I say draw pictures...they will draw a man with a stick and a woman with tears, showing that maybe there is a lot of violence at homes. It’s terrible because sometimes you don’t know what to teach after that because you are teaching...you are teaching the word of God. So it’s difficult...when a child is just giving you such a picture, because this thing it’s just experiencing at home.

When Naydene asked the three if they had to make another video there and then, what the focus would be, they confirmed the issue of gender-based violence as follows:

Styles: I think it’s this concept of violence, gender violence.

Nonhlanhla: I think my interest would be on gender violence and also rape because currently rape again of the elderly people is very common in communities.

Hamilton: ...the thing that I can be able to talk about now is the rights of people.

The *Guidelines for the Prevention and Management of Sexual Violence & Harassment in Public Schools* (DoE, 2008) – a policy framework in South Africa – is an important starting point for curbing gender-based violence in public schools, and is intended to be used in the formulation of a policy particular to each school. Naydene raised the issue of the gender-based violence policy work done previously with teachers from the two schools:

Naydene: ...we worked with you about two years ago on policy issues [gender-based violence and school-related gender-based violence] and then your task was ... to make up a simple policy for the school. So, is there something [like that] in the school?

Styles: Yes, I think there is something like that even though it's not that detailed but it positions like the ones maybe for children caught fighting. So how were they going to be punished.

Naydene: So there is some document on – maybe it's more procedure – what to do when two people are fighting.

Styles: Yes.

Naydene: What do you do?

Styles: It's taken as a serious case that would be called and then try to talk and discuss the problem.

Naydene: So is it written down somewhere? Is there a note? Do you call it a policy? What do you call it?

Styles: Yeah, it's written down somewhere.

Nonhlanhla: Yeah, we are in the same school.

Hamilton: We do have something written like this [picking up a piece of paper] a few pages because most of the time the learners are fighting at school.

While the above does not directly speak about school-related gender-based violence the three teachers

were clear that a policy of some kind existed. It was therefore important to revisit how they might produce a digital dialogue tool to also address gender-based violence and school-related gender-based violence through ensuring that each school had a policy not only on violence, but also on gender-based violence, including sexual violence.

The realities of gender-based violence (Gender Links Report, 2012) and school-related gender-based violence (Burton & Leoschut, 2013) in the rural community which the teachers have to contend with raise the significance of their roles in addressing it as well as informing relevant policy. In the light of the above it seemed meaningful to work more with the existing participatory videos on sexual violence made by the youth in 2006 so as to enable teachers to take action in school. Hamilton, one of the three teachers we were working with was adamant that they as teachers, should address gender-based violence but that one could not do it as an individual.

Hamilton: Every corner should have a person who is vigilant. Every corner because if you are just standing alone ...

Styles: [completing Hamilton's sentence]...it will be difficult.

The re-mixed video, developed by teachers for teachers and focusing on gender-based violence and school-related gender-based violence could be useful in initiating a dialogue within their school and the community and to make their voices heard in terms of policy-making.

### The Data Set

Earlier, when working with the school teachers, school youth, community health workers and parents and asking them to work in groups to respond to the prompt: 'What are the key issues affecting your daily lives in your community?' five of the eight participatory videos (see [Chapter 3](#) for the process) were made by youth, all focusing on sexual violence. The titles are: *Rape at School* (a group of boys raping a girl at school); *Trust No One* (a male teacher raping a girl after school); *How Raping Got me HIV & AIDS* (a young man who is HIV infected deliberately rapes girls); *Rape* (a young man out of school raping a girl on her way to school); and *Protect the Children* (a girl raped by her father) (see Moletsane et al., 2008).

### Producing the Re-mixed Video

The video, *Youth-led Community Dialogue on Sexual Violence in the Age of AIDS*, is 28 minutes long – planned and directed by teachers and framed around the five videos on sexual violence school youth from the two participating schools had made. We viewed all five participatory videos, discussed what the main issue of each one was, and decided whether it had merit to be included in the new production. The three teachers then worked on the storyboard and created the storyline for the video, considered who the target audience is, then drew on documents we had engaged with earlier in the day to source data to contextualize gender-based

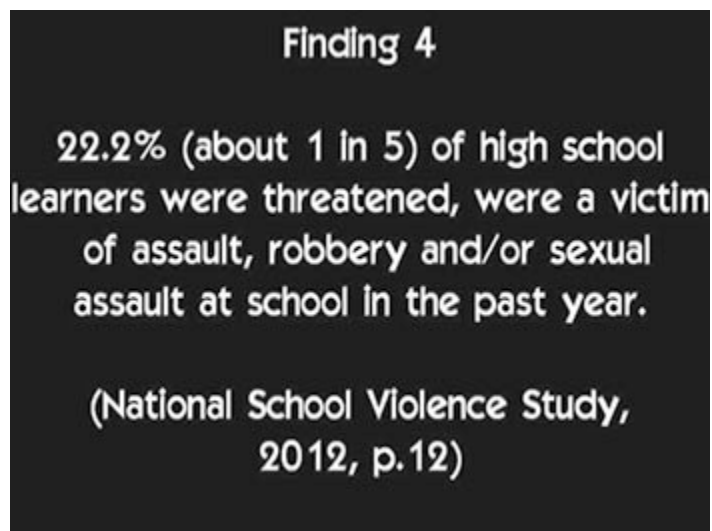


violence in the community and school. The documents included the *School Violence in South Africa: Results of the 2012 National School Violence Study*, by Burton and Leoschut (2013), *The War @ Home: Findings of GBV Prevalence Study in South Africa* (Gender Links, 2012), and *Opening our Eyes* (DoE, 2001).

The teachers came up with five referenced findings which we decided to put in text boxes in the video (see [Figure 6.5](#) as an example).

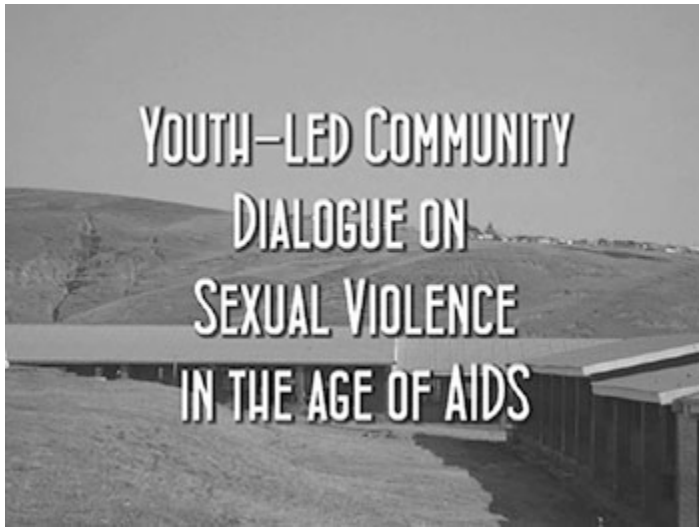
They negotiated the order of the five videos and chose to end the new video by posing questions to engage the local community of parents, teachers, and youth in dialogue, such as ‘What measures can we take to prevent sexual violence?’, ‘How can we assist victims of sexual violence?’, ‘What are the responsibilities of educators and community in stopping sexual violence?’, ‘How can youth voices be used to inform policy?’ and ‘What can you do?’, concluding with the question, ‘What can we do together?’ Once the storyboard was completed they played around with titles such as *Youth-led Policy Dialogue on Sexual Violence*, *Youth-led Dialogue on Sexual Violence in the Age of AIDS*, and settled on, *Youth-led Community Dialogue on Sexual Violence in the Age of AIDS*. The group wanted to add a soundtrack for the beginning and ending of their video and Nonhlanhla suggested a Xhosa gospel song, Phendula (Answer me) by Zahara, which was also acceptable to the two other teachers. Rounding off the storyboard they inserted their names and surnames as directors, and Naydene reminded them to acknowledge the funders, and the learner participants.

**Figure 6.5 Textbox in *Youth-led Community Dialogue on Sexual Violence in the Age of AIDS***



Screenshot produced by Nonhlanhla Gasa, Hamilton Shelembe and Styles Colvel

Gasa, N., Shelembe, H., & Colvel, S. (Producers). (2015). *Youth-led Community Dialogue on Sexual Violence in the Age of AIDS* [Digital video]. Vulindlela: University KwaZulu-Natal.

**Figure 6.6** *Youth-led Community Dialogue on Sexual Violence in the Age of AIDS*

Screenshot produced by Nonhlanhla Gasa, Hamilton Shelembe and Styles Colvel

Gasa, N., Shelembe, H., & Colvel, S. (Producers). (2015). *Youth-led Community Dialogue on Sexual Violence in the Age of AIDS* [Digital video]. Vulindlela: University KwaZulu-Natal.

We turned the storyboard and the footage over to a videographer who created a rough cut for the teachers and team to view and refine. The first image in the final video, a shot over the school grounds with the mountains in the background and its title is shown in [Figure 6.6](#).

#### Using the Re-mixed Video

We discussed which storage format would best suit the teachers and the resources available to them, who should see their video, and how they would use it:

Styles: So this one that we are making now, this one it's planned, so I think it would, if all the stakeholders can get involved so it will have a very big impact on the learners and even the community.

Hamilton: But make sure that if you give to schools even the principal should take part in that because the principals...sometimes it's not easy to call the learners without the permission of the principal and say all this, because these videos, if I may speak, they are very good even for the community itself. ... The governing body when they call meetings can also pass it to the community themselves, to the parents.

Nonhlanhla: ...it opened our eyes because it was like this is something which is happening in our communities, but it's like as communities we turn a blind eye as if nothing is

happening...It was amazing for me to do this task to see to it that something can be done do develop our kids to become responsible citizens.

The teachers each were given a USB with the video, *Youth-led Community Dialogue on Sexual Violence in the Age of AIDS*, to use as they saw fit in the school and community. This resonates with what one of the participants alluded to in a previous workshop, 'That's what I like about the video. It did not end here.'

## What We Have Learned in Producing these Digital Dialogue Tools

These four examples demonstrate how digital dialogue tools have been used to stimulate dialogue towards social change. Design of the tools required that we looked closely at the visual data we had generated, and indeed immersing ourselves in it in order to be able to develop productions which were sensitive to the communities and appropriate for stimulating dialogue. In this regard the interpretation process is clearly important. Going back to Susan Sontag's (2003) work highlighted in [Chapter 1](#) on the power of images, this sensitivity also required acknowledging emotion – our own and that of potential audiences – in working with visual data and ensuring that we do most good and least harm. In screening these representations of the visual artefacts in a variety of places, we have come to recognize the 'travelling' potential for this work. The production of these digital dialogue tools can help to extend the number of dialogues that might take place in relation to any one project, and also to ensure that these dialogues are not limited to our presence as researchers. Participants themselves can use these digital dialogue tools in their communities.

---

## Digital Artefacts: Issues to Consider

### Who Gets to Produce It?

Producing a digital artefact, we believe, is an efficient way to collate the visual data produced with a clear purpose in mind – to stimulate dialogic engagement between the participants and the researchers (also as a way of enabling participatory analysis) and between participants, researchers, and other stakeholders, such as policy makers and communities. We have referred to three examples where the researchers led the production of the digital dialogue tools and one example of a re-mix video where the participants plotted and planned how to use existing visual data in a video, directing it from their insider knowledge of the community in which they work and of the children they teach, in a way which Feld (1987, cited in Gubrium & Harper, 2013, p. 190) referred to as 'dialogic editing'.

In participatory visual research we have often reflected and have asked ourselves whether we – in spite of acknowledging the value of participatory visual research enabling the voices of those not often heard – have represented the participants, their work, and their experiences 'as it is', and whether we have done justice (or not) to their lived experiences. In this regard Gubrium and Harper (2013, p. 55) refer to the participants

holding 'a certain representational power' but they ask a further question:

[W]hat happens when representation of the subject matter is not 'nice' and, instead reaffirms dominant discourse supporting negative stereotypes of particular social groups? When the purpose of the digital artefact is to initiate dialogue, what is the researchers' responsibility? Would it for example be to adjust the representation? (p. 55)

Gready (2010) points out how this becomes an ethical dilemma 'with questions raised over ownership of knowledge and control over representation (p. 180).'

A seemingly simple issue such as identifying and choosing music as soundtrack for the digital artefact contains the question of power and ownership. Who gets to choose the music, or even who gets to create the music? In almost all of the digital artefacts described above, we as researchers ended up choosing, the music keeping in mind specific ideas about some of the audiences that we saw as crucial. This meant that we were actually excluding the participants from another aspect of our participatory visual research process.

## Who Owns It?

Researchers usually have the necessary resources to carry out the research, are usually constructed – in the eyes of the participants – as experts who know the area under study, who understand the methods used, and who own and bring the equipment to the research site. In participatory visual research it is therefore important to engage with the participants in such a way that they see themselves positioned not as 'the researched' but as 'trustworthy researchers themselves' (Berry, 2004, cited in Gubrium & Harper, 2013, p. 55), as the keepers of insider knowledge, producers of expert knowledge, and as autonomous agents of change, able to see and reflect on their own lives and the value of what they bring. It is when they are positioned as owning the knowledge that they would be able to act as agents of change when the research team is no longer in the community.

It is therefore important for participants not only to own the knowledge, but also for them to see themselves as owners of the digital artefact produced. We have seen how the handing over of copies of the digital dialogue tools – which contain their knowledge – for use in the community and with different stakeholders brings a sense of elation and taking ownership of the task ahead.

## Who Gets to Use It?

In producing digital artefacts participatory visual research is disseminated in other ways beyond the conventional ways of publishing an article or chapter and importantly penetrates the community and other public spaces. This, according to Gubrium and Harper (2013, p. 13) 'allows for greater access to social research knowledge beyond the academy'. Such new opportunities have been made possible in a context of 'visual gluttony' (Haraway, 1991, cited in Rose, 2007, p. 5) combined with new opportunities in digital scholarship.

While it is commendable that participatory visual researchers make a point of distributing copies of the digital artefacts to the participants, the use thereof is not without problems, as access and lack of access to digital opportunities could seem to increase hierarchies (Haraway, 1991, cited in Rose, 2007, p. 5). A basic challenge for example, is whether the participants have the equipment, such as a laptop, speakers, a screen (even power) to screen the video, or access to the internet to upload or download the digital artefact. Equally important is whether the participants are prepared for the screening and facilitating of the dialogue, or to respond to difficult questions, and are safe when they disseminate the work and dialogue about difficult issues.

## Who Gets to Initiate and Facilitate the Dialogue?

As we have indicated in [Chapter 2](#) we as researchers ‘begin with the end in mind’ and have an idea of who the key dialogue partners are who could make a difference in the issue under study. A question that we need to ask ourselves is whether we are targeting the most appropriate stakeholders? Have we listened carefully enough to the participants to hear their issues and to identify appropriate stakeholders? Are we willing to shift from the list of stakeholders we had in mind at the outset of the research?

In participatory visual work the importance of heightening participation should never be underestimated and the participants should initially be supported (if necessary) to initiate and facilitate the dialogue, and use the digital artefacts. As we have argued (De Lange & Mitchell, 2012b), ‘we contend that in a public showing, meaning can be found through active engagement with the public and the filmmakers when the latter are on hand to engage with and to challenge the audience’ (p. 327). For example, MacEntee and Mandrona (2015), when working with teachers in addressing HIV and AIDS within a rural school and community, helped the teachers to set up the venue and equipment, and then encouraged the teachers to facilitate dialogues with school children and later with other teachers and parents from the community. As researchers we contributed to financing refreshments for the gathering of people for the various activities (see [Chapter 5](#)). With time, however, these local activities may continue without the intervention of the research team (see also De Lange, Mitchell, & Moletsane, 2015). It is only then when we can imagine that the dialogue will continue in our absence from the field, or ‘when we are gone’ (Mitchell & De Lange, 2012b). We draw on Tochon’s (2007, cited in Mitchell & De Lange, 2012b) ‘notion of the third construct to frame the importance of participatory video in a post-video production milieu, showing a possible means of sustaining the momentum of change’ (p. 328).

## From Dialogue to Taking Action

The purpose of creating digital artefacts is to initiate and sustain continued dialogue with appropriate stakeholders and in communities, but it is also important for the dialogue to go over into taking action. We therefore ask ourselves how the dialogue is captured, how it is turned into action, and how we keep track of the process and ensuring change comes about. We have been astute in setting up and recording the various dialogic engagements, and recently, we have included the dialogue with the audience in our ethical clearance

applications, ensuring that we have the necessary permissions to undertake but also research the dialogic engagements as well. For example, in a Canada-South African project<sup>3</sup> where we were studying how the use of innovative approaches to knowledge-production, policy-making, and communication could address sexual violence against girls and young women in the two countries, we also applied for ethics separately to examine how the girls could engage with an audience of community practitioners and policy makers. In so doing, the project aimed to shift the boundaries of knowledge-production and inform policy change.

Working with digital artefacts and in a digital age it is possible to keep track of when, where, and how the digital artefacts have been used and to map it out as a holistic dialogic engagement process. We can keep field notes, take photographs and video record the events, and so visually document the processes. Gubrium and Harper (2013) however, point out that such documentations are also socially constructed, as Ruby (1996) argues that the camera is 'constrained by the...culture of those who filmed...and those who are filmed' (p. 345). It thus makes sense to also encourage the participants to document the events, and in so doing enable a co-reflexivity to deepen an understanding of what happened. What is even more difficult is to track change, or what difference the research and the dialogues have made. What did the context look like and how has policy been changed, and how has it changed for the people on the ground? Monitoring and evaluation is necessary, and for us it means that researchers should track policy change, but also track change on the ground, for example through using participatory methods to 'monitor' what has changed for the people on the ground and in the community.

## Interpreting Data through the Digital

Strong-Wilson et al. (2014) ask how participants, communities, and other researchers interpret the presence of multimedia and various digital forms in scholarship. As they observe:

When data is collected, archived, analyzed and disseminated through multimedia/digital forms, the tendency may be to privilege these accounts as more truthful or trustworthy, based on the positive social prejudice towards digital formats, which are associated with relevancy and innovation. In the wake of poststructuralist frameworks, we know that truth is relational and that words, representations, and subjects are unstable and often contradictory. (p. 687)

While the authors are specifically speaking about autobiographical/autoethnographic research, the meanings conveyed through digital artefacts that are meant to be dialogic may seem as fixed, and as such require even more of a need to create an open space for critical commentary. As they go on to observe:

We need to be careful not to take the image/visual at face value as evidence of truth, and instead contextualize it as a version of an event or experience. We need to begin from the premise that just like print text, multimedia data forms are value laden, are subject to interpretations as diverse as those who view/listen/experience them, and may even be commercially or politically driven (e.g., by relying on particular programs or software). (p. 687)

## Sensitive and Provocative Material

Producing digital artefacts for use with participants and various communities may, in and of themselves, be provocative and perhaps troubling to view all in one short digital text. In a post-apartheid era in South Africa, for example, these include lingering legacies of the past such as widespread social and economic inequities, impoverished schools, as are many of the images produced by the children in the informal settlements of Nairobi. But this was also the case for many of the drawings and photographs of bullying and harassment that children in schools in Montreal produced. As Strong-Wilson et al. (2014) note: 'This work may demand that participants engage in the process of "picturing atrocity" as Batchen et al. (2012) term the idea of photography in/of crisis. Batchen et al. (2012) are speaking of pictures of atrocity in public journalism, offering close readings of images depicting atrocities in the Congo in the early 20th century (Twomey, 2012), the "iconography of famine" (Campbell, 2012), images of the civil rights movement in the US (Abel, 2012) through to the mushroom cloud of Hiroshima (Hariman & Lucaites, 2012). However, their work anticipates, we would argue, the types of digital representations that might also be produced in digital photovoice and participatory video projects' (pp. 685–686). Batchen et al. (2012) argue that photographs of atrocity bring with them 'a particular set of ethical responsibilities' (p. 15). As they observe:

The media (photographer) has a responsibility to contextualize and caption the atrocity photography correctly. We have a responsibility to read the image closely – perhaps not immediately to trust what we see in the image. If an atrocity has been committed, someone is responsible. This matter of responsibility gave rise to the first humanitarian campaigns that worked with atrocity photographs. Do we also have a responsibility to respond to the photograph beyond simply reading it? What is the question that atrocity photographs ask of us? (p. 15)

---

## Researcher Reflexivity/Discussion

Perhaps the greatest value of producing and using these digital dialogue tools comes back to our role as researchers using participatory visual methods. As we highlight in [Chapter 1](#), reflexivity becomes key in this work – both for advancing the work, particularly in relation to digital production (i.e., what data are we going to use, why and how?) and then extending the study through community engagement (how are audiences responding to this data? Why and so what?). Reflecting on our work done since 2004 we realize that the current digital era opens up more and more opportunities to engage participants and communities in dialogue – using digital artefacts. At the same time, this work places new demands in terms of tracking the screening process: who are the viewers for each screening? What have we learned? How do we incorporate the feedback and comments into later projects? How does this work advance fieldwork studies?

This shift is also seen in creating, maintaining, and using a digital archive. In creating our first archive we wanted teachers and community health workers – all older adults – to use the archive in their daily work (Mnisi, De Lange, & Mitchell, 2010) but also to engage in some participatory analysis processes (De Lange



& Mitchell, 2012a). In this work we had to revert to working with the archive in a blended way – the digital archive along with pen and paper – to ensure that the participants from the rural areas could provide input into the archive. As we describe in [Chapter 5](#) (Screening), Casey Burkholder (2016) provides an example of how a YouTube-based digital archive (*We Are HK Too*) was set up and maintained by participants – all young adults from Hong Kong – to preserve but also to share and engage others with the cellfilms they had made.

---

## Conclusion

The area of digital scholarship is constantly expanding as the range of digital software and digital spaces develop and as access to these increases, opening up endless possibilities for research teams and participants to try out new ways of inquiry, representation, and dissemination, in participatory visual research. We see this in our own work where we have adopted and adapted as we forged ahead in our participatory visual research – trying to ensure that the visual data produced were making the voices of the often ignored participants heard, but also that the work moves beyond the data production process with the participants, towards extending the dialogue, in this instance, to various stakeholders and policy makers. Doing participatory visual research is clearly not a quick way of doing research, nor will it facilitate social change by itself, as it requires time, and commitment from the researchers and the participants to the cause. The range of digital artefacts we created, however, can help to sustain the dialogue and enable the researchers and the participants separately or together, to do it over and over again (Mitchell, 2016b) until the required change is brought about. We concur with Wheeler's (2012), conclusion from her policy engagement processes through community-produced participatory video that 'a single space for debate is not enough – there needs to be ongoing pressure on different fronts' (p. 376) to ensure that social change happens. As tools, the digital artefacts are key in creating such spaces for dialogue and engagement.

## Key Points of the Chapter

- A digital artefact – a researcher-produced and data-driven tool – can be used to raise public awareness about a critical issue under study and engage audiences in dialogue to facilitate policy change.
- Consider and understand the policy context in which the critical issue under study and requiring addressing is located.
- Producing and using the digital tool is a process which requires careful thinking.
  - Gather all the data (visual and other) together for analysis and identify emerging themes in response to the research question and prompt.
  - Develop a storyline and use a storyboard to plan the flow and content of digital dialogue tool.
  - Screen the digital dialogue tool first to participants for member checking, comment, and responding in terms of offering their from the ground up solutions to the issue represented.
  - Screen the video to relevant audiences to deepen an understanding of the issue, to stimulate dialogue, and taking action to change policy.



- Consider issues of power such as who gets to produce it, own it, use it, initiate and facilitate the dialogue; and who and how the dialogue is captured so that participants, community members, and policy makers act upon it.
  - Participants' visual data should be interpreted with care ensuring principles of rigour and trustworthiness.
  - An important tenet of participatory visual work is that researchers should maintain a reflexive stance and continue to ask what difference the participatory visual research makes within the community.
- 

## Notes

<sup>1</sup> [www.youtube.com/watch?v=K7R2z0\\_DcOo](http://www.youtube.com/watch?v=K7R2z0_DcOo)

<sup>2</sup> This study 'Addressing a Gender Gap in School-based Mental Health Programs' was funded through a CIHR Planning Grant.

<sup>3</sup> Networks for Change and Well-being: Girl-led 'From the Ground Up' Policy-making to Address Sexual Violence in Canada and South Africa, a Project Funded by SSHRC, Canada, and IDRC, South Africa.

<http://dx.doi.org/10.4135/9781526416117.n6>