Media))) Map

The impact of media development worldwide

Participatory Mapping Peru Pilot:

Refining the methodology for international media and communications research

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About the Author

Luisa Ryan is Internews' Monitoring and Evaluation Specialist in the Democratic Republic of Congo. Her international experience includes positions with various organizations such as: International Crisis Group, the United Nations' Population Fund, the United Nations' Mission in Nepal and Syracuse University's Together Liberia project. In 2008, Luisa returned to Australia to head up Australian Red Cross Queensland's International Programs department, before being awarded a Rotary World Peace Fellowship to undertake a Masters of Journalism and Mass Communication at the University of North Carolina, Chapel Hill. Her research interests include the role of local media in peace-building efforts in conflict-affected countries, and the role of media and identity in conflict. She graduated from the University of Queensland, Australia, in 2003 with an Arts degree (French, Spanish and International Relations) and a Sociology degree with Honors, specializing in nationalism studies. She has also completed Graduate Certificates in Law and Peace and Conflict Studies.

About The Media Map Project

The Media Map Project is a multi-faceted two-year pilot research collaboration between Internews and The World Bank Institute, funded by the Bill & Melinda Gates Foundation. This report is a product of that research. The findings and conclusions contained within this report are those of the authors and do not necessarily reflect positions or policies of the Bill & Melinda Gates Foundation.

The Media Map Project draws together what we know and precisely defines what we do not know about the relationships between the media sector and economic development and governance. The research also examines donors' roles in supporting the media sector over time and provides an evidence base for their future decision-making about media support. Through research, public events, and the data made available on the project website for public use and extended research, the project aims to engage the development sector in greater understanding and exploration of the role of media and information in development.   See www.MediaMapResource.org for more information.

Credits

Gabriela Martinez, Associate Professor in the School of Journalism and Communication at the University of Oregon, conducted the field research for this report, in addition to collaborating on the Crowd Map. She is also the author of the Peru Case Study for the Media Map Project.

Tara Susman-Peña, Director of Research, The Media Map Project, edited the report.

Table of Contents

Executive Summary

Complementing the Bill & Melinda Gates Foundation-funded Media Map Project, the Participatory Photo Mapping (PPM) Peru Pilot explores a method of giving voice to members of the Peruvian public on their own media consumption habits. This was the first time that Internews is aware of that this method has been used in media development research, as it is a tool generally used in the health field. The photo mapping research had very minimal funding as it was not part of the initial concept for Media Map. PPM could be a very useful tool in media development research to discover how people get their information, the access challenges they face, and how much they trust information sources, particularly in communities where illiteracy is an issue. Data collected could be applied to a wide range of settings, from a pre-intervention needs assessment to mapping trusted information sources for humanitarian messaging.

Participatory Photo Mapping can help donors and other stakeholders to understand the local communications landscape through the eyes of community members. In this pilot, university students in Cusco were asked to observe, take photos and write about their own media consumption. This was done not only to find out about their information gathering habits, but primarily to test the research methodology itself. This PPM pilot will become part of an interactive web feature available to the public through the Crowd Map platform, which is at https://perumediamap.crowdmap.com/main .

The pilot revealed the following strengths of the method:
- Community members were able to select from their own environments the information sources that were most important to them, without having to fit into the pre-conceived notions of researchers who may not have a full understanding of the media or social political context
- The data collection (photos) took the researcher into places normally difficult to access (e.g. homes, daily errands), without being intrusive; the participants took the photos themselves
- Similarly, participants were involved in the research, deciding what was important for them to share, and helping to interpret the data, rather than simply having information extracted. This aspect, particularly in a disaster context when people

have little control over their environments, may be attractive to community members and thus is worth consideration for use in humanitarian contexts.

The pilot also highlighted several improvements that can be made to the methodology:

- In order to gather complete data, incentives must be given to participants. We found that as participation was voluntary and was not linked to course credit few people who initially expressed interest in the pilot completed the research. In the field, there are some groups such as community radio Listeners' Clubs who may be keen to participate without concrete incentives, but these are likely to be the exception.

- Research teams need to be very clear on the information they want to gather, and define the terms used in the questions accordingly. The research question "where do you get your information from?" was too vague. We were looking for data on where people habitually got their information, and how much they trusted these sources. However, this obviously was not clear to participants, as they tended only to list the information sources they used during the research week. This meant they included sources they rarely access, and left out others, such as the Internet, that seem important.

- Writing explanations of the photos they took may have been onerous, leading to incomplete answers. This could be avoided in the future by having participants discuss their photos with a researcher who records the conversation. This approach would be especially helpful in areas where literacy is an issue.

- As all the explanations were written, we were unable to ask for clarification. Ideally, these answers (either written or recorded) would be analyzed before a second interview to fill in any gaps/questions the researcher may have.

Overview of Participatory Photo Mapping

Participatory Photo Mapping (PPM) "can be thought of as an integrated set of tools that people can use to explore their lived experience…and for communicating this experience to other decision makers."[1] It can help researchers and other stakeholders experience the community they are working with through the eyes of the community members themselves. It is important for researchers and decision-makers to spend time in the community members' setting in this virtual way. This allows for insight into who the community members are and how information gathering is incorporated into their daily life.[2] In turn, this facilitates effective media support planning.

PPM is a participatory methodology where the community members collect the data themselves through a combination of photography, narrative interviews, and mapping. This process should also involve a transfer of practical skills, so that participating community members develop technical capacity through involvement in the research. While this methodology appears to have been used primarily for health intervention, we aimed to adapt the approach to aid in the understanding of how communities receive information, and how trustworthy they believe these sources to be.

PPM may help to:

- Assess the community and environmental contributions to accessing information
- Address peoples' perceptions of their information sources
- Identify environmental factors that impact access to information
- Identify community supports and barriers to accessing information
- Present this data to stakeholders and decision-makers[3]

Methodology[4]

PPM generally follows these steps:

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[1] Intro to Participatory Photo Mapping (PPM) - Part 1, retrieved from http://www.youtube.com/watch?v=8DS-sXQc2pE&feature=related

[2] See: http://www.practicagroup.com/anthropology_ethnography.shtml

[3] Adapted from: Brown, D., Dennis, S. and Gaulocher, S. (2010) "Intro to Participatory Photo Mapping (PPM) and Using Participatory Photo Mapping (PPM) to Engage Communities". Retrieved from: http://www.comminit.com/en/node/321072/307

[4] Brown, D., Dennis, S. and Gaulocher, S. (2010) "Intro to Participatory Photo Mapping (PPM) and Using Participatory Photo Mapping (PPM) to Engage Communities". Retrieved from: http://www.comminit.com/en/node/321072/307

Step 1: Provide participants with digital cameras and Global Positioning System (GPS) units and have them photograph their neighborhood, documenting routine use of community and recreation environments.

Step 2: Use photographs to guide narrative interview sessions during which open dialogue reveals emerging themes attached to particular images and places.

Step 3: Map images and narratives as part of a neighborhood-level geographic information system (GIS).

Step 4: Use insights gained to communicate information to community stakeholders and decision-makers in order to spark action.

These guidelines have been adapted for media mapping purposes in this pilot, as described below.

Application to Media Map Project

With the pilot study in Peru, the Media Map Project aimed to incorporate PPM to better understand the way people in case study countries perceive their information sources. This complements the data collected from donors and media stakeholders by providing the community perspective on and a visual record of the media landscape. Questions to be reflected on included: how trusted are the sources? How widely available? Which demographics are they serving? With a larger sample size, information gathered at community level through PPM could have revealed gaps in the other primary data collected, and provided a more holistic understanding of the larger information environment.

In Peru, Media Map has partnered with the University of Cusco, inviting advanced anthropology students to participate in the pilot.

Benefit for participants and host university

Participants in this project are young adult university students studying cultural anthropology at the University of Cusco. They were not paid for their participation, but instead gained hands on, practical experience in the communications research field. This experience provided them with a new tool that is applicable to their work as ethnographers

who are interested in the cultural and social impact of media. PPM itself is a relatively new research tool, and knowledge of PPM and the Crowd Map platform will increase their familiarity with innovative research techniques and social technology tools. These beneficial factors may be of use to the students in their studies and future careers. Similarly, the university was able to work with an international organization, which may have increased the institutions exposure to new research techniques and potential partnerships.

Confidentiality

The work the students produced is neither confidential nor completely anonymous. The photographs taken by participants are available in this report, and are likely to become publicly available on the Internet. Students have been identified by first name. The city in which they live – Cusco – will also be identified.[5] Informed consent was discussed with the students before the project commenced. While participants did not sign a consent form, they verbally agreed and demonstrated their consent by participating in the pilot.

Method

The field research for the PPM was conducted by Dr. Gabriela Martinez in Cusco city. Dr. Martinez is originally from Peru, and is currently on the faculty at the University of Oregon. She speaks Spanish fluently, and was also responsible for researching and writing the Peru case study of the Media Map project. After approaching university colleagues in Cusco, Dr. Martinez met with ten volunteers who were interested in participating in the PPM Pilot.

Participants were asked to take digital photos (with their own cameras/mobile devices) on the question *"how do I get my information?"* They were instructed to keep a record of each photograph, noting the precise address where it was taken, and briefly noting any ideas that come to mind about the photograph. The students were then asked to choose the ten photos they have taken which best exemplify how they get their information. Students labeled each of their "Top Ten" photographs with a letter from A-J.

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[5] According to Peru's Instituto Nacional de Estadistica e Informatica (INEI), Cusco's population in 2007 was 358,052.

Participants were given Spanish-language questionnaire asking them to place their Top Ten photographs in order of the information sources they most frequently use (1 being the most frequent, 10 being the least frequently used). They were then asked to order the same photos according to how much they trust the source (1 being the most trustworthy, 10 being the least). Students were asked to explain in writing why they chose the order that they did, and what they noticed about their choices.[6]

As well as completing the research questionnaire, participants were asked to fill in a brief survey with two sections, one on their media consumption habits, and one requesting feedback on the pilot itself so that the PPM team can refine the methodology for the future. Unfortunately, while ten students originally expressed interest in participating in the pilot, only three completed the above steps. In an effort to gather more in-depth, qualitative data, these students also participated in a recorded conversation with Dr. Martinez on their media habits. One conversation was with Mirtha and Rebeca, and the second is with the same women and another student, Fernando, who originally volunteered to participate but in the end did not complete the research. While there were other students in the room, they did not contribute much to the conversation, nor did they complete the other activities.

Once the data had been gathered, it was sent to me for analysis. The three questionnaires and surveys were coded and tabulated, and the results can be found below. However, the recorded conversations have not been analyzed due to technical constraints (explained later on). Dr. Martinez also transferred the participants' Top Ten photos to the Crowd Map platform.

Analysis of data

As this method is experimental and data was gathered from only three people, the results discussed below are not necessarily representative of larger community patterns. However, some key themes emerged that, while very provisional, may be interesting to follow up. Two out of the three respondents did not include Internet in their Top Tens. This appears to be because they do not have Internet at home, although on questioning they said that they do regularly access Internet at local "cabinas." This may indicate something about socio-economic status and information access, but much more research would be needed

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[6] All research data can be found in the annex, in a separate document.

before concrete conclusions could be drawn. Similarly, none of the respondents listed a cell phone as a means of communicating. One took a photo of her phone, but described it as a way of listening to the radio, and another took a photo of a landline phone she believed had been used in an attempt to defraud the family. Again, finances seem to play a part in this, as all the participants had cell phones, but may try to avoid using them as cost is prohibitive. Another theme raised is media quality. Two respondents completed the exercise, and they both discussed the need for more depth of coverage and more accurate information. Respondents reflected positively on their participation in this research as they practiced a new methodology and also strengthened their observation skills. Full results are discussed below.

"Top Tens"

After the participants had taken photographs of their information sources, they were asked to choose their Top Ten, and to explain their selection.

Analysis Table 1: Types of media listed

	Mirtha	Rebeca	Nehemias
A	National TV	TV	News stand at Santiago district bus terminal
B	Radio	TV	Price board
C	Poster	TV	News stand in Cusco
D	National newspaper	TV	Corner store
E	Local newspaper	TV	Gas station (posters on wall)
F	Home landline telephone	TV	Evangelical information point organized by university students on campus
G	Poster	TV	Facebook
H	Local TV	Radio – listened to through mobile phone	Online newspapers - "el comercio"
I	Informal newspaper stand	Newspaper	Midday TV news

| J | Historical plaques | TV | - |

As is clear from the above table, Rebeca relies quite heavily on television for her information, while Mirtha and Nehemias had more varied information sources. There seems to be little reliance on the type of technology, such as smart phones and computers, that you might find in other countries, especially among university students. While Rebeca and Mirtha focused on specific media, Nehemias focused mainly on physical information sources, such as newspaper stands, rather than on particular stories, TV channels or newspapers. It seems that he took photos of where he noticed information during his research (such as a gas station on the highway, or an evangelical information display at a university fair) rather than where he habitually gets information from.

In keeping with their interest in cultural anthropology, both Mirtha and Rebeca focused on the themes of culture and news when discussing their top ten information sources, and described individual stories to illustrate information that interested them. They seem to have a common interest in Peruvian culture, its dissemination, and the responsibility of Peruvians to take an interest in and protect their national heritage. Six of Mirtha's Top Ten were stories related to traditional/historic Peruvian culture, and two of Rebeca's were. They also both seem to share an interest in social justice, and the news stories they described in their Top Tens frequently referred to social inclusion issues, such as the need to belong to a political party to secure a job or police corruption. Three of Mirtha's selection dealt with social justice, and six of Rebeca's did. Whereas Mirtha's interest in social justice seemed to be more focused on the government's need to understand or address social wrongs, Rebeca seemed to take a more hardline stance. The stories she chose tended to uncover police violence and corruption, and government disinterest. Interestingly, they both included a story on the police shooting death of a youth where the surveillance video of the incident had gone missing. Unlike the other two, Nehemias included little description.

Both participants also made some comments about the quality of the news reporting, with Rebeca saying one item was not explained in depth, and she felt that another had not been properly fact checked which "creates a mistrust in local media." Mirtha also felt that one of her articles (on non-contacted tribes) had not been properly fact checked, believing that they had possibly misspelled the names of the ethnic group concerned, and made

ignorant assumptions about Amazonian tribes. She said that the article did not mention who had seen the tribe.

Mirtha listed quite diverse sources of information, such as posters/flyers, the house landline and historical plaques. She had two flyers in her Top Ten, one posted at the university and the other at what seems to be a similar educational institution. Mirtha appears to get community information from such flyers or notice boards, and finds out about events, jobs and educational opportunities through them. While it might seem obvious that people receive information through the telephone, Mirtha listed her home landline, which is less prominent in urban Peru than cell phones; recent InterMedia research found that "eighty four percent of the urban survey respondents said they own a mobile phone, versus 58 percent who said they have landlines."[7] Also, she didn't list it because she receives information through it, but rather because it is a potential source of threats. Mirtha described receiving a call from a stranger pretending to be a non-existent cousin, a common way of robbing people. Finally, putting historical plaques from the side of buildings in her Top Ten was interesting. Mirtha told Dr. Martinez that conducting the exercise helped her to notice more information sources, and that those plaques informed her of when those buildings were built or to whom they belonged. All of these unusual sources suggest that Mirtha interpreted the question on how she receives her information very broadly, and also suggests a focus on community and history/culture, although it is difficult to draw more than initial impressions from the data available.

Like Mirtha, Rebeca listed a telephone in her Top Ten, and it was a mobile phone. However, again Rebeca did not list it because she gains information through telephone conversations, but because she can listen to the radio on it. Surprisingly, neither Rebeca nor Mirtha listed a mobile telephone in its more conventional use as a source of information through voice, text or Internet/phone applications ("apps"). Computers also did not feature, so Internet may be a little used information source for them. Dr. Martinez asked them about this and Mirtha and Rebeca reported that they don't own computers. The students access Internet at the university and throughout the city at "cabinas" where they rent time on the Internet (the Internet is not available free of charge to students). During the research period, they did not go to the Internet "cabinas" where they usually check their e-mail. This suggests

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[7]Retrieved from: http://www.audiencescapes.org/country-profiles-urban-peru-country-overview-mobile-communications-mobile-communications

that they do consume some information via the Internet but not as regularly as other sources of information. In contrast, Nehemias included both Facebook and online newspapers in his Top Ten, although they were the last two in his list and he did not include a phone, either landline or cell.

Media most frequently accessed

Analysis Table 2 – Media most frequently used

	Mirtha	Rebeca*	Nehemias
1	Peru 21, national daily (D)	TV Peru	-
2	El Sol, local daily (E)	Canal 57 América Noticias (TV)	-
3	Radio (Radio Universal from 6-8 am) (B)	RPP (radio, listened to through mobile phone)	-
4	Peru TV, national TV (A)	Canal 05 Panamericana (TV)	-
5	Poster (C)	Canal 57 América (Sunday programs) (TV)	-
6	Home landline telephone (F)	Panorama (TV program)	-
7	Canal 47, local (Cusco) TV (H)	Canal 45 RTV El Diario (cultural programs) (TV)	-
8	Poster (G)	Canal 23 Tevesur (cultural programs, only twice per month) (TV)	-
9	Historical plaques (J)	Correo (newspaper)	-
10	Informal newspaper stand (I)	Trome (newspaper)	-

* Rebeca introduced some new photos (not in her top ten) when doing the analysis step

Unfortunately, this step seems to have been problematic, as Nehemias didn't complete the analysis exercise and Rebeca seems to have included different media in her analysis than appeared in her Top Ten, although there may be confusion over this as she

appears to have submitted two lists. Either way, this suggests that there may have been a lack of clarity in the instruction. That Nehemias didn't include this data supports the impression that his photos depicted the information he encountered that week, rather than his regular information sources.

The order in which Mirtha has listed her sources includes two newspapers – one national and one local – the radio and television in her top four, emphasizing traditional media as information sources. The two newspapers are easy for her to access as her mother buys them for her clients to read, and the family then reads them at home. She also uses the radio for ease of access, because she can listen to it while doing other things, and can carry the radio around the house with her. She watches the midday television news with her family over lunch, and Peru TV is a station they can all agree on. Again, the lack of Internet on a computer or smart phone is noted, as is the absence of a telephone for information exchange, and in particular a cell phone (text or voice) which is now a very prominent form of communication in many countries in both the global north and south. According to Dr. Martinez, all the participants had cell phones, but may try to avoid using them as cost is prohibitive.

She then goes on to list the more unusual sources of information such as the posters she sees when she goes to university. She finds them interesting, but again she appears to be drawn to media that are already within her environment, rather than seeking out particular sources of information. While she says in her explanation that she uses her home phone to get important work news, this contrasts with her description in her Top Ten and its placement at the bottom of the list indicates that she does not use it as frequently as other sources. She says she listed the informal newspaper stand last because it sells Ojo and Aja, cheap tabloids considered "prensa chicha." Note that she listed the newspaper stand after even the historical plaques, which she says she only saw for the first time during this research.

In contrast, Rebeca relies heavily on television (with radio coming in third place), and said that she rarely reads the two newspapers she lists. Neither of these newspapers was in her Top Ten.

Most trusted media

Analysis Table 3 – Most trusted media

	Mirtha	Rebeca*	Nehemias
1	Peru 21, national daily (D)	Canal 04 TV Perú	-
2	Peru TV, national TV (A)	Canal 57 (TV)	-
3	Historical plaques (J)	Canal 09 (TV)	-
4	Poster (G)	RPP (radio)	-
5	Radio (Radio Universal from 6-8 am) (B)	Frecuencia Latina (TV)	-
6	Poster (C)	Canal 23 (TV)	-
7	El Sol, local daily (E)	Inka Visión (TV)	-
8	Canal 47, local (Cusco) TV (H)	Canal RTV (TV)	-
9	Home landline telephone (F)	Canal CTC (TV)	-
10	Informal newspaper stand (I)	-	-

Nehemias did not participate in this step, and nor did Mirtha nor Rebeca have much to add on why they placed their photos in the order they chose. They may have felt it was self-explanatory. Responding to the question on what she noticed about her own choices, Mirtha commented that she had placed national media higher than local media.

Rebeca said that she found it difficult to order her photos according to trust, and to describe her decisions. Many of her chosen media were cultural programs, which she seems to find more difficult to analyze in terms of trust than news programs, which should rely more on fact. She said she had chosen in her Top Ten only the media (mainly television shows) she normally watches. Perhaps she believes that she only consumes media that she trusts, and therefore non-trustworthy media have not been included on her research. However, this conflicts with her descriptions of the media she has selected (photos 5, 9 and 10). She also comments that she does not read newspapers, although they are included in the Top Ten, and that she considers the Internet trustworthy, although she does not use it much. In later iterations of this research methodology, it would be important to structure

the activities so that it is possible to follow up on these types of contradictions as they appear. It is also possible that we were not clear enough in setting up the research.

Survey results – sources of information section

Analysis Table 4 – survey results

	Mirtha	Rebeca	Nehemias
From where do you get your information?	Newspapers Internet Listening to the radio Watching the television Through friends Through family Through classmates	Newspapers Internet Listening to the radio Watching the television Through friends Through family	Internet
What is the information source you use most	Newspapers	Watching the television	Internet
How often do you use that information source?	Several times per day	Several times per day	Several times per day
Why do you use this source most often?	It is the easiest to access	It is the easiest to access It is the most interesting	It is the most interesting
How much do you trust this information source?	I trust this information source	I somewhat trust this source of information	I somewhat trust this information source.
What are the problems with this source of information?	National daily - only one page is dedicated to provincial news. All	Some news programs do not go deeply and are not very trustworthy	Within the variety, there can be some that are false, and in fact contrast with

	others cover the capital, information on Cusco is very superficial. Local daily - needs more research, information isn't as broad as it should be.	because there are people behind the news who are manipulating the information.	others.
What are the advantages of this source of information?*	National - most trustworthy, impartial and affordable. Local journal - job postings.	I can watch the television in the mornings, at lunch, and at night or those times that I am at home or in another place and it doesn't cost anything.	You can find more than one information [article?]
What do you think is the information source most used by your community? Why?*	Radio – people have the opportunity to tune into different radio programs during their work.	Television, because it is an accessible medium and you don't have to pay for it, unlike the Internet	The journals "el comercio" and "RPP", and recently one of the social networks, "facebook".

* Answers have been abbreviated. Full answers available in annex (in a separate document).

Both Mirtha and Rebeca listed numerous ways in which they receive information, from formal sources (newspapers, radio, TV) and informal sources (through family/friends and classmates in the case of Mirtha). As Mirtha and Rebeca did not take photos of computers or other Internet devices, they have both indicated that they use the Internet to gather information. It appears that while they usually go to Internet "cabinas" to check their email etc., they did not visit them during the research period. They also did not take any photos of friends/family or classmates. Nehemias' responses seem more consistent, as he has two photos of the Internet in his Top Ten, and indicated in his survey that the Internet is

the only source of information he uses, and that he uses it the most. Mirtha and Rebeca's responses to the question *"Which is the source you use most frequently?"* were consistent with their Top Ten questionnaire, with Mirtha listing newspapers and Rebeca listing television.

All three respondents said that they access their "most frequent" media several times per day. Nehemias said he accessed the Internet because it was most interesting, Mirtha read newspapers because they are easiest to access and Rebeca watches television for both of these reasons. It would be interesting to explore with the participants why they each chose a different type of media, and how representative of their community they think their choices are. For example, Nehemias' answers indicate that he owns a computer with an Internet connection (he checks his Facebook at night and before he leaves for work in the morning), whereas Mirtha and Rebeca do not have Internet access or computers in their homes. Rebeca says she likes the television because she doesn't have to pay for it. She also says that easily accessible television is probably the most popular information source in her community because it is free "unlike the Internet." Nehemias says that he thinks Facebook is one of the most popular sources of information in his community. The differences in responses indicated a difference in socio-economic level.

Both Rebeca and Nehemias only "somewhat trust" their most frequent sources of information (television and Internet respectively). Rebeca indicates that she didn't give television the highest score in trustworthiness because they do not go into stories in-depth and because "there are people behind the news who are manipulating or diverting the information." She lists these as disadvantages of the medium. Similarly, Rebeca says a disadvantage of the Internet is that some information found on line can be untrue. In contrast, Mirtha "trusts" newspapers, although she thinks national newspapers do not devote enough attention to the regions, leading to superficial or general coverage, and that local papers need to do more research as the information they provide isn't as broad as she believes it should be. This is a more subtle interpretation of the concept of trust, as she doesn't indicate that the newspapers intentionally mislead their readers, but rather that information should be more richly detailed. This reflects Dr. Martinez's findings in the case study that the Peruvian media's focus follows wealth and is overly centralized in Lima.

As discussed, Rebeca felt that the main advantages of television were that it is free, and that she can watch it anytime. According to Dr. Martinez, this suggests that Rebeca

doesn't have cable television at home. Cost was also an advantage of national newspapers for Mirtha, in addition to their trustworthiness and impartiality. For her, an advantage of local newspapers is that they host serious and effective job advertisements. For Nehemias, the advantage of the Internet was that you can find multiple information sources. However, only Rebeca thought that her most frequently accessed medium, television, was also the most consumed by her community for reasons of cost and accessibility. Mirtha thought her community mainly got information from the radio, as you can listen while you are doing other things and also chose different programs according to your interest. Nehemias also listed the radio (RPP) as one of the most frequently accessed by his community, in addition to El Comercio newspaper and Facebook, as discussed above. Again, it would have been interesting to follow up on the diversity of responses in interviews or a focus group – for example, do the differing opinions on community media consumption reflect participants' different social groups?

Analysis of method

Challenges

One of the major challenges faced in organizing this project was distance.[8] Originally, two professors at a university in Lima had expressed interest in the project, and committed to having two classes of communications students involved. This would have meant that 60 students would have worked on the pilot in class time, as a class assignment, increasing the chance of participants completing their data collection. The data was then to have been sent to me in the U.S. for analysis, followed by interviews or focus groups with the students to discuss any trends or gaps revealed. A Spanish-speaking volunteer from Ushahidi was also recruited to explain the virtual mapping tool to the university professor, so that he could use it with his students. However, coordination with this local partner was quite challenging, and ultimately, this arrangement was unsuccessful.

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[8] Distance impacted on organizing participants for the pilot; it also hampered data analysis. The pilot was performed later than expected, and I had left the U.S. by the time the data was ready to be analyzed. I have been working on the pilot from countries with limited Internet access, which had affected Dr. Martinez's ability to send me the data. As a consequence, the audio files collected have not been analyzed.

As Dr. Martinez was already travelling to Peru, she offered to work with the University San Antonio Abad of Cusco on the pilot, but did not have sufficient lead time with the institution. This meant that the participation in the pilot was not integrated into class work, and was instead an additional task for students already heavily burdened with school assignments and careers. Some students were based in rural areas outside the city of Cusco, which was an additional strain. Dr. Martinez said she felt that "our experiment, although interesting to them, got in the way of their immediate priorities, and they ended up dropping it." It was difficult to keep participants motivated, and from the ten originally recruited, only six came to the first meeting on the pilot and of those only three completed the assignment.[9]

The pilot had very limited funding, as it was not part of the initial concept for Media Map. This meant that there was a lack of resources to meet with participants in Peru, provide cameras, and sub-grant to a University – all of these things would have made for smoother pilot. In the future, PPM could again be trialed at a university more open to integrating it into a course syllabus, with enough lead time to effectively organize such an intervention. It is difficult to see, however, how Media Map could have developed a stronger relationship with the original university as all concerned originally seemed very enthusiastic. Now that we have conducted a pilot, we can show these results to prospective partners to give them a more concrete idea of what PPM involves. That said, in the future the purpose of the PPM would be to discover wider community attitudes to media rather than only those of university students. In this broadened version, local country offices of media development organizations could lead the research with established community partners to ensure a high level of community involvement and understanding of the aims of the research.

It was not clear from analysis how much the three participants understood or committed to the pilot. In the end, only Mirtha completed the study. Asking for ten sources may have been too many. In the future, the researchers should consider the amount of local or national sources and ask for a "Top number" of sources based on that. The participants seemed to struggle to come up with ten, for example, Mirtha listed historical plaques on

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[9] Participatory Photo Mapping as a media development research technique may be improved by building insights gained through the participatory development approach. An example of this approach, "Participatory Development as New Paradigm: The Transition of Development Professionalism" can be found at: http://www.usaid.gov/our_work/cross-cutting_programs/transition_initiatives/pubs/ptdv1000.pdf

buildings that she said she had only noticed for the first time when she took a photo of them for the project, and Rebeca listed newspapers, which she later said she doesn't read. Nehemias included little description and focused mainly on physical information sources, such as newspaper stands, rather than on particular stories or specific TV channels or newspapers. It seems that he took photos of where he noticed information during his research (such as a gas station on the highway, or an evangelical information display at a university fair) rather than where he habitually gets information from. This might indicate that the purpose was not explained properly in the project handouts, or that as it was extra work participants did not prioritize the pilot. It seems that we did not define information sources clearly enough at the outset, and this is the source of a lot of the gaps described in the analysis above. In future PPM research, the importance of clearly explaining the research should be balanced so as not to too tightly restrict the data gathering. Truly including the participants' perspectives might mean creating a collaborative and flexible – but clear – definition of terms like "information sources" and "trust" at the very beginning of the project.

There were contradictions in the research. For example, we found that important information sources, such as the Internet, were listed in the surveys, but not in the Top Tens. While Mirtha and Rebeca did not take photos of computers or other Internet devices, they both regularly use the Internet to gather information. However, our research didn't capture this. It is crucial, therefore, to make time to discuss questions raised by the data with the participants after the initial analysis. This could either take place in a focus group or in individual in-depth interviews.

The participants themselves were positive about their experience. As outlined above, students were not paid, but it was hoped that participation would benefit them by improving their research skills. This appears to have been born out, with both Rebeca and Mirtha appreciating the "important" and "interesting" opportunity to gain more practical capacity. Mirtha expanded on this, explaining that she also liked participating in an international research study, and she appreciated that she could do this in Cusco, so that she could continue her daily routine. Nehemias liked that the pilot allowed him to notice new sources of information that he generally passed by.

Nehemias said that his main challenge was taking photos in public, as it seemed to make others uncomfortable. Rebeca said that a lack of a good camera was a challenge, and

also she felt that the timeframe to gather data (photos) was too short. Mirtha had a more reflective response, saying that she found it difficult to do the self-ethnography. Perhaps being her own research subject was more confronting that taking the observer role used in other research models. However, she said that being forced to research her own consumption habits showed her that she was not "properly informed." She also appreciated the opportunity to see Cusco's media in a different light. Both Mirtha and Rebeca said they learned to strengthen their observation skills.

Rebeca recommended that in the future, Media Map should provide cameras for participants, and encourage participants to exchange and discuss their ideas more. Nehemias suggested that Internews expand the definition of "information," to include more community information sources rather than focusing on news. It would be interesting to explore this further, as the design of the project specifically left definitions very broad, and Nehemias himself included several informal community information sources. Drawing on her previous comments on self-ethnography, Mirtha commented that the data could have been richer if participants not only research their own media consumption, but also that of their family or community. Ideally, though, with more participants, a clearer picture of community media consumption habits could be formed. However, Mirtha's comment raises the critical issue of making the research method appropriate to context. Given the flexibility of PPM, different units of analysis could be employed, and even created by the respondents themselves, adding another layer to the participatory approach.

The Crowd Map

Key to the method is the mapping phase. As all the researchers involved are new to Crowd Mapping, we did have some trouble with the technology. Also, our sample size was only three participants, which made it difficult to draw patterns in consumption from the map created. However, in the future, we would be able to draw conclusions on how people get their information based on things like where they live or work. Especially in developing contexts, this may reveal differences in access between urban and rural settings, or ethnic/language groups, for example. Maps showing the trust a community has in information sources could be overlaid with mapping of humanitarian needs or field of operation for NGOs, giving them a quick overview of the best ways to provide sensitive or

emergency information to target groups.

Another possible application of PPM is in the assessment of media development projects; for example, support to community radio. Information gathered through PPM can also be compared with community radio footprints to assess the impact of media development assistance or programming. After a year of assistance, do community members rank the targeted radio station more highly in terms of frequency of access or trust? Where and with whom are they listening? How does their physical location impact their consumption of and interaction with the radio? If the mapping project is shared with the community, it can also give them a sense of empowerment or ownership of their local media context.

Recommendations

The pilot demonstrated that Participatory Photo Mapping can be a useful media development research technique. When combined with specific research questions and clear data collection tools, the participant-driven approach and mapping of information can add significant value to traditional research methods. This type of research seems particularly suited to establishing pre-intervention baselines, and assessing the impact of community-focused projects. However, some improvements on the method could be made:

- Participants need incentives to gather and analyze data. The research itself is quite intensive, and participants need to be aware of this and be compensated for their time. If using this technique in developing countries, cameras to record the data would need to be distributed. However, there would need to be incentives at the end of the research to return any equipment seen as valuable by the community, and be clear on the requirement to return the equipment at the outset of the project.

- Research questions and tools need to be specific and clear, and developed in participation with the community at the beginning of the intervention.

- It may be more valuable to have participants discuss their photos and surveys with a researcher to gather more complete responses rather than relying on written explanations. Participants may find writing burdensome, and therefore may not give

complete answers. Also, this approach may be more appropriate in communities with limited literacy.

- It is important to discuss findings with the participants after the initial data analysis. Many gaps or questions were raised in the review of the Top Tens and surveys, but we did not have the opportunity to ask participants about these insights. It is important that this step be integrated into future research designs.

Future applications

As PPM combines image, narrative and mapping, data could be collected on an annual basis to show the change in or development of information sources through the eyes of the communities involved. Especially as Media Map is focusing on countries where the media landscape may be rapidly transforming (and particularly in the age of fast moving social media), a visual and interactive timeline could be useful. An Internet platform such as Intersect could be employed, and an annual call for submissions to the site could be launched.[10] In this way, a layered map showing how access to information has changed would be created.

Particularly in post-conflict or developing countries, where camera-equipped mobile phone use can be high, PPM could be an excellent way for local community members who may have little formal education to communicate their information needs. If asked to take photos of the biggest communication challenges they face, people may, for example, take a photo of a broken transmitter at the local community radio station, or a book and then explain to the researcher that they cannot read. This type of information is not only useful to media development workers, but may also have applications in the Humanitarian Communications context, for example, as the aid community could have a map containing information of the communication challenges in communities affected by humanitarian emergencies, epidemics etc, and they would know the most trusted ways to get information across to their target or affected audience.

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[10] See: http://intersect.com/

Conclusion

While the low number of participants means that it is not possible to draw conclusions about media consumption in Cusco, the pilot can be considered a success. PPM was an effective method to gain an insight into participants' media consumption habits, and the way they view or value these media. In an expanded project, this would be a good way to gather community perceptions to evaluate the success of media outlets' production and standing in the community. This type of information could be compared with the view of media experts or practitioners, to gain a more holistic understanding of the beneficiary media context. It also has applications in the humanitarian context, can show the evolution of communications over time, and provide a personal insight for donors into their communities their financial assistance aims to support.

Further reading

Brown, D., Dennis, S. and Gaulocher, S. (2010) "Intro to Participatory Photo Mapping (PPM) and Using Participatory Photo Mapping (PPM) to Engage Communities".
http://www.comminit.com/en/node/321072/307

YouTube Videos explaining the method:

Intro to Participatory Photo Mapping (PPM) - Part 1:
http://www.youtube.com/watch?v=8DS-sXQc2pE&feature=related