

Design Research for Media Development

A GUIDE FOR PRACTITIONERS

By:

REBOOT

In Collaboration with:



Internews
Center for Innovation & Learning

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The case studies and examples throughout this book are drawn from a design research investigation commissioned by Internews in Fall 2012. It took place in the Federally Administered Tribal Areas (FATA) and Khyber Pakhtunkhwa (KP) regions of Pakistan, with fieldwork executed by a dedicated field team. Reboot is grateful to our researchers Amjad Ali, Qaiser Ali, Sumaira Asghar, Shakir Ullah Dawar, Arif Khan, Farooq Ali Khan, Jasim Khan, Kamran Khan, and Rizwanullah Khan—thank you for your hard work, your perseverance, and your commitment to finding the real answers.

Finally, to all those in FATA and KP who welcomed our team and shared their lives with us—thank you.

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Foreword



In 1980, I was working on the Thai-Cambodian border in a refugee camp of over 130,000 displaced individuals. This was my first experience in the international humanitarian and development space. A number of organizations were present providing assistance, and all were effective in their own way. But one organization impressed me in particular for the degree of proximity they maintained with those they were working to serve. The doctors and nurses of Médecins Sans Frontières would often just sit with their patients and local staff, beyond the scope of their work and questions—beyond the traditional relationship of aid worker and aided.

In the over three decades since that first encounter, the organizations and individuals I have seen successfully fulfilling their development mission are those who have built close

relationships with the communities they are seeking to serve. This is a process that goes well beyond simple question and answer surveys. This is a process that demands an ethnographer's ear and a journalist's inquisitiveness to uncover the behavioral insights that drive a community.

I was also fortunate to work with Fred Cuny of Intertect, a master of this approach, during the return of Kurdish refugees to Northern Iraq in 1991. Although called in to advise commanders of the multinational forces responsible for the repatriation, Fred, as always, first went deep into the camps to develop plans based on an ever-evolving understanding of the needs and capacity of local leaders and individuals. Fred was deeply committed to solutions that included the "end user" in both conception and implementation.

I was drawn to Internews because their work has long embodied a similar ethos. Program design is firmly rooted in the principles of strong communications and an intimate relationship with the end user. Our evolution into human-centered design, therefore, is only natural. This approach allows us to further refine our engagement with local populations and communities to develop solutions fitted to their daily needs and aspirations. This approach also allows us to move beyond a program design process that simply informs our initial engagement to one that ensures deep and lasting relationships throughout the life of a project, keeping objectives based on shifting priorities relevant and on target.

We were most delighted to find in Reboot an organization that shares our values. Reboot brings significant expertise in formal, as well as intuitive, human-centered design. This guide was developed to assist those working within Internews to challenge our embedded assumptions and deepen our relationships with the communities we serve. This guide is also written for the broader community of practice that hopes to understand the continuously changing information ecosystems that increasingly define and constrain development practice.

We hope you find the ideas and methods of this guide valuable in your work and welcome your views and suggestions.

Mark Frohardt
Executive Director
Internews Center for
Innovation & Learning

About This Guide

This is a hands-on reference guide for media development practitioners.

It is based on principles and practices of design research that have been long used by the private sector, and grounded in the experience Reboot has gathered in designing and implementing international development projects around the world.

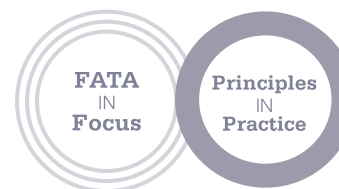
This guide was born out of a collaboration between Reboot and Internews, through its Center for Innovation and Learning, and its Pakistan Country Office. Together, we sought to understand the complexity of the information ecosystem in the Federally Administered Tribal Areas (FATA) region of Pakistan. Our ultimate goal was to design contextually appropriate programs that improved access to information by communities in this region.

This resource is our effort to share our process with our Internews colleagues and among the broader media development community, in the hopes that it will inspire practice and discussion and have an impact far beyond our immediate goals.

This is not a comprehensive guide to program design. As a field, media development has a rich history of innovation, thoughtful leadership, and tried-and-true processes—many pioneered by Internews. Indeed, many ideas in here will likely be familiar to readers working in this systems-oriented field. Thus, our hope is that this guide will help practitioners integrate design research principles and practices naturally into their existing work, stretch their creativity, and find new solutions.



Throughout this guide, several special features will help you better understand and implement design research:



FATA in Focus uses real-life examples from an Internews project in the FATA region of Pakistan to illustrate design research principles in action. They show how the approach both requires adaptability to context and offers rich contextual insights.

A companion website for this guide can be found at www.design.internews.org. This online platform will be frequently updated with resources to support practitioners seeking to integrate design research into their work.



Tools signal a resource to help practitioners implement the design research process. Sample templates and examples from the Internews Pakistan Case Study can be found at www.design.internews.org/tools.

We are eager for feedback and to hear about your experiences in applying these approaches. Please send thoughts to hello@theReboot.org and innovation@internews.org.

Harnessing Design Research in FATA

This guide features a running case study to illustrate how design research can apply to media development. All examples are drawn from an investigation conducted in the Federally Administered Tribal Areas (FATA) region of Pakistan in September 2012.

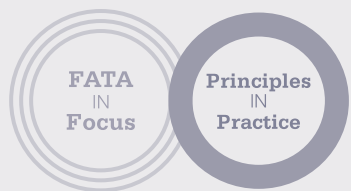
About FATA

Socially, economically, and politically, FATA is the least developed region in Pakistan. Sixty-six percent of the population lives below the poverty line;¹ its key industries are farming, smuggling, and illegal drugs;² unemployment is estimated at 60 to 80 percent;³ and the literacy rate is 22 percent (and 1.5 percent for females).⁴

Politically, FATA has traditionally been ruled, not governed, by unelected tribal leaders. The region is strongly conservative and culturally isolated, constraints that are heightened by geographic and security factors. United States military operations using unmanned aerial vehicles (drones) have targeted the region since 2004, in an attempt to defeat Taliban and Al-Qaeda militants. Drone strikes have killed up to an estimated 3,400 people.⁵

Yet opportunities for change are on the horizon. The upcoming 2013 general election will be the first time that political parties are able to form and operate in FATA, meaning the first chance for FATA communities to have their interests represented on the national stage. To leverage this moment, independent and good quality information about the political process will be vital to its residents.

But the region remains media dark, with variable access to mobile networks and Internet and tight restrictions on journalists. Although there has been an increase in media access and channels in recent years, little is known about the information and media behaviors of FATA communities.



Project Background

Given the FATA's communications landscape and its population's low literacy rates, Internews was interested in the potential of interactive voice response (IVR) technology to get information about political processes to FATA communities, particularly around the upcoming elections. But as teams began planning such an initiative, they realized they needed answers to a few key questions to enable strong program design.

To start, it was critical to understand what were the technology behaviors of FATA communities, and whether IVR was even a realistic option. And beyond the choice of communications channel, what kind of information did people want? What did FATA communities already know about

the elections? Furthermore, what did they think about politics in Pakistan? And finally, how should information be presented? What sources of information were perceived as trustworthy, and how did people evaluate the credibility of information?

Internews realized a more nuanced understanding of the information and communications landscape in the region was necessary to ensure programs would be appropriate and impactful on the national stage. To leverage this moment, independent and good quality information about the political process will be vital to its residents. And, in recent years, there has been an increase in media access and channels within the FATA.

Project Approach

It was determined that design research—a research and analytical process that combines ethnographic, journalistic, and systems thinking approaches—could help answer these complex questions, and help Internews identify opportunities to improve the information ecosystem for FATA communities.

A design research investigation was conducted over four weeks in September 2012. A team of 10 researchers from FATA conducted the fieldwork, with training and management from Reboot. The study covered 7 agencies in FATA and Khyber Pakhtunkhwa (KP) and 125 respondents were interviewed.

Due to the security restrictions, Reboot and Internews staff did not travel in FATA. Reboot and Internews managed field research from Islamabad, and conducted training and synthesis workshops in Islamabad and Peshawar.

The research findings will be released in early 2013.

- 1 Shuja Nawaz and Arnaud De Borchgrave, *FATA - A Most Dangerous Place*, (Washington, D.C.: Center for Strategic and International Studies, 2009).
- 2 Shahid J. Burki, "Economics and Extremism," *DAWN.com*, n.d.
- 3 "FATA: Inside Pakistan's Tribal Regions," New America Foundation, n.d.
- 4 Government of Pakistan, United Nations Children's Fund, and the World Food Programme, *Federally Administered Tribal Area (FATA) Multiple Indicator Cluster Survey* (Peshawar: Government of Pakistan, 2009)
- 5 "The Year of the Drone," Counterterrorism Strategy Initiative, New America Foundation, 2012.

Introducing Design Research

Good program design requires two things: empathy for people and understanding of place. Design research is a valuable tool to achieve both.

Design research is useful whether you are designing an iPhone in Palo Alto or a media development program in Pakistan. But for projects like the latter—whose designers often come from vastly different backgrounds than their users, and where the context is extremely complex—developing empathy and understanding requires greater effort and unique skillsets.

That is why design research is a valuable and important starting point for media development. Design research is more than an exercise in knowledge gathering; it is a proactive, rigorous, and intellectual process tailored to create concrete programmatic interventions.

Blending practices from ethnography, journalism, and systems thinking, design research helps practitioners understand the causes, relationships, and human dimensions of complex contexts—and then provides tools to incorporating this knowledge into the design of innovative and realistic interventions.

Key Principles of Design Research

1. Understand humans and institutions.

The best solutions meet the needs of users, while respecting their capacities and constraints, and they do so at the community and institutional levels. Understanding both, therefore, is key.

2. Discard assumptions.

“Design by ToR (Terms of Reference)” is tough. The best solutions come from the real world, so learn to recognize personal biases and assumptions, as well as those of others, to see the way forward.

3. Remain flexible.

It is impossible to predict the solution (or even the best path for finding the solution) at the start of a project. Change is the norm, so be open-minded and adaptive.

4. Consider diverse stakeholders.

A program is only as good as the sum of its parts. Examine the needs and capacities of stakeholders along your program delivery chain, such as regulators, media outlets, journalists, and audiences, to ensure the design accommodates each of them.

5. Be responsible.

Anticipate and mitigate the unintended negative impacts a project may have on communities. From selecting respondents to introducing the research, consider how actions and words may impact local dynamics.

Design research is a process of discovery, not of verification. It is particularly useful in the early stages of a project, where opportunities are vast and the paths to seize them are unclear. It is a process to discard assumptions, and a means to design interventions that are truly fit for context.

Because, ultimately, while successful programs require funding, technology, and management, understanding of context is paramount.



**Integrate
design
research
into M&E.**

This guide focuses on the applications of design research in program design and development, but the process is equally valuable for M&E efforts.

The ability to assess and explain project outcomes in terms of context is essential to learning—particularly when projects fall short.

The process of design is fluid and creative, it is constantly refined and adjusted for different contexts—design research is similarly versatile. To that end, while design research is inherently valuable for program design, it can be integrated into other approaches already used by media development professionals. Just as no two contexts are alike, there is no one formula for good research and design.

Beyond the field of media development, design research has been widely utilized to answer a range of questions relating to governance and international development programming. These include:

- How can we design a **social accountability system** to maximize citizen engagement in the design and delivery of basic services, and compel government response based on citizen input?
- How can we help diverse and often inaccessible **human trafficking victims** find the means to escape their situations?
- How can the international community leverage new technologies to support **good governance, social cohesion, and economic development** in a country that has undergone a popular revolution?

Design Research is Not....

Design research is a powerful tool for understanding complex human systems and surfacing key factors that are critical for program design.

It is not:

A substitute for quantitative research.

Design research is not intended to yield statistically significant findings. Yet it complements quantitative research by surfacing key insights that are invisible to less nuanced methods. As necessary, qualitative insights can be probed further for representativeness through survey work.

A replacement for stakeholder engagement.

Design research emphasizes deep engagement with communities and stakeholders with the aim of eliciting data to inform program design. It is not intended to replace a program's stakeholder consultation and sensitization activities.

A solution for every program.

Design research is most useful when the challenge or context is new, complex, or involves diverse stakeholders. Certain types of programs, such as infrastructure development or policy advocacy, may demand other approaches, with design research playing a secondary, or even non-existent, role.

The Design Research Process

There are five key phases in the design research process. The following chapters will explain each of these in detail, along with practical advice and case studies.

PHASE 1

Define

Articulate a program's ultimate objective, and define the questions that must be answered to help achieve it. Set clear goals to establish boundaries for what falls outside immediate relevance or current capacity.

PHASE 2

Plan

Develop an intellectual framework for information that is needed to meet the design challenge, and an operational plan for how to get that information.

PHASE 3

Collect

Work to understand the people the program seeks to serve, and the actors that will be serving them. Dive into the context.

PHASE 4

Synthesize

Make sense of the research, and draw patterns and insights from the data. Ensure that findings are useful and actionable for program design.

PHASE 5

Design

Distill findings into program design recommendations and guidelines for use by the implementing team. It is also helpful to present findings in a format accessible to wider audiences to benefit the larger community of practice.

Design research can and should be used in conjunction with other approaches, such as participatory rural appraisal (PRA), social network analysis, the Delphi Method, or audience research surveys. In fact, practitioners will find similarities, or even shared tools, between some of these approaches.

In combining research approaches, it is a matter of sequencing and scale. Quantitative research, for example,

has its limitations when examining complex systems. To design a good survey, you need to know what you are looking for and how that information may manifest in the particular context. Qualitative research, on the other hand, excels at building rich portraits of a people or place, and at mapping the relationships between people, places, cultures, and institutions. But insights surfaced by design research may merit additional surveying, especially if they will

inform programs spread across areas with geographic variance, or programs that will be expanding to a significant scale.

Resources, human and financial, as well as time will also be factors in selecting research approaches. Thankfully, design research scales well. It can be effective as a small-scale process as well as a much deeper expansive investigation.

Define the Challenge

All development projects start with a challenge. But too often, a project will define that challenge by presupposing a solution. Design research helps us start with the right questions.

If, for example, a challenge people face is poor information or media access, practitioners might ask: “How can we support independent community radio?” or “How might we develop an SMS-based information delivery service?”

These kinds of assumption-based projects risk failure, no matter how many times or where else they have worked before, because they do not consider how people in a specific context actually behave or the unique characteristics of the environment. Even if a proposed solution, such as the SMS information service, may suit a particular context, it is impossible to know how to design a service that is broadly accessible, has locally relevant content, and which can be cost-effectively and sustainably maintained.

PHASE 1: Define

Framing and defining a design challenge, therefore, is key for program design, and for the design research that will inform it. Start from the wrong perspective, or with a set of assumptions, and you can spend your whole project working on the wrong thing.

Thus, a good design challenge should:

Speak to a user need.

Do not speak to an organizational need, a technological opportunity, or a donor directive.

Be open-ended in terms of how that need might be addressed.

It should not predefine a solution.

Include the constraints that the design needs to satisfy.

These may include meeting certain timelines, collaborating with certain partners, or building upon existing programming.

Once a precise and concise design challenge has been determined, the team should be able to determine the information it will need to be able to tackle the challenge. This is where design research comes in. A strong solution for any context starts with a strong understanding of that context. Inspired by the design challenge, we are now ready to build our Research Framework.

Research Framework

The research framework is a living document that defines your research themes and questions, but its focus will evolve and narrow over time, first as feedback is gathered from stakeholders, and then even more so over the course of field research.

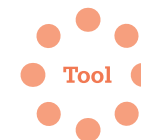
While not a record of insights or findings, it is reflective of an increasingly sophisticated understanding of the context, honing in closer to the actual truth as the research unfolds. Over time, more targeted and more detailed questions arise—this is a good sign.

In practice, priorities tend to shift from what was originally put on paper. All practitioners know about the importance of flexibility and striking a balance between planning and operations. The research framework creates a way to adjust to shifting donor and stakeholder priorities, while also keeping the on-the-ground realities in focus.



Use the framework to align stakeholders.

It can help stakeholders develop shared understanding of the project goals, processes, and expected outcomes. During check-ins, use it to reflect the evolving understanding of the operational context, and thus program priorities.



Research Framework

The complete Research Framework from the Internews Pakistan Case Study can be found at: www.design.internews.org/tools.

Key Components of a Research Framework:

Project Objectives.

Specific goals, both concerning the questions to explore and the projected deliverables based on research findings.

Key Opportunities and Challenges.

From institutional priorities, desk research, and expert consultations.

Guiding Themes and Questions.

Also grounded in desk research and expert consultations, these drive the field research.

Target Respondents and Sampling Plan.

Outline of different user and stakeholder groups to consult, and how they will be recruited.

Methodology.

Summary of the research methods to be used, along with the rationale, role, and specific focus of each.

Operational Plan.

Field logistics, including locations, timelines, research schedule, team composition, and roles.

Question Guides and Scripts.

Concrete plan for the research team to explore key themes in respondent interviews.

FATA
IN
Focus

Principles
IN
Practice

Phase 1 // DEFINE // Research Framework
Principles in Practice

Defining the Challenge: A Collaborative Process

Coming up with a robust and realistic design challenge was no easy task. Our project had eight people representing four teams from two organizations spread across four cities (and that is not including travel). This is what we did:

Based on Internews' existing work and team members' experience working in the region, everyone agreed that FATA communities needed better information channels to get information about the world, and to share information about themselves. But there were differing opinions as to how this should be done, and what timelines it should be accomplished within.

Interactive voice response (IVR) technology showed promise as a news and communications tool

for low-literacy users, like many FATA populations, and the upcoming elections were certainly a factor in planning timelines.

Ultimately, however, the team agreed to keep the prompt as broad as possible: "Identify opportunities to improve information access and relevancy for communities in the FATA." While technology and new media were of interest, they were excluded from the challenge definition to not prematurely bias findings. And while Internews had timelines and programming that could be strategically integrated with the project, it wanted to untether the research of institutional priorities to truly benefit from the generative nature of design research. The challenge, therefore, was intentionally free of constraints to encourage research that may contribute to the broader development community.

STEP 1: Map the Issues

To understand a challenge, examine it, systematically, from all angles. Write down your design challenge, then write down all the questions you might have to answer to be able to tackle the challenge.

Then, group the questions to determine key themes that will drive the research.

For information- and media-related research, practitioners may want to consider:

Trends over time.

In addition to current attitudes and behaviors, examine longitudinal patterns—how have cultural, political, and technological changes impacted user behavior over time? Such a focus can help anticipate future shifts, and allow program designs that accommodate them.

Given the pace of technological change, practitioners must understand the forces driving change, not only how that change is manifest today.

Multiplicity of media.

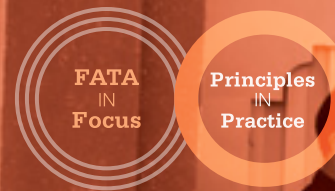
People's usage of and relationship to media is complex and diverse, and research should examine diverse information sources (formal and informal), as well as the complex, ever-changing relationships people have to them.

Contours of trust and influence.

To the extent that trust and influence are relative, dynamic concepts, explore the drivers and boundaries of trust. This should be done within communities, as well as between communities and

- a) institutions,
- b) diverse information sources, and
- c) the media.

To the extent that effective interventions always, at some level, rely on trust, understanding the nature of trust in a particular context is paramount.



Determining Key Themes

The work in Pakistan aimed to understand the behaviors of FATA communities relating to information usage—a tall order, to be sure.

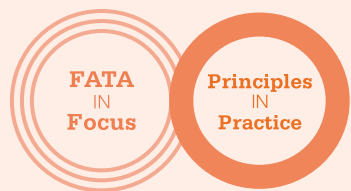
Through a mapping exercise, we determined the key themes that the study would focus on.

We began by defining 'information usage' and realized we were interested in the following question:

How are FATA populations accessing, sharing, evaluating, and creating information, and how might their habits change over the next two years?

Beyond current habits, we wanted to understand the needs, capacities, constraints, and sensitivities that influence the information-seeking and media consumption behaviors of FATA communities.

Through a mapping exercise, we determined three key themes that would drive the research, presented here as an excerpt from the Research Framework of the Internews Pakistan Case Study.



Theme 1: Understanding Trust & Influence

How do FATA communities evaluate the credibility and trustworthiness of different information sources and media channels, and how do these factors impact the influence and reach of different source and channels?

Both formal (e.g. newspapers) and informal (e.g. community leaders) sources of information will be considered, as well as sources

not specifically oriented towards disseminating information but that may do so as a secondary activity or naturally as a result their role in communities (e.g. service providers such as schools or clinics where people gather, or entrepreneurs that wield economic influence). There will be a specific focus on emerging sources of information.

Key questions include:

- What are the social norms around gathering, sharing, and assessing different types of information?
- What are the metrics FATA communities use to determine whether a particular piece of news or information—or a source—is credible, trustworthy, or worth passing on to their networks?
- Specifically, what are the uses and perceptions of secular versus religious information sources?
- Based on the above metrics, along with reported and observed user experiences, can we map the relative influence and reach of different types of information sources among FATA communities, how information flows between them, and how these patterns have changed over time?

Theme 2: Impacts of Displacement

What has been the impact of conflict and internal displacement on the information-seeking and media behaviors of FATA communities?

Since 2007, FATA has experienced significant population migration as a result of government operations against non-state armed actors and sectarian violence. The research seeks to understand how migration and displacement has impacted

how FATA populations access, evaluate, and trust different information sources and media channels. To the extent possible, the research will map how these attitudes and behaviors change over people's timeline of displacement.

Key questions include:

- How do displaced FATA populations access information? How does this compare to communities that still reside within the FATA?
- How does the experience of migration and displacement, both conflict-related and seasonal or work-related, impact how FATA populations evaluate the credibility and importance of different media sources?
- How does information pass to and from FATA residents and connections outside?

Theme 3:

Usage of New Media & Technology

As technology is vastly changing the communications landscape in Pakistan, and will continue to do so, the research will have a particular focus on perceptions of and behaviors around new media and digital communications tools.

Given the potential of information and communications technologies (ICTs) to enable easier and broader access to information, the study will seek to understand specific technologies that have high potential to reach FATA communities, as well as challenges around and limitations of ICTs.

Key questions include:

- What are current behaviors around the use of technology to access, share, create, and evaluate information? Can we extrapolate larger trends around technology usage beyond specific channels and media sources?
- How does literacy, in all its forms — textual, technological, and media — impact usage of technology among FATA populations? What are ways in which FATA communities currently circumvent their own capacity constraints around technology to get and share the information they need?
- What are the threats to the use of technology, and how do FATA populations respond? Does the cultural appropriateness of technology vary with its intended purpose (e.g. mobile phones for communications versus mobile phones for listening to music or the news)?

Beyond analyzing indicators such as technology penetration (e.g. radio, television, or mobile), size of audiences for particular programs, dollars invested in specific channels, or other market metrics, the study will examine the human factors that impact technology behaviors and choices.

STEP 2:

Review Existing Research

Desktop research is a critical early input to the design research process. Literature reviews, expert consultations, and discussions with institutional partners ground the potential future in the wisdom of what has been done before.

Desk research sets the stage for design. With such an expansive body of innovation and achievement in the field of development, any work should build on what has been done.

As part of the literature review, include work in the specific geographic context as well as the sector (and review both case studies and evaluations).

In consultations, seek out three different types of experts:

- 1) Operational experts,
- 2) subject matter experts, and
- 3) institutional experts.

Operational experts have worked extensively in a geographic context. Their insight will be especially key in planning the logistics of a research trip and developing a risk management plan.

Subject Matter experts have implemented or evaluated similar or complementary programs, and can share their opinions and understanding about how and why their research and program approaches succeeded (or fell short).

Institutional experts from organizations, donors, or other stakeholders can help focus goals and deliverables. They can help understand what outputs are most useful and feasible, and how best to present them.

Consulting Experts

Before fieldwork, the team consulted with experts on key project themes and to gain better understanding of the operational context. After fieldwork, experts helped interpret, analyze, and validate research findings. This is redacted sample of those consulted.

Category	Role	Affiliation	Profile
Operational	M&E Officer	Donor Organization	Well versed in operating M&E programs in FATA, familiar with Internews. Advise on operational and risk planning and management.
Operational	Chief of Party	International Development Contractor	Extensive on-the-ground experience in FATA, and with media-related programming. Advise on operations, logistics, and security.
Operational/ Subject Matter	CEO	Local Research Organization	Works on audience research with Internews in Pakistan. Extensive experience media behavior in the region. Advise on gaps in current research.
Operational/ Subject Matter	Various Staff	Local Civil Society Organization	Experts in freedom of information and expression issues in Pakistan, and the cultural and political factors that influence the conversation. Advise on research questions, and the role of technology in shaping the information landscape.
Subject Matter	Journalist	Various news outlets	Pakistani journalist with extensive experience covering FATA and international news. Advised on research framing, questions, and managing sensitivities.

Category	Role	Affiliation	Profile
Subject Matter	Academic Researcher	University	DC-based Pakistan expert with on-the-ground perspective, with focus on political stability and Islamic politics. Advise on research framing questions, and institutional interests.
Subject Matter	Co-Founders	Local ICT4D Firm	Islamabad-based technology and civic participation firm that has deployed mobile-based information services across Pakistan. Advise on technology behaviors and service design.
Subject Matter	M&E Program Advisor	International Development Contractor	Worked with Internews on research and M&E in several countries. Advised on complementary and adjacent research initiatives to draw from and feed into.
Institutional	Senior Leadership	Donor Organization	Deep understanding of media landscape in FATA, has managed Internews programming. Advised on donor priorities and interests in the region and for the research.
Institutional	Various Internews Staff	Across Operational and Country Teams	Advised on Internews' needs and goals around research, perceived opportunities and gaps in current research, program development, and M&E processes to help refine outputs.

Given the aims of the research, local or locally based experts were prioritized over international ones. Institutional and international perspectives still very much informed the research to ensure it would be useful to a range of stakeholders.

STEP 3: Identify the Stakeholders

Media development seeks to improve human livelihoods through information. So, it is logical that humans are at the heart of good program design. They both inform and inspire program designs, and their needs are the metrics by which programs should be evaluated.

Yet there are many actors that impact the design, delivery, and ultimate effectiveness of a program.

These may include:

End-Users

Target individuals and communities (often called “beneficiaries”) the activities and outputs of the program are intended to benefit.

Service Providers

Individuals and organizations that serve as functional touchpoints for reaching end-users—not all may be formally recognized as information sources or service providers. These may include radio stations, primary schools, or agricultural extension workers.

Administrators

Functional managers that oversee the actions of service providers.

Community Leaders

Individuals with both formal and informal distinctions as leaders within their community and that have particular influence.

Contextual Influencers

Individuals or organizations that have impact or control over the environment or the individuals in which a program is targeting

Policymakers

Creators of the environments in which a program exists through legislation, rhetoric, or other forms of power.

Institutional Partners

Institutional donors, private sector partners, or other organizations that define, resource, and influence program design.

Their values and needs will impact program outcomes, thus their perspectives must be understood and accommodated, as appropriate, in the program design.

List all the stakeholders who the program must consider. Starting with the end-users, list all those who influence their behavior, as relevant to the program: What people and institutions do they interact with? Which other stakeholders have the greatest impact on their actions? Do this for all the stakeholders identified.

Think through the perspective of each listed stakeholder: How do they impact the experience of the end-users? What are their priorities and goals? How do they view the other stakeholders on the list? How can they contribute to program objectives?

This list becomes your respondent group, and each group’s needs and challenges will need to be addressed. While the map to it is not yet clear, the places where these many viewpoints and needs intersect is where the most sustainable interventions will be found. And be realistic: There will be actors your program will not have access to or influence over. Still include them as variables to be aware of, and to recognize the gaps in your own data.

Do not get intimidated. This process can be overwhelming. Any map of the conflicting interests of dozens of people and institutions will look unsystematic and unsustainable. Getting through the mess is what the research is for.



Predict users’ needs, not solutions.

Think broadly and fundamentally about users’ needs. For example, users may not need “a radio station” or “better information”; rather, they may need security, stability, or connection with loved ones, all of which can be addressed in multiple ways.



Know who to include when.

Naturally, stakeholders include funders, partners, colleagues, and others who are contributing to or otherwise directing the work. Include their perspectives when planning the research, but once fieldwork begins, your allegiance is to end-users.

A Note on Sample Size

In the age of “Big Data”, it is hard to resist the idea that survey data, and lots of it, is better. It is true that quantitative data is a valuable tool for many aspects of program design: Large datasets can help identify sweeping trends across a community, or determine how human well-being has changed in a region over time. The strength of such analysis comes in part, however, by reducing nuance.

To complement data analysis, design research is intrinsically about understanding complexity through human nuance. This means aiming for a focused and manageable sample size. The goal is not statistical representation; there is no need to touch every potential type of stakeholder relevant to the program. Rather, the goal is enough representativeness to draw meaningful insights on patterns of behavior and context.

The most valuable insights often come from making surprising thematic connections between seemingly disparate behaviors and cultural norms. These can only be generated by human evaluation of collected data. Further, as the best analysts and program designers are usually those that conducted the field research, their facility with the entire data set is important. As powerful as large data sets can be when run through NVivo or Atlas TI, human creativity is also a powerful tool—and for it to work well, the capacities of human memory should be considered when determining sample size.

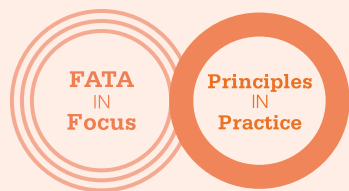


Defining Target Respondents

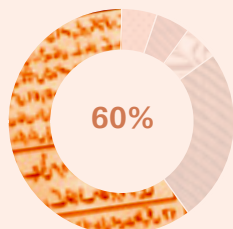
Pakistan has a vigorous and diverse media ecosystem, and below are the stakeholder groups that our research targeted, as well as the target percentage of the overall respondent population for each group, based on our mapping exercise.

Early on, we agreed that the focus would, first and foremost, be on information consumers (60%): FATA communities who seek information through diverse outlets. Understanding their behaviors and attitudes—and their underlying rationale—and capacities would allow Internews to develop content and programs that will reach and be understood by these populations. Understanding a broad range of information producers (25%), both formal and informal, and the motivations, capacities, and self-conceptions of each actor would be critical to mapping information flows and networks of influence and trust among FATA communities.

Further, researching information distributors (5%) and regulators (5%) would help Internews identify the opportunities and challenges for information dissemination. Finally, media-related organizations (5%) including NGOs, watchdog groups, and others will help guide the research process, both in data collection as well as analysis. On the following pages is a condensed version of the study's stakeholder analyses:



DEFINING TARGET RESPONDENTS



Information Consumers

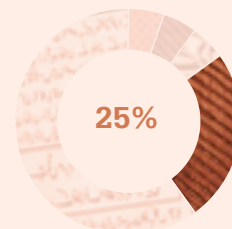
Examples of Entities

- FATA populations in and outside of FATA, a diverse sample in terms of gender,* age, economic background, education, location (both rural and urban)
- Particular attention will be paid to
 - a) influencers, as their habits and choices have outsize impact on their larger communities
 - b) youth, as their behaviors can suggest trends in information consumption and technology habits
 - c) low-literacy populations, as ICTs have the potential to uniquely serve them

**Note: It may be difficult to access female populations. Little is known about this demographic in the region, much less specific media and technology behaviors.*

Key Questions

- How do they access, share, and assign value to different types of information?
- What is the role of information/news in the context of life in FATA? (Does it play role in creating change? How FATA populations perceive information/media? What types of information do they want to access?)
- What is their access to and usage of technology?
- How do they evaluate the credibility and trustworthiness of information sources?
- **For influencers:** What is the relationship between these individuals and those they influence? How do they gain and use their influence? How does information and communication impact or facilitate their influence?
- **For youth:** What are the tools they use to access and share information?
- **For low-literacy populations:** What are the ways in which they are accessing information, despite their lack of literacy?



Information Producers

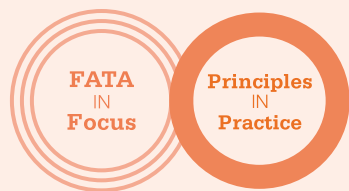
Examples of Entities

- Journalists: local and foreign
- Bloggers
- Traditional leadership
- Informal community leaders
- Civil society and/or special interest groups (e.g. youth organizations, NGOs, fundamentalist groups)
- Religious media outlets (e.g. mullah radio) and leaders (e.g. imams)*
- Government officials (e.g. Political Agents)*
- Government and state-controlled media outlets (Pakistani and foreign)*
- University journalism departments
- Press clubs
- Political parties and activists
- Businesses and/or entrepreneurs

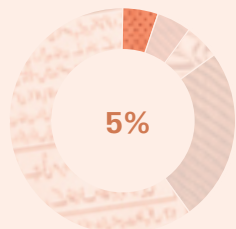
* = May not be possible

Key Questions

- What are their goals in participating in the information landscape, and in producing information?
- How does each actor see its role, and how does it compare to other actors in the ecosystem?
- What sort of training have they had to produce information, and what are the standards they hold themselves to?
- What is their sense of the security issues involved in their work? How do they mitigate security risks?
- What other information sources do they draw upon and use?
- What do they see as the biggest constraints, for themselves and their listeners/viewers?
- How do they evaluate their success as information producers?
- For businesses: How do they approach marketing in FATA, and is it any different from how they advertise in the rest of the country?



DEFINING TARGET RESPONDENTS



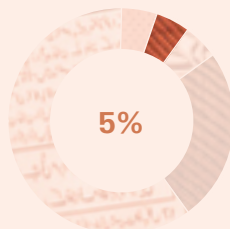
Information Distributors*

Examples of Entities

- Media groups (e.g. Jang, Dawn, Lakson)
- Local media outlets
- International media outlets
- Television broadcasters
- Crowdsourced content sites (e.g. Hosh Media)
- Aggregated content sites (e.g. Teabreak)

Key Questions

- How do they determine the content that they will include in their outlet? How do they prioritize different pieces of content, and choose what to feature?
- Do they track responses to the content they put out? If so, what tends to be more/less popular? Do they have ideas as to why?



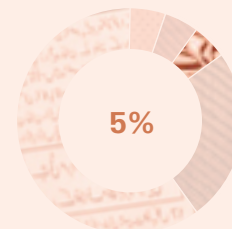
Information Regulators/Controllers*

Examples of Entities

- Government agencies (e.g. FATA Secretariat, Pakistan Broadcasting Corporation, Pakistan Electronic Media Regulatory Authority)
- Traditional leadership and tribal elders

Key Questions

- What are their key goals and concerns regarding to the production and dissemination of information?
- How do they determine what types of information can or cannot be shared, and how they will be shared?



Media-Related Organizations*

Examples of Entities

- NGOs and civil society groups (e.g. Rural Media Network Pakistan, Pakistan Centre for Development Communication)
- Journalist unions

Key Questions

- What do they think are the key opportunities and challenges in securing greater information access and better quality of information for FATA communities?
- What are their thoughts on our research framing and plan, as well as our findings/analyses?

**For this study, it was determined that perspectives of information distributors, media-related organizations, and information regulators/controllers would largely be drawn from existing research and expert consultations. Field research would largely target information consumers and producers.*

Research Methods

Many instruments are available to help researchers for getting a holistic view of a target community.

Group interviews provide a broad but basic understanding of key research themes, and surface threads that require further probing.

Individual, in-context depth interviews allow a deeper understanding of people's frustrations, hopes, and day-to-day lives, especially when used over time.

During a **home stay**, as the guest of a respondent, researchers gain greater empathy and insights into how people think and operate, as social barriers are broken down through sustained engagement.

Service trials yield first-hand experience of how programs and services work—and thus insights about the relationship between institutions and people—which is critical for effective program design.

The common thread to all of these instruments is immersion. Design research tools open structured space where researchers can discuss, observe, test, experience, and understand the mechanics and emotions of daily life in the way that respondents do.

Naturally, practitioners must choose instruments based on what is feasible in the environment. Consider culture as well as security, timelines, and other challenges.

Over time, the methods used may change, either to focus on an emerging theme or to overcome challenges (of bias, logistics, or other) that crop up in the field. Often, a discovery in the course of research makes one or more instruments obsolete; for example, a service trial of a government information line is impossible if the phone line has been shut down for the past six months. Governments and development organizations do not always have updated information on the service availability, especially for rural areas, so plan accordingly and remain flexible.



Tip

**Keep it
interesting.**

Always question whether a research tool is the right tool for the situation, and whether the mix keeps things engaging for the team. Research should be stimulating, and using a range of tools help unlock creativity, which is critical for program design.

The Value of Variety

Any research program worth its salt will use several different instruments. Multiple methods can help researchers triangulate data surfaced by different tools and address the inherent deficiencies within each tool, helping overcome research bias.

Everyone carries biases, and different instruments surface different biases in both researchers and respondents. For example, due to natural social dynamics, respondents in a group interview may be eager to appear more pious, more hard-working, or otherwise impress each other with their answers; individual follow-up interviews may elicit more self-reflective answers. Similarly, during an in-depth interview, a respondent may be embarrassed to admit challenges they have experienced in using a service, for fear of appearing incompetent, but a service trial or an observation of that same person using the service can raise these frustrations loudly and clearly.

Using several instruments helps correlate findings, check biases, and better understand the subtext of people's answers.

Research Tools



GROUP INTERVIEWS

Facilitated discussions with a group of respondents. Respondents may be grouped for any number of reasons: Similar demographics or profiles, or diverse viewpoints.

Used To:

- Gain a broad understanding of a new issue area and uncover key themes to probe further.
- Understand the dynamics within a community, quickly profile several individuals, and identify respondents to follow up with at greater depth.
- Establish shared research experiences and common reference points among the team.

Requires:

- A facilitator who is socially perceptive, firm, able to synthesize quickly, and has the ability to spark and sustain discussion.

Challenges:

- Group environments will impact respondents' responses. The desire to appear in a certain light amongst ones peers can influence answers.
- Certain individuals may dominate, and if they have some kind of formal or informal status within the community, their presence may prevent others from speaking their minds.

**Tip****Be inclusive.**

The value of group interviews diminishes if there are more than 10 respondents. But when entering a new context, group interviews that are open to all signals interest in all perspectives, and helps diffuse tension when specific individuals are chosen for interviews.



INDIVIDUAL DEPTH INTERVIEWS

Semi-structured conversations that probe into an individual's attitudes and thought processes. Best when conducted in private and in a setting that respondent is comfortable with, such as their home or workplace.

Used To:

- Gain a deep and nuanced understanding of how a person thinks and behaves.
- Learn about the environments in which respondents live, work, and play.
- Develop relationships with potential target users, with whom the team can return to help design, prototype, and test solutions.

Requires:

- A private setting to minimize the influence of other people.
- A significant amount of time, at least one hour.
- A skilled interviewer that has deep familiarity with the research topics, and ideally an accompanying note-taker/photographer.

Challenges:

- Getting rich data is time consuming. The team may have to visit a respondent several times to establish the trust required for them to speak openly and honestly.
- People may not want to reveal their true feelings or may simply misreport details for any number of reasons. Thus, it is important to validate findings across several respondents.

**Tip****Keep it small.**

For individual interviews, there should be ideally one or two, and certainly no more than three researchers, present.

Any larger a group and it can become intimidating for the respondent.



OBSERVATION

Observing the activities in a particular context, or the actions of an individual or group of individuals, to gain insight into the subtle forces that shape a place or a people.

Used To:

- Gain personal, experiential understanding of a context, community, or individual helps build an intuition about that context; this then enables you to make better design decisions for that context.
- Identify otherwise unarticulated needs and actions that may be subconscious to respondents themselves; what people think they do is often different from what they actually do.

Requires:

- Patience. Observation takes a long time. It is impossible to visit a hospital for an hour and understand all that happens in that environment, and why.
- Confidence. Observation requires researchers to trust their own instincts, and to believe their own insights have value. Such confidence grows with experience.

Challenges:

- Time constraints often do not allow for long-term observation—only when the researcher starts getting bored do they start noticing the minute contextual insights that are most revealing. Yet project timelines rarely afford the space for a team member to ‘grow bored’. Thus, researchers must be constant, vigilant observers that are attuned to, and documenting, the ebbs and flows of the environment.



Try shadowing.

Shadowing is much like Observation—it requires immersion and the focused study of people. Unlike Observation, Shadowing asks users to be active participants in the research process by “thinking out loud”; that is, by articulating their thoughts as they conduct actions. While an imperfect window into the human mind, it yields oft hard-to-get insights into factors that direct or influence behavior.



HOME STAYS

Extended (and usually overnight) stays in the homes of your target users, where interview and observation methods integrate with natural social interaction.

Used To:

- Deepen understanding of a target user group by observing the finer details and nuances of their lives. People tend to discard with pretenses and act more naturally the longer a guest spends with them.
- Achieve a more holistic understanding of community dynamics. By living in a community for several days, 24 hours a day, greater exposure to diverse rituals and opportunities for engagement will present themselves.

Requires:

- A high degree of sensitivity to how your presence may impact your hosts. The presence of a guest can be a financial and even emotional burden, in low-income communities. Thus, be sensitive to your hosts' cues, and compensate for any inconvenience you pose (e.g. bringing food as a gift) or understanding when to abandon (e.g. if it seems that it is straining the family's resources and energy).

Challenges:

- Homestays can raise expectations among respondents—after living for several days (or even a single night) with someone, the line between researcher and respondent can blur. It is critical to address expectations upfront, before the interaction begins.
- There may be personal risks to the researcher: Depending on the contexts, there may be health concerns (e.g. hygiene, food preparation) and security challenges, so heed the advice of the local team.



SERVICE TRIAL

A personal trial of the services used by the respondents. Gain firsthand experience of how the service functions, to inspire ideas for your own service or program.

Used To:

- Develop an understanding of service and program norms in a particular context. How people currently do things points to how they might want or expect to do things in the future, but also how they might want things to be different.
- Examine different models for service delivery and program implementation—from communications and marketing, to customer service, to grievance redressal—to inform the design of a program.

Requires:

- A keen eye for details. Each and every step of the service experience should be noted—the instructions and communications provided, the efforts or materials required, the service agents, the actions taken, any confusion or frustration, the outcomes, all observed and recorded in minute detail.

Challenges:

- Service providers and frontline staff often get suspicious when a foreigner is taking notes or asking questions about their service offering, and may be hesitant to allow you to take notes. Ask your local team to conduct the service trial, and to then document their experience after.



USER DIARIES

Self-reported responses to a prompt or set of questions, which can be recorded as written, photo, audio, or video diaries.

Used To:

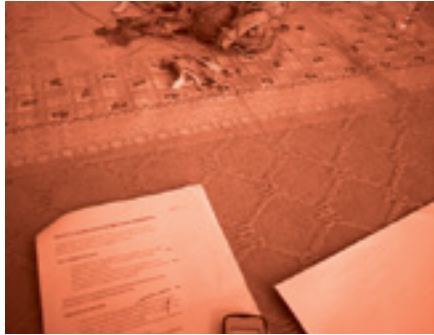
- Understand a user's particular habit, behavior, or thought process over time.
- Learning thoughts that users may not want to reveal through other means, such as face-to-face interviews, but are comfortable writing down and sharing.
- See the world from the user's eyes. By having them record their experiences, emotions, thoughts, and activities, you get a sense of the world from a wholly new perspective.

Requires:

- A degree of technical capacity among users—whether that is the ability to read and write, to use a camera or other types of records—or the ability to pick up the required skill quickly.
- Enthusiastic, committed participants. The quality of the data will depend on how much respondents are willing to invest. This exercise is particularly well-suited to young people, who often enjoy self-documentation.

Challenges:

- Incentivizing participants to maintain the habit is difficult. Consider how to make the exercise fun rather than cumbersome, and how to provide small incentives to encourage sustained participation.
- Not all respondents will understand what is required of them, in terms of the content or the techniques for documentation. To mitigate this risk, consider how to make the exercise as simple as possible, and provide training and support. But ultimately, be prepared to receive unusable data. Some respondents will misinterpret the prompt or tasks required.



SURVEYING

A series of structured questions focused on key indicators—demographics, casualties, usage of particular tools—that may impact our understanding of the research questions.

Used To:

- Used to contextualize findings, determine patterns of behavior, and map the extent of research patterns through the research sample.
- Develop a basic understanding of key demographics or norms around a specific topic. Many areas where development work occurs lack reliable data about their populations: It is impossible to find disaggregated data for the community level, or certain communities may have been overlooked in larger surveys.

Requires:

- A light questionnaire, no more than 20 questions, that can be used as a warm-up tool at the start of an interview, or at the end of an interview to wind down.
- Thoughtful questions that will add context to research themes—do not collect data for the sake of collecting data.

Challenges:

- Survey interviews can become cumbersome to respondents – do your best to make sure you are not robotic in asking survey questions, or try weaving them throughout the interview.
- The nature and structure of surveys can make it hard to get nuanced answers, sometimes leading to misunderstandings. For example, for the question “Do you use SMS?”, a respondent may answer “Yes” because they receive SMS notifications from their mobile network provider. Thus, be creative and resourceful in verifying survey responses to ensure both researcher and respondent take an answer to mean the same thing.



Respondent Indexes

Respondent Indexes are spreadsheets that capture survey results. They are a helpful check in design research because they can help identify broad trends within a sample or the validity of a specific finding, which can inform or constrain program design.



KEY INFORMANT INTERVIEWS

Interviews with individuals that have domain or firsthand expertise in areas you are interested in to test hypothesis and design ideas.

Used To:

- Kick off the research preparation, and help inform or design the research framing, themes, questions, and approaches.
- Test or validate ideas that have emerged through research, particularly early seeds or ideas for solutions.
- Understand contextual dynamics and constraints that the end-users may not know about (e.g. regulations, human resources in a particular area) but which may enable or inhibit a particular design idea.

Requires:

- Forward planning. Depending on the profiles you would like to interview, particular institutional audiences, it may take weeks to set up an interview, and it is worth weighing whether or not it seems worth the time.
- An understanding of the backgrounds and potential biases of each key informant. Some may want to talk to you simply to be helpful, other may have institutional or personal agendas they want to advance by participating in your research.

Challenges:

- There can be a tendency to overemphasize the expertise of ‘experts’. Particularly when timelines are short and questions are many, it is tempting to rely on their experience. Use them in a targeted way. They are not substitutes for talking to the real experts: the end-users.



Tip

Think beyond traditional ‘experts’.

Key informants can be anyone, but prioritize those with hands-on experience over pedigree. To design mobile information systems, key informants may include: Mobile network operators and software developers (to assess operational feasibility), government officials (to understand regulatory issues), mobile phone repairmen (to understand mobile consumer behavior), and bloggers and prolific Tweeters (to understand the changing information landscape).



ARTIFACT COLLECTION

Collect materials from a particular environment to understand the artifacts that context produces.

Used To:

- Understand people through how they conceive of, design, distribute, and use different tools and materials.
- Derive inspiration and guidance—artifacts help understand what forms, messages, and other decisions are understood by or resonate with a population.

Requires:

- A very large rucksack.

Challenges:

- It is not possible to collect every artifact the research team wants to. To the extent possible, 'take' an artifact by capturing it via photography. From all angles, at the most minute details.



Using Research Tools

In FATA, while we used many of the research tools highlighted above, individual depth interviews, observation and service trials proved most useful for our investigation.

Individual depth interviews formed the majority of the respondent interactions due to the sensitivity of the research questions. Respondents were understandably hesitant to speak about religion, politics, and technology in public. Most interviews, therefore, were conducted in private and one-on-one, and recording was not always an option.

Research is not always about asking questions though. In FATA, researchers enjoyed observation and shadowing activities, despite initial skepticism: "But people will think we are from the [Pakistani intelligence agency]!" One afternoon a researcher spent at a barbershop in Dera Ismail Khan proved especially illuminating. He observed that the conversations

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Principles in Practice

were far richer and more diverse than at the nightly hujra, a traditional gathering of men. The barbershop, he realized, was a place for both the rich and the poor, and where men helped each other—whether educated or not—learn about the day's news.

Researchers also tried many different services, from government ID registration to health clinics to banking services. One service trial of a telephone political engagement platform from the Pakistan Tehreek-e-Insaf (PTI) party stood out to the team. The platform allows people to pledge membership to PTI. After registering, recruits immediately receive a phone call with an automated recording from PTI Chairman and former cricket legend Imran Khan expressing gratitude for your support in his prime ministerial candidacy. From the ease of registration, to the sequencing and content of messages, all are instructive for communications campaigns in the region.

PHASE 2: Plan

Plan the Investigation

Every project has issues that are unique to its objectives and context. Plan an investigation that accommodates for—or, better yet, takes advantage of—these factors. It will yield better, more honest insights, which are the foundations of a good program.

After defining the research challenge and a rich set of supporting questions, it is time to determine the methods and plans to get those questions answered. But beyond research tools, it covers the practical aspects of your fieldwork: A field travel plan, risk management, and the composition of your research

team. Presenting these plans in a single place and an understandable way creates a springboard for diving into fieldwork.

This chapter also discusses responsible community engagement. Any development project can have potentially negative impacts on the community or context it seeks to serve. Self-awareness and proactive management of this risk is critical throughout the process.

Ultimately, designing an investigation is fantastic training for program design. Think of it as a trial run, and be as serious and committed as you would be for ‘the real thing’.

Operational Research Plan

Once you know what questions to ask, it is a matter of determining the nuts and bolts of how to get those questions answered. Where are you going to go? When will you go? Who will you take?

Sometimes, several of these factors, such as target locations or team composition, may have been predetermined by the project or institutional priorities. But whenever possible, push to make sure the operational details are just right—they can make or break a study.

STEP 1: Determine Locations

A few principles to selecting research sites:

Potential for impact.

Focus efforts in areas where your institutional expertise and resources can make greatest impact. That is not to say a study should categorically avoid areas where resources may have historically been concentrated.

There may be good reasons to do so—such as leveraging infrastructure in an urban area to test a pilot, or scaling successful programs—but consider whether there are traditionally neglected areas where you can have strong impact.

Ability to map connections.

It is important to interact with citizens from a range of locations in a particular region. Conducting research across diverse areas helps compare different features between them, and examine the connections and relationships between populations in a region.

Team security.

When selecting research locations, consider potential impact on team security. Team members' race, tribal affiliation, gender, and other characteristics may impact their ability to safely operate in different locations.

(For more on risk management, see page 56).

Time requirements.

The amount of time spent in each location will largely depend on deadlines, budgets, and staff availability, but always spend at least one week in a given focus area, meaning a particular city, a rural region, or other relevant definition. Any less and it is difficult to understand the rhythm of a place.

A full week (or more) helps the team build trust and credibility, and provides opportunities to follow-up with the same respondents when new questions arise. Often, people are more open and honest in a second or third conversation.



Team composition should inform location selection, and vice versa.

Usually one factor is more rigid, so plan accordingly. For example, if a project requires certain locations, recruit suitable profiles for those locations. Similarly, if there are individuals that must be on the team, assess locations in terms of risk to those individuals and adjust as necessary.

Choosing the Right Locations

Due to the immense deprivation in the region, FATA allowed significant opportunities for positive change. But choosing the right locations for research was critical to success.

Our investigation covered rural and remote areas of Pakistan, which are more information-deprived, and where ICTs have greater opportunity to make an impact, but also urban locations to be able to compare findings between locations. Urban areas, due to factors such as the concentration of resources and early technology adopters, also surfaced key information and media behaviors that are likely to spread across the region in the next few years. Finally, the investigation covered both locations in FATA and KP to examine the impacts of migration and displacement on FATA populations and their information habits.

As there was some operational flexibility, field locations were selected based on researchers' backgrounds. Given the sensitivity of the research questions and the tensions in the region—particularly in small villages, residents were highly suspicious of outsiders that had no

connections within the village, even if they were from a nearby town—researchers were only deployed to areas where they had extended social networks. They used snowball sampling to identify respondents. This ensured more honest responses, and the security of our researchers.

Each researcher or team of researchers was assigned to a certain city or region for two weeks. Even those assigned to a larger geographic area returned to the same towns or villages multiple times. FATA's challenges have made its people more guarded. Returning to the same respondents allowed researchers to build trust and rapport, ask follow-up questions that surfaced through nightly synthesis, and better understand the dynamics within a particular place.

STEP 2: Organize Field Logistics

Design is grounded in immersion and empathy, and it is impossible to achieve those while riding in SUVs, sleeping in four-star hotels, or sipping lattes in the capital. In field operations, do as the local do where possible—ride motorbikes, sleep in guesthouses, and become immersed in the patterns of local life. A few simple tips:

A few simple tips:

Accommodations

Rent a house, preferably in a residential neighborhood, or opt for a local guesthouse. Have core and local team members stay together to minimize the distance between international and local staff.

Travel

Use local transportation to experience life as your users do. While project timelines or team security may not allow local transportation everywhere, use them selectively. When hiring vehicles, select drivers carefully and cars that do not draw attention—both are critical to operational security.

Communications

An early key task is to ensure the entire team has local mobile numbers, and phones that work in the context. Each phone should have all other team member's numbers saved, as well as any emergency numbers. Depending on the project, locations, and other obligations for the team, get USB modems (internet dongles) for the team.



Tip

Consider a satellite phone.

When working in particularly remote areas, consider investing in a satellite phone for the team. Having an available phone line even when there are no mobile networks can be invaluable, even if only for peace of mind.

STEP 3: Anticipate and Mitigate Risks

Fieldwork comes with risks, thus there must be a realistic risk management plan for the health and safety of the team, and to make the most of time on the ground. Here are a few things to consider when planning.

Project Logistics

From visa applications to government approvals to other organizational factors, there are many logistical issues that may impede project progress.

Human Resources

Issues include obvious risks that are easier to manage, such as the number or quality of team members. Issues may also be less obvious and more difficult to anticipate or manage, such as team members' ability to cope with the stress and pressure of intense fieldwork, and to deal with sensitive and difficult conditions.

Field Logistics

Risks here are many, and not always predictable. From poor connectivity to unexpected operational hurdles, fieldwork always presents a range of issues that must be dealt with as they arise.

Security

The safety of a project team and the communities they engage with is paramount. Here, both individuals' physical and mental well-being and the security of collected information and data are critical components. Security is relative for each situation and individual, and changes in the security situation can be swift, thus requires constant and vigilant attention.

Research Challenges

Many factors can impact the feasibility, quality, or completeness of the research. Some of this risk can be mitigated through planning and training, others simply require close monitoring throughout the fieldwork.

Determine, where possible, the likely causes and likelihood of risk and the potential impacts. For each identified risk, assign an owner that will work to monitor that risk factor and mitigate its occurrence. When challenges do arise, the owner is also responsible for liaising with other operational stakeholders to manage its negative impact.



Tip Keep a low profile.

Avoiding unnecessary attention is key to risk management. Consider how choices in accommodations, vehicles, dress, and even dining spots may be interpreted by various actors in the field context. Where possible, be discreet and keep a low profile.



Tool Risk Management Plan

From the Internews Pakistan Case Study (available at www.design.internews.org/tools), this plan shows how to develop an operational framework for anticipating and mitigating project risks, and discusses some of the challenges anticipated and faced in FATA.

Managing Uncertainty

Due to the security and operational concerns in FATA, strict precautions were taken to ensure no members of the team were placed at risk.

A highly experienced field manager, Rizwanullah, was recruited for the project to support researchers, coordinate with Internews' security team and the project leads, and to troubleshoot as necessary. Fortunately, with the exception of some brief stints of illness, the project risks identified did not materialize.

But no amount of planning can prevent the unexpected. During fieldwork, protests erupted across Pakistan in response to an anti-Islam film that had been posted on YouTube. The government shut down mobile networks in 15 cities for one day to prevent protestors from organizing. Without mobile signal in Islamabad, the field manager instructed all staff to stay at home. Some researchers were resistant, citing the need to meet research targets, but the field manager insisted. Once mobile networks were restored, researchers were able to coordinate with the project leads, and collaboratively revise plans for the next day's research and synthesis plans, based

on the security situation in each of their assigned areas.

Communications in general presented challenges for the team. Given the sensitivity of the region, researchers and the project team determined operating protocol that included:

- a) all phone numbers of foreign and/or female colleagues were saved as local and male names;
- b) to reach field researchers, Reboot would send a text message and wait for the researcher to call once they were in a private or otherwise safe area—it could be dangerous to speak English in public; and
- c) SMS messages written or received in English were to be immediately deleted from researchers' mobile phones. Many others were developed to accommodate for the context, which required extra patience and effort from all team members.

Research Team

Choosing and preparing a team for fieldwork is a critical process. The research framework and the operational planning should help establish the size of the team and needed skills, talents, and traits.

Create a short job description for each role to be filled—translators, project managers, and technical leads—whether they will be internally filled, externally recruited, or one person may play several roles. It is important to have clarity on all roles, and how they fit together.

Most teams will consist of a **core** set of members drawing from an organization's, staff, partners, or clients. These individuals will be supported by a local team that is **native** to the program context.



Ensure
continuity
in process.

It is imperative that at least one of the program design team is also on the field research team.

Too much gets lost in knowledge transfer, and there is no substitute for the inspiration of immersion.

STEP 1: Identify the Core Team

Internally, making the decision about who to staff on the project team, whether staff, stakeholders, clients, donors, or consultants, can be challenging.

Often, institutional dynamics and constraints will impact this decision process. But be careful of how many team members are experts in the focus topic or region, as well as how many hail from that region. They may have strong personal opinions that, depending on their role and personality, can bias the entire team and research.

Soft skills to look for. While the technical skills you will need will vary by project, you want to generally look for people who are naturally curious, culturally sensitive, and who are both well-traveled and can travel well. It is also important that people are ready and willing to work hard. Field days are not like office days. Days can start as early as dawn and end as late as sunrise, and sleep deprivation is often the norm. Colleagues need to understand the commitment before jumping on board.

To that end, be sure to have a conversation with core team members about expectations, potential challenges and risks, and what they should expect. Interview them and be critical: Ask why they want to join the fieldwork, what they think they will bring to it, what challenges they anticipate, and how they think those will impact research. Look for colleagues who are thorough and thoughtful enough to be a benefit in the field. Also consider the personalities of core team members, and the dynamics between the organizations and interests they represent. The team needs to be able to get along even after an 18-hour day, and to honestly push back on each other.

Ask potential members how they think design research will impact the program, or others they may be working on. Some may think of it just as a standard research or field trip—look for those who understand the value of the approach, and the larger implications of the work.

STEP 2: Recruit a Local Team

A project lives and dies by its local team. Local researchers are vital for linguistic translation, relationship facilitation, cultural interpretation, and program design. A project simply will not happen without them, and in many scenarios, the research team will be following their lead. You need to have people you can trust, and who trust you.

Invest heavily in recruitment. It will pay off.

How to recruit a local team? Look for the same thoughtfulness, commitment to work, and understanding of goals as with the core team. Look for soft skills and emotional

intelligence. People who can blend in, and who are naturally empathetic and easy conversationalists are indispensable for design research, when earning the trust of respondents is half the battle.

Of course, ethnicity, tribe, language, religion, gender, and other factors that may influence a researcher's ability to interact with target respondents must also be considered. In certain regions, having a team member from the wrong tribe can make it impossible to engage respondents. In others, it will be impossible for male researchers to interview female respondents.



Tip Keep it small.

As a rule of thumb, plan for the smallest team possible. This will keep the team agile and flexible. A large team can change the dynamics of engagement—you will end up looking like a tour group.



Tip Team up.

Plan for one local team member for each core member. This enhances overall effectiveness and efficiency, as it allows the team to break into independently functioning pairs and cover more ground.

Local Team Profiles

Here are a few standard profiles that can be valuable to staff on a local team. Not all will be necessary, or at all phases. Consider the various stages of research, and recruit and sequence accordingly.

Institutional fixer.

Most programs require consultation and coordination with institutional and/or government stakeholders. Look for a team member with networks among key institutions, and who can get an audience with the right actors.

University students from relevant fields.

Students or recent graduates who are keen to bring an applied understanding to their training can be great researchers. Look for process expertise (e.g. anthropology or sociology majors) over technical (e.g. communications or journalism majors).

Early-career journalists.

Journalists usually have a nose for stories, and know how to draw them out of people. Their curiosity and listening skills are valuable assets. Most are street-smart, and they know how to get a team into desired situations and out of hairy ones. Early-career journalists are key, as seasoned ones have a greater tendency to introduce their biases or past experience into the work.

Local facilitator.

A team member from a particular geographic area can be valuable, and allow the research team to leverage their relationships and trusted status within communities it enters.



Recruiting in Pakistan

The characteristics and skills required on a team will change for each project. Here is a sample of what qualifications we sought when recruiting for our investigation in FATA. The soft skills were determined through a series of interviews (two to three per researcher, plus reference checks).

- Must be a Pakistani national, with deep personal familiarity with the FATA and/or KP regions.
- Must have interest and ability to travel within the FATA and KP.
- Must be fluent in both Pashtun and Urdu, and speak and write English at an advanced level.
- Must have the ability to operate in a wide variety of social contexts, and with respondents from diverse socioeconomic backgrounds, particularly low-income communities.
- Must be sensitive to and respectful of a wide array of political and religious beliefs and customs.
- Must be computer-literate and proficient in the use of word processing and Internet software applications.
- A background in the social sciences is strongly preferred. Prior experience with ethnographic or other types of qualitative research is also preferred.
- Knowledge of or practical experience in media, communications or other related fields is strongly preferred, but not required for the right candidate.
- Must be available from day before training begins to one week after field research concludes.

Anatomy of a Star Researcher

For our research in FATA, we were hiring to fill important and specific skills and attributes in our local team.

We were lucky to find researchers who had both the hard and soft skills and the personal investment that make great researchers. All 10 researchers recruited for the study were Pashtun, as this tribe almost exclusively dominates the FATA region. Given restrictions on women's mobility and ability to appear in public, one female researcher worked in the urban center of Peshawar to capture women's perspectives, although this gap in data is recognized in the research. While several researchers lived in cities and preferred Western dress, all wore traditional Pakistani dress throughout the fieldwork, and several grew out their facial hair, to comply with regional norms, and to put respondents at ease.

One of our best was a design researcher named Qaiser who ticked all the boxes: He had a background in English Literature and Political Science, so we were glad to have his language skills and geopolitical understanding. He was from FATA, but had worked with several NGOs and traveled outside of Pakistan; he both knew the local customs and had an analytical eye born from his exposure to other cultures and viewpoints.

But what really sold us about Qaiser was his obvious passion for research. In his first interview, he spoke energetically about his experience researching difficult topics, including

homosexuality in Pakistan, and was clearly comfortable treating fragile topics with skill and sensitivity.

Importantly, Qaiser was personally invested in the research, and wanted to see positive change in his community. This is a common trait of all our best researchers. While there is an obvious danger of bias, that is a risk we mitigate in every researcher (including ourselves), and it is far outweighed by the positive impact of personal motivation. To attend our final synthesis workshop, Qaiser turned down a rare and prestigious opportunity to travel internationally with a civil society group he had worked with—a testament to his commitment to our work.

Qaiser, like many of our best researchers, felt deeply a sense of injustice about how communities are misrepresented (or excluded) in mainstream narratives. His drive for the hard work and getting it right was personal, and that showed up in his outputs and analysis.

PHASE 3:

Collect

Collect
the Data

At the heart of design research is immersion: Entering as fully as possible into a context to better understand its people and their environment. Immersion builds empathy, and empathy is foundational to effective program design.

Primary data collection is how the team identifies the human needs, aspirations, motivations, and constraints that programs must design for, and the institutional capacities that will shape the program and enable its success.

The research framework and plans covered in the previous few chapters pave the way for effective field research. With the analytical and

operational constructs that enable strong field research out of the way, this chapter will cover the basics of good field data collection and, particularly, the most basic tool of design research: The interview.

There are dozens of methods and instruments available—each study will use several for triangulation and validation—but the in-depth interview is vital to most investigations. The skills that make a good interview are core to many different aspects of fieldwork.

Finally, this chapter will conclude with how to document the research experience—through notes, recordings, and photographs—to optimize their utility for the design process to follow.

Final Fieldwork Preparations

Research framework completed? Check. Team recruited and trained? Check. Travel and accommodation booked? Check and check. As a team prepares to begin field research, there are several practical activities that can make the fieldwork easier.

Get approvals.

It is often necessary to get approval of research activities from government authorities or community leaders. Investigate whether this is required in your research context, and plan accordingly.

Talk to experts.

Ask about local politics and dynamics during conversations with operational experts and colleagues who have worked in the region. Seek tips about how to introduce and manage your team and work, and any rules of engagement, both formal and informal, to know about.

Join the conversation.

Prior to research, get immersed in the conversations in the region. Start reading local media, from official outlets to local blogs to personal Twitter feeds, to gain a sense of what people are talking about and their daily concerns.

Develop basic language skills.

Being able to exchange at least a few pleasantries in the local language is invaluable for both understanding and being welcomed into a community. At the very least, learn: Hello; my name is; how are you; excuse me; sorry; thank you; and goodbye. It is smart to practice a few other phrases, as demonstrating effort goes a long way.

Carry this mindset through the fieldwork as well. Plan to arrive several days before fieldwork begins to acclimatize, straighten out communications, set up the local research team in-person, and take care of other details. Once fieldwork begins, all focus should be on the research.



Tip

Read a book.

You have read all the white papers, surveys, and books about the history or political economy of the region in which you will be working. Now pick up some good fiction. The nuance of a novelist's detail can be priceless.

STEP 1:

Remember Responsible Engagement

Every project has the potential to cause or exacerbate tensions in the communities in which it operates. It is critical that teams understand the dynamics of each context they work in. Beyond enabling more accurate results, such understanding helps ensure projects do not spark local conflicts that teams themselves may or may not see.

Some tips to keep in mind:

Actively manage expectations.

In all community interactions, make it very clear what the project will and will not do. For many, international organizations represent resources. Jockeying for access to a project team may cause conflict among communities. As a design research study may not lead to direct impacts on the community where the research is conducted, this point must be emphasized in community interactions.

Critically evaluate the respondent sample.

Within any community, individuals that are more powerful or articulate, or are easier to access, may dominate a team's attention, limiting its understanding of a larger community. The team may also be biased to certain respondent profiles. Be vigilant in examining how, and with who, time is being spent, and ensure that diverse perspectives are being represented.

Plan several introductions.

The affiliations attached to any team or project greatly impact on how that team or project is received. Prepare several options for introducing the work, in consultation with the local team, who will know best. Always be honest, but be careful to avoid any framings or descriptions that might jeopardize your team or your work.

Engaging Responsibly

For the work in FATA, how researchers engaged communities was important for managing expectations and avoiding conflict.

Depending on the particular village or respondent, researchers introduced themselves as from a media organization, a research organization, or an NGO—the latter was rare, given suspicions of NGO activity in FATA and security concerns for the team. If pushed for a particular name, researchers assessed the situation and provided Reboot or Internews, both of which were true, but each of which would impact their reception differently.

Respondents were told that the purpose of the research was to help organizations in the region better understand the lives of FATA communities. There was no mention of projects that may come out of

the work. Some respondents who had hoped for more direct benefits from the researchers were not satisfied by this response and did not participate. While this led to disappointment from communities and discomfort for the local team, it is far preferable to raising expectations that would never be met.

Some of our researchers appreciated the access the project gave them to influential people they may not otherwise have license or reason to speak to. By careful, daily monitoring of respondent profiles, project leads were able to identify this bias early on and redirect researchers' efforts and attention.

STEP 2:

Prepare Question Guide and Scripts

Question guides should be developed with the research team, after all team members have been sufficiently onboarded to the project and trained in the research methods. Collaboratively building the guides can cement project themes in team members' minds, and practicing with the guides helps them warm up for fieldwork.

Question guides are used to focus and guide interviews, but they should not be overly rigid. For researchers accustomed to asking pre-formulated lists of questions, the transition to facilitating discursive conversations can be uncomfortable. In design research, the interviewer is an active participant, a detective seeking clues that will unlock the next piece of the conversation—and the next insight.

The type and level of detail in each guide will depend on team members' backgrounds and previous experiences. It is counterintuitive, but there is an inverse relationship between how comprehensive and detailed the question guides should be and how comprehensive and detailed a team may want them to be.

If a team is eager to rely on a question guide, they will likely let the guide intrude on a natural interview. To avoid robotic, by-the-book interviews, spend more time discussing key themes with the team instead of giving detailed direction. Give them a few topline questions, and then discuss how specifically to get those questions answered. This will engage them in the process more deeply, and help imprint the questions into their minds.

With a more experienced team, writing detailed guides together may be a powerful brainstorm exercise and a useful tool for interview preparation. But, the team should be comfortable changing or even ignoring the guide when the context calls for it.



Role-play with the question guides.

Have the research team interview each other about their lives using the question guides. Having to answer the questions honestly will help everyone think through how sensitive, relevant, and probing the questions are, and help identify gaps.

Drafting a comprehensive question guide is elusive. Where the research is going to take you is never certain, but there are a few principles:

Emphasize open-ended questions.

Include suggestions for sub-topics or nuggets to probe within each question. Offer suggestions for follow-up questions.

Craft questions that draw out stories.

Or, ask respondents to provide specific examples that show, not just tell, you their feelings in response to a particularly topic.

Use examples in questions.

Include current events or happenings to ask about, which will ground conversations and make them more concrete and tangible. (Be careful, however, not to provide examples as possible responses!)

Start broad, then refine.

Do not close off options before exploring the possibilities around a theme. As key threads emerge through research, the question guides, too, will change and become more focused.

The team should read the questions for sensitivity and language, and then translate the questions into the local language together, to develop a shared understanding of how to communicate themes and topics. This is particularly important when technical vocabulary is involved, or when language ability is varied. In these scenarios, budget ample time for the team to practice and build confidence.

The Art of the Interview

Design research offers dozens of methods and instruments for collecting data. Good practice demands the use of several different tools, but this section will dive deep into the most fundamental of them all: The qualitative interview.

The interview is foundational to several methods, including home stays, service trials, and group interviews. Here, we will also use the interview to illustrate core principles of design research.

Henry Ford famously said, “If I had asked my customers what they wanted, they would have asked for a faster horse.” This is a key point: People do not always know the best solutions to meet their needs, so do not expect it of them.

The interview is not designed to generate solutions; rather, its purpose is to generate nuanced data about people’s lives through personal stories and experiences. Such stories reveal key insights about behaviors, uses of technology, community dynamics and other factors that inform program design. For the researcher to effectively gather this rich human data, a good interview should have a semi-structured arc.



Think ahead.

Always prepare for each interview context and be prepared with ways to make respondents feel more at ease: Bring a small gift if you are entering someone’s home. Dress respectfully and carefully: Too formal, and you may make them feel awkward; too casual, they may feel disrespected.

Informed Consent

Obtaining informed consent is a researcher's ethical responsibility, ensure each team member understands what it means and the process of obtaining it.

To get consent, first explain clearly how collected responses and data will be used—the goals of the project and the channels the data may appear in. It is also helpful to provide conditions and examples about how it will not be used. For example, for most projects, it is unlikely that any piece of information will be linked back to a respondent. This is an important pledge, so ensure a process is in place for removing inappropriate or sensitive material before it enters the pool of project data.

In some contexts, even if the respondent has given consent, he or she may not always understand the full project context, or its implications. In these cases, the team should “think for” the respondent and do this is a “moral check” at the end of each interview: Put yourself in the respondents' shoes and make sure usage of their information—words or photos—will not jeopardize their safety or security, or their dignity. It does not matter if respondents will never see the research report or findings; treating them with respect is not just the right thing to do, it is core to developing the empathy necessary to create a good development program.

STEP 1: Introduce the Project

Spend the first part of the interview introducing the process and goals of the session, and getting informed consent from respondents: Who are you, what do you want to ask about, why you want to ask these questions, and how long the session will take.

Let respondents know that their information will be protected and anonymized, and describe the ways in which the information they provide will be used. (For more on protecting respondent information, see Taking Good Notes on page 82.)

Give respondents a chance to ask questions, but maintain an open questions policy throughout the interview. Respondents have the right to change their mind at any time, so give them an opportunity to revoke their consent—and delete all their data. Bring a translated consent form with you, as well as a copy for them.

Ask for permission to begin.



“Be equal” and
“Do as they do”.

Try to be “as equal as possible” with respondents—from style of dress to the model of mobile phone used during fieldwork—and “do as they do”.

Mirroring body language, actions, and language goes a long way towards putting people at ease. Actions such as sitting on the floor when they do or eating if they eat help bridge the very obvious distances between researchers and respondents.

STEP 2: Build Rapport

Developing rapport with respondents is critical to any interview. Start with small talks and some general, open-ended questions about the respondents' lives, questions that are easy for them to answer: How was their day? How many children do they have? Where are their children?

Once a respondent is warmed up, begin by asking open-ended questions that are broadly relevant to the research themes. The start of an interview is when the researcher collects the 'ingredients' that will feed the rest of the session. Let the respondent drive this process. What do they want to talk about, what are they passionate about, on what questions do they divert their eyes and seem uncomfortable?

You will get the best interview if you follow a respondent's lead, so start by feeling around for the topics that 'open up' each respondent and take good notes on the threads and specific stories to ask about. This will provide the fodder for the rest of the interaction.



Tip

Be human.

Offer information about yourself, as appropriate: The interview should feel like a dialogue, not an interrogation, and sharing personal details and finding points of commonality can help put respondents at ease.

Types of Questions

There are several types of questions that can be used—or should be avoided—in an interview. This covers the basic ones, and their utility.

Open-Ended Questions.

Questions that encourage a full, meaningful answer using the respondent's own knowledge and attitudes. Helpful for exploring broad themes with respondents. (e.g. "How do you get information about events in your community?")

Follow-Up Questions.

Questions that solicit for details about a previous response. Helpful for gaining specific examples about statements made, or clarifying confusing and/or contradictory responses. (e.g. "You said earlier that you watch TV to get information about your community, but I do not see a TV in the house. Can you tell me where you watch TV?")

Leading Questions.

Questions that suggest an answer or contain information the researcher may want confirmed—the bias is often subtle. Generally avoided. (e.g. "Satellite TV channels seem to have greater independence from government control. How do you feel about using these channels for news, compared to government channels?")

Close-Ended Questions.

Questions where the answers are offered, limiting the respondent's answers. Generally avoided, but can be helpful for forcing a break in conversation and redirecting an interview. (e.g. "Do you watch television?" or "What TV channels do you watch: Al Jazeera, CNN, or Geo TV?")

STEP 3: Dive Deep

Once a respondent has warmed up, the deep research begins. Based on what the respondent has said about his or her experiences, select a few key topics to zero in on as relevant to the research questions.

Each interview is different, but the best ones draw people to tell detailed stories about their lives and experiences. If a respondent is speaking in general terms, ask follow-up questions that prompt specific examples. Actions and stories reveal more about what people actually do, rather than what they think they should do.

Do not be afraid to follow unexpected paths or turns in the conversation that may end up revealing unexpected aspects of the respondent's experiences. But avoid letting the interview turn into a one-track complaint session. A foreign researcher may be perceived to have access to resources that can "solve all the problems," and respondents may then focus on or hyperbolize difficulties. Remain firm and analytical, and steer the conversation back to broader life experiences, not just solutions they propose for your project.

Towards the end of the interview, and depending on the dynamics, it may be possible to ask about more sensitive topics, or to confirm or challenge findings from previous interviews or even that particular session. Did the respondent contradict him or herself, or something that was previously learned? If adequate trust has been established, ask the tough questions.



Tip

Ask the follow-up.

Respondents will rarely reveal all that they have to offer in response to a particular question. So ask follow-up questions: Who, what, where, how and, most importantly, why. They show that you are engaged and interested, and they often lead to the most revealing information.

STEP 4: Wrap Up

At the end of an interview, give respondents ample opportunity to ask questions. Help them review any photos taken during the session and to delete any they do not like. (More on this on page 85.)

If the study involves surveying, check if the questionnaire elements were fully covered; if they were not, ask the remaining questions.

End with a sincere thank you. If appropriate, depending on the context and institutional affiliation, provide a thank-you note with the team's contact information. If it was a particularly insightful or honest interview, encourage the respondent to get in touch if they have further thoughts, or any questions.



Tip

Be friendly but neutral.

Maintaining a neutral demeanor will help respondents feel more comfortable opening up or discussing sensitive topics. Listen, do not judge. Be engaged, and show emotion when appropriate, but do not overdo it. Be a sympathetic counselor, not a best friend.

Keeping Open-Ended Questions Open

We were interested in finding effective ways for disseminating information to or collecting information from FATA communities. The insight from true open-ended questions was crucial.

In our project, questions included: “How do you get information about your community? And about the world? How do you communicate with family and friends?” When faced with such open-ended questions, respondents would often look at us blankly. There would be a long silence. In that empty space, the researcher is tempted to follow up with possible answers: “Do you read the newspaper or listen to the radio for news? Do you call, text, or email your friends?” It is only natural to want help when we see someone struggling or confused.

But embedded within these friendly suggestions are assumptions about the range of possible answers. These ‘helpful hints’ turn the open-ended questions into leading ones,

and bias the respondents. Illiterate respondents may nod in response to prompts, and say they read the newspaper. People that receive automated alerts from their mobile service provider may agree that they do indeed use SMS.

We worked hard to train researchers to resist the urge to offer possible responses, and to keep questions truly open. Those that succeeded were rewarded with answers they never could have imagined. The question “How do you communicate with family and friends?” prompted answers that ranged from messages recorded on cassette tapes and hand-delivered across borders to walkie-talkie gossip marathons that doubled as Taliban eavesdropping sessions.

Institutional Interviews

Good design research involves end-user or community research, and institutional research as well. Given the complex and multi-stakeholder nature of any development project, it is critical to understand the needs, capacities, and constraints of institutional stakeholders—especially implementing partners or others that may play a significant role in program implementation.

Institutional interviews, however, can be notoriously tricky. There are many reasons why institutional actors may choose to provide partial or inaccurate information to a research team. These range from misunderstanding of the project goals, to the desire to secure funding and support, to opposition to the program objectives. Researchers must be prepared to bring a journalistic rigor to institutional research. A few tips on how to do so:

Be prepared. Review any background documents you can find about the organization or its activities. Practice for difficult interviews with teammates.

Be firm but fair. Be prepared to question responses provided by institutional interviews if they contradict your research, or if you believe it to be misleading information. But also consider the constraints respondents may face. Rarely are people trying to undermine a project; rather, they are trying to protect their interests. So, challenge them with empathy.

Get multiple viewpoints. As with end-user interviews, always seek out several perspectives from the same organization—across functional areas and levels of seniority—and from organizations with competing interests, to be able to develop a more holistic analysis of the situation.

STEP 5: Take Good Notes

Each interview should have a lead interviewer and a note-taker. It is tough to take good notes while interviewing. Immediately after each interview, both researchers should fill in the notes from the session in greater detail, address any gaps, and confirm that they heard the same things. Every night, team members should complete their notes from the day. If they do not, the finer nuances of an interaction will be lost.

In addition to basic respondent information and interview location, several key aspects of an interview should be captured in notes:



Protect respondent and researcher security.

Check all data to make sure all identifying information has been scrubbed from notes and photos being entering the pool. This includes names, ID numbers, phone numbers, and addresses. In certain contexts, to protect both your team and respondents, consider using code words when capturing sensitive topics (e.g. anything military-related) and ensuring the team carries no materials with organizational branding.

Interview Code

An identifying code for the interaction that both protects respondent privacy and allows the team to organize its interviews.

General Observations

General impressions about the respondent or environment, especially factors that may impact how the responses should be interpreted. (e.g. Were there other people around? Did the respondent seem nervous?)

Themes

Key themes or topics from the original research framework, or that have emerged through fieldwork, that were discussed. Tagging notes with themes throughout makes it easier to process and search through data later.

Notes

What the respondent said. These should be objective document of what was said—not what the researcher inferred.

Quotes

Verbatim quotes that illuminate a crucial point. These are useful for capturing user perspectives and distilling key insights.

Analysis

The researcher's interpretation or analysis of what was said, including possible inaccuracies, inconsistencies with other interviews, or relevant context from their own experiences.



Note Taking Template

Highlights key sections to include in your notes, and how they can be organized, as well as an excerpt from a set of notes from the Internews Pakistan Case Study. Available at www.design.internews.org/tools.

Recording Interviews

Deciding whether to record interviews can be tricky. Video and/or audio recordings can be valuable records, but they run risks as well.

When to use:

- When core team members do not speak the local language and have to rely on local researchers or translators. Recordings then provide an accurate and complete record of the interview.
- When it is inappropriate to take notes, for example, when a respondent is sharing personally difficult information.
- When a researcher is working alone, which makes conducting an interview and simultaneously taking good notes very difficult.

Challenges

- Recordings must be transcribed to be useful. The field team will not have time, so it requires additional resources. Tight timelines or budgets can make this difficult.
- People get nervous when they are being recorded, and the presence of recording device can stifle the interview.
- In some contexts, recording tools may raise respondents' suspicions about researchers' affiliations and intentions.
- Reviewing full transcripts of interviews can be a poor use of time. Field teams usually know their key insights. Allowing them to build upon their gut, rather than checking for every possible detail, may be a more efficient use of time.

Recording Interviews: A Management and Validation Tool

As part of the research management and quality assurance process, researchers were asked to audio record their interviews in contexts where it was appropriate.

The possibility that their interviews would be listened to by project leads increased researchers' motivation to follow guidelines and not cut corners in their interviews.

Select interview recordings were transcribed and translated to assess and validate researchers' submitted notes.

Understanding the relative quality of different researchers' outputs allowed the project team to evaluate and rank the data to be considered in program design. Researchers with poor notes usually had weak written English, so we found other ways to draw out and capture their findings.

Ethnographic Photography

Photography is a powerful investigation tool, able to communicate a full story about the people and places where a program is meant to work. Images capture the texture of complex dynamics such as service interactions, interpersonal relationships, socioeconomic status, and environmental conditions in far greater detail than can be recorded in written notes.

Thus the photographs, like the interviews, should dive deep. Aim to take between 10 and 30 photographs of every research activity or respondent interaction, using the camera as an instrument, like the interview, to probe and illuminate. Take them from different angles and perspectives, and focus on details, such as the make and model of a mobile phone or the various screens of the mobile applications a respondent uses.

When layered with the notes, these photos tell a rich story about the respondent's values, communication habits, use of technology, technical capacity, and the environments that shape them.

Program designers often return to research photos several times over the course of a project to look for details that they did not know to look for the first time. How much do people top up in mobile credit each time? Does it say something about the value placed on communications in a

given area? How did that well-known local NGO design its campaign posters? Can this be instructive for our program's communications strategy? What did that union membership card to that look like? What does its design or content tell us about how this particular professional class is regarded in a certain region?

Of course, know the cultural dos and don'ts before snapping away. For example, in some areas, it is forbidden to take photos of women. Even if a woman herself agrees, the photograph could cause problems for her.

Keep your key themes in mind as you take photographs, as the photos will help you communicate those themes at the end of the research.



Tip Be respectful.

Always ask permission to take photos, and explain to respondents how photos may be used.

At the end of the session, show respondents their photos, and give them the private space and opportunity to delete any ones they want.

Taking Good Photographs

This is an excerpt of a field guide prepared for our researchers in Pakistan. It features tips on how to use photography as a research and communications tool.



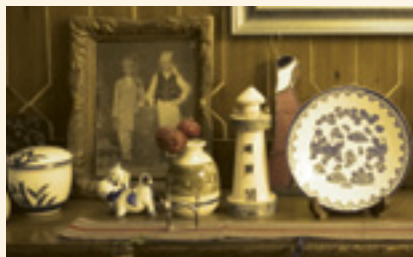
Ease respondents into photography.

For many respondents, a camera can be intimidating. To put respondents at ease, introduce your camera only after rapport has been built and take 'warm up photos' of team members or other innocuous subjects.



Capture the environment.

As much as possible, try to document your surroundings. This photo of a respondent's living room, for example, helps us learn about her values. Photos of her neighborhood may tell us about her economic status, culture, or the resources available in her day-to-day life.



Take photos from different angles.

In this photo, we see the specific details of what she chooses to feature. These artifacts, and this photo in particular, prompt further discussion about her family history and specific interests.



Notice the objects the respondent owns.

The things people own or create can say a lot about them. This photo of an entertainment magazine and an anthropology book, both lying on a coffee table, tell us about our respondents' interests.



Take the 'follow-up photo'.

As we probe with our questions, so can we probe with our cameras. After noticing the anthropology book pictured above, we took several 'follow-up photos'—this one shows an inside page. Beyond revealing the book's contents, this photo provides insight into the respondent's interest in the topic by capturing her handwritten notes.



A good photograph is not posed.

Staged photos obscure what is really happening. Candid, in-the-moment photos are much more revealing, and can help bring the team back to the moment and place later on. People are naturally animated, angry, frustrated, sad, engaged, or enthusiastic, so capture them as such.



Take photos of the team in action.

The research process is very much a part of the story, and researchers are active participants. With permission, the various phases of research and the team driving them should be captured.

Discovering Patterns

PHASE 4: Synthesize

Data has little inherent value unless placed in a larger context. Categories, structure, and relationships all help turn pieces of data into information. Design synthesis is a process to excavate valuable insights from the mass, and to bridge information and inspiration.

Design research can yield a massive amount of data, much of which seems random, counterintuitive, or contradictory. To collate, sort, and make sense of data—and the patterns and connections within—we use a process called synthesis, which occurs across several stages of a project.

In Phase 1, we called the Research Framework a living document. Field-based synthesis allows the team to

refine and reframe research questions and begin surfacing potential hypotheses to be tested and validated through ongoing fieldwork. Researchers should not be asking the same questions on Day 3 of a project as they are in Week 3. Weekly synthesis sessions organize early findings into frameworks for analysis. At the end of fieldwork, the process is used to identify opportunities for intervention.

All practitioners, no matter the project or the field, are managing constant and never-ending streams of data, inputs, and feedback—across project phases, and from diverse stakeholders. As a process for turning data into useful information, synthesis is a skill worth learning and mastering.

Synthesis Timing

Synthesis is a continuous, dynamic process, and each session builds on the ones before it. Detailed in this chapter are the five key steps, and each step is executed at different times and with varying frequency.

Synthesis is heaviest during and immediately after field research, but it is valuable in later phases as well, in considering how to integrate new inputs and feedback into design, implementation, and monitoring and evaluation.

In any period of heavy data collection, it is useful to think about synthesis in three stages:



Daily (Steps 1 to 3)

Gather every day—during field research, this might be in the evenings, back at the guesthouse—to share what was learned. Structured exercises help surface interesting threads, challenge team members' biases, and define key questions that must be followed up on in the coming days.



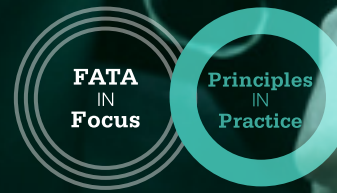
Weekly (Step 4)

At the end of each week, the team comes together for a deeper dive, going beyond basic synthesis exercises with a focus on exploring possible solutions. The weekly synthesis is critical for developing shared, wide framework of insights for later design.



End of Phase (Step 5)

At the end of any intensive project phase, it is valuable to conduct a 2- or 3-day synthesis session to allow deeper reflection on the research and, depending on the makeup of the core and local team members, to begin the program design process.



Adapting Synthesis in FATA

Operational challenges in FATA necessitated a modified synthesis process. Below is a description of how the teams adjusted for the demands and limitations of the context.

Instead of in-person, nightly, group synthesis, sessions were held over the phone (with each researcher and the Islamabad-based project leads) every 1 to 3 nights, depending on mobile connectivity. These conversations, ranging from 20 minutes to 1.5 hours in length, saw researchers relaying highlights from their recent research through narrative and working with the project leads through analytical exercises.

On the other end of the line, the project leads drew connections between the different research reports being received daily. At the end of each session, researchers were directed

to focus the next days' research on more targeted questions and topics, drawn from the themes emerging across research teams.

Weekly synthesis sessions, conducted twice, convened researchers in Peshawar and allowed them to develop a common understanding of each other's observations, providing the team with a shared foundation of insights to enable program design. Group synthesis also allowed the team to check and balance individual observations, as group conversations would highlight individual biases and help discipline the team's understanding of its findings.

Synthesis Process

STEP 1:

Capture All Ideas ○○○○○○○○○○

Start by having each researcher read their detailed notes from the day, relaying what they heard and saw, with some light commentary and analysis. The rest of the team uses Post-It notes to record the pieces that jump out at them, as relevant to the research themes.

With one idea per Post-It, record Observations, Insights, and Patterns. Assign a different colored Post-It per category to enable easier organization and analysis later on.

Observations can include a single piece of data, based on what a respondent said or what a researcher observed.

Note: Assign each Observation with a unique number, and tag it with the Location, Date, and Interview Number.

Quotes are verbatim quotes that illuminate a crucial point

Note: Assign each Quote with respondent identifiers (e.g. occupation or social role, age, gender, or others) to help contextualize the quote during synthesis.

Patterns are usually supported by several Observations, and point to trends taking place in the community or society on a larger scale.

Note: Assign each Pattern with a letter of the alphabet; if there are too many, start using double-letters.

Insights are revelations. Each is clear, concise larger truth in response to the research questions, abstracted from analyses of several Observations of Patterns

Note: Assign each Insight with a unique number.

There is no right or wrong idea, or order in which they should be expressed. At this stage, the key is to capture all that the team has learned in the above four categories, without judgment, and to put them up on a data wall.

This process fills up many Post-Its, and the data wall, surprisingly quickly, turning a mess of ideas in individual researchers' heads into a tangible map of shared understanding. It is a physical brainstorm that allows the team to discuss, manipulate, and build upon its findings.



Collaboratively capturing and sorting data is critical to synthesis. The Data Wall is a tool for doing so. Each synthesis session contributes to a Data Wall as a visual map of findings—often on a physical wall. If teams are geographically distributed, this can also be captured in digital format, but in-person interaction is ideal. The Data Wall represents a shared process to capture all research findings, make visual connections between ideas, and start generating possible designs.

The Mighty Post-It

Ever wonder why designers seem to love Post-It notes so much? They are great tools for sharing and brainstorming, because they are:

Democratic. Most people can write on a Post-It note. Once an idea is captured on a Post-It, it is equal to all other documented ideas under consideration. (As Post-Its only allow a finite length for each idea, so all must be equally succinct.) This prevents conversations from being dominated by louder, more articulate, or more confident team members.

Collaborative. The format encourages collaboration. On its own, a Post-It note is useless, but by tangibly mixing, matching, and building off other notes, team members are able to create new systems of meaning from disparate parts.

Infinitely reconfigurable. Moving ideas around on the wall inspires new connections and inspiration, and the semi-sticky Post-It allows for ultimate adjustability. When the team finds a configuration it likes, it can take a photo, then move them around again.

Disposable. In the program design process, people can get caught up in certain ideas early on. They speak for very long about them, convince themselves of the idea, then try and advocate it to others. With Post-Its, as each idea is only a small scrap of paper—or a collection of scraps—it is easy just to toss out suboptimal ideas before someone grows to love it too much.

Capturing Data

Our Data Wall in Pakistan had hundreds of colorful Post-It notes, capturing our team's field observations. Here a snapshot of our Data Wall, minus the codes for ease of reading:

OBSERVATION

Student package for DSL: Rs. 900 per month

Moving image trusted b/c "I can verify with my own eyes", not so with printed word (Pharmacist, 28 y/o, M, semi-urban)

Prayer marks can help build trust, particularly when traveling to more conservative areas.

For women who can't leave their homes, the nomadic tribal women that go door-to-door are their source of info.

Farming tips/instructions on Pakistan Tobacco promotional collateral.

When long-distance drivers enter teashops, people gather to ask about recent journeys—things seen and heard.

Young men send out mass friend requests to girls via Facebook; building network of friends in SE Asian countries.

People "trust" their landlords b/c "seeing is believing"—visible accumulation of capital signals wisdom?

Brother in Saudi found out about nearby attack before he did; called home immediately. Glad for such line for breaking news, frustrated at lack of such info at home.

Discussions about politics often focus on India, Afghanistan, or the US, not Pakistan.

Barbershops are social. Men go to watch TV, read the newspaper (or have it read to them if illiterate), and discuss current affairs.

QUOTE

"People come to me not just for haircuts, they come for information. It's part of my job, people expect it of me." (Barber, 34, M, rural)

"The operations are all we think, talk, dream about. Where was last hit, when, and was it meant for them? And, if we have the energy, how we can stop it? But we never have good answers." (Teacher, 54 y/o, M, remote)

"The green ceiling (sky) that hovers over us is sustained by God, not Mullahs." (Farmer, 25 y/o, M, rural)

"People think it that if you talk about the Taliban, they get alerted to it. A red light goes off." (Shopkeeper, 52 y/o, M, rural)

"I am not interested in politics, it has nothing to do with me." (Labourer, 37 y/o, M, rural)

PATTERN

Hujras are becoming fragmented, representing increasingly narrow viewpoints and demographics.

Rural areas: little understanding and/or awareness of elections. Urban areas: highly visible campaigns.

Despite fundamentalists' opposition to TV, significant growth in satellite—even in conservative areas—with dishes hidden inside homes.

Backlash against mullahs' political engagements, belief they are trustworthy only in religious realm (e.g. Eid-related news, timing fasts).

INSIGHT

Given that mobility is tightly controlled and information sources are limited in range and quality, people cross-validate news across outlets and mediums, and verify through their social networks.

Constant/imminent danger, lack of good information, and lack of individual agency have led to intense fixation on monitoring (scouring for information about?) security situation.

STEP 2: Identify Connections

Once a Data Wall has been populated by Observations, Insights, and Patterns, the team begins a creative process to find connections or patterns between each disparate idea.

Related ideas are clustered together, whether the relationships are obvious or subtle. Team members take turns moving Post-Its and presenting the different connections and themes they see between them.

Nothing is permanent. The Data Wall is a tool for exploration, and ideas and insights are arranged and rearranged in different configurations.

When the team settles on a grouping of ideas it likes, it should summarize what the particular arrangement reveals about the design challenge, document the arrangement through photos, and move on—it is just one way to think about the data, and there is value in trying others.

Through conversation, new Insights or Patterns are surfaced and added, interesting groupings are labeled, and the team works to situate the analysis within the larger research framework.

Identifying Connections

The process of organizing, pruning, and making sense of our Data Wall was no easy feat. With 10 local researchers from FATA and 2 international staff, the connections we saw—and our interpretations of them—varied widely. We embraced our differences in perspectives to generate some interesting insights.

Although we were constantly organizing and reorganizing our Post-Its into different clusters of ideas and relationships, here a few excerpts from our clusters, the themes they represented, and the new insights they inspired:

Cluster 1: RELIGION

Prayer marks can help build trust, particularly when traveling to more conservative areas.

“The green ceiling (sky) that hovers over us is sustained by God, not Mullahs.” (Farmer, 25 y/o, M, rural)

Backlash against mullahs’ political engagements, belief they are trustworthy only in religious realm (e.g. Eid-related news, timing fasts).

INSIGHT

Popular reverence for religion is waning, and the influence of religious leaders (mullahs) is increasingly tenuous and narrow. In spite of this, in contexts where social trust is low—for example, in cities or new relationships—religious exhibitionism (e.g. growing beards, playing Islamic music) helps encourage trust and smooth interactions.

Post-it Category Key

OBSERVATION

QUOTE

PATTERN

INSIGHT

Cluster 2: INFORMATION SOURCES

Brother in Saudi found out about nearby attack before he did; called home immediately. Glad for such line for breaking news, frustrated at lack of such info at home.

"People come to me not just for haircuts, they come for information. It's part of my job, people expect it of me." (Barber, 34, M, rural)

Hujras are becoming fragmented, representing increasingly narrow viewpoints and demographics.

Barbershops are social. Men go to watch TV, read the newspaper (or have it read to them if illiterate), and discuss current affairs.

For women who can't leave their homes, the nomadic tribal women that go door-to-door are their source of info.

When long-distance drivers enter teashops, people gather to ask about recent journeys—things seen and heard.

INSIGHT

Citizens lack reliable sources for the news they seek. Various reasons—lack of mandate, lack of access, regulations—lead to suboptimal info from traditional sources (e.g. hujras, messengers) and available media (international can cover the issues, but does not have the on-the-ground presence; local has the presence, but cannot cover the issues).

Thus, emerging trusted sources are those that have access and mobility, both across physical distance and social classes. Drivers, for example, bring eyewitness accounts of news from nearby towns, while barbers offer astute analyses of current events drawing from inputs from diverse customers/classes that pass through his chair daily.

Cluster 3: TOPICS OF CONVERSATION

Constant/imminent danger, lack of good information, and lack of individual agency have led to intense fixation on monitoring (scouring for information about?) security situation.

"The operations are all we think, talk, dream about. Where was last hit, when, and was it meant for them? And, if we have the energy, how we can stop it? But we never have good answers." (Teacher, 54 y/o, M, remote)

INSIGHT

FATA communities are consumed by getting information about the military operations. People seek information primarily for survival (what can we do about it today), not development (what can we do to prevent it tomorrow).

People lack understanding of why and how the security situation is the way it is, or any sense of what they can do to affect it.

Cluster 4: POLITICS

PTI mobile campaigning sparking popular dialogue about Imran Khan, who is then used as a gateway for discussions about the elections.

"I am not interested in politics, it has nothing to do with me." (Labourer, 37 y/o, M, rural)

Rural areas: little understanding and/or awareness of elections. Urban areas: highly visible campaigns.

INSIGHT

The historical insignificance in the region of national politics in FATA means both little understanding of how Pakistan politics operate. But even just increasing exposure to information can often help define its pertinence and shape interest.

Post-it Category Key

OBSERVATION

QUOTE

PATTERN

INSIGHT

STEP 3:

Identify What's Missing ○○○○○○○○○○

Throughout the synthesis process, the team should be engaged in a parallel and complementary exercise to identify the holes in collected data, and to collect the additional pieces of information needed to round out its analyses.

Categorize the data that is still needed into two categories:

Open Questions, which can be answered through further field research, expert consultations, or desk research. There should be no shortage of these, as checking one question off a list usually leads to several more.

Action Items, are high-priority tasks that are critical to the process. Sometimes, they are the means through which Open Questions will be answered. Action Items might include trying a specific service, talking to a certain stakeholder, or prototyping a particular service delivery model.



Be fearless about where research is coming up short.

It is better to be honest and vocal about gaps in data than to try to slide past them, as they will be sure to surface later.

In formulating the workplan and priorities for each day of field-work, review the Open Questions and Action Items and integrate them into the team's schedule as appropriate.

Identifying Missing Pieces

With design research, answering one question often leads to a mushrooming of new questions, particularly as patterns start to emerge and hunches for opportunities start to develop.

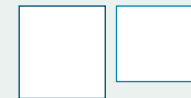
1: RELIGION



2: INFORMATION SOURCES



3: TOPICS OF CONVERSATION



4: POLITICS



Based on the clusters shared previously, our team identified new topics and areas we needed to understand. These included:

Open Questions:

- What kind of information do people get from barbers? And from truck drivers?
- How does the government communicate at the community level?
- How do people get information about basic public services—e.g. school fees, clinic vaccination schedules, etc?
- Do people feel compelled to participate in the national elections? Why or why not?

Action Items:

- Contact PTI group to understand its strategy
- Conduct observation at a barber shop
- Shadow a driver for a day
- Assess advocacy CSO landscape in FATA

Every few days, we sorted through the mass of Open Questions and Action Items that had been added to the master list and prioritized and assigned them to team members.

STEP 4:

Develop Conceptual Frameworks



The synthesis process yields many Observations, Patterns, and Ideas. At regular intervals—and at least once a week during fieldwork—the team should work to organize them

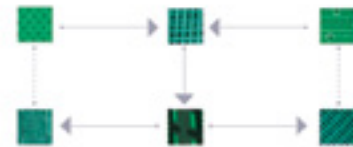
into conceptual frameworks to better understand the relationships between disparate data points, and to surface opportunities for intervention.

There are countless ways of organizing information. Here are a few commonly used models:



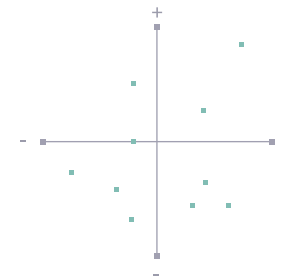
Ecosystem Map

An ecosystem map represents the relationships between actors in a broader ecosystem—including end-users, information providers, service providers, governments, and others. Each may represent one type of relationship or several, such as the flow of information, the exercise of influence, chains of command, or networks of trust. Such maps illustrate the dynamics within an operational context, and how individual actors may impact programming.



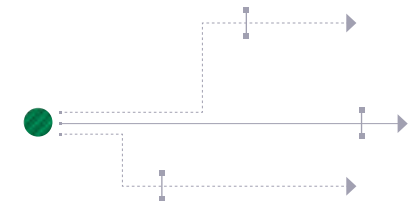
Process Map

A process map illustrates the inputs, steps, and outputs of a given process, as well as the variables that impact each: How does a news story make it to air? How does a person register to vote? By breaking a process down into its component parts, this framework helps identify and visualize key leverage points and/or opportunities for intervention.



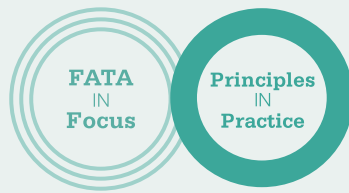
2 x 2 Matrix

A 2x2 matrix visualizes discrete observations to help draw out their relationships. Each matrix plots relevant observations along two key axes—for example, time, risk, cost, or reach—on a quadrant grid. In examining how each quadrant is populated, relationships and opportunities will emerge.



User Journey

A user journey is a step-by-step account of how a user achieves a particular objective. Objectives may include calling a friend, finding a good radio program, or getting through the day. Journeys show the instances where users interact with other actors (touchpoints) in pursuit of their goals, as well as the challenges they along the way (painpoints). Painpoints present opportunities for intervention, and touchpoints represent channels by which interventions may be delivered.

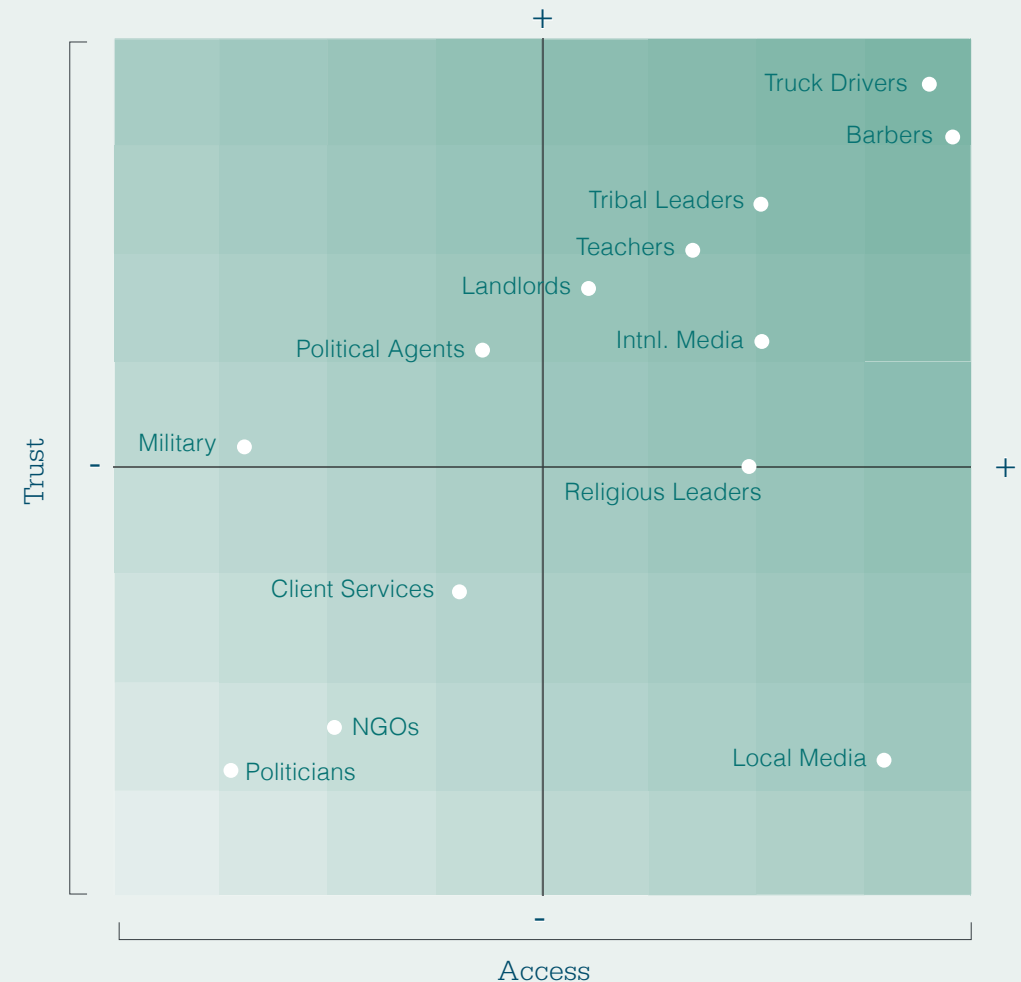


Using a 2x2 Matrix

As we were interested in understanding the relative trust people placed in information sources, and the access they had to various sources, we tried to map different actors along a 2x2 matrix.

In visualizing this, we saw that sources that were trusted (e.g. tribal leaders) were not always accessible. And those that were accessible (e.g. local media) were not always trusted. We see in the top-right of the upper-right quadrant an opportunity to leverage broadly accessible and trusted actors (e.g. truck drivers).

It is also interesting to note that most of the upper-right quadrant is populated by 'informal', community-level sources—given the dynamics of the region, most institutions and their representatives are inaccessible. This suggests that working through non-institutional actors may be key in this region.



STEP 5:

Identify Opportunities for Intervention ———●

Examine the Data Wall and its clusters of insights. What opportunities were surfaced through the team's interaction with the findings?

Examine the frameworks developed. In mapping a particular process, is there one step whose inefficiency causes outsized stress for users? Looking at an ecosystem map, is there an actor with great potential to impact others but may—for one reason or other—not yet be able to do so?

Opportunities are challenges re-framed, and are structured to spark ideas. Analyze the frameworks, discuss among the team, and brainstorm as many as possible. Capture each one on a Post-It note. Choose a new color to signal Opportunities, and integrate them into the Data Wall and/or frameworks, as appropriate.



Brainstorm with abandon.

Start by exploring opportunities without regard to organizational, operational, or technological constraints. To start, focus only on what would solve the problem—not necessarily just what's possible. Over time, constraints will be introduced.



Non-opportunities are valuable, too.

The design research process is helpful for surfacing new areas to explore, but also abandoning previous ideas and assumptions. Both are equally valuable for making sure time, energy, and resources are well used.

Once several opportunities have been identified, focus the team's attention on those that have the highest potential to achieve program objectives. There are several ways to do so:

Look for themes.

Cluster opportunities that may be alike in some way. Are there common themes? Do several opportunities speak to a core challenge, and thus a larger opportunity that is in line with program goals? As always, try several different groupings to see what stands out.

Vote.

One way to agree on areas of focus is 'dot voting': Each team member gets an equal number of votes (or dots) to represent the opportunities they believe have the greatest potential. They can put all their dots next to one idea, one vote beside each idea they like, or any variation in between.

Consider the environment.

Analyze the broader context, and the actors and forces that shape it. What are other organizations working on in the region, and would your organization's entry into an area complement, duplicate, or potentially undermine existing efforts? Are there trends or events that may impact the operational context—or community needs—in the near future? What are your organization's strengths and limitations, and where can your energies be put to greatest use. Be honest.



Be a pragmatic visionary.

Innovative, blue-sky ideas are great, but some point, we all need to implement with our feet firmly on the ground. Thus, it is best to be realistic about constraints upfront. The most impactful solutions are often simple ideas well implemented.

Identifying Opportunities

Groupings of ideas—a mixture of observation, inference, and captured commentary—and the further insights they inspired helped our team identify opportunities for our program, and areas we wanted to avoid (see pages 97-99 for a refresher on the clusters):

1: RELIGION

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Opportunity: How might we question commonly received wisdom (e.g. about religious influence) to prevent hunch-based program design?

Since the late 1970s, when mujahedeen funding poured in, mullahs have had considerable political influence and authority in FATA. Thus, many assume that their engagement is needed/helpful for development activities.

As we see that a) mullahs' influence is contracting (and even openly rejected in the political sphere), and b) religion serves an increasingly utilitarian for many citizens, we should reconsider any appeals to religion—whether through engaging them or through positioning/content in any civically relevant programming. Not only does it seem like it would not help, but it may actually be detrimental.

2: INFORMATION SOURCES

Opportunity: Consider leveraging the human networks/nodes through which people are increasingly dependent.

Citizens are relying on a wider array of information channels, often those informal and social, as more traditionally used information and media channels are decreasing in relevance and perceived quality. (Channel for delivery)

3: TOPICS OF CONVERSATION

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Opportunity: There is great desire for objective information on the forces that shape the security situation in FATA, and ways in which ordinary citizens may be able to influence it.

Currently, the news they get is simply reports of drone attacks or militant bombings—the information is used to inform daily activities and decisions (e.g. areas to avoid). They want information for longer term planning, even if it is only currently aspirational.

4: POLITICS

Opportunity: How can we increase access to information about topics that will be of critical importance to FATA communities, to help show its pertinence and spark interest?

While observers disagree on the impact the upcoming national elections will have on the region in the immediate term, there is certainly the potential for leveraging the political interest in FATA over a longer time horizon.

For citizens to have a voice in the future of the region requires initiating interest today. PTI has been able to spark dialogue through creative and broad-reaching campaigns. How might we learn from them?

PHASE 5:

Design

Design the Interventions

For many, the word “design” invokes an image of a lone, inspired genius, tinkering away in a lab until Eureka! strikes. In reality, while there is a degree of alchemy, design is a collaborative and creative but ultimately systematic process that anyone can master.

If you’ve made it to this stage, you already have the building blocks of a strong, contextually validated program. Research enabled the development of empathy for users; synthesis helped us understand the dynamics of the present and the opportunities for a better future; now, design will help define realistic plans to realize those opportunities.

This chapter focuses on the application of design research to program design and implementation. This entails working hand-in-hand with implementation teams to operationalize designs and to translate proposed interventions into outputs such as project proposals, resource plans, and/or programs workplans.

This process is by turns generative, creative, and technical. The purpose of immersive research is to enable the ability to “think like a user”, the beauty of doing it as a development practitioner the technical expertise that is brought to bear. Where user needs, institutional capacities, and contextual opportunities intersect is the sweet spot. There is not one right answer, but trust in your research and the instincts of your implementation teams.

Step 1: Define the Intervention

Having identified opportunities for intervention, it is now time to articulate each option, drawing from the insights about context, capacity, and culture surfaced through the design research process.

While different institutions will require different frameworks for presenting program plans—such as

activity schedules, logical frameworks, or indicator performance tracking tables—field knowledge is critical to ensuring all designs are clear, credible, and have strong potential for impact. The following page outlines the aspects of an intervention which benefit most from hard-won field insights.



Tip Wear different hats.

Always examine each intervention from different perspectives, both of users and implementers.

How would the solution work for a specific user profile? How should it be adapted to meet the needs of diverse users? What features might be needed to gain the support of partners, implementer, or the government? Consider all factors, then prioritize.



Tip Choose communities over funders.

At this stage, it is tempting to let donor preferences shape how interventions are defined. It is only practical: If a program can not find funders, it will not get implemented.

But donors are realistic, and most recognize the limitations of their own processes for determining priorities. Have faith in your research, and use it to present new opportunity areas to funders. They will respect your commitment to the communities you both seek to service, and be grateful for the contextually grounded insights.

Characteristics for Defining an Intervention

Need.

What need or painpoint will the intervention address?
How will it do so?

Process.

How can this intervention be delivered? What are its different components, and how do they fit together? Are the delivery mechanisms realistic given resource, time, and institutional constraints?

Actors.

Who are the actors or stakeholders that need to be involved, and at what stages of the process? Does the design provide them with incentives to participate?

Network Effects.

Is there capacity for the intervention to be amplified by the activities of others without further direct input?

Risks.

What are the associated challenges or risks, and how can they be mitigated?

Sustainability.

Does this intervention serve the existing interests of enough actors to generate demand over time?

Acceptance Criteria.

What are the metrics users will use to assess whether the intervention has fulfilled their needs? (These may include criteria around cost, time, accessibility, or other design considerations.)

Existing Capacity.

Does it draw from or build on existing behaviors, norms or systems within the context?

Step 2: Create Implementation Tools

After articulating the characteristics of each intervention, it is time to prepare for operational planning and handoff with your implementation teams.

To prepare for handoff, it is critical to document the knowledge gleaned from the design research process in useful, actionable formats. Whether the design research team participates in implementation, the team can offer a variety of tools to ensure the hard-won field knowledge can guide operational teams through implementation.

Programs are living systems and good ones will have a long lifespan. Memories fade and knowledge is lost as new stakeholders and practitioners are brought into programs over time, so these tools are critical.

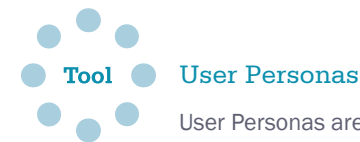
A few common tools include:



Design guidelines are abstracted but actionable guidelines that clarify what principles are essential for programming, but that are independent of any one intervention.

Through implementation, programs will inevitably evolve in design. Feedback from stakeholders and pilots will lead to revised strategies or activities. The implementation team will need to address these changes, often under high pressure and short timelines.

Design guidelines will support their decisions and ensure contextual insights continue to inform a program as it evolves.



User Personas are amalgamations of characteristics of a particular slice of a population, assembled into one specific, recognizable character. They focus attention on the most salient and relevant characteristics of a typical user, as relevant to program design.

Each persona includes a set of characteristics and constraints that must be considered in program design and iteration, as they are the user needs against which an intervention should be evaluated. They should be created for all key stakeholders that an intervention will target or involve, including end-users, service delivery agents, and key implementing actors.



Research and Design Report helps anchor the core rationale driving the program. A comprehensive report should include key findings and insights, conceptual frameworks, and other artifacts of the design research process. It should also include details of the research investigation, including locations, sample, methods, and limitations.

All these aspects should be woven together with sufficient contextual narrative to enable new program and institutional stakeholders to quickly understand how a program was conceived, structured, and designed.

Design Guidelines

Our work in FATA yielded a robust set of design guidelines that covered a range of topics and issues relevant to media development programming. Here are three examples:

Design for non-networked mobile usage.

Mobile penetration in the FATA is difficult to measure. Many people, particularly women, who have mobile phones do not admit to owning them—much less report them in surveys—for fear of reprisal. Even in areas with poor or no mobile connection, people use them at home to take photos or to use applications (e.g. calculator) that do not require a signal. Mobile ownership is, despite cultural restrictions and the lack of connectivity, still aspirational.

Leverage trusted service providers.

Increasingly, citizens are relying on a wider array of information sources, often informal and social, and challenging the relevance and quality of traditionally used news and media channels. Those with geographic mobility and/or access to a range of social classes are seen to have more accurate/informed information, and these include service providers such as truck drivers, barbers, and door-to-door saleswomen.

Understand colloquial code and test your language.

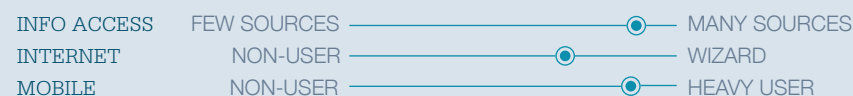
People fear the repercussions that may come from talking about sensitive topics, and in certain areas, suspect widespread surveillance of communications. Thus, many have developed a system of code words to overcome these challenges. While these systems are highly localized and dynamic, and thus we should not try to map or imitate them, it is important to understand how they impact communications, and to test our own language to ensure appropriateness.

User Persona

As we wanted to understand what information people were getting, and how, we sought to highlight these elements in our personas. This one is for a typical youth profile that a program in the region may target.

Arif, Student

Male. Age 19. Middle class. Lives in a village 1 hour from Daggar.
Languages: Pashto, Urdu
University Education



Arif is a university student. He speaks and writes Pashto and Urdu, and although he learned English in school, his verbal comprehension is poor and he cannot speak it himself. He wants to be a doctor and plans to go to China to study next year. His father worked in Saudi Arabia for many years; now retired, he supports Arif and his five siblings.

Due to security in the area, Arif's parents do not allow him to leave the house without a good reason so he tries to keep busy at home. He spends up to seven hours a day watching TV, and likes the talk shows on Geo TV. Capital Talk is his favorite. If electricity were more reliable, he would watch even more TV. Being a cricket fanatic, he is frustrated by the frequent power fluctuations, which force him to follow matches on the radio instead of on TV. He reads the Daily Express each day, but only the sports section.

He often surfs the internet while watching TV. His family got DSL two months ago, and he has a Yahoo email address and a Facebook account. Although he has his real-life friends on Facebook, he mostly uses it to find

girlfriends; he now has several such friends from the Philippines, with whom he shares photos (taken on his mobile) and updates about his life.

Arif says that he trusts mullahs "50/50": "I trust what they say (religious topics but not what they do (worldly activities)". Many of them, he says, are hypocritical and do not practice what they themselves preach. Being a cricket fan, Imran Khan is his favorite politician.

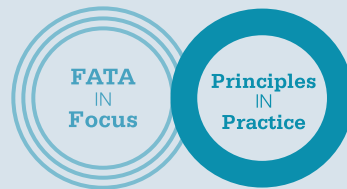
Arif has a Nokia 3110 mobile phone, and is an enthusiastic SMS user. He sends up to 60 text messages a day, but makes only 5 calls, if that. Many are forwarded messages to friends from news and infotainment subscription services, and related commentary. He sends news about bomb blasts and strikes, but also jokes and inspirational messages.

Arif also listens to music on his mobile. He does not have mobile data, so downloads songs on the family computer to transfer to his phone. He spends about PKR 300 a week on mobile credit.

Research & Design Report

The Research and Design Report from the Internews Pakistan Case Study will be released in early 2013.

For more information, visit:
www.design.internews.org



Step 3: Hand Off to Implementation

Once the guidance tools have been prepared, the team should prepare a workshop to share their knowledge with the implementation team, assess each proposed intervention, and develop workplans to operationalize the programs.

Ideally, the workshop should involve all stakeholders with a role in implementation, including donors, partners, and consultants.

Hand Off Workshop Components

Facilitated by the design research team and using interactive exercises, the workshop should cover:

Overview of Design Research Process.

To develop shared understanding of the research process undertaken, and to create broad ownership of the findings and inputs that inform program design.

Analysis of End-Users and Stakeholders.

To ground conversations about program design and iteration based on the observed needs, capacities, and constraints of program beneficiaries and stakeholders along the program delivery chain.

Presentation of Conceptual Frameworks.

To articulate how opportunities for interventions were surfaced, and to show the painpoints within existing processes, systems, and experiences that interventions will address.

Discussion of Design Guidelines.

To align stakeholders on why certain programmatic choices have been made, and key contextual factors that should inform program iteration moving forward.

Development of Operational Plans.

To produce realistic workplans, timelines, and budgets based on the intervention opportunities. While the implementation teams will lead this activity, the design research teams will be able to ensure all plans are informed by a strong understanding of context.

Learning from Design Research in FATA

The design research process yielded rich findings about the complexity of the information ecosystem in FATA. In particular, new insights about mobile trends, media culture and contours of influence in the region could not have been gleaned from survey data. These findings will be instrumental in designing contextually appropriate programs that improve access to information by communities in this region.

Mobile Trends:

Many areas in FATA are without mobile signal—reasons range from lack of infrastructure, to fundamentalist restrictions on technology, to government control of mobile networks to prevent militants' communication. A point-in-time snapshot of FATA today would suggest moderate levels mobile ownership: 51 percent. Yet many families have long had mobile phones, using them to take photos or play games, and to make calls when they travel to mobile-permissive areas. To talk to family and friends

(within a geographic range), people use walkie-talkies.

Compared to survey data, examining the factors that impact mobile usage yielded a more accurate view of mobile behaviors and near-term opportunities. As restrictions on mobile access loosen, and infrastructure investments grow, reasonable technological competency among FATA populations and significant potential for mobile services can be expected.

Media Culture:

In FATA, we found highly skeptical media consumers with sophisticated methods for verifying news information.

Many people perceived a hierarchy of media quality, based on how 'manipulatable' each medium was: The printed word, they commonly thought, is easier to control than moving pictures, making television more trustworthy than newspapers.

Yet, many factors, such as an outlet's ownership and affiliation, the news topic, the journalist putting forward the coverage, impacted how people evaluated a particular news story. For breaking news, they tried to verify the story across several media channels and personal networks before accepting it as truth.

Contours of Influence:

Mullahs, traditional religious leaders, are known to be highly influential in FATA. Studies have historically shown them to be among the most trusted institutions or leaders for residents. Our research, however, found that there are limits to the faith people place in these leaders.

While many respect such leaders for their wisdom and knowledge in religious matters, FATA residents believe they have no place in politics. Separation of church and state, it seems, is the common belief of our respondents, even though the nature of survey work may not allow them to say as such.

Design research allowed us to probe the contours of trust in religious leaders, a critical area of understanding for governance-related programming.

Looking Ahead

What makes an effective development program? For all the conferences, knowledge management forums, and long, long discussions, “effective development” is surprisingly intuitive.

Most successful development programs—not unlike all strong design—are based on an understanding of the institutional and environmental context and empathy for the people they serve.

These two concepts are the intuitive core of effective development. But institutional procedures, budget constraints, policy or donor priorities, tight timelines, and the pressure of solving urgent problems all conspire to wear practitioners down and constrain their work. Sometimes, this means we settle for subpar solutions—leaving the communities we serve to settle, too.

This reference guide offers constructive alternatives to standard approaches by detailing how to bring contextual empathy and insights into program design. Our aim is to help practitioners better understand the causes, relationships, and human dimensions of complex contexts, and then provide tools to incorporate this knowledge into the design of innovative and realistic interventions.

This is a process that begins with discarding assumptions to define a challenge. Too often, projects define challenges by presupposing a solution. Framing and defining a design challenge, therefore, is key for program design, and for the design research that will inform it.

The next step is planning the investigation, which should accommodate for the unique context of a project.

This covers both research tools and the practical aspects of your fieldwork: A field travel plan, risk management, and the composition of your research team.

Collecting data through immersion—the foundation to any effective program design—follows next. Primary data collection is how the team identifies the human needs, aspirations, motivations, and constraints that programs must design for, and the institutional capacities that will shape the program and enable its success.

Through the process, we build empathy both for the communities we serve, and for those that will deliver the programs and services.

As data is collected, regular synthesis helps sort through what can otherwise appear a massive amount of random, counterintuitive, or contra-

dictory observations. Design synthesis excavates valuable insights from the mass, and helps bridge information and inspiration.

Lastly, after research and synthesis have helped understand the opportunities for a better future, design helps define realistic plans to realize those opportunities. This entails working hand-in-hand with implementation teams to operationalize designs and to translate proposed interventions into outputs such as project proposals, resource plans, and/or programs workplans. Where user needs, institutional capacities, and contextual opportunities intersect is the sweet spot.

A companion report of findings from the Internews Pakistan Case Study that was featured throughout this guide will be released in early 2013. For details, please visit www.design.internews.org.



www.theReboot.org

Reboot is working toward a 21st century social contract. We partner with the world's leading organizations and the communities they serve to develop, design, and deploy platforms for inclusive and participatory governance. We deliver policies, programs, and services that enable individuals and institutions to engage one another and work collectively to solve social challenges.

Understanding people and the environments they inhabit is integral to our approach. Reboot's methods for data collection, analysis, synthesis, and presentation prioritize individual voices, integrating these within larger programmatic and policy discussions. Our ethnographic approach to understanding individuals, communities,

and institutions sheds light on complex human needs, behaviours, and perspectives. Through field immersion, often overlooked contextual and cultural factors that shape user experiences are unearthed. We have particular expertise in navigating cultural, demographic, and economic divides to understand user experiences, perceptions, and aspirations with regards to livelihoods or other sectors.

Importantly, our research is translated into actionable initiatives, including innovative program designs, ICT services, and policy frameworks for some of the world's most influential organizations including Nokia, Concern Worldwide, Merck, and the World Bank Group.

www.innovation.internews.org

Internews is an international non-profit organization whose mission is to empower local media worldwide to give people the news and information they need, the ability to connect and the means to make their voices heard.

Internews provides communities the resources to produce local news and information with integrity and independence. With global expertise and reach, Internews trains both media professionals and citizen journalists, introduces innovative media solutions, increases coverage of vital issues and helps establish policies needed for open access to information.

The Internews Center for Innovation & Learning

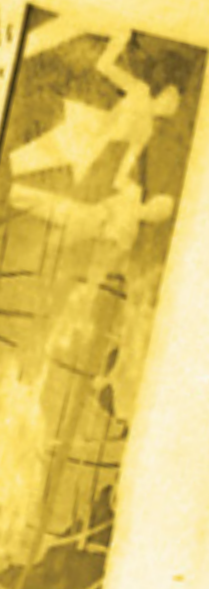
Building upon the breadth and depth of Internews' activities and experience accumulated over a 30 year history of promoting independent media in more than 80 countries around the world, the Internews Center for Innovation & Learning (ICIL) supports, captures,

and shares innovative approaches to communication through creative research and development worldwide.

Founded in 2011, ICIL strives to balance local expertise and global learning in support of our vision that healthy information ecosystems are a root solution to furthering human progress.

ICIL serves as an open knowledge hub that develops and inspires collaborative investigation and experimentation. Through a rigorous, iterative process of pilots and experimental research ICIL seeks to contribute information and tools to better understand the changing world of communications.

This is far from a solo endeavor. Internews hopes that ICIL activities will engage and benefit both those working at the front lines of global development and the communities they serve.



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