Crowdsourcing Tools

Source: istock/visualspace

Young man giving anonymous feedback on a new city walkway he is using

Relevance of this Tool Type within the Project Cycle

Crowdsourcing can be used to quickly collect up-to-date information from many individuals (often anonymously) at relatively low cost, especially from (potential) target groups and Project Affected People (PAP).

Definition

Crowdsourcing is a process used to collect ideas, observations, opinions, votes, or feedback through a participatory approach from large groups of people who are not known to the project partners, that is, the crowd, assisted by technical tools. The crowd participates voluntarily in the collection of data via the internet or mobile phone (SMS, MMS, or an App), usually without prior training in data collection. In so-called "bounded" crowdsourcing, large but identified groups of people (e.g., staff members of a large organization) can be equipped and trained to use specific data collection tools (e.g., cameras, videos, etc.).

What is the Purpose of Crowdsourcing?

Crowdsourcing allows for the establishment of instant feedback loops with target groups and the engagement of beneficiary communities into problem-solving in projects. Crowdsourcing, therefore, enables the integration of local creative ideas and innovation into project design and implementation.

Step 1: Check the Principles!

Before designing/selecting any crowdsourcing tool, the nine *Principles for Digital Development* (https://digitalprinciples.org/) as well as the *Core Principles of Constituent Feedback* (https://feedbacklabs.org/about-us/guiding-principles/) should be considered.

Step 2: What are Our Objectives?

Potential crowdsourcing objectives include:

Tailoring project design to local needs

Crowdsourcing can be leveraged to engage communities living in a project area in the identification of problems as well as solutions (e.g., brainstorming with target groups). This can support situation and needs assessments and programming efforts while creating regular feedback loop mechanisms and trust between target groups and the Project Executing Agency.

Project monitoring and evaluation

Project teams can periodically ask target groups to participate in surveys to collect regular monitoring data or conduct specific progress assessments (e.g., target group observations, evaluations, or satisfaction levels). In combination with effective (Remote) Management Information Systems (R/MIS), such solutions have the potential to make regular monitoring tasks and data collection for specific project indicators that are directly related to the target groups more effective.

Accountability and complaint mechanisms

Beneficiaries are enabled to monitor the progress of infrastructure or other development projects by reporting problems. Similar reporting mechanisms can be used for incidents during elections and opinion polls or to gather information about the quality of public services.

Crowdsourcing simple tasks

Simple or automatically verifiable tasks (e.g., market research for value-chains or microfinance assessments, local language translation, user reviews, open-source programming, etc.) can be crowdsourced and are often paid via mobile-phone-based micropayments.

Step 3: What Types of Information and Tools Do I need?

Crowdsourcing can deliver information on any topic as long as the relevant information is directly accessible to the participating individuals. This information is mostly provided as text, numbers, or Interacive Voice Response (IVR, see below), but can sometimes contain photos, video imagery, or geo-tagged data, if offered by the chosen crowdsourcing software or platform. For market data observation or polling (opinions, votes, ideas), specific tools are available > Links to Further Sources.

Step 4: How to Make Collaborating with the Crowd Possible?

The effective application of crowdsourcing requires indepth local knowledge and clearly identified information needs to engage and empower the relevant crowd. As a minimum requirement, the crowd needs to have access to the required information and needs to be able to submit information as simply as possible. Crowds can be reached through open calls for participation via radio, TV, or online or direct engagement in bounded crowdsourcing. Further considerations when engaging crowds are:

Motivation

- Vision (clearly defined ideals and objectives, e.g., government accountability)
- Material incentives (e.g., micro-payments through mobile tools for accomplished tasks)

Skillsets

- Communication skills (e.g., local languages, digital literacy, [functional] literacy)
- Technical and professional skills (e.g., type of profession)

IT infrastructure

- Ownership of crowdsourcing devices (e.g., simple vs. smart phone users; ITU for country data > Links to Further Sources
- Access to relevant infrastructure (e.g., cost for and connectivity to the internet)

Lessons on Crowdsourcing

These considerations must be reflected against the background of the digital divide (access to IT) within communities to ensure an inclusive process. Survey structures for tools must consider using identifiers to ensure that all relevant groups (vulnerable groups, in particular) within a community participate.

Due to the digital divide, the **data sample** drawn from crowdsourcing based on unstructured self-selection is usually biased and not useful for impact assessments. Accompanying studies can be useful to draw conclusions on the context of crowdsourcing efforts.

Stakeholder engagement is a must to ensure government support and the support of local authorities, including traditional authorities.

Step 5: Selecting Crowdsourcing Tools

The selection of a crowdsourcing tool depends on both the information need and the characteristics of the crowd. For example, women sometimes do not possess their own phone, but share it. In general, user interfaces need to be as simple and engaging as possible to motivate participation.

- **Mobile-based systems:** Open-source, mobile-based systems provide customizable crowdsourcing solutions for any information need that allows for data collection via SMS, social media, and direct upload of data by the crowd. **SMS**-based systems offer the crowd a two-way communication to select relevant information or optional answers similar to surveys. Similarly, **Unstructured Supplementary Service Data (SSD)** solutions allow the crowd to select options in pre-designed protocols and the project to receive brief survey data. **IVR** allows the crowd to interact with an automated host system to provide data input via voice recognition. This is increasingly part of open-source systems and an advantage in contexts of low literacy (Exampe: Decentralisation Programme Togo). Translating and sharing the tools in local languages may be necessary, for which crowdsourcing can also be used. Besides open-source, mobile-based solutions, new tools can also be developed at high initial investment costs > Fact Sheet (Remote) Management Information Systems (R/MIS) “Customized Software”.
- **Social media:** Popular social media services can either work as a channel to engage crowds via mobile-based applications or directly used to collect data and feedback. The advantage of using social media directly is the high degree of familiarity and frequent visits to social media platforms, which facilitates crowd participation.

Tools for Bounded crowdsourcing

- **Online surveys:** Questionnaires can be drafted and made accessible via links to online survey providers for regular monitoring activities, for example. These can be customized, and links shared via social media, e-mail, or SMS. An existing communication channel with the relevant crowd is required.

Lessons on Tools

Connectivity in rural areas may make offline data entry options for later upload at internet points advantageous. Support from local mobile networks is also necessary, particularly for SMS and IVR-based systems.

User friendliness of the tool is a must to engage and motivate a crowd to participate. Extensive testing of apps with prospective users is needed before their application.

Legal Aspects

Local laws may restrict collecting, processing, and exporting project-related data due to restrictions on the freedom of speech or restrictions on the use of crowdsourcing software.

Data protection issues can arise in connection to the content (e.g. name, picture, opinion relating to specific person) and/or to the technical process of the data transfer (e.g. telephone number). Only strictly relevant personal data should be collected and processed. If initial data minimization is not possible, data must be anonymized (by redaction or pixilation). In case KfW (or persons acting on its behalf) are (also) processing personal data, the privacy check in > RMMV Guidebook Section 2.3.1. must be followed.

A Tool must have adequate **security to protect collected personal data**, such as mobile phone numbers and names. Data leaks and security breaches threaten the viability of using crowdsourcing platforms, as participants must trust them. Flawed or inadequate data security to provide robust data protection puts the human rights of the participants at risk. This particularly applies in countries with limited freedom of opinion where crowdsourcing has the potential to put individuals at risk. In this situation, the privacy/anonymity of the participants should also be established in the Separate Agreement of the project > Section 3.1.4.2 Separate Agreement.

Data security requirements can also arise from local data protection regulations and/or the GDPR, which stipulate basic security requirements. Entities may be obliged under those rules to ensure the ongoing confidentiality, integrity, availability, and resilience of processing systems and services.

Controllers of personal data must also apply appropriate technical and organizational measures to satisfy data protection law. Business processes that handle personal data must be designed and implemented to meet security principles and to provide adequate safeguards to protect personal data > RMMV Guidebook Section 2.3.1.

In case **social media** are being used, the future deletion of the content, including any user data, after the end of the project should be explicitly planned and ensured so that this data cannot be misused later. This applies in particular to personal data but is not limited to it.

Project Examples/Use Cases

In the Decentralisation Programme in Togo (PAD; PN: 30205), the local population was involved using SMS/website for information sharing, participative community planning, and citizen feedback.

Links to Further Sources

- Success Factors in Crowdsourced Geographic Information Use http://documents1.worldbank.org/curated/en/387491563523294272/pdf/Identifying-Success-Factors-in-Crowdsourced-Geographic-Information-Use-in-Government.pdf
- The Role of Crowdsourcing for Better Governance in Fragile State Contexts (Closing the Feedback Loop, p. 107) https://openknowledge.worldbank.org/bitstream/handle/10986/18408/882680PUB0978100Box385205B-00PUBLIC0.pdf?sequence=1
- World Press Freedom Index https://rsf.org/en/ranking
- International Telecommunication Union Guides and Statistics: https://www.itu.int/en/ITU-D/Pages/default.aspx
- NRC Digital Community Hubs: https://www.nrc.no/perspectives/2020/the-technology-partners-helping-to-give-displaced-people-a-voice/
- Tools and recommendations on how to set up a feedback mechanism: https://feedbacklabs.org/

Linkages to other tool types

Further information on how to use this tool type in an RMMV context can be found here: