

The Local Content Ecosystem: How Do We Collaborate to Drive Global Action?

Introduction

Addressing the lack of locally relevant content is critical to ensuring that mobile and digital technologies are inclusive and that end-users fully maximize the technologies' transformative potential. Yet mobile ecosystem actors are, by and large, nonplussed by what should be done to overcome the barrier. This is because empirical research is lacking on the subject and because there are so many entry points across the content value chain. It is well understood, however, that people in emerging markets are not fully embracing the mobile and digital revolution because they lack sufficient information that is useful and relevant to their livelihoods, wants and needs. Coordinated understanding, thought leadership and action is, therefore, needed as a starting point.

Over the course of a day and a half in March 2014 in Washington, DC, USAID, Caribou Digital and FHI 360's mSTAR project brought together a group of 20 thought leaders – including technology providers, UX design firms, content creation organizations, academia, project implementers, donors, and policy makers – to discuss this issue around the following: (a) content value chain (creation, curation, localization, packaging and distribution), and (b) rules and responsibilities for different stakeholders in the international development community. One week later, a follow-up roundtable was held at the iHub in Nairobi, Kenya with a group of 12 leaders from NGOs, mobile operators, research firms and technology entrepreneurs. A special thanks to Chris Locke, founder of Caribou Digital, for facilitating the DC roundtable and strengthening the structure of the discussion.

This document provides a high level synthesis of the major themes addressed at the roundtables and key takeaways for all players involved. Note that this document is a synthesis of the ideas that came out of the two discussions, not a comprehensive analysis around the complexities associated with local content. Please see Annex A for the detailed agenda and group discussion questions from the DC roundtable.

I. Message Creation & Curation

One of the first components on the content value chain is message creation. Message creation focuses on the technical information that needs to be communicated (e.g., neo-natal health information) to the

user; content creation focuses on adapting the message into local languages and customs (e.g., neo-natal health information contextualized to a rural community in Ghana).

The approach to creating the message can vary depending on if it is considered a public good (e.g., health and nutrition information) or if a customer is willing to pay for (e.g., entertainment).

For those interested in generating revenue from expert messaging, it is therefore important to understand what the consumer is willing to pay for, and design it accordingly.

There are two main approaches to message creation: community-driven and expert-driven. A community-driven model relies on information that is generated by the users themselves. Two prominent examples are [Wikipedia](#)¹ and [Cellbazaar](#), both of which are digital platforms where users can localize and adapt existing messaging to a targeted audience.

The pros of a community-driven model are:

1. **Relevance:** Community-based message creators know their community well and are able to generate content that is localized to the community's language and culture, and more relevant to the community's needs than what is produced outside the community.
2. **Community Involvement:** A community-driven model empowers community members to manage and contribute to the process of creating meaningful expert messaging, while engaging those who may not develop content on their own. Community members are able to control and modify the messaging, update when appropriate, generate interest and raise awareness about the content and build sustainability through local ownership.
3. **Scalability:** Community-driven models can reach communities quickly and cost effectively because the model does not depend on external experts to create and tailor the content, which can be expensive and time consuming.

The downsides, however, include:

1. **Management:** It is difficult to manage this model and maintain quality control and curation oversight when everyone within a community can contribute and modify content without restrictions.
2. **Self-Efficacy:** Many of those who would benefit the most from the content are generally not able to access or generate the content because of societal norms or technology limitations.

The second approach – expert-driven – focuses on information that is developed by technical experts in a given development sector (e.g. health, education or agriculture). [MAMA](#) is an expert-driven example that utilizes a panel of technical experts to develop global technical health messaging that is then made into content that adheres to the cultural and language.

The pros of this approach are:

¹ A note about Wikipedia: It is hard to determine how to scale Wikipedia beyond its current format because (a) there remains a lack of confidence among users with translating technical material, and (b) there is a sense that even Wikipedia, with its global reach and positive brand recognition, has hit its saturation point. Much of the content that is generated globally has been covered by literate, Western-educated men. This leaves a gap in the business model for generating local content from users, or soon-to-be-users, themselves.

1. **Validation:** Having experts generate the technical messaging ensures that the substance of the content (e.g. neo-natal health recommendations, crop tilling tactics) is scientifically accurate, trustworthy, and proven to work in certain settings.
2. **Replication:** Because technical experts verify the messaging, it can be applied to different communities, provided it is contextualized appropriately.

The cons include:

1. **Centralized:** This approach requires a centralized governing body to generate and distribute the content which can potentially take more time to push out to users.
2. **Context:** Though the substance of the expert messaging can potentially scale globally, it still must be localized (e.g., cultural adaptation, language) to the context of the community to address differences in information, language, and cultural appropriateness, which may require a great deal of time and resources.
3. **Scalability:** Expert-driven content is expensive and potentially time consuming to create and maintain content for multiple, heterogeneous audiences.

Once content is created and/or sourced, it must then be curated for a given country or cultural context. Content curation is the process of selecting, organizing, and presenting information in a meaningful way. The amount of curation needed for user-generated content will be informed by the platform the content sits on. For example:

1. **Closed-user Group:** This choice is most effective when managed or explicitly guided; for instance, coordinating healthcare workers on the same mobile network and encouraging them to talk with each other on said network, while receiving reduced rates for doing so.
2. **Self-moderated Community:** Self-moderation is managed by the community and may require the least amount of curation; for instance, Google's [Baraza](#) allows users to post comments that anyone in the community can answer, with or without having experience on the subject. Many people in East Africa are using a combination of Instagram and mPESA to sell goods in a manner that reduces incidences of fraudulent sales.
3. **Social Media Outlets:** This allows for sourcing of content from many users in an ad-hoc manner, but also relies upon informal distribution models that might be inaccurate or even dangerous depending on what information is being shared and how legitimate it is and because of privacy concerns.

II. Localization

Localization is defined as (a) tailoring expert messaging to fit the local and cultural context, (b) adapting expert messaging into a local language, and (c) producing it in a way that is engaging for local audiences.

One approach to localizing content is to apply core principles of user-centric design (UCD), using an iterative design process, to understand the end user's needs, wants, and limitations around a service. The design process starts when the content creator lays out an initial set of assumptions and gradually tests them to see how effective they might be. Content creators may use this approach to determine which device type (basic, feature, or smart phone) and technology platform (IVR, apps, web browsers,

USSD, or SMS) to choose when designing an intervention for consumers. UCD not only assists content creators and distributors to determine the most appropriate device and platform given the characteristics of a given locale, but also informs how to effectively maximize reach and uptake.

There isn't a mathematical formula for making content relevant; the users need to be involved. People need to believe their voice matters for them to want to develop content, yet in remote areas with low education levels this is often not the case. Further, people must trust that the information comes from a credible source.

Distinct challenges remain. For starters, localization is by nature less centralized and more fragmented, which makes it more difficult to manage. Second, localization requires a great deal of resources to effectively understand the needs and wants of the community. Third, staff responsible for localizing the content must understand the local context to adapt the expert messaging into relevant and comprehensible terminology. Some expert messaging, however, cannot be tailored into the local context. Certain health information, for instance, might have serious cultural and/or religious taboos attached to it. Global content cannot always be simply translated and adapted for local conditions, but rather, some cases necessitate that content be recreated from scratch. Fourth are technical issues that influence and effect localization efforts. Finally, many mobile phones and browsers do not render many non-western language fonts, making it difficult to create content on mobile devices.

III. Packaging & Distribution

Similar to the process of localization, it is imperative to understand the users' needs, wants, and limitations to properly package and distribute expert messaging to target audiences.

Content that is user-generated can be distributed through various means: mobile technology, the Internet (e.g. social media), offline digital means, or offline entirely. Examples include: TV, radio, books and other paper media, face-to-face, roadshows, flash drives, dance skits, and flipbooks, to name a few. To maximize user adoption, the development community should continue to explore ways to push expert messaging through a combination of multiple distribution channels. Since many of these methods require personal interaction, the development community and mobile industry should explore opportunities to make content more dynamic and interactive based on what is happening at the community level.

International development is challenged with the fact that the incentives behind, and design of, donor-funded projects dissuade content producers from creating sustainable and wide-reaching distribution and delivery channels, products, and platforms. Instead, practitioners have become used to managing the distribution channels as part of a top-down, supply-side push culture that has not evolved with the user in mind or alongside the growth of disruptive digital technologies. Further, content is often produced on a bespoke, project-by-project basis where implementing partners are disincentivized to share or repurpose content across channels, activities, and organizations.

While demand for development content exists, it must be packaged and delivered appropriately. Discovery, in fact, is a considerable hurdle. With so much information available online and through mobile channels, it is hard to cut through the chafe and discern bad from good; a lot of content exists in

all shapes and sizes, yet a good measure of it is inaccurate or irrelevant. Given this, it becomes hard to drive users to content that is considered ‘good’ for their lives and economic advancement. Utilizing multiple delivery channels for content is, therefore, critical for more widespread, free, and easy discovery.

IV. Centralizing Common Content & Repositories

It has been widely acknowledged that once content has been made available to a target audience, its life cycle often ends there. One pathway, one purpose. Consequently, there is a strong appetite for the creation of a common repository through which all expert messaging – across sectors and delivery channels – may be shared.

While this does not currently exist for development content, there is a growing need and desire among the development community to produce one. To do so, it may be helpful that the repository have a credible stamp of approval – a recognized, known, and trusted brand. MNOs are more receptive to using content that comes from a credible brand name (e.g. USAID, BBC) because the name mitigates concerns about the quality and liability associated with development-related information. Including a stamp of approval might be controversial and potentially counterproductive so an alternative is to have labels and tags signifying the specific pieces of content that have been validated and approved.

With the creation of a centralized, common and expert-led messaging repository comes a set of critical issues to address: (1) there would need to be clear rules established and followed for uploading and validating content; (2) many different entities could play the role of managing the repository and it would be important to weigh all options; (3) governments might want or demand to play a role to provide and approve content, to ensure technical quality and standards; (4) at the same time, some governments might want to censor content; this would need to be addressed; (5) the more curation that is needed, the more complicated the repository would be to maintain; (6) the repository opens up the opportunity for predatory marketing campaigns and data mining that might jeopardize users’ privacy; (7) feedback mechanisms would be necessary; and (8) incentives would need to be clear for implementing partners to overcome traditional barriers to cooperation.

V. The Unaddressed Role of Aggregators

There was an almost unequivocal belief that there needs to be a middle layer between content producers and MNOs, and that aggregators are well positioned to play an operator-facing role. SMS aggregators use their proprietary software to transmit and receive bulk SMS messages from content providers to MNOs. Aggregators tend to have better experience negotiating with, and working alongside operators, and can speak their language. The development community, on the other hand, can unintentionally dissuade MNOs when not knowing how to interact with or best approach them. As operators and donors – on behalf of the development community – appear to be moving further away from one another by some accounts, efforts to connect the two have not been effectively pursued.

In fact, the content value chain is breaking down where MNOs interface with start-ups, entrepreneurs, and/or NGOs. Operators are bombarded with requests. If they want to launch a new development-

related value-added service (VAS), they would rather not entertain multiple ideas but rather go to flexible aggregators that can add value to the process and do so across multiple channels.

Aggregators can also facilitate reductions in cost and friction that are currently preventing small entrepreneurs or NGOs from getting a service up and running. Aggregation platforms can drive down costs on both supply and demand sides, and do so in a public goods approach that reduces the need to replicate for every occasion. Currently, costs of integrating with MNOs are so high that they stifle innovation. As a part of these reductions in friction and in order for entrepreneurs to be successful, content, apps and VAS must be integrated with mobile money and electronic payment systems.

VI. What Can Each Stakeholder Do?

Participants agreed that each stakeholder has a role to play in the development of messages and dissemination of locally relevant content, and that it requires several entities working in concert to do so effectively. As such, some distinct comparative advantages were identified:

NGOs:

1. Test different approaches when defining proof of concept
2. Understand user behavior, particularly around knowledge transfer
3. Conduct iterative, qualitative research for user-design
4. Identify who the end-users are
5. Leverage existing community engagement programs for research, design and distribution

Mobile Network Operators:

1. Push and make content available to consumers
2. Help determine distribution channels needed to reach users
3. Decide what VAS goes through their platforms
4. Embrace bulk price negotiations/reductions and open APIs, and help reduce friction for content developers
5. Use effective marketing campaigns to educate consumers about content and services
6. Leverage agent network/stores/kiosks to educate and promote consumers about content and services

Aggregators/Technology Third Parties:

1. Provide technical platform to push content in bulk across MNOs
2. Offer technical guidance with adapting content to different delivery channels
3. Negotiate pricing on behalf of the NGO to the MNO

Local Governments:

1. Partner with local NGOs to supply sector specific non-localized content for consumers
2. Endorse regulatory policies to enable more cost effective information exchanges through Internet Exchange Points and Internet Service Providers (IXPs/ISPs)

3. Unlock user-generated content development by releasing public data online and encouraging citizens to engage with and manipulate the data

VII. What Can Donors Do?

To complement and strengthen the above actions, donors are in a unique position to:

1. **Promote enabling policies and legal frameworks:** donors are well positioned to promote content policies and practices for governments on how content is managed and offer suggestions to create an enabling environment for content creation. For the former, policies/standard practices are needed around verifying content, streamlining the verification process, and investing in universal content. For the latter, policies are needed around promoting IXPs or ISPs for local hosting, taxes, promoting universal access to basic content, and advocating for privacy of personal data protection.
2. **Support open data:** donors and governments should promote open data so that anyone can adopt and adapt content. Because donors own all the content from donor-funded projects, they are well suited to make this widely accessible and easily usable. For example, USAID's Development Experience Clearinghouse (DEC) – a repository of mainly PDF documents – provides static data that could be better accessed by the community if donors mandated that partners upload raw and easily accessed data rather than final reports with inaccessible data.
3. **Support negotiations with MNOs:** MNOs are hesitant to promote and push content from NGOs onto their platform because of liability concerns. However, if a trusted donor brand (e.g., USAID) or a panel of experts was to accept liability for the content, MNOs may be more willing to accept and push content to their customers.
4. **Develop context/content criteria for NGOs:** because donors work in a multitude of countries experiencing varying levels of technological advancement, they are well positioned to develop a criteria checklist to help NGOs determine which mobile/digital platforms make sense to use in different markets. NGO's who follow the checklist may be able to mitigate quality concerns and help ensure the services are accessible and usable for the targeted audience.
5. **Incentivize NGOs/Implementing Partners to share content:** since NGOs are often creating content on a project-by-project basis, donors can reduce such fragmentation by incentivizing organizations to share content in a way that will not damage opportunities to win future bids, contracts and grants; this can be done through modifying solicitation documents that urge NGOs to collaborate more on content design, localization and distribution. Additionally, donors should be granted sufficient ownership of program deliverables to ensure that all content is accessible through a permissive license.
6. **Enforce best practices:** because donors work with multiple implementing partners across the globe, they are in a unique position to identify and enforce best practices from their various experiences across projects.

7. **Invest in better, more, faster research:** the time it takes to interact with data, from collection to publishing, is too long to be useful given the fast-paced changes within the mobile and Internet industries. There is still much more that needs to be understood around consumer awareness, user behaviors and pathways to adoption, particularly for underserved populations; the donor community can help fill this void in a more timely manner.
8. **Connect the development community and mobile industry:** while the two are not yet on the same page or speaking the same language, their audiences are often similar. Donors can use their global footprint, local level experience, and convening power to bring the two entities together to drive mutually beneficial action around content development and distribution.

Key Ideas & Takeaways

A tremendous amount of perspective, reality, and energy came out of the two roundtables. Below are key considerations that will be helpful in determining where each organization fits into the content value chain, and what should be done – either individually or collectively – to strengthen it. The intent of this document is for entities to share it broadly and to have conversations with their partners and within their sphere of influence around what it might take to unlock some of these barriers to greater content creation and delivery. Once organizations have had these conversations, they spread the word so that others can provide additional thought leadership and experience to overcoming the main concerns. The hope is that within a year's time, there are several initiatives and/or partnerships in place to demonstrate that together this can be addressed.

- ❖ **Localizing** content may be the most time intensive activity in the value chain, taking up to 80% of the work depending on the sector and country/community.
- ❖ **Community participation** in developing content is critical for uptake and maximizing digital technologies.
- ❖ Content needs to be **useful, accessible, and relevant** to users' lives.
- ❖ Content creators need to know their **audience's capabilities, needs and wants** before generating content and deciding on formats (e.g. IVR versus SMS).
- ❖ **Better metrics are needed** to gauge the value of content for all audiences.
- ❖ **Discovery and awareness are still critical issues** in unconnected or underserved communities and the absence of these reduce the impact of development content.
- ❖ **Digital Literacy** is premised on three key components: value creation, usability, and price.
- ❖ Issues of **Intellectual Property** must be addressed in content development, especially that which is user-generated.
- ❖ Content often is created with one channel in mind, yet users may need **multiple channels** to access it. If users are not accessing content, it does not matter how good the content is.
- ❖ NGOs should **leverage existing government extension services** for distribution.

- ❖ **Packaging matters!** Users are often more receptive to – and willing to pay for – lifestyle and entertainment content due to design and marketing. This is, in part, because actors, athletes and the like are incentivized to promote their work; the development sector is less incentivized and consumers do not actively seek out their information.
- ❖ **Branding matters!** MNOs are more receptive to using content from credible sources to mitigate liability concerns. While branding is especially relevant for sectors like health and agriculture, it may not be recommended for content related to democracy and human rights.
- ❖ **More and faster research is needed.** Given the rapid pace of change within the mobile industry, the time needed from data collection to publishing the results must be reduced significantly in order to make better, more real-time use of the findings.
- ❖ Donors and governments may help **negotiate public good-related data costs and short codes** alongside aggregators, with the aggregators best positioned to take the lead.
- ❖ Donors should **create incentives for content coordination and cross-purposing** within the development community, to avoid NGOs from duplicating effort and costs, and reinventing content.
- ❖ Governments can play a positive role in **scale** as it is not solely dependent on market forces.
- ❖ Programs and processes are needed to **educate the different players in the content ecosystem** on their appropriate role in the creation and usage of content, ultimately to drive awareness and understanding.
- ❖ NGOs would benefit from a **decision tree** for how to choose appropriate delivery channel(s).
- ❖ The **technology infrastructure** between content providers and distributors needs to be designed in a way that makes it reusable. This starts with localization from the beginning, including building the APIs that allow for others to easily build on top of them.
- ❖ One way to help NGO's afford the technical infrastructure needed to interface with MNO's is through **public-private partnerships**.
- ❖ Content actors could collaborate on content creation and aggregation by using a **GitHub model** whereby validated content could be further localized, converted, augmented, and re-posted, across many sectors and distribution channels. Through this platform, under a Creative Commons license, organizations would source, improve, and re-use content throughout any development program, government service, or mobile valued added service.
- ❖ **Investment in aggregators** is necessary because they play a needed role in negotiating with mobile operators, and build the technology platforms that can communicate across MNOs and delivery channels.
- ❖ Donors should work with NGOs to discuss the merits of digitizing content. If digital distribution is seen as the best channel to reach consumers, NGOs should **adapt packaging of content for digital distribution**. Many are creating content for old delivery channels (e.g. trainings and toolkits) rather than new technology delivery channels.

- ❖ Once NGOs decide to digitize content, they would benefit from collaborating on **content conversion**, from paper to digital or vice versa. This could take the form of in-country content workshops to showcase what content exists and in what formats it can be leveraged by all.
- ❖ If NGOs continue to interface with MNOs, legal advice and training are needed around **data protection, privacy, broadcast, and liability**.
- ❖ The development community would benefit from a **content repository** of technical messages, graphics, characters, etc.
- ❖ The largest portions of costs for pushing content through a platform are not on the technology or platform side, but rather with **marketing and awareness**. Putting messages out to potential consumers takes valuable time, energy, and costs.
- ❖ There is value to **repurposing Universal Service Funds** away from infrastructure build-out and more towards content development and distribution, and truly value-added services.
- ❖ The development community should **learn from BuzzFeed** and other sites about how audiences consume media and content, and how ubiquitous delivery channels and awareness lead to greater uptake.
- ❖ A **definition of terms** would be helpful as definitions are not always clear-cut and often are interpreted differently by each actor.
- ❖ Local content development and dissemination **should not be an end goal in and of itself**, but rather be a component of wider development objectives.
- ❖ Coordination among different actors working in expert messaging and content creation could be improved; one way would be through education programs that help define each actor's role.

A: Agenda & Discussion Questions from DC

Day 1, Theme 1: Tailoring existing content to meet consumer needs and platforms

On Demand/Discovery:

- What type(s) of development-focused or social good content do consumers demand? Is it about the content itself or about the way it is shared to the consumer?
- Where do/might consumers go to find such content efficiently?
- How do consumers assess the relative merit or value of the content that they find? How do content providers ensure validation and trust?

On Adaptability:

- Are certain types of content (e.g. sector specific) easier to localize than others? What are the key examples?
- What types of content can be localized and scaled quickly to multiple geographies, cultures and societies?
- What role does technology play in this? Are certain technologies preferred over others and if so, why? What is still needed on the technology front?

Day 1, Theme 2: Creating an environment for user-enabled content creation & distribution

- What drives users to create & share content?
- How do we curate user-generated content, promoting quality over ad-hoc information?
- What are the different modes of consumption, distribution & creation, and which technologies / venues are optimal for this?
- How does the role of international development organizations change as a consequence of emerging user created and distributed content?
- What role does the promotion of open, legal frameworks and other governance structures play in encouraging and improving creation of and access to local and global content?
- How do we promote greater digital literacy around the creation and sharing of content?
- What are the minimum levels of technology access needed to create and share content? Should we be building for the minimum levels and/or planning forward?
- What kind of content is already being user-generated and shared, and how?

Day 2: Small group work

To discuss users/individuals, CSOs/local institutions, governments, donors/development implementers, and private sector actors as they relate to:

- Distribution
- Technical information
- Scripted content/multimedia

B: Internet Regulation & the Impact on Content

Domain names are centrally regulated and coordinated by International Telecommunication Regulations (ITRs). There have been recent treaty negotiations around government control of content, security, child protection and Internet traffic exchange. Based on these negotiations, there is a good chance that the Internet will look very different next year.

There are multiple conferences taking place in 2014 around Internet regulations: (1) the World Development Conference (ITU-d) in April; (2) Net Mundial in Brazil in April; and (3) the Internet Governance Forum in September. In advance of these conferences, advocacy is needed about what open Internet means and policy makers need to be educated about what is at stake.

One of the biggest drivers of these conversations is the cost of local traffic exchange, and who pays for what, as it is currently a huge cost to network operators. Hosting content closer to the end user is better for the economy of Internet and provision of services to customers because it is cheaper and faster.

The Internet is inherently multi-stakeholder and works because of interconnected networks that follow the same rules. Because fundamental interconnectivity needs to be preserved, the challenge is to identify solutions that address genuine concerns without breaking the Internet.

In thinking about how the above affects local content, it is critical to define what local content actually is. Does it mean that it's hosted in country? Or focused on local languages? Definition is critical, yet not always as clear-cut as it might appear. For example, would Psy's *Gangnam Style* video be considered local content?

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