

## Internet Governance Forum (IGF) 2014

### Best Practice Forum on Creating an Enabling Environment for the Development of Local Content

#### Executive Summary

Participants in the Best Practice Forum on Creating an Enabling Environment for the Development of Local Content were active and global in character. Their first challenge was to define local content, which was problematic. Local might refer to one or more linguistic, cultural, or geographical groups. Participants acknowledged that defining local might be best left to localities but for the purposes of the forum's work, they embraced the broadest definition by accepting the idea of local representing any or all potential groupings.

Having established that definition, they immediately defined three focus areas:

- users
- infrastructure
- law

Subsequent discussions were organized around these categories with fruitful results.

One problematic area that arose in the course of discussions was the role of intellectual property rights. Rights holders strenuously argued that intellectual property rights were necessary and were beneficial to compensate content creators. Other contributors including content creators stressed that intellectual property rights inhibited local content creation by imposing unreasonable and costly barriers to access. In the end, insufficient empirical evidence was presented to substantiate either point of view and the final report takes no position on the overall role of intellectual property rights. However, the Best Practice Forum's consensus view is that the majority of local content is non-commercial rather than commercial in nature.

#### Major findings

Users are a key piece of the local content puzzle. As creators, consumers, and disseminators, they are the beginning and end of the local content exchange. Enabling them in essence consists of making it easy for them to do what they want to do. The price of access, access devices such as smartphones, and for content creators, content hosting is a one important factor. Reducing the price makes it possible for more users to participate. Availability of access is another issue. Whether it is wireless or wireline, broadband access is increasingly important to the swiftly growing video segment of online content. Media literacy is an important third component. However participants noted that with technology becoming increasingly easy to use and ubiquitous, basic media literacy was less of a barrier than in the past.

The second piece of the puzzle was architecture. Much of the discussion focused on the presence or absence of local content hosting companies. These companies faced a classic problem in that without sufficient content, they couldn't exist while sufficient content wouldn't exist without them. Participants noted that the international private sector sometimes helped with this problem by establishing local facilities. They also noted that governments sometimes intervened by contracting for local hosting and creating demand for significant hosting capabilities. In the absence of local capacity, local content producers host content abroad creating a "tromboning" effect for content accessors and introducing latency making dense content user unfriendly. Local content creators also hosted content abroad in situations where they thought local capacity was questionable.

Another aspect of the architecture issues was a locality's global connectivity and the presence or absence of an IXC (IXP?). The presence of an IXP greatly enhances local capacity and often serves as a kind of capacity incubator. Absence of an IXP tends to increase latency and may lead to more frequent Internet cut offs due to foreign even. Participants agreed that domestic IXPs had a positive effect on the growth of local content through its impact on local capacity.

The third piece of the local content puzzle was the law. Participants noted that clear laws and regulations on telecommunications and intellectual property were important factors that could enhance local content. The law also was singled out for regulating telecommunications companies and competition, lower consumer prices. Governments also could introduce media literacy and other content enhancing programs through legal avenues. Participants from developing countries noted that information technology law and regulation was not always a priority with governments. Dissemination of the large body of literature linking economic growth to a robust Internet industry was noted as an important remedy to this problem along with capacity building within government.

### **Suggestions for future work**

The Best Practice Forum made three concrete suggestions for future work:

- a) Many participants noted that it was difficult to obtain the rights to use works under copyright because local rights management organizations were not always easy to find or responsive. To address this problem, it would be useful to establish a **single global resource page with an authoritative list of Collective Management Organizations (CMOs)**. Such a resource would also clearly identify states lacking a CMO. Solutions to enable users in these places need to be formulated.
- b) It was suggested that regional cooperation and collaboration would be encouraged by organizing and sharing existing **case studies of local content production and capacity building**. A repository of such content would be a useful resource for Internet users.
- c) Finally, participants suggested developing a generic action template for enhancing local content and applying it on a country level basis. Stakeholders using a multistakeholder mechanism could **develop a template for analyzing the technological, legal, and user environment** and provide insight into the local ecosystem. At the same time, stakeholders working together would have the opportunity to develop greater trust leading to a healthier ecosystem and helping facilitate an enabling environment for local content.

## Report

### 1. Definition of the issue

As part of the discussions on the definition of “local content”, the following attempt to define the term was considered:

"Currently, there is no uniform definition of local content. [...] a UNESCO definition [...] states that local content must be relevant and comprehensible to local users (UNESCO, 2001). In harmony with this description, this paper considers all digital content created for an end user who speaks the same language as the author to be local content. This includes content created for people who do not live in close proximity to the creator, but thanks to the Internet, are part of a world-wide 'local' community of same-language speakers. The language criterion is primarily intended to exclude translated content. No stipulations about the author of local content are made (i.e. individuals, governments and businesses all qualify)."<sup>1</sup>

The above definition of local content was seen as problematic and demonstrates the challenge inherent in defining the term. Local content is defined by governments, organizations and individuals in different ways from community to community. The above linguistic definition is broad but may yet be made broader still by eliminating the language criterion in multilingual environments. A much narrower definition at the other end of the spectrum might define local content not only linguistically, but also geographically e.g. from a particular city and culturally e.g. from a particular nationality or ethnic group. These varying definitions are sometimes enshrined in national law and regulation by making broadcasting local content a requirement of a license for instance.

This discussion will adhere to the broad definition of local content in an effort to be as inclusive as possible.

The enabling environment for local content is comprised of three key components: technology, law, and users. Enablement should focus on reducing barriers to content production and use in all three components. Cost and access are key barriers and efforts in all three components can lower these barriers to facilitate local content.

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<sup>1</sup> *The relationship between local content, Internet development and access prices*, Internet Society, Organisation for Economic Co-operation and Development and the United Nations Educational, Scientific and Cultural Organization, [http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/local\\_content\\_study.pdf](http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/local_content_study.pdf)

## 2. Regional specificities observed

Below are some examples of regional specificities mentioned during the discussions:

### a. Technology

Cost, access and latency are the three common themes. In many places, the high cost of infrastructure is a brake upon local content. Similarly, access to the Internet continues to be an impediment. Latency is a newer challenge. Video content is becoming more common, easier to capture or create, and transcends written literacy. However, it also takes higher amounts of bandwidth and places burdens upon the network architecture. Governments and infrastructure providers play a key role in this process, but are sometimes at odds with government prioritizing access in the public interest and providers prioritizing profitability. Addressing the goals of both actors within the ecosystem is important to lowering barriers to local content.

#### i. Hosting

1. **Rwanda** – There is a view that improvement of local hosting capabilities will correspond to increased local content creation. Of the top 20 Rwandan-owned websites, 15 are commercial and five (5) are government. Government websites are required to be hosted in country. Commercial websites are currently hosted abroad, either in Europe or the US. Some participants at a local ISOC workshop explained how they believed that foreign hosting was cheaper and more reliable at the cost of high latency while local hosting was more expensive and less reliable with low latency. This was disputed by other participants leading to a realization that increased transparency in pricing and quality of service was important.

#### ii. Caching

1. **Rwanda** – There is a view that local consumption of non-local content can drive local Internet infrastructure development, which in turn assists in creating an enabling environment for the development of local content. The demand and costs for cached non-local content underwrites architecture improvements benefitting local content.
2. **Australia** – “Tromboning,” caching content outside of the country (or in this case the network core) and then recalling it, is a characteristic of some networks. Anti-tromboning measures include the deployment of MIMO network topologies and network border nodes. This is employed to limit latency and also reduce costs. It also enhances local infrastructure and facilitates local content.

#### iii. Broadband connectivity

1. **Australia** – Multiple definitions of and technologies for “broadband” have confused users and made access more difficult to roll out. Existing services are overwhelmed in the meantime.

2. **Colombia** – One contributor mentioned: “The Colombian government has effectively progressed on connecting the whole country. Thus, the end of this year, we will have our 1,300 municipalities with broadband internet. The last connectivity miles should be completed by sectors and local municipalities. For example, the Minister of Culture is committed to connect the 1,440 libraries of the country.” In many countries without a strong wireline network, wireless network deployment is frequently a more cost effective solution to provide end users with access.
3. **Nigeria** – Another contributor noted: “The major means of connecting to the Internet to create content is via broadband (mobile) service providers. This limits the level of work people can do as not all mobile providers run 3g/4g across the country, and those who run the technology also don't necessarily deliver the expected bandwidth.”

#### iv. Internet exchange points

1. **Nigeria** – Nigeria has four (4) IXPs.
2. **Rwanda** – Rwanda has one (1) IXP (RINEX).

#### b. Users

Literate individuals with Internet access are largely able to obtain whatever training for content creation they seek. There still exists an adoption gap that may be generational among user. However, this problem will correct over time. For individual users, cost is a significant issue for both access and devices. Driving down the price of bandwidth and basic Internet access devices (smartphones) is essential.

##### i. Digital skills

1. **Nigeria** – One contributor noted: “I work with a university and can say that students (younger ones) are fine with basic skills required to create content, while those who don't have the skills learn fast. The challenging part is how to engage the students to create content in a coordinated and creative way. This role is expected to be carried out by the lecturers, unfortunately a few lecturers are doing this; for some it's because they don't have the skills means, however for many it's because they are not willing/ready to learn the new skills required in this digital world.”

##### ii. Web accessibility

1. **Nigeria** – One contributor mentioned: “I don't know of any government web in my country that has really put the visually disabled into consideration. However in my country, government information/data is still relatively non-publicly available. There is an on-going initiative on open-data which will perhaps improve the visibility of government information access.”

##### iii. Access to and affordability of ICT devices

1. **Nigeria** – One contributor noted: “Affordability of ICT devices is still a problem in my region, however there are emerging in-region organizations who are introducing low cost

devices. This has enabled many to get connected and create content as much as possible. For instance, a local company called Tecno has introduced affordable mobile devices that allow anyone to connect to the internet via mobile. Those devices, because they run on Android-based platform, give people the opportunity to access free software that could help them in creating content. There are quite a number of hubs where people go to use the resources available to innovate, however those hubs are not scattered across the country.”

#### iv. **Technical expertise**

1. **Cameroon** – One discussant shared his work in organizing a guided visit for students from l'École Nationale des Postes et Télécommunications to Cameroon's most capable commercial data center (by international standards, with 99.99% uptime). Students were able to learn about the technical infrastructure in their country, which is key to the globalization of local content, created or collected.

### 3. **Existing policy measures and private sector initiatives**

#### a. **Technology**

Many countries are focusing on developing their connectivity and bandwidth with the rest of the world as demand for international and non-local content grows. However, the absence of technological solutions for bridging the last mile between the network and the user is a concern. Historically, this has been the access bottleneck for many countries. Two technological issues that stand out are power and language. While power generation is outside the scope of this discussion, it should be noted that a reliable electricity supply is essential to a network. The issue of language has broad implications. While software engineers constantly improve multilingual access and translation tools, only the largest software firms can afford supporting a wide variety of languages. Moreover, their choice of language support is usually directly linked to market size. Language however is not necessarily an insurmountable barrier as many users make use of content despite a language barrier e.g. music, pictures.

- i. **Hosting**
- ii. **Data centers**
- iii. **Global provider caches:** Some discussants (including from Nigeria), while supportive of a local Google cache, explained that due to the high cost of data, an Internet user might exhaust their data allowance merely by watching a few videos on YouTube. A suggested private sector initiative would be for ISPs to provide low cost or unmetered access to such local caches.
- iv. **International capacity** (and local networks)
  1. Botswana – Gaps exist in access.
- v. **Content delivery networks** (CDNs)
  1. Botswana – Limited market size can inhibit investment.
- vi. **Internet exchange points (IXPs)**
- vii. **Power**

- viii. **Search and Metadata.** One suggested policy impediment was the dearth of metadata, relating for example to a work's rights management information, and search, in languages other than English.

**b. Law**

Regulation and competition are key tools for promoting access and reducing costs. While differing views on intellectual property (IP) rights and their impact abound, much online content is created without thought to protection or remuneration. For copyrighted content, global income inequalities and reach of the Internet make a "one price fits all" solution impractical and contributes to infringement. It should be noted that the interests of content distributors and creators as well as local and global rights holders do not necessarily align. Content desired by local populations may not be available from the local rights holder. Paying for content and services can be problematic in areas with weak banking infrastructure or which labor under economic sanctions. While sub-Saharan Africa is a hub of innovation in e-payment technologies, these have not yet caught on in the global banking world, creating transactional friction and inhibiting the flow of paid content. Finally, intermediary liability is a major issue to be addressed in law.

- i. **The importance of legislation.** One contributor remarked upon the importance of having a robust legal framework in place to address a range of issues, especially cost: "Delays in enactment of laws or policies in relation to copyright, data protection, e-Government Strategies are some of the issues which have an impact on content development particularly in the case of Botswana. High Internet prices have also remained an impediment to use of the Internet or access to content. There is need to ensure that once the content is created it should be available to consumers at affordable prices. In that regard, regulatory bodies should work round the clock to ensure content developers are subsidized in creation of content and at the same time ensure prices are not prohibitive for accessing the relevant services required."
- ii. **Content licensing and distribution.** Content licensing and distribution were identified as current policy impediments to the creation of local content. Copyright holders identify piracy as leading impediment. While the effect of copyright policy on content creators is the subject of much research and debate, the existence of barriers to access copyrighted material is not. If copyrighted material is unavailable, some users turn to piracy to acquire content.
  - 1. **Kenya** –Some discussants suggested that local access to global content for local consumption would drive the development of local Internet infrastructure. Flowing from this assertion, one discussant highlighted the difficulty for Internet users in some countries to access global content because of territorial licensing practices employed by rights holders, adding that "Kenya is a country where it's so impossible to pay for content that it's virtually all stolen." This person suggested that a global license be introduced for content.
  - 2. **Nigeria** – The global license idea was seconded by another participant from Nigeria, who provided the following illustration: "The Half of a Yellow Sun movie received license in USA earlier than the time it received license in Nigeria (which is the home country of the writer). In such scenario it will be illegal for [the movie to be viewed] locally, even though it already got license in the US. So yes if there can be something like a global license,

maybe things will be a little easier for end-user, however I don't think things will be an immediate fun for owners of the content as the revenue may not all end up in their purse. Nevertheless there is a business strategy that says "numbers could count"; so in the long run reaching more people could help the patient producers themselves. I once asked a local musician what she felt about people pirating her content. Her response: 'Its painful but at the same time it's helpful because through that people know me and they invite me for other things.' She makes more money from special performances than from her normal album."

3. **United States** – One participant called attention to the fact that the availability of content on online platforms depends not only on the content creator's permission but also on the willingness of distributors to operate in a particular market: "Most content creators don't often distribute directly to viewers. They rely upon distributors - Netflix, iTunes, Amazon, Google Play and others for a number of reasons including: the technical infrastructure needed, as is being called out in our discussion; the need to provide customer service in the local language; compliance with local laws and tax; local marketing; and support for local currency and payment methods." This person went on to point out that "a real problem...is that there are small local markets that don't have any distributor who want[s] to acquire the rights to sell to the local market."
  4. **Ireland** – The discussion then turned to accessing content from distribution platforms like iTunes or Google Play across different countries: "As for iTunes - logging into an Irish iTunes account is very different to the experience you get with a US one. With an Irish one I can't even buy ringtones as far as I know and forget about TV - it simply doesn't exist. As a side note, however, Google enforces restrictions using IPs, Apple doesn't." Another contributor followed up: "As it turns out, Apple enforces restrictions by the country of the credit card, as opposed to IPs. I am not sure why that is the case...with a US credit card, you have access to all the US content anywhere in the world?" It was noted that ISOC's first Global Internet Report contained a section on differences in the availability of the largest content distribution platforms, and the different types of content available within these platforms, across countries. Copyright holders have commented that many of these issues may be related to the practices of the distributor rather than the law. Such practices then make the user experience more difficult creating frustration, which may contribute to piracy.
- iii. **Payment intermediaries.** Availability of payment platforms – or lack thereof – across jurisdictions may also be a policy impediment for the creation of local content. PayPal is one example. One contributor noted: "The payment issue also impacts both the supply of content and services by non-local companies and local ones. Being able to sell (and buy) easily online is an issue...when we first started out...getting a merchant account from a bank was really hard, so we used a "reseller." While we could take payment using Visa etc., we were paying high fees and had to wait several weeks before we got the money into our own account. In terms of the company's growth, this was a huge issue and impacted our ability to grow, as our cash flow was severely hampered."



## 4. What worked well, identifying common effective practices

### a. Technology

Much of the focus at the top level of the architecture is advancing. The development of connectivity and caching capabilities proceeds. There are also capacity building programmes for users. However, the technology discussion does not seem to address the fundamental problem of providing inexpensive broadband access to individual users who are capable of creating and disseminating local content.

#### i. Policies that indirectly support local content creation

1. 1990s Europe & present day Latin America and Africa. One contributor likened Europe in the 1990s, on the one hand, to the present Internet infrastructure landscape in Latin America and Africa, on the other.  
Similarities include:
  - a. most traffic was going through the US,
  - b. much of content consumed was originating in the US,
  - c. most European markets were monopolies, and
  - d. Capacity within those markets was expensive.
2. Policies supporting market liberalization and the development of not-for-profit IXPs indirectly supported local content creation. They do not focus on content creation per se. Generally speaking, capacity is improving in Latin America and Africa owing to open access policies, new cables, the presence of IXPs, and (in East Africa) “reciprocal licensing arrangements whereby an ISP from one country can connect to and exchange traffic at an IXP in another country without a license in that country”.

#### ii. Policies that directly support local content creation

1. Government policies requiring local hosting of government content to encourage the creation of local, secure, and resilient hosting infrastructure, where possible.
2. Promotion of and development of trust in local ccTLD use.
3. Innovation hubs incubators for local content development.

### b. Law

Cultural preservation is a strong driver of local content. However, in many places in the world, culture is still primarily oral. Video rather than still images are the content capture method of choice. This places significant requirements upon the architecture and user capabilities. Protection of intermediaries from liability is a significant issue.

- i. **National cultural preservation policies.** National library digitization programmes, for what are considered “national treasures”, generate local content. One contributor explained, however, that “Creating a sense of a national corpus of material is difficult for a host of reasons - the collections are dispersed not just in different public and private institutions in their own country, but in other countries' institutions; different funding structures and lack of coherent policies (on quality of digitization, degrees of openness etc.) mean different

collections are digitized in different contexts at different standards; various metadata standards means it is difficult to make dispersed content interoperable.”

- ii. **Collective rights agreements**, such as those in Scandinavia, enable more systematic digitization of books and newspapers.
  - iii. **Crowdsourcing / community engagement**. Asking local audiences to engage with the digitized content creates a link between the digitized collection and its public. See: <http://www.jisc.ac.uk/whatwedo/programmes/digitisation/communitycontent.asp>  
[http://www.jisc.ac.uk/media/documents/programmes/digitisation/dcatwefinalreport\\_final.pdf](http://www.jisc.ac.uk/media/documents/programmes/digitisation/dcatwefinalreport_final.pdf)
- c. **Users**

Well-equipped users have an abundance of means by which to teach themselves how to create content. This depends on their literacy, Internet use skills, and access to the Internet. Search engines require literacy. Some Internet navigation can be accomplished strictly through iconographic recognition, but anything beyond the basics requires literacy, and frequently in English because many common and popular platforms come from the English speaking world. Access is frequently a financial issue. Does a user have the money to pay for the bandwidth they want? Upstream and downstream. Do they have an access device?

- i. **Capacity building**
  - 1. Africa Content Localization Workshop with a capacity-building and open source focus: [http://internetsummitafrica.org/images/AIS14\\_assets/powerpoint\\_template/DK\\_OLC\\_D\\_af20\\_1.pdf](http://internetsummitafrica.org/images/AIS14_assets/powerpoint_template/DK_OLC_D_af20_1.pdf)

## 5. Unintended consequences of policy interventions, good and bad

There seems to be a significant focus on macrointernet issues rather than microinternet issues. This comes down to focusing on and taking care of individual user needs. Websites such as Facebook, YouTube and Twitter have demonstrated that, left to their own devices, individual users are exceedingly good at creating local content and clear fair use provisions makes this easier. Copyright holders point out that users creating with copyrighted material should obtain those rights. However, in countries where such rights do not exist or are prohibitively difficult to obtain for users, this acts as a brake on the creation of local content. Those users, however, have access to the Internet, an Internet access device (computer, tablet, and smartphone), literacy, and an interest in creating content. Finding a balance between the needs of content creators seeking remuneration and not seeking remuneration is crucial.

Accessing users are interested in sharing local content. For such end users, access to legitimately licensed content, fair use, and limiting intermediary liability are important issues as well as the same issues of Internet accessibility. Similarly, it is important to find a balance between users' use of free content and copyrighted content.

## **6. Unresolved issues where further multistakeholder cooperation is needed**

It is clear that the disintermediating effect of the Internet is creating problematic issues for copyright holders. Future new Internet users come largely from the developing world where \$1 USD for a song may be deemed to be unaffordable. Nonetheless, users in those places want copyrighted content, leading some of them to engage in piracy. Demographic and legal trends indicate more users from developing nations coming online with slow expansion of intellectual property regimes. Copyright holders have made clear their desire to expand copyright protection to more states. However, copyright functions best in countries with strong rule of law, which is absent in many developing nations and in any case is rarely a high priority in those same countries. As an issue of local content, copyright is seen as inhibiting non-remunerative local content creation. Local content creators working without a desire for profit find the time, effort and financial outlay of obtaining copyright an unnecessary cost. This assertion is not an endorsement of piracy; merely a reality. They seek to enhance their local community. It should be remembered that copyright is an outgrowth of English law and that as such, it may lack cultural resonance outside of Europe and the United States.

There should be an affirmative recognition that local content is not necessarily commercial in nature. Indeed, the majority of local content globally is not commercial. While significant efforts have been made on local content produced for commercial purposes, support for non-commercial content is not as well developed.

## **7. Insights gained as a result of the experience**

Pairing Internet classes with language literacy classes may be an effective way to catalyze local content production in areas with low literacy.

## **8. Proposed steps for further multistakeholder dialogue**

Many contributors note the difficulty of obtaining the right to use works protected by copyright. A single global resource page listing an authoritative list of Collective Management Organizations (CMOs) would help to address this problem. It would also identify states lacking a CMO and make it possible to focus attention on the needs of local users in those countries.

Encouraging regional cooperation and collaboration by organizing and sharing existing case studies of local content production and capacity building.

The strength of the IGF best practice forums is their multistakeholder character where governments, commercial and non-commercial users can come to talk to one another and develop solutions. Developing a generic action template for enhancing local content and applying it on a country level basis would contribute greatly. By analyzing technology, law and users and giving them all equal weight by bringing together representatives of each, it may be possible to build trust among the constituencies and strengthen local content.

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<sup>2</sup> This list includes:

- the participants in the online discussions held via the dedicated mailing list;
- the contributors who commented on the online review platform (those who have not indicated their full names when making comments were not included in this list).
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