

# The Internet Governance Forum

## Best Practice Forum on Local Content, 2019

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### Background

The Internet Governance Forum’s (IGF) Best Practice Forums (BPFs) bring practitioners, experts and stakeholders from all sectors and multiple disciplines together to exchange and discuss experiences and good practices in addressing Internet policy issues. Linguistic diversity and the need to nurture and develop local content has been a concern from the earliest days of the Internet and was identified as one of the action lines<sup>1</sup> in the Geneva Plan of Action, the outcome document of the first phase of the World Summit on the Information Society (WSIS)<sup>2</sup>. A BPF on local content was first established in 2014 with a focus on how to create an enabling environment for the development of local content.<sup>3</sup> In 2017 the IGF MAG (Multistakeholder Advisory Group) once again convened a BPF on local content and it collected a of examples of initiatives that succeeded in stimulating the creation of local content and extracted experiences and lessons learned with the goal to inspire policy makers and other stakeholders.<sup>4</sup> The 2018 local content BPF<sup>5</sup> examined the relationship between local Internet access provision and the development of locally relevant content and services.

This year’s local content BPF decided to explore how the Internet and digitisation can be used to preserve local content, culture, languages and heritage under conditions in which cultural and linguistic diversity, artefacts and histories are at risk as a result of political and social shifts and upheavals. In the case of India, for example, an analysis by an Indian newspaper of changes in school history text books suggests that they were made to reflect

1 Action line 8: Cultural diversity and identity, linguistic diversity and local content

2 [https://www.itu.int/net/osis/documents/doc\\_multi.asp?lang=en&id=1161|1160](https://www.itu.int/net/osis/documents/doc_multi.asp?lang=en&id=1161|1160)

3 The report of the first BPF on local content, 2014, is available at: <https://www.intgovforum.org/cms/1894>

4 <https://www.intgovforum.org/multilingual/content/bpf-local-content-2017>

5 <https://www.intgovforum.org/multilingual/content/bpf-local-content-0>

policies of the current prime minister.<sup>6</sup> In Brazil a change in government led to proposals from the minister of education to rewrite depictions of the 1964 military coup. These efforts to “rewrite” history are not unique and are being contested. War and conflict has always been a major source of destruction of cultural heritage. The devastation of ancient sites in Iraq, Yemen and Syria is massive, and continues.<sup>7</sup>

The BPF also aimed to identify best practices for managing and promoting the digitisation of existing analogue content related to linguistic diversity, artefacts and histories (printed and electronic media, cinema, music, and visual arts).

## **Process**

The BPF solicited contributions to help understand and expose challenges, and gather examples and good practices of how digital technologies and the Internet could be used to promote, preserve and share local culture and content. An online survey was conducted among members of the BPF and others in the broader internet governance community. Specific outreach to people and institutions working with local content extended beyond those involved in internet governance. A total of 36 submissions were received. These were complemented by information shared with the BPF mailing lists. This document summarises and organises the submissions received according to three themes: main issues and challenges, specific areas of competence, and examples of good practices.

## **Issues and challenges**

### **The marginalization of local languages and means of expression**

Perhaps the single most important issue that is featured in the responses the call for input is that of language, which obviously links to notions of culture and tradition, as well as knowledge and the various forms in which it can be expressed.

Both as a global issue (the dominance of English and to a far lesser extent a few other European languages), and as a local concern (the dominance of specific national and regional languages in various parts of the world), the marginalization of local languages and means of expression stands out as a core problem.

The issue extends beyond the choice of a specific language and the contrast between the global and the local. It has national and regional dimensions, the impact of colonialism and the maintenance of indigenous heritage, and the tensions between education, modernity, and technology on the one hand, and tradition and cultural legacy on the other. That many indigenous languages in different regions do not have a written form or have a form that is not widely used by speakers compounds the problem, as will be discussed later on.

Literacy is not just about the ability to read and write, however, as the notion encompasses other means of expression – textual, visual, oral, physical – and thus raises the need to consider the best ways to produce, disseminate, and market tribal and indigenous knowledge, especially when local languages and low-level technologies are employed.

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6 <https://www.washingtonpost.com/news/worldviews/wp/2018/06/01/indias-new-textbooks-are-promoting-the-prime-ministers-favorite-policies-critics-allege/>

7 <https://www.sciencemag.org/news/2018/04/war-savages-ancient-sites-yemen-and-iraq-destroying-archaeological-record>

This is not a static situation. The challenges of giving expression to the local in a global context lead to ongoing contestations, combining political and cultural concerns. Sentiments repeatedly expressed in the responses are that of the danger of loss of communities losing their cultural identities as rooted in linguistic practices, the diminishing use of local language in schools and governance due to growing state centralization and standardization of language that is imposed from above, and insistence on written expression. There are no adequate supportive structures for local expression, and local, indigenous, and other marginalized communities face difficulties when it comes to keeping and transmitting cultural archives or records of their heritage and traditions, given that external forces are usually in control of this process: urban elites and educated people, rather than the masses, who may be illiterate, are used to more oral-visual instead of written expression, and frequently use of low-level rudimentary technologies.

The key challenge then is to promote inclusive culture and facilitate the ability of marginalized groups (not just in an ethnic or racial sense, but also disabled people, the elderly, the mentally challenged) with limited resources, to produce, retain, and transmit their cultural practices and avoid the need to overcome bureaucratic hurdles in the process. Among other aspects, this refers to language and artefacts, traditional techniques in agriculture, crafts, art, music, dance, and so on. With the onslaught of imposed development discourses and practices, with limited ability to shield vulnerable local communities from their impact, we need to devise ways to mitigate and altogether stop the dilution of local specificities in the name of global modernity.

This is especially the case in countries such as Brazil, where government policies are dismantling the quest for diversity and building online cultural assets: indigenous communities, their land practices, cultures, languages, and unique contributions are disappearing as a result. There is a need to retain and build up the repository of indigenous populations and cultures, through networking as a tool to preserve knowledge, enhance cultural assets, and allow local content to be digitalized.

In contrast, positive examples that were mentioned were the digitalisation of thousands of palm-leaf manuscripts in Bali, and a Festival of indigenous languages on Internet in Guatemala in late October 2019. This alongside concerns with the threat of extinction to tribal indigenous languages in Nigeria, where no ethnographic work and no preservation online are evident. This was related to the need for African content in indigenous languages, not just colonial ones, and need to enhance connectivity in the countryside.

In the words of one contributor: “what I might contribute is that perhaps the most single important ingredient in this endeavour is encouraging the upload online of content in local languages. In Africa, the default is to communicate and share cultural artefacts in the colonial languages - English, French, Portuguese. The sparseness of local language content online on the continent. I know for instance that technology companies like Google are recruiting local language experts to grow indigenous content online.” But this remains the exception rather than the rule.

A focus on indigenous languages was provided by an Indian respondent, who emphasized the threat to local minority languages in particular: “There are close to 7,100 living languages in the world but as many as 90% of them are spoken by less than 100,000 people in the world.” In India alone there are over 700 languages, and “over 220 languages have died in the past 50 years and 197 others are categorized as endangered by UNESCO. Despite India’s cultural, geographical and linguistic diversity, only 22

languages have the official status in India.” With most of these spoken by tribes and lacking a script, it has been particularly difficult to preserve them.

Despite this diversity and the threat to many languages, “the Internet remains predominantly an English language platform”, with over 800 million users of English language on the Internet and over half the world’s websites in English. However, “languages like Spanish, Arabic and, especially, Chinese are fast catching up. Chinese, particularly, grew by 1277.4% between 2000 and 2010.”

### **Documenting culture, traditions and history embedded in everyday life**

Even as India’s Internet users and literacy rate are growing, about 30% of Indians are officially illiterate and millions of others cannot read or write in English, which makes up for more than 55% of the content available online. The question then is: “In a predominantly oral culture country like India, which is home to thousands of tribal communities and hundreds of languages, how do you preserve languages? How do you document languages that have only been sung in folk songs or narrated in folk stories without a script? How do you document the culture, traditions and history which are embedded in everyday life?” The answer is to empower marginalised communities to leverage digital tools and the Internet to document their own language, culture, tradition and folklore.”<sup>8</sup>

India’s diversity lies in its richness of languages. There is an Indian proverb that goes, “Every two miles the water changes in India, every four miles the speech”. Many once-thriving tribes in India have fewer than 1,000 members living today. They are considered illiterate and backward, but have deep knowledge, craft, art, traditions, and sensibilities across wide sectors of medicine, architecture, agriculture, medicine, and more, which must be preserved though it is difficult “if service and content providers continue to focus on the English speaking populations of the world.” In India “even a large share of government websites are only available in English or Hindi. Only a handful are available in state languages. Other languages are completely missing, pushing the marginalised communities further into marginalisation by disallowing them to access government records and information.”

This problem is not unique to one country: “Around the world, the rural and villages’ folk societies have depended on the oral traditions for centuries for information dissemination from generations to generations.” In an English-dominating virtual world, where technology too is largely developed and designed by English speakers, how do the oral or illiterate communities participate?

Similar problems, though perhaps not on such a large scale as in India, are evident in Latin America. In Argentina, the cultural heritage of indigenous communities faces the threat of extinction<sup>9</sup>, and the same applies to the largely-invisible communities of African descent.<sup>10</sup>

In Paraguay, official commitment to the preservation of indigenous language, history and cultural heritage is not accompanied by actual policies to that effect. As a respondent

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8 Social media can save folk and oral wisdom: <https://www.livemint.com/Opinion/6hNsMS6l4kJiW8bJFWXIBL/Social-media-can-save-folk-and-oral-wisdom.html> and Preserving our vanishing tribes, their heritage, language and wisdom: <https://www.livemint.com/Opinion/AhrviHfdlAluJ6ffBBpUQN/Preserving-our-vanishing-tribes-their-heritage-language-an.html>), and How digital tools can help in the preservation of our languages: <https://www.livemint.com/Opinion/AEPXQP1atGhoE12aP3AFzO/How-digital-tools-can-help-in-the-preservation-of-our-langua.html?facet=amp>.

9 <https://www.territorioindigena.com.ar/Pueblos-Originarios>

10 <https://news.un.org/es/story/2019/03/1453061>

says: “the everyday ends by imposing the use of Castilian at the level of Ministries of Education, Health and Justice, as well as in the Legislative and Executive powers, and the use of Guarani ends up being an exception or a series of words to reinforce expressions in Spanish that do not reach the population as a whole.” Most people combine the two languages but in recent times Guaraní has been losing ground relative to Spanish: “In a generation, the Guarani language may disappear if the speakers and the states do not mobilize. It means that this requires public policies, language planning, effective government support and adequate budget.” This is especially the case as media usually broadcast programs in Guarani or use it as a marginal language, or mock it <sup>11</sup>.

Recently, within the framework of a Symposium of Ancestral Cultures, the Paraguayan Minister of the Secretariat of Linguistic Policies, Ladislaa Alcaraz de Silvero, spoke about the challenges facing indigenous languages in Paraguay in their struggle for survival, strengthening, and social repositioning. He noted the need for active participation of speakers in the use, documentation, dissemination and revitalization of their own languages in different spaces of interaction, as well as the need for use of ICTs, the involvement of the academic and cultural sectors, and application of favourable public policies affecting linguistic communities<sup>12</sup>.

The factors that threaten the survival of indigenous languages in Paraguay include territorial displacement, job and academic opportunities that require use of other languages, the weakening of intergenerational transmission, linguistic attitude towards one's own language (especially among young people), inter-ethnic marriages and social contacts. These factors operate in many other places, and can only be counteracted with public policies and linguistic planning, formulated with the participation of direct stakeholders: speakers and activists who care about linguistic diversity.

Over centuries of settlement and rule Spanish has become indigenized in Latin America, spoken by a vast majority of people as a mother tongue. In contrast, in much of Africa the main colonial languages acquires an elevated status as media of communication in politics, education, and business, but remain foreign as home languages. Cameroon has about hundreds of indigenous languages at risk due to lack of use in formal settings, schools, and even decline in home usage and transmission between generations<sup>13</sup>.

### **The risk of preservation to death**

A perspective from St. Lucia argues that “the most important place for local language, history and culture is in the minds of the people,” not on digital devices, frozen in libraries or on electronic storage devices. Since language and culture are living organisms. “great care must be taken to prevent them from being ‘preserved’ to death. It's crucially important to involve old people where there is a threat of loss through death, and young people where the threat is loss through disaffection and the lure of what is on the other side of the fence.” It is important to have a shared definition of what is ‘local language and cultural heritage’, since this is not a fixed element as they change over time, from one generation to the next, under the impact of local dynamics and global encounters.

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11 <https://www.ultimahora.com/por-que-el-guarani-corre-riesgo-desaparecer-n2839635.html>.

12 <http://www.spl.gov.py/es/index.php/noticias/alcaraz-hablo-de-los-desafios-que-enfrentan-las-lenguas-indigenas>

13 [http://www.elan-afrique.org/sites/default/files/fichiers\\_attaches/rapport\\_lascolaf\\_cas\\_cameroun.pdf](http://www.elan-afrique.org/sites/default/files/fichiers_attaches/rapport_lascolaf_cas_cameroun.pdf)

## **Power and political control**

In a different context, some respondents highlight the political nature of linguistic relations, such as “Catalan political expression that had been censored by Spanish government in 2017”, a situation exacerbated by the current campaign against quests for greater autonomy and independence. The .cat TLD foundation was raided and an IPFS gateway was closed<sup>14</sup> and the “Spanish government enjoyed collaboration of private corporate ‘services’ such as Amazon virtual servers or Google Play software repository in order to close down the communication.”

Other examples of legal prosecution, not exclusive to the Catalan context were cited, including of artists (humorists or hip hop rappers) for defending on the media and platforms such as twitter the ideals of republicanism, anarchism, and peripheral struggles for cultural and language revival, mostly Basque, Galician, and Catalan<sup>15</sup>.

The respondent from Spain continued: “Although Catalan struggle may be perceived as mostly political, I reckon that it has common threats and repressions as other more culture-driven or ethnic groups. First of all it comes from centralised Internet infrastructure and ‘services’ often in hands of US (or, respectively, Chinese or Russian) corporations that cooperate with repressive regimes, local administrations promoting uses of such, and finally a common discourse that ‘naturalises’ them as a kind of commons. To get into more detail, local governments and administrations shall fully respect and foster free/libre and open source software (FLOSS) choices and federability of protocols and promote ethical and local technologies. If we agree and remain silent in front of governments and Internet institutions encouraging the usage of US-centred platforms, we will keep discouraging real diversity, under a misleading appearance of freedom of speech.”

## **Digital occupation**

More directly political is Israeli control of Palestinian ICT infrastructure and content, captured in the phrase ‘Digital Occupation’. As a report submitted by a responding organization argues, since 1967 Israel took complete control of the ICT infrastructure and sector in the West Bank and Gaza, thus “impeding development and blocking the establishment of an independent network, instead making Palestinians entirely dependent on the Israeli occupation authorities.” Over the last 50 years “this digital occupation has resulted in the creation of a severe ICT gap between Palestinians and the rest of the world, violating several human rights including their right to access economic markets.” In addition, “Israel’s continuous control over the ICT infrastructure has enabled Israel to monitor all Palestinian online activity, violating their right to privacy and in many cases cooperating with social media companies to censor Palestinians online, a violation of their right to freedom of expression.”<sup>16</sup>

To be clear, this critique refers to local content in the sense of content generated by residents and citizens, free from intervention and control by the occupying Israeli forces. It

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14 <https://www.qurium.org/alerts/spain/blocking-techniques-catalunya/>

15 <https://www.cuartopoder.es/espana/2017/12/27/ley-mordaza-codigo-penal-cassandra-vera-la-insurgencia-boro/> and <http://www.poderjudicial.es/cgpj/es/Poder-Judicial/Audiencia-Nacional/Actividad-de-la-AN/Memoria-de-la-AN/>

16 <https://7amleh.org/2019/01/28/interrupted-communication-a-new-report-of-7amleh-center-reveals-the-digital-occupation-of-the-palestinian-telecommunications-sector/>

is not about the use of language as such – Arabic in this case versus any other language – but rather about the politics of knowledge and censorship by a foreign political entity.

### **Irreversible loss and disappearance of documentary heritage**

While political control is an aspect of the issue in many other situations, it does not usually take the form of blunt forceful intervention. More frequently it is a matter of cultural neglect or dismissive attitudes, that result from existing marginalization of some communities and contributes to further entrenching it. As pointed out by a respondent from the Netherlands working for the International Federation of Library Associations (IFLA), “in many areas, the specific issue of the rights of indigenous communities is in focus: when using technology to preserve local cultural heritage pertaining to, or produced by, indigenous communities, it is particularly important to be in active and full consultation with these communities to ensure that their rights and wishes are met (IFLA statement<sup>17</sup>.

Of concern here is “irreversible loss and disappearance or inaccessibility of documentary heritage due to, for example, natural or human disasters or technological change” (2015 UNESCO Recommendation Concerning the Preservation of and Access to Documentary Heritage in Digital Form<sup>18</sup>.

### **Copyright, capacities, resources, standards, relationships and sustainability**

While many libraries and related institutions aim to preserve cultural heritage through digitisation of materials, thus creating unique local content, the capacities of memory and cultural institutions to preserve heritage digitally (such as access to ICT equipment and buildings, funding, staff training) are uneven. For example, the 2017 OCLC (a global library collective) Survey highlights deficiencies in staff time, funding, and necessary technology and equipment, as significant barriers to digitisation of library collections<sup>19</sup>.

In many cases, IFLA points out, digitisation projects run by libraries involve investigating who the holders of rights are, obtaining permission to create digital copies of materials, and making digitised versions publicly available. “This can be time-consuming and resource-intensive”, they say. The 2018 Progress Report on the implementation of EU Commission Recommendation of 2018 (2011/711/EU) notes that the ‘due diligence’ search requirement – making sure that the author of a work protected by copyright cannot be known or contacted – can be prohibitively difficult, practically and financially<sup>20</sup>. In addition, the challenge of copyright investigation is more onerous for projects that aim to digitise and assemble collections which are geographically scattered, given the variation in national rules.

In a similar manner, standards in digitisation projects can present a challenge for projects which involve several actors and aim to aggregate or unify cultural heritage collections hosted in different locations, as mentioned in the 2018 Consolidated Progress Report on the implementation of EU Commission Recommendation. Preservation of original digital content by cultural heritage and memory institutions also presents potential challenges, IFLA notes. These range from absence of supporting legislation to “fast-paced evolution of digital technologies or content generation outpacing storage capacity”, as noted by the Executive Guide on Digital Preservation by the Digital Preservation Coalition<sup>21</sup>.

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17 <https://www.ifla.org/publications/ifla-statement-on-indigenous-traditional-knowledge>

18 <https://unesdoc.unesco.org/ark:/48223/pf0000244675/PDF/244675eng.pdf.multi.page=5>

19 <https://www.oclc.org/content/dam/research/publications/2017/oclcresearch-advancing-the-national-digital-platform-2017-a4.pdf>

20 [https://ec.europa.eu/newsroom/dae/document.cfm?doc\\_id=60045](https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=60045)

21 <https://dpconline.org/our-work/dpeg-home/dpeg-organisation-type/dpeg-libraries>

There are also questions as to the long-term sustainability (technological, financial) of the digital culture preservation efforts undertaken by cultural and memory institutions and projects, as discussed in Controlling the Cost of Digital Preservation by the Dutch Digital Heritage Network<sup>22</sup>. In short, IFLA concludes, there needs to be funding to support such efforts. Finally, “it is crucial to note that access to digitised cultural heritage is fundamentally affected by the persisting digital divide. As such, it is of paramount importance to continue efforts to improve internet and ICT access as well as ICT skills and digital literacy to ensure equal access to cultural heritage for everyone, particularly vulnerable and marginalised populations.”

### **Technology is a double-edged sword**

It is important to recognise that technology may work like a double-edged sword in relation to the preservation of local cultures and languages. In the Caribbean, radio and television helped to promote, preserve, and share local culture and content, while enhancing differences between the islands, and expanding access to foreign culture, by playing country and western music, rock, and other imported types of music. The focus on entertainment for tourists may also have this dual impact: promoting local culture but also catering to the wishes of foreign visitors more than those of local residents: “Technologies that disseminate and promote the imported material are always foreign made. The drum survives but does not play the part that it used to play in traditional culture. There will always be need to preserve all aspects of traditional and local culture. The situation of the people of these islands living in isolated communities towns and villages makes community contact difficult or expensive. Digitisation will no doubt help, but at what cost?”

### **Hostility and bias among those in power**

While many government cherish local traditions, even though they may not do much to cultivate and promote them, some adopt hostile attitudes towards all traditions that do not adhere to the dominant perspective. In India, the current ruling party “is a conservative right-wing party which is particularly hostile towards Muslims and Dalits. This hostility happens under the guise of protecting Hindu values, traditions and culture. There is also continuous attempts to 'saffron-wash' the Indian history and cultural heritage.”

There are also repeated attempts to impose Hindi as the 'national language' on all citizens, in spite of the fact that Hindi and English are official languages and that 22 languages in total have been given official recognition. This attempt to impose Hindi is also an imposition on the diverse cultures, traditions, and food habits in the non-Hindi speaking states of India. This includes forcing the same set of Hindu ideologies on everyone, including ban on the consumption of beef, increased restrictions on sales of meat, and so on. In India, “language and cultural heritage has further sub-divisions in terms of languages/dialects and culture and traditions practised by people belonging to different caste backgrounds, migration status, and religion.” What constitutes ‘tradition’ obviously has no unified definition.

As outlined by one Indian respondent, some of the greatest threats to the preservation of local languages and cultural heritage are as follows: promoting institutes and spaces based on Hindu religious ideology, promotion of Hindi over other official languages, attempts at re-writing history to portray the Mughal emperors and rule in India as purely destructive, and elevating the work done by the Hindu emperors, changing school textbooks to reflect a Hindu-centric focus, denying funding to monuments and heritage

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<sup>22</sup> [https://www.netwerkdigitaalergoed.nl/wp-content/uploads/2019/02/Article\\_DDHN\\_Controlling-the-cost-of-digital-preservation.pdf](https://www.netwerkdigitaalergoed.nl/wp-content/uploads/2019/02/Article_DDHN_Controlling-the-cost-of-digital-preservation.pdf)

sites which have an Islamic background, destruction of forest areas which are cultural important to tribes and communities in the name of development and assimilation, and clamp down on media coverage of the issues above, forcing people and communities to use social media platforms to advance their causes.

In a sense, with some adaptations, this can help us in forming a summary of the challenges and threats to cultural heritage and local content today: marginalization of minority and non-dominant communities and people by powerful political and commercial forces that use centralized power to establish their domination. In some cases such domination is a legacy of colonial rule, but in others it is a product of post-colonial conditions. In both cases though, differences in access to technology, media, educational facilities, and public expression disadvantage groups and communities that live on the geographical, social, and cultural margins of society. As a result, they find it difficult to retain their distinct heritage and cultures.

This is not only or primarily a question of technology. Technology is a double-edged sword. It can grant access to poor people and distant communities by making access to public space and local diverse content easier and cheaper, but it can also result in flooding public spaces with global content, entrenching the dominance of English and other global languages, and diluting if not erasing altogether voices from the margins.

A question for the BPF to consider is how this trend can be fought and reversed?

### **Examples of good practices**

A contribution from India raises commercial considerations as important in preserving local content. Some local knowledge – music, dance – can be used to generate income and thus provide an additional incentive for people to retain and disseminate it, through off-line mesh technologies, annotation tools, and digital platforms and e-commerce portals: “local content can be generated by all the 12 community networks who are a part of the Association for Progressive Communications’ (APC) Community Network learning grant. This local content can be segregated into music, arts and crafts, biodiversity, food, cultural traditions like birth, marriage, etc.. These can then be put up in a local content server (Internet-in-a-box). The internet in a box can be put up at strategic locations in IGF Berlin. [In] This way people can access the content and see the local content from these 12 community networks.” Other ideas involve creating a platform for telling people your history or culture, guided by someone who is more technology literate, cultural/technological fellowships or exchange programme, and tourism projects.

Keeping in mind that “much of the work that involving digital technologies and the Internet are about bringing outside content into a community context. There are some digital humanities work and collections of indigenous songs and stories by historians and ethnographers – records from the elite, very literate, academic or national/international researchers”, but seldom involving locals directly in the production, capturing, and dissemination of such material.

An example is work at Janastu’s Iruway Rural Lab, using mesh radio and archiving as a parallel activity to that of schools, whereby they use media expressions to collect, curate and archive local material; and use them in their storied narratives of their communities, crafts and culture: “Our efforts are to encourage a culture of crafts and high value products from the local contest by bringing the youth in the rural community content to use maker tools and radio to express themselves and to work with traditional skills in women

cooperatives to help design high value products and to market them through powerful stories about the products.”<sup>23</sup>

It is important to realise that high-speed internet connections in a rural context is used mostly as a replacement for TV and watching movies, but even low speed internet has been widely used to receive and forward multimedia messages in community networks: “Whatsapp-like groups have been empowering women and LGBTQI by enabling an effective sharing of issues and solutions.” But, personal phones are not common and cannot be used for confidential information discussions due to family sharing. On the other hand, “women have been the custodians of food, culture and heritage as the effect of school education has influenced more men to distance themselves from their communities than women, as the Internet penetrates, this gap is reducing as women are more influenced by communications with outside the community content. This does have many positive aspects of helping women and LGBTQI to have role models from the larger networks who influence them to break abusive patriarchal structures.”

In Barbados the Internet is accessible to 80% of the population, but services can be expensive and educating the public to fully utilize the Internet is a bit of a challenge: “BPF needs to go outside the Box and travel and encourage Small Island States and LAC to participate more. It needs to be promoted in social media and not just wishing the UN, it is basically unheard of this part of the world. An example of what the youth is being encouraged to do with Caribbean Girls Hack, Girls in ICT and Cisco Girls power tech<sup>24</sup>.”

Colombian Internet activists embarked on the En Mi Idioma project, developing an off-line version of courses helping with connectivity of indigenous communities, usually located in remote areas with poor access to the Internet: “one of the main problems we face with En Mi Idioma project was the low financial resources to support the indigenous communities in the appropriation of ICTs to allow them to create their own lessons and then use them within their communities. It is important that the BPF include in their panel representatives from the communities involved in these kind of projects. We need the vision from the communities, not only from the organizations that support these projects.”

A Malaysian organization developed a web app, internet to SMS, as a teenage pregnancy prevention tool for youth in remote areas. Also developing tools to help marketing village and tribal products so that they get more income, and then “the locals will be able to protect their own culture and language when young people are coming back because products are fetching higher prices.”

In Brazil, the Socio-Environmental Institute (ISA) has built a state-of-the-art repository of indigenous populations and cultures, which is considered an international reference on the related issues<sup>25</sup>. The major challenge though is to overcome economic inequalities: “Many initiatives of enhancing and preserving local culture are not focused on the Internet, but try to use the network as a tool to preserve knowledge and information.”<sup>26</sup> There is a need for several lines of action: “capacity development to learn to preserve/protect and enhance cultural assets; seeking partnerships for safe mirroring of local content already in digital form (in-country or not); using the Internet to enhance preservation of traditional languages; ensuring backup and mirroring of essential information repositories; capacity

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23 <http://j.mp/RuralJunctions>

24 <https://www.facebook.com/ISOCBB/videos/545874519494909/>

25 <https://www.socioambiental.org/en>

26 A good w is here <https://observatorio3setor.org.br/carrossel/luta-dos-povos-indigenas-para-preservar-sua-cultural/>

development for creative ways to use networking tools to enhance and protect local cultural assets.

A few years ago, Disney helped host an IGF panel on encouraging local content, and one of the projects discussed there aimed to digitalize Balinese palm-leaf manuscripts, known as lontar, written in Oxara, include 3,000 manuscripts.<sup>27</sup>

As noted earlier, some of the issues related to local content are to be seen within a more direct political context, rather than the historical context of development of marginalized communities. This is the case of Catalan initiatives, opting for decentralised solutions to avoid central state censorship and control, “such as their intent to use IPFS to guarantee access to their electoral census website in 2017. As a more recent example we can mention released recently Android app for organising collective action and demonstrations that is based on Retroshare software. Although the app's code is not publicly available, Retroshare enables high resiliency against IP blacklisting and infiltration, as it can operate as a darknet where it is very difficult to identify the location or legal identity of a person publishing.”<sup>28</sup>

In rural areas in Catalunya and even more in remote parts of Spain, connections to the internet are done through slow ADSL connections. This prevents people from sustaining video calls for remote jobs, or even job interviews: “together with other reasons, there is a subtle slope pushing youngsters towards the cities.” In this context, LGBTQI people find themselves in more conservative/LGBTQI-phobic environments that “hinder them from developing socially, economically and personally. Even proprietary and commercial web and mobile apps can help them to find other LGBTQI people, and thus cross the social wall without having to go fully open about their gender identity and sexual preferences, yet without providing safeguards necessary for a more socially endangered group.”

In such contexts, “what is necessary is to support (and promote!) hyper-localized technologies, that come with lower or almost no ‘growth rate’, allowing comfortable learning-time for mastering them and that do not oblige them to acquire new hardware. Low-tech, localised, eco-responsible technologies of communication that are developed in accordance to localised values and that do not enforce dominant biases.” This will counter the influence of “growing USA-centred value monoculture.”

The International Federation of Library Associations (IFLA) provided many examples of good practices: “Libraries worldwide carry out extensive work to preserve and ensure access to culture and heritage. Many library digitisation efforts rely on scanning technologies – depending on the state of image, either the original document or film intermediaries are scanned.”<sup>29</sup> Examples of such digitisation projects include the Hebrew Manuscripts Digitisation Project by the British Library<sup>30</sup>; the Digital Images Database of Rare Chinese-Language Books of the National Central Library of Taiwan<sup>31</sup>; the Digitization Project for Korean Rare Books held Abroad<sup>32</sup>; and the Glagolitic Script project run by the National and University Library in Zagreb<sup>33</sup>.

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27 The script with the full details about the project can be found here [http://www.intgovforum.org/cms/wks2013/workshop\\_2013\\_status\\_list\\_view.php?xpsltipq\\_je=215](http://www.intgovforum.org/cms/wks2013/workshop_2013_status_list_view.php?xpsltipq_je=215) and <https://blog.archive.org/2011/04/14/digitizing-balinese-lontars/>

28 <https://pirates.cat/bloc/analitzem-laplicacio-del-tsunami-democratic/>

29 [https://www.library.ethz.ch/en/content/download/19891/513502/version/9/file/best-practices-digitalisierung\\_en.pdf](https://www.library.ethz.ch/en/content/download/19891/513502/version/9/file/best-practices-digitalisierung_en.pdf)

30 <https://www.bl.uk/hebrew-manuscripts/about-the-project>

31 <https://www.ifla.org/node/92310#website>

32 <https://www.ifla.org/node/92305>

33 <https://www.ifla.org/node/92237>

IFLA's Guidelines for Setting up a Digital Unification Project<sup>34</sup>, contain many other examples of digitisation projects in libraries. Some of these focus on digitising and making materials in minority languages publicly available, such as the: Digitization Project of Kindred Languages and the Minority Languages Project initiated by the National Library of Finland<sup>35</sup>. Other library digitisation projects focus on getting actors from outside of libraries involved in preservation. For instance, the Listen, Hear Our Voices project in Library and Archives Canada provides training and digitisation services to indigenous communities with the aim of preserving voice recordings in indigenous languages<sup>36</sup>. Similarly, the Community Oral History project run by the New York Public Library and participating branch libraries aimed to preserve local oral history heritage by carrying out interviews with local community members, creating and storing digital recordings and software-generated annotations and transcriptions (in combination with crowd-sourced annotation and transcription)<sup>37</sup>.

Libraries also work to preserve born-digital cultural heritage. For example, the Community Webs programme in the United States focused on building up public libraries' capacity to preserve the history of their local communities through web archiving.<sup>38</sup> Libraries can also support local cultural heritage preservation by helping community archive projects. For example, Library and Information Science Faculty members and students at the University of Denver assisted a local county community archive initiative with digitising images and helping create a digital archive. The project also plans to create digital recordings of oral history.<sup>39</sup> Similarly, the goal of the #OURREGION project run by a partnership of several Lithuanian public libraries was to make more locally relevant ethnographic information available online by, inter alia, collecting new information and generating new materials with the help of volunteer and community engagement, and making them available on two designated websites<sup>40</sup>.

An informant from India noted that linguists from National Geographic's Enduring Voices project have produced eight talking dictionaries to document struggling languages. Besides containing 32,000 word entries in eight endangered languages, the dictionaries hold more than 24,000 audio recordings of native speakers – many of whom are among the last fluent individuals in their native tongues – pronouncing words and sentences, and photographs of cultural objects. The first project under this initiative was to start the documentation of Koro, a Sino-Tibetan language spoken by less than a thousand people in Arunachal Pradesh, in 2010.

With an increasingly high penetration of mobile phones, the Digital Empowerment Foundation in India have witnessed people learning to use digital tools to tell their stories: "There are 'illiterate' people who are using smartphones to become community journalists; who are sharing their folk music on YouTube; who are using WhatsApp to find buyers for their handloom and handicraft; who are using emojis and audio notes to communicate with their loved ones. It is interesting to see how people in rural, remote and tribal locations with no formal education and lack of knowledge of a script are engaging in fluent conversations in real time through audio notes, video calls and a bucket full of emojis to

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34 [https://www.ifla.org/files/assets/hq/topics/cultural-heritage/documents/digital\\_unification\\_guidelines.pdf](https://www.ifla.org/files/assets/hq/topics/cultural-heritage/documents/digital_unification_guidelines.pdf)

35 <https://blogs.helsinki.fi/fennougrica/introduction/>

36 <https://www.ifla.org/node/91907>

37 <http://library.ifla.org/1416/1/108-cordes-en.pdf>

38 <https://communitywebs.archive-it.org/>

39 <http://library.ifla.org/2690/1/s06-2019-matusiak-en.pdf>

40 <http://library.ifla.org/1699/1/S03-2017-androsiunaite-en.pdf>

express an entire thought without any letter at all. And so, the written medium of communication is no more the parameter to define literacy.”

The conclusion from this example is that it is “imperative to include the excluded – those who are yet to get online are largely those who form the oral and illiterate society. In order to bring them into the digital world to both produce and consume content on the Internet in their regional languages – thus improving the scope and volume of traditions, cultures, art and language that populate the present day Internet – it is important to not just train them in digital literacy but in media and information literacy (MIL). MIL has the power to ensure that the new users of the Internet do not just become consumers of information; but can consciously and judiciously access, organise, analyse, evaluate and produce information.” They add: the “BPF should focus on encouraging governments, philanthropists, non-profit organisations to invest resources in digitally enabling rural and folk communities to document their own languages, culture and traditions without compromising on its IP – if any – or diluting the unique nature of its existence.”

In Paraguay various efforts have been made to disseminate indigenous languages through mass media, by using promotional videos, screening of documentaries, and dissemination of the language in radio and television programs.<sup>41</sup>

Various online tools have become available in Guaraní: dictionaries<sup>42</sup>, Facebook<sup>43</sup>, Wikipedia in Guaraní or Vikipetã started in 2005, and currently contains 3710 articles. It has 12,900 users, of which 23 are active<sup>44</sup>. Firefox is coming up with its Guaraní version<sup>45</sup>, and so is WhatsApp as a channel to promote, disseminate and strengthen the Guaraní Language<sup>46</sup>.

In Cameroon some initiatives in the field of digitalisation and promoting local content in indigenous languages exist but are limited to using CD-Rom teaching. Traditional media, such as radio, public and private TV, promoting local languages exist but are limited.

Nigeria’s extensive movie industry is an example of the potential of film and TV in local languages (as well as global English) to be both popular and play a useful role in developing different linguistic media that are not dominated or overwhelmed by global production and marketing needs.

A different perspective is offered by an informant from St. Lucia, who says that rather than start with the technology, “the expertise should be in the local culture, history language and content. That then should be provided with the competence in digital technologies and the internet.” For example, the ProFuturo project<sup>47</sup> “could provide an excellent means of preservation, in minds, local hard drives and the cloud, of local language and culture, and provides a model for possible preservation projects.”

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41 [http://www.spl.gov.py/es/application/files/7715/4964/7899/MEMORIA\\_2017\\_1.pdf](http://www.spl.gov.py/es/application/files/7715/4964/7899/MEMORIA_2017_1.pdf) and <https://www.lanacion.com.py/pais/2017/10/08/contenido-de-television-publica-nacional-en-guarani-desembarca-en-argentina/> and <http://rpc.com.py/en-la-semana-del-idioma-guarani-nominan-a-liliana-alvarez-por-usarlo-en-tv>

42 <https://www.softwarepublico.gov.py/index.php/catalogo-de-software/traductor-espanol-guarani> and <https://www.paraguay.gov.py/guarani>

43 <https://www.ultimahora.com/facebook-guarani-ya-esta-disponible-n746438.html>

44 [https://es.wikipedia.org/wiki/Wikipedia\\_en\\_guaran%C3%AD](https://es.wikipedia.org/wiki/Wikipedia_en_guaran%C3%AD)

45 <https://www.ultimahora.com/aguaratata-la-version-guarani-del-buscador-firefox-ya-esta-disponible-n969159.html>

46 <https://dgaleanolivera.wordpress.com/2019/04/01/impacto-de-la-poesia-guarani-en-las-redes-sociales/>

47 <https://profuturo.education/en/whats-profuturo/>

In Brazil, an informant argues, there is a book market crisis, but there is resistance to properly embrace new models of selling and promoting culture in the times of the Internet. This is made more complicated due to the concentration of cultural resources, equipments, and media agencies in some central regions, while other regions' ways of living, speaking (Brazil has many regional accents, but often national media is centered in Rio and São Paulo), producing knowledge, and relating to the world are under-represented or ignored. \

In that sense, "Internet has come as an important resource because it can offer an environment for other identities to be expressed and built." For example, Amazofuturism allows indigenous people in the Amazon to be represented not as poor and underdeveloped, but as using technologies in balance with nature<sup>48</sup>.

To promote actions like these, there is a need to "promote courses about content creation and how to properly publish it in the digital environment (escaping the logic of big platforms, so that creators may have more autonomy and profit), exposing clear orientations about copyright models (Copyright Commons for artists, not lawyers)", and encourage greater representation of the basis of gender, race, sexuality, and so on.

Other examples include the IBM project at Pinacoteca in São Paulo, which makes the museum's cultural pieces intelligible to people with limited formal education or those with greater difficulty understanding the item's historical and cultural contexts<sup>49</sup>. Tainacan is free software produced 100% with public resources. It is a plugin developed for Wordpress to manage digital holdings. It has been developed since 2014 in partnership with the Brazilian Institute of Museums, but can be adapted to other uses (tainacan.org).

As an Indian informant usefully said, there is need for "some policy recommendations to support the digitising the existing archives and historical records along with resource-based and economic support for scholars and people working on documenting and disseminating diverse local languages and cultural heritage and traditions. Digital Inclusion should have an active focus on the following:

- Diverse local languages
- Inclusion of technologies and policies which will make the IGF spaces, websites, and resources accessible for persons with disabilities and those using technologies which increase accessibility.
- Active attempts to increase meaningful access to queer and trans communities which cannot happen without the diversifying the number of languages online.<sup>50</sup>

## Recommendations

With the onslaught of imposed development discourses and practices, with limited ability to shield vulnerable local communities from their impact, we need to devise ways to mitigate and altogether stop the dilution of local specificities in the name of global modernity.

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48 <https://q1r0z.artstation.com/> and <https://cdna.artstation.com/p/assets/images/images/017/793/854/large/j-queiroz-silvifuturismo1-080519-web-png.jpg?1557357200>

49 <https://exame.abril.com.br/tecnologia/inteligencia-artificial-da-ibm-faz-obra-de-arte-conversar-com-publico/>

50 <https://www.giswatch.org/en/infrastructure/decentralising-culture-challenge-local-content-community-networks>

There is a need to retain and build up the repository of indigenous populations and cultures, through networking as a tool to preserve knowledge, enhance cultural assets, and allow local content to be digitalized.

Local governments and administrations should respect and foster free/libre and open source software (FLOSS) choices and promote ethical and local technologies.

Support and promote hyper-localized technologies, that come with lower or almost no 'growth rate', allowing comfortable learning-time for mastering them and that do not oblige people to acquire new hardware. Encourage low-tech, localised, eco-responsible technologies developed in accordance with local values and that do not enforce dominant biases.

Preserving indigenous languages requires public policies, language planning, effective government support and adequate budget.

There is need for policy to support digitising existing archives and historical records along with resource-based and economic support for scholars and people working on documenting and disseminating diverse local languages and cultural heritage and traditions.

Active participation of speakers in the use, documentation, dissemination and revitalization of their own languages is essential.

Empower marginalised communities to leverage digital tools and the Internet to document their own language, culture, tradition and folklore.

Digital inclusion should have an active focus on the following:

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The long-term sustainability (technological, financial) of digital culture preservation efforts undertaken by cultural and memory institutions and projects needs attention and support. There needs to be funding to support such efforts.

Access to digitised cultural heritage is fundamentally affected by the persisting digital divide. As such, it is of paramount importance to continue efforts to improve internet and ICT access as well as ICT skills and digital literacy to ensure equal access to cultural heritage for everyone, particularly vulnerable and marginalised populations.

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51 <https://www.giswatch.org/en/infrastructure/decentralising-culture-challenge-local-content-community-networks>