The challenge of discoverability

The urgency to act to defend the diversity of cultural expressions

Coalition
for the Diversity of
Cultural Expressions

Presentation

The CDCE is offering a guide to show how digital technology has changed the ways in which works are discovered, how new intermediaries have emerged between cultural content and their audiences, and what new strategies cultural organizations have had to develop to promote their online content. Through this guide, the CDCE wishes to recall the essential role of governments in implementing policies to protect and promote the diversity of cultural expressions. The CDCE releases this document as Bill C-10 amending the *Broadcasting Act* is being debated in the Canadian House of Commons. It intends to contribute to the debate by demonstrating why the regulation of online programming services is now fundamental to ensuring that local and national cultural expressions can be discovered on the Internet.

This guide is in part informed by the work of the Centre d'études sur l'intégration et la mondialisation (CEIM) of the Université du Québec à Montréal, which in 2018 undertook research on practices in the promotion and dissemination of Canadian Francophone content on the Internet. A research report[1] entitled *Pratiques culturelles numériques de promotion, de diffusion et de monétisation du contenu francophone canadien sur Internet. Tendances, obstacles et opportunités* was published in February 2020 by the Laboratoire de recherche sur la découvrabilité et les transformations des industries culturelles à l'ère du commerce électronique (LATTICE), attached to the CEIM.

The CDCE's guide first looks at the concept of discoverability. Adopting a stakeholder approach, it presents the issues underlying discoverability, reports on the practices adopted by certain cultural organizations to promote their content, and shows how urgent it is now to implement measures adapted to the digital environment. In the appendix, it offers a range of resources on the subject, studies and analyses, as well as events and training courses accessible to cultural professionals and the public.

The Coalition for the Diversity of Cultural Expressions (CDCE) brings together Canada's main Francophone and Anglophone professional organizations in the cultural sector. It is made up of some 40 organizations that collectively represent the interests of more than 200,000 professionals and 2,000 companies in the book, film, television, new media, music, performing arts and visual arts sectors. The CDCE intervenes primarily to ensure that cultural goods and services are excluded from trade negotiations and that the diversity of cultural expressions is present in the digital environment.

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[1] LATICCE, (2020), *Pratiques culturelles numériques de promotion, de diffusion et de monétisation du contenu francophone canadien sur Internet. Tendances, obstacles et opportunités,* https://laticce.uqam.ca/wp-content/uploads/2020/03/Rapport_ACEI_2020.pdf

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Introduction

The development of Internet technologies and communication networks has profoundly transformed the ways in which cultural content is accessed. Alongside traditional broadcasters, online platforms are now increasingly playing a role as intermediaries between audiences and content. These new players have experienced rapid growth in recent years. In the music industry, the Spotify streaming service increased its subscriber base by 31% between 2018 and 2019, reaching a total of 113 million subscribers in the last quarter of 2019.[2] The situation is the same in the audiovisual sector, where the giant Netflix declared in September 2019 a total of 6.5 million subscribers in Canada, an increase of 200,000 compared to January of the same year.[3] In the publishing industry, a study showed that 45% of book purchases were made on online platforms in 2015 compared to only 25% two years earlier.[4] The COVID-19 pandemic has amplified this trend and the profits of these companies jumped in the first two quarters of 2020. Compared to the same periods in 2019, Netflix saw revenue growth of +27% in the first quarter of 2020 and +25% in the second, Spotify grew by +22% in the first quarter and +13% in the second.[5]

This development reflects the consolidation of new modes of distribution and programming. In concrete terms, online platforms offer their users access to a multitude of content, on all types of devices, wherever they are in the world. Far from being simple interfaces, they organize and prioritize content, personalize their offer, create distribution lists and make certain content visible rather than other. Their business model is based on collecting data from their users, which feeds personalization and recommendation algorithms and, in some cases, enables them to sell highly targeted advertising.

Analyses have shown that online platform catalogs contain little Canadian content.[6] This lack of presence is coupled with a lack of visibility, which is a major issue for cultural organizations and artists in the country. It remains unclear how content is made visible and accessible on these platforms. These platforms have no obligation to promote local cultural content, their data is not public, and they do not provide any information on the functioning of their algorithms.

It is in this particular context that the country's cultural organizations have been implementing new measures for several years now to make their content discoverable. The objective is still to make works known, but in a dematerialized and borderless environment where the offer abounds and where it is increasingly difficult to stand out. The situation is all the more complex in Quebec and in the Canadian francophonie because it is a question of promoting French-language content in a digital universe dominated by English. Whether they are directed towards the audience (promotion, marketing, influence) or towards information technologies (referencing, metadata), these new practices are all levers that contribute to the discovery[7] of cultural content on the Internet. Their implementation is essential to the promotion of works and the outreach of local creation. But as innovative as they may

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[2] RADIO-CANADA, (October 28, 2019), Les abonnements payants à Spotify explosent, tout comme ses profits, https://ici.radio-canada.ca/nouvelle/1364731/resultats-troisieme-trimestre-spotify-technology-sa

[3] RADIO-CANADA, (December 17, 2019), Netflix : sa clientèle canadienne lui a déjà versé près de 800 M$ en 9 mois, https://ici.radio-canada.ca/nouvelle/1438536/netflix-clients-abonnes-canada-800-millions-dollars

[4] BOOKNET CANADA, (2015), *The Canadian Book Buyer 2015*, p. 5, https://www.booknetcanada.ca/canadian-book-buyer-2015

[5] CDCE, (2020), *CDCE's Recommendations for the Review of the Copyright Act*, p. 19, https://cdec-cdce.org/wp-content/uploads/2020/10/EN-CDCE-proposals-Copyright.pdf

[6] ST-PIERRE, Guillaume, (March 3, 2020), Netflix, où sont les 500 millions ? *Le Journal de Montréal*, https://www.journaldemontreal.com/2020/03/03/netflix-ou-sont-les-500-millions

[7] CANADA MEDIA FUND, (2016), *Discoverability. Toward a Common Frame of Reference. Part 1*, 64 p., https://trends.cmf-fmc.ca/wp-content/uploads/CMF_-_Discoverability_Toward_a_Common_Frame_of_Reference_-_Final.pdf

be, these initiatives cannot long do without strong political action in favour of local and national cultural expressions. In this guide, we will see why and how legislative action is needed to continue to support and protect the country's cultural sectors.

I. Defining discoverability

I.1. The encounter between content and audiences

Discoverability does not date from the Internet; it has always been necessary for the works to meet their audience. However, the development of the online cultural offer has given the concept a special meaning. The Observatoire de la culture et des communications du Québec defines it today as "the capacity, for cultural content, to be easily discovered by the consumer who is looking for it and to be offered to the consumer who was not aware of its existence."[8]

As the Canada Media Fund explains: "Discoverability weaves its way between audience and content in a set of complex interactions consisting of marketing initiatives and strategies, but also public policies, commercial dealings, rapidly evolving business models, innovative technologies, and changing consumer habits."[9] Content includes music, literary, visual and audiovisual works available online. Audiences access it through broadcast platforms - streaming services, video on demand, sharing platforms, social media.

The encounter between content and audiences is partly driven by expectations and choices, but it is also linked to a number of factors that enable content to be visible online, accessible and attractive. To be "discoverable," for a cultural content, is to have the possibility to be found but also to be listened to, seen, read. Discoverability is therefore based on both research and recommendation. On the one hand, it is the visibility of the content that is at stake, the fact that it appears in a user's searches, and on the other hand, it is the recommendation of that content, the fact that it is recommended to audiences. In both cases, online discoverability today is largely conditioned by the operation of algorithms that analyze, classify and cross-reference online usage and consumption data.

In his book *À quoi rêvent les algorithmes*, sociologist Dominique Cardon explains: "An algorithm is a series of instructions that make it possible to obtain a result. At very high speed, it operates a set of calculations from the gigantic masses of data ("big data"). It prioritizes information, guesses what interests us, selects the goods we prefer and tries to replace us in many tasks."[10] These calculation programs are present in all our online activities and the author identifies four families that measure "what is beside, above, within or below digital data."[11] Beside the Web, audience metrics are used to count user clicks and page popularity. Above the Web are algorithms such as page rank, the information ranking algorithm that made Google search engine so successful and that ranks web pages in search engine results by measuring the number and quality of links that refer to each page. This type of algorithm has a direct impact on the visibility of online content as it positions it in search results. Inside the web, data generated by the movements of individuals on social networks allows algorithms to measure the reputation of content. Below the Web, we find statistical learning methods that use the traces left by Internet users to anticipate and even predict their behaviour.

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[8] OBSERVATOIRE DE LA CULTURE ET DES COMMUNICATIONS DU QUÉBEC, (2017), *État des lieux sur les métadonnées relatives aux contenus culturels*, Québec, Institut de la statistique du Québec, p. 9, https://statistique.quebec.ca/fr/fichier/etat-des-lieux-sur-metadonnees-relatives-aux-contenus-culturels.pdf

[9] CANADA MEDIA FUND, (2016), *Discoverability. Toward a Common Frame of Reference. Part 1*, p. 10, https://trends.cmf-fmc.ca/wp-content/uploads/CMF_-_Discoverability_Toward_a_Common_Frame_of_Reference_-_Final.pdf

[10] CARDON, Dominique, (2015), *À quoi rêvent les algorithmes ? Nos vies à l'heure des big data*, Paris, Éditions du Seuil, p. 7.

[11] VÉCRIN, Anastasia, GUITON, Amaelle, (October 9, 2015), Dominique Cardon : « En calculant nos traces, les algorithmes reproduisent les inégalités entre les individus », *Libération*, https://www.liberation.fr/debats/2015/10/09/dominique-cardon-en-calculant-nos-traces-les-algorithmes-reproduisent-les-inegalites-entre-les-indiv_1400735

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The latter family of algorithms, also known as recommendation algorithms, has a very important impact on the encounter between audiences and content. They are the ones that generate content recommendations on video and music services like Netflix, YouTube or Spotify, or product recommendations on sites like Amazon. By organizing the available content, they influence discovery experiences.[12] But the rankings that they make are based on criteria that are far from neutral, so they can be brakes rather than levers of discoverability. We will see below how these recommendation algorithms affect the work of cultural organizations, how the absence of rules concerning their operation is problematic for discoverability, and how cultural circles nevertheless try to adapt to algorithmic realities, in particular through the use of metadata, structured data and by linking data together.

Discoverability ultimately depends on the devices on which audiences access content. The devices and services through which audiences access content have an impact on their viewing, listening or reading habits. A user will not necessarily watch the same audiovisual content on a computer or a smartphone, a social network or a platform; "the media have upset the uses and vice versa."[13] This multiplication of entry points enabled by the Internet should on assumption facilitate the discoverability of content, but the media are constantly changing and certain technological elements can bias the possibilities of discovery.

At the *Music and Technology Summit*[14] in March 2020, Jacynthe Plamondon and Sarah Morasse discussed how several smart speakers work and how they impact the presentation of Quebec's musical repertoire. These devices operate using voice-based recognition mechanisms and sometimes have great difficulty recognizing the title of a song or the indications given. Errors can result from the absence of content on the platforms to which the speakers are connected, but often there are difficulties related to the recognition of the specificities of the language used. The stakes are high, since the Media Technology Monitor announced in a report published in June 2020 that nearly one-third of Canadian households now posess an intelligent speaker, three times more than two years ago, and that listening to music continuously is the main activity on these devices (61%).[15]

I.2. Players and levers of discoverability

The CMF identifies two types of players acting on content discoverability: the industry and the audience.[16] The content industry – creators, producers, broadcasters, aggregators, distributors, and others – not only need their content to be discovered, but also need to be sure that it reaches the right audience in the digital environment. Audiences, for their part, have developed new consumption habits and want "to find what they want, when they want it, using the friendliest tools possible."[17] Far from being merely passive, they play an important role in the ability of content to be seen and consumed. Cultural sector players need to understand their uses, behaviours and consumption habits.

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[12] MCKELVEY, Fenwick, HUNT, Robert, (January 21, 2019), Discoverability: Toward a Definition of Content Discovery Through Platforms, *Social Media + Society, volume 5 (1),* https://doi.org/10.1177/2056305118819188

[13] SACEM UNIVERSITÉ, (November 15, 2019), La révolution de l'audiovisuel augmenté appelle une nouvelle forme de régulation, *Usbek et Rica,* https://usbeketrica.com/article/audiovisuel-l-heure-de-la-regulation

[14] APEM, *Sommet musique et technologie 2020,* https://apem.ca/sommet-musique-et-technologie-2020/

[15] MEDIA TECHNOLOGY MONITOR, (June 18, 2020), *Smart Speakers and Smart Home Devices,* Release, https://mtm-otm.ca/Download.ashx?file=Files/PressReleases/2020-06-18-en.pdf

[16] CANADA MEDIA FUND, (2016), *Discoverability. Toward a Common Frame of Reference. Part 1,* p. 10, https://trends.cmf-fmc.ca/wp-content/uploads/CMF_-_Discoverability_Toward_a_Common_Frame_of_Reference_-_Final.pdf

[17] *Ibid.,* p. 17.

The CMF report also presents two types of levers of discoverability, institutional and industrial. Institutional levers include "legislative, fiscal and regulatory measures established by the public authorities to support production and distribution of content, and the industry-wide initiatives introduced by institutions to support that industry."[18] The objective of these measures is to enable different audiences to benefit from a diversified offer in which local and national content plays a leading role. The aim is not only to protect and support local cultural ecosystems, but also to ensure that audiences can have access to their own culture, the foundation of their identity. These measures can be financial (direct funding, tax benefits, support for the creation and operation of cultural organizations, etc.) or regulatory, aimed more directly at promoting the visibility and accessibility of local content (specific cultural policies, laws governing production and distribution, imposition of quotas, taxes, etc.).

The industrial levers include all the strategies developed by industries to promote their content. In the context of online content discoverability, they are essentially based on new digital technologies and data control, which are essential indicators for capturing the public's attention. Véronique Marino, Andrée Harvey and Josée Plamondon define four pillars[19] of discoverability: promotion, digital marketing, search engine optimization, and metadata, structured data and linked data. The first two target humans: media coverage, advertising, social network campaigns, influencers. The other two target machines and include search engine optimization practices and actions to describe, structure and link data.

The Franco-Quebec mission on the online discoverability of French-language cultural content identifies twelve levers of discoverability that it classifies into two categories: on the one hand, strategies for action on content and, on the other hand, good practices and synergies to be developed by the players. Among these levers, the Franco-Quebec mission recognizes the role of governments and the importance of modernizing the regulatory framework to act on the discoverability of French-language cultural content[20].

I.3. Towards a discoverability index?

It is virtually impossible to assess or measure the discoverability of cultural content on the Web. On the one hand, data is kept private by online service providers. On the other hand, recommendations are personalized for each user.

Thus, without access to usage data and the results of algorithm work, researchers must develop web scraping strategies[21] to achieve results. This is one aspect of the LATTICE's work,[22] which currently aims to develop a discoverability index for Quebec cultural products on web platforms in Quebec and elsewhere in the world. The laboratory is in fact working on indicators to measure the presence and

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[18] *Ibid.,* p. 17.

[19] L'HEUREUX, Isabelle, (January 23, 2020), *The Levers of discoverability*, ARCA, http://www.arca.art/en/resources/the-levers-of-discoverability/

[20] MINISTÈRE DE LA CULTURE ET DES COMMUNICATIONS DU QUÉBEC, MINISTÈRE DE LA CULTURE DE FRANCE, (novembre 2020), *Schéma – Douze leviers pour accroître la découvrabilité en ligne des contenus culturels,* 1 p. https://www.mcc.gouv.qc.ca/fileadmin/documents/publications/international/Decouvrabilite-Schema.png

[21] STATISTICS CANADA, *Web scraping,* https://www.statcan.gc.ca/eng/our-data/where/web-scraping

[22] LATICCE, (2020), *À propos,* https://laticce.uqam.ca/

visibility of Quebec music and audiovisual products in the catalogs of international platforms such as Netflix, YouTube, Google Play, Spotify and iTunes/AppleMusic.

Other initiatives are emerging around this issue. As part of the Quebec Digital Strategy, a reflection has been initiated and is ongoing around the possibility of developing an indicator of the influence of Quebec's cultural offer in the digital environment. The Canadian music community is also exploring the possibility of measuring and regulating the recommendation of musical content, which is a quantifiable aspect of the concept of discoverability.

II. New players who have transformed the accessibility and visibility of content

II.1. Online services, the new key to accessing content?

The development of the online cultural offer has tended to marginalize the role of traditional intermediaries: "we focus more on the artists, their talent and the ability of their work to meet an audience, forgetting all the work of the intermediaries who, upstream, make the existence of the work possible and who, downstream, contribute to its promotion, its recognition, and even its reappropriation both on a social level and on a cultural and artistic level."[23] In this new environment marked by a proliferation of content, online services are emerging as new intermediaries. By creating new forms of linking content and audiences, online platforms have disrupted value chains and abolished the role of traditional intermediaries. They can be considered as having contributed to the "uberization" of culture,[24] referring to the upheaval brought about by the Californian platform Uber when it entered the market of taxi services, by bringing "a new conception to the way culture is disseminated."[25]

It is now difficult for content from a small market to be discovered outside of these intermediaries, not only on a global scale, but also within that market itself. Insofar as each online platform presents distinct opportunities and operates according to a different business model, the cultural sector has to make significant adaptation efforts. The role of broadcasters and distributors in all sectors, and more specifically in the audiovisual and music sectors, has changed considerably. As ADISQ explains: "In the digital universe, distribution is now taking on a completely different form. It is all about making content available on as many platforms as possible. New intermediaries have emerged: digital distributors, who take charge of delivering content to all digital services (by adapting it to the requirements of each platform) and try to maximize its visibility."[26]

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[23] CEIM, OIF, (June 2015), Les plateformes numériques de commercialisation de biens et services culturels : « ubérisation » ou démocratisation de la culture ?, *Culture, commerce et numérique, volume 10(5)*, https://www.ieim.uqam.ca/IMG/pdf/oif-volume10-numero5juin-2015ceim_vf.pdf

[24] *Ibid.*

[25] *Ibid.*

[26] ADISQ (2019), *Intervention déposée par l'ADISQ en réponse à l'Appel aux observations à l'égard de l'examen du Cadre législatif canadien sur les communications*, p.56, https://adisq.com/medias/pdf/fr/Examen_du_cadre_legislatif_canadien_intervention_ADISQ.pdf

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II.2. An online distribution market dominated by a handful of major players

The situation is all the more complex given that online content distribution is in a situation of oligopoly with a handful of companies sharing the market. There are currently more than 300 over-the-top services in the United States,[27] including the giants Netflix, Amazon Prime Video (Amazon) and Youtube (Google). Of the total global Internet traffic, Google, which owns YouTube, accounts for 12 percent and Netflix for 11.4 percent.[28] In the music secteur, "the online music business is dominated by Apple. That of streaming, by a handful of large or very large companies: YouTube (...), Apple, Spotify, Deezer, GooglePlay Music, Amazon, etc."[29]

The Canada Media Fund explains that the Web has gradually evolved from an open space to an environment dominated by a small number of platforms controlled by very large companies. This evolution has resulted in the creation of a "discovery oligopoly"[30] where only a few entities control each stage of the consumer journey, from access through discovery to content consumption. The research firm Activate describes how these companies operate. They use "discovery algorithms and sponsored content deals to pick winners, forcing everyone who wants to reach a user to buy their way to prominence."[31] They also dictate "increasingly strict discovery requirements" for content creators "during each platform shift."[32]

II.3. The "black box" of recommendation

These algorithmic systems used by companies are not neutral. They filter, classify, prioritize and highlight content according to their interests. They are not transparent either; rather, they act as "black boxes"[33] in the eyes of the general public, who do not know by which mechanisms and on the basis of which information this or that content is recommended to them. This black box is often used deliberately. As Fenwick McKelvey and Robert Hunt explain, "[k]nowledge of the operation of Google's search or Spotify's Discover Weekly algorithms represents a competitive advantage for these companies and will not be readily disclosed."[34]

In theory, recommendation algorithms aim to best meet the expectations of individuals and facilitate their online interactions. Content platforms "are investing heavily in their interfaces"[35] to offer their users increasingly targeted content. Their recommendation algorithms "are based on the notion of similarity between users (or content), which makes it possible to create groups of users (or content)

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[27] SACEM UNIVERSITÉ, (November 15, 2019), La révolution de l'audiovisuel augmenté appelle une nouvelle forme de régulation, *Usbek et Rica,* https://usbeketrica.com/article/audiovisuel-l-heure-de-la-regulation

[28] ORJOLLET, Stéphane / AFP, (PARIS, 28 octobre 2019), L'empreinte écologique de Netflix et cie ne cesse d'augmenter, *Le Devoir,* https://www.ledevoir.com/societe/environnement/565787/l-empreinte-ecologique-de-netflix-et-cie-ne-cesse-de-grimper

[29] ADISQ, *op. cit.*, p. 44.

[30] CANADA MEDIA FUND, (2017), *Trends Report 2017. The Digital Puzzle: Piecing Back Together the Content Value Chain*, p. 2, https://trends.cmf-fmc.ca/wp-content/uploads/CMF_Trends_Report_2017_-_The_Digital_Puzzle_-_Piecing_Back_Together_the_Content_Value_Chain_-_14022017-1.pdf#page=7

[31] *Ibid.* p. 8

[32] *Ibid.* p. 8.

[33] PASQUALE, Frank. (2015), *The black box society: The secret algorithms that control money and information.* Cambridge, Harvard University Press, 320 p.

[34] MCKELVEY, Fenwick, HUNT, Robert, (February 2019), *Algorithmic Accountability and Digital Content Discovery,* Discussion paper, International Meeting on Diversity of Content in the Digital Age, Canadian Heritage, p. 12, https://bit.ly/3agiWWU

[35] CDCE, (2019), *Brief by the Coalition for the Diversity of Cultural Expressions in the context of the Broadcasting and Telecommunications Legislative Review submitted to the Broadcasting and Telecommunications Legislative Review Panel*, p. 10, https://cdec-cdce.org/wp-content/uploads/2020/12/CDCE_Brief_11012019.pdf

with fairly homogeneous characteristics and to make suggestions such as: 'If you liked this content, you will like this other content.'"[36]

However, algorithms are biased. In 2017, Netflix unveiled part of how its algorithms work. The algorithms are programmed to get to know subscribers better, but they also aim to increase dependence on the platform,[37] and even "influence the tastes of Internet users."[38] In fact, we can see that the content produced by Netflix is more recommended by the platform. It "almost always gradually leads its subscribers to consume a Marvel series, therefore an original creation of Netflix."[39] The same is true for Amazon, which seems to have modified its search algorithm to showcase its own products.[40]

More broadly, excessive customization of recommendation algorithms can hinder the discoverability of content. By anticipating their expectations and offering them content similar to what they have already consumed, algorithms create filter bubbles[41] around individuals and promote a situation of intellectual isolation[42] where interactions only concern a restricted category of works. A Pew Research Center study published in November 2018 showed that 64% of the content recommended by the YouTube algorithm has more than 1 million views while only 5% of the recommended videos have less than 50,000 views.[43] This is especially true in the music sector where "one of the effects of algorithms on music consumption is the concentration of listening to a few tracks by international artists with considerable promotional and marketing support."[44] On the Spotify platform, listening in the U.S. and Canada is concentrated on a very small portion of the available catalog.[45]

In the same way, the LATTICE deplores biases in the classification of content. On online listening platforms such as Spotify, Quebec music is insufficiently present on general playlists. It most often appears in playlists "created under the epithets 'francophone' or 'Québécois,'[46] which classify music and artists according to territory and not musical genre. This classification "creates a bubble from which it is very difficult to escape"[47] and limits the possibilities of discovery since "a Quebec hit will appear in the Quebec charts, but not in the other world charts."[48]

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[36] MINISTÈRE DE LA CULTURE ET DES COMMUNICATIONS DU QUÉBEC, MINISTÈRE DE LA CULTURE DE FRANCE, (2020), *Rapport de la mission franco-québécoise sur la découvrabilité en ligne des contenus culturels francophones*, p. 11, https://cdn-contenu.quebec.ca/cdn-contenu/adm/min/culture-communications/publications-adm/rapport/Decouvrabilite-Rapport.pdf

[37] MUGNIER, Romane, (30 août 2017), Netflix dévoile comment son algorithme vous rend accros, *Usbek et Rica*, https://usbeketrica.com/article/netflix-devoile-comment-son-algorithme-vous-rend-accros

[38] *Ibid.*

[39] *Ibid.*

[40] MATTIOLI, Dana, (September 16, 2019), Amazon Changed Search Algorithm in Ways That Boost Its Own Products, *The Wall Street Journal*, https://www.wsj.com/articles/amazon-changed-search-algorithm-in-ways-that-boost-its-own-products-11568645345

[41] Filter bubble, (December 10, 2020), in *Wikipedia*, https://en.wikipedia.org/wiki/Filter_bubble

[42] PARISER, Eli, (2011), *The Filter Bubble. How the new personalized web is changing what we read and how we think.* London, Penguin Books, 308 p.

[43] PEW RESEARCH CENTER, (November 2018), *Many Turn to YouTube for Children's Content, News, How-To Lessons*, https://pewrsr.ch/2FdzmSj

[44] ADISQ (2019), *Intervention déposée par l'ADISQ en réponse à l'Appel aux observations à l'égard de l'examen du Cadre législatif canadien sur les communications*, p.53, https://adisq.com/medias/pdf/fr/Examen_du_cadre_legislatif_canadien_intervention_ADISQ.pdf

[45] SACEM UNIVERSITÉ, (November 14, 2018), Comment les algorithmes entretiennent l'illusion de répondre à nos goûts musicaux, *Usbek et Rica*, https://usbeketrica.com/article/comment-algorithmes-illusion-gouts-musicaux

[46] LATICCE, (2020), *Pratiques culturelles numériques de promotion, de diffusion et de monétisation du contenu francophone canadien sur Internet. Tendances, obstacles et opportunités*, https://laticce.uqam.ca/wp-content/uploads/2020/03/Rapport_ACEI_2020.pdf

[47] *Ibid.*

[48] *Ibid.*

Cultural organizations try to address these biases by documenting their content. But the opacity that surrounds how the algorithms work is coupled with a lack of access to data. The black box contains all of the user data that feeds the automatic learning of the algorithms and allows companies "to guide users to specific content based on particular interests."[49]

II.4. The challenge of accessing usage data

The real power of online services lies in their ability to process usage data. In their study *Usage Data and Data Usage in the Platform Age,*[50] Destiny Tchéhouali and Josée Plamondon define usage data as "data that provides information about the user or consumer of cultural content (…). It is derived from user activity and, more specifically, from the user's interaction with content."[51] This may include personal or transaction data, but also data on areas of interest, behavioural data and browsing data. This data is essential to enable the discoverability of online cultural content as it provides information about the tastes, preferences and habits of audiences. Platforms, which continuously collect user consumption data, are therefore in a unique position to target audiences, recommend new content and sell their attention to advertisers.

One of the main issues of discoverability for cultural organizations is that of access to Internet users' data, since this data is not made accessible by companies that offer online cultural content. This privatization of usage data is a major societal problem insofar as it is currently impossible to access data of public interest "that would allow society as a whole to be aware of the state of health of its cultural diversity in the digital environment."[52]

This lack of data transparency also prevents creators and industry professionals from collecting essential information about the works they create, produce and distribute. Louis-Richard Tremblay explains in the LATTICE report that as soon as the producer can track his elements, he has precise data about the consumption of the work. Today, producers have almost no choice but to publish on platforms controlled by web giants, but since data is not made available on these platforms, "you lose some of the information,"[53] explains Louis-Richard Tremblay. "We have an NFB platform, but we systematically publish associated content on Facebook, and there we lose data. We are dependent on what Facebook wants to give us, or what Facebook wants to sell us."[54] It is the same thing in the music sector where streaming platforms are considered essential by producers, who have "no choice but to adapt to this new form of listening that is favoured by fans of their products."[55] Here too, data is collected and stored by the platforms that come between their subscribers and the music producers;

[49] CDCE, (2019), *Brief by the Coalition for the Diversity of Cultural Expressions in the context of the Broadcasting and Telecommunications Legislative Review submitted to the Broadcasting and Telecommunications Legislative Review Panel*, p. 23, https://cdec-cdce.org/wp-content/uploads/2020/12/CDCE_Brief_11012019.pdf

[50] TCHÉHOUALI, Destiny, PLAMONDON, Josée, (2019), *Données d'usage et Usage des données à l'ère des plateformes : De la nécessité d'un encadrement réglementaire pour une meilleure affirmation de notre souveraineté numérique*, Montréal, ISOC Québec, Coalition pour la Culture et les Médias (CCM), 30 p., https://isoc.quebec/wp-content/uploads/2019/02/isoc_quebec_etude_donnees_2019.pdf

[51] *Ibid*. p. 8.

[52] CDCE, (2019), *Brief by the Coalition for the Diversity of Cultural Expressions in the context of the Broadcasting and Telecommunications Legislative Review submitted to the Broadcasting and Telecommunications Legislative Review Panel*, p. 23, https://cdec-cdce.org/wp-content/uploads/2020/12/CDCE_Brief_11012019.pdf

[53] LATICCE, (2020), *Pratiques culturelles numériques de promotion, de diffusion et de monétisation du contenu francophone canadien sur Internet. Tendances, obstacles et opportunités*, https://laticce.uqam.ca/wp-content/uploads/2020/03/Rapport_ACEI_2020.pdf

[54] *Ibid.*

[55] *Ibid.*

"this is where data is scarce."[56] Moreover, platforms tend to provide statistics directly to the artist, leaving out the producer, which can ultimately undermine the work of promoting content.

III. Cultural circles that reinvent themselves to promote local cultural expressions

The discoverability of cultural content today cannot do without a strategy specific to the digital environment. Over the last few years, cultural players have made significant efforts to appropriate the Web's new promotional tools. They have sought to invest this new space and adapt to the logic imposed by digital intermediaries. Faced with the growing importance of algorithmic systems, organizations have also begun to better document their content using metadata. These efforts have resulted in changes in practices and professions, but also in an increase in the cost of discoverability.

III.1. Promotional strategies: the omnipotence of social media

Promotional activities are common to all cultural sectors and are not limited to the digital environment. They can take various forms ranging from press relations to the organization of promotional events (buying shows, fairs, meetings …) to advertising displays. In the online environment, however, cultural organizations have had to adapt to a new reality. They have had to deal with new tools, which allow increasingly targeted actions, and new intermediaries, social media, which connect individuals on a large scale.

The emergence of social media has greatly transformed the discovery process. If promotion in the press still plays an important role, social media have become powerful and unavoidable actors of discoverability.[57] By taking up the principle of "word of mouth" and amplifying it through technological means, their sharing functionalities have transformed audiences' experiences. They can now share their discoveries with their circle of friends, but also within much larger communities that share the same interests.

Each of the cultural circles has specific issues and ways of functioning with regard to promotion. In the audiovisual sector, cinema but also television, promotion is generally the business of distributors and broadcasters. In music, record companies, independent producers or the artists themselves – when they self-produce – bear the costs of promotional marketing. As for books, the publishing house takes care of the publication of books and press relations, as well as the purchase of space and advertising placement. Independent bookstores and retailers also play a major role.

The arrival of social networks has changed the professions in every sector. In cinema as in music, production companies now need to be present and visible online. The same is true for publishers and booksellers. Social networks have also had a major impact on the place and role of artists and creators in the discovery of their works. Self-promotion has become essential for artists, who can no longer be content to just create; they must now "connect" with their audiences and expose themselves directly on the networks where their "subscribers" are. The investment is all the more demanding since the

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[56] *Ibid.*

[57] Facebook had 2.701 billion monthly active users in the second quarter of 2020 according to figures published on the Blog du modérateur: https://www.blogdumoderateur.com/chiffres-facebook/

2020

operation of these networks blurs the boundaries between public and private and it is sometimes very difficult to find a balance between the two.

Cultural organizations have also had to adapt their advertising strategies to the digital environment. Programmatic advertising, which automates the purchase of advertising space, the development of promotional campaigns and their dissemination,[58] is now central to promotional strategies.[59] Its optimization is based on "advances in recommendation systems" and "data collection of Internet users' behaviour and interests."[60] By collecting and processing this data, programmatic advertising makes it possible to "push the right banner, at the right time, to the right person."[61] The challenge for the cultural sector is not only to understand how each social network works, but also to know the audience that uses it. The task is complex because there are many social networks, and they operate according to distinct criteria. It is nonetheless essential given the role played by these new players in the process of discovering cultural content. One example is the TikTok application, designed for 15-20-year-olds,[62] which has had a great influence on music discovery in 2019.[63]

The social network model, which allows for massive sharing of information, experiences, opinions, multimedia content and continuous interaction between individuals, has brought new celebrities into the media sphere. The so-called "influencers" are not journalists or critics. Nor are they artists (although some may be). They are Internet users who, by sharing their experiences on the Web, have reached such a notoriety that a simple recommendation from them can have a major impact on the visibility of a content. Influencers are more and more numerous, in all fields, and they are often known for their ability to act on certain content in particular. In the cultural sector, these influencers recommend works or the work of an artist; they can also promote an organization through collaboration. As the LATTICE explains about music: "Many playlists are composed by influencers who put them on online digital listening platforms. Each of them has different rules for adding a piece to their playlists, which requires a significant amount of work to identify the real opportunities that could make a difference for an artist[64]." Influencers are new assets for promoting cultural content, to the point where a real market is developing around them. But we must be able to evaluate their influence, approach them and remunerate them.

III.2. Ensuring an online presence: from web page optimization to content documentation

Alongside these promotional strategies, cultural organizations have had to implement complementary practices for indexing and documenting their content.

[58] BELMIR, Maïté, (March 7, 2019), Comment la publicité programmatique entretient-elle les Fake News ?, *Grenier aux nouvelles*, https://www.grenier.qc.ca/nouvelles/17392/comment-la-publicite-programmatique-entretient-elle-les-fake-news

[59] CANADA MEDIA FUND, (January 31, 2018), Trends 2018: Programmatic, *CMF Trends*, https://trends.cmf-fmc.ca/programmatic/

[60] L'HEUREUX, Isabelle, (January 23, 2020), *The Levers of discoverability*, ARCA, http://www.arca.art/en/resources/the-levers-of-discoverability/

[61] BELMIR, Maïté, *op. cit.*

[62] According to figures published on the Blog du modérateur: https://www.blogdumoderateur.com/chiffres-tiktok/

[63] MERCURI, Monica, (23 décembre 2019), How TikTok Influenced Music Discovery In 2019, *Forbes*, https://www.forbes.com/sites/monicamercuri/2019/12/23/how-tiktok-influenced-music-discovery-in-2019/#53e517fc321b

[64] LATICCE (2020), *Pratiques culturelles numériques de promotion, de diffusion et de monétisation du contenu francophone canadien sur Internet. Tendances, obstacles et opportunités*, https://laticce.uqam.ca/wp-content/uploads/2020/03/Rapport_ACEI_2020.pdf

III.2.1. Improving ranking on search engines

In terms of indexing, search engine optimization, also known as natural or organic referencing, improves the positioning of a website in search engine results pages. This optimization of web pages has become essential to the visibility of organizations and their content. Concretely, referencing helps search engines to propose, via keywords for example, a list of content that corresponds to the user's request. The positioning of a site is judged good when it is ranked on the first page of search results, and in one of the first ten responses of a search by keyword corresponding to its content.

III.2.2. Producing and managing metadata

The use of metadata plays an important role in the discovery of online content. Metadata is data "used to define or describe another piece of data, regardless of its medium (paper or electronic)."[65] As the Observatoire de la culture et des communications du Québec explains: "Examples of metadata include the name of the author of a book, the subject of a documentary film, the country where a music recording was made, the materials of a sculpture, or any other information describing a cultural content or work."[66]

Metadata therefore provides basic information about the data, making it easier to find and manipulate. It can be used in text files but also in images, videos, songs and web pages. Well-documented content, properly described by relevant metadata, is more likely to be understood by search and recommendation algorithms, thus found and recommended.

The LATTICE report analyzes the practices of several organizations with regard to the production and use of metadata. In the audiovisual sector, work around metadata mobilizes both broadcasters and producers. At Radio-Canada, metadata is organized in such a way as to classify content according to a detailed analysis of the language used by users.[67] The organization follows a logic of referencing that should make it possible, thanks to a good taxonomy, to transmit precise information on content to search engines. For its part, Télé-Québec has undertaken a "unified data project" that mobilizes several of its teams. They share the responsibility for creating the data surrounding Télé-Québec's content, defining it using a common language and structuring it according to the recommendation schemes of the semantic Web and search engines.

In the music sector, it is above all the digital distributors who must ensure the quality of the metadata attached to the content they distribute.[68] The Canadian and global music industry is striving to "develop standards and exchange protocols that would allow the transmission of intelligible metadata for all services."[69]. In Quebec, the MetaMusic project[70] (see appendix) has led to the development of a guide for creators and producers on the proper use of metadata.

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[65] Métadonnée, (December 9, 2020), in *Wikipedia*, https://fr.wikipedia.org/wiki/Métadonnée The page also exists in English but the French version is more complete.
[66] OBSERVATOIRE DE LA CULTURE ET DES COMMUNICATIONS DU QUÉBEC, (2017), *État des lieux sur les métadonnées relatives aux contenus culturels*, Québec, Institut de la statistique du Québec, p. 17, https://statistique.quebec.ca/fr/fichier/etat-des-lieux-sur-metadonnees-relatives-aux-contenus-culturels.pdf
[67] LATICCE, (2020), *Pratiques culturelles numériques de promotion, de diffusion et de monétisation du contenu francophone canadien sur Internet. Tendances, obstacles et opportunités*, https://laticce.uqam.ca/wp-content/uploads/2020/03/Rapport_ACEI_2020.pdf
[68] ADISQ (2019), *Intervention déposée par l'ADISQ en réponse à l'Appel aux observations à l'égard de l'examen du Cadre législatif canadien sur les communications*, p.56, https://adisq.com/medias/pdf/fr/Examen_du_cadre_legislatif_canadien_intervention_ADISQ.pdf
[69] *Ibid.*
[70] MÉTAMUSIQUE, *About*, https://metamusic.ca/about

In the book sector, the Éditions du Septentrion has launched with Brix Labs the Tamis project which aims to "use new developments in artificial intelligence to generate metadata associated with books."[71] This new metadata "will focus more on the content of the work, rather than its form" and "can be generated in large volumes, in an automated or semi-automated manner."[72] The idea behind TAMIS is to "research, experiment, and develop prototype solutions that apply this idea to a corpus of books. This corpus will be made up of selected titles from a number of Quebec publishers, offering a diversity of genres and forms (novels, essays, etc.)."[73]

In the performing arts sector, CAPACOA, the Canadian Arts Presenting Association, and its partners launched the Linking Digital Futures (LDF)[74] initiative in 2018 to ensure that performing arts events can be found and shared online using artificial intelligence technologies. The initiative uses linked data to "foster digital discoverability and collaboration along the performing arts value chain."[75]

These processes are complex and require significant collaboration between organizations. The challenge is to translate human-readable online information into machine-readable metadata to "facilitate the exchange, modeling, encoding and querying of data within applications, organizations and communities."[76] In concrete terms, this means mastering the production of descriptive data to "[multiply] the capacity for content propagation."[77]

It is also a question of not depending on metadata produced by the platforms themselves. With the development of artificial intelligence technologies, they will indeed be able to generate "artificial" metadata[78] where none exists. By producing their own metadata, cultural organizations ensure that their content is well described, taking into account artistic criteria in particular. They also reduce their dependency on platforms "that are the only ones that can afford to implement such tools."[79]

III.2.3. Structured, linked, open data

Documenting content allows search engines and online services to understand it and make links between it and the information online. "The more possible links between content and other content in the Web, the better is its potential to be recommended or used as a response by search engines."[80]

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[71] TAMIS, *À propos*, https://tamis.ca/a-propos/
[72] *Ibid.*
[73] *Ibid.*
[74] ESTERMANN, Beat, JULIEN, Frédéric, (2019), *A Linked Digital Future for the Performing Arts: Leveraging Synergies along the Value Chain,* Canadian Arts Presenting Association (CAPACOA) in cooperation with the Bern University of Applied Sciences, https://capacoa.ca/documents/research/LDF_Report_2019.pdf
[75] JULIEN, Frédéric, (June 10, 2020), *Données liées : Succès, leçons et prochaines étapes*, Présentation au réseau des Agents de développement numérique, Association canadienne des organismes artistiques (CAPACOA), https://www.slideshare.net/CAPACOA/donnes-lies-succs-leons-et-prochaines-tapes
[76] OBSERVATOIRE DE LA CULTURE ET DES COMMUNICATIONS DU QUÉBEC, (2017), *État des lieux sur les métadonnées relatives aux contenus culturels,* Québec, Institut de la statistique du Québec, p. 85, https://statistique.quebec.ca/fr/fichier/etat-des-lieux-sur-metadonnees-relatives-aux-contenus-culturels.pdf
[77] INDEPENDANT PRODUCTION FUND, (November 2017), *Be discovered! - Document your content to be understood by the search engines*, p. 11, https://ipf.ca/wp-content/uploads/bediscovered-guide-for-webseries-2017_eng-updated-october-16.pdf
[78] MINISTÈRE DE LA CULTURE ET DES COMMUNICATIONS DU QUÉBEC, MINISTÈRE DE LA CULTURE DE FRANCE, (2020), *Rapport de la mission franco-québécoise sur la découvrabilité en ligne des contenus culturels francophones*, p. 25, https://cdn-contenu.quebec.ca/cdn-contenu/adm/min/culture-communications/publications-adm/rapport/Decouvrabilite-Rapport.pdf
[79] *Ibid.*
[80] INDEPENDANT PRODUCTION FUND, (November 2017), *Be discovered! - Document your content to be understood by the search engines*, p. 11, https://ipf.ca/wp-content/uploads/bediscovered-guide-for-webseries-2017_eng-updated-october-16.pdf

Content documentation allows "to link information across the web, regardless of the pages from which it originates, to provide a response or suggestions through links that make sense."[81]

In order to make the content offer interpretable by search engines, the data must be structured. Structured data is present in the source code of a web page or website and will allow search engine robots to understand the content found there. Among the tools used by the cultural sector, Schema allows to create, maintain and promote schemas for structured data on the Internet.[82] While there are a number of search engines, Google's largely dominates its competitors and is now a must to be visible online. Currently, Google recognizes about twenty different types of structured content and offers a tool to check if the data is well structured.

Linking data together also makes it easier to contextualize content. Increasingly, the discoverability of cultural content depends "on the links between works, people, organizations, places and activities."[83] The general idea behind linked data is "to assign a uniform resource identifier (URI) to each dataset distributed on the web by using standard machine-understandable descriptions that allow that dataset to relate to other groupings of data."[84]

Finally, open data can also have an impact on the discoverability of content. Open data is data "whose access and use is left free to users."[85] Of public or private origin, depending on whether they are produced by an association, a company or a government department, for example, they are made available "according to an open method and license guaranteeing their free access and reuse by all, without technical, legal or financial restrictions."[86] To open data is to promote its circulation and, consequently, that of the content to which it is attached.

III.3. Promoting discoverability by enriching the common space

Several tools allow to enrich the common space by promoting the sharing of open linked data.

III.3.1. Wikipedia and Wikidata

Today we talk about "zero-click trend"[87] to describe how Google works. The search engine offers "a result that best satisfies the search intention without the user having to click on other links."[88] This is made possible by the existence of metadata in web pages but also by the data present in projects such as Wikipedia or Wikidata.

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[81] *Ibid.*

[82] Schema, *About,* https://schema.org/docs/about.html

[83] MINISTÈRE DE LA CULTURE ET DES COMMUNICATIONS DU QUÉBEC, MINISTÈRE DE LA CULTURE DE FRANCE, (2020), *Rapport de la mission franco-québécoise sur la découvrabilité en ligne des contenus culturels francophones*, p. 13, https://cdn-contenu.quebec.ca/cdn-contenu/adm/min/culture-communications/publications-adm/rapport/Decouvrabilite-Rapport.pdf

[84] L'HEUREUX, Isabelle, (January 23, 2020), *The Levers of discoverability*, ARCA, http://www.arca.art/en/resources/the-levers-of-discoverability/

[85] Données ouvertes, (November 17, 2020), in *Wikipedia,* https://fr.wikipedia.org/wiki/Donn%C3%A9es_ouvertes The page also exists in English but the French version is more complete.

[86] *Ibid.*

[87] MINISTÈRE DE LA CULTURE ET DES COMMUNICATIONS DU QUÉBEC, MINISTÈRE DE LA CULTURE DE FRANCE, (2020), *Rapport de la mission franco-québécoise sur la découvrabilité en ligne des contenus culturels francophones*, p. 13, https://cdn-contenu.quebec.ca/cdn-contenu/adm/min/culture-communications/publications-adm/rapport/Decouvrabilite-Rapport.pdf

[88] *Ibid.*

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Wikipedia is a leading collaborative tool for cultural organizations wishing to improve the discoverability of their content. In his book *Culture numérique*, sociologist Dominique Cardon describes the platform in the following terms: "Wikipedia is the most daring collective enterprise ever made on the Web. A sociological miracle that no one believed in, the online encyclopedia is a perfect example of common good, bottom-up innovation and collective intelligence. What makes it so original is that it allows a host of Internet users to produce contributions of surprising quality without first verifying their competencies."[89]

Initially criticized for its lack of formal expertise, Wikipedia has gradually become a reference. It has been able to develop verification mechanisms based on interactions between users that can now self-regulate thanks to strict validation rules. This evolution has largely contributed to the notoriety of the encyclopedia, which is such today that "for almost every keyword, the corresponding article arrives on the first page of search engines."[90] Wikipedia is indeed used by search engines as a reference and the presence of an article in Wikipedia will considerably improve the visibility of the subject matter in search pages. The *Be discovered!* guide[91] of the Independent Production Fund provides guidelines on how to use Wikipedia for discoverability purposes.

Wikipedia is the best-known project of the Wikimedia movement, whose mission is to bring free educational content to the whole world, but it is not the only one. Other projects include Wikidata,[92] a free and open knowledge base that can be read and edited by both humans and machines. Wikidata acts as central storage for the structured data of its Wikimedia sister projects including Wikipedia, Wikivoyage, Wiktionary, Wikisource, and others. Wikidata also provides support to many other sites and services beyond just Wikimedia projects. The content of Wikidata is available under a free license, exported using standard formats, and can be interlinked to other open data sets. Several cultural institutions and organizations in Quebec and Canada are in favour of greater use of Wikidata "for both technological (use of web standards, gateway to the semantic web, interoperability) and political reasons (openness, international collaboration, accessibility of content and information that is in the public domain or that is financed by public funds)."[93] In June 2020, CAPACOA and the Conseil québécois du théâtre announced that they were initiating an international cooperation project to increase the presence of performing arts in Wikidata.[94]

III.3.2. IMDB

The Internet Movie Database is the world's largest collaborative database[95] of information related to films, television, and video games. IMDb provides search engines with standardized information about audiovisual content. It "retrieves a large amount of information about films, actors, directors,

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[89] CARDON, Dominique, (2019), *Culture numérique,* Paris, Presses de Sciences Po. p.123.
[90] *Ibid.*
[91] INDEPENDANT PRODUCTION FUND, (November 2017), *Be discovered! - Document your content to be understood by the search engines*, p. 11, https://ipf.ca/wp-content/uploads/bediscovered-guide-for-webseries-2017_eng-updated-october-16.pdf
[92] Wikidata, (December 30, 2019), https://www.wikidata.org/wiki/Wikidata:Main_Page
[93] L'HEUREUX, *Data modeling for the contemporary arts*, Conseil québécois des arts médiatiques, https://www.cqam.org/en/activites/wikidata-data-modeling/
[94] MARINO, Véronique, NETO COSTA, Joana, (22 juin 2020), *The Wikidata project for the performing arts is on!*, Linked Digital Future, https://linkeddigitalfuture.ca/2020/06/22/the-wikidata-project-for-the-performing-arts-is-on/
[95] IMDB, *About,* https://www.imdb.com/pressroom/about/

scriptwriters, and all the people and companies involved in the development of a film, TV movie, TV series, or video game."[96] Access to its content is public and free of charge.

III.3.3. Music Brainz

MusicBrainz is an open music encyclopedia that collects music metadata and makes it available to the public. "MusicBrainz aims to be:
- The ultimate source of music information by allowing anyone to contribute and releasing the data under open licenses
- The universal lingua franca for music by providing a reliable and unambiguous form of music identification, enabling both people and machines to have meaningful conversations about music."[97]
Like Wikipedia, MusicBrainz is maintained by a worldwide community of users.

III.4. Increased workload, changing professions, increased costs for uncertain results

These new strategies for promoting, indexing and documenting content have generated changes in professions, new costs, and required major adaptations on the part of creators and cultural organizations. Digital marketing requires a good knowledge of web trends. The inclusion of complete, high-quality metadata "requires additional manpower with specialized knowledge and the ability to keep up with the rapid changes in the sector."[98]

Concerning data processing and metadata production, cultural sector actors often do not have the skills, nor the human, technological or financial means to analyze all the data that their activity generates. In the music sector, producers "analyse this data 'on the job' and observe above all the number of online plays which becomes the unit of measurement of an artist's success."[99] With streaming platforms, content promotion and enhancement activities have become more complex. The platforms have modes of operation that can vary from one day to the next and it is therefore very difficult to develop strategies over time. There is a real paradox between the investment required for a detailed analysis of the functioning of the platforms and the data they make available, and the low revenues generated on these platforms. Insofar as they are far from compensating for the losses related to the drop in album sales, the energy to be put into processing the data seems too unprofitable. As one of the industry representatives interviewed by the LATTICE explains: "Efforts are currently being put into areas that are less profitable and are undergoing major changes. We're spending money for statistics, I think."[100]

These efforts by the cultural sector to promote the discoverability of the country's cultural expressions cannot do without strong political support adapted to current issues.

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[96] Internet Movie Database, (December 13, 2020), in *Wikipedia* https://fr.wikipedia.org/wiki/Internet_Movie_Database The page also exists in English but the French version is more complete.
[97] Music Brainz, *About*, https://musicbrainz.org
[98] ADISQ (2019), *Intervention déposée par l'ADISQ en réponse à l'Appel aux observations à l'égard de l'examen du Cadre législatif canadien sur les communications*, p.57, https://adisq.com/medias/pdf/fr/Examen_du_cadre_legislatif_canadien_intervention_ADISQ.pdf
[99] LATTICE, (2020), *Pratiques culturelles numériques de promotion, de diffusion et de monétisation du contenu francophone canadien sur Internet. Tendances, obstacles et opportunités*, https://laticce.uqam.ca/wp-content/uploads/2020/03/Rapport_ACEI_2020.pdf
[100] *Ibid.*

IV. Governments that need to stay involved to support cultural ecosystems

IV.1. Canada has been able to protect and promote the diversity of its culture over the years

As early as the 1920s, Canada sought to strengthen its national identity through "cultural emancipation."[101] The Royal Broadcasting Commission created in 1928 recommended in its 1929 report the establishment of a state-owned system capable of "fostering a national spirit and interpreting national citizenship."[102]

The federal government develops a cultural policy that pursues objectives and sets standards at the national level. This policy includes federal laws that regulate broadcasting and copyright throughout the country.

This legislative arsenal enables Canada to support its creators and cultural organizations and protect them from the risk of dependence on foreign markets, particularly the U.S. market. In 1951, the report of the Royal Commission on National Development in the Arts, Letters and Sciences in Canada[103] already underlined "the extreme vulnerability of Canada to American influences"[104] and warned of the massive penetration of American cultural products on the national territory. Even today, much of the cultural content accessed by Canadians is produced in the United States, and much of the revenue from the sale of these products leaves the country. In 2018, 64% of the cultural products imported into Canada came from the United States.[105] In Quebec "those who attended Quebec theatres in 2018 did so more to see Hollywood films than to see Quebec feature films."[106]

To protect and promote Canadian creation, the legislative framework sets standards and imposes several obligations. The Canadian Radio-television and Telecommunications Commission (CRTC) "issues licences and monitors performance to regulate the country's broadcasting system. To ensure that the system will carry Canadian products, it sets Canadian-content requirements. These rules apply to the radio and TV programming services that broadcast programs and to the distribution systems (cable television, direct-to-home satellite, and multipoint distribution systems) delivering broadcast services to homes."[107]

Since 1971, Canadian content quotas have applied to music broadcast on radio. Currently, 35% of the music broadcast on radio stations must be Canadian. Francophone radio stations must devote at least

[101] CLAUS, Simon, (November 2017), *Canadian Broadcasting Policy at Issue: From Marconi to Netflix,* Canadian Radio-television and Telecommunications Commission (CRTC), https://crtc.gc.ca/eng/acrtc/prx/2017claus.htm

[102] MARSH, James H., HARVEY, Jocelyn, February 6, 2006 (last edited on March 4, 2015), Cultural Policy, *The Canadian Encyclopedia*, https://www.thecanadianencyclopedia.ca/en/article/cultural-policy

[103] STEWART J.D.M., KALLMANN, Helmut, February 7, 2006 (last edited on November 12, 2019), Massey Commission, *The Canadian Encyclopedia*, https://www.thecanadianencyclopedia.ca/en/article/massey-commission-emc

[104] MARSH, James H., HARVEY, Jocelyn, *op. cit.*

[105] CANADIAN HERITAGE, *Infographic on International Trade of Culture products, 2010-2018*, https://www.canada.ca/en/canadian-heritage/corporate/publications/general-publications/culture-satellite-account.html

[106] RADIO-CANADA, (9 janvier 2019), Les Québécois ont vu encore plus de films américains en 2018, https://ici.radio-canada.ca/nouvelle/1145921/box-office-quebec-cinema-films-americains-hausse-2018

[107] MARSH, James H., HARVEY, Jocelyn, *op. cit.*

65% of their weekly music programming to francophone music. Since 1991, all television stations have been required to broadcast a specific number of hours of Canadian content during prime time. Broadcasters' licences also include Canadian programming expenditure obligations that vary from company to company.[108]

These legislative tools that allow Canada to have a strong and diverse cultural fabric have not evolved since the 1990s and new online services have been exempted from regulatory obligations.[109] As technological developments have led to significant changes in the modes of production, distribution and access to cultural content, it now appears essential and urgent that these laws and regulations be reviewed. More than ever, "Canada's challenge [is to create] conditions for the development of its own arts, heritage and cultural industries."[110]

IV.2. Engaging online services in the promotion of local cultural expressions

IV.2.1. The issue of algorithmic accountability

In recent years "algorithmic accountability has emerged as one area of regulatory innovation."[111] The problem of the algorithmic "black box" was discussed at the *International Meeting on Diversity of Content in the Digital Age*[112] organized by the Department of Canadian Heritage and the Canadian Commission for UNESCO in February 2019. Among the issues discussed was the difficulty in determining "how to hold online platforms accountable for the impact of their algorithms."[113] There is currently no public discussion about how the algorithms work. Algorithms are often "optimized for certain results: maximize the time a user spends on a platform or expose him or her to as much advertising as possible for greater profitability."[114] This parameterization of the algorithms has negative consequences on the discoverability of national content.

At this meeting, Fenwick Mckelvey and Robert Hunt presented their report *Algorithmic Accountability and Digital Content Discovery*[115] in which they recommend several interventions to improve algorithmic accountability. These are organized around "three key policy objectives:
- Improve the quality of algorithmic inputs available in the public domain;
- Ensure decisions made in code can be explained and justified in the public interest;
- Invest in better understanding of digital media use, audiences and creators."[116]

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[108] CDCE, (2019), *Brief by the Coalition for the Diversity of Cultural Expressions in the context of the Broadcasting and Telecommunications Legislative Review submitted to the Broadcasting and Telecommunications Legislative Review Panel*, p. 7, https://cdec-cdce.org/wp-content/uploads/2020/12/CDCE_Brief_11012019.pdf

[109] DEPARTMENT OF JUSTICE, 1991, (Last amendment July 1st, 2020), *Broadcasting Act*, (S.C. 1991, c. 11), Ottawa, Department of Justice, https://laws.justice.gc.ca/eng/acts/B-9.01/page-1.html

[110] MARSH, James H., HARVEY, Jocelyn, February 6, 2006 (last edited on March 4, 2015), Cultural Policy, *The Canadian Encyclopedia*, https://www.thecanadianencyclopedia.ca/en/article/cultural-policy

[111] MCKELVEY, Fenwick, HUNT, Robert, (February 2019), *Algorithmic Accountability and Digital Content Discovery*, Discussion paper, International Meeting on Diversity of Content in the Digital Age, Canadian Heritage, p. 12, https://bit.ly/3agiWWU

[112] CANADIAN HERITAGE, (2019), *Report — International Meeting on Diversity of Content in the Digital Age*, https://www.canada.ca/en/canadian-heritage/services/diversity-content-digital-age/international-engagement-strategy/report.html

[113] *Ibid.*

[114] *Ibid.*

[115] MCKELVEY, Fenwick, HUNT, Robert, (February 2019), *Algorithmic Accountability and Digital Content Discovery*, Discussion paper, International Meeting on Diversity of Content in the Digital Age, Canadian Heritage, 25 p., https://bit.ly/3agiWWU

[116] *Ibid.*, p. 3.

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Concretely, this involves establishing standards and metrics related to audience engagement and measurement, but also adjusting algorithms' optimization towards public policy purposes and conducting impact assessment on algorithms before they are deployed.[117] As they explain, these recommendations provide a framework for acting on the algorithmic accountability of companies that provide content to Canadians. According to the authors of the report, "Canada has only begun to understand its role and responsibilities in strengthening algorithmic accountability nationally and internationally. These recommendations aim to provoke policy innovation to address this pivotal issue."[118]

IV.2.2. Extending promotion obligations to online services

Currently in Canada, online services are not required to meet Canadian content promotion requirements. Under the *Exemption order for digital media broadcasting undertakings*,[119] they are exempted from the obligations of the *Broadcasting Act*[120] which requires conventional broadcasting services such as radio and television to contribute to the promotion of Canadian content. Many of these online services "are managed by foreign companies, which generate significant revenues in Canada,"[121] yet "their social and cultural responsibility associated with their activity in Canada is not recognized."[122]

To meet the challenge of discoverability, it is essential that all companies that offer cultural content to Canadians participate in promoting the country's cultural expressions. As part of the review of the *Broadcasting Act*, the CDCE has made its voice heard on several occasions regarding the extension of the requirements for the promotion of national content to online services.[123] The CDCE therefore recommends that, in the new Act, the Canadian Radio-television and Telecommunications Commission (CRTC) be able to impose on online services obligations to promote Canadian content: obligations to present, recommend and offer content, but also to transmit information to the CRTC concerning the functioning of the algorithms.

The proposed revision to the *Broadcasting Act*, which was filed on November 3, 2020, is intended to allow the CRTC to "make orders imposing conditions [that it] considers appropriate for the implementation of the broadcasting policy […] including conditions respecting […] the presentation of programs for selection by the public, including the discoverability of Canadian programs."[124] It will therefore be necessary to carefully monitor the orders issued by the CRTC in order to assess how the new requirements regarding the discoverability of cultural expressions will be implemented. Nevertheless, with C-10, the Canadian government recognizes its role in content discoverability.

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[117] CANADIAN HERITAGE, (2019), *Report — International Meeting on Diversity of Content in the Digital Age*, https://www.canada.ca/en/canadian-heritage/services/diversity-content-digital-age/international-engagement-strategy/report.html
[118] MCKELVEY, Fenwick, HUNT, Robert, *op. cit.* p. 3.
[119] https://crtc.gc.ca/eng/archive/2012/2012-409.htm
[120] DEPARTMENT OF JUSTICE, 1991, (Last amendment July 1st, 2020), *Broadcasting Act*, (S.C. 1991, c. 11), Ottawa, Department of Justice, https://laws.justice.gc.ca/eng/acts/B-9.01/page-1.html
[121] CDCE, (2019), *Brief by the Coalition for the Diversity of Cultural Expressions in the context of the Broadcasting and Telecommunications Legislative Review submitted to the Broadcasting and Telecommunications Legislative Review Panel*, p. 7, https://cdec-cdce.org/wp-content/uploads/2020/12/CDCE_Brief_11012019.pdf
[122] *Ibid.*
[123] Ibid.
[124] Bill C-10, Article 9.1 (1) and 9.1 (1) b).

IV.2.3. Enabling better access to data

The cultural sector has also been asking for better access to data for several years. The majority of the reports submitted in 2019 to the Broadcasting and Telecommunications Legislative Review Panel called for greater transparency from companies providing online content, in order to be able to assess access to national content on the Web. In particular, creators and cultural professionals want access to data on audience (the number of subscribers or users of online services in Canada, and certain aggregate characteristics), programming (the number of audio or audiovisual content listed, by genre and language, in catalogs), uses (the hours of domestic viewing of Canadian and non-Canadian content by genre and language), and promotion (the share of Canadian content, by genre and language, of total recommendations). In January 2020, in its report *Canada's communications future: Time to act*, the Broadcasting and Telecommunications Legislative Review Panel echoed these requests by recommending "that the CRTC use its power to collect information and obtain consumption data from online media content undertakings and publish them in aggregated form."[125]

UNESCO also advocates progress in this direction. In its *Operational Guidelines on the Implementation of the Convention in the Digital Environment*, the Conference of Parties to the *2005 Convention on the Protection and Promotion of the Diversity of Cultural Expressions* recommends to "promote dialogue between private operators and public authorities in order to encourage greater transparency in the collection and use of data that generates algorithms, and encourage the creation of algorithms that ensure a greater diversity of cultural expressions in the digital environment and promote the presence and availability of local cultural works."[126]

Again, Bill C-10 will allow the CRTC to collect a wide range of information from online companies, including financial and commercial information, information relating to programming they offer, certain expenditures they make, including expenditures on Canadian production, and usage information they collect.[127]

IV.3. Acting directly on discoverability: from governance of algorithms to governance through algorithms

How governments can renew their commitment to the promotion of local and national cultural expressions is the subject of much reflection. The revision of the legislative framework that governs the promotion of cultural content is an essential step in this renewal. Other avenues should also be explored. For example, some are calling for concrete innovations such as the establishment of a public platform "for uniquely Canadian cultural projects" that "would foster creative development as well as social and political inclusion by promoting participation in a greater Canadian community."[128] The creation of such a platform would, in particular, promote access to local cultural expressions of

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[125] BROADCASTING AND TELECOMMUNICATIONS LEGISLATIVE REVIEW PANEL, (January 2020), *Canada's communications future: Time to act*, Final Report, Broadcasting and Telecommunications Legislative Review, https://www.ic.gc.ca/eic/site/110.nsf/eng/00012.html

[126] UNESCO, (June 2017), *Operational Guidelines on the Implementation of the Convention in the Digital Environment*, Conference of Parties, https://en.unesco.org/creativity/sites/creativity/files/sessions/digital_operational_guidelines_en.pdf

[127] Bill C-10, Article 9.1 (1) i) and j).

[128] IPSOS, (2017), *What we heard across Canada: Canadian Culture in a Digital World*, Consultation report submitted to the Department of Canadian Heritage, p.24, https://www.canadiancontentconsultations.ca/system/documents/attachments/7fbdb8859168fdacec048735532bfdf6c45789a0/000/005/630/original/PCH-DigiCanCon-Consultation_Report-EN_low.pdf

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minority communities (the cultural expressions of indigenous peoples, or Francophones outside Quebec, for example).[129]

At the *International Meeting on Diversity of Content in the Digital Age*, Mira Burri distinguished two paths to promote the discoverability of cultural content[130]: governance of algorithms and governance through algorithms. The first would involve "typical market regulations as well as various self- and co-regulation initiatives depending on the specific issues being targeted."[131] The second would involve "targeted interventions with tools that would promote exposure to diversity of content by increasing the visibility and discoverability of certain types of content through editorial processes done by algorithms."[132] In this second perspective, public decision-makers would use technology to promote local cultural expressions. With "good aggregators,"[133] it would thus be possible, without calling into question the freedom of choice of Internet users, to promote "the visibility, availability and consumption of high-quality and trusted local, national and regional content."[134]

Governance "through algorithms" is an interesting way to act on the discoverability of the country's cultural contents. Private initiatives in this direction have already seen the light of day in Canada. This is the case, in particular, of the QUB Musique platform, launched by Québecor, which offers a wide range of musical content that promotes Quebec works and artists. As its creators explain, "the QUB Musique platform offers a turnkey experience conducive to musical discovery and listening, while providing a showcase dedicated to Quebec music. The primary objective is to create a proximity between local artists and the audience."[135] The launch of the platform is recent and a more detailed analysis of its operation will be required, but the initiative can already be commended for showing that listening and browsing data can be used[136] for discoverability purposes, to promote local cultural expressions.

But the issues underlying the discoverability of content and the promotion of local cultural expressions are not limited to the territory of States and concern the entire planet. Concerted action on an international scale is therefore just as essential.

IV.4. The need for concerted strategies: building bridges between local, national and international levers of action

In various countries, reflections are underway on measures to be implemented to protect local creations and their promotion in the digital environment. For Sibyle Veil, President and CEO of Radio France: "This revolution is not only technological. A new world is taking shape, and if we are not careful, it will be a world of lasting cultural uniformity. Adolescents, but also adults, are increasingly obeying

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[129] *Ibid.*
[130] CANADIAN HERITAGE, (2019), *Report — International Meeting on Diversity of Content in the Digital Age,* https://www.canada.ca/en/canadian-heritage/services/diversity-content-digital-age/international-engagement-strategy/report.html
[131] *Ibid.*
[132] *Ibid.*
[133] BURRI, Mira, (February 2019), *Discoverability of Local, National and Regional Content Online: Mapping Access Barriers and Contemplating New Orientation Tools,* Discussion paper, International Meeting on Diversity of Content in the Digital Age, Canadian Heritage, p. 11, https://bit.ly/34dTL3p
[134] *Ibid.*
[135] QUÉBECOR, (4 mai 2020), *Québecor lance QUB musique,* Communiqué, https://www.newswire.ca/fr/news-releases/quebecor-lance-qub-musique-898063644.html
[136] QUB MUSIQUE, *Aide,* https://aide.qub.ca/outil-de-recommandations/sur-quoi-se-basent-les-recommandations-faites-par-qub-musique

recommendations, against the promise of openness and discovery that digital technology originally held out."[137]

Several countries have begun to reflect on the measures to be put in place to promote the visibility and discovery of their online content. With its new Audiovisual Media Services Directive (AVMS) adopted in October 2018, the European Union has already made progress on this issue by requiring providers of on-demand audiovisual media services to have a minimum quota of 30% European works in their catalog.[138] At the beginning of 2020, France was preparing a major bill on the audiovisual sector that would provide new obligations for digital players. Part of the project has been postponed because of the pandemic, but the essential part has been preserved, namely the transposition of the European AVMS Directive and the Directive on Copyright and Related Rights[139]. France's objective is "to 'regain cultural sovereignty in the digital age' and to re-balance the rules of the audiovisual ecosystem between traditional players in the sector, such as TV channels, subject to several obligations and new digital players such as online platforms. The issue is to put in place new norms, which will support 'the French cultural exception, the creation and the diversity of the offer.'"[140]

It now seems essential to coordinate efforts at the local, national and international levels and to develop alliances for a better oversight of the platforms. While the notion of territoriality is always essential in the implementation of measures to protect and promote local cultural expressions, the transnational dimension of digital technology requires reflection on a more global scale. The challenge for public authorities is to succeed in setting up collaborative approaches to regulating and overseeing the digital giants. The *Operational Guidelines on the Implementation of the 2005 Convention on the Protection and Promotion of the Diversity of Cultural Expressions in the Digital Environment*[141] provide a strategic framework for global reflection. They call on governments to implement measures that promote access to a diversity of cultural content on online platforms, emphasize the need for greater transparency in the collection and use of data, and encourage "the creation of algorithms that ensure a greater diversity of cultural expressions in the digital environment and promote the presence and availability of local cultural works."[142]

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[137] SACEM UNIVERSITÉ, (15 novembre 2019), La révolution de l'audiovisuel augmenté appelle une nouvelle forme de régulation, *Usbek et Rica*, https://usbeketrica.com/article/audiovisuel-l-heure-de-la-regulation
[138] VLASSIS, Antonios (FEBRUARY, 2020), *The Review of Audiovisual Policy in Europe: Between Cultural Sovereignty and Digital Globalisation*, Global watch on culture and digital trade (n° 1), CEIM, IFCCD, https://ficdc.org/wp-content/uploads/2020/02/FEBRUARY-2020-N%C2%BA1-.pdf
[139] A law was passed on December 3, 2020 to transpose several European directives and regulations into French law. "To support and protect intellectual property, ordinances must transpose the European directives on copyright and related rights and on audiovisual media services (AVMS)." https://www.vie-publique.fr/loi/276603-loi-ddadue-2020-adaptation-au-droit-ue-economie-et-finance
[140] VLASSIS, Antonios, *op. cit.*
[141] UNESCO, (June 2017), *Operational Guidelines on the Implementation of the Convention in the Digital Environment*, Conference of Parties, https://en.unesco.org/creativity/sites/creativity/files/sessions/digital_operational_guidelines_en.pdf
[142] *Ibid.*

Conclusion

The digital age has brought new opportunities to watch, listen and read an unparalleled amount of work. It has given rise to new players and intermediaries who have transformed our consumption patterns and our ways of discovering cultural content from here and elsewhere. With them, algorithmic search and recommendation systems have emerged to guide users. Programmed to make visible and recommend certain content, these systems pose many challenges in terms of discoverability.

This notion, with its evolving contours and multiple challenges, is today essential for understanding the work of cultural organizations in promoting local and national cultural expressions. Invested daily to promote Canada's cultures, these organizations have seen their business models transformed by digital technology. The growing importance of content platforms and social networks has had a major impact on the evolution of budgets and professions within organizations. Organizations must develop strategies adapted to the digital environment to promote their content, in addition to traditional promotional strategies. Audiences are now largely dependent on search and recommendation algorithms that work through the massive collection of usage data. These algorithms are most often parameterized by for-profit companies that are only interested in the economic value and not the cultural value of the content they recommend. Far from being neutral and transparent, their operation is not made public but tends to favour content from culturally dominant countries. In this context, the risk of cultural standardization is significant because it is becoming increasingly difficult for audiences from small markets to be exposed to local and national content, to a diversity of cultural expressions that is necessary for creativity, identity building and personal development.

Over the years, Canada has been able to protect and promote the diversity of cultural expressions on its territory. With its broadcasting, telecommunications and copyright laws, it has provided a framework in which its cultural ecosystems can flourish. Now more than ever, it is time to adapt these regulations to the challenges of the digital age. Canada should strengthen its cultural policy using tools adapted to our era. In its brief[143] to the Broadcasting and Telecommunications Legislative Review Panel and in its recommendations[144] to the federal political parties during the 2019 election campaign, the CDCE made several proposals to this effect.

Bill C-10 incorporates many of the recommendations of the CDCE and cultural sector organizations and has been well received by the sector.[145] At the time of publication of this document, the CDCE and several of its members have submitted proposals to improve the bill and hope that the revision will adequately integrate online companies into the law, particularly on issues related to the discoverability of cultural expressions.

It is also essential that Canada continue to reflect with its international partners on the best way to regulate the dissemination of cultural content online. In the current context of the global crisis related to the COVID-19 pandemic, creators and cultural professionals have been hit hard by the closure of movie theatres, shows, bookstores, the halting of filming, the cancellation of fairs and festivals, etc. At

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[143] CDCE, (2019), *Brief by the Coalition for the Diversity of Cultural Expressions in the context of the Broadcasting and Telecommunications Legislative Review submitted to the Broadcasting and Telecommunications Legislative Review Panel*, 39 p., https://cdec-cdce.org/wp-content/uploads/2020/12/CDCE_Brief_11012019.pdf

[144] CDCE, (2019), CDCE Recommendations to Federal Political Parties, 4 p.https://cdec-cdce.org/wp-content/uploads/2019/06/CDCE-recommendations-2019.pdf

[145] CDCE (November 3, 2020), *Bill on Broadcasting Act: CDCE welcomes the decisive changes for our cultural sovereignty*, Release, https://cdec-cdce.org/en/publications/release-bill-on-broadcasting-act/

the same time, online platforms have experienced unprecedented gains. This imbalance is unsustainable and there is an urgent need to draw conclusions on a global scale. The virtual meeting organized on April 22 by the Ministers of Culture of all Member States highlighted two urgent needs for the revival of the sector. "First, that of rethinking cultural cooperation at a time when the health crisis is putting pressure on already scarce resources in this field and when restrictions on mobility could last for a long time. Secondly, that of guaranteeing the contribution of the giants of the Web to cultural ecosystems in order to generate new sources of income and enhance local cultural expressions."[146]

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[146] CDCE (April 28, 2020), *Culture in times of pandemic: a remedy that needs to be taken care of*, https://cdec-cdce.org/en/evenements/culture-in-times-of-pandemic-a-remedy-that-needs-to-be-taken-care-of/

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Appendix: Resources

1. Tools and guides for a good use of metadata

Several tools have been developed by the cultural sector to help creators, producers, broadcasters and all cultural industries in the proper use of metadata.

1.1. MetaMusique (music)

The Quebec music sector has come together to design an online guide entitled MétaMusique,[147] which aims to assist music content creators and producers in indexing their content using metadata. The organizations participating in the project explain that "producing exhaustive and standardized metadata following the procedure outlined by MetaMusique will allow rights holders linked to a musical content to receive more rapidly all the royalties to which they are entitled, while also enabling its discoverability on digital and traditional platforms."[148] The guide presents best practices, including a common metadata model to be indexed for all music content. It suggests a step-by-step procedure to follow: identifying the contributors (obtaining and using unique identifiers), declaration of the musical work and lyrics, entry of metadata during the recording session, production of cultural metadata (origin, language, genre) according to the right standards, declaration of the sound recording and performance, production of metadata related to exploitation.

1.2. Footlight (performing arts)

The organization Culture Creates[149] has developed Footlight,[150] a tool that allows organizations in the performing arts community to manage their own metadata. Footlight programmatically collects, structures and links public event information converting it into a knowledge graph. In other words, Footlight translates cultural organizations' websites into machine-readable metadata to increase the discoverability of their websites and their content. At the Forum des innovations culturelles 2019, the co-founder of Culture Creates, Gregory Saumier-Finch, explained: "With the Footlight editor, there is no data entry, the information is already in the websites. Footlight will link the information and create the descriptive metadata for the shows. And will publish the structured data on your website if you wish. One of the advantages with Footlight is that we can manage the complexity for you... Footlight could make the changes for you, and several organizations, or sectors, ultimately, at the same time."[151] Once the data is structured, it can be linked and migrated to the Artsdata.ca console,[152] which is a collective ownership of data for the entertainment industry to facilitate discoverability. The Footlight tool is currently available in Quebec and Canada and is supported by the Canada Council for the Arts.

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[147] https://metamusique.ca/
[148] *Ibid.*
[149] https://www.culturecreates.com/fr/
[150] *Ibid.*
[151] QUÉBEC NUMÉRIQUE, (May 22, 2019), *FIC19 – L'enjeu de découvrabilité du contenu culturel québécois sur le Web,* Culture Numériqc, http://culturenumeriqc.qcnum.com/guide-references/fic19-accessibilite/
[152] https://console.artsdata.ca

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1.3. Guide to Best Practices on Descriptive Metadata for Video Broadcasting of an Opera Performance – Opéra de Montréal (opera)

In 2019, the Opéra de Montréal began a reflection on the best way to describe, through metadata, the event *Une Carmen pour tout le Québec!*[153] in order to provide performance venues with the tools they need to promote the event. The institution mandated Christian Roy, consultant at Brix Labs, to develop a *Guide to Best Practices on Descriptive Metadata for Video Broadcasting of an Opera Performance.*[154] This guide presents and suggests a set of best practices for presenters in this event-related context. The author points out that it is a difficult object to classify from a metadata point of view because it is a performance, a film and an event at the same time. Nevertheless, he points out that the guide, through what it presents, could be adapted to meet the needs of other players in the sector.

1.4. Be Discovered! – Guide of the Independent Production Fund (audiovisual)

The *Be Discovered!*[155] Guide is an initiative of the Independent Production Fund. It is a tool to help the cultural sector document its content adequately so that it can be found and understood by machines. It has been designed more specifically for producers, decision-makers and managers, project managers, developers, programmers, webmasters and anyone with the necessary knowledge to intervene in the programming of web pages.

1.5. Documenting Properly to Promote Online Discovery. Working with Metadata - Guide of the Fondation Jean-Pierre Perreault (danse)

This practical guide[156] provides the dance community with an easy-to-use method and tools to enable them to work as a team around the production and reuse of metadata. It suggests how to map the digital dance ecosystem, how to represent information in the form of metadata, and how to collaborate on a documentation project, in a team, within an organization or with partners.

1.6. Open Data at the Museum – Société des musées du Québec (museums)

On June 26, 2016, the Société des Musées du Québec organized a professional day entitled "Open Data: What Perspectives for Museums?" The document *Open Date at the Museum*[157] presents a synthesis of the key concepts discussed during this day, as well as various resources to support reflection and the implementation of approaches aimed at the discoverability of data from Quebec museum collections.

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[153] OPÉRA DE MONTRÉAL, (October 30, 2019), *Carmen sur 26 grands écrans le 23 février 2020!*, Release, https://www.operademontreal.com/nouvelles/carmen-sur-26-grands-ecrans-le-23-fevrier-2020
[154] ROY, Christian / BRIX LABS, (août 2019), *Guide de bonnes pratiques sur les métadonnées descriptives de la diffusion vidéo d'un spectacle d'opéra*, en collaboration avec l'Opéra de Montréal, 16 p., https://cqt.ca/files/0a96d1d31a7426a57a7637f20d24813c.pdf
[155] INDEPENDANT PRODUCTION FUND, (November 2017), *Be discovered! - Document your content to be understood by the search engines*, 24 p., https://ipf.ca/wp-content/uploads/bediscovered-guide-for-webseries-2017_eng-updated-october-16.pdf
[156] PLAMONDON, Josée, (novembre 2019), *Bien documenter pour favoriser la découverte en ligne. Travailler avec des métadonnées*, en collaboration avec la Fondation Jean-Pierre Perreault, 48 p., https://espaceschoregraphiques2.com/wp-content/uploads/2019/12/Guide-me%CC%81tadonne%CC%81es-FJPP.pdf
[157] PLAMONDON, Josée, (décembre 2016), *Les données ouvertes au musée*, en collaboration avec la Société des Musées du Québec, 10 p., https://www.musees.qc.ca/bonnes-pratiques/les-donnees-ouvertes-au-musee

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2. General resources and training organizations

2.1. Readings, videos, podcasts

2.1.1. To learn more about the discoverability cultural content

- CANADA MEDIA FUND, Discoverability, Toward a Common Frame of Reference. Part 1
- CANADA MEDIA FUND, Discoverability, Toward a Common Frame of Reference. Part 2. The Audience Journey
- CRTC, Harnessing Change: The Future of Programming Distribution in Canada
- CRTC AND NFB, Discoverability Summit
- DEPARTMENT OF CANADIAN HERITAGE, Report — International Meeting on Diversity of Content in the Digital Age
- DESJARDINS, Danielle, (Canada Media Fund), At the Heart of Discoverability: Innovating, Creating and Retaining French-Canadian Audiences in the Age of Abundance
- DESJARDINS, Danielle, (Canada Media Fund), At the Heart of Discoverability: Where Are We At?
- DESJARDINS, Danielle, (Canada Media Fund), The Attention Economy: Conquering Minds
- DESJARDINS, Danielle, (Canada Media Fund), Machines that Predict What You Want to See
- L'HEUREUX, Isabelle, (ARCA), The Levers of Discoverability
- TCHÉHOUALI, Destiny, (Friends of Canadian Broadcasting), Programmed Discoverability: The Urgency of Acting to Support Francophone Content on the Web

In French:
- BISAILLON, Jean-Robert, (LATICCE), Qu'est-ce que la découvrabilité ?
- CRTC ET ONF, Sommet de la découvrabilité
- DESJARDINS, Danielle, (FMC), Au cœur de la découvrabilité : innover, créer et fidéliser les auditoires franco-canadiens à l'ère de l'abondance
- DESJARDINS, Danielle, (Fonds des médias du Canada), Au cœur de la découvrabilité : où en sommes-nous ?
- DESJARDINS, Danielle, (Fonds des médias du Canada), Économie de l'attention : la conquête des cerveaux
- DESJARDINS, Danielle, (Fonds des médias du Canada), Surfer sur la vague de la quatrième révolution industrielle
- DESJARDINS, Danielle, (Fonds des médias du Canada), Les machines qui prédisent ce que vous voulez voir
- FONDS DES MÉDIAS DU CANADA, Balado Futur et médias – Comment concevoir la découvrabilité en 2020 ?
- FONDS DES MÉDIAS DU CANADA, Découvrabilité, vers un cadre de référence commun. Volet 1
- FONDS DES MÉDIAS DU CANADA, Découvrabilité, vers un cadre de référence commun. Volet 2. Le parcours de l'auditoire
- L'HEUREUX, Isabelle, (ARCA), Les leviers de la découvrabilité
- MINISTÈRE DE LA CULTURE ET DES COMMUNICATIONS DU QUÉBEC, MINISTÈRE DE LA CULTURE DE FRANCE, Rapport de la mission franco-québécoise sur la découvrabilité en ligne des contenus culturels francophones
- MINISTÈRE DU PATRIMOINE CANADIEN, Rapport — Rencontre internationale sur la diversité des contenus à l'ère numérique

- TCHÉHOUALI, Destiny (Les Amis de la radiodiffusion), La « découvrabilité programmée » …des géants du Web : L'urgence d'agir pour le rayonnement de nos contenus culturels francophones !

2.1.2. About data, algorithms and metadata

- BISAILLON, Jean-Robert, (Canada Media Fund), Metadata: the essential gateway to discoverability and traceability
- BURRI, Mira, Discoverability of Local, National and Regional Content Online: Mapping Access Barriers and Contemplating New Orientation Tools
- KULESZ, Octavio, Culture, platforms and machines: the impact of artificial intelligence on the diversity of cultural expressions
- MCKELVEY, Fenwick, HUNT, Robert, Algorithmic Accountability and Digital Content Discovery

In French:
- BISAILLON, Jean-Robert, (Fonds des médias du Canada), Découvrabilité et traçabilité : Les métadonnées, une passerelle essentielle
- BURRI, MIRA, Découvrabilité de contenus locaux, régionaux et nationaux en ligne : Cartographie des obstacles à l'accès et possibilité de nouveaux outils d'orientation
- CSA LAB, Le rôle des données et des algorithmes dans l'accès aux contenus
- KULESZ, Octavio, Culture, machines et plateformes : L'intelligence artificielle et son impact sur la diversité des expressions culturelles
- MCKELVEY, Fenwick, HUNT, Robert, Responsabilité algorithmique et découverte de contenus numériques
- OBSERVATOIRE DE LA CULTURE ET DES COMMUNICATIONS DU QUÉBEC, État des lieux sur les métadonnées relatives aux contenus culturels
- PLAMONDON, Josée, (Espaces chorégraphiques 2), La danse dans le web des données
- QUÉBEC NUMÉRIQUE, FIC19 – L'enjeu de découvrabilité du contenu culturel québécois sur le Web
- TCHÉHOUALI, Destiny, PLAMONDON, Josée, (Coalition pour la culture et les médias), Données d'usage et usage des données à l'ère des plateformes

2.2. Training organizations

2.2.1. Audiovisual

Organizations such as INIS, AQPM, CMPA offer training on best practices in discoverability.
https://www.inis.qc.ca/cours/415/La-decouvrabilite-sur-YouTube-les-bonnes-pratiques
https://www.aqpm.ca/nouvelles-aqpm/889/formation-la-decouvrabilite-arme-secrete-du-producteur
https://cmpa.ca/events/discoverability-for-screen-media-national-tour-2019/

2.2.2. Book

The ANEL regularly organizes trainings on web positioning strategies, metadata management or the functioning of certain social media such as Instagram.
https://www.anel.qc.ca/perfectionnement/formations/strategies-de-positionnement-sur-le-web-et-les-medias-sociaux/
https://www.anel.qc.ca/perfectionnement/formations/metadonnees-et-decouvrabilite/

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https://www.anel.qc.ca/perfectionnement/formations/instagram-se-distinguer-par-le-contenu-complet/

2.2.3. Music

ADISQ and APEM regularly offer training courses for creators and professionals to activate the discoverability of their music content.
https://adisq.com/agendADISQ/?c=23908
https://www.apem.ca/programme-de-formation-apem

2.2.4. Dance

In the dance sector, organizations join forces from time to time to offer training courses such as the one on the use of metadata organized in May 2020 (collaboration RQD, La DSR, FJPP, CQM, GMMQ, RIDEAU, ADISQ).
https://www.quebecdanse.org/agenda/formation-metadonnees-ameliorer-decouverte-spectacles-2019-2020/

2.2.5. Theater

The Conseil Québécois du théâtre offers training for the theater community, particularly on the use of social media.
https://cqt.ca/formation/cqt

2.2.6. Arts

In the arts sector, the May 2020 training of the Conseil québécois des arts médiatiques (CQAM) can offer training on content discoverability and the use of metadata.
https://www.cqam.org/en/activites/introduction-to-metadata-the-discoverability-of-works-in-media-arts-2020/

2020

For more information

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