Flickr Commons Revitalization: Research Report

By George Oates
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Corrected 27th September 2021: Fixed link to report, total photo count in scale section, and a typo.

Introduction

Flickr was acquired by SmugMug in April 2018 from a subsidiary of Verizon called Oath, which owned Yahoo, the corporation that, in 2005, acquired Flickr from the little Canadian company that created it in 2004. Lots of Flickr members like to recount how Yahoo ruined Flickr, but actually Flickr wouldn't have grown nearly as big if that acquisition hadn't happened.

Fast-forward to December 2020. I got a friendly email from Flickr Chief Operating Officer (COO) and President Ben MacAskill asking if I'd be interested in helping the team figure out how to restore the gleam of the Flickr Commons, which I'd created back in 2008 but had suffered significant neglect. Ben explained how he wanted to preserve and hopefully grow the cultural heritage work laying quietly there, and asked if I'd like to help.

That email transformed into this report and the accompanying *Flickr Commons Revitalization: Strategy 2021–2023*, which was written in direct response to this research.

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Background

Lonnie Bunch III is the 14th Secretary of the Smithsonian Institution. The reason I start with him is because of the way he is calling us to action. He is directing culture workers to explore and show ambiguous territories to help citizens become more familiar with nuanced histories and look past simple answers to more complex questions. It takes time and effort to explore different perspectives, especially those that have never been recorded in the Western tradition.

This desire to show and encourage complexity flies in the face of how we're currently using computation in culture work, and more broadly as our world is represented back to us on-screen. When you use TikTok, you are served your very own For You page (FYP) full of delights you would never have searched for that an algorithm presumes you'll enjoy. And you probably will, because the content and format is designed to provide easy-to-digest entertainment. The market has responded too, with ByteDance, owner of TikTok, seeing its revenue last year grow by 111% to $34.3 billion.[1] But, as Mary G. Costa, archivist of the Congregation of Sisters of St. Joseph in Canada told me when we spoke, "profit doesn't have anything to do with archives."

[1] https://www.bbc.co.uk/news/business-57522368

Citizen-generated born-digital repositories have a massive advantage over traditional collections because their contents are described by their creators at the time they are published. The metadata is more accurate and more personal. *That's* why features like the FYP work better than any museum personalization interface will, possibly ever. There is a huge gap between description and perception in our cultural collections because in practice these treasures have been described first institutionally instead of personally. The rationality required to reduce a Zulu power object to "flask" on an index card is obliterative, and we're now seeing how these reductive organization techniques have become harmful. We need to realign and work harder to gather intersectional points of view inside our cultural organizations. Digital stewardship is more than just storage. It's about making space to gather these differences.

Methodology

This work was largely desk research conducted from Adelaide, South Australia, between March and August of 2021. The research consisted mainly of interviews, literature review, group discussion, and quantitative analysis.

I explored four themes:

1. **Current members:** What do they need from Flickr Commons? How are they operating these days? What tools do they use to do their work? How do they relate to their audience?

2. **Growing the program:** What do we need established before we open the doors again? How could being in Flickr Commons be beneficial to a wider membership?

3. **The wider openGLAM ecosystem:** What are the hefty platforms? What tools do people like? What are the lessons learned elsewhere? Where is the energy? What does contemporary practice mean today?

4. **Cost neutrality:** How much does the Commons cost? How can we construct it to be self-sustaining and cost neutral? What does financial security look like for the long term? Is it possible to do good *and* make money?

Interviews

We conducted a total of 59 online interviews with 70 people:

- 24 either active or "sleepy" Flickr Commons members;[2]
- 41 "birds of a feather" working in digital cultural heritage and related academic areas, and
- 5 interviews with Flickr staff, and several presentations to internal teams at the company.

In our Commons' member interviews, our main goal was to understand the present state of each member organization in relation to the Commons and in general. We used a set list of questions to interview Commons members, though we cherry-picked from that list based on who we were

[2] We define an active member roughly as one who has either logged in or uploaded something within the past year. About 50% of Commons members are active.

speaking with and their situation. The interviews were more conversational than quantitative, and we were pleased to discover common themes to ponder.

Interviews with our birds of a feather were more wide-ranging, often opening with the question "what's changed in the last decade in cultural heritage?" Responses varied, but there were also some very bright themes, especially around indigenous self-determination and what *hadn't* changed in the past ten years.

Data analysis

Early review of current usage: To frame the research initially, we generated a basic spreadsheet listing all the Commons members and some simple statistics, gathered by hand, to try to get a feel for how alive the program is today. We looked at time stamps for things like last logged in, last upload, how many photos, how many contacts, and which country the organizations were in. From there, we could see that about 50% of the Commons members were still logging in, and we called them "active." We called the remaining 50% "sleepy." We also created three qualitative categories for types of Commons members at that point: cultivators, distant friends, and dumpers.[3]

Possible Commons-compatible accounts already on Flickr: As we considered the growth question, we did a simple report on existing wider Flickr membership surveying for potential Commons-compatible accounts. It was a blunt search for account names with "museum," "library," "archive," or "gallery" and in different languages. The first list of results was really wide-reaching, including accounts like "Cathy's Library of Cats," but we were able to refine it to what became about 2,000 possibly compatible organizations that are already there but unaware of the Commons.

License distribution across Commons members: Early on, we also noted that the world has moved on from the initial construction we made available through the Commons to help institutions share photographs the provenance of which may be unclear. It is called No Known Copyright Restrictions (NKCR). Over time, photographs with different licenses have crept in, so we wanted to get information about which Commons accounts had made use of which additional licenses and what content types there were. Lots of cultural organizations have embraced the open-content movement and have moved past the NKCR assertion to make their digital collections available with explicit open licenses like Creative Commons.

Literature review

Wider research was conducted by reading and listening to a great many experts on these themes:

1. Contemporary approaches to **digital licensing** of cultural objects,
2. Academic criticism of imperial and **colonial legacies** in culture work,
3. Philosophies of the **Commons**, including distinctions offered by digital commons,
4. Safe and respectful **indigenous and dispossessed collections development**,
5. Governance models for "**long organisations,**" and
6. The **ethics of care**.

[3] We wrote these initial reports up in a post on the Flickr Blog announcing this research in March 2021.

Group discussion

We communicated progress regularly with the Commons members and birds of a feather we were able to connect with. We were stymied somewhat by dusty email addresses for "sleepy" members and, well, *a pandemic*.[4]

In the course of the research, we held four "Commons Connect" events online, inviting anyone we'd already interviewed in person to discuss the main issues coming up and report back on progress, attended by a total of 45 people.[5] Progress was also presented to Flickr HQ teams in two "all hands" meetings.

We also initiated 17 threads in public and private groups on Flickr itself, although we didn't see quite as much interaction there as we'd initially hoped. We suspect that's due to Flickr groups being somewhat outdated, and roughly 50% of Commons members haven't logged in in the past year or so in any case.

Results

Flickr Commons at a glance

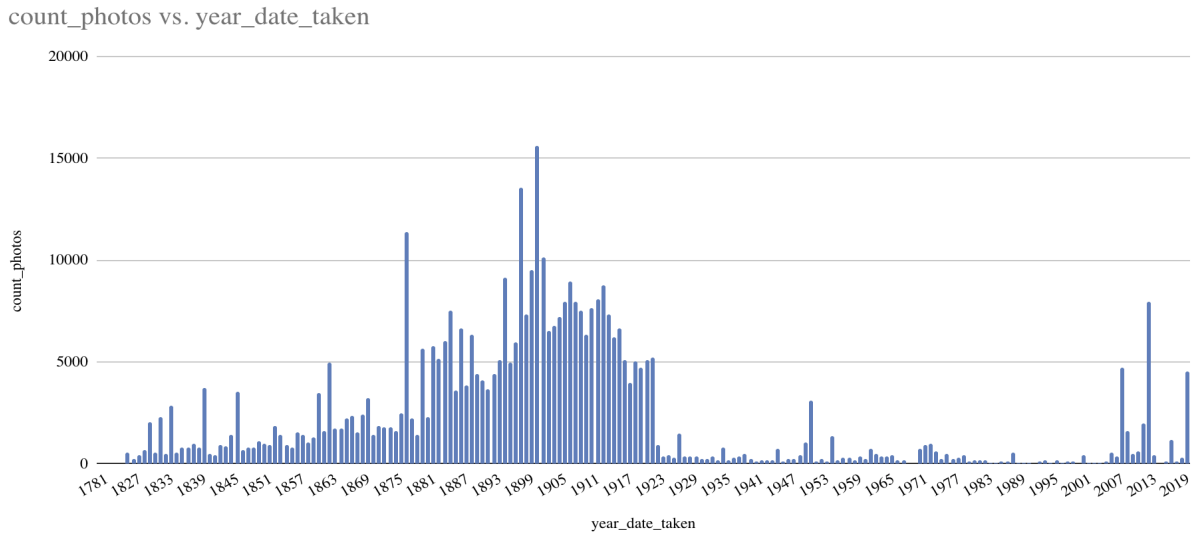
The program has gathered just over seven million images from 114 members in 24 countries since 2008. About 50% of those members are active, meaning logging in and uploading new content in the last year. There's an average of about 3,000 uploads per account across the program, with the exception of three very large accounts: Internet Archive, British Library, and San Diego Air and Space Museum. The member organizations are followed by about 475,000 Flickr members. This is a basic tally though, as one Flickr member may follow two Commons accounts, and they'd count as two in that total.

Even though the core usage assertion in the program is that images are shared with "no known copyright restriction," we did uncover that there is some licensed content as well. Here's the breakdown, as of August 2021:[6]

All rights reserved	15,792
CC-BY-NC-SA	13
CC-BY-NC	2
CC-BY-NC-ND	38,331
CC-BY	560
No known copyright restrictions (NKCR)	7,038,049
CC0	528
Public Domain Mark	10,331

[4] E.g., museumname@yahoo.com, likely created in a rush when creating an account.
[5] This is total attendance across all four events, and doesn't include Flickr staff. Unique attendees were roughly 27 people.
[6] It is not obvious how these non-NKCR images have entered the collection.

We made a simple report of the distribution of the `date_taken` information across the collection to get a sense of the historical coverage.[7] After being initially confused about some content that predates the invention of photography, we worked out that most of those very early things are facsimiles of documents held at the US National Archives, like the *Engrossed Declaration of Independence* written in 1776, which has been viewed 40,000 times and favorited thrice.



The research interviews revealed a range of usage styles in the member institutions, from completely dormant in some cases to one photo curator at the State Library of New South Wales flying solo and uploading a few pictures he likes in a week, to programmed and resourced publishing workflows at the Library of Congress, to ad-hoc opportunistic publishing if something was being digitized, to full-blown infrastructural integration of Flickr web services as the engine-driving image display on other sites, like at NASA on the Commons. We grouped the organizations informally into three types: the **cultivators**, who publish carefully and periodically, and communicate with their community on Flickr; the **distant friends**, who have uploaded their content and then left or never or rarely responded to the community; and the **dumpers**, who have used Flickr as a major repository for open content and may have built tools against the service.

The program has attracted organizations of different scales, too, from a team-of-one in a tiny archive to the biggest library in the world, and lots in between. We often interviewed the individuals inside the organizations who joined the Commons in the first place, as far back as 2008. Sometimes those initiators had left the organization, which made tracking down a new contact challenging.

Key research findings

- There was a very **warm public reception** to this research starting, with a lot of hope for Flickr Commons.[8]

[7] Note that the graph has been edited to hide four outlier years in the data: 1825 (93,000 images), 1969 (4,359,000+ images), 1970 (2,157,000+ images), and 2015 (64,917 images). The suspicion is that these big years' dates are automatically created in programmatic uploads.
[8] My Flickr friend, Schlomo Rabinowitz, left a comment on one of my Instagram photographs where I told friends I was starting this work: "*WHOA!!! Ok, this alone is reason enough to jump back onto the site again*

- Current active members want **better stats**. Today they're only able to access the past 31 days of activity, and some had labored in Excel to create comparisons they needed to justify their work.
- Current members remain **concerned about the total lack of governance** the program has suffered under. Less active or dormant members we interviewed said lack of governance was the reason they drifted away. There was no communication about future plans or provision of a contact person, and no shared sense of direction or commitment for the program.
- The digital cultural sector has kept **moving forward with open licensing** and accompanying technical, legal, and procedural practice, but many still **struggle to nurture meaningful audience engagement** and almost universal reports of **no time** in the workplace remain.
- We find ourselves in a particular **Zeitgeist**; a constellation of #blacklivesmatter, #metoo, worker rights, epidemiology, a rise of nationalism and polarized society and its balm of more informed citizens, anti-racist action, richer communion, and a **need for more complex historical perspectives**. This is spectacularly hard to summarize but has surely affected this research and the accompanying plan.

Findings in detail

Most interviewees said exposure is the main benefit of the program. Being a part of the program and the Flickr platform brought visitors from across the globe, who would probably never have found them otherwise.[9] Many reported interesting contacts being made from new audiences, and different types of collaboration with people interested in their collections. For example, Cezar at the Costică Acsinte Archive said he was able to collaborate with a documentary filmmaker solely via Flickr to provide supporting archival materials for a film. In addition to the basic benefit of greater exposure, people frequently reported Flickr was so much easier to use than their other tools it became the preferred platform. Several other features were hoped for in conversation, like better search within a single account, cross-collection exploration, better discovery, and new uploading interfaces using standards or methods the person or institution were already using.

Almost everyone wants better stats. Not only to see who's looking at *their* things, but also to ascertain if campaigns or exhibitions work well, and to get some insight into the community of people who are enjoying their collections. Flickr HQ also needs better tools to understand the activity and usage in the Commons. To show activity in the aggregate would help the collective health by providing better monitoring and understanding of "local conditions," which is a key element of our now-updated understanding of how to govern a Commons developed by Dietz, Ostrom, et al.[10] To be fair, I should probably mention that one interviewee told me archival types aren't *necessarily* good at engagement.

Many interviewees report zero insight into the people who are enjoying their collections and have not especially communicated with them at all. Other members know the folks who contribute information

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after a decade or so. I still have so many great memories posted on my Flickr. SO HAPPY FOR YOU AND CIVILIZATION AS A WHOLE."

[9] This is one of the original reasons the Library of Congress approached Flickr: to join in with the larger community, where people already were, even after having hosted their prints and photographs online at loc.gov for 10 years before that.

[10] As opposed to an inevitable tragedy, which is the main outcome proposed by Hardin's 1968 paper. See Dietz, T., Ostrom, E., and Stern, P. C. (2003). The Struggle to Govern the Commons. *Science*, *302*(5652), 1907–1912. https://doi.org/10.1126/science.1091015

personally and have developed relationships with their regular researchers. The British Library's Flickr Commons collection has benefited from an older gentleman in Los Angeles donating his time to add about 50,000 tags to their imagery. This opens the question of a middle ground in terms of the software: How can Flickr help Commons members gain skills in community management? How can Flickr support these generous researchers better?

Open content can be hard to corral. Now that there's more literacy around using APIs and how to share open data and objects, good-intentioned volunteers propagate Flickr Commons images to other platforms like Wikimedia Commons, which seems great, but the stewarding institution or individual worker who also publishes to Flickr Commons loses touch or may not even know it's happened. This can break the consistency of metadata, like licensing information. Interviewees also reported that dislocated metadata schemas are annoying to work with because it requires constant crosswalking and data massage before publishing can happen. It's also non-trivial for not-technical folk to easily ingest improvements or corrections created elsewhere back into the official record.

There's a plethora of technologies in play. Some flimsy or transitory, some sold by big corporations, others built by contractors who disappear, in time, many project-based tools wither. Even in our relatively short list of interviews, the frameworks, tools, platforms, services, and standards mentioned included Adobe Lightroom, ArchiveSpace, Calisphere, ContentDM, "the DAMS," Creative Commons, Dublin Core, Etsy, Europeana, Excel, Facebook, Federal Agency Digitization Guidelines Initiative, Freesound, Github, Historypin, IIIF APIs, IIIF Universal Viewer, Internet Archive, Instagram, Islandora, Lyrasis, Omeka, OneSearch, Patty Pan, RightsStatements.org, Rosetta, Scribd, Sway, Traditional Knowledge Labels, Twitter, Vimeo, Wikidata, Wikimedia Commons, Wordpress, YouTube, and Zazzle. Also surprised to discover that some members have fully integrated their Commons presence into the organization's software infrastructure and would be in real trouble if that changed.

Everybody pointed at the elephant in the room. That's the problem of no governance or oversight or particular responsibility of the company to communicate with Commons members or make any claims or assertions whatsoever about its future. For institutions used to working with governance and for the long term, it's no surprise this was called out as the main cause of drift. At the Yle Elävä arkisto, the public Finnish Broadcasting Company, Tuomas told me they "dropped off the Flickr Commons about a year ago because it seemed dead."[11]

Deliberation

This deliberation is Commons-specific, but if you're interested, my research also uncovered a very good report from the Australia Council for the Arts that looks more broadly at digital engagement this century, *In Real Time: Mapping digital cultural engagement in the first decades of the 21st century*. It's much wider-reaching and broader than this report, and well worth a read.

Why should we keep Flickr Commons?

No traditional institutions' collections grow at the same rate as Flickr, which acquires around three million new objects every day, even now. Even though there are only about seven million images in

[11] Tuomas also followed up quickly to say he's happy to hear the resurrection is in the works.

the Flickr Commons, there are tens of billions in the broader corpus, representing our collective humanity, particularly in the early years of the 21st century.[12]

If we look 100 years ahead, those tens of billions of pictures would likely be in something similar to the public domain. Today, we have an opportunity to work out how to preserve the Flickr Commons collection for the long term, and use the techniques and tactics we develop to do that to apply to the larger Flickr corpus. For Flickr to work together with the cultural institutions in Flickr Commons will allow this group to develop methods and practices to keep this unique collection from deletion. It's definitely worth noting that the larger deposit libraries have excellent digital skill sets and know how to preserve this stuff. The digital-preservation community is large and active.

Flickr has a unique interface and community designed to elicit contextual information and generate social connections around photographs. It's multilingual and folksonomic. Conversations happen around objects, and the organization of each collection is often work done by the creators of things, which is very rare in traditional institutions, although digital preservation is relatively common.

We must acknowledge that the web has changed around Flickr, too. Those cozy early days of friendly community and real connections on Flickr have passed. The commercialism and "elegant design" and "dealing with social media" we face now have made us nostalgic for the early internet—the internet of intimate conversations and human connection and weird corners and geekery. The market has been monopolized by apex predator corporations who circumvent regulations that have worked in the past. This report is not about that specifically, although we could certainly read the prior corporate neglect of the Flickr Commons as a symptom of it.

What's changed over the past decade?

This was our primary prompt to our birds-of-a-feather interviewees, and we also asked "how has your organization changed in the last decade?" to Commons members.

There is much, much more openly licensed cultural content now. As evidenced by the thorough research conducted by Douglas McCarthy and Andrea Wallace in their OpenGLAM survey, we now have an open list of about 1,200 cultural institutions using some form of open licence for digitised content they publish. This global increase in open content creates great possibilities for access and creativity, like the recent Digital Storytelling competition run by Europeana (and hundreds of other examples).

We have seen though that some gatekeepers are mishandling public-domain materials, asserting licenses where none exist and the reverse, where users of the materials assert no licenses where licenses exist. In our interviews we heard that open content can be very difficult to manage because it "leaves home" and institutions can lose contact and control over correct representation of these materials.

No known copyright restrictions (NKCR) and open content can be harmful. When we spoke with Jane Anderson and Shannon Martin at Local Contexts, they stressed that NKCR can be problematic. The first version of metadata is usually institutional. Stereotypical or standardised. Where does cultural

[12] See *Exclusive: Flickr bought by SmugMug, which vows to revitalize the photo service* in USA Today, April 2018. https://www.usatoday.com/story/tech/2018/04/20/smugmug-buys-flickr-verizon-oath/537377002/

authority lie? Is there parallel metadata? Can we know an object's parallel histories? What if that first version of existing metadata is derogatory and just dumped into the open web or used to train a machine?

Digitization has dwarfed description. We've seen an explosion in digitally available material in the last twenty years or so. But photographing a page in a book is not the same as explaining what that page contains in an accessible way. Mary at Congregation of Sisters of St. Joseph in Canada said it's "stupid to digitise things that haven't been catalogued." Mahendra at British Library talked about how that organization is facing a real dilemma about sparse description/cataloguing. It's a huge bottleneck, and a resource clog.

The web now holds a lot of "open litter," like plastic bottles washed up on a beach. Poorly or thinly described metadata records in *huge* volumes often copied from one hard drive or server to another with no scrutiny and no simple visibility.

This issue of litter has negatively affected some smaller contributions in the Commons. Sven at National Archives of Estonia expressed frustration about when the British Library and Internet Archive did those huge dumps since it squashed his curation because viewing and search facilities weren't up to the task of differentiating a little photographic collection from millions of scanned images from books.

There are several huge, public, non-profit aggregations of cultural content now. The potential of Application Programming Interfaces (API) to streamline data exchange has made it into some museums, particularly the larger ones who can employ software people. We now see a lot more programmatic interfaces and exchange across catalogs. Some of the big digital "union catalogs" like Europeana or the Digital Public Library of America (DPLA) are huge but ultimately suffer somewhat because of the lack of rich description. One of the leaders of an aggregator I spoke to said the real benefit of the initiative was in the community it fostered, not particularly the resultant digital experience.

Some members are using Flickr Commons as organizational digital infrastructure. Catherine at NASA on The Commons informed us nasa.gov points directly at Flickr, and they use it as a "library" (and community tools are turned off, e.g., comments). Mahendra at British Library likened the Flickr API to a bone in the library's body, with extensive use of some combination of the API and Commons imagery for over 100 projects.

"I just wanted a pineapple." Something of a throwaway line from Henriette Roued-Cunliffe, associate professor at University of Copenhagen, revealing that it's ironically become harder to retrieve things you know you want through online search of cultural catalogues. In the commercial realm, actually searching on TikTok is not really a thing, defeating the algorithmic leading on Pinterest is the hill that many pinners will die upon, James Bridle writes *Something is wrong on the internet*, exposing the bot-ridden horrors lurking in YouTube or Amazon's "you might like" features.

In spite of these algorithmic traps and bot pits (or perhaps because of them) there's a broader public expectation of availability—if it's not online, it doesn't exist—We "speed look" at things now; consider how many images you look at on screens each seven million+ historical photographs doesn't seem so intense anymore.

As public expectations of availability shift, it meets a hesitation to respond to more and detailed queries coming from new directions; Tania at State Library of Queensland noted that there's often more bureaucracy in front of accessing indigenous materials for example, noting that in some cases, visitors would use terms too specific for the general classification system used to describe indigenous materials.[13]

Strong, vibrant international communities of digital cultural practice have developed. Though it's still relatively early days, and perhaps still somewhat monocultural or at least collegial, there's undeniably been a proliferation of standards around interoperability (although these descriptive standards can be obliterative). This is an interesting contrast to Flickr, which was never prescriptive about ontology, it's been folksonomic from day 1 and has encouraged "interpersonal intricacies" to flourish.[14,15] There is community development being done towards more cross-pollination and interdisciplinary collaboration with initiatives like Museum Detox, Museum as Muck, or Women in Red changing the conversation.

Crowdsourcing, citizen science, and community contribution are normal.

- Wikipedia is amazing! An encyclopedia built by consensus in more than 300 languages; its parent, the Wikimedia Foundation, has grown to 450+ staff and has gathered a $90 million endowment (targeting $100 million by 2026)[16]
- Crowdsourcing expert, Mia Ridge, at the British Library, and the Library of Congress Labs team are crowdsourcing a book about crowdsourcing and funded by the Arts & Humanities Research Council[17]
- Zooniverse has blossomed; over two million volunteers have contributed directly to scientific research projects—I found a research paper with 5,000 authors[18]
- In the broader web, all kinds of examples of community contributions supporting and enhancing core product, e.g., Miro templates contributed by users; developer access to web platforms is practically axiomatic

The social interplay of refusal, reform, and repression are on everyone's mind. While it's beyond the scope of this report to try to summarize The State of the World at this moment, suffice it to say we're in a rough storm of #BlackLivesMatter, polarization, Queer theory, nationalism, #MeToo, the pandemic, a snarling patriarchy, and far too much information. It can be hard to tell who is refusing what, which reforms we should enact, and who is repressing whom. There are lots of institutions and associations around the world stepping up to this, because official history is on fire and patriarchal and

[13] There is loads of good work happening in this area, for example at Local Contexts where you can find the Traditional Knowledge Labels framework or Design Beku in India, a collective exploring how technology can be decolonial, local, and ethical.
[14] "Interpersonal intricacies" is a phrase from Cade Diehm from his great 2018 talk, *Weaponised Design*, about how smoothing or standardizing things leads to increased risk for the people using the things. There's a broader point here about online design and consumption today being more homogenous and transactional. https://www.youtube.com/watch?v=fG_z8jyREgk
[15] Schwartz, J. (2002). Coming to Terms with Photographs: Descriptive Standards, Linguistic "Othering," and the Margins of Archivy. *Archivaria*, *54*(January). https://archivaria.ca/index.php/archivaria/article/view/12861
[16] https://wikimediaendowment.org/, https://meta.wikimedia.org/wiki/Wikimedia_Endowment
[17] https://blogs.loc.gov/thesignal/2020/02/new-collaboration-between-lc-labs-british-library-and-the-zooniverse/
[18] Physics paper sets record with more than 5,000 authors. https://www.nature.com/articles/nature.2015.17567

colonial systems are facing more criticism and challenge than ever before, and that's when our information keepers can really shine.[19]

> *"History often teaches us to embrace ambiguity, to understand there aren't simple answers to complex questions, and [...] the challenge is to use history to help the public feel comfortable with nuance and complexity."* –Lonnie G. Bunch III

There is much greater sector awareness of the urgent need for indigenous self-determination, a desire for development and rectification of imperial or colonial collections, desire for shared and multidimensional histories, refusal of colonial classification systems, a need for adding a "balance of stories" to "history as propaganda" and skepticism, distrust, anger, and fatigue around cultural institutions within dispossessed communities.[20,21] Initiatives to work towards more careful and well-rounded metadata systems include the FAIR Guiding Principles for scientific data management and stewardship and then the CARE Principles for Indigenous Data Governance. The former is primarily concerned with accessibility and reuse especially in a scientific context, and the latter builds on that and also incorporates communally-designed concepts of authority to control and ethics-of-care, and as Clifford Lynch asserts, "a continual and critical dialog about the relevance of the data being collected is going to be absolutely essential."[22]

The promise of "computed history" is certainly not yet met, and has exposed biased and problematic results when attempted. Organizations like the Algorithmic Justice League or Cultural AI Lab have sprung up to critique and work against these issues. When Flickr moved from a very social space to being centered around viewing huge photos and free storage for all, it affected the level of interaction members saw on their photos, pulling people away from the conversations and community that was so treasured by the people who hung out there. It was a turning point in the vibe of Flickr when the UI focus shifted from talking to terabytes.[23] As Dr. Hannah Turner explains in her superb book, *Cataloguing Culture*, since the beginning of museums and collections and the technology designed to catalog their descriptions, those technologies have obliterated nuance by reducing multi-faceted objects to a museum's arbitrary metadata format. Instead of continuing down that reductionist route, what if the goal was about embracing and generating difference, not assimilating nuance and specificity into categories computers can understand?[24]

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[19] Helpful 2019 MuseumNext article pointing to loads of examples: *What does it mean to decolonize a museum?* There's also a group in the UK called Museum Detox championing fair representation and inclusion of people of color in cultural organizations' staff. Contrast that with the former U.S. president's 1776 Commission and ensuing report, which was quickly damned by almost every historian ever.

[20] I really enjoyed talking with Shannon Martin from Local Contexts about this concept of rectifying and indigenizing metadata, and that this must be done through conversation and exchange, not computation.

[21] "The last four or five hundred years of European contact with Africa produced a body of literature that presented Africa in a very bad light and Africans in very lurid terms. The reason for this had to do with the need to justify the slave trade and slavery." –Chinua Achebe, *An African Story*, The Atlantic, August 2000, https://www.theatlantic.com/magazine/archive/2000/08/an-african-voice/306020/

[22] See *Stewardship in the "Age of Algorithms."* Lynch is the Director of the Coalition for Networked Information and an adjunct professor at UC Berkeley.

[23] Marissa Mayer claimed that giving every Flickr member enough storage space to upload 500,000 images would "make Flickr awesome again," completely missing any inkling or acknowledgment of what made Flickr so great: the people.

[24] See also Édouard Glissant's poetic concept of "archipelagic thought."

What's stayed the same?

Everyone feels like there's no time. 100% of interviewees mentioned they have no time; work is often reactive and opportunistic, making it very difficult to be proactive. Big organizations change strategy or reduce or shift budgets around every 2, 3, 5 years, but about 80% of the world's institutions have less than 10 staff.[25] The big nationals with their own technical folks and big budgets (however pressurized) are in the minority. Geoff at the State Library of NSW reflected that digital tools need to support many different types of work, skill levels, ideas, and schedules.

Project-based work is prevalent and tiring. Project-based funding means project work and not deeper long-term planning apart from "preserve everything, get money"; projects that have ended get dropped because there's no long-term finance. Alan at San Diego Air & Space Museum told me it has been useful to demonstrate Commons activity and potential in grant applications. Success with National Endowment for the Humanities (NEH) and the Institute of Museum and Library Services (IMLS).

Little organizations need simple tools that are easy to use and free or very cheap. Cezar at Costică Acsinte Archive told us the Wikimedia Commons upload is so laborious he maybe does one 3–5 times a year. Flickr is used by millions of people every day and has been for almost 20 years. It's more usable. Simple features like browsing and downloading are often unavailable in org-specific software tools. This is a basic value of using Flickr. Alan, again, mentioned that Flickr is his go-to when people ask for a specific image because it's easier to browse Flickr than the museum's online catalog. He wasn't the only one to mention it.

Gatekeepers are defensive. Some gatekeepers seek to control distribution and occasionally attempt to restrain public-domain materials where no license exists (and people using images do the opposite, presuming no license). Gatekeeping also has a definition in Urban Dictionary now: "when someone takes it upon themselves to decide who does or does not have access or rights to a community or identity."[26]

We heard a range of perspectives on this in our interviews:

- Ken at Cloyne and District Historical Society said "traditional archives have lots of photos that nobody has ever seen except the person who put it in there."
- Tuomas at Yle Elävä arkisto expressed the liberal view that "...everything [in the Finnish public broadcaster's archive] has no copyright so anyone can do anything..."
- Tania at State Library of Queensland noted there is often extra bureaucracy associated with access to indigenous materials, and how this is a particular place where classification systems clash with linguistic and social reality.
- Amanda at Desoronto Archives said the Commons was a godsend because the Deseronto Archives was only open 6 hours per week, and access just exploded through Commons. This fundamentally changed access possibilities for her and the organization.

[25] This 80% figure is extrapolated (by me) from a Council for Canadian Academies report about Canadian GLAMs, which studied staffing levels across Canada. My contention is it's probably not far from a global figure. https://cca-reports.ca/reports/leading-in-the-digital-world-opportunities-for-canadas-memory-institutions/
[26] https://www.urbandictionary.com/define.php?term=Gatekeeping

Some interviewees, particularly from smaller organizations, mentioned their worries about possible commercial or cultural exploitation of works in their collection that are in the public domain.[27] We heard general distaste for commercialization of public-domain materials that a cultural organization has spent time and money digitizing, too; for example, one interviewee revealed that their entire Flickr Commons collection has been put on Amazon in poster form and made available for sale. Actual sales achieved in that example were unknown. Others told us that the photographs they're sharing are unequivocally in the public domain and anyone can do absolutely anything with them whatsoever.

We still need gatekeepers in a realm where there's very little regulation or criticality. On the one hand, we have positions like the Statens Museum for Kunst and their promotion of "promiscuous objects" and we have also seen how open can be traumatic and harmful, especially in contexts that don't respect or acknowledge indigenous or dispossessed cultural conditions.[28] There needs to be more sophisticated tools, nuanced descriptions, and governance to do appropriate removals or takedowns. In *Algorithms of Oppression*, Safiya Noble calls upon us to imagine new methods for information access that are more interesting than over-engineered and biased technology solutions. We need gatekeepers and scholarly critique, especially of corporate ownership of and control over public information.[29]

Rights are massively complicated. In fact, publication is often prevented because of rights complexity and was noted as the biggest barrier to digitization after lack of time and money. Lack of photographer credit and known publication rights when collections are donated were mentioned as troublesome, with some interviewees reporting that they do specifically manage digital copyrights now when they receive new donations. There is still a place for the original "no known copyright restrictions" assertion first launched in Flickr Commons back in 2008, even though hundreds of institutions have adopted Creative Commons or public-domain options for appropriate digital surrogates.

Generally, several interviewees told us that simply participating in the program helped demonstrate what can happen when you share on a platform like Flickr Commons, and, indeed, was often a first step to broader open distribution on other platforms. Mahendra at the British Library told us it was "incredibly useful to be able to prove the usefulness of open content."

This does collide with access by those people dispossessed by harmful or poor description. It's the idea of "privileged irresponsibility" in determining reuse and access rules, where those who hold the power to describe and classify things are the ones who control access.[30] We have the concept of copyright—although this can vary widely across national borders—but we need something more

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[27] Is this the most offensive skirt ever? Website forced to remove slave ship mini

[28] A contemporary example is the repeated display of the murder of George Floyd. The trauma caused by the unrelenting footage has been extensively discussed. The work of Dr. Temi Odumosu is useful in the historical view too, as she exposes harm caused by racist depictions of colonial subjects, particularly in her paper, *The Crying Child*.

[29] Noble, S. U. (2018). *Algorithms of Oppression: How Search Engines Reinforce Racism* (Illustrated ed.). NYU Press.

[30] I was connected with Joan Tronto's notion of "privileged irresponsibility" through Hillel Arnold's writing on ethics of care and the archive, especially in *Practicing Care: Constructing social responsibility through feminist care ethics. (2020)* https://doi.org/10.31229/osf.io/5yzc4

sophisticated and careful to understand and describe cultural specificities around access. Local Contexts and others are doing excellent work on this.

Organizations are still broadcasting and can struggle to nurture conversation. It can be difficult to argue for staff time to put into community development, to talk. Most of the people we interviewed haven't been able to give any attention at all to their audiences in the Commons. When asked about any bright spots in their Commons presence, one interviewee remarked "it's a mystery how people find things," was generally unaware of how materials published in Commons were seen or discussed, and did not participate at all unless asked a direct question. "It's never a priority because I'm busy, but it's definitely gratifying." In contrast, the Library of Congress has long committed 12–15 hours a week to managing their Commons presence, and The National Library of Ireland and others work and chat with their communities daily.

If nobody is able to chat with Flickr members who show interest in Commons collections, you will see comments like "Great shot."[31] If staff are showing consistent, friendly interest in Flickr members contributing, you will see comments like "Yes, that record is for Mary's in the city. Priest was a John Doody, about the same age as Richard, recorded in 1901 as a Professor of Classics at Kieran's. In 1911, he is Priest and President of College. Wikipedia says he was President from 1903–11, so at the time of the wedding."[32]

Alan at the San Diego Air & Space Museum remarked that Flickr members are right 99% of the time when it comes to metadata, and there are now plenty of examples of how Flickr members' contributions have improved a Commons member's understanding of a photograph and enhanced the "official record." For example, the Library of Congress reported "more than 15,000 pictures now have improved, corrected, and expanded descriptions" in their 10th anniversary blog post.[33]

This issue has opened up a thread about doing user research about the secondary Flickr Commons audience, the people viewing or contributing. Who is using Flickr Commons? What are they into? How can Flickr help and encourage Commons members to connect with their fans? How might the people providing research time and effort be celebrated or assisted or rewarded?

Is Flickr a museum?

Well, no. Not if you compare it to the International Council of Museums (ICOM) definition:

> *A museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study, and enjoyment.*[34]

But, back in the olden days of explorers and wunderkammern, people would display their collections in their homes. The first "collections that strangers could visit" sprang up in the 1600s around Europe

[31] https://www.flickr.com/photos/swedish_heritage_board/3219971422/
[32] https://www.flickr.com/photos/nlireland/50347351563/
[33] *Calling All Photo Fans and History Detectives: Flickr Commons, 10th Anniversary*, 16 January 2018.
[34] https://icom.museum/en/resources/standards-guidelines/museum-definition/, accessed 28 July 2021.

and the Middle East as the result of the collection holders' desire for greater exposure for their hard-gathered treasures and celebration of their trophies. There's a moment when collectors realize what they've collected is of broader cultural value. Flickr is custodian of tens of billions of photographs of our collective existence now.

Many universities around the world create what they refer to as a "digital commons" to preserve the research of their staff and alumni. These vaults may even be built on an ironically trademarked product called Digital Commons™, owned by a company called Elsevier. All this effort indicates a growing awareness of, and value placed in, the digital materials humanity is generating and our desire to protect them. The code-hosting platform Github has begun storing open-source code in Svalbard through their Arctic Code Vault program, or there are older companies like Vitra, which proudly make its 71-year design history a major part of their brand and founded its own museum in 1989.[35]

How is Flickr *not* like a traditional archive?

> *"The primary definition of archive centers three principles and one standard that are key to understanding archives and are prime for reimagining: provenance, original order, collective control/description, and permanence."* –Robert Pearce-Moses[36]

> *"What gets remembered depends on who is in the room doing the remembering."* –Betty Reid Soskin[37]

Let's compare this definition to the way Flickr has been working for almost 20 years now. On Flickr:

- The majority of uploads' provenance is defined by the object creator.
- The majority of uploads are created, organized, and initially described by the actual object creator *and* automatically to a certain extent by design (where date, EXIF data, geodata, etc., can be defined for born-digital photography).[38]
- There has never been central classification or metadata standardization; all descriptive metadata structure is emergent, though there are generic facilities designed to allow basic collection management, like galleries and albums.
- The system allows organization and description of objects *by the collective*, as opposed to *of a collective*, if object creators grant explicit permission to do this. For example, another Flickr user can add a tag to your photo or place it in a gallery of their own curation.
- The only thing Flickr is missing from this definition is permanence.

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[35] https://www.design-museum.de/en/about-us/the-vitra-design-museum.html

[36] This definition comes via The House Archives Built, Dorothy Berry's critique on archives and archival practice, and "hundreds of linear feet of Black history are stacked in secure shelving, unbeknownst and inaccessible to implicated communities." If you read anything in the bibliography, read this. My contention is, Flickr is already acting a *lot* like an archive as Pearce-Moses defines it and Berry elaborates upon.

[37] https://www.nytimes.com/2021/09/20/us/betty-reid-soskin-100.html

[38] See Tom Coates' work on Mundane Computing and the Web of Data. Objects can *emit* information now, e.g., here's the talk he delivered at the Webstock conference in 2013.

Sara, from the Upper Arlington Public Library's UA Archives, told me she was nervous but excited to be a tiny, local archive among major global institutions, but that collective view that people enjoying the Commons could have is unique and affords us new chances to compare and gather photographs from different places into new groupings. Ken, at the (tiny) Cloyne and District Historical Society, has fully embraced Flickr Commons: "It's become our digital archive. It's a very important part of our small museum. A valuable resource for us. It's all in one place, and searchable."

Comparative repository scales

Where does Flickr Commons sit in the online repository environment? How does it measure up alongside some massive cultural institutions, various non-profit endeavours, and corporate content services? Wouldn't it be interesting to also compare direct investment, and also which platforms Commons members are sharing on, and whether there are different things shared in different places in different ways, or just copied from one platform to another?

Service	Approximate "collection" size[39]	How many member organizations?
Bibliothèque nationale de France bnf.fr	40,000,000	1
British Museum britishmuseum.org	8,000,000	1
Creative Commons search.creativecommons.org	> 500,000,000	N/A
Digital Public Library of America dp.la	44,000,000	44 "hubs"[40]
Digital NZ digitalnz.org	30,000,000+	300+
Europeana europeana.eu	62,000,000	"thousands"
Facebook facebook.com	> 250,000,000,000	N/A
Flickr flickr.com	> 10,000,000,000	N/A
Flickr Commons flickr.com/commons	2,000,000[41]	114

[39] These scale estimates were ***gathered by hand*** in June–July 2021. It's a bit like comparing apples and oranges—not every line item is photographs—and is intended as an illustration of the different scales, especially between commercial endeavors and public services.
[40] DPLA is designed around geographical hubs to which more local organisations connect. There's a U.S.-wide community of cultural organizations participating.
[41] Note that one million of these images are scans of images on book pages added by the British Library.

Google Arts & Culture artsandculture.google.com	> 6,000,000	> 2,500
Instagram instagram.com	> 40,000,000,000	N/A
Internet Archive archive.org	52,000,000	N/A
Library of Congress loc.gov	170,000,000[42]	1
Unsplash unsplash.com	3,000,000	N/A
Wikimedia Commons commons.wikimedia.org	74,000,000	N/A
YouTube youtu.be	1 billion hours watched daily!?	N/A

The scale of Flickr Commons would allow the flexibility to maneuver with the whole Flickr Commons corpus, doing collective actions across the Commons membership. Seven million photos as a starting point is enough to supply lots of interconnections within the content. It's not too big to fail, and light enough to be somewhat experimental as new features get deployed, and it's also a corpus of *interesting* photos for the most part, selected with care by Commons members.[43] For the team at Flickr, operating on seven million photographs is trivial, and many organizations in the Commons do not possess the digital capacity to do anything like it, and in fact are frustrated that they have to use crummy software to do their work.

Lots of Commons members chose Flickr because it's much more usable and easy to experiment with quickly.[44] The Commons membership is healthily varied, too, from a lone-ranger archivist documenting a religious sisterhood in Ontario to one of the biggest libraries on the planet.

Setting comfortable scale

Its scale is also a contrast to the voracious user-generated content platforms that grow by millions or billions of content objects ***every day***. Nobody can eat that much without exploding, right?[45] We obviously can't handle it. I mean, *look at us!*

The Long Now Foundation's executive director, Alexander Rose, has been developing an enviable research project about the longevity of organizations, looking for clues that may prove adaptable to general approaches.[46] One of the early discoveries in his study is that the long organizations he's

[42] This is the number of items in the Library of Congress, not just prints and photographs. https://www.loc.gov/about/fascinating-facts/
[43] That's excluding the automatically uploaded images from the Internet Archives book-scanning initiatives, which are neither photographs nor especially curated.
[44] Simple features like allowing downloads, view counts, and stats and organizing tools like Albums and Galleries, stats, and the cross-collection possibilities were all listed as desirable functionality in interviews.
[45] Mr. Creosote explodes
[46] https://longnow.org/continuity/

researched—there's one hotel in Japan that's been operating for 1,500 years!—is that they set a comfortable, profitable scale and stay there. This approach is seemingly incompatible with the scalability that computing and clouds and autonomous computation afford us. We can simply throw more computing capacity and engineers at problems and keep crunching through. But how does that affect community conversation and cohesion?

Even though this sort of size of image collection can be used as data, with photographs and a lack of description, what's needed is a return to *conversational scale*, where people can talk with each other, discuss, listen, disagree, reach consensus, and *see each other*. Even though Flickr will never be the same as its cozy early days, today, right now, little generous conversations are happening in Flickr Commons, and the challenge will be to nurture and grow that without crushing it or forcing it to be profitable or smoothing it to such an extent that nuance slides off it.

What does governance mean in a digital Commons context?

We see huge corporations with unprecedented wealth gobbling up the cultural record, promising availability, and millions of contributors without recourse in case of emergency.[47,48] There's no particular expectation of reliability or permanence, and any moves to close down are usually a surprise. Google has killed well over 200 products in the past ten years or so, many of which were acquisitions, or held content generated and contributed by citizens.[49] It's something of a testament to Flickr and its contributors and teams over the years that it's survived, especially given that a tragedy of the digital commons is often attrition or other competitive defeat.[50]

We have an opportunity to provide a place for collaboration, co-design, curation, and insight. After a decade of neglect, we can shift to a stance that gives all of the actors agency in how this Commons operates.[51] What if, instead, we look to leverage and enhance the **existing** public/private partnerships already present in the program and be far more deliberate about the long-term outlook.[52] An example might be that each member agrees to periodically take and preserve a copy of another Commons member's content. A longer shot might be that every legal deposit library who is also a Commons member agrees to preserve a full copy of all Flickr Commons members' content and metadata.

If the Flickr platform is to transition from what is effectively a first-generation technology to long-term infrastructure, the company must take great care around documentation and code, to be written with the distant future in mind, and any partner or integrated micro service must be assessed on stability, governance, and long-term thinking.

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[47] Apple, Alphabet, and Microsoft made a combined US$129.5 billion profit Q2 2021, and you can have one Alphabet share for $2,670 (at time of writing).
[48] Have a look at Kettemann, M. C., & Tiedeke, A. S. (2020). Back up: can users sue platforms to reinstate deleted content? Internet Policy Review, 9(2). https://doi.org/10.14763/2020.2.1484
[49] https://killedbygoogle.com/
[50] Frank Nagle's piece, *The Digital Commons: Tragedy or Opportunity? A Reflection on the 50th Anniversary of Hardin's Tragedy of the Commons* is a broader survey on this.
[51] See Elinor Ostrom's evisceration of the 1968 *Tragedy of the Commons* wherein the author fails to assign any agency to the human actors participating in a Commons.
[52] This is basically the playbook outlined in the fantastic *Mission Economy: A Moonshot Guide to Changing Capitalism* by Maria Mazzucato.

How might we best design corporate custodianship of culture?

From the beginning, Flickr was one of the first to offer world-leading APIs and intrinsic sharing features (email, blogs, etc.). Data mobility and sharing are in its bones. This is an opportunity to shift how we protect the cultural heritage flowing into and across our digital services and infrastructures. We must make it impossible to delete these unique cultural spaces and incentivize infrastructural robustness. Traditionally, we've stuck stuff in buildings, made endowments, and employed keepers to look after things, but digital copies of things can be treated very differently.

> *"...we're in a new phase which is about frameworks and platforms: the possibility to hold safe spaces for a multiplicity of expressions, the necessity to understand the provenance of information you're given, and the ability to adaptively contextualize and culturally digest all the challenges that the rapid changes we will likely witness in the 21st century."* –Ben Cerveny[53]

The challenge of designing contemporary governance—mapping a large, digital, corporate platform to a long-term vision—must start with the participants, as a Commons. What could 21st-century public/private digital equivalents of our cultural buildings be? Who should be involved? How should we adjust and strengthen Flickr Commons tooling so it can serve as a stable, collective, public resource? What if the ship goes down? How can we plan for that proactively and positively?

Conclusion

> *"Because, in the end, the idea [of a museum] today is to bring the world into contact with the world, to bring some of the world's places into contact with other of the world's places.... We must multiply the number of worlds inside museums."* –Édouard Glissant

So, we have a fantastic opportunity. We have plenty of goodwill, company support, and a small-but-strong heartbeat remains in the program. There is great public interest in "more worlds" inside museums, and the opportunity presented is to design a Commons that isn't a tragedy. The blend of Flickr Commons within the bigger Flickr collection is rich ground to work towards shared public value for common good.

The position I reached in this research is that small conversations are what's needed to help better and balanced cultural records come alive. It won't be computation that fills in the gaps left by obliterative descriptive practice, and it'll take ages, but we should not automate answering questions of cultural description and identity making. Let's observe the world *with each other*.

[53] http://archis.org/volume/digital-cultural-public-infrastructure/ Cerveny is a co-founder of the Foundation for Public Code in Amsterdam. In *Digital Cultural Public Infrastructure* he casts into the future about the challenge for our cultural and government organisations struggling to keep pace with technology, and possibilities for something other than "market-driven creativity."

Appendix: S.W.O.T. of Flickr Commons[54]

Strengths	• Unique and exceptional assemblage of the world's photographic history • Still one of the best places online for conversations about photography • Global reach, with local connections; huge potential user base • Smaller happy communities of regular researchers around Commons content • Durable image-serving infrastructure on larger platform plus robust API • Hugely more exposure for Commons members in cohort than in isolation • Well-designed user interface refined through huge usage over years[55]
Weaknesses	• Strong community of whole platform's early history has dispersed • Nobody home for a decade at Commons; no visible governance or stability • NKCR approach is dated now • Commons UI is dated; no discovery, no attention; no clear encouragement to remix/reuse • No assurances or guarantees around loss or deletion • No responsible person inside the corporation; not prioritized • "Open" cultural content can be harmful • Not especially integrated with any tools in the GLAM ecosystem
Opportunities	• Straightforward to make big improvements on Discovery layer • Programmatic/curatorial collaboration across Commons organizations for greater exposure to new and beloved audiences • Support sector-wide initiatives with infrastructure and community • Take up appropriate standards and tools for greater propagation/adoption • Design 100-year outlook; ask new questions about digital platform longevity • Commercial collections management software still left wanting in several areas, e.g., usability for operators and content-usage info • Big challenge for cultural organizations with lots of digitized photographs but no description yet • Simple(r) tools for greater number of cultural organizations (instead of requiring programmers on staff, which is unfeasible for little organizations) • Engage with other large organizations that have lots of photographs (e.g., press, NGOs, etc.)
Threats	• Online services providing derivative repositories with better discovery or reuse guidance • Corporate context rejects private actor assuming public good stance • Commons member community doesn't congregate effectively to positively contribute • Yet another ownership change • Can't secure meaningful long-term financial security • Wikimedia Commons, Europeana and DPLA eat the world

[54] I know SWOT is a little outdated, but I am using it because it's important to acknowledge the weaknesses of the current situation instead of being purely forward looking. Have a look at the *Flickr Commons Revitalization: Strategy 2021–2023* for the aspirational bits!

[55] *"Flickr eats our lunch in terms of UI. No library software has an enjoyable UI."* Erin White, VCU Libraries

Appendix: Interviewees

Commons Members

Alan Renga
Amanda Hill
Barbara Orbach Natanson
Ben O'Steen
Catherine Baldwin
Carlos Bastidas Calderon
Cezar Popescu
Diana Carey
Gamze Cebeci
Geoff Barker
Helena Zinkham
Jason Evans
Kate Meyers Emery
Ken Hook
Mahendra Mahey
Mary Grace Costa
Michael Rhode
Michelle Springer
Ryan Johnston
Sara Nagai
Susan McClure
Sven Lepa
Tania Schafer
Tuomos Nolvi

Flickr Team

Ben MacAskill
Carol Benovic-Bradley
Cora Bridges
Don MacAskill
Leticia Roncero Portas
Matthew Roth

Birds of a Feather

Alexander Rose
Alexis Rossi
Anna Tumadóttir
arkiver
Brigitte Vézina
Cade Diehm
Christian Dawson
Doug McCarthy
Ed Summers
Erin White
Fiona Romeo
Giovanna Fontenelle
Harry Verwayen
Henriette Roud-Cunliffe
Hilary Osbourne
Ilya Kremer
Jane Anderson
John Bracken
Jonas Heide Smith
Josh Greenberg
Katherine Jewkes
Lucie Patterson
Lucy Crompton-Reid
Maui Hudson
Melissa Terras
Merete Sanderhoff
Merrilee Proffitt
Nikolaj Erichsen
Padmini Ray Murray
Rachel Frick
Saskia Scheltjens
scann
Seb Chan
Siobhan Leachman
Shannon Martin
Tim Kong
Tim Sherratt
Tom Crane
Virginia Poundstone

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