



NATIONAL FILM
AND SOUND ARCHIVE
OF AUSTRALIA

International Video Game Preservation Survey Report



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**NATIONAL FILM
AND SOUND ARCHIVE
OF AUSTRALIA**



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Survey results from organisations and groups involved in video game preservation activities

Published by the National Film and Sound Archive of Australia in collaboration with The Strong's International Center for the History of Electronic Games and the support of the BFI National Archive

Chris Arneil, August 2024

Introduction and key findings

This report brings together survey responses from an International Video Game Preservation Survey, opened in late 2023 to organisations undertaking video game preservation activities and groups contributing to the broader field. The aim of this report is to establish baseline data on the current landscape of the global video game preservation field.

It is a crucial time for the field. While video games have become one of the preeminent cultural forms worldwide, much of their history has been left more or less inaccessible.¹

The National Film and Sound Archive of Australia, in collaboration with The Strong's International Center for the History of Electronic Games and the support of the BFI National Archive, developed the International Video Game Preservation Survey. The survey aimed to gain a global perspective on video game collections, explore the priorities and challenges faced by organisations in preserving video games, assess the impact of resources and governance, examine the role of digital preservation, evaluate the accessibility of collections, and identify current and future opportunities for networking and collaboration.

The survey was open to any respondents working in the field and allowed for open-ended responses. As such, individuals could establish what they saw as the key issues, short-term obstacles, and long-term challenges in video game preservation.

Key findings

Finding 1: Diverse drivers

Responses from a diverse range of groups showed video games are being collected and preserved for a variety of reasons – as artworks, objects of study, published works, technology, objects of play, intellectual property, contemporary media and cultural heritage.

Finding 2: Access challenges

While most organisations offered some form of access to their collections, challenges around legal and technical issues limited the extent of access provided.

Finding 3: Underpowered preservation

Most public and cultural organisations performing video game preservation activities did this work without dedicated staffing resources.

Finding 4: Critical under-resourcing

Financial and resourcing issues, staff time constraints, and institutional support/recognition posed the most significant challenges for organisations. Preservation activities were often mentioned as being critically under-resourced for the amount of attention they require.

Finding 5: Low priority, high stakes

In nearly all cases, public and cultural institutions performed video game preservation activities as a small part of their overall remit.

Finding 6: Digital disparity

Organisations were almost twice as likely to hold software on physical carriers than contemporary digitally distributed video games, placing these contemporary titles at risk.

Finding 7: Expertise imbalance

Organisations were more likely to face barriers of expertise in the early stages of developing their video game preservation programs, while legal and rights issues were raised more by organisations in the later stages.

Finding 8: Industry alliances

Over half of the organisations surveyed had contact or formal agreements with the video game industry or developers, facilitating partnerships for preservation efforts.

Finding 9: Network activation

Despite limited active partnerships between organisations and groups, participation in networks like the Software Preservation Network and the Digital Preservation Coalition was notable.

Finding 10: Quest for collaboration

Respondents recognised the need for more structured collaboration and information sharing within the field, suggesting initiatives such as international associations and standardised cataloguing systems.

Methodology

The International Video Game Preservation Survey was published via Google Forms, available at nfsa.gov.au/survey and open from 5 October 2023 until 17 November 2023 (see Appendix A). The survey was open to any organisation undertaking video game preservation activities and distributed via email to key contacts of the survey's administrators and online digital preservation communities. For statistical purposes, the administrators categorised the open-ended survey question responses into common subjects using data tags.

The survey allowed for multiple responses from individuals within the same organisation. Responses have been merged where these particular results related to common information about an overall organisation, but have been left separate where results related to individual opinions.

Anonymous responses were allowed, and all questions were optional and could be left blank, thus the number of responses to each question will not always equal the total number of individual survey participants. Percentages may also not total 100 because of rounding.

The term *video game preservation* is often interchangeably used to refer to both the interdisciplinary field and digital preservation activities related to video game preservation. In this report, the term refers to the field unless otherwise specified.

Findings

BACKGROUND INFORMATION

The survey opened with two questions (Q1 and Q2, see Appendix A) intended to gather background information about the survey participants.

Respondents' regions were ascertained from their respective organisation's names. To allow for fully anonymous responses, Q1 was optional, with two respondents leaving this answer blank. Multiple survey responses were allowed from individuals within each organisation – there was only one occurrence of this, with responses received from two individuals from the same organisation. The anonymous respondents were determined to be from unique organisations due to their responses to Q2.

Fifty-five responses were received over the duration of the survey from individuals representing 54 unique organisations. A diverse range of organisations responded, with the majority coming from non-institutional video game preservation projects, societies, or not-for-profits (13); followed by universities or academic libraries (11); state or national libraries (8); and science/technology/design or history museums (8). Other respondents were from film or moving image museums (3); audiovisual archives (3); video game museums (3); national archives (3); and video game companies or private archives (2). Individual responses came from an art gallery/art museum, and an academic research group.

Although more video game companies are realising the importance of preserving their own intellectual property and forming teams dedicated to preservation,² the closed-source culture common to the video game industry is perhaps indicated here by the lack of responses from individuals within the video game industry.³ One industry employee advised they could not complete the survey because of a confidentiality policy within their organisation.

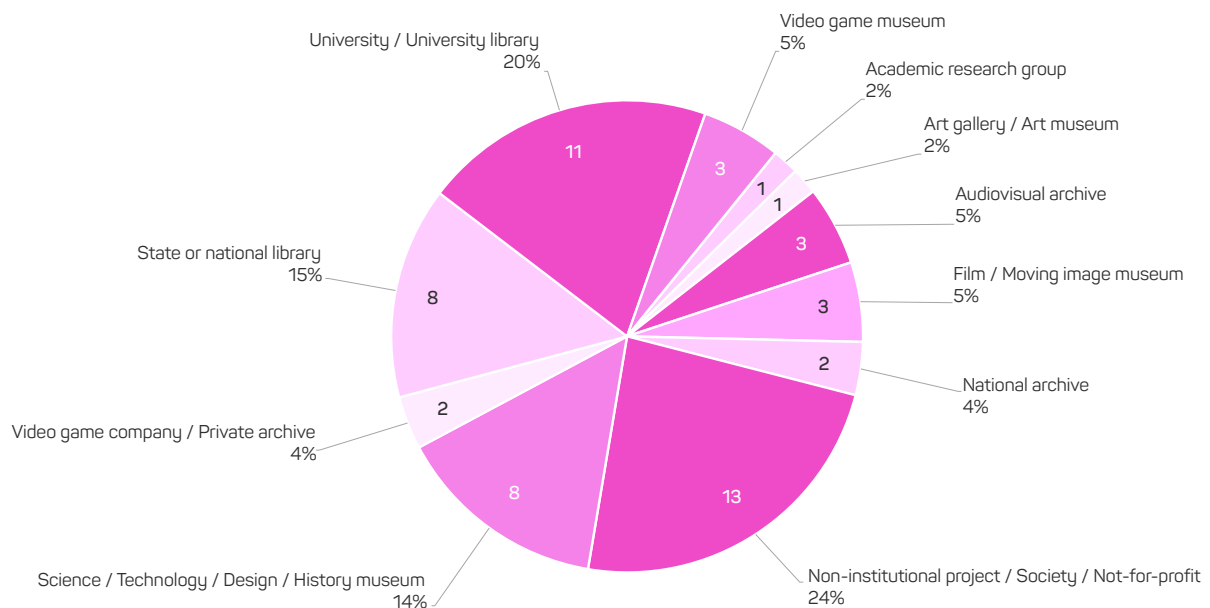


Figure 1: Types of organisations selected by respondents

² C Scullion, 'PlayStation 'has set up a new game preservation team'', Video Games Chronicle website, 2022, accessed 17 May 2024.

³ C Politowski, F Petrillo, GC Ullmann and YG Guéhéneuc, 'Game Industry Problems: An Extensive Analysis of the Gray Literature' *Information and Software Technology*, 2020, doi:10.48550/arXiv.2009.02440.

Although the most common organisation type selected was a non-institutional video game preservation project, society, or not-for-profit, most responses (72%) originated from some form of cultural or public institution.

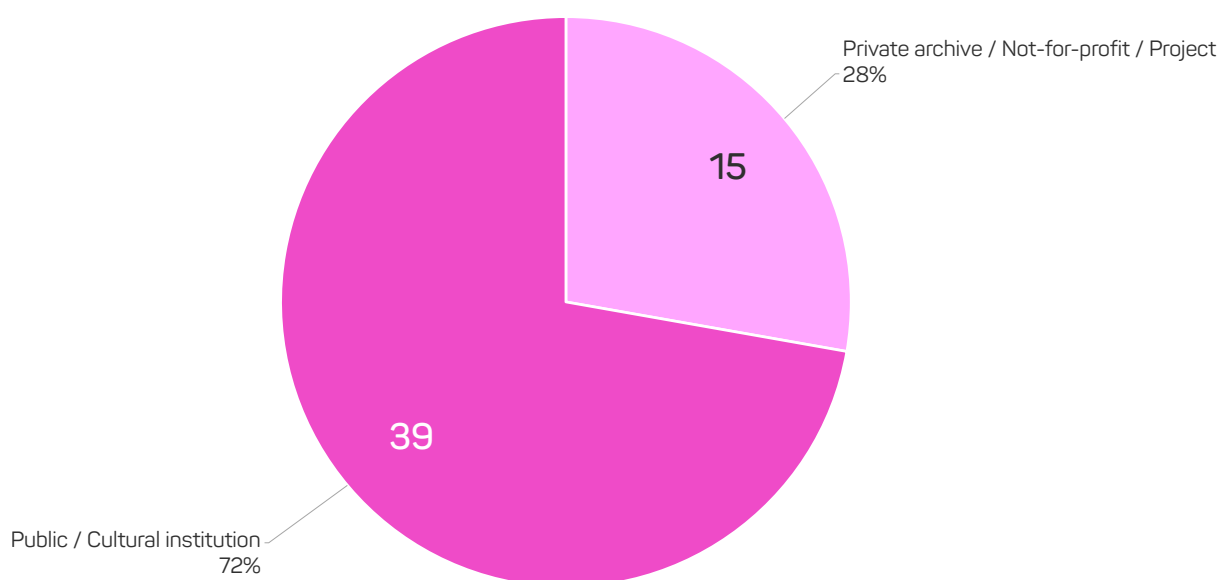


Figure 2: Grouped organisation types represented by respondents

INTERNATIONAL VIDEO GAME PRESERVATION SURVEY REPORT

The majority (73%) of respondents were from either North America (22) or Europe (17); followed by Australasia (9); and Asia (4). Two anonymous respondent's regions were unknown.

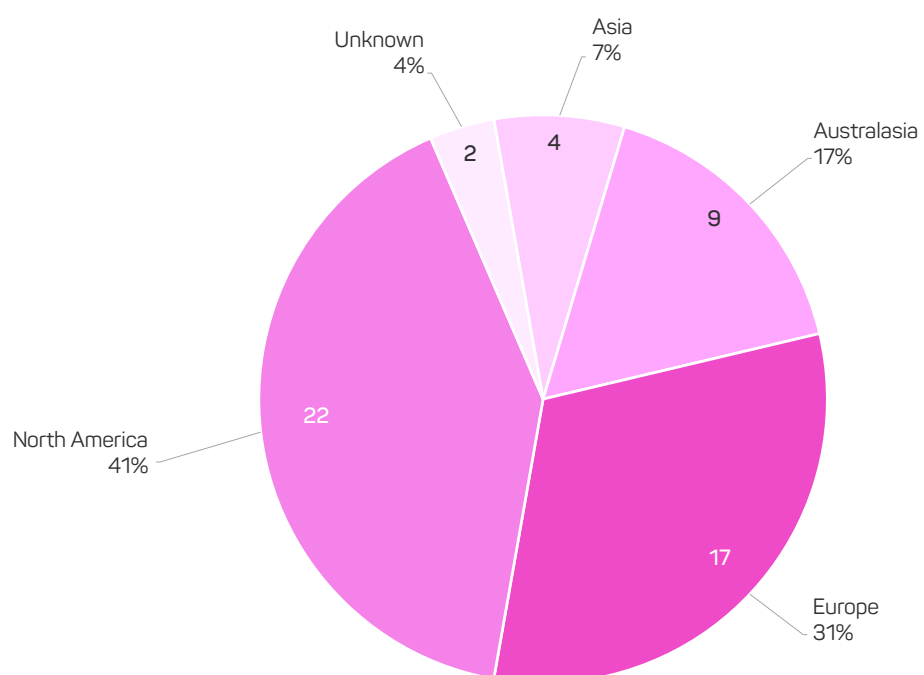


Figure 3: Geographic distribution of respondents

COLLECTIONS ANALYSIS

The survey included four questions (Q4, Q5, Q6, and Q8) about the composition of organisations' current video game-related collections and collection development activities.

Video game collection sizes held by participants varied from a couple of items to hundreds of thousands. Where specific numbers of software titles were reported, the average collection contained 5343 video game titles.

The average collection sizes for private archives/not-for-profits/projects and libraries/archives were similar, at 7999 and 7326 titles, respectively. As detailed below, museums and galleries reported an average of 1040 titles, indicating more selective collection development activity. Five organisations reported that their collection sizes were currently unknown because of incomplete inventories or unaccessioned material, and four organisations reported their collections as being 'very small'.

Methodologies for ascertaining collection sizes ranged among respondents. For example, some respondents used broad numbers of all collection items, or measured in linear metres or storage containers. These variations and other differences in reporting and categorisation made more direct comparisons difficult.

Slightly more respondents reported video game materials held in their organisations' collections as comprising mainly local material – produced in the respondents' home countries or localities (26 respondents) – rather than comprising both local and international material (24 respondents). Four respondents reported their organisations do not yet have collections of video game material.

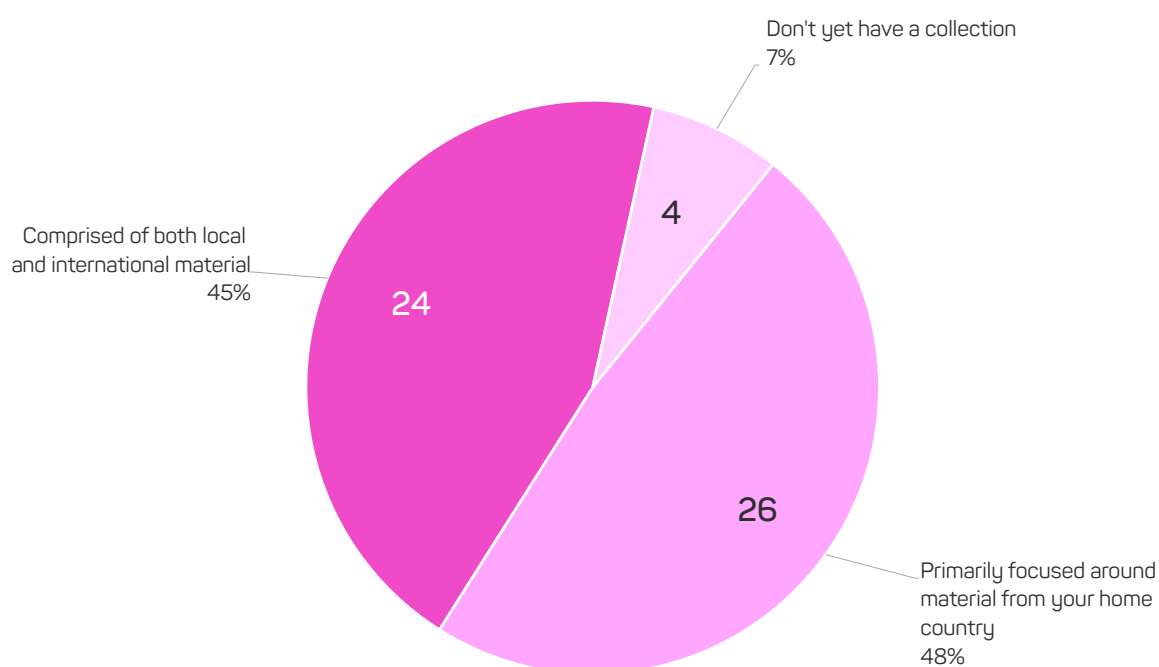


Figure 4: Production locality of collection material

Software on physical carriers was most likely to be held by respondents, with 94% of the 51 respondents who had reported having video game material in their collections holding these items. Interestingly, this percentage dropped to 55% of respondents who reported having digitally distributed software in their collections, the dominant method of video game distribution today and the sole distribution method for many independently developed video games.⁴

The next most likely to be held items were publicity material (for example, press kits, trailers, screenshots, posters and advertisements); hardware and peripherals (for example, home or handheld consoles, computers, arcade machines and controllers); and magazines, each held by 71% of respondents with video game collections. This was followed by video game-related books (67%); the aforementioned digitally distributed software (55%); source code and assets (47%); or other source materials (for example, raw materials used in a game's production, including art, documentation, and records of correspondence) (39%).⁵

Recordings of Twitch or video game streaming sites were least likely to appear in collections (at 14%), followed by YouTube videos (24%), organisation-produced videos of gameplay (33%), and organisation-produced oral history interviews (37%).

⁴ C Moyse, *Over 70% of all game sales in 2022 were digital downloads*, Destructoid Website, 2022, Accessed 17 May 2024.

⁵ F Cifaldi, *Introducing the Video Game Source Project*, Video Game History Foundation Website, 2020, Accessed 17 May 2024.

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Additional material types reported as held in collections by survey participants were website archives; hardware re-implementation platforms like the MiSTer; separate game manuals and other ephemera; crafts; merchandise and licensed materials; one-off hardware pieces (for example, one-of-a-kind prototypes, first release controllers); business records; and marketing materials. To collect more accurate data, future surveys should provide options for these materials.

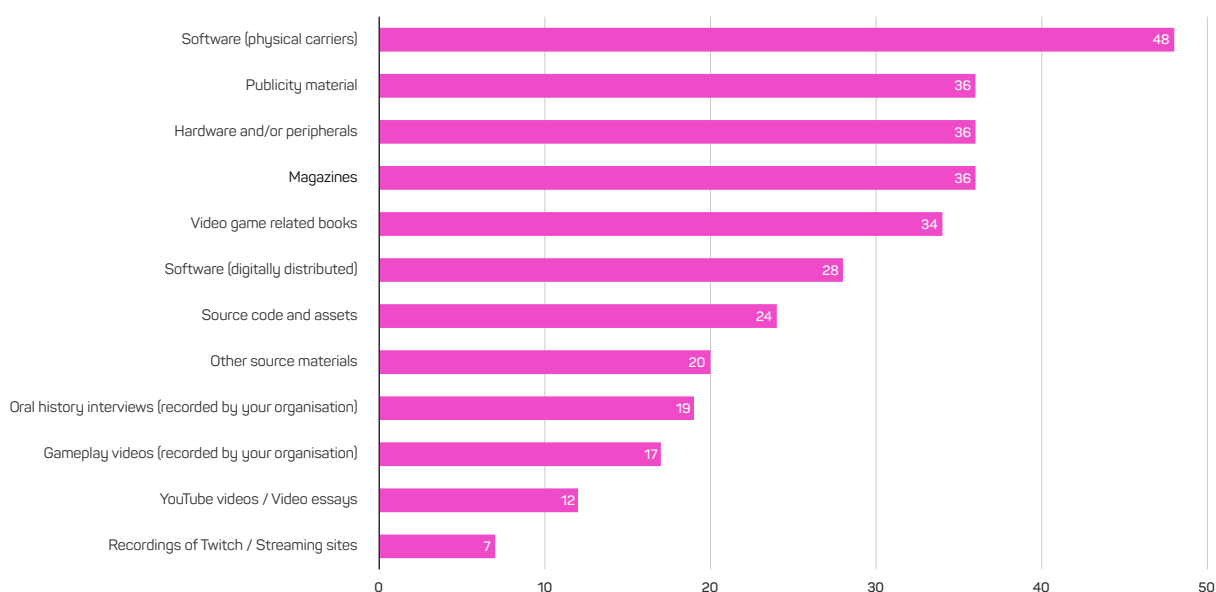


Figure 5: Video game-related collection material held by organisations

35% of respondents stated their organisations were currently developing comprehensive collections (for example, all titles developed within an organisation's home country or all games on a specific platform), and 19% stated that they were developing more selective collections of specific significant titles.

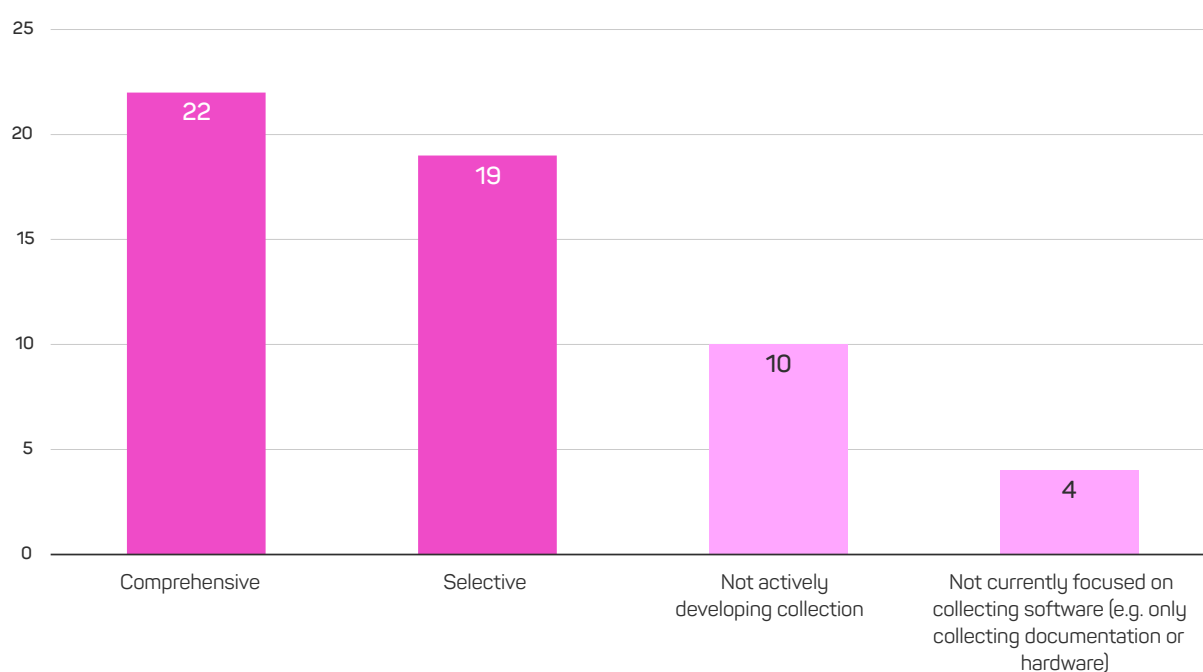


Figure 6: Collection development selectivity (all organisations)

Within public and cultural institutions, a higher percentage of museums and galleries reported being more selective (53%) than comprehensive (20%) in their collection development activities. However, this preference for selective collecting was also reflected within libraries and archives (albeit to a lesser degree), with 38% collecting selectively and 33% comprehensively.

69% of non-institutional organisations reported their collection development as comprehensive, while only 13% of these organisations collected more selectively.

INTERNATIONAL VIDEO GAME PRESERVATION SURVEY REPORT

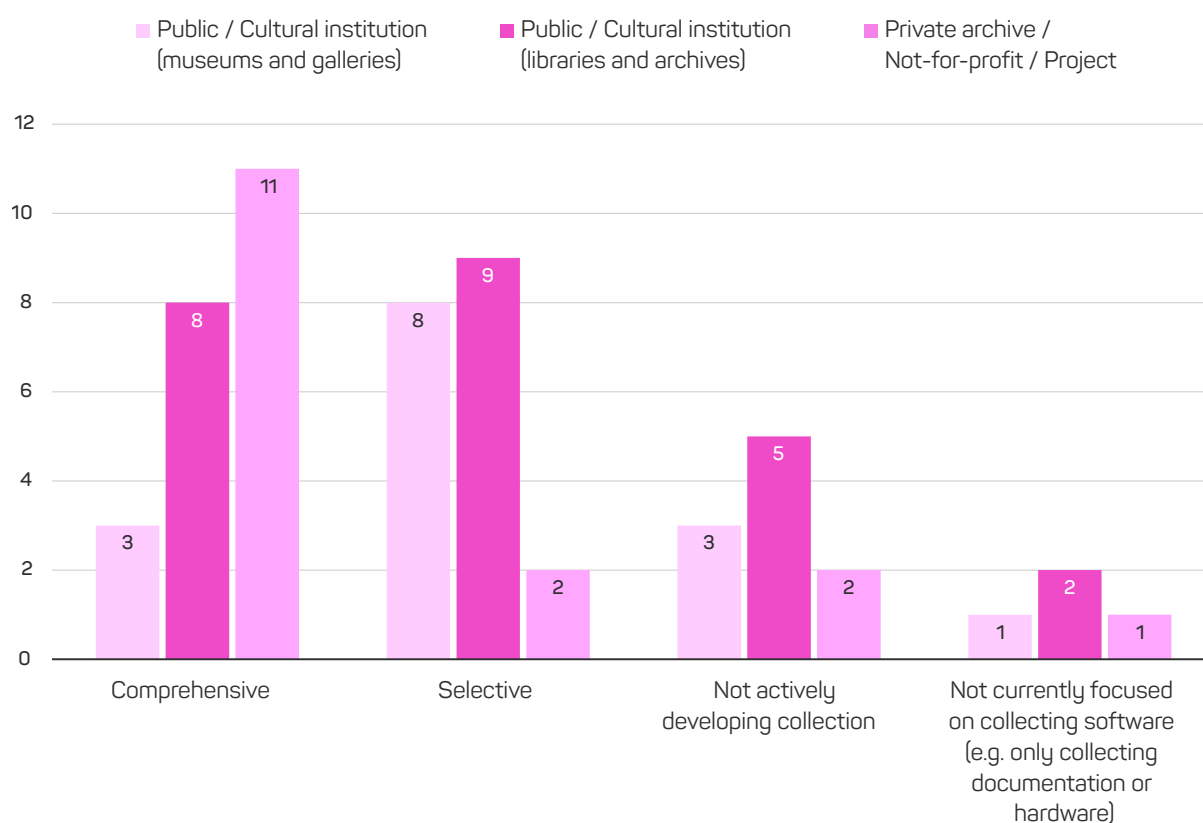


Figure 7: Collection development selectivity (by organisation type)

PRIORITIES AND CHALLENGES

Three survey questions (Q7, Q20, and Q22) were asked to ascertain what challenges organisations were facing concerning their video game preservation activities, which activities their organisations prioritised, and what they considered the biggest challenges in the field of video game preservation as a whole.

Respondents were asked to rank the activities their organisations prioritised, such as collection development (the acquisition or selection of collection materials); preservation (specific physical and digital conservation and preservation activities rather than the broader definition); display and exhibition (displaying items from the collection to the public, either online or in person); and access to researchers (either online or on-premises).

Overall, respondents ranked their organisations as prioritising preservation; followed by collection development; display and exhibition; with access to researchers ranked last.

Priorities differed between organisation types, aligning with their respective remits: institutionally, museums and galleries prioritised display and exhibition; followed by collection development; preservation; and lastly, access to researchers. Libraries and archives prioritised preservation; followed by access to researchers; collection development; with display and exhibition ranked last.

Non-institutional organisations' priorities were aligned with the overall rankings of preservation (1st); collection development (2nd); display and exhibition (3rd); and access to researchers (4th). It is important to note that for some online preservation projects and groups, display and exhibition and access to researchers will be one and the same, with the entirety of their collections made public online for anybody to access.

Respondents were asked what they saw as the most significant barrier to successfully doing their video game preservation work. This could be answered as either an individual's barrier within an organisation, or an overarching barrier for the organisation.

Organisational financial and resourcing issues were by far the most frequently raised barriers, mentioned by over a third of survey respondents. Video game preservation activities were mentioned as being critically under-resourced for the amount of attention they require.

'As with the rest of the cultural and heritage sector, lack of funding and subsequent lack of capacity.'

'Make financing viable in order to employ one or two permanent persons.'

'To be able to undertake any video game preservation (and related infrastructure), we require both staff and non-staff resources. Currently this is unable to be resourced internally.'

This was followed by the corresponding issue of staff time – being unable to dedicate the necessary time to video game preservation activities as current resources allowed – raised by 27% of survey participants.

‘We presently spend less than 1 person-year on game preservation related activities - games are an edge case that could always use a bit more care.’

27% of respondents also raised institutional support or recognition issues. Topics raised were both related to the support and recognition of video game preservation activities within an organisation, for example, by senior leadership roles, or external support and recognition at the cultural or industry levels.

‘Convincing administration and more general audiences of the need to preserve games and software.’

‘The general public often has biases against video games.’

‘[The video game industry] largely seems to ignore libraries/museums/archives entirely while pushing toward digital-only releases and dwindling physical production.’

Almost a quarter of participants raised technological barriers, including limitations with organisational access to existing technology or limitations with the technology itself. Participants raised technological issues concerning the preservation of both physical and digital media. Critical issues for physical media included the degradation of media and sourcing technology and skills required to migrate files from physical carriers. For digital media, the industry trend towards proprietary systems and always-online video games, and the diversity, quantity, and complexity of digital software files were barriers.

‘Accessing ‘archaic’ file types and media that does not translate to modern technology.’

‘The immense diversity of media formats, the inherent problems of preserving modern digital materials that are connected to company-owned servers.’

‘[The] inability to provide access to complex software.’

Legal and rights barriers were the fifth most raised issue, mentioned by one in five survey participants. Respondents mentioned that their organisations were constrained by copyright laws not allowing them to conduct basic digital preservation activities or to provide access to collection materials. Copyright law constraints varied by country; some institutions mentioned being legally unable to make preservation copies or break digital rights management (DRM) locks, while others were limited in offering off-site access to their collections.

‘We don't think on-site access is a viable path for working with the source materials in our collection (for example, a prototype game that only runs on a specific debug Xbox unit). We need more technical infrastructure that would allow us to, for instance, spin up a virtual machine to provide remote secure access to source materials through emulation ... However, we expect this will take a while due to ... still-extant obstacles in copyright law regarding remote digital access to games and software.’

‘The whole copyright mess with video games specifically.’

‘A lack of an international or at least European/national law protecting national cultural and public institutions to archive, preserve and display digital items such as videogames.’

A lack of in-house or external expertise, for example, the inability to find or train people with the niche skill sets required for video game preservation tasks, was a barrier for six survey participants.

Three participants raised physical and digital storage, citing either a lack of space to store physical collections or the increasing costs of storing expanding digital collections.



Figure 8: Organisational barriers to successfully doing game preservation work

When separating these barriers between organisations with and without dedicated staff resourcing for video game preservation activities (as answered in Q3 and covered in the next section, *Resourcing and Governance*), differences became apparent – expectedly, financial and resourcing issues were reported more by organisations without dedicated staff, however these issues did not dissipate for organisations with staffing, indicating that organisations with any amount of staffing still required assistance or increased budgets.

Barriers of expertise were only raised by organisations without dedicated staffing, indicating that this is a hurdle faced by organisations in the early stages of developing their video game preservation programs.

Legal and rights barriers were nearly twice as likely to be raised by organisations with dedicated staffing, pointing to this as a barrier further along the path of video game preservation activities.

Organisations with and without dedicated resourcing reported all other barriers in similar numbers.

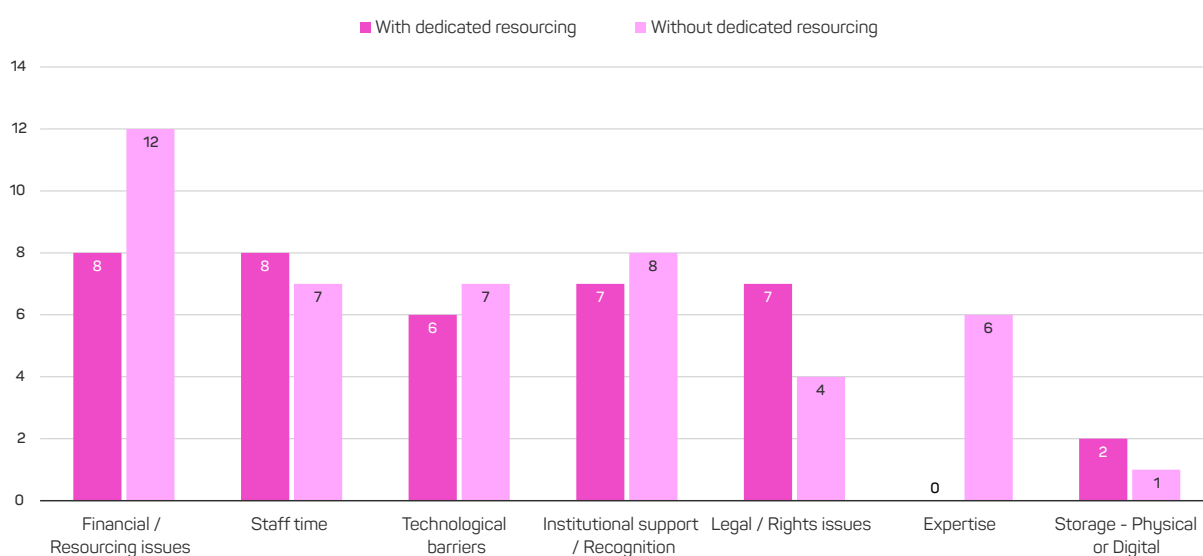


Figure 9: Organisational barriers to successfully doing game preservation work, sorted by organisations with and without dedicated resourcing

Outside of shorter-term barriers, organisations saw a range of headline challenges for the broader field of video game preservation in the long term.

The most raised long-term challenge was hardware and software obsolescence, mentioned by over one in four survey participants. This included issues around the complexities of retrieving software from obsolete physical carriers, the fragility of these interlinked physical and digital objects, and the loss of heritage that has already occurred.

‘Rapid (and sometimes planned) obsolescence of hardware and technologies, deterioration of data (e.g. ‘bitrot’).’

‘Hardware platforms and the game software that runs on them have finite lifespans, as video games require engagement in the entire ecosystem of software and hardware technologies, online and offline.’

The next challenge raised was a lack of support and awareness from the video game industry, as mentioned by over one in five participants. Respondents cited either opposition to game preservation activities from larger corporations, the balance of profitability and the recognition of cultural heritage, or a lack of awareness of the importance of the practice from smaller developers.

‘Having games be only available as digital content means when it is no longer profitable for a business they just delete it. A catalogue shared with organisations such as ourselves on dedicated servers would ensure preservation of this new type of media.’

‘Conservative attitudes in the games industry towards protection of intellectual property [has] put huge swaths of videogame history at risk of disappearing. Consumers, collectors, cultural institutions, and the videogame industry will need to work together to find a balance which allows creators to make a living from their work and creativity while preserving the history of videogames in a mindful, sustainable way.’

16% of survey participants raised the development of sustainable methods for preserving online and/or streaming video games and digital games with no physical carriers as a headline challenge. A related challenge to the top-ranked issue of software obsolescence, organisations indicated that preserving video games is becoming more challenging as the industry has moved away from physical distribution, and has indicated a move away from download-based distribution towards cloud streaming, with no easy access to a preservable original object without direct involvement and collaboration with developers.⁶

‘The preservation community will have a harder time preserving the born-digital, connected games of the 21st century on devices from smart phones to consoles, than preserving the early games of the 1970s-1990s.’

‘If the Games as a service / continuous release / always online / etc. - trends continue, we won’t have much to preserve, I suppose.’

Six participants mentioned challenges around enabling long-term accessibility and playability of interactive elements of their video game collections. Three participants noted the need for organisational and project cooperation, with one individual stating, ‘I think we (institutions) need to work together to move in the same direction. Too many institutions are doing similar things or completely different things that it’s inefficient.’

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Another three respondents saw the fundamental challenge as a lack of a mandate, government support or political will in their respective countries. This included the desire for laws covering legal deposit for video games and a need for broader government recognition of games as both cultural artefacts and a significant source of national wealth.

Another 16% of respondents viewed the previously raised legal and rights issues as a challenge, with one participant stating that “legal issues are more of an obstacle than technical issues.” Also raised were the previously mentioned issues around stable funding, space and storage, and the continuity of organisational skills and knowledge.

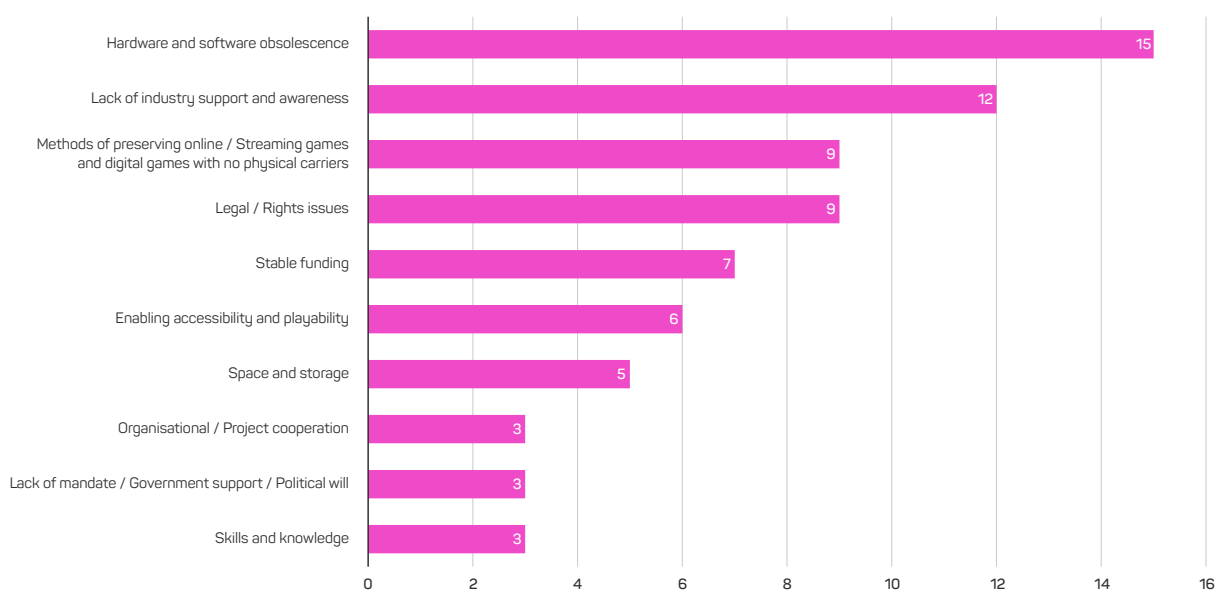


Figure 10: Headline challenges for long-term video game preservation

RESOURCING AND GOVERNANCE

The survey included three questions (Q3, Q14, and Q21) about the resourcing and governance of video game preservation activities, including staffing, funding, and relationships with government.

There was a nearly even split of organisations with and without dedicated staffing, with 26 organisations reporting that they had roles for video game preservation and 28 reporting that they did not.

While these figures are surprising given the previous calls for increased resourcing (as seen in Figures 10, 11 and 12), a closer analysis performed by separating these results by organisation type reveals that less than one in three non-video game dedicated cultural institutions reported having any roles dedicated to any kind of video game preservation work, with most of these roles being found in private archives, not-for-profits, projects and video game dedicated cultural institutions. Project-based or not-for-profit roles are more likely to be part-time or ad-hoc volunteer-based labour, so it is recommended that any future surveys inquire about paid and full-time positions.⁷

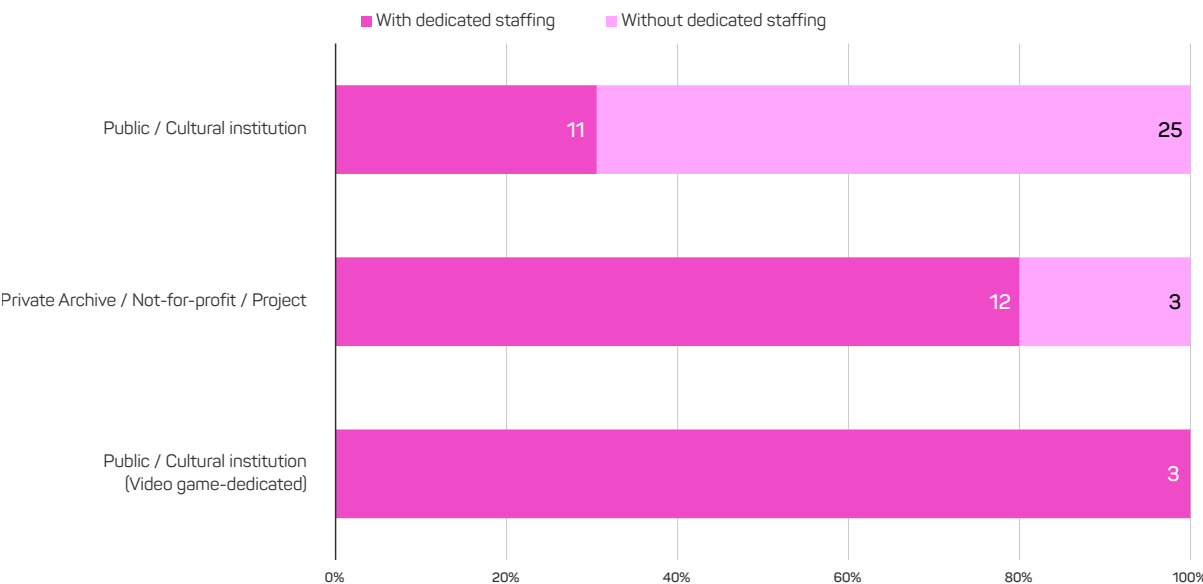


Figure 11: Organisations with and without dedicated staffing, sorted by organisation type

⁷ J Casey, 'Comparing Nonprofit Sectors Around the World: What Do We Know and How Do We Know It?', Journal of Nonprofit Education and Leadership, 2016, 6(3):187-223, doi:10.18666/JNEL-2016-V6-I3-7583

The participants could select multiple options when asked about the sources of funding for their organisations in the survey. Nearly half of the organisations surveyed received all or part of their funding institutionally, wherein the video game preservation work was part of the duties performed in a broader institution. Close to a third of organisations received governmental support to fund these activities.

A third of organisations received funding through private fundraising and grants, 19% through earned revenue like admission fees or venue hire, 7% through corporate funding or sponsorship and 6% from investments (endowments or trust funds, for example).

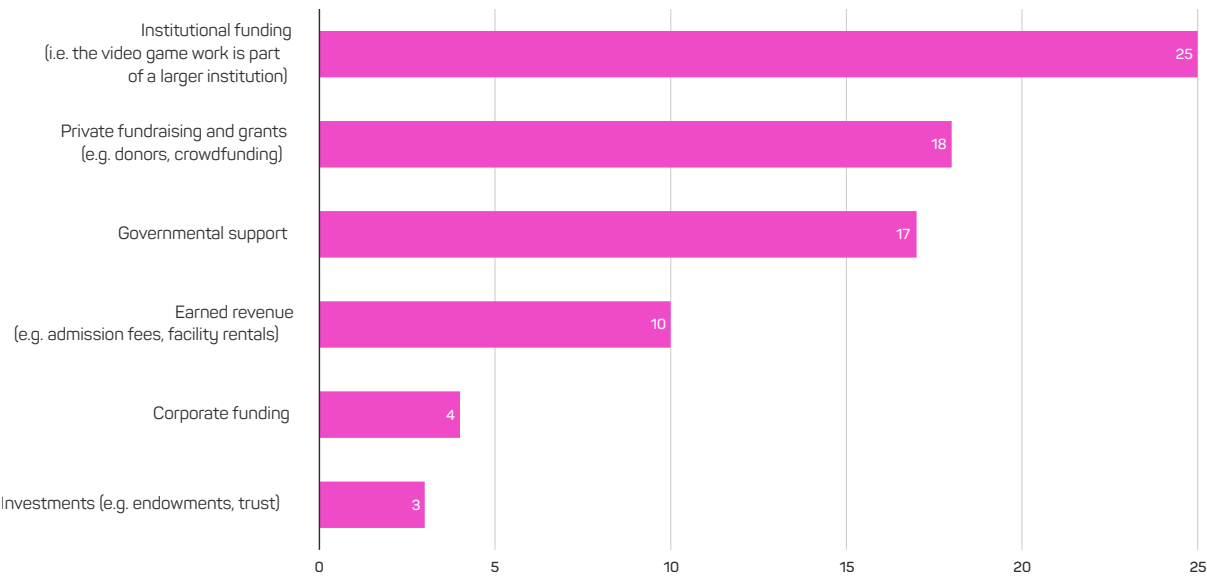


Figure 12: Funding sources

15% of survey participants reported having their organisations as any form of agreement in place or in development with their respective governments regarding video games, like legal deposit schemes or the mandatory deposit for games benefiting from public investment.

DIGITAL PRESERVATION

Three survey questions (Q11, Q12, and Q19) were asked about digital preservation activities, preservation policies, cataloguing, and digital ingest processes.

61% of respondents reported their organisations were currently undertaking some form of digital preservation activity in relation to video game material in their collection. These activities included but were not limited to: emulation; disk dumping; image scanning; born-digital curation; dumping from hardware; Linear Tape-Open (LTO) storage; metadata creation; and maintaining a digital register of collection material.

35% of total respondents reported their organisations were operating without established internal policies and standards of care for preservation (including eight organisations that also reported conducting digital preservation activities). Seven respondents stated these policies were currently being developed within their organisations. Other respondents mentioned their procedures were informal, or they had internalised best practices that staff had learned through working with collection materials.

The most common cataloguing challenge reported, mentioned by ten survey participants, was that their organisations' systems were unfit for purpose, making ingesting certain file types or adding software-specific metadata difficult or impossible with existing systems.

'The infrastructure, from schemata to cataloging systems, must be customized or integrated with existing systems, and often does not even exist.'

'We have to create our own database/catalogue as the existing systems are not suitable for games for various reasons.'

'Many of the items do not fit neatly into off-the-shelf archival CMSs (e.g., Dublin-core based platforms like Omeka).'

Seven participants commented on the time-consuming nature of accurate software cataloguing and the effects this has on often under-resourced areas.

'We lack time to fully describe video games (we should play the game to have complete information).'

'We do all original cataloging on games, which tends to be particularly time-consuming as compared to other types of media cataloging.'

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Six respondents mentioned the difficulties with preserving and ensuring playability of interactive material and how best to authentically represent interactive material in collections.

‘Our biggest problems center around our focus on playability versus preservation. We have to make choices about how “original” to keep artifacts.’

‘While preserving electronic games, there is still debate on whether the game devices serving as their carriers (such as arcade machines and game consoles) should also be preserved. There is also controversy over whether emulators running on computers can replace physical game consoles while retaining the original gaming experience.’

Other issues mentioned were the scarcity and/or reliability of information for cataloguing more obscure software titles, a lack of standards or a consistent technical vocabulary, a lack of in-house specialised skills or knowledge to catalogue games, and complexities with handling the sheer amount and range of digital objects that can be acquired with games collections. Two respondents mentioned storage space being an issue (*‘Triaging donations prior to accessioning is also difficult because of the amount of space they often occupy’*) and specific issues with documenting dependencies.

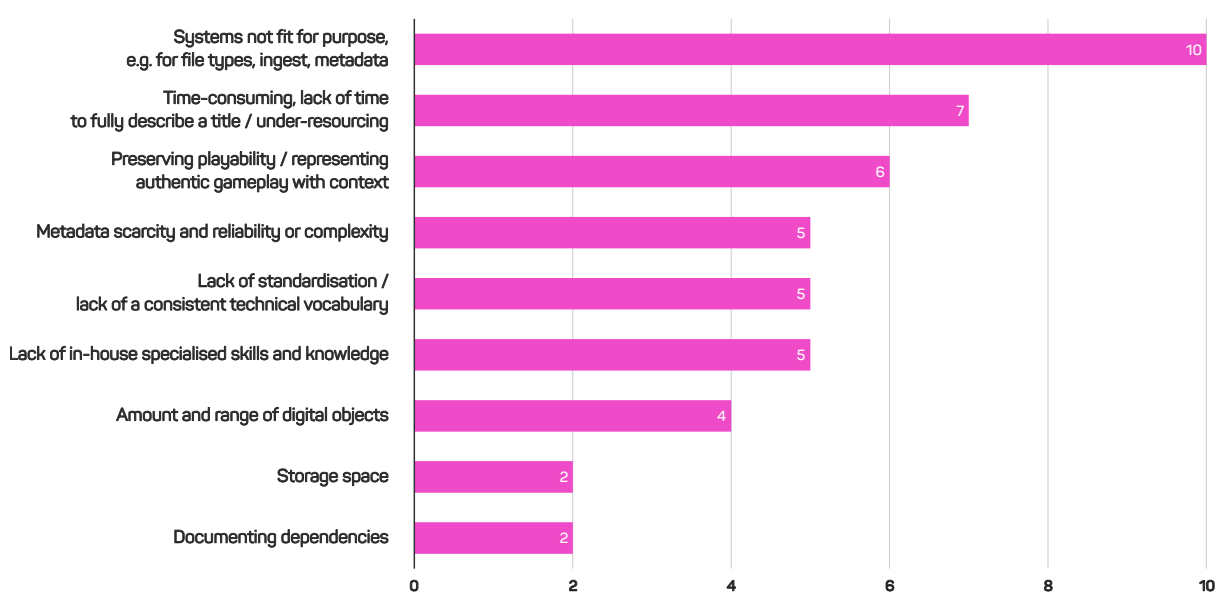


Figure 13: Video game cataloguing challenges

ACCESS TO COLLECTIONS

Three survey questions (Q9, Q10, and Q15) were asked about if and how respondents' organisations provide access to video game materials in their collections.

Most (70%) of organisations holding video game collections could provide some form of on-site access to their materials, although some respondents stated these requests were rare or discouraged because of inadequate resourcing. These forms of access may also exclude access to interactive elements of game collections, for example, limiting access to paper-based collections only.

'Given our space and staffing constraints, on-site research is difficult, and we discourage it if possible.'

'So far, no one has requested access to these few items, likely because they're under-described and difficult to discover.'

Other methods of access reported were exhibition and display (42% of organisations with collections), online access (22%) or off-premises access to physical materials, for example, library-lending of physical games (6%).

Seven respondents reported their organisations could not or had limited ability to provide access to video game materials in their collections. Legal and technical issues emerged as the major barriers to providing access to video game materials in their collections.

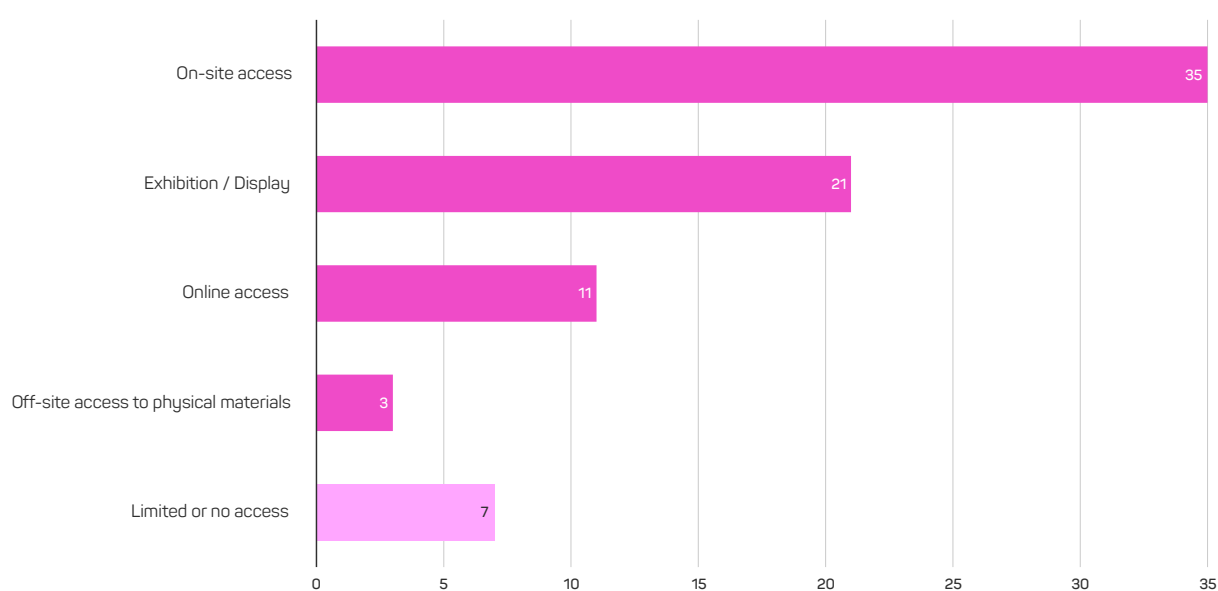


Figure 14: Types of access provided to video game collections by organisations

64% of organisations holding video game collections could provide playable access to games in their collections, either to broadly defined researchers (36%), more narrowly defined researchers (for example, university-affiliated students or researchers with specific accreditations) (10%) or to anyone from the public (18%). Accessibility via emulation, virtualisation and original hardware were all mentioned.

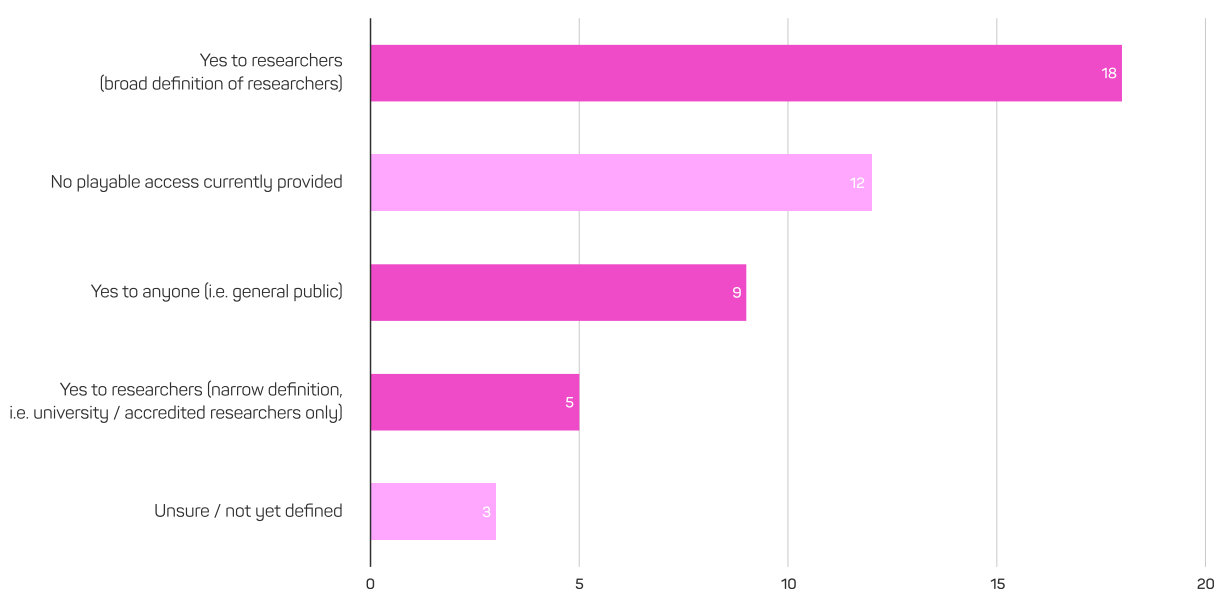


Figure 15: Do organisations provide playable access to games in their collections, and to who?

67% of respondents stated their organisations relied on fair use or other copyright exemptions to perform video game preservation or access activities. These activities included making preservation copies and providing access to collections, both on-site and online. Answers varied because of differing copyright laws between countries, with some respondents stating that they were particularly constrained by copyright laws in their respective regions.

‘The museum relies on fair use for both preservation and access, especially making games available for play in exhibits.’

‘Copyright law is one of the big reasons we don't have an actual collection and do not actively collect in this area. We rely on fair use and, honestly, on the fact that the few games we've ended up with are from small publishers who represent less copyright risk than big studios.’

‘There is no fair use law in the EU. We need permission from rights holders for everything we do.’

‘We can perform any activities related strictly to preservation ... and we can make the games available in our reading rooms. For any other activity, including exhibitions, online articles, etc., we have to ask permission.’

NETWORKING AND COLLABORATION

Five questions (Q13, Q16, Q17, Q18, and Q23) were asked about the respondent's organisational relationships with both industry and each other, as well as where networking was taking place.

Just over half (54%) of respondents stated their organisations had either informal contact or formalised agreements with the video game industry or developers, with the other 46% stating that their organisations had no or very minimal contact. Of those with some form of contact or agreements, 61% reported having both formal and informal contact and agreements, and 39% reported having informal contact only.

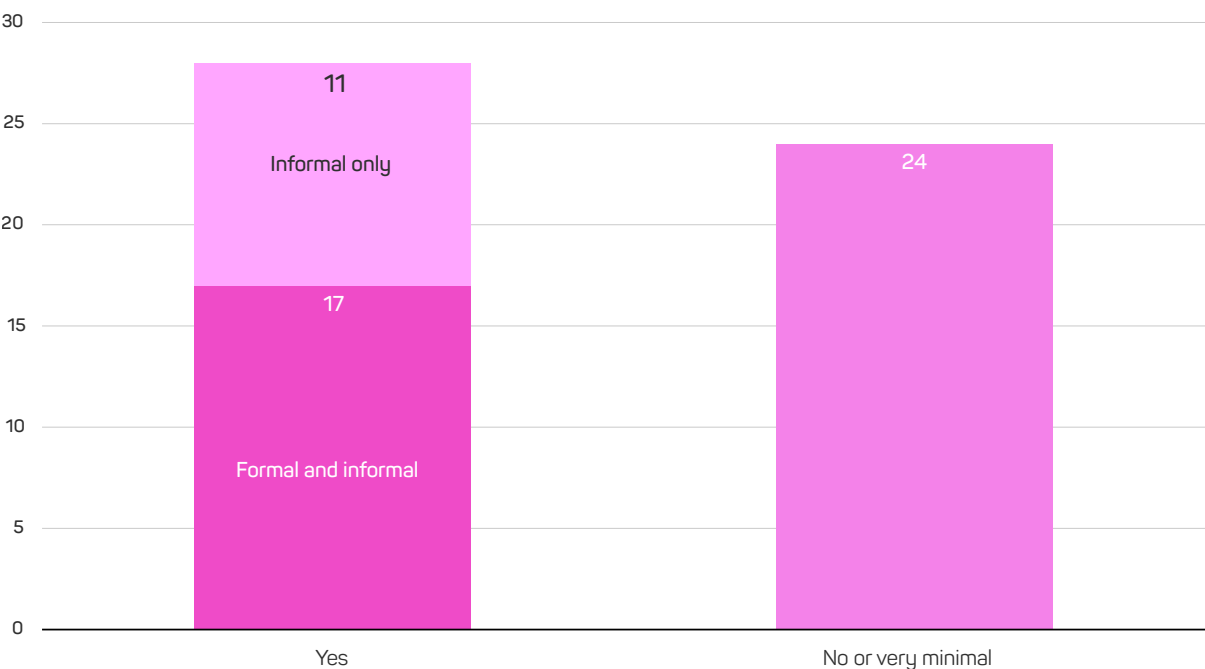


Figure 16: Do organisations regularly interact with or have formal agreements with the video game industry/developers?

Most respondents (64%) reported that their organisations were not actively partnering with other institutions on video games collecting, preservation or display. Of respondents partnering with other institutions, this partnership took the form of joint acquisitions between institutions, assistance with exhibitions and projects, joint research events, and participation in emulation networks.

The most popular networks respondents reported their organisations being involved with were the Software Preservation Network (16 mentions) and the Digital Preservation Coalition (15). This was followed by EFGAMP - the European Federation of Video Game Archives, Museums and Preservation Projects (9), Rhizome (9), DiGRA - Digital Games Research Association or a local DiGRA chapter (7), the Videogame Heritage Society (5), Software Heritage (4) and the Software Sustainability Institute (2). Answers differed by region, with some groups catering to organisations from certain regions focusing on issues specific to those organisations (for example, EFGAMP's advocacy for European copyright law reform).⁸

35% of survey participants reported their organisations were not involved with any networks or left these fields unanswered.

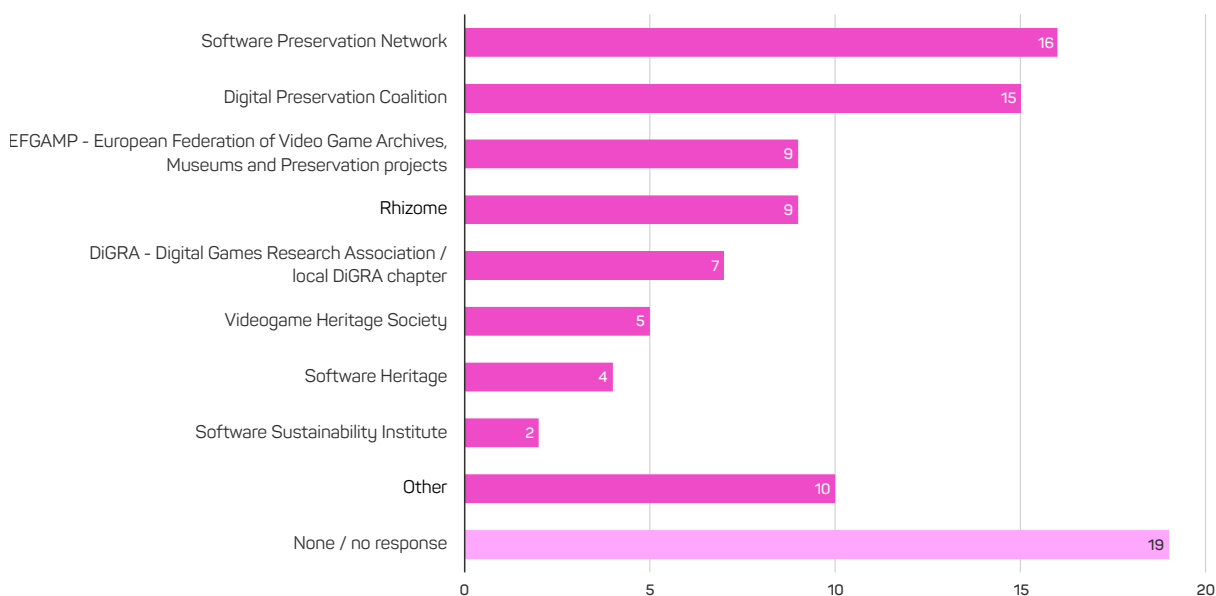


Figure 17: Networks organisations active within

iPres and the Game Developers Conference (GDC) were the top two reported conferences or networking events that respondents reported attending (14 and 12 mentions, respectively), followed by DiGRA or local DiGRA chapter conferences (8). Other events commonly mentioned were MAGFest (Music and Gaming Festival), the Born Digital Cultural Heritage Conferences, Gamescom, Association of Moving Image Archivists (AMIA) conferences, Software Preservation Network events, EFGAMP events, International Internet Preservation Consortium (IIPC) events and New Zealand's National Digital Forum events.

⁸ European Federation of Game Archives, Museums and Preservation Projects, 'Statement on the "Proposal for a Directive of the European Parliament and of the Council on copyright in the Digital Single Market", (COM(2016) 593 final, 14.9.2016) from the perspective of the preservation of computer and video games as part of the digital cultural heritage of the European Federation of Game Archives, Museums and Preservation Projects (EFGAMP)', EFGAMP, 2017, accessed 17 May 2024.

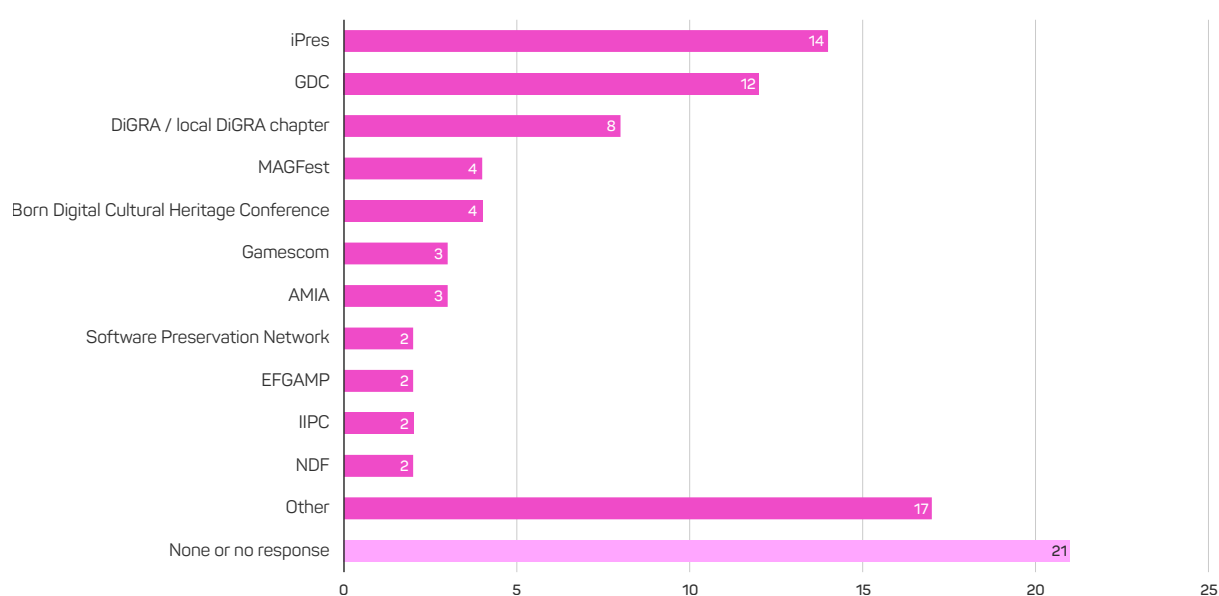


Figure 18: Conferences or networking events individuals had attended

There was a general acknowledgement of a growing need for more structured collaboration around organisational video game preservation although opinions differed on the extent to which this should be formalised. Respondents' views ranged from suggesting that there be formalised international associations and yearly conferences, to those that saw existing informal networks working for them, or successes in growing groups like the Software Preservation Network.

Some respondents suggested a need to identify common goals and objectives, including international cooperation on cataloguing systems or developing an international numbering standard for games similar to that used for published books. They also suggested a requirement for collaboration across various stakeholders, especially with the video game industry.

Conclusion

These findings enhance our understanding of where, how and why video games are being preserved and what stands in the way of further work in this field. By bringing together these perspectives, we can better advocate for games preservation locally and globally. As the basis for further research, this survey provides a baseline for comparative studies, future collaborations and further lines of research.

It is recommended that the international video game preservation field continue to be surveyed semi-regularly to allow for comparative data to be gathered over time to identify trends and detect changing priorities and challenges. It will also be important to track trends in resourcing for video game preservation, offering a clear picture of whether support for these activities is increasing or declining over time. Feedback from this initial survey and report should be analysed and used to inform the development of future surveys.

As digital distribution continues to dominate and cloud streaming technology expands, future survey data could provide valuable insights into how organisations manage these shifts, including assessing preservation strategies for mobile games and other emerging platforms.

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Appendix A: survey questions

Q1 - Name of your organisation

Q2 - Type of organisation:

University/university library

State or national library

Local library

Art gallery/art museum

Video game company

Video game museum

Audiovisual archive

Film/moving image museum

Non-institutional video game preservation project/society/not-for-profit

Other

Q3 - Does your organisation have one or more roles dedicated to video game collecting, preservation and access?
If not, which roles work on video games?

Q4 - What is the size of your organisation's collection of video games and related material?

Q5 - Is your organisation's video game collection...

Primarily focused around material from your home country

Comprised of both local and international material

Don't yet have a collection

Other (free text field)

INTERNATIONAL VIDEO GAME PRESERVATION SURVEY REPORT

Q6 - What type of material is currently held in your organisation's collection?

- Software (on physical carriers)
- Software (digitally distributed)
- Gameplay videos (recorded by your organisation)
- Oral history interviews (recorded by your organisation)
- Publicity material (e.g. trailers, posters, press kits, flyers, merchandise)
- Hardware and/or peripherals
- Magazines
- Source code and assets
- Other source materials (development tools, raw art, prototypes, pitch and/or Game Design Documents)
- YouTube videos/video essays
- Recordings of Twitch/video game streaming sites
- Books related to video games
- Other

Q7 - How would you rank the current importance of the following activities within your organisation?

- Collection development
- Preservation
- Display/exhibition
- Access to researchers

Q8 - Would you consider your organisation's current video games collection to be more comprehensive or selective?

- Selective - only focused on very specific criteria (e.g. certain significant titles)
- Comprehensive (e.g. all titles developed locally or all titles released on certain systems)
- Not currently focused on collecting software (e.g. only collecting documentation or hardware)
- Not actively developing a collection
- Other

Q9 - Does your organisation provide access to video game material in its collection?

What type of access (e.g. to researchers on or off site or through exhibition/display)

INTERNATIONAL VIDEO GAME PRESERVATION SURVEY REPORT

Q10 - Does your organisation make games playable to researchers, and if so, who qualifies as a researcher?

Q11 - Does your organisation undertake digital preservation activities (e.g. digitisation of games from physical carriers, emulation, scanning)? Please include details.

Q12 - Do you have established internal policies and standards of care for preservation, and if so, who sets those policies?

Q13 - Does your organisation regularly interact with or have formal agreements in place with the video game industry/developers? Please include details.

Q14 - Does your organisation have any agreements in place with your government regarding video games? (e.g. legal deposit schemes, or the mandatory provision of files to state archives for games benefiting from public investment)

Q15 - Can/does your organisation rely on fair use or other copyright exemptions to perform video game preservation or access activities? Please include details.

INTERNATIONAL VIDEO GAME PRESERVATION SURVEY REPORT

Q16 - Are you or your organisation involved with any of the following? (or other relevant local or international peak bodies - please list)

Digital Preservation Coalition

Software Preservation Network

Videogame Heritage Society

EFGAMP - European Federation of Video Game Archives, Museums and Preservation projects

DiGRA - Digital Games Research Association / local DiGRA chapter

Software Sustainability Institute

Research Data Alliance

Software Heritage

Rhizome

Other

Q17 - Does your organisation actively partner with institutions on video games collecting, preservation or display? Please include details.

Q18 - Please include details of any relevant games industry/studies/preservation conferences or networking events you or others in your organisation attend/have attended (e.g. GDC, DiGRA, iPres)

Q19 - What challenges are you facing when describing or cataloguing video games as opposed to other media such as books, film, television, audio, etc.?

Q20 - What do you see as the greatest barrier to successfully doing your video game preservation work?

INTERNATIONAL VIDEO GAME PRESERVATION SURVEY REPORT

Q21 - Where does your funding for video game collection and preservation come from? (Please select all that apply)

Governmental support

Institutional funding (i.e. the video game work is part of a larger institution)

Corporate funding

Private fundraising (e.g. donors, crowdfunding)

Earned revenue (e.g. admission fees, facility rentals)

Investments (e.g. endowments, trust)

Other

Q22 - What do you see as the headline challenges for the long-term preservation of video games?

Q23 - Do you see a growing need for more structured collaboration and information sharing around institutional video game preservation, e.g. associations or conferences?

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