THE NATIONAL ARCHIVE:
DESIGNING THE PAST OF TOMORROW
THROUGH MAKING ETHICAL FUTURES

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Abstract

Archives are directed towards digital-based methods of preserving information, gradually being transformed into data-centres. Digitisation together with the establishment of the Internet, require no dedicated physical space for the access of information. The Archival building typology seems to be moving towards obsolescence.

Nonetheless, through a combination of methods - mainly qualitative and correlational - this research will seek to repurpose the Archive. Based on the theory of Cornelius Holtorf about conservation as a creative process of future-making, Archives shall not merely be about preserving but rather about revealing heritage that is beneficial for the future of society (Holtorf, 2020). Archives should engage the wider public into the process of ethical future-making, as explained by the anthropologist Arjun Appadurai.

Through embodying past and future stories while learning future-proof career-relevant skills, the Archive is re-appropriated, people from different backgrounds are brought together on-site and the learning value of the Archive's collection gets across stronger by reflecting towards the future.

Keywords:
Digitisation, (re)purpose, Archive, ethical future-making

Thematic Research Question:
How should the function and purpose of the National Archive be re-appropriated in the Digital Age?

Sub-questions:
How is the purpose of Archives changing due to digitalisation?
How can the purpose of Archives be re-appropriated?
How can the value of the historic content of the Archive be enhanced?
What audience does a potentially re-purposed Archive address?
How does a newly repurposed Archive address each type of visitor?

Methodology:
Quantitative – using numerical data and graphs to define the problem
Qualitative – using literature to set the theoretical framework
Correlational – using Sankey diagrams to relate and control specific parameters
Methods:
Studying Literature to define conceptual framework, drawing plans to understand and be able to have an impact on space allocation (Morphological research), drawing Sankey diagrams to relate audience, activities and space allocation (Ecological research)

<u>Introduction & Problem Statement</u>:

Archival institutions exist as infrastructures to facilitate the safe storage and communication of 'important' information. 'Important' is in brackets, to emphasize that this is a variable which depends on specific factors that a particular institution faces. Each institution corresponds to a particular context and group of people, has its own agenda and utilises storing and communication techniques of its time. According to Ernst Posner, Sumerians were the first to use clay tablets as an archiving technique during the fourth millennium B.C. for commercial and property ownership reasons (Cunningham, 2005). Around the same time, 'inscriptions on bones and tortoise shells' were the techniques used in China. Later on, bamboo, silk and stone tablets became new ways of archiving until the discovery of paper. Throughout history, Archives had to adapt on the changes brought by new technologies.

Notably, all of the above-mentioned archiving methods had one thing in common; they were based on the preservation of some sort of physical objects or documents. Nowadays, the shift from document-centeredness to data-centeredness caused by the Digital Revolution brings unprecedented challenges for the future of Archival institutions (Szekely, 2017).

The Archive of the future is to be an institution whose identity is looking unclear and blurred with that of a data-centre (Szekely, 2017). However, data-centres are infrastructures highly secured and usually located away from city-centres (Zografos, 2019, p. 29). Their function is totally opposing the interactive aspect of Archives and its need for connection with the wider public. It is, therefore, unlikely to see the Archive accumulating any sort of private data storing functionality on-site, especially in a period when public cloud storage follows a trend of replacing on-site (enterprise) datacentres.
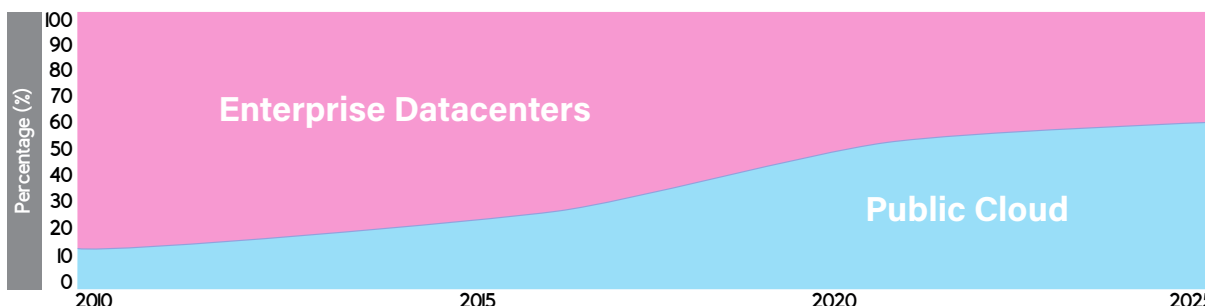

Figure 1: Data Stored in Public Clouds vs Traditional Datacentres (Reinsel, Gantz and Rydning, 2018)

Moreover, not only the nature of the archival collection changes towards an immaterial one but also the rhythm with which new information - and hence, potentially archival material - is produced.
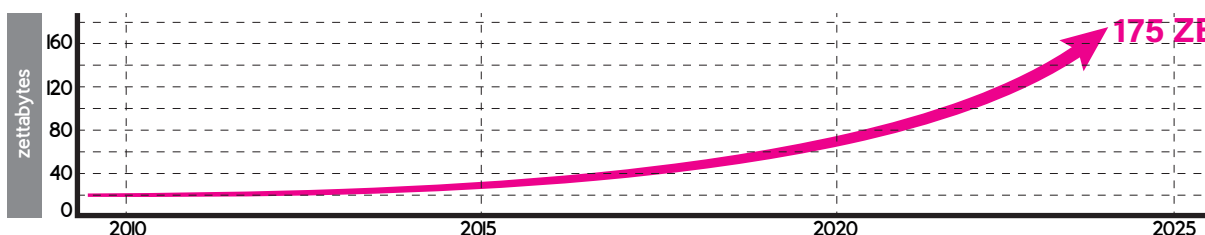

Figure 2: Annual Size of the Global Datasphere (Reinsel, Gantz and Rydning, 2018)
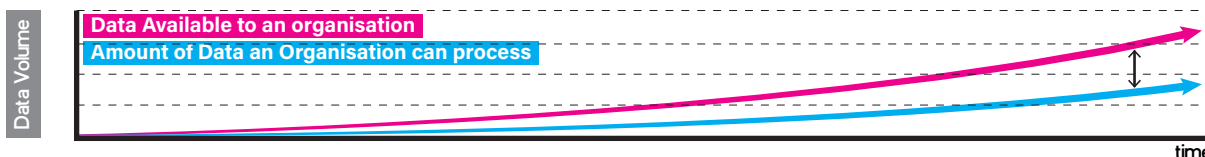

Figure 3: Gap between data available and amount of data that can be processed (Zaslavsky, Perera and Georgakopoulos, 2012)

According to Richard Harris, in 2017 alone, the creation of data was estimated to be more than 'the previous 5,000 years of humanity' (Harris, 2016). Ivan Szekely notes that due to the exponential growth of data, and hence the inability to filter them 'based on merit,' archival institutions tend to

preserve almost everything, hoping that 'intelligent data analysis techniques of the future will be able to help with selection' (Szekely, 2017). However, if preserving becomes merely an obsessive routine, there is no longer interest towards gaining an understanding and meaning out of it (Holtorf, 2020, p. 278). As a consequence of this obsession (i.e. unselectively preserving for the future societies), Holtorf and Hoberg emphatically argue that the question of what role can heritage play 'in the actual future' was never asked (DeSilvey, 2017, p. 178).

Furthermore, Harris emphasizes on the importance of organisations to find ways in visualising data so that they can use it in its entirety (Harris, 2016). Visualising is an essential process for selection purposes but also for communication. What we know today as physical and static archival collections are to become digital ones that are embodied in a variety of ways through different media. There is a fundamental change in the way archives communicate their content; the communication is not anymore in printed or 2D form by default but could as well be in 3D or any other possible form. For example, if a book is stored, then the same book is shown (or a copy of it), whereas, if data is stored, then data can be embodied in whatever form desired.
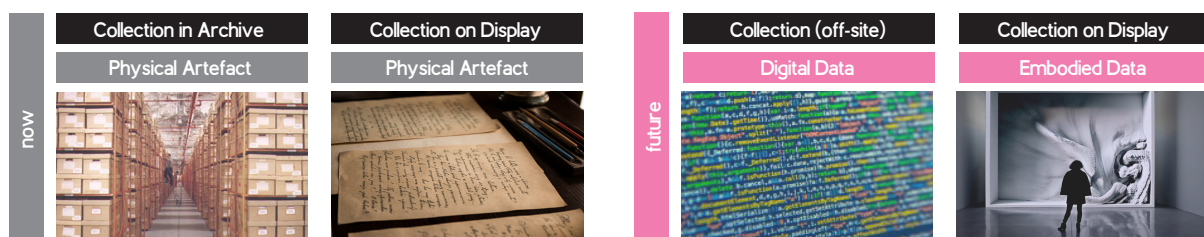

Figure 4: From storing and displaying physical artefacts, towards embodying data.

Lastly, as Jussi Parikka states, 'we are [nowadays] mini-archivists ourselves,' through our electronic devices, the internet and the cloud. (Ernst and Parikka, 2013, p. 2). Archiving at the level of the individual in combination with all of the above forthcoming changes mentioned, means that visiting the Archive as we know it seems to be becoming a purposeless act. Therefore, this question needs to be asked: Do Archival Buildings have a future in the Digital Age?

<ins>Redefining Purpose:</ins>
'Technology is not deterministic' Harari states, to emphasize the notion that new developments do not dictate one and only direction to be taken but they are up to humanity in order to get appropriated according to our strongest wills (SRF Kultur, 2019). The aim of this research is not to see the National Archive as an institution destined to obsolescence. It is rather to anticipate the upcoming risks and try to turn them into instruments of positive change, through the re-appropriation of the wider scope of the Archive.

The starting point of re-purposing the Archive is that the building is considered as a pool of historical knowledge. On this basis, the purpose of the Archive becomes synonymous to the purpose of History in society. Harari highlights that the importance of history is not to simply categorize and explain past events, but rather to reveal what is happening around us and 'what is likely to happen in the coming decades' (SRF Kultur, 2019). Under this narrative, the Archive – which already preserves and categorises historical material - suffices only half of its obligation. It, however, fails to stimulate the consideration of the 'what is likely to come' question.

According to anthropologist Arjun Appadurai, this question already 'occupies a tremendous amount' of our lives. However, Appadurai highlights the fact that society at present answers to this question in one and only specific approach; through numerical and statistical reasoning (Appadurai, 2018). He states:

> '[Nowadays] we are surrounded by technologies, methods and protocols that are taking raw uncertainty and turning it into ideas of probability and likelihood, which can be measured and controlled' (Appadurai, 2018).

Those practices are undertaken by 'large corporations, governments and experts' in a way that leave ordinary people as 'objects of probabilistic machineries' (Appadurai, 2018).

On the contrary, Appadurai believes that there is another way to answer the question which is rather qualitative than quantitative. It coins it as the 'ethics of possibility' and it includes 'a range of things such as imagination, aspiration, utopia, the good life, etc. that are visions of what is desirable,' and what is possible rather than what is probable and strictly statistical (Appadurai, 2018). The Archive as a public institution could step forward and provide ordinary people with a stage for ethical future-making. In this way, the Archive provides a response to the monologue of powerful bodies towards future-making as well as to the 'what is likely to happen' question from a history-educator perspective.

From collective memory to collective imagination
'Imagination is more important than knowledge,' Albert Einstein said. The Archive has historical knowledge but yet, no imagination. It, therefore, misses the opportunity to be seen as an enhanced institution that stimulates its audience with regards to the value of national memory in future-making. It does not ignite any debate of *what is to come in the future* through strategically curating the existing knowledge. This is the gap in the function of the Archive which this research aims to address.

Imagining the future is just another form of memory and thus deserves a place in the Archive. (Beck, 2017). This seems to be a great need in a society which stopped dreaming of positive futures since the 1980s, as John Higgs states (Higgs, 2019). Higgs underlines that society often dwells on negative scenarios of the future rather than positive ones because of a simple reason: catastrophic scenarios (for instance, climate change brings the end of civilisation) require no action (Higgs, 2019, p. 6).

This research suggests that the Archive is going to do exactly the opposite: ask for and promote action. The action is to be taken through a participatory process where curators, designers, makers and ordinary people work together in imagining and prototyping futures through narratives that start in the past. That is based on the notion that one who does learns more than one who just observes (Halsey, 2011). Considering the Archive mainly as an institution that provides a learning experience, then engaging in making instead of passively observing makes for a stronger learning experience.

Through collective action it is ensured that everyone has the opportunity to be part of the discussion. After all, there seems to be no other way to solve our current problems which now recognise no borders - such as climate change - than coming together. Coming together is not only the aim but also the requirement in order to really achieve future-making through an ethical approach. Society no longer needs individual heroes as much as it needs 'empathetic people who work well with others' (Higgs, 2019, p. 315). As a matter of fact, the new generations seem to grasp this need by already showing practices of collective action, such as the Climate movement (Virtual Futures, 2019).

Who – What – Where
A first look at who visits the Archive in its current state shows that there is an imperfect audience presence. The diagram below is an approximate analysis of the existing Archive's audience based on personal experience and by correlating statistics of the National Archive of the UK.[*] It is divided into three columns: audience, activity of interest (from activities currently provided from the Archive) and allocated space. On its vertical dimension the diagram is to scale showing: a) the approximate volumes of audience from each category, b) the volume of audience interested in each particular activity and c) the size of each space currently provided.

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[*] The research will try to confirm the statistics in the upcoming stage of the project, by acquiring the actual numbers from the Nationaal Archief itself.
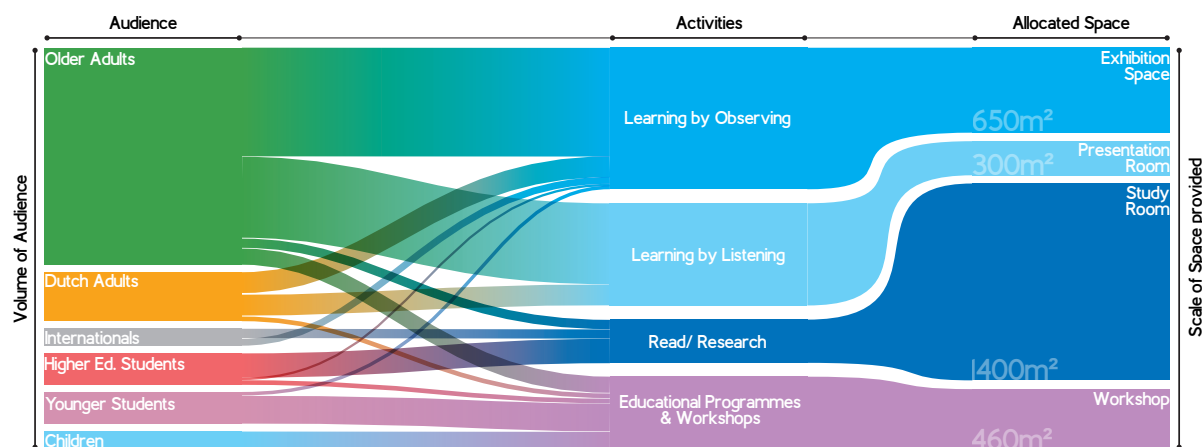
Figure 5: Existing relation between audience-activities-space allocation

The diagram shows that the Archive is more successful in attracting the older groups of society. It also indicates that the space provision of the Archive at its current state does not match proportionally the interests of its audience. There is much more space devoted for studying - mainly used by higher education students - than the rest of the activities, especially the ones in which the older adults – the biggest group of the audience – are interested in. Lastly, the flows of the diagram follow a rather flat procession, implying that the different audience groups do not have much interaction between them.

To cover the imbalance in audience presence, it is suggested that the Archive should act not only as an educator of History but also of skills that appeal to younger groups. In that way, users learn history and develop skills simultaneously through certain activities that satisfy the criteria explained earlier: bringing people together and exploring ways of embodying stories, while at the same time teaching the participants career-relevant skills. Being at the advent of Industry 4.0, those skills are based on the 'Curriculum Guidelines 4.0' report of European Commission (PwC, 2020). The most-relevant skills are chosen and related to potential activities and spaces as shown in the table below.

Selected Skills In-Demand	Activities relevant to Archive's re-purposed function	Potential space for Activity to take place
Collaboration/ Interdisciplinarity	Discussions moderated by assigned curators to facilitate the selection of topics and speculation of future scenarios for the Archive to deal with.	Assembly Chamber
Design Thinking	Designing and prototyping selected topics and future possible scenarios.	Design Studio
Human-machine Collaboration	Use of Robots for fabricating historic or future environments and artefacts based on the selected topics or speculations.	Fabrication & Assembly Workshop
Robotics/ Additive Manufacturing		
Smart Materials	Development/ experimentation of new materials to be used for the construction of immersive environments or artefacts.	
Sustainability	Designing sustainable strategies and processes for the implementation of environments or artefacts. Ensuring the use of circular materials and potentially the establishment of recycling functions on site.	Disassembly & Circularity Station
Product and System Lifecycles		
Augmented and Virtual Realities	Use of AR/VR technology for the visualisation or enhancement of environments and artefacts.	Digital and Game-Design Lab
Data Analytics & Software Applications	Making new software applications for digital devices that will enhance the communication of the Archive's content with the public.	
Gamification	Applying game-design practices that improve user engagement with the history-learning aspect of the Archive, either on or off site.	

Table 1: Potential relation of skills-activities-spaces
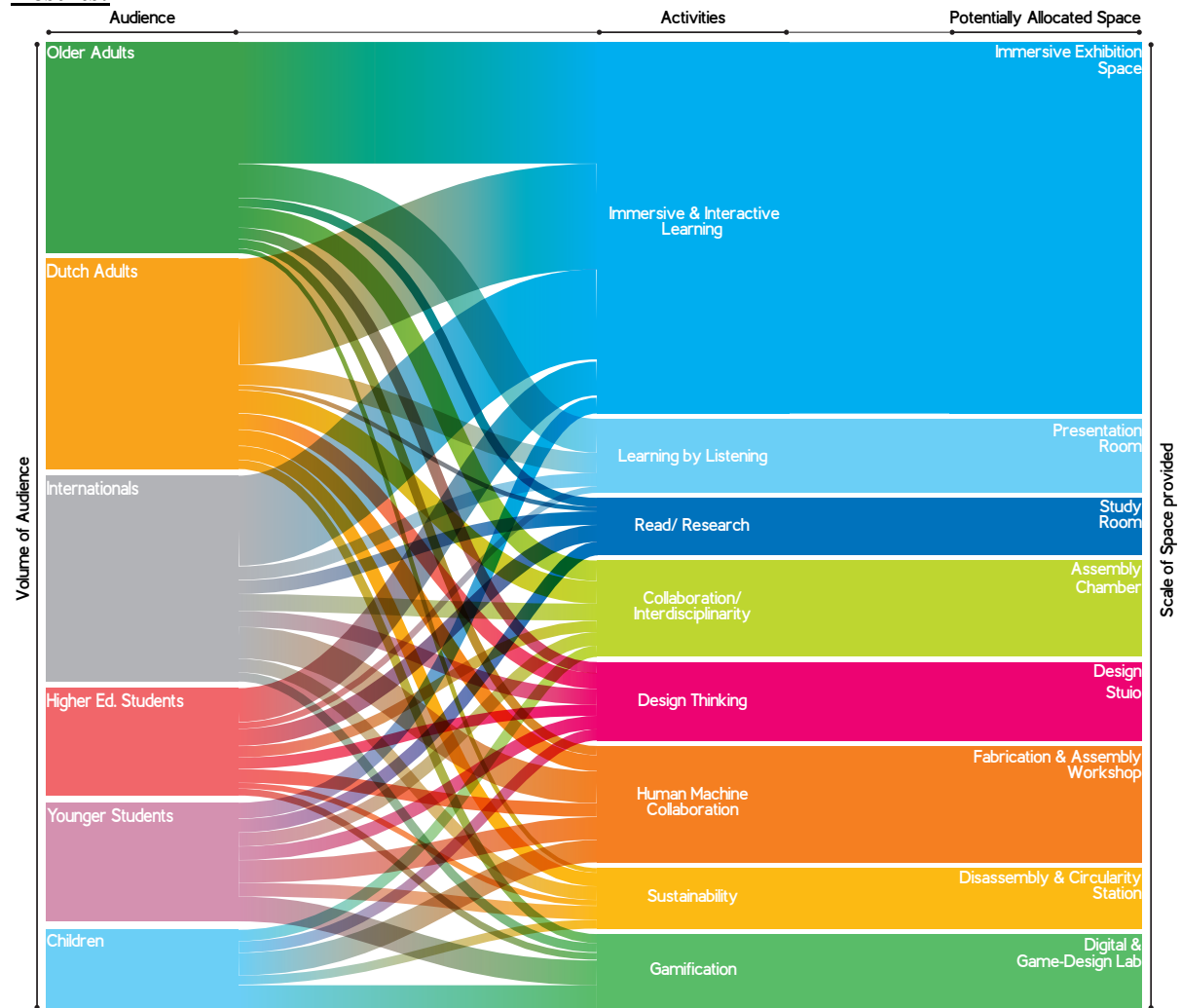
Results:

Figure 6: Proposed relation between audience-activities-space allocation

Through establishing attractive activities that appeal to everyone and especially younger groups, an equal representation of each type of audience is achieved and therefore, a highly interactive environment. In the presented repurposed programme, each activity attracts a more diverse group of audience accounting for a richer experience of learning. At the same time, to achieve such diversity and equal mix of people, it is pre-supposed that the Archive in its repurposed form will attract a much larger amount of visitors. This is a hypothesis that is very often confirmed with renovations of public institutions, especially if it will be supported later on with a more open and welcoming architectural design response. For instance, in the case of the renovation of the Victoria & Albert Museum's entrance there was an increase of 26% in visitor numbers only a year after its completion (Brown, 2018). In the case of the repurposed Archive, the rise is expected to be even greater as the changes will not only be at an architectural level but also at a programmatic.

In the following diagram of figure 7, space allocation is speculated in 2 stages: a) in 20 years and b) in 50 years. The speculation is undertaken in the wider context of the Architectural Engineering studio and Open-Building concept. Considering that the location of the building is central in the city of the Hague and has a high FAR, the addition of housing functionality is added to the mix. However, this is only a preliminary assumption that will be explored in further detail in the contextual and urban research that will follow.
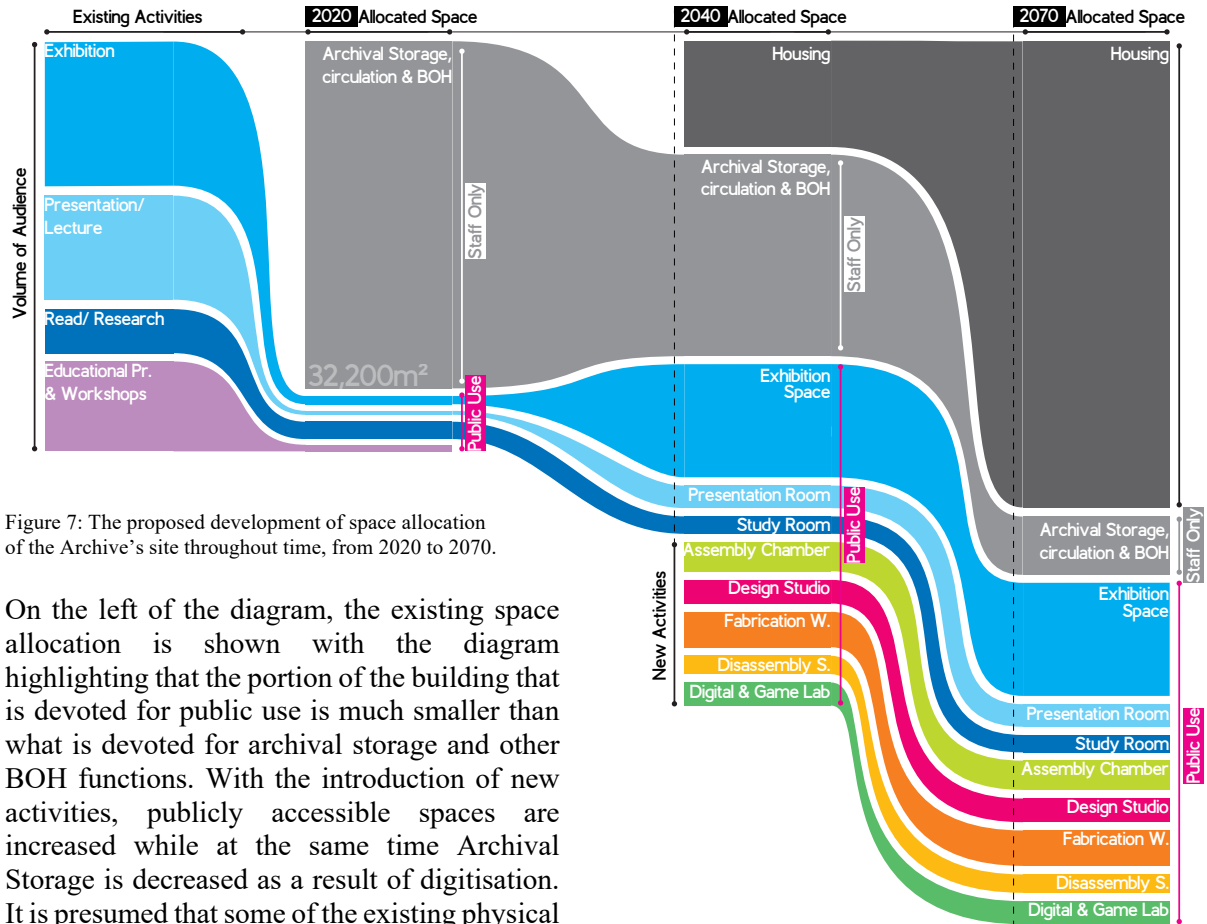
Figure 7: The proposed development of space allocation
of the Archive's site throughout time, from 2020 to 2070.

On the left of the diagram, the existing space allocation is shown with the diagram highlighting that the portion of the building that is devoted for public use is much smaller than what is devoted for archival storage and other BOH functions. With the introduction of new activities, publicly accessible spaces are increased while at the same time Archival Storage is decreased as a result of digitisation. It is presumed that some of the existing physical archived material could be moved off-site to a space devoted solely for storage. In this way, the existing central site of the Archive is freed to be utilised more by visitors rather than merely as a storing facility. Storage is assumed to be even more decreased by 2070 giving space for housing to take its place.

Conclusion:

All things considered, Archives seem to be facing a possibility to evolve and become even more incorporated within society rather than becoming purposelessness. The Archive of the future is enhanced as it functions not only as a preservation institution of physical artefacts, but also as a shaper of immaterial stories and a maker of future possibilities. It is a public living room in which everyone is welcomed to join for a discussion about the past and the future, or in other words, the past of tomorrow. Encompassing everyone together, the Archive makes the voice of ordinary people powerful providing a counterweight to a rapidly changing society which at instances seems to be out of control. As John Higgs states ''..if you are using your imagination, then you 're not passive and they can't get you.. ..that way you 're not being controlled, you 're being empowered. But not many people do that'' (Higgs, 2019, p. 216) In fact, not many buildings too. That is what the National Archive of the Netherlands shall go after.

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