

Reimagining the National Library: Enhancing Informal Learning for the Local Community

Jiang Zhu

6017258

AR3AH115 Graduation Studio Revitalising Heritage (2024/25 Q3)

November, 2025

Table of Contents

Abstract

1. Introduction

- 1.1 Brief Introduction about the Research
- 1.2 Definitions of Informal Learning Spaces
- 1.3 Definitions of Local Communities in National Libraries
- 1.4 Informal Learning Spaces in National Libraries
- 1.5 Research Knowledge Gap

2. Problem Statement

- 2.1 Context
- 2.2 Current Problem of Den Haag
- 2.3 Current Situation of National Library of the Netherlands (KB)
- 2.4 Challenges and Problems of KB

3. Research

- 3.1 Research Objectives
- 3.2 Research Questions

4. Theoretical Framework

- 4.1 Typology of Informal Learning Spaces
- 4.2 Matrix

5. Methodology

- 5.1 Case Study
- 5.2 Survey & Social Media Research

6. Research Findings and Conclusions

- 6.1 Interior Scale (S)
- 6.2 Building Scale (M)
- 6.3 Urban Scale (L)

7. Design Proposal

- 7.1 Design Concept
 - 7.1.1 Previous Interventions
 - 7.1.2 New interventions proposal
- 7.2 Scenarios
- 7.3 Functions and Spatial Configuration

8. Bibliography

9. List of Figures

10. Appendix

Abstract

This thesis investigates how the National Library of the Netherlands (KB) in The Hague can strengthen its relationship with local communities by reconfiguring its spatial organisation around informal learning spaces (ILS)—learner-led, flexible environments that support self-directed study, social learning, and everyday civic encounter. The study positions informal learning as a key dimension of lifelong learning and reframes “local community” in a national-library context as a hybrid public shaped through repeated use, inclusive access, and shared experiences. Methodologically, the research combines (1) a typology-based analytical matrix across interior (S), building (M), and urban (L) scales; (2) comparative case studies of TU Delft Library, Oodi Helsinki Central Library, and Rotterdam Central Library (Powerhouse renovation proposal); and (3) a survey (n=35) towards users and Instagram-focused social media analysis. Findings show a persistent tension between KB’s current spatial quality and users’ demand for quietness, comfort, adequate individual workspaces, and improved everyday facilities, alongside clear interest in cafés/social hubs and accessible green/outdoor spaces. The thesis consolidates these insights into scalable spatial criteria for distributing five ILS types within a national library. The design proposal is summarised as “breaking the ice”: a new public entrance and route that threads a sequence of ILS through the building, organised by a central stair as a learning spine, and culminating in a publicly accessible digital manuscript museum that makes KB’s behind-the-scenes heritage work visible as an informal learning experience.

1. Introduction

1.1 Brief Introduction about the Research

Lifelong learning (LLL) is a key element of Dutch policy, closely linked to innovation, economic development, and social cohesion.¹ Informal learning is one aspect of lifelong learning, encompassing the continuous process through which individuals gain attitudes, values, skills, and knowledge from various educational influences in their surroundings and daily life experiences—such as at home, in the neighborhood, through libraries, media, work, or play.² Osman, et al (2017) illustrate the interrelationship of the learning domains of lifelong learning³ (Figure 1). Shillinglaw (1986) highlights the library's significant role in informal learning, emphasizing its contribution to community education through lectures, discussions, exhibitions, and demonstrations. Cultural activities are also considered an integral part of this educational process.⁴

¹ Marjolein Caniëls and Paul A. Kirschner, 'Informal Learning in the Netherlands: 17th EDINEB Conference: Crossing Borders in Education and Work-Based Learning', in *Proceedings of the 17th EDINEB Conference: Crossing Borders in Education and Work-Based Learning*, ed. S. Halley et al. (FEBA ERD Press, 2010).

² Patricia Brander and Council of Europe, *Compass: Manual for Human Rights Education with Young People* (Council of Europe, 2012).

³ Amina Osman et al., *Curriculum Framework for the Sustainable Development Goals* (Commonwealth Secretariat, 2017), <https://doi.org/10.14217/ComSec.1064>.

⁴ N Shillinglaw, *The Role of the Public Library in the Development of South Africa* (South African journal of library and information science, 1986).

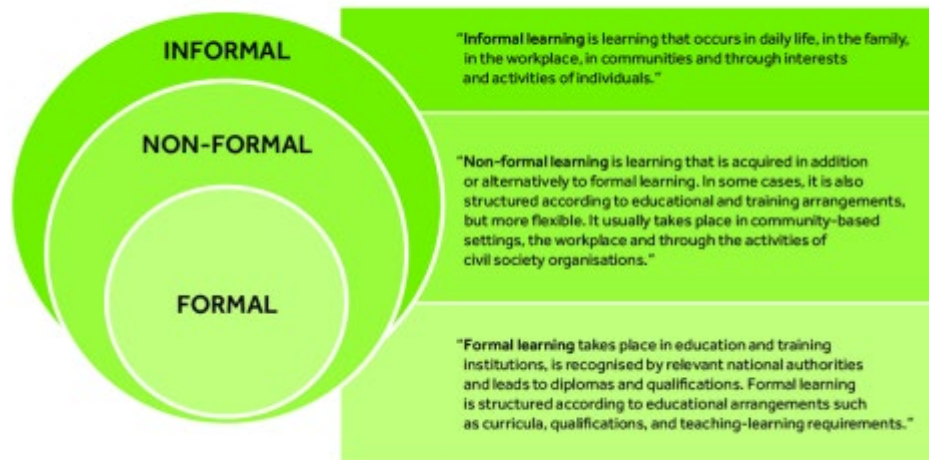


Figure 1 The different forms of learning (Source: Osman, 2017, p 18)

1.2 Definitions of Informal Learning Spaces

An informal learning environment is a space beyond conventional classrooms—like museums or maker-focused areas—where people interact with different tools and materials to encourage creativity and learning.⁵

Informal learning spaces (ILS) provide distinctive opportunities for students to engage with others and build skills within a more collaborative, adaptable, and sustainable setting.⁶ By definition, Informal Learning Spaces are designed to support unscheduled learning, self-directed study, collaborative work, group learning, networking, and social interaction. They typically embody five key characteristics: they are non-didactic, strongly socially

⁵ Frank Fischer et al., 'Perspectives on Learning from the Learning Sciences', in *International Encyclopedia of Education (Fourth Edition)*, ed. Robert J Tierney et al. (Elsevier, 2023), <https://doi.org/10.1016/B978-0-12-818630-5.14007-2>.

⁶ Sarah Abdulkareem Salih et al., 'Typology of Informal Learning Spaces (ILS) in Sustainable Academic Education: A Systematic Literature Review in Architecture and Urban Planning', *Sustainability* 16, no. 13 (2024): 13, <https://doi.org/10.3390/su16135623>.

collaborative, connected to meaningful activities, driven by the learner's own interests, and free from external assessment.⁷ In summary, informal learning spaces are learner-led, peer assessed, unscheduled and flexible environment⁸ (Figure 2).

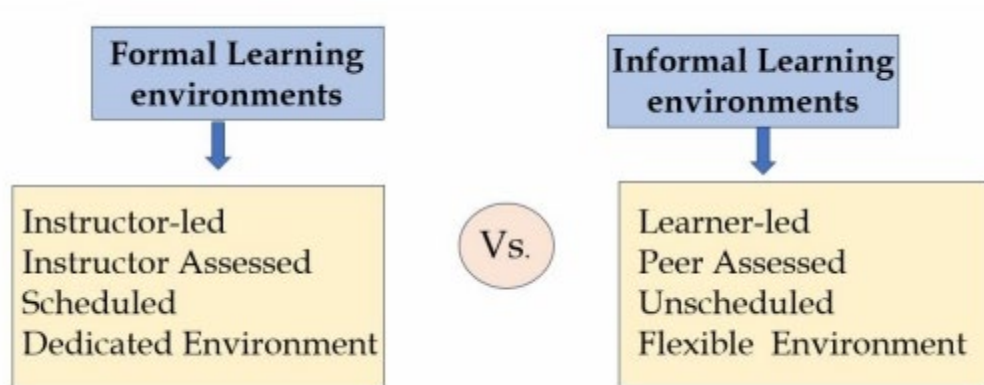


Figure 2 Characteristics of formal and informal learning environments (Source: Debabarni, 2024)

1.3 Definitions of local communities of the national libraries

National libraries are often framed through national mandates—heritage preservation, legal deposit, and research access—which helps explain why local community is less explicitly defined than in public-library literature. However, the literature on contemporary libraries⁹ increasingly positions libraries as community spaces rather than purely information/collection institutions. Tîrziman argues that modern libraries respond to community needs beyond information access, including educational, cultural, leisure, and

⁷ Seppe de Blust et al., 'Informal Learning as a Studio Practice', *CARTHA Learning Architecture*, no. 1 (2022).

⁸ Debashreeta Debabarni and Deepashree Choudhury, *Informal Interaction Spaces and Student-Centred Learning in Architectural Schools*, 15 (2024).

⁹ Elena Tî and rziman, 'Contemporary Library and Its Role in the Community', *Revista RomâNă de Biblioteconomie Şi Ştiinţa Informării* 14, no. 2 (2018): 56–63.

socialisation activities; in this sense, libraries function as civic environments that “build up and link communities.” This shift is also expressed spatially: libraries are encouraged to offer multiple settings—such as areas for social interaction, quiet study/contemplation, technology and innovation, and public cultural/event use—so that diverse users can participate and learn in different ways. In the context of this thesis, these spatial settings can be understood as informal learning spaces, because they enable self-directed study, peer learning, and socially situated learning outside formal classrooms.

To clarify how “community” operates in a national library specifically, Lin & Luyt¹⁰ propose sense of community (McMillan & Chavis) as an analytic lens. They define sense of community as belonging and mutual commitment, and highlight four components—membership, influence, needs fulfilment, and shared emotional connection—as outcomes shaped by repeated encounters in a shared civic environment. Their case also shows that national libraries can support local communities through concrete provisions that align closely with informal learning, such as accessible study spaces that meet everyday learning needs, inclusive programmes, and partnerships that connect the national library to wider civic infrastructure.

Based on this literature, this thesis defines the local community of a national library as a hybrid public: (1) a place-based heterogeneous public (local

¹⁰ Hui Lin and Brendan Luyt, ‘The National Library of Singapore: Creating a Sense of Community’, *Journal of Documentation* 70, no. 4 (2014): 658–75, <https://doi.org/10.1108/JD-11-2012-0148>.

residents, workers, students, and nearby organisations who use the library as part of daily urban life), and (2) a membership-based community that the institution actively constructs through inclusive access, needs-oriented services, and repeated shared experiences in a neutral civic setting. Within this definition, informal learning spaces are a key mechanism through which local community is formed and sustained, because they provide the everyday conditions for belonging, participation, and repeated learning encounters.

1.4 Informal Learning Spaces in National Libraries

In recent years, an increasing number of national libraries have expanded their public role by integrating a wider range of informal learning spaces (ILS) alongside their national mandates of heritage preservation, legal deposit, and research access. Rather than relying primarily on traditional reading rooms, many new or renovated national libraries now combine spaces for self-directed study with socially situated, participation-driven learning—such as maker and innovation labs, education centres, exhibition and interpretation zones, flexible event venues, and workshop programmes that invite hands-on engagement. For example, the Qatar National Library provides “Innovation Stations” that support creative learning through facilities such as 3D printing and media production, linking tools, experimentation, and peer exchange¹¹. In the UK, the British Library

¹¹ ‘Qatar National Library’, accessed 12 December 2025, <https://visitqatar.com/intl-en/things-to-do/art-culture/qatar-national-library>.

operationalises informal learning through its Business & IP Centre, which delivers free talks, workshops, and advisory support, turning specialist knowledge services into participatory learning pathways¹². These cases suggest a clear trajectory: national libraries are increasingly designing for informal learning not only through collections, but through diversified spatial typologies and recurring public programmes—positioning the national library as a civic learning infrastructure embedded in everyday local life. These innovations not only improve library usage rates and attract new users but also cultivate people's interests and enhance their skills, thereby increasing the social value of libraries in economic, educational, cultural, and social dimensions.¹³

1.5 Research Knowledge Gap

However, existing precedents and literature do not provide direct guidance for the renovation of a national library. Most of the literature explores informal learning spaces within educational institutions, such as university campuses.¹⁴ Moreover, research on such spaces in libraries focuses on makerspaces, fablabs, which are popular in newly built or renovated public libraries.¹⁵ There is almost no research on informal learning spaces in

¹² 'Business & IP Centre', accessed 12 December 2025, <https://www.bl.uk/bipc>.

¹³ Olindo Caso and Joran Kuijper, *Atlas: Makerspaces in Public Libraries in The Netherlands* (TU Delft OPEN Publishing, 2019).

¹⁴ Xianfeng Wu et al., 'Informal Learning Spaces in Higher Education: Student Preferences and Activities', *Buildings* 11, no. 6 (2021): 6, <https://doi.org/10.3390/buildings11060252>.

¹⁵ Caso and Kuijper, *Atlas*.

national libraries. The few available studies primarily emphasize strategic and service transformations but lack in-depth exploration of spatial configurations.¹⁶ This paper aims to address this gap (Figure 3).

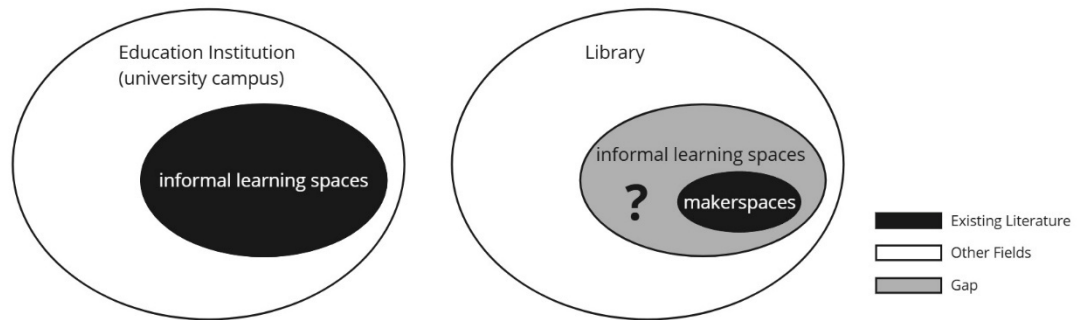


Figure 3 Research knowledge gap (Source: Author)

2. Problem Statement

2.1 Context

The building to be renovated in this project is the National Library of the Netherlands (KB), located on an unlikely site nestled between large buildings and infrastructure, near The Hague Central Station. With a net floor area of 75,000 m², the KB is the largest building in the city.(Figure 4)

¹⁶ Juan José Fuentes-Romero, 'Education as a New Goal for National Libraries', *Alexandria* 18, no. 3 (2006): 49–61, <https://doi.org/10.1177/095574900601800308>.



Figure 4 Satellite image of the site (Source: Google Map and author)

Completed in 1982, it was once renowned for its monumental form and radiant white façade—features that earned it the nickname “the iceberg” among locals in the late 20th century. Around 2005, the building underwent a cautious renovation. The most significant change was the expansion of the depot: a cool grey box situated along the tram tracks, which gradually became the library’s new visual identity. (Figure 5)



Figure 5 Different identity of KB (Source: photos from *Cautious Dynamism*)

In addition to the depot, the renovation involved relocating the main entrance and connecting the ground and first floors to create more publicly accessible spaces.

2.2 Current Problem of Den Haag

Den Haag is a segregated city when looking at income differences per

district. There are districts where incomes are far above the national average, but especially in Den Haag southwest there is an increased share of residents who cannot make ends meet and are dependent on the government to build up a subsistence level¹⁷ (Figure 6). Spatial segregation leads to social segregation, which concerns the extent to which people from different groups encounter each other. Therefore, it can be inferred that residents living in the north and south of Den Haag have almost no contact.

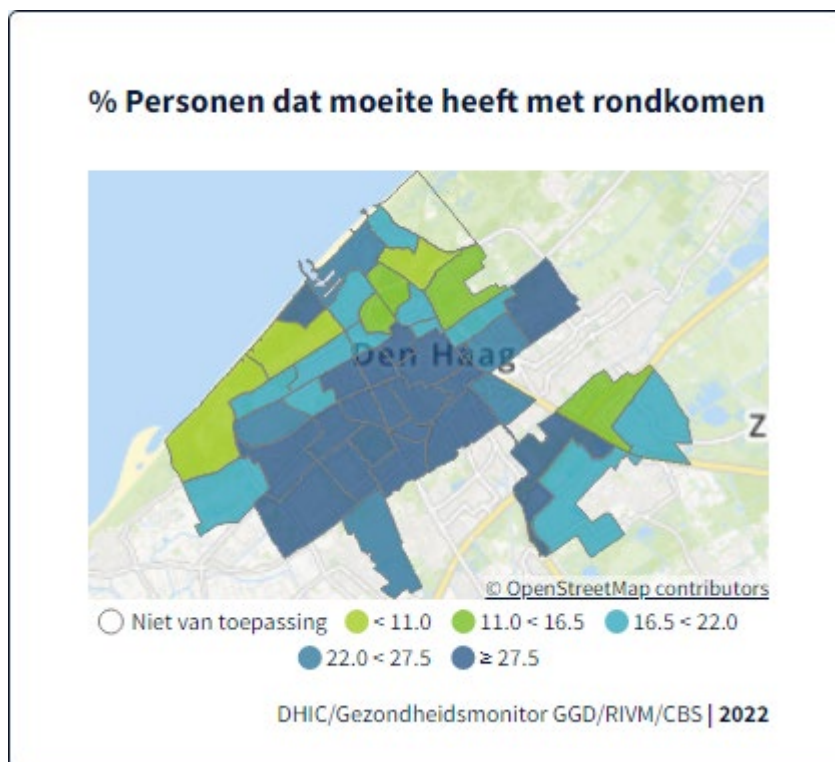


Figure 6 The diagram 'Difficulty making ends meet' (Source: DHIC, 2022)

2.3 Current Situation of National Library of the Netherlands

(KB)

At the time of its design, the library primarily served scholars, with a strong

¹⁷ 'Segregatiemonitor - 5. Werk En Inkomen - Den Haag', accessed 3 April 2025, <https://denhaag.incijfers.nl/mosaic/en-us/segregatiemonitor/5--werk-en-inkomen>.

focus on book collection and preservation.¹⁸ As the collection of physical books grows, KB plans to build a modern offsite depot near Delft, and move most of books to the new depot. This will result in a lot of empty spaces in KB, around 13,330m² of above-ground floor area (Figure 7). So one of the questions of design is whether to demolish these spaces or reuse them.

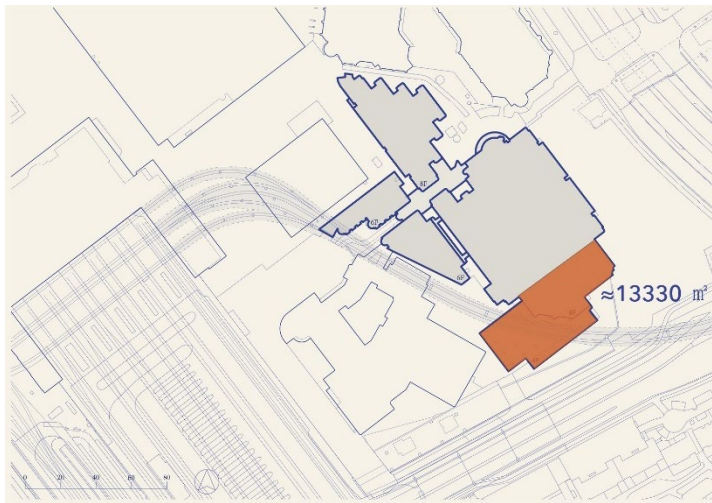


Figure 7 The empty above-ground floor area of KB (Source: author)

2.4 Challenges and Problems of KB

However, today, the core values of KB—openness, unification, innovation, and reliability¹⁹—are not fully supported by the existing spatial conditions. The user-group survey (Appendix 1) indicates clear gaps between users' expectations and the current building experience: the library is perceived to provide insufficient individual learning spaces, insufficient greenery (including outdoor green elements), and insufficient lounge/rest areas. Moreover, 60%

¹⁸ Dorine van Hoogstraten, *Bedachtzame dynamiek: het gebouw van de Koninklijke Bibliotheek, 1982-2007* (NAI, 2007).

¹⁹ 'Our Mission | KB, National Library of the Netherlands', accessed 19 March 2025, <https://www.kb.nl/en/about-us/our-mission>.

of respondents believe KB should open more spaces that are accessible to everyone, suggesting that the current public realm remains limited and unevenly distributed. In terms of wayfinding, while only 15% of respondents reported dissatisfaction with the entrance and navigation, our research group's first visit revealed frequent disorientation and missed routes, indicating that the entrance legibility and internal navigation still pose practical barriers (Figure 8). Operationally, this mismatch is reinforced by opening times: 80% of respondents think KB's opening hours should be longer. Finally, although the survey did not explicitly use the terms "informal learning spaces" or "local community," more than 80% of respondents selected a wide range of desired spaces and functions, implying a strong demand for more diverse, engaging activity settings—precisely the role that informal learning spaces can play (Figure 9).



Figure 8 Invisible Entrance (Source: Author)



Figure 9 Limited informal learning space (Source: Author)

3. Research

3.1 Research Objectives

By addressing these questions, the academic contribution of this research is to create a set of design criteria for informal learning spaces in the KB, focusing on spatial design and physical configuration, which can also provide a reference for the renovation of national libraries in other countries. The social contribution lies in increasing the utilization rate of the physical spaces of the national libraries, enhancing their social value, fostering a sense of belonging and well-being, and ultimately improving mental health.

3.2 Research Questions

Main questions:

How can the transformation of the **National Library** of the Netherlands integrate the **local community** by redefining its functions and spatial configuration to support **informal learning spaces**?

Supporting sub-questions include:

- 3.2.1 What are spatial characteristics of informal learning spaces in other libraries?
- 3.2.2 what types of functions and spatial configurations can support informal learning?
- 3.2.3 What new/potential functions can be integrated in the renovation of KB?

Three sub-questions try to figure out the features of ILS in different scale.

The answers to the first question is findings in interior scale. The answers to the second question is findings in building scale. The answers to the third question is findings in urban scale.

4. Theoretical Framework

4.1 Typology of Informal Learning Spaces

There are some literatures describing different types of informal learning spaces and the design factors related to these spaces²⁰²¹. The main paper that is used for the theoretical framework of this research is *Typology of Informal Learning Spaces in Sustainable Academic Education: A Systematic Literature Review in Architecture and Urban Planning*. According to the paper, there are two main categorizations of informal learning spaces, which are informal private learning spaces and informal social learning spaces (Figure 10). The former includes private indoor quiet space, which usually provide quiet space for study and Internet or ICT access to enhance individual users' focus on private study. The latter includes four types, semi-private, semi-public Indoor space, public semi-indoor/semi-outdoor space, public outdoor space, and public indoor space. Semi-private, semi-public Indoor space refers to indoor learning settings with a certain level of accessibility to public users in small groups. It is designed with various kinds of services and materials to promote

²⁰ Salih et al., 'Typology of Informal Learning Spaces (ILS) in Sustainable Academic Education'.

²¹ Caso and Kuijper, *Atlas*.

students' informal and social learning. Public semi-indoor/semi-outdoor space refers to any semi-indoor or semi-outdoor setting accessible to public users to provide a diverse range of activities and settings for enhancing various social learning activities and contribute significantly to sustainability. Public outdoor space refers to any outdoor space open to public users and provide flexible settings for multiple social activities nearby outdoors. Public indoor space refers to any indoor social learning setting accessible to public users to provide multiple settings for enhancing informal social active learning.

Types of Informal Learning Spaces

Informal Private Learning Spaces		Informal Social Learning Spaces		
Private Indoor Quiet Space	Semi-Private/Public Indoor Space	Public Indoor Space	Public Semi-Indoor, Semi-Outdoor Space	Public Outdoor Space

Figure 10 Five types of informal learning spaces (Source: author)

4.2 Matrix

Five types of informal learning spaces are put on the horizontal axis, while the vertical axis shows the factors that affect ILS in three scales – S (interior), M (building), and L (urban). The factors are collected and extracted from different paper. The matrix is used to classify the case studies, so that the common practices of informal learning spaces in the libraries could be

obtained (Figure 11).

	A	B	C	D	E
S					
Furniture (Flexibility and Adaptations) Colour Materials (Enclosure) Shape and Size Light Quietness					
M					
Relationship with Urban Space Position in Library Routing and Reachability Accessibility Target Groups and Opening Hours					
L					
Functions					

Figure 11 Matrix of informal learning spaces and factors (Source: author)

5. Methodology

5.1 Case Study

Three cases are selected, which are TU Delft Library, Oodi Helsinki Central Library and Rotterdam Central Library (renovated project) (Figure 12).

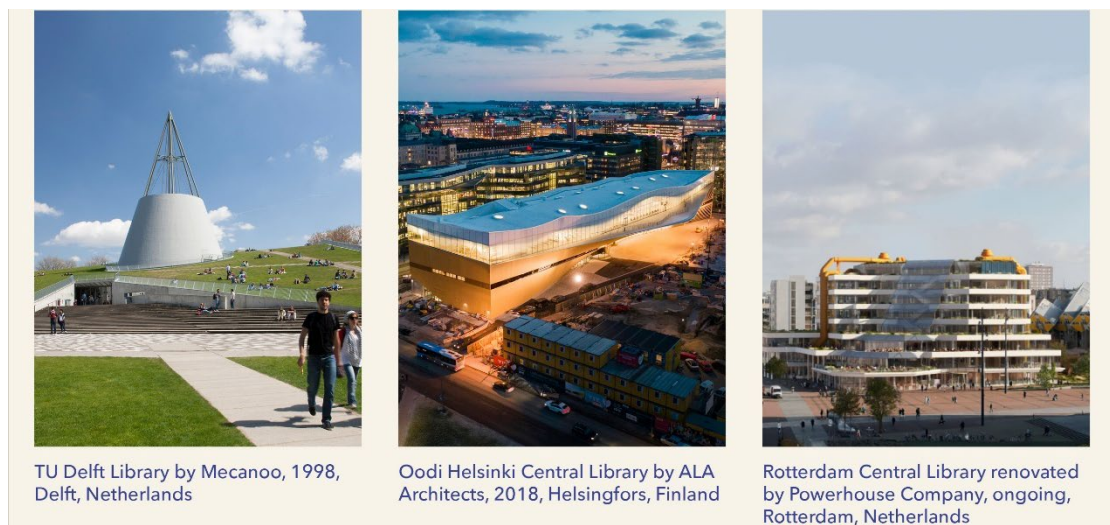


Figure 12 Images of three cases (Source: official website)

There are several reasons for selecting them. Firstly, they are all situated in the urban area of European cities. Secondly, some functions of these libraries are added to provide services for the local community, such as the green roof in TU Delft library, the floor for creation in Oodi central library and the indoor urban square in Rotterdam central library. Rotterdam central library has similar situations with KB, which was built around 1980s facing issues of outdated spaces, and services. The analysis of Rotterdam central library is based on the updated renovation design by Powerhouse. It is a good reference for how to transform a building built during Post-war time into a future-proof contemporary library.

Case studies are used to support the answering of sub-question one and two, but focus on different aspects. The spatial characteristics of informal learning spaces (sub-question one) will be shown through the analysis of site photos, images from the official website, and renderings from the architectural company. These pictures will be turned into black and white, with the highlight of the important factors of these spaces. Functions and spatial configurations of ILS (sub-question two) will be illustrated through

the axonometric drawings made by authors (Figure 13).

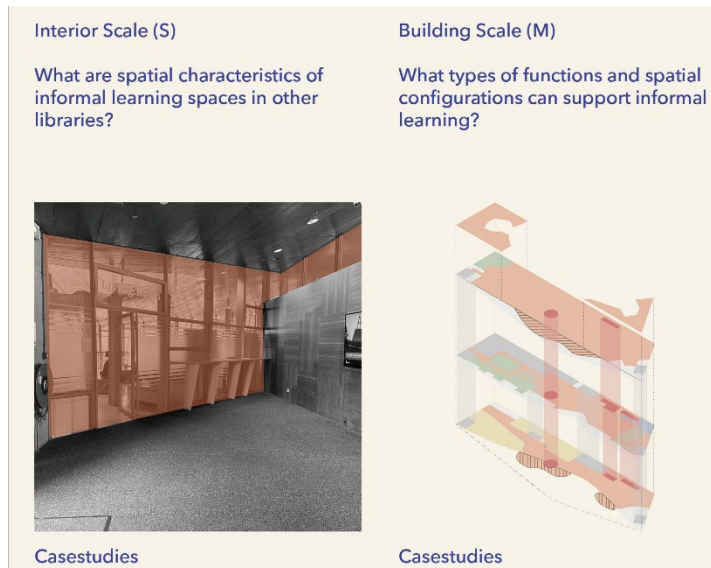


Figure 13 Case studies to answer the first and second sub-questions (Source: author)

5.2 Survey & Social Media Research

To answer the third sub-question in this research, two methods are employed to gain a deeper understanding of this building. First, distributing a survey in group to library users to collect basic data and preferences, with a particular focus on those who utilize informal learning spaces. Second, user-generated comments linked to the KB on social media and public review sites including YouTube, Instagram, Facebook, Reddit, TripAdvisor, Google Maps, and Apple Maps are examined in social media research (Figure 14). These different online interfaces provide useful information about how users perceive, interact with, and give value to the library's spaces and services.



Figure 14 Survey and social media research to answer the third sub-question. (Source: author)

6. Initial Research Findings

6.1 Interior Scale (S)

6.1.1 Private Indoor Quiet Space

Private indoor quiet spaces emerge across the three libraries as highly controlled, inward-oriented environments that prioritise individual concentration and cognitive focus. At the interior scale, they are characterised by fixed, often rectilinear layouts with large shared tables and movable chairs, neutral colour palettes (black, white, grey), and solid or glazed partitions that ensure clear physical and acoustic separation. Artificial lighting typically dominates, with natural light either filtered or secondary, reinforcing a sense of enclosure and detachment from the surrounding building (Figure 15).

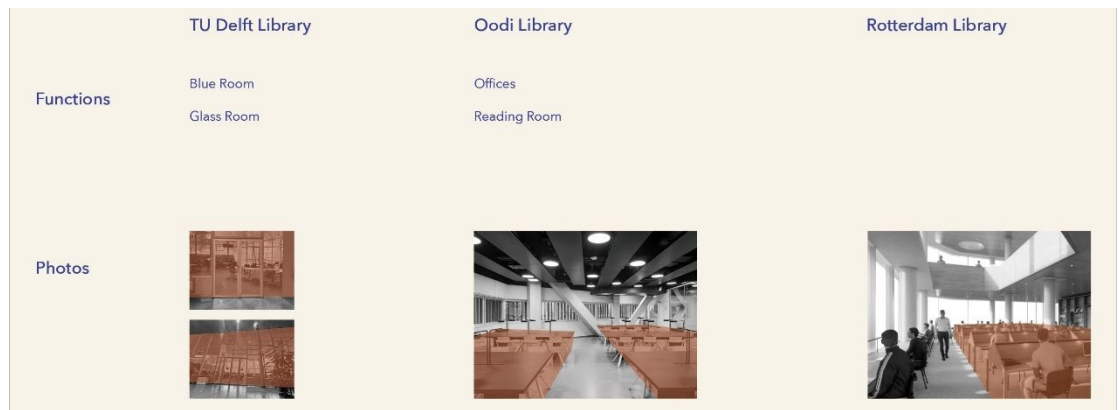


Figure 15 Interior characteristics of private indoor quiet space (Source: author)

6.1.2 Semi-Private, Semi-Public Indoor Space

Semi-private, semi-public indoor spaces share several formal characteristics with private indoor quiet spaces but operate at a different social and programmatic register. Internally, they are smaller in scale, serving small groups rather than large halls of individual users, and are furnished with one or two sets of tables and movable chairs. Boundaries tend to be defined by glass or other transparent materials, resulting in spaces that are visually permeable yet acoustically and functionally semi-enclosed. Artificial light again predominates, and there is a greater tolerance for sound, with quietness becoming contingent rather than prescribed (Figure 16).



Figure 16 Interior characteristics of semi-private, semi-public indoor space (Source: author)

6.1.3 Public Semi-Indoor, Semi-Outdoor Space

There is no this type of space in TU Delft Library. In oodi Library, It's the space under the huge balcony. It exists only in the plan drawings but not in real photos. It's interesting that this space in Rotterdam library is flexible. The indoor common kitchen is connected to the outdoor planting area. The common kitchen will be changed into semi-indoor, semi-outdoor space when the folded doors open.

Public semi-indoor, semi-outdoor spaces function as threshold environments that mediate between the interior of the library and the surrounding urban landscape. At the interior scale, they are often minimally furnished with outdoor-oriented tables and chairs and defined by generous openings, folded façades or large glazed surfaces that allow natural light to dominate. Their acoustic character is necessarily more porous and lively, as they are exposed to both interior and exterior soundscapes (Figure 17).

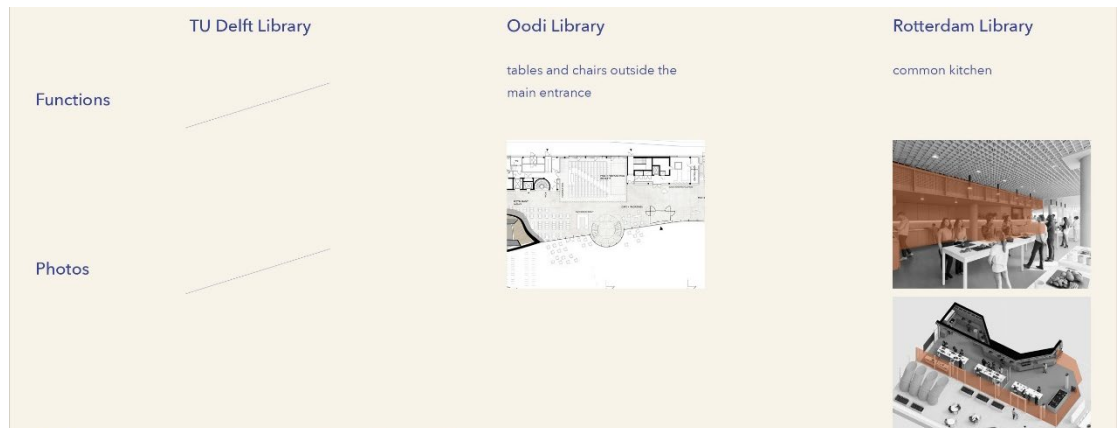


Figure 17 Interior characteristics of public semi-indoor, semi-outdoor space (Source: author)

6.1.4 Public Outdoor Space

Public outdoor spaces constitute some of the most iconic and identity-defining elements of the library buildings. At the interior/architectural scale, they are articulated as terraces, balconies, roofs or stepped landscapes furnished with lightweight, movable, weather-resistant furniture, often in light colours and distinctive, recognisable forms. Their geometries are more expressive and “designed” than those of the interior learning rooms, foregrounding experience, views and social encounter rather than strict functional optimization (Figure 18).



Figure 18 Interior characteristics of public outdoor space (Source: author)

6.1.5 Public Indoor Space

Public indoor spaces form the central social condensers of the library and the primary arenas for informal social learning. At the interior scale, they are the largest and most spatially diverse environments, with highly varied, light and movable furniture, heterogeneous colours, and fluid arrangements that support circulation, lingering, conversation and spontaneous study.

Physical boundaries are often reduced to glass or are entirely absent, ensuring visual and spatial continuity across different floors and programmes. Natural and artificial light are deliberately interwoven, with atria, large windows and skylights ensuring that daylight becomes a key component of the spatial experience

(Figure 19).

	TU Delft Library		Oodi Library			Rotterdam Library	
Functions	Cafe	Create	Cafe	Sitting Steps	Oasis	Interior Chess	leisure area
	Living Room	Open Hall	Meeting area	Makerspace	Kids' area	Self-Study beside traffic core	
	Exhibition	Study Spaces	Exhibition	Mediaspace	Book Steps	Big Staircase	
	Rest Zone		Magazines	Language	the Peak	Multiuse of Bookshelves	
			Retail	Open reading	Gaming	Built-in furniture for Kid's area	
Photos							

Figure 19 Interior characteristics of public indoor space (Source: author)

6.2 Building Scale (M)

6.2.1 Spatial Typologies

Their spatial typologies are different. TU Delft Library is central, Helsinki central library is linear, Rotterdam central library is atomized.

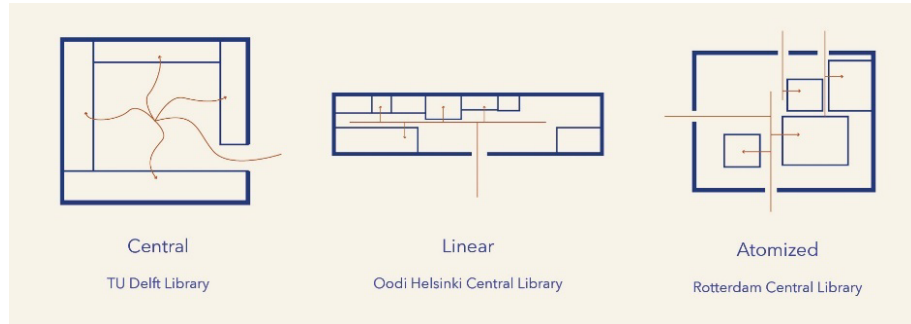


Figure 20 Different spatial typologies of the three cases (Source: author)

6.2.2 Private Indoor Quiet Space

These spaces are consistently located away from the most public elevations and central zones—often along one side of the building, behind closed façades or in more withdrawn wings. Access is mediated by passing through the main entrance and central hall and then following explicit wayfinding, which both emphasises their specialised function and subtly filters users. Although formally open to everyone during regular library hours, their spatial configuration, visual language and relative seclusion clearly signal that they are intended for solitary study rather than social activity (Figure 21).

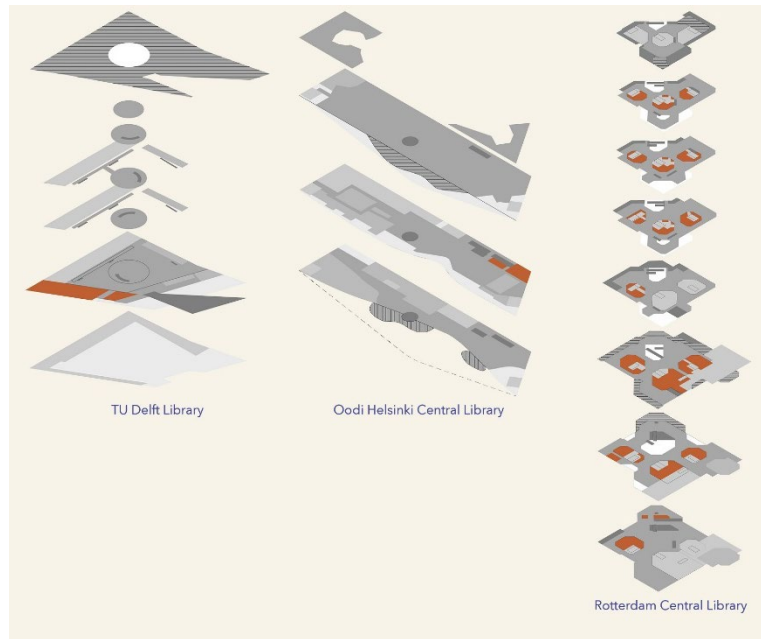


Figure 21 Building characteristics of private indoor quiet space (Source: author)

6.2.3 Semi-Private, Semi-Public Indoor Space

These spaces are similarly positioned away from the most public interfaces of the library—often along secondary edges or behind less transparent façades—but they are more difficult to locate and access. Users typically have to navigate via the main entrance and central hall and then rely on targeted signage, and in some cases access is restricted to specific groups such as students, citizens or members. As a result, these spaces form an intermediate layer between the fully open public realm and the highly controlled study environment, supporting small-group collaboration, project work and more socially oriented forms of informal learning, yet remaining spatially and institutionally selective (Figure 22).

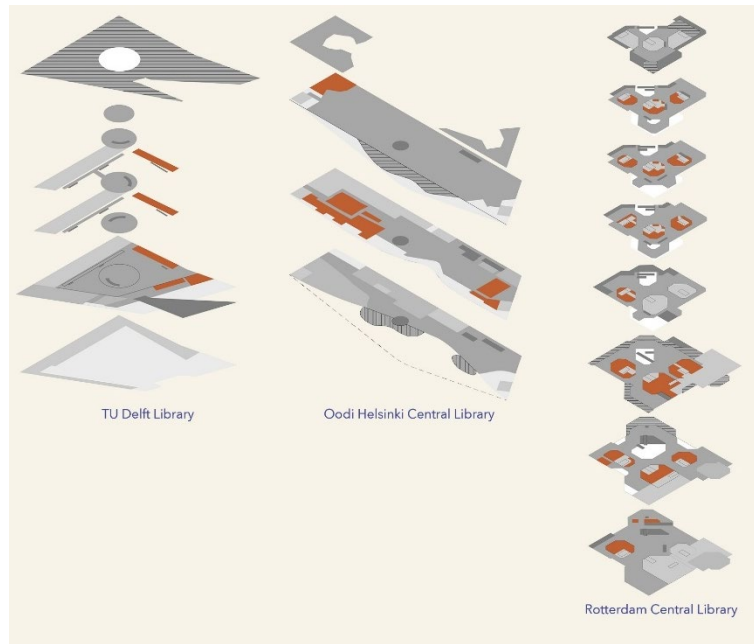


Figure 22 Building characteristics of semi-private, semi-public indoor space (Source: author)

6.2.4 Public Semi-Indoor, Semi-Outdoor Space

In Oodi Helsinki Central Library, it's a transitional space before you enter the building. While it is in higher floor and connected to outdoor space in Rotterdam Library.

These spaces tend to occupy highly visible transitional zones: beneath exterior balconies, adjacent to main entrances, or as interstitial terraces connecting interior common areas with external planting or public realms. In some cases, they are anticipated more clearly in architectural plans than in everyday photographic documentation, underscoring their flexibility and role in seasonal or operational adjustments (for instance, kitchens or interior rooms that become semi-outdoor once large doors are opened). These spaces are typically as accessible as adjacent urban squares

and may remain usable beyond standard library opening hours, supporting a wide spectrum of informal social learning activities and contributing to environmental sustainability by encouraging outdoor occupation and climatic adaptability (Figure 23).

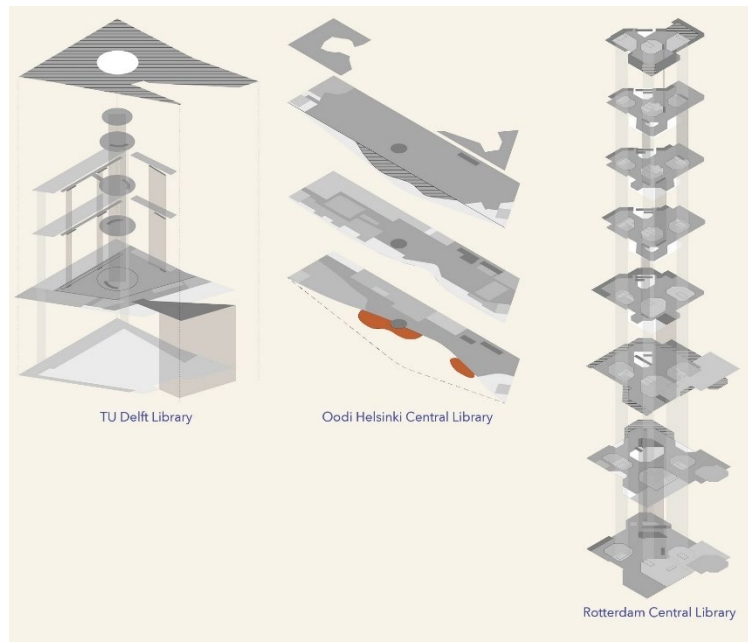


Figure 23 Building characteristics of public semi-indoor, semi-outdoor space (Source: author)

6.2.5 Public Outdoor Space

These spaces typically occupy prominent positions—rooftops, first-floor balconies, or terraces on multiple levels—where they can operate as visual markers in the urban fabric and as key attractors in the circulation system. Access may be provided either directly from the main public flows or via more independent routes, allowing for flexible patterns of use and, in some cases, partially independent opening hours. These outdoor areas accommodate informal learning through socialising, gathering

and observing the city, and their status as highlights of the design enables them to support both everyday student use and more exceptional public events (Figure 24).

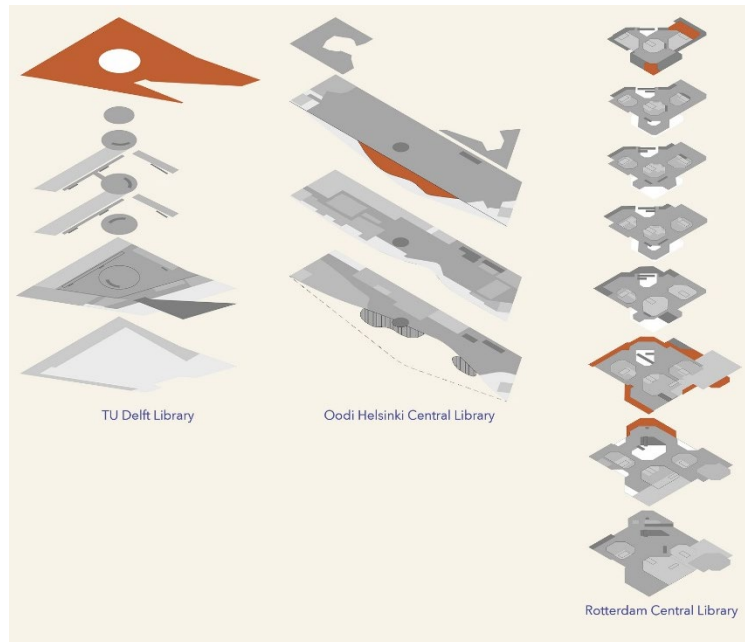


Figure 24 Building characteristics of public outdoor space (Source: author)

6.2.6 Public Indoor Space

These public indoor spaces occupy the core of the library—central halls, main reading landscapes, and vertical circulation voids—which are immediately visible and appealing from the exterior.

They are aligned with the main movement flows, making them the most accessible of all five types of informal learning spaces, and they serve all user groups during standard opening hours.

Functionally, they operate as hubs where movement, encounter and diverse informal activities overlap: users pass through, meet, browse, rest, work briefly, or simply observe, making these central public interiors crucial mediators between the library's more

specialised learning environments and the wider urban public realm (Figure 25).

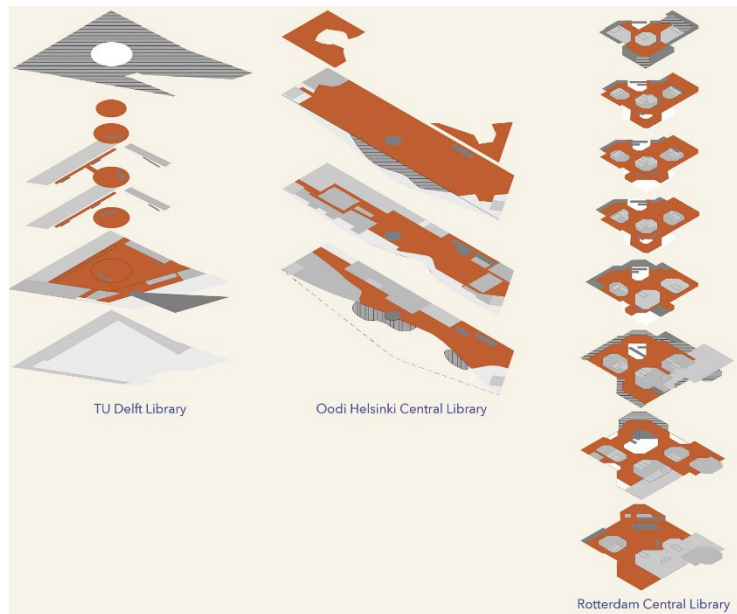


Figure 25 Building characteristics of public indoor space (Source: author)

6.2.7 Overview of Three Cases

Private indoor quiet spaces are set to one side or behind closed façades, slightly removed from main flows to support individual concentration. Semi-private, semi-public indoor spaces sit in more peripheral or enclosed zones, are hardest to locate, and often serve specific user groups. Public semi-indoor / semi-outdoor spaces occupy visible threshold areas at entrances or under balconies, accessible almost like the surrounding urban square. Public outdoor spaces are placed on roofs, terraces or balconies as iconic highlights that can sometimes operate with independent access and hours. Public indoor spaces form the central core linked directly to main entrances and circulation, acting as the

most accessible civic living room and informal learning hub (Figure 26).

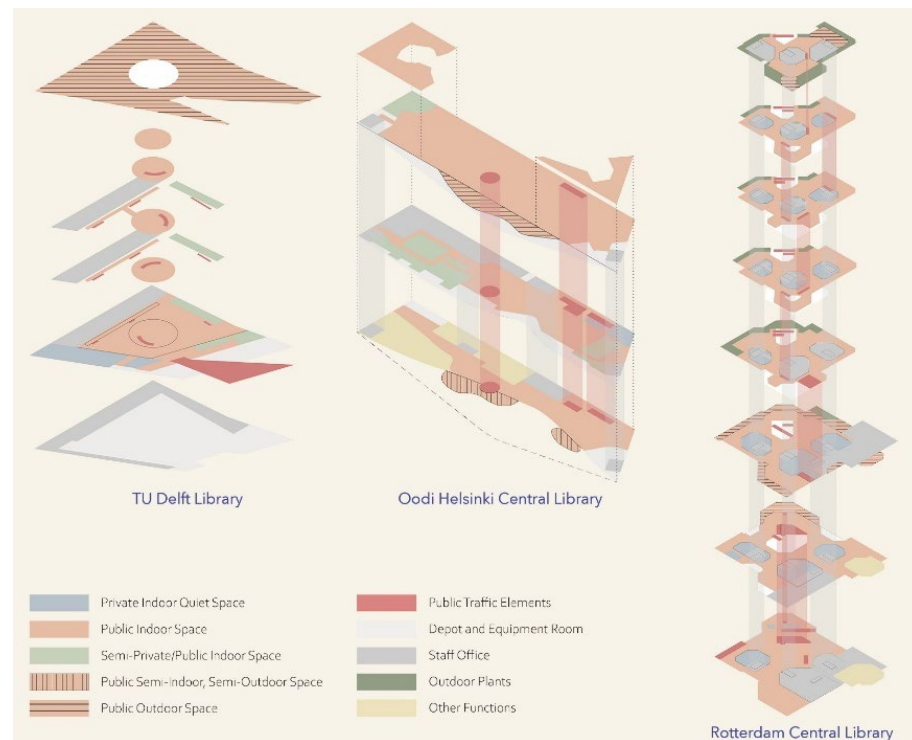


Figure 26 Distribution of five types of informal learning spaces (Source: author)

6.3 Urban Scale (L)

6.3.1 Survey

A total of 35 questionnaire responses were collected from users of the National Library of the Netherlands (KB). The questionnaire was jointly designed and conducted by the User Group team. It was divided into four parts: accessibility, current spaces and functions, environmental factors, and the future of the KB. The following sections present only those questionnaire items, analyses, and findings that directly address Sub-question 3, for example: Which features are important to you in the KB? What are you missing in the current spatial arrangement of these spaces?

Which spaces/functions would you like to see in a redesigned KB?

The full questionnaire can be found in Appendix 1.

- What features are important to you in the KB?

Feature	Score
Silent and Calm	4.5
Comfort (seating, lighting, temperature)	4.5
Concentration areas	4.0
Access to Collections	3.0
Meeting areas, Groupworkspaces	2.4
Informal meeting spaces (cafés, lounges)	3.0
Cultural activities (exhibitions, lectures)	2.6
Outdoor spaces, green areas	2.7
Digital/media zones	2.4
Archive or Heritage functions	3.2

Figure 27 Table of the score of different features (Source: users' group survey)

This table (Figure 27) shows that users of the KB assign the highest importance to a silent and calm environment and to comfort (seating, lighting, temperature), followed by concentration areas.

In other words, the library is primarily perceived as a place for focused individual work, and a high-quality acoustic and physical environment is a precondition for its use. Access to collections and archive/heritage functions are rated as moderately important, suggesting that while traditional "library" functions remain valued, users are equally attentive to the overall spatial and atmospheric qualities of the building. By contrast, meeting areas, informal social spaces, cultural activities, outdoor/green areas and digital/media zones receive lower, mid-range scores, indicating that users do not reject these functions but do not consider them

as fundamental as quiet study conditions.

For the architectural redesign, this implies that quiet, comfortable individual study zones should be the primary design priority, supported by good ergonomics, lighting and climate control.

Around this core, group workspaces, informal meeting areas, cafés and cultural spaces can be arranged as progressively more open and active zones, with outdoor and green areas introduced where possible to support well-being without compromising concentration.

- What are you missing in the current spatial arrangement of these spaces?

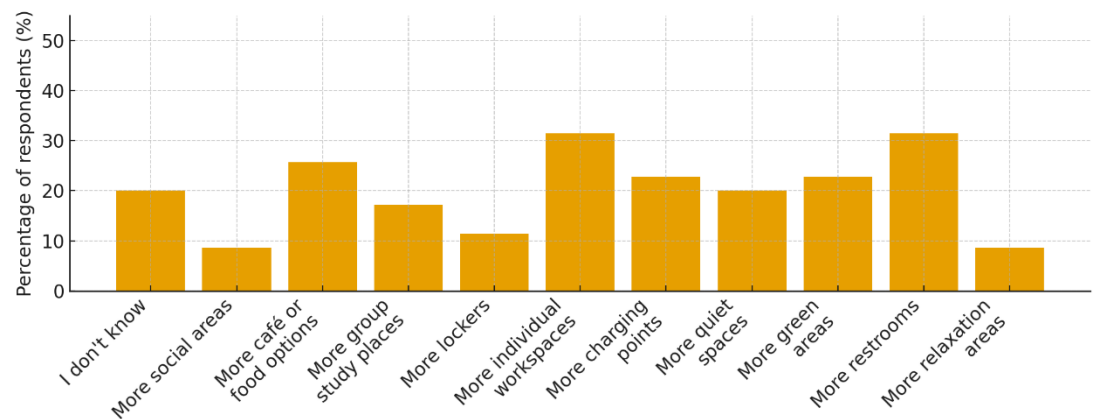


Figure 28 Chart of the missing functions of KB (Source: users' group survey)

This chart (Figure 28) shows that the main perceived shortcomings of the current KB are individual workspaces and restrooms (each mentioned by about one-third of respondents), followed by café/food options, charging points, green areas and quiet spaces. In contrast, relatively few users explicitly ask for more social areas

or relaxation zones, and only a modest share highlight a lack of group study places or lockers. Overall, users seem more concerned with the availability and quality of basic facilities that support individual study than with additional social or leisure functions, even though well-designed social spaces can foster peer support, informal learning and a stronger sense of community within the library.

For the redesign, this suggests that increasing the number and diversity of individual workstations and improving sanitary infrastructure should be primary priorities. At the same time, the project can strengthen the everyday usability of the building by integrating nearby food options, well-distributed power outlets, pockets of greenery and clearly defined quiet zones within the study landscape. Social and relaxation areas can still be included—especially where they support collaboration and informal exchange—but they should complement rather than dominate the spatial reorganisation, ensuring that core study needs are met first.

- What spaces & functions would you like to see in a redesigned KB?

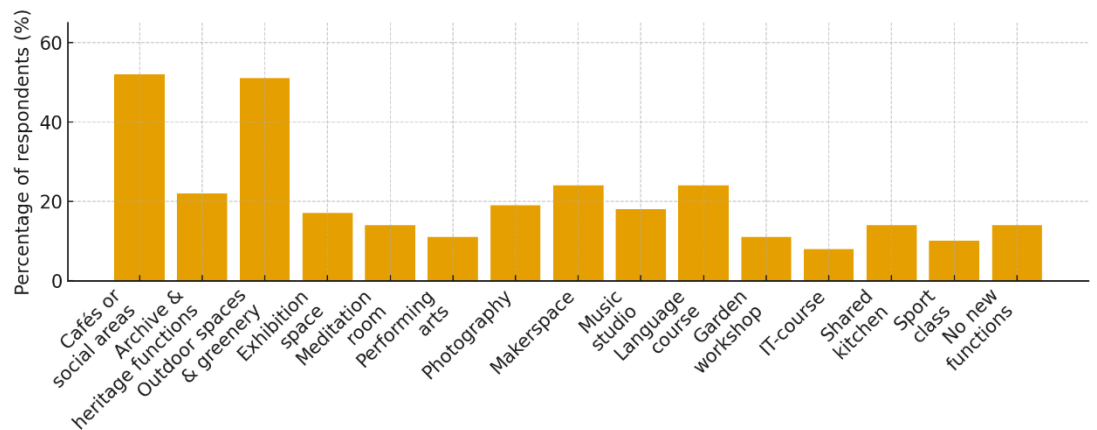


Figure 29 Chart of the desired additions of KB (Source: users' group survey)

To support respondents' reflection, this question allowed multiple answers. The options shown in the chart (Figure 29) are derived from the informal learning spaces identified in the three case-study libraries and represent functions that are currently absent in the KB.

The results indicate that cafés or social areas and outdoor spaces with greenery are the most desired additions, followed by makerspaces and language courses, and, to a lesser extent, activities such as photography, music studio use, and archive and heritage-related functions. More specialised options such as meditation rooms, garden workshops, IT courses, shared kitchens and sport classes attract smaller but still noticeable interest, while the proportion of respondents choosing "no new functions" remains relatively low.

For the redesign, this suggests that there is clear support for introducing new social and community-oriented spaces: a café or

social hub and accessible outdoor/green areas could become key anchors of the informal learning landscape. Around these, programmatic spaces such as makerspaces, creative studios and language-learning facilities can diversify learning formats and attract a wider range of users, while archive and heritage functions can be reinterpreted in more participatory ways. Overall, the data supports a design strategy that expands the KB from a primarily study-focused environment into a more socially vibrant, experiential and community-oriented library.

6.3.2 Social Media Research

A social media research study was also conducted, jointly designed and carried out by the Social Media Research Group. In this chapter, only the findings related to Instagram are presented, as they directly address Sub-question 3. The complete social media research report can be found in Appendix 2.

The Instagram account of the Koninklijke Bibliotheek (@kb_nederland), featuring more than 700 posts, serves mainly as a visual medium for institutional storytelling instead of user-generated reviews. The content highlights exhibitions, collections, and cultural programming that are curated by the KB itself (Figure 30). User engagement often occurs through likes and short comments, yet these rarely offer comprehensive insights into user

experience or the physical setting. Consequently, Instagram provides restricted understanding of how visitors view or appreciate the KB's spaces and services. Nonetheless, it continues to serve as an important means of expressing the library's identity and cultural significance to a wide online audience.



Figure 30 Posts of KB's instagram page (Source: screenshot by author)

Building on the social media findings, a clear design opportunity emerges: KB's Instagram functions primarily as institutional storytelling—showcasing curated exhibitions, collections, and cultural programming—yet it largely communicates the *finished outcomes* of digitisation and curation rather than the *processes* behind them. As a result, visitors can easily encounter digitised heritage as images on screens, but they rarely gain visibility into how rare books and archives are conserved, catalogued, scanned,

and translated into public knowledge. This gap suggests that KB's strong online identity could be spatially extended by making its "behind-the-scenes" work legible and accessible as an informal learning experience.

In parallel, the user survey indicates that many respondents hope KB will retain part of its archival function, rather than removing all physical holdings. This supports a strategy of reusing parts of the existing stacks as a backstage archive museum or digitisation observatory: a publicly accessible route through (or adjacent to) working areas where visitors can observe and understand how staff restore, handle, register, digitise, and curate materials. Such a space would turn KB's hidden expertise into a new type of informal learning space—shifting the library's public role from simply *displaying cultural heritage* to also *revealing how cultural heritage is produced, maintained, and shared*. In this way, the social media research does not only describe KB's identity online; it directly inspires a new programme that bridges digital dissemination with an embodied, on-site learning experience for the local community.

7. Design Proposal

7.1 Design Concept

7.1.1 Previous intervention from Herbert van Bruggen

KB's renovations since 1982 can be read as a coherent, long-term strategy in which institutional transformation—not stylistic renewal—acts as the primary driver of spatial change. As the KB shifted from a closed academic bulwark to a more public-facing information institution, interventions were repeatedly framed as responses to concrete operational “bottlenecks,” implemented through incremental, problem-led packages over time rather than a single disruptive overhaul²². Within this gradual approach, an important civic principle was maintained: essential urban permeability was preserved and reworked as an asset—the KB passage, as a key pedestrian and cyclist route, could not be closed, so upgrades focused on integrating it more productively into the building's public life. Renovation also consistently treated the KB not as an isolated object but as part of a wider institutional ecology, strengthening connections and shared infrastructures with adjacent cultural and archival organisations so that collaboration and public access could be supported spatially. In parallel, public event and exhibition environments were developed as core organisational infrastructure—enabling forums, conferences, presentations, and curated cultural programming

²² Hoogstraten, *Bedachtzame dynamiek*.

that translate national collections into accessible public knowledge and participation. Where expansion became necessary, such as depot growth, the strategy prioritised continuity in the building's underlying order: extending the dimensional grid and maintaining façade rhythm and pattern without literal replication, so additions remain coherent yet time-specific. Finally, because the building's structural framework is relatively fixed, adaptability is repeatedly achieved through flexible interior planning, furniture, and fit-out logic that can absorb shifting public behaviours and learning modes without breaking the overall system. Overall, KB's renovation logic demonstrates how a fixed architectural order can accommodate evolving technologies, programmes, and publics through gradual, strategically targeted interventions—an approach that directly underpins the creation of diverse, accessible informal learning environments within an evolving national library (Figure 31).



Figure 31 Timeline of the renovation process of KB (Source: author)

7.1.2 New intervention proposal

My design concept is to continue the attitude of the previous architect in transforming this building. The architect's previous main work was to expand the library's public space vertically, connecting the National Archives and KB. Continuing this approach could allow for the development of more public space vertically, creating a vertical public circulation path. (Figure 32)

Locals call KB "iceberg," so my renovation is about breaking the ice.

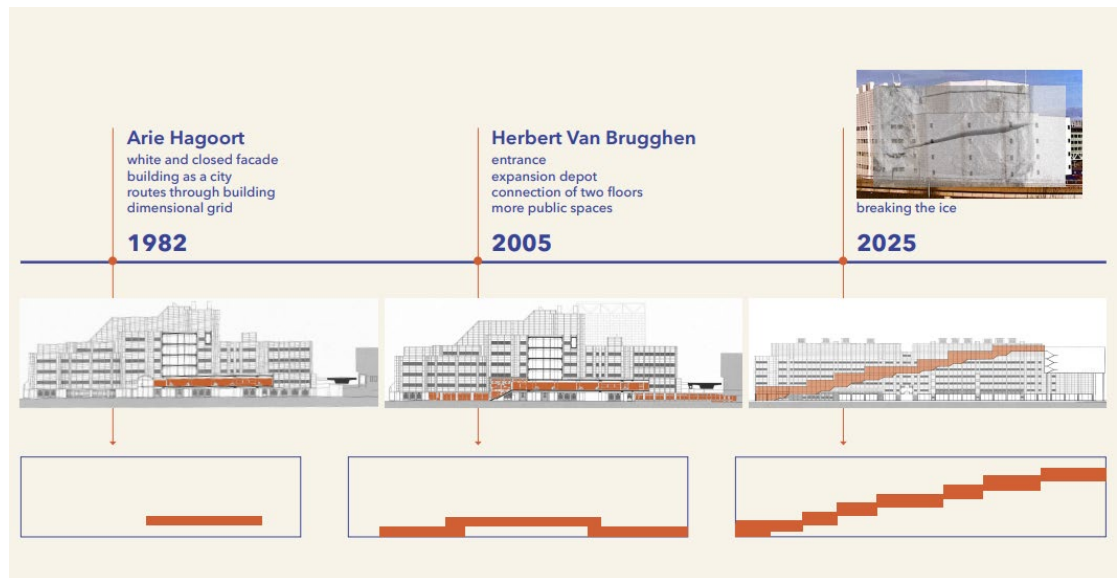


Figure 32 Design concept diagram (Source: author)

Breaking the Ice operates across architectural, social, and ecological dimensions. Architecturally, the project responds to the long-standing image of the KB as an iceberg. A new opening gently breaks the closed façade, making the building legible and approachable from the city. Socially, breaking the ice refers to reducing distance between people. Here, informal learning spaces are not conceived as educational facilities, but as low-threshold environments that enable encounter, shared presence, and collective activity. Located behind the opening, they form a new public realm—open to non-members, distinct from yet interwoven with the existing KB circulation. Ecologically, the opening transforms the building from a smooth, lifeless surface into a multi-species interface, where plants, birds, water, light, and air co-exist with human movement and learning. In this sense, informal learning emerges not as a programme, but as a

consequence of opening—between city and building, between people, and between species. (Figure 33)

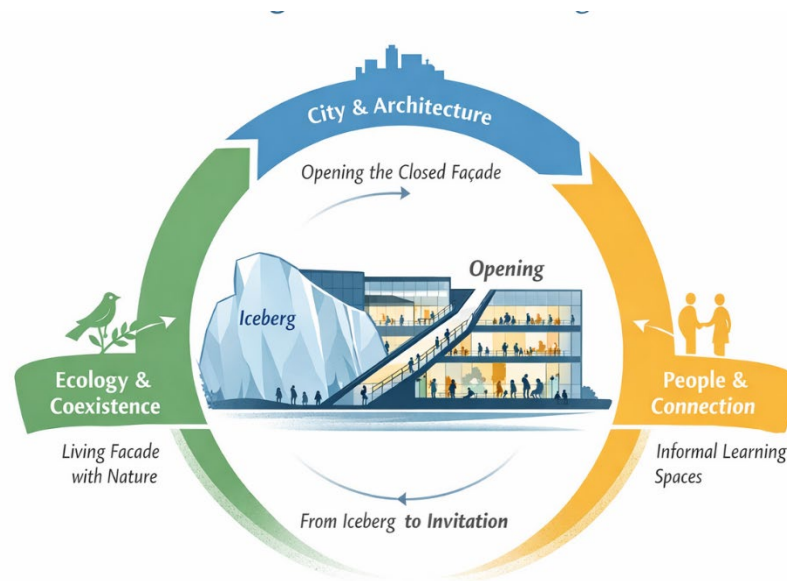


Figure 33 How to break the ice (Source: author)

7.2 Scenarios

This renovation represents my interpretation of how to reconnect people with the multiple identities the KB has embodied over time. Visitors will enter the new public entrance, walking through the big staircase. At the end of the path, they arrive at the digital manuscript museum, housed in what used to be the depot, representing the KB's 21st-century transformation. In addition, shops will be introduced at ground level to activate the street and invite broader public engagement. (Figure 34)

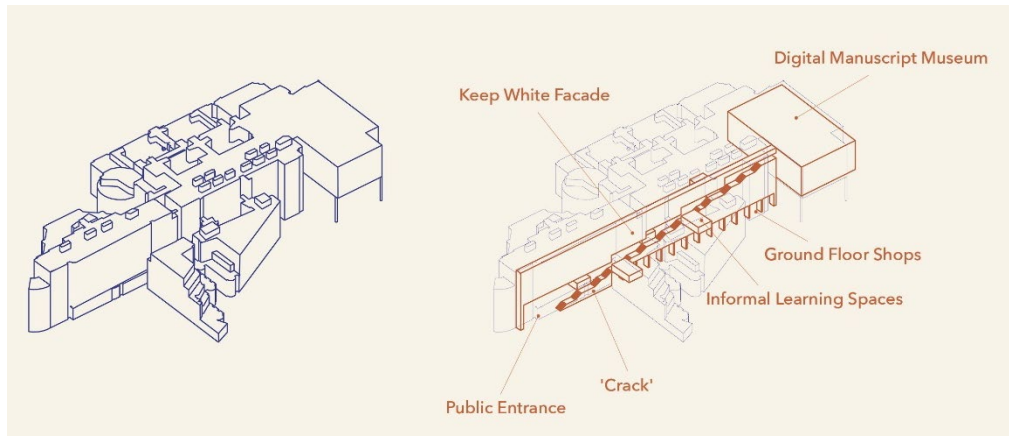


Figure 34 Axonometric drawings of before and after (Source: author)

In the current site plan, the main entrance of the KB is located in a relatively hidden position. Upon entering and ascending the stairs, visitors encounter a central axis on the first floor that guides them to various departments. In my design, I propose introducing a new entrance on the southwest side of the building. This entrance connects a sequence of informal learning spaces (ILS) and ultimately leads to the digital manuscript museum, creating a new public route accessible to all. The original entrance and main reading rooms for scholars will be preserved, while the new circulation offers a more dynamic and engaging experience for the general public. This newly added space will operate under independent management and have its own opening hours. According to the revised ground floor plan, the renovated area occupies part of the former staff workspace, activating a previously quiet and underutilized street edge. This intervention not only enhances street life but also encourages a more integrated layout for staff facilities. The staff entrance will be relocated to the northeast corner. (Figure 35)

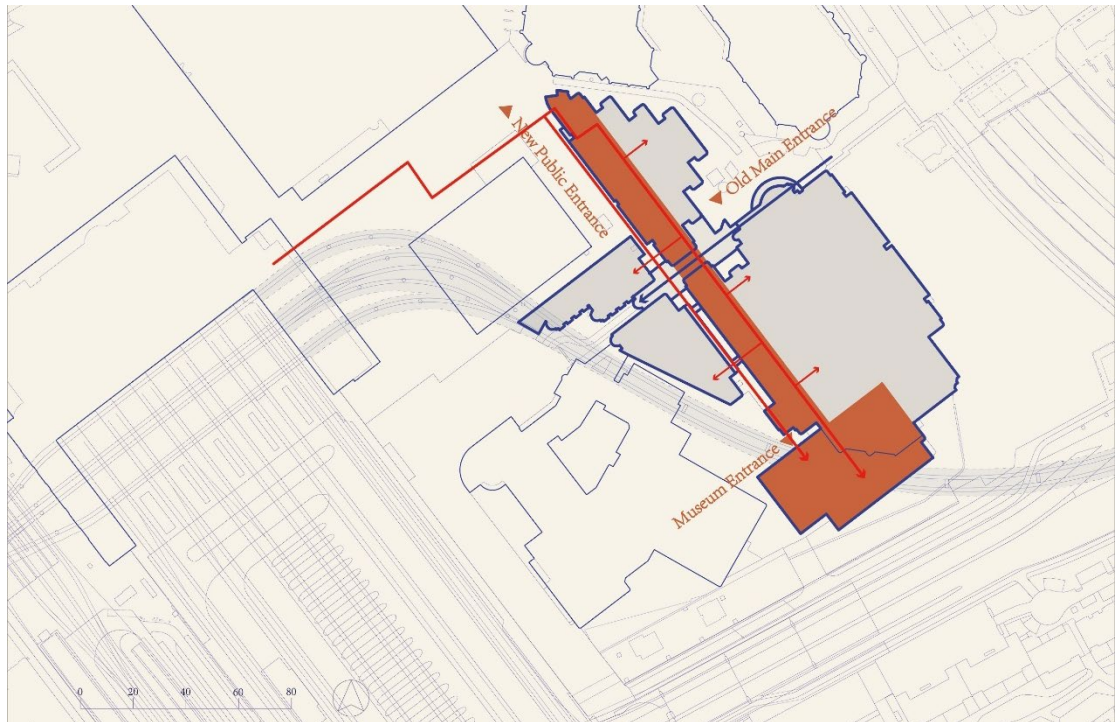


Figure 35 Master plan after renovation (Source: author)

7.3 Functions and Spatial Configuration

The new public stair is conceived not as a circulation device, but as a spatial narrative that unfolds from the city into the institutional depth of the KB. Originating at the newly opened façade—where the building breaks its long-standing image as an iceberg—the stair establishes a new public route that is open, visible, and accessible to all.

From the moment of entry, the stair runs alongside the thickened façade, where greenhouses, bird habitats, and ecological pockets are embedded within the opening. As visitors ascend, they encounter plant growth, bird activity, light, air, and seasonal change not as an exhibition, but as a continuous presence. These multispecies elements unfold in parallel with human movement, reinforcing learning as an act of observation, repetition, and coexistence rather than instruction.

Rather than organising the project around predefined types of informal learning spaces, the stair structures learning as a gradient of engagement. At lower levels, it is embedded within open, energetic environments that encourage movement, encounter, and spontaneous participation. Informal learning here emerges through shared presence and low-threshold activities, enabling social connection without requiring prior intention or expertise. As one ascends, spatial conditions gradually shift. Programmes become more focused and acoustically contained, while remaining visually connected to the stair. Workshops, teaching spaces, and performance-related functions are positioned as peripheral fields of activity—never isolated destinations, but moments along a continuous ascent. Learning is thus encountered as process rather than outcome, accessible at varying degrees of commitment and duration.

At the top of this sequence, the stair culminates in the Digital Manuscript Museum, located within a former storage area of the KB. This space transforms an otherwise inaccessible archive into a publicly legible environment, where the production, conservation, digitisation, and dissemination of manuscripts are revealed. Restoration work, scanning processes, documentation, and digital storytelling—often encountered by the public only through online platforms—are spatially unfolded and made understandable within a physical setting. Arriving here after passing through layers of informal learning and multispecies observation,

visitors encounter not a final spectacle, but a moment of synthesis. The museum frames knowledge not as a static object, but as a mediated process—one that moves between material care and digital circulation, between institutional labour and public culture.

In this way, the stair mediates between city and institution, immediacy and reflection, human and non-human actors. Informal learning spaces are not treated as a collection of programmes, but as spatial conditions activated along a shared public ascent, culminating in an understanding of how cultural knowledge is produced, translated, and shared across time, media, and audiences.

8. Bibliography

- Blust, Seppe de, Grégoire Farquet, and Charlotte Schaeben. 'Informal Learning as a Studio Practice'. *CARTHA Learning Architecture*, no. 1 (2022).
- Brander, Patricia, and Council of Europe. *Compass: Manual for Human Rights Education with Young People*. Council of Europe, 2012.
- 'Business & IP Centre'. Accessed 12 December 2025. <https://www.bl.uk/bipc>.
- Caniëls, Marjolein, and Paul A. Kirschner. 'Informal Learning in the Netherlands: 17th EDINEB Conference: Crossing Borders in Education and Work-Based Learning'. In *Proceedings of the 17th EDINEB Conference: Crossing Borders in Education and Work-Based Learning*, edited by S. Halley, C. Birch, D. Tempelaar, et al. FEBA ERD Press, 2010.
- Caso, Olindo, and Joran Kuijper. *Atlas: Makerspaces in Public Libraries in The Netherlands*. TU Delft OPEN Publishing, 2019.
- Debabarni, Debashreeta, and Deepashree Choudhury. *Informal Interaction Spaces and Student-Centred Learning in Architectural Schools*. 15 (2024).
- Fischer, Frank, Daniel Sommerhoff, and Anna Keune. 'Perspectives on Learning from the Learning Sciences'. In *International Encyclopedia of Education (Fourth Edition)*, edited by Robert J Tierney, Fazal Rizvi, and Kadriye Ercikan. Elsevier, 2023. <https://doi.org/10.1016/B978-0-12-818630-5.14007-2>.
- Fuentes-Romero, Juan José. 'Education as a New Goal for National Libraries'. *Alexandria* 18, no. 3 (2006): 49–61. <https://doi.org/10.1177/095574900601800308>.
- Hoogstraten, Dorine van. *Bedachtzame dynamiek: het gebouw van de Koninklijke Bibliotheek, 1982-2007*. NAI, 2007.
- Lin, Hui, and Brendan Luyt. 'The National Library of Singapore: Creating a Sense of Community'. *Journal of Documentation* 70, no. 4 (2014): 658–75. <https://doi.org/10.1108/JD-11-2012-0148>.
- Osman, Amina, Sultana Ladhani, Emma Findlater, and Veronica McKay. *Curriculum Framework for the Sustainable Development Goals*. Commonwealth Secretariat, 2017. <https://doi.org/10.14217/ComSec.1064>.
- 'Our Mission | KB, National Library of the Netherlands'. Accessed 19 March 2025. <https://www.kb.nl/en/about-us/our-mission>.
- 'Qatar National Library'. Accessed 12 December 2025. <https://visitqatar.com/intl-en/things-to-do/art-culture/qatar-national-library>.
- Salih, Sarah Abdulkareem, Waleed Alzamil, Ali Ajlan, Athira Azmi, and Sumarni Ismail. 'Typology of Informal Learning Spaces (ILS) in Sustainable Academic Education: A Systematic Literature Review in Architecture and Urban Planning'. *Sustainability* 16, no. 13 (2024): 13. <https://doi.org/10.3390/su16135623>.
- 'Segregatiemonitor - 5. Werk En Inkomen - Den Haag'. Accessed 3 April 2025. <https://denhaag.incijfers.nl/mosaic/en-us/segregatiemonitor/5--werk-en-inkomen>.
- Shillinglaw, N. *The Role of the Public Library in the Development of South Africa*. South African journal of library and information science, 1986.
- Tî, Elena, and rziman. 'Contemporary Library and Its Role in the Community'. *Revista RomâNă de Biblioteconomie Şi Ştiinţa Informării* 14, no. 2 (2018): 56–63.
- Wu, Xianfeng, Zhipeng Kou, Philip Oldfield, Tim Heath, and Katharina Borsi. 'Informal Learning Spaces in Higher Education: Student Preferences and Activities'. *Buildings* 11, no. 6 (2021): 6. <https://doi.org/10.3390/buildings11060252>.

9. List of Figures

- Figure 1 The different forms of learning (Source: Osman, 2017, p 18)
- Figure 2 Characteristics of formal and informal learning environments (Source: Debabarni, 2024)
- Figure 3 Research knowledge gap (Source: Author)
- Figure 4 Satellite image of the site (Source: Google Map and author)
- Figure 5 Different identity of KB (Source: photos from *Cautious Dynamism*)
- Figure 6 The diagram 'Difficulty making ends meet' (Source: DHIC, 2022)
- Figure 7 The empty above-ground floor area of KB (Source: author)
- Figure 8 Invisible Entrance (Source: Author)
- Figure 9 Limited informal learning space (Source: Author)
- Figure 10 Five types of informal learning spaces (Source: author)
- Figure 11 Matrix of informal learning spaces and factors (Source: author)
- Figure 12 Images of three cases (Source: official website)
- Figure 13 Case studies to answer the first and second sub-questions (Source: author)
- Figure 14 Survey and social media research to answer the third sub-question. (Source: author)
- Figure 15 Interior characteristics of private indoor quiet space (Source: author)
- Figure 16 Interior characteristics of semi-private, semi-public indoor space (Source: author)
- Figure 17 Interior characteristics of public semi-indoor, semi-outdoor space (Source: author)
- Figure 18 Interior characteristics of public outdoor space (Source: author)
- Figure 19 Interior characteristics of public indoor space (Source: author)
- Figure 20 Different spatial typologies of the three cases (Source: author)
- Figure 21 Building characteristics of private indoor quiet space (Source: author)
- Figure 22 Building characteristics of semi-private, semi-public indoor space (Source: author)
- Figure 23 Building characteristics of public semi-indoor, semi-outdoor space (Source: author)
- Figure 24 Building characteristics of public outdoor space (Source: author)
- Figure 25 Building characteristics of public indoor space (Source: author)
- Figure 26 Distribution of five types of informal learning spaces (Source: author)
- Figure 27 Table of the score of different features (Source: users' group survey)
- Figure 28 Chart of the missing functions of KB (Source: users' group survey)
- Figure 29 Chart of the desired additions of KB (Source: users' group survey)
- Figure 30 Posts of KB's instagram page (Source: screenshot by author)
- Figure 31 Timeline of the renovation process of KB (Source: author)
- Figure 32 Design concept diagram (Source: author)
- Figure 33 How to break the ice (Source: author)
- Figure 34 Axonometric drawings of before and after (Source: author)
- Figure 35 Master plan after renovation (Source: author)

10. Appendix

Appendix 1 Dutch National Library (KB) survey – User experience & Future vision

Appendix 2 Digital Echoes of the Library: a sentiment and value analysis of the KB across social media platforms

Dutch National Library (KB) survey - User experience & Future vision

Dear visitor to the Dutch National Library (KB),

Thank you very much for participating in this survey! Your feedback helps us examine the KB's spatial layout, atmosphere and facilities. We are particularly interested in your experiences and ideas on how the library can even better meet your needs.

As a thank you for your participation, you will have a chance to win one of three Bol.com gift cards worth €10!

This survey is part of a graduation project at TU Delft, in which we are investigating how the KB as a national library can respond to changes in society. Your input is indispensable here - together we are working on a library that is accessible, inspiring and future-proof.

- ◆ **Time investment:** 7 - 10 minutes
- ◆ **Privacy:** All answers will be processed anonymously and confidentially.

In this survey, we will ask you questions on several themes:

- ◆ **General Background Information** – to better understand the diverse profiles and needs of KB visitors.
- ◆ **User Experience** – to explore how you perceive the accessibility, atmosphere, and spatial organisation of the KB.
- ◆ **Light and Space** – to gain insight into how lighting and spatial qualities impact your experience and comfort.
- ◆ **The New Dutch National Library** – to hear your ideas and expectations for the future of the KB.

The results of this research will contribute to a master's thesis at TU Delft, and the findings will be presented in a research report submitted to TU Delft's Faculty of Architecture and the Built Environment. All data collected will be processed anonymously. Your name will not be linked to the data and you will not be identified in the research report. Your participation is completely voluntary, and you may decide at any time not to participate further.

By completing the survey, you agree to participate in the study and consent to the collection, analysis and reporting of the data you provide.

Thank you in advance for your time and cooperation!

Kind regards,

Graduation researchers, TU Delft:

Bart Mooren (b.j.mooren@student.tudelft.nl)
Paula Goldebeld (p.goldebeld@student.tudelft.nl)
Khalil Amrani (k.amrani@student.tudelft.nl)

Tutors TU Delft: Uta Pottgiesser (Design tutor), Emeline Lin (Research tutor)

* Verplichte vraag

General background information

In this section, we kindly request your responses to a few general questions about yourself. This information will help us to better understand the different perspectives and needs of KB visitors. Please be assured that your answers will remain completely anonymous and will only be used for research purposes. There are no incorrect responses; we are simply interested in your experiences and background.

1. What is your gender identity? *

Vink alle toepasselijke opties aan.

- Man
- Non-binary
- Woman
- Prefer not to say
- Anders: _____

2. What is your age? *

Markeer slechts één ovaal.

- Younger than 18
- 18 – 24 years old
- 25 – 34 years old
- 35 – 44 years old
- 45 – 54 years old
- 55 – 64 years old
- 65 years or older
- Prefer not to say

3. In which city do you live?

4. **Are you a member of the Royal Library (KB)? ***

Markeer slechts één ovaal.

- Yes
- No
- I don't know

5. **How did you come to the KB today? ***

Markeer slechts één ovaal.

- Walking
- Cycling
- Public transport
- By car
- Prefer not to say
- Anders: _____

6. **On average, how often do you visit the KB? ***

Markeer slechts één ovaal.

- Daily
- Weekly
- Monthly
- Several times a year
- This is the first time
- Anders: _____

7. **What time of day do you usually come to KB? ***

Multiple answers possible

Vink alle toepasselijke opties aan.

- Morning
- Afternoon
- Evening

8. **How long do you usually stay in the KB? ***

Markeer slechts één ovaal.

- Less than 1 hour
- 1 to 2 hours
- 2 to 4 hours
- More than 4 hours
- I don't know

9. **What is your primary role when visiting the KB? ***

Researcher: You actively use the collection, archives or research facilities. For example, as a scientist, research student, PhD student, journalist or writer etc.

Public users: You visit the library without doing in-depth research. For example, to study, read, relax or visit an exhibition.

Markeer slechts één ovaal.

- Researcher
- Public user
- Employee
- Anders: _____

10. **What is your main goal while visiting the KB? ***

Multiple answers possible

Vink alle toepasselijke opties aan.

- Studying
- Doing research
- Reading
- Exhibition or event
- Collaboration / meetings
- Relaxing
- Reading rooms
- Access the collections
- Anders: _____

11. Please explain your answer (optional):

User Experience

In this section, we are interested in your overall experience of visiting the KB. We would like to understand how you perceive the building's accessibility, atmosphere, and spatial layout. Your feedback will help us gain insight into how the KB can better support your needs and enhance the visitor experience.

12. **What features are important to you in the KB? ***

Please rate each position from 1 to 5, where:

1 = Not at all important

2 = Not very important

3 = Neutral

4 = Important

5 = Very important

Markeer slechts één ovaal per rij.

	1	2	3	4	5
Silence and quiet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comfort (seating, light, temperature)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Focal places/points	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Access to physical/digital collections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consultation areas/group work spaces	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Informal meeting spaces, (lounges, café)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cultural activities (exhibits, lectures)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor spaces/green spaces	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digital/media zones	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Archival or heritage functions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. **Please explain your answer (optional):**

14. **How easy do you find the KB to reach and access? ***

Markeer slechts één ovaal.

Very easy

Reasonably easy

Neutral

Difficult

Very difficult

Anders: _____

15. **Please explain your answer (optional):**

16. **How do you experience the entrance, reception and orientation in the building? ***

Markeer slechts één ovaal.

Very pleasant and clear

Pleasant

Neutral

Unpleasant

Very confusing or unclear

17. **Please explain your answer (optional):**

18. **Do you feel cut off from the outside world when you are inside the KB building? ***

Markeer slechts één ovaal.

- Yes, it is disturbing
- Yes, but I don't care
- I don't know
- No, not at all

19. **Please explain your answer (optional):**

20. **What spaces do you usually use in the KB? ***

Multiple answers possible

Vink alle toepasselijke opties aan.

- Reading rooms
- Study areas
- Café
- Exhibition spaces
- Office/work spaces
- Meeting rooms
- Archives
- Special collections room
- Digital resources/computer facilities
- Helpdesk/information desk
- Anders: _____

21. **Please explain your answer (optional):**

22. **How do you experience the noise level in the rooms you use? ***

Markeer slechts één ovaal.

- Very pleasant
- Pleasant
- Neutral
- Disturbing
- Very disturbing

23. **Please explain your answer (optional):**

24. **How would you describe your ability to concentrate when working or studying in the Royal Library? ***

Markeer slechts één ovaal.

- Very good
- Good
- Neutral
- Bad
- Very bad

25. **Please explain your answer (optional):**

26. **Do the lighting conditions in the KB affect this? ***

Markeer slechts één ovaal.

- Yes
- No
- I don't know
- Anders: _____

27. **Please explain your answer (optional):**

28. **What are you missing in the current spatial arrangement of these spaces? ***

Multiple answers possible

Vink alle toepasselijke opties aan.

- More individual workspaces
- More group study places
- More social/meeting areas
- More relaxation areas (e.g., lounge zones)
- More quiet spaces
- More green spaces (interior/exterior)
- More café or food options
- More lockers/storage spaces
- More restrooms
- More outlets/charging points
- I don't know
- Anders: _____

Light and Space

In this section, we would like to understand how you experience the quality of light and the use of space in the KB. Good lighting and a pleasant spatial atmosphere are essential for comfort, concentration, and inspiration.

29. **Do you feel that lighting (daylight/artificial light) affects your productivity or ability to learn?** *

Markeer slechts één ovaal.

- Yes, a lot
- Yes, somewhat
- Neutral
- No
- No, not at all
- I don't know
- Anders: _____

30. **Please explain your answer (optional):**

31. **Does it make a difference to you what light you sit in when you are reading, writing, thinking or relaxing, for example? Do you have preferences in this regard?** *

Markeer slechts één ovaal per rij.

	Direct daylight	Indirect daylight	Warm/yellow artificial light	Bright/white artificial light	I don't know
Reading books	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consultations/group work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relaxing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Computer Work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

32. **Do you find that you can sufficiently adjust the lighting in the KB (for example, with blinds, lamps or location selection) to suit your preferences or tasks?** *

Markeer slechts één ovaal.

- Yes
 No
 Anders: _____

33. **To what extent are you satisfied with the lighting in the work/study areas in the KB? ***

Please rate each type of lighting from 1 to 5, where:

1 = Very dissatisfied

2 = Dissatisfied

3 = Neutral

4 = Satisfied

5 = Very satisfied

Markeer slechts één ovaal per rij.

	1	2	3	4	5
Reading Room	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Registration desk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowledge Quarter (Blue Space)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Offices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Café at main Entrance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Foyer (main entrance)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Computer space	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Micro Hall	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

34. **Do you ever have physical complaints (such as eyestrain or headaches) that you relate to the lighting in the KB?** *

Markeer slechts één ovaal.

Yes

No

35. **Are there places in the KB you go to because of the light?** *

36. **If you could improve something about the lighting in the KB, what would it be and why?** *

The new Dutch National Library

In this section, we ask for your thoughts on the future of the KB. As the role of libraries continues to evolve, we are curious about your ideas and expectations for a new, modern national library.

37. **Current KB opening hours are varied (Mon/Wen/Thu/Fr 10:00-17:00 Tue 10:00-20:00 Sat 10:00-16:00). What do you think would be the ideal opening hours?** *

Multiple answers possible

Vink alle toepasselijke opties aan.

Open earlier in the morning on weekdays

Closing later in the evening on weekdays

Open earlier in the morning on weekends

Close later in the evening on weekends

Open on Sundays

Open on holidays

Accessible 24/7

Current KB opening hours are ideal

Anders: _____

38. **Please explain your answer (optional):**

39. **The KB is currently fully accessible only to paying members. To what extent do you think the KB should become accessible to everyone in the future?** *

Markeer slechts één ovaal.

- Full public access
- Largely publicly accessible
- Partly publicly accessible
- Not publicly accessible
- Nothing to change to the current situation

40. **Please explain your answer (optional):**

41. **What do you think of the following aspects in the KB? ***

Please rate each aspect on a scale of 1 to 5, where:

1 = very poor

2 = poor

3 = neutral

4 = good

5 = very good

Markeer slechts één ovaal per rij.

	1	2	3	4	5
The number of workspaces	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Orientation and signage in the building	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The atmosphere in the building	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Furniture arrangement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Food and drink options	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staff or help points	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lockers or storage space	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Power outlets or charging points	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunities for recreation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Amount of greenery (indoors or outdoors)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

42. **Please explain your answer (optional):**

43. **What spaces & functions would you like to see in a redesigned KB? ***

Multiple answers possible

Vink alle toepasselijke opties aan.

- Cafés of sociale ruimtes
- Outdoor spaces or greenery
- Archive or heritage functions
- Music and recording studio
- Shared kitchen
- Gaming room
- Makerspace (DIY)
- Media space (VR/AV)
- Meditation room
- Exhibition space
- Kitchen garden or plant workshop
- Language course
- Sports class
- IT/Technology course
- Performing arts / performance
- Photography
- No new functions
- Anders: _____

44. **Would you visit the KB more often if these new features or activities were added? ***

Markeer slechts één ovaal.

- Yes
- No
- I don't know for sure
- Anders: _____

45. **Please explain your answer (optional):**

46. **How important are the following aspects for the redesign of the KB? ***

Please rate each aspect on a scale of 1 to 5, where:

1 = very unimportant

2 = unimportant

3 = neutral

4 = important

5 = very important

Markeer slechts één ovaal per rij.

	1	2	3	4	5
The striking exterior of the building (such as the facade and shape)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Original parts inside, such as stairs, floors or fixed furniture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Artworks and historic elements in or on the building	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The building's recognizable location next to station and city	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The significance of the building as a national knowledge center	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

47. **Please explain your answer (optional):**

48. **Do you have favorite library spaces or specific places (could also be from other libraries) that you would recommend?**

*

49. **What nickname would you give KB?**

50. **Do you have any additional suggestions for the future of the KB?**

Ending and contact information

Thank you very much for completing this survey!

Your input is invaluable to our research into the future of the Royal Library. Your input will give us a better understanding of how users experience the current spatial layout, atmosphere and functions of the KB - and how the library can develop into a place that even better meets the needs of its visitors.

If you are interested in staying informed about this research or possibly participating in a follow-up phase, please indicate your interest below.

Thank you again for your time and involvement!

51. I have additional comments, namely:

52. Would you like to contribute to this study in the future?

Markeer slechts één ovaal.

Yes *Ga naar vraag 54*

No

53. Do u want a chance to win a Bol.com gift card (worth €10)?

Markeer slechts één ovaal.

Yes *Ga naar vraag 54*

No

Personal informations

54. At what email address and/or phone number can we reach you?

Deze content is niet gemaakt of goedgekeurd door Google.

Google Formulieren

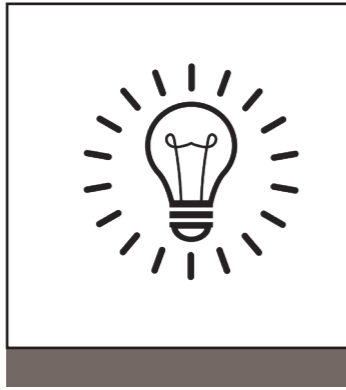
DIGITAL ECHOES

THE NATIONAL LIBRARY KB

*Digital Echoes of the Library: A Sentiment
and Value Analysis of the KB across Social Media
Platforms*



CONTENT



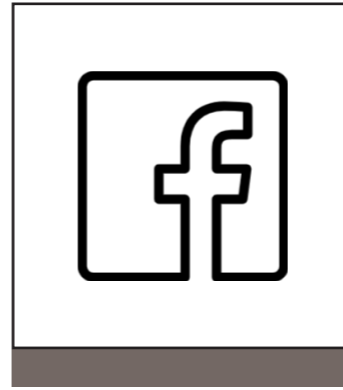
3.

INTRODUCTION



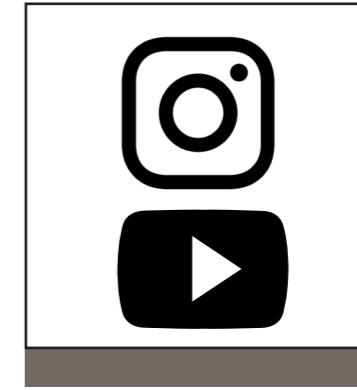
4.

REDDIT



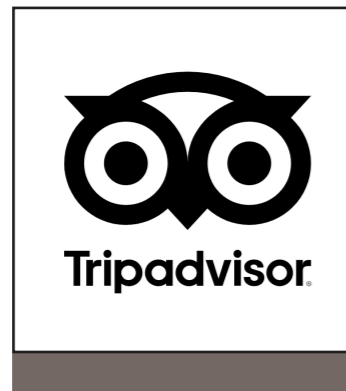
5.

FACEBOOK



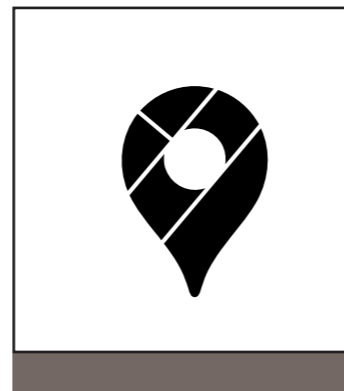
6.

INSTAGRAM/YOUTUBE



8.

TRIP ADVISOR



9.

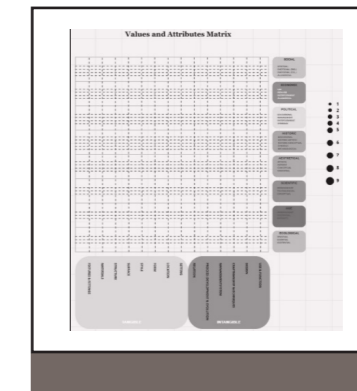
MAPS



10.

**COMPARATIVE
ANALYSIS**

Incl. Matrix



11.

CONCLUSION

Incl. Value attributes and
assessment matrix

INTRODUCTION

In today's interconnected digital landscape, cultural institutions such as the Koninklijke Bibliotheek (KB) are increasingly impacted not solely by their physical existence, but also by impressions and observations shared across various online platforms. As part of our group analysis, we examine user-generated comments linked to the KB on social media and public review sites including YouTube, Instagram, Facebook, Reddit, TripAdvisor, Google Maps, and Apple Maps. These different online interfaces provide useful information about how users perceive, interact with, and give value to the library's spaces and services.

We intend to identify common themes, values, and attitudes linked with the KB by collecting and analyzing user comments in a methodical manner. This approach is based on the Heritage & Design Minor - Architecture and Reuse module at TU Delft (Pereira Roders et al., 2020), which employs an attribute-value framework. This enables us to convert subjective online experiences into organized insights regarding what users consider valuable, beneficial, or lacking in the library setting.

Through this cross-platform analysis, we hope to better understand the KB's present digital footprint, and additionally uncover potential design prospects that correspond with public values.



Image 1. Aerial view of the KB building (Gebouw Koninklijke Bibliotheek | 10-2020).

REDDIT

#4^{total}

4 posts
+/- 287 comments each

Summary of Reviews

Date Range: 2017–2024
Languages: Dutch
Audience: Families, Solo visitors, Students, Librarians

General attitudes of Dutch towards libraries in the Netherlands

Under the questions “Are you a member of the library? Why yes/No?”, there’re 287 answers, which implied general attitudes of Dutch towards libraries in the Netherlands ---- Most people think library is important to them. Figure 1 and 2 shows specific reasons of why people go to and don’t go to libraries in the Netherlands.

Advantages of KB

Under the questions “Are there any quiet and free study places in The Hague?” “Cool learning locations this week” “try your local library”, some answers mentioned KB. Figure 3 shows a breakdown of the advantages.

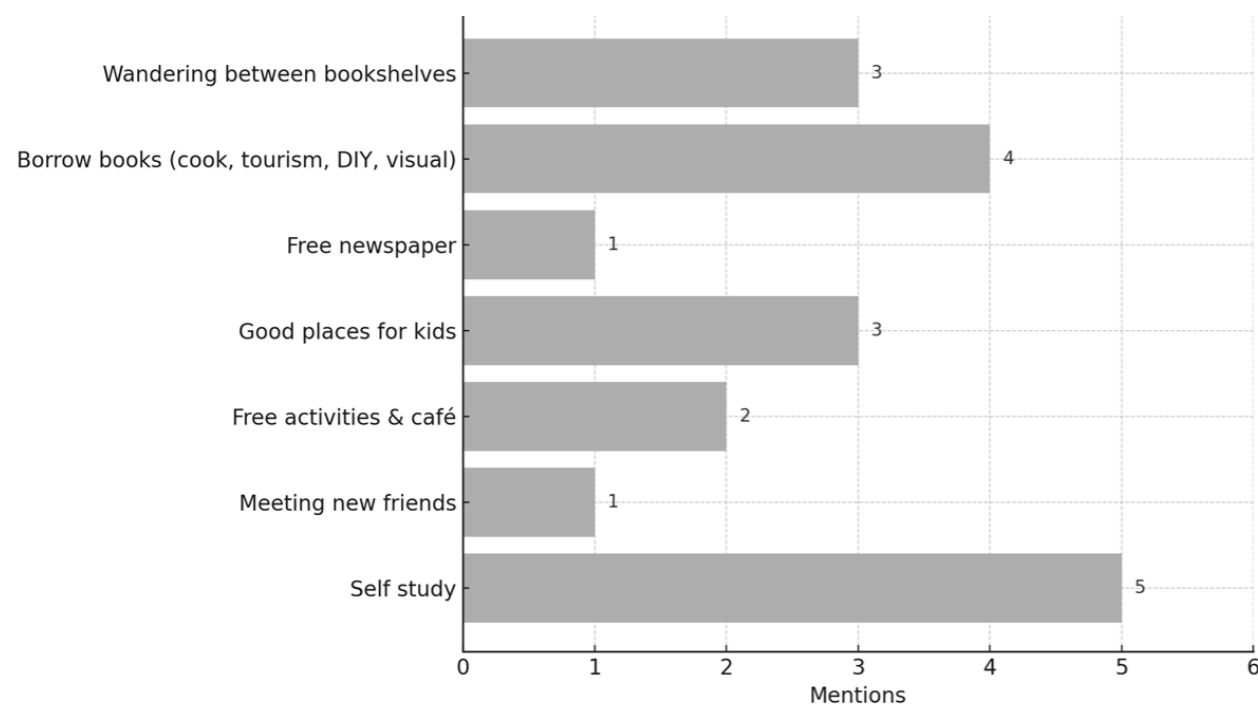


Figure 1. Reasons why people go to libraries in the Netherlands.

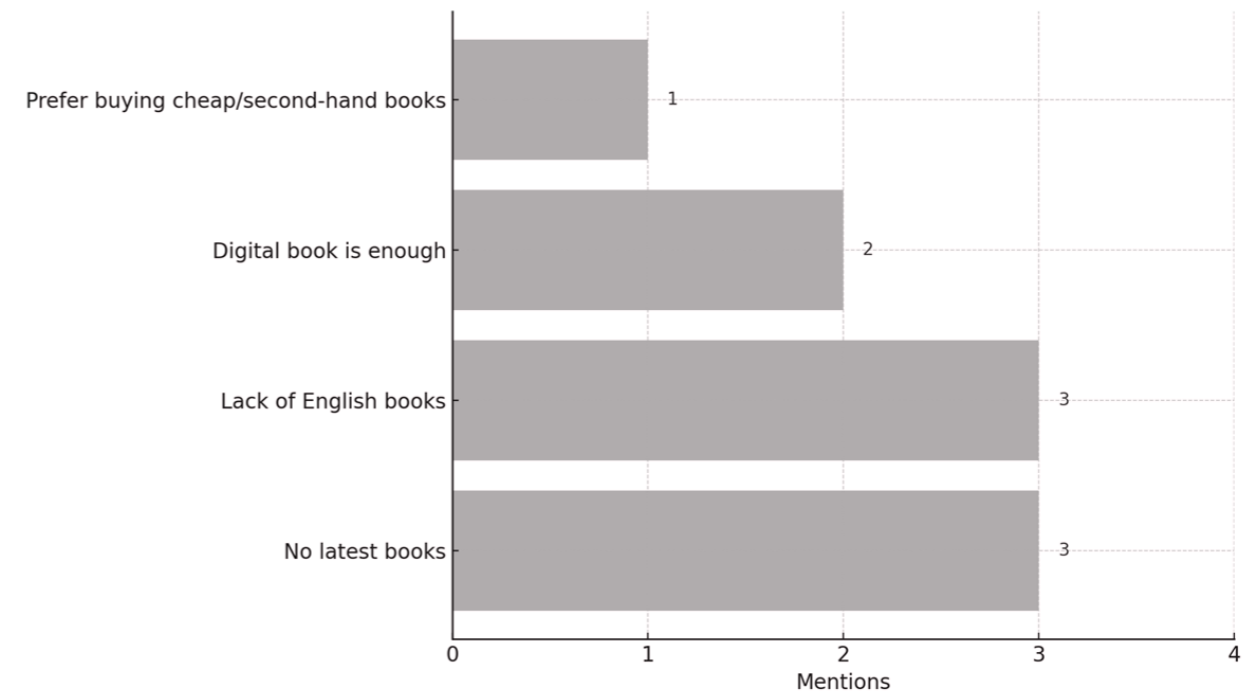


Figure 2. Reasons why people do not go to libraries in the Netherlands.

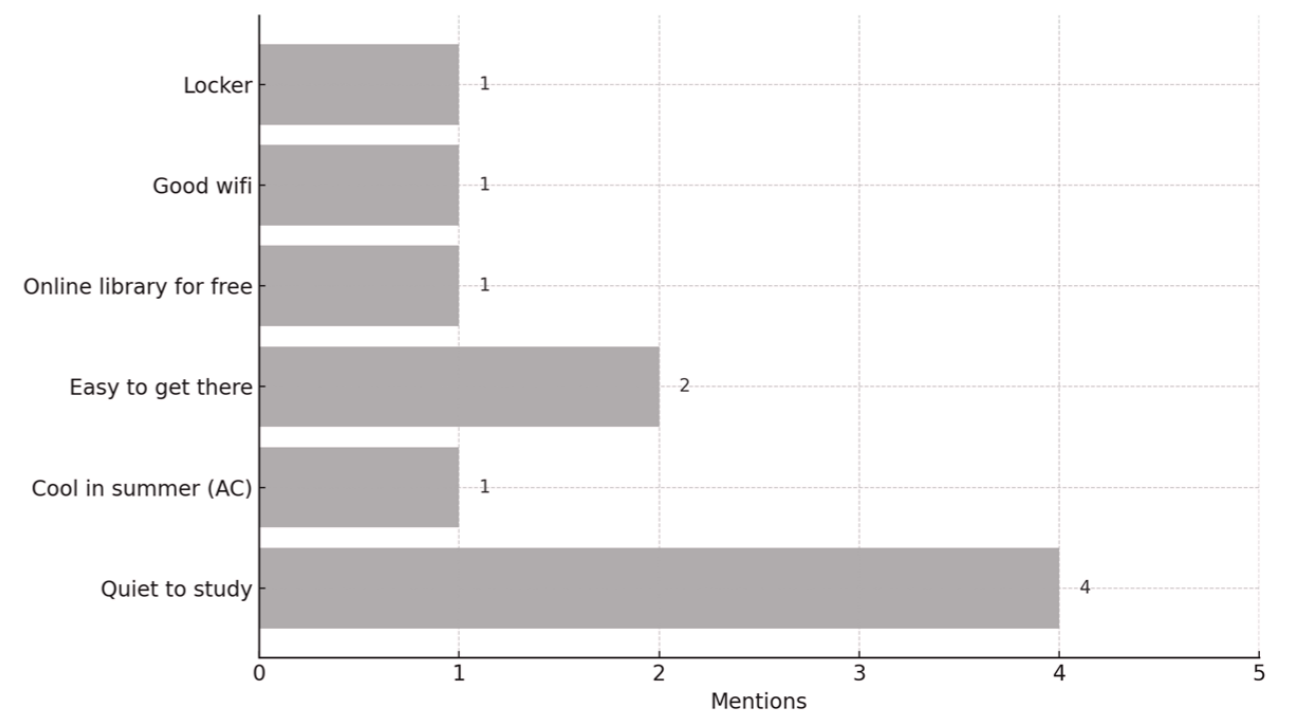


Figure 3. Advantages of the KB Library.

FACEBOOK

#17^{total}

17 reviews
10 comments

Summary of Reviews

Date Range: 2017–2018
 Languages: Dutch (8), English (2)
 Audience: General public,
 Families, Solo visitors, Digital users,
 Heritage enthusiasts

Sentiment Overview

Positive comment(s): 8 out of 10 (80%)

Users commended the KB for its accessibility to the public, archival facilities, children’s collections, guided tours, and overall atmosphere.

Neutral comment(s): 1 out of 10 (10%)

General recommending without further detail.

Negative comment(s): 1 out of 10 (10%)

One person expressed significant discontent with the KB’s digital platforms, especially the eBook format.

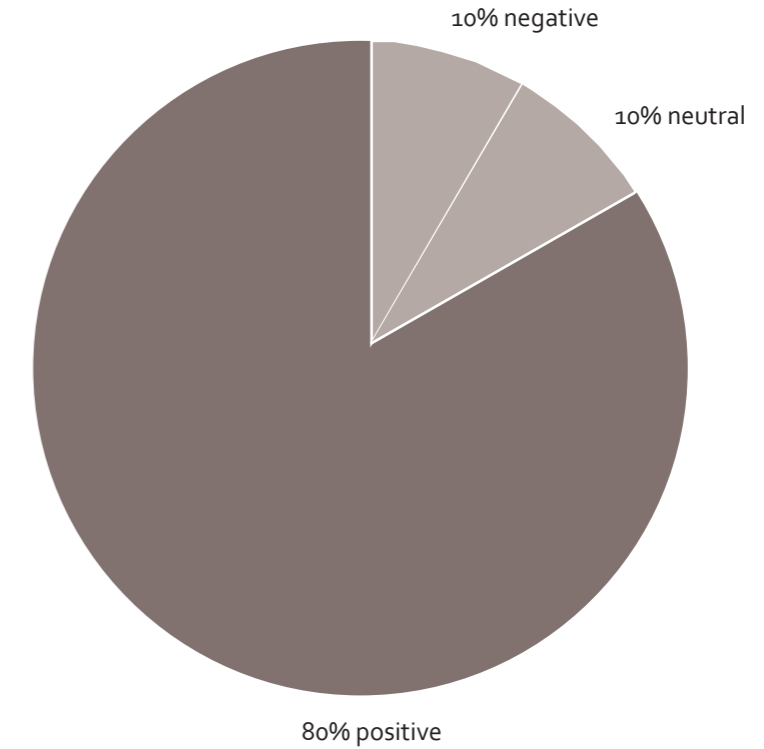


Figure 4. Sentiment Distribution of KB Library Reviews

Table 1. Overview themes

Theme	Mentions	Highlights
Public Accessibility	3	Open and easily accessible for the public
Children’s Literature	2	Praises the big collection of children’s books
National Library	2	Praises the availability and accessibility of all aspects in Dutch literature, especially the old and rare books collection
Guided Tours / Archives	2	Positive remarks regarding the archives and spatial capability
Architecture and space	2	Praises the archival space for books
General Impression	2	Short expressions like “Super Bibliotheek!”
Digital platforms	1	Critical observation regarding the malfunctioning eBook facilities

Note. Breakdown of the themes mentioned in the reviews. Note: some comments mention multiple themes.

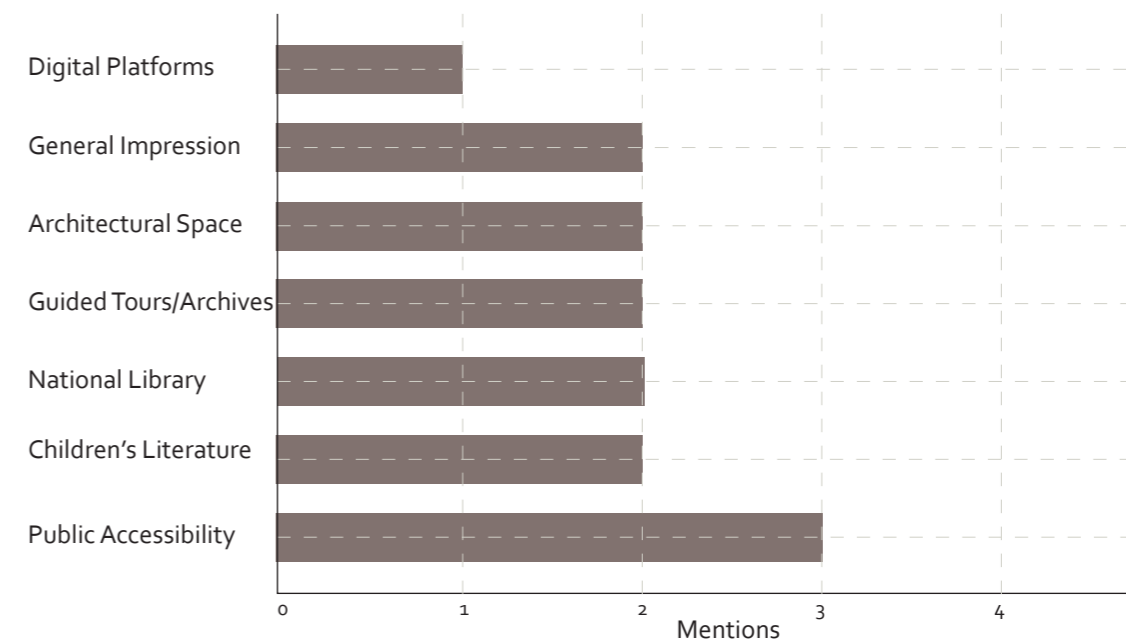


Figure 5. Visual overview of user sentiment and common themes in reviews of the KB Library.

INSTAGRAM

#732^{total}

732 posts
Instagram Account:
kbnationalebibliotheek.

Summary of Posts

Date Range: 2017 - 2025
Engagement rate: 1.44%
Followers: 6.1k
Aim: Post agenda,
Share ancient books, Show working
progress

The Instagram account of the Koninklijke Bibliotheek (@kb_nederland), featuring more than 700 posts, serves mainly as a visual medium for institutional storytelling instead of user-generated reviews. The content highlights exhibitions, collections, and cultural programming that are curated by the KB itself. User engagement often occurs through likes and short comments, yet these rarely offer comprehensive insights into user experience or the physical setting.

Consequently, Instagram provides restricted understanding of how visitors view or appreciate the KB's spaces and services. Nonetheless, it continues to serve as an important means of expressing the library's identity and cultural significance to a wide online audience.



Figure 7. Instagram Hashtags with more Interactions. The size of the hashtag words is directly proportional to average interactions received by the posts where they've been used.

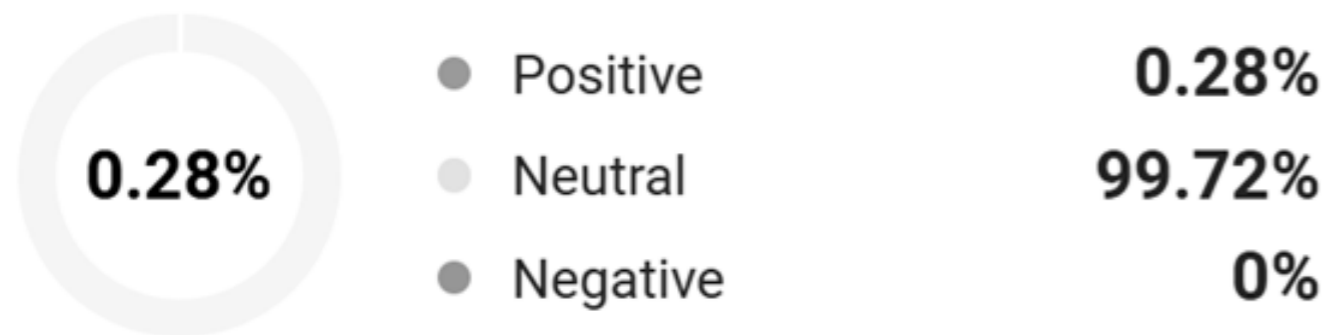


Figure 6. Negative and Positive word matches in user descriptions.

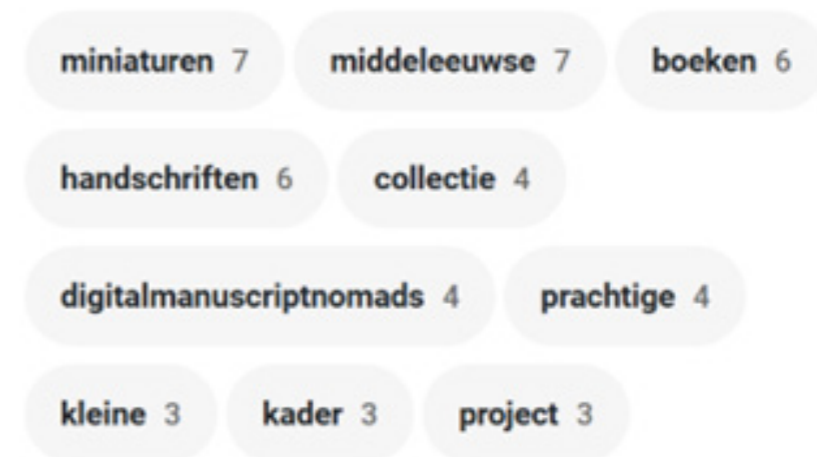


Figure 8. Top caption words from the last 100 posts.

YOUTUBE

#444^{total}

444 posts

www.youtube.com/@KBNederland

Summary of Posts

Date Range:	2007 - 2025
Views:	1,175,764
Followers:	1.62k

The YouTube channel of the Koninklijke Bibliotheek (@KBNederland) serves mainly as an institutional platform dedicated to sharing curated video content, rather than focusing on user experiences or public sentiment. The channel features a variety of videos focused on archives, digitization projects, literary programming, and behind-the-scenes insights. The interaction from the audience is limited, characterized by a lack of comments and minimal qualitative feedback, which restricts its effectiveness in evaluating the public's opinions or the interactive elements of the KB. Nevertheless, YouTube acts as an essential platform for fostering transparency, innovation, and the institutional identity of the KB.

Find below a short summary of their most viewed video —“The Royal Library (KB) and the Dutch Central Government Real Estate Agency are developing an innovative new book repository” (<https://www.youtube.com/watch?v=XhHmmS43Sbk>):

The new repository for the Koninklijke Bibliotheek is conceptualized as a “jewel box” designed to preserve the national collection of books, magazines, and newspapers for at least the next 100 years. Architecturally, the façade draws inspiration from stacked books, with four symbolic volumes of varying sizes reflecting the contents within. In collaboration with graphic designer Reinoud Homan, a hieroglyphic-style micro-relief based on the words “KB National Library” is integrated into the curved façade, referencing the history of printing and book design. The building is strategically elevated above polder level and encircled by water, ensuring both flood protection and physical security. This design embodies a long-term vision for the safeguarding of Dutch literary heritage.

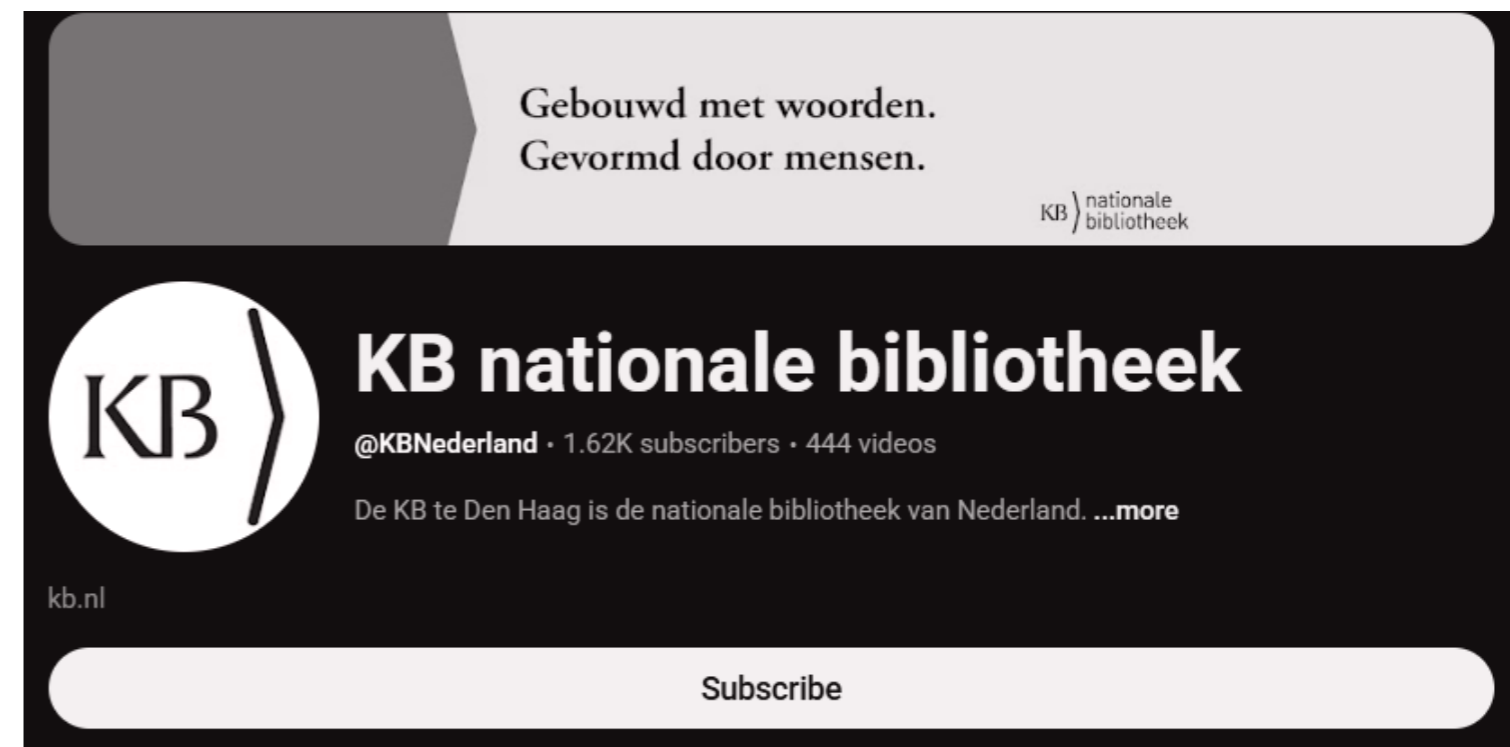


Image 2. KB Youtube Front Page (www.youtube.com/@KBNederland).

TRIP ADVISOR

#16^{total}

16 reviews

Summary of Reviews

Date Range: 2013–2019

Languages: Dutch (13), English (2), Russian (1)

Audience: Families, Solo visitors, Tourists, Students, Literature enthusiasts

Sentiment Overview

Positive comment(s): 88%

88% of reviews were positive (4–5 stars), highlighting exhibitions, peaceful atmosphere, and children’s activities.

Negative comment(s): 12%

12% of reviews were negative, citing poor staff behavior or technical issues.

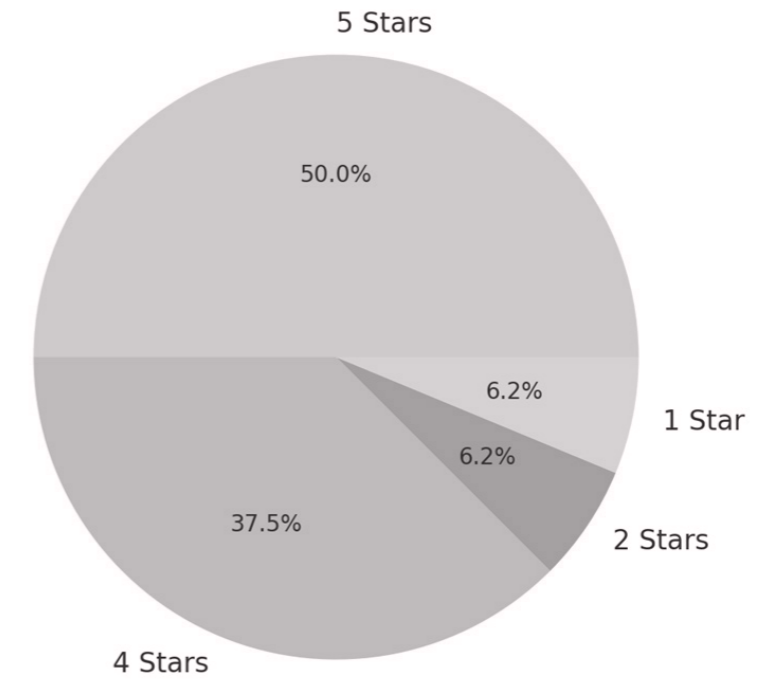


Figure 9. Sentiment Distribution of KB Library Reviews

Table 2. Overview themes

Theme	Mentions	Highlights
Literature/Exhibitions	9	Praised the museum’s tribute to Dutch literature and visuals like portraits/videos
Children’s Museum	6	Many highlight it as a fun, interactive experience for kids
Study Environment	5	Described as peaceful, quiet, ideal for studying or reflection
Facilities & Technology	4	Positive comments on computers, WiFi, and digital collections
Staff Experience	2	One very negative experience with rude staff, another notes malfunctioning devices
Architecture / Building	3	Impressive and inspiring architecture
National Archive Connection	2	Reviewers appreciated the link between KB and the National Archive

Note. Breakdown of the themes mentioned in the reviews, along with highlights of what reviewers said.

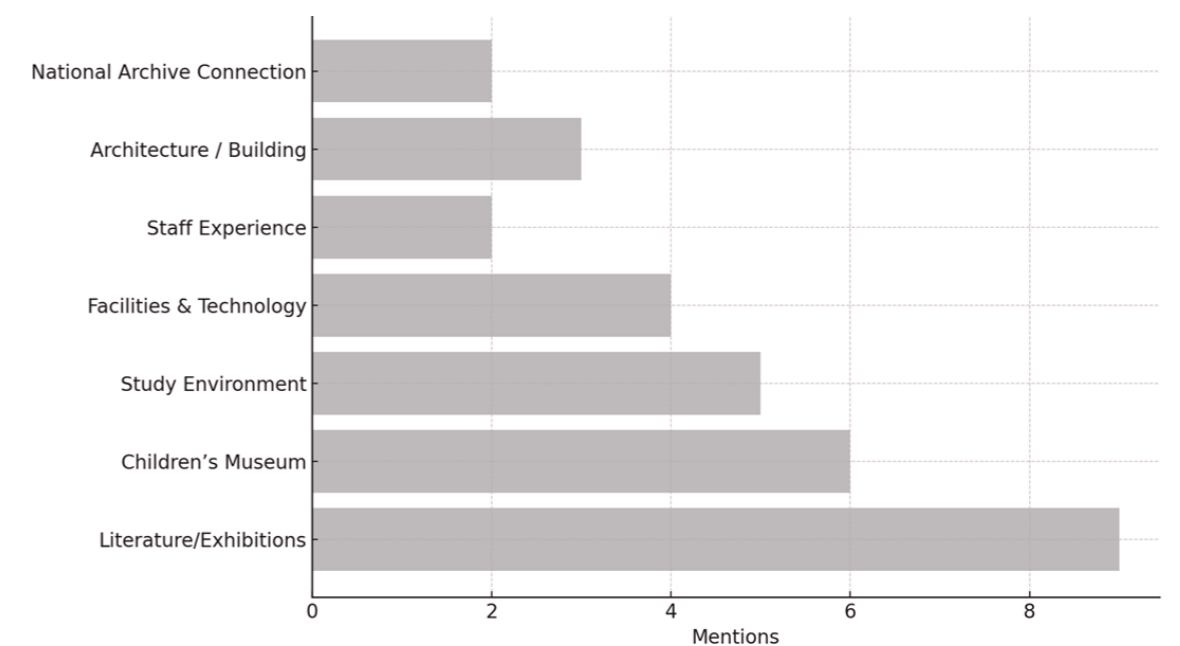


Figure 10. Visual overview of user sentiment and common themes in reviews of the KB Library.

Summary of Reviews
Date Range: 2014–2025
Languages: Dutch (13), English (21), Russian (1) & Polish (1)
Audience: Families, Solo visitors, Tourists, Students, Literature enthusiasts

Sentiment Overview

Positive reviews: 84%

84% of reviews were positive (4–5 stars), highlighting exhibitions, peaceful atmosphere, and children’s activities.

Negative reviews: 10%

10% of reviews were negative, citing poor staff behavior or accessibility

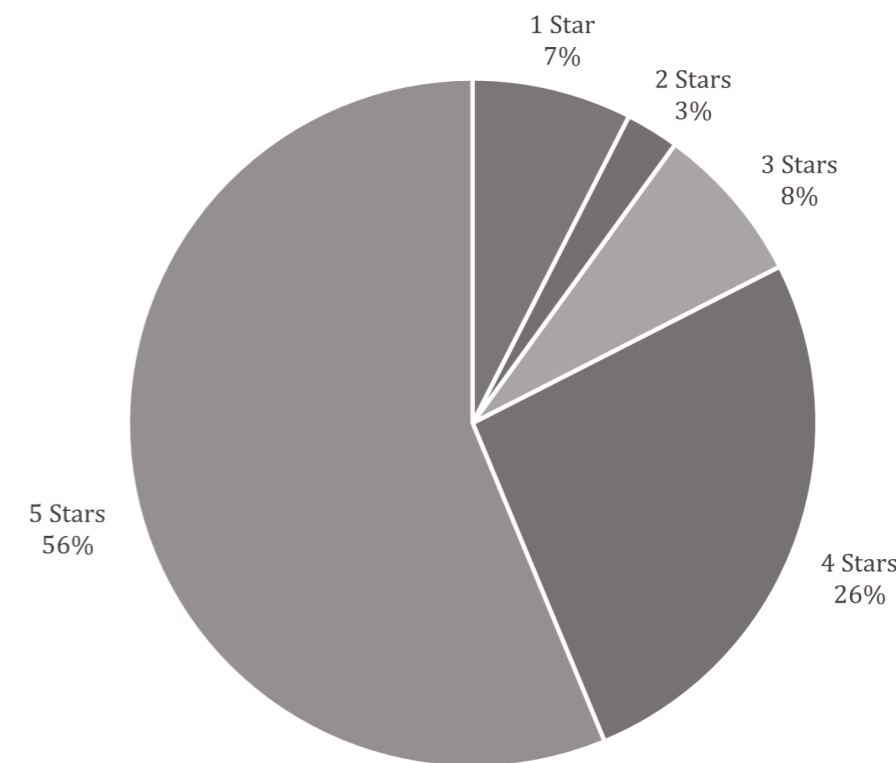


Figure 11. Distribution of KB Library Reviews

Table 3. Overview themes

Theme	Mentions	Highlights
Study Environment	18	Quiet place, peaceful atmosphere, ideal for studying, best study location
Facilities & Services	19	Lockers far, free study room access, poor printing service, entrance system annoying, no laptop printing allowed
Staff Experience	16	Friendly and helpful staff, arrogant and unfriendly staff, poor reception desk service, unhelpful behaviour
Technology & Internet	10	No free Wi-Fi, Eduroam failure, poor digital services, strange Wi-Fi advice (sent to Central Station)
Accessibility	7	Located near Central Station, easy to reach, complaint about youth hanging outside
Atmosphere & Ambiance	12	Great ambiance, fresh modern look, cozy environment, vibrant atmosphere, unpleasant experiences outside
Food and Drinks Policy	7	No drinking/eating allowed, water bottles forbidden, coffee available in cafés
Collections & Resources	10	Large collection, online resources access (EBSCO, eBooks), restricted access to rare books, Delpher archive issue
Events & Exhibitions	5	Free exhibitions, lectures, behind-the-scenes tours
Opening Hours	8	Limited hours, inconvenient closing times, desire for evening opening
Architecture & Building	5	Impressive building design, spacious foyer, cozy coffee corner

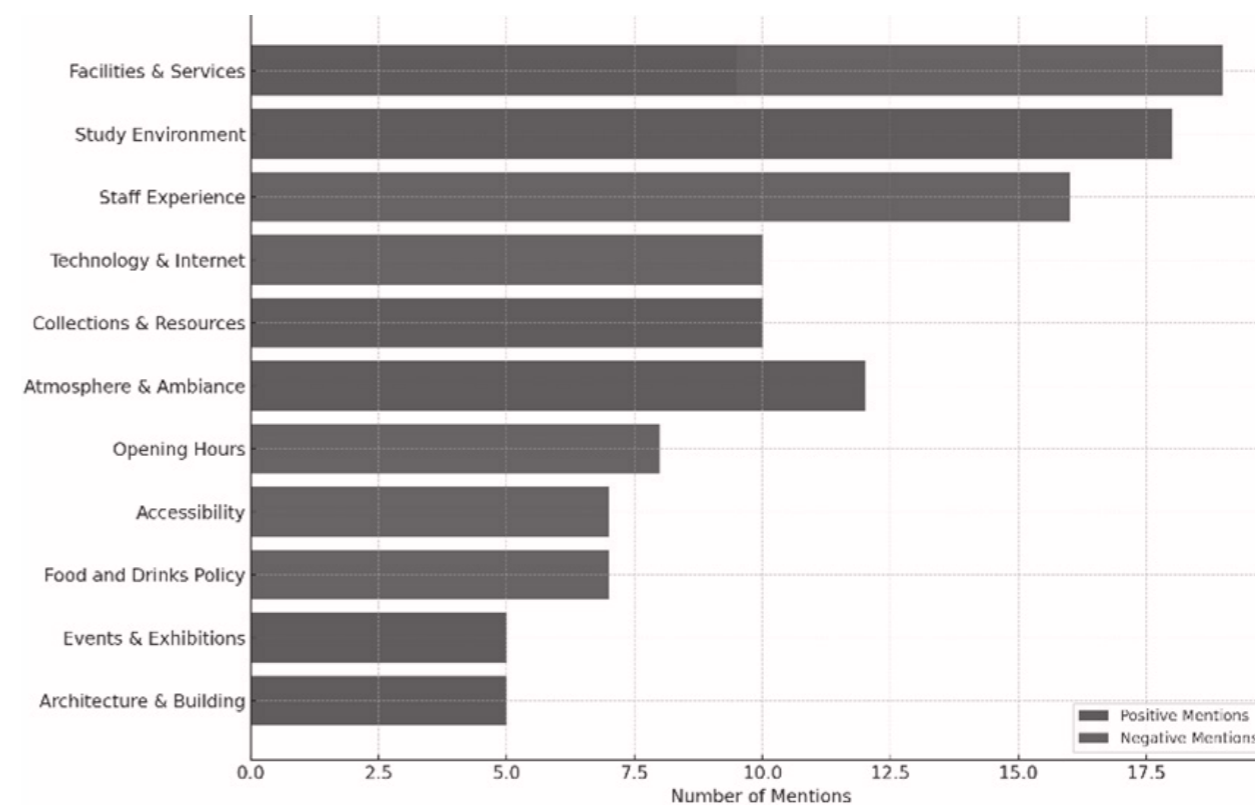


Figure 12. KB Review Themes (Split Positive/Negative Mentions).

Note. Breakdown of the themes mentioned in the reviews, along with highlights of what reviewers said.

CROSS-PLATFORM COMPARATIVE ANALYSIS

This diagram compares and synthesizes data from TripAdvisor, Facebook, Google Maps, Instagram, Reddit, and YouTube regarding the KB Library.

Overall Sentiment: Public perception is largely positive, with TripAdvisor, Google Maps, and Facebook each showing over 80% positive feedback, especially in areas like architecture, atmosphere, and children’s activities.

Thematic Strengths: Commonly praised themes across platforms include the KB’s literature exhibitions, quiet study spaces, and children’s museum.

Platform Specializations:

- Instagram excels in visual engagement, highlighting digital manuscripts and curated content.
- Reddit serves as a casual Q&A hub but also reveals gaps in accessibility and digital services.
- YouTube is underutilized but shows potential for educational storytelling and architectural showcases.

Challenges Identified: Issues around staff interaction, digital platforms (e.g., eBooks), and limited opening hours appear on multiple platforms, suggesting recurring friction points in user experience.

Table 4. Comparative Analysis

Platform	Content Type	Primary Audience	Engagement Style	Sentiment Trend	Key Themes Highlighted
TripAdvisor	Reviews & Ratings	Tourists, families, solo visitors	Text reviews, ratings	88% Positive	Literature, children’s museum, study areas, architecture
Facebook	Comments, shares	Families, heritage enthusiasts	Comments, likes, shares	80% Positive	Accessibility, archives, children’s books, atmosphere
Google Maps	Ratings, brief comments	Tourists, students, general public	Star ratings, short texts	84% Positive	Study areas, services, staff, digital access, ambiance
Instagram	Visual content, hashtags	Followers (6.1k), digital fans	Likes, hashtag activity	Mostly Positive	Manuscripts, visuals, behind-the-scenes, digital collections
Reddit	Threads, discussions	Locals, students, librarians	Comments, upvotes	Mixed	Quiet spaces, library value, discussion of use
YouTube	Informational video	Public, architecture enthusiasts	Video views	Informational	Book preservation, architecture, heritage design

Note. A comparison and synthesis of data collected from social media platforms of the KB.

MATRIX

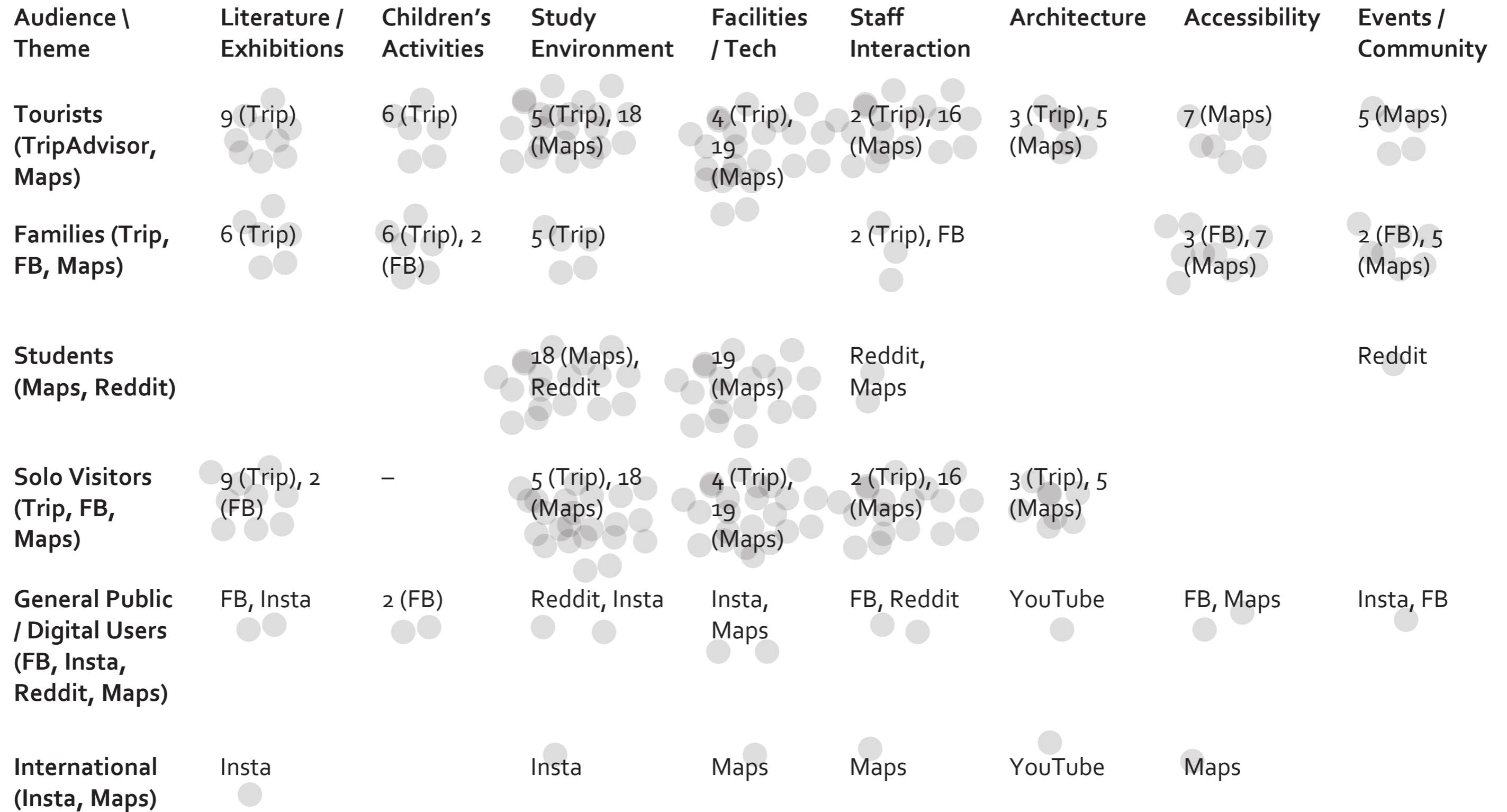


Figure 13. This matrix shows how often each theme was mentioned across platforms, categorized by audience when identifiable.