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Archiving and disseminating web history in a museum context

- the case of webmuseum.dk

Traditionally, the role of museums has been to collect historical objects and contribute to the dissemination of our cultural heritage. With the advance of the information society, however, museums are now faced with challenges in relation to preserving and disseminating digital material. Among these challenges are issues concerning the collection and archiving of non-static or immaterial objects, selection criteria for inclusion in collections, and the presentation of digital objects, their use and context. This paper will address these challenges with an emphasis on the following questions: How is a web museum established? What are the challenges in relation to the responsibilities of a traditional museum? How does a web museum differ from a traditional museum? In closing, these questions will be exemplified through a concrete case: webmuseum.dk, a Danish online museum for web design history.

Keywords: web history, cultural heritage, web design history, web museum

The internet is no doubt one of the most important but also one of the most fleeting media of our time. New websites are continuously launched while existing sites are updated and modified. While the web is growing in size and importance, much of the published material is disappearing at an alarming rate. Some studies estimate that 40% of online material will be gone after one year, while another 40% will have been

modified. That leaves only 20% of the online material intact.¹ This means that knowledge about key stages in web development has already been lost, and that essential culture-bearing material is not preserved. For libraries and archives the development of the internet has led to a change in archiving obligations, which in recent years have come to include dynamic materials, a responsibility that implies a new set of strategic and technical challenges. Some countries have expanded their national archives to include digital material, and since 1996, privately initiated international facilities such as Webarchive.org – “The Way Back Machine” – have collected, preserved and provided online access to historic web sites.² In a museum context, however, there have only been limited attempts to establish practices for preserving and disseminating web history and web culture. This may seem surprising, considering the status of the web as perhaps the most important culture-producing and culturally agenda-setting medium of our time. One way of preserving and disseminating web history is to present it in its own medium, on a web-based dissemination platform – an online web museum. But how can such a museum be established? What aspects need to be considered, and how does a web museum differ from a physical museum?

The core responsibilities for a museum are to carry out research-based collection, preservation, registration and dissemination of our material and immaterial cultural heritage.³ These activities constitute the main responsibilities, and they are aimed at the academic fields that the museum is anchored in.

A web museum will also have to manage these activities, but at the same time, it also needs to rethink these responsibilities in relation to the web medium where the museum is anchored. Based on the museum’s core responsibilities, the following discussion will examine some of the key challenges that should be addressed in the establishment of a web museum. In particular, the paper will address issues concerning collection and preservation with a particular emphasis on delimiting and

¹ See e.g. Niels Ole Finnemann (2009).

² The Way Back Machine of Archive.org is hugely successful. Archive.org has a Google page rank of 8 and receives about 2,367,605 unique visitors per day. However, the search engine is not particularly user-friendly for researchers, for example, as it has no search functions for searching specifically for certain themes or types of sites, for example. Furthermore, the sites are often incomplete, lacking links, images and graphic features.

³ See, for example, The International Council of Museums (ICOM). ICOM News, vol. 57, 2004 n°2

defining digital museum objects and on challenges concerning museum dissemination in a digital context.

Collection and preservation

The heart of any museum is the collection, which is based on the museum's field and dissemination obligations. A web museum must have collection strategies that are based on research within the museum's field in order to ensure that the relevant material within the museum's field is collected and archived, and knowledge about the material is documented. Unlike traditional museums, a web museum's collection activities are aimed exclusively at dynamic and digital content, which involves specific requirements concerning archiving, documentation and dissemination. A museum that has websites and the Internet as its subject matter must address issues of delimitation and the 'stabilisation' of objects for study and archival purposes. These issues involve considerations concerning what constitutes a museum object, including what its extent is, what constitutes its components, and which version should be collected. The issue of delimitation raises research-related questions concerning the concept of objects as well as issues of a technical nature concerning archiving strategies for the collection activities.

Websites as collection objects

A fundamental problem that museums collecting websites have to address is what constitutes a website as a museum object. So far, there have been relatively few studies that attempt to examine websites as objects of analysis and archiving in their own right. One possible point of departure for a definition of websites with a view to museum acquisition is Niels Ole Finnemann's definition, presented with a view to specifying websites as objects of analysis and archiving. Finnemann proposes the following definition:

"A website can be defined as a site, 1) i.e., a delimited set of addresses on the Internet, which is delimited insofar as 2) they are subject to an overall editorial control of their content, which is 3) freely accessible to the general public either through payment or free of charge and with or without user indication and a password" (Finnemann, 2005, quoted in Brügger, 2005, p. 11). Thus, the definition of

a site relies on its URL and site coherence (i.e., that it is the end-result of a series of editorial and design decisions). Based on the URL (the uniform resource allocator), the website is defined as having a specific location 'on' the web, which one can visit and archive. The URL makes it possible to determine whether one is still 'on' the website or somewhere else; typically every website begins or ends with the main URL.

Archiving based on the URL will be relevant for museums that wish to archive such elements as content, technical aspects, interaction forms, design or artistic-aesthetic dimensions of individual websites. However, such a strategy does not accommodate the fact that users often move from site to site and thus build topic- or theme-based contexts across URLs. For a museum that is focused on archiving and documenting, e.g., socio-cultural dimensions of internet use and interaction, it will be relevant to add collection and archiving approaches that span multiple URLs.

One possible approach to a broader definition of websites is S.M. Schneider and K.A. Foot's (2004) concept 'web sphere analysis' (pp. 188ff), which refers to studies and documentation based on thematic coherence or "shared objects". This approach is appropriate, e.g., for studying and archiving certain forms of online activities and web-culture phenomena.

The issues of delimiting and defining objects of analysis and archiving raise questions about what constitutes a website, and about the distinction between object and context and between relevant contexts and the rest of the web. Additionally, these questions relate to a more fundamental academic debate about which understanding or concept of object or work museums choose to as a basis for their collections. In terms of content, the object concept is determined by the museum's research tradition and academic history, so like traditional museums they must determine locally what their underlying foundation is, and thus what it is relevant to collect and present. The object concept that a given museum bases its collection activities on will also affect the technical archiving strategy.

Technical challenges concerning archiving

Traditional museums typically base their collections mainly on physical objects, but a web museum's collection is digital, and the most common archiving strategies are based on macro and micro archiving.⁴

Macro archiving is archiving on a large scale (of a large number of websites and, in principle, infinitely). This form of archiving is typically applied by government and private institutions, both nationally and internationally, that have the necessary computer power, storage capacity, and technical expertise (Brügger, 2005, p. 11). The acquisition process is automated through the use of search robots, perhaps supplemented with event harvesting and selective automated acquisitions of specific domain or site types, and it aims to secure the national and international cultural legacy. By contrast, micro archiving is carried out on a small scale, both with regard to space (a limited number of websites) and time (a limited, isolated period). It is typically carried out by individuals who have considerable computer power and storage capacity and whose technical knowledge of archiving or of the subsequent treatment is either lacking or on an amateur level. Archiving is often done on the basis of an immediate, here-and-now need to preserve an object of study (Brügger, 2005, p. 10). Since the purpose of web museums is not to provide exhaustive documentation and because museums rarely have the computer and storage capacity or technical expertise that, for example, national or international libraries and archives have access to, it would seem most appropriate to base the acquisition process on micro archiving. This enables a more selective approach to what should be preserved and also promotes a research-based praxis concerning the registration of knowledge about the collected objects and their character.⁵

Micro archiving also makes it possible to ensure that the collected material is intact with regard to, e.g., images and graphic elements and to add documentation of animations or interactive features, for example in the form of screen films.

⁴ In his book *Archiving Websites. General Considerations and Strategies* (2005), Niels Brügger describes the two forms of archiving with an emphasis on micro archiving. The book offers an in-depth discussion of the possibilities and challenges inherent in micro archiving, tests of various types of archiving, software and links to resources on net-archiving

⁵ For an expanded description and discussion of the challenges in and possible strategies for implementing micro archiving approaches for web museums, see also Engholm (2010).

A large and complex task in connection with archiving digital material is to preserve it in a way that maintains the ability to present it and make it accessible to users. National archives must continue to develop technologies that maintain the material, which is a major task that requires extensive resources. A private initiative such as Archive.org reflects the challenges involved in maintenance. Several sites are inadequately represented and lack links, images and graphic elements. Thus, as a source of documentation of visual or cultural aspects of web development, the archive can only offer a limited selection of historical material.

For most museums micro archiving through screen dumps, screen films that document animations and interaction forms, and video recording offer the most appropriate archiving approach, although it does not offer a complete representation of the use and appearance of the website at the time of production. To the extent that it is possible, it would be natural for museums to collaborate with national archives to find practices for presenting and providing archived dynamic material. This collaboration would let museums gain access to the preservation facilities of the national archives, and the archives will be expanded to include efforts aimed at dissemination and curation.

Metadata

When building a web museum collection it is necessary to establish formalised practices for registering and describing collected material. Traditional museums base their collections on metadata, which ensures documentation of the content, nature and form of the items in the collection. In relation to websites, in some cases these data can be extracted from the site itself, as information about technology, production site and time, and the names of producers, designers etc. are included in the content. However, in most cases this poses a challenging task, not least in connection with older web material, where it is often impossible to obtain this information through other sources. Although the web is a young medium, much information has already been lost. The national archives did not begin to collect dynamic material until the late 1990s and early 2000s, and thus, much material is

already lost. Furthermore, there is as yet no uniform guideline for registering or presenting archived material.⁶

Thus, documenting the early years of web development often requires an ‘archaeological’ effort, digging through private archives, exploring aspects of production, applied technology and information about producers, contributors and designers.

As we have seen, collecting, registering and preserving material constitute a complex task. In several regards, a web museum has the same tasks as a traditional museum, but in some areas a web museum faces unique technological and media-specific challenges. This also applies to a web museum’s dissemination task, which similarly has to address the particular web-oriented context.

Dissemination

An essential task for traditional museums is dissemination, which is also true for web museums. In our post-modern, globalised world, however, in recent years the role of museums has changed, as museums have become a part of the experience economy. The transformation of the economy from industrial activities revolving around production, to an orientation toward symbols and consumptions has caused a change in conditions for cultural institutions (Lash & Urry, 1995). While in the past, a museum’s primary role was to preserve and disseminate the cultural legacy through educational and informational activities, there is now an additional demand for staging and promoting experience values and a user-oriented focus. Museums navigate between objectives of education and experience, and the entertainment and audience-engaging elements of museum presentations have become increasingly important priorities. In physical museums, dissemination activities take place within the concrete architectural setting available to the given museum. A museum that has the web as its subject area presents its medium through the medium itself, which poses a unique set of requirements.

⁶ In Denmark, for example, restrictive legislation consisting of the Legal Deposit Act, the Copyright Act and the Data Protection Act – prevents access to the national web archive. The archive is closed to the public, and access requires the approval of a formal application.

As in traditional museums, dissemination efforts must be anchored in the museum's research in relation to the collection. In addition, dissemination efforts must provide education and an experience for visitors to the museum. In contrast to traditional museums, a web museum's dissemination efforts are not related to physical exhibition space. Accessing and experiencing the museum is computer-mediated and web-based, and the usage context of the museum is therefore fundamentally different than that of the physical museum.

According to art curator Steven Dietz (1998), exhibitions that are designed for the web, and which are not necessarily associated with a physical museum have a higher degree of latitude with regard to their presentation. Dietz operates with the term online exhibitions to characterise these exhibitions, which are curated by museums, but which are exclusively defined by being designed for the medium itself, and which do not necessarily have any direct link to the collections or other exhibitions of a physical museum. Unlike traditional museum sites, online exhibitions are not bound to 're-present' existing physical collections and exhibitions; their presentation form, design and interaction are only required to create exhibitions that work in the context established by the medium itself.

This is also true for a web museum, which is similarly defined by having an independent character, and which is anchored in the computer-based web medium rather than in the exhibition praxis of a physical museum. The computer-mediated and web-based dissemination approach, however, requires a more specific consideration of the web museum's target groups. It is essential for a web-based exhibition form to determine which user equipment and user competences the museum wishes to accommodate. These issues relate to technical decisions about which technology and software the museum should employ, and it involves decisions concerning, e.g., accessibility in relation to computer platforms, browsers, and any supporting technologies or plug-ins.

User considerations also include questions about how the site is used; this involves decisions about information architecture, navigation and interactive dimensions. Obviously, by their nature, these considerations are contextual, as they are only expressed in concrete use by the museum users who realise the museum's content and interactive possibilities with a variety of equipment, interests and goals.

Web museums face the dual challenge of managing the core areas of collecting, registering, preserving, doing research and disseminating information and, on the other hand, turning the museum itself into an attraction that is visible and effective. Like physical museums, web museums strike a balance between two poles, where the challenge is to optimise the experience of their dissemination activities without selling out on the objectives related to their archiving and research strategy. The digital technologies contribute to a user-involving and experience-oriented presentation form, which also implies usability requirements. Thus, when developing dissemination strategies for a web museum it is essential to make the most of the potential of the web medium while ensuring a certain degree of recognisability and promotion of convention, as a web museum should be useful and meaningful to a wide range of target groups.

As mentioned in the discussion above, the establishment of a web museum requires a series of considerations about the delimitation of objects and decisions concerning dissemination. In the following, these issues will be addressed in relation to a concrete case, that of Webmuseum.dk, a Danish online museum for website design history, which was developed in a collaboration involving the Danish Centre for Design Research and the Danish Museum of Art & Design.

Webmuseum.dk

Webmuseum.dk was established as an online museum for website design history that is accessible on the web and through a physical access point at the Danish Museum of Art & Design. The museum is currently online in a beta-version at www.webmuseum.dk. The official opening is scheduled to take place in autumn 2010, at which time the web museum will also have a physical public presence in the form of a permanent exhibition room.

Moored as it is in a museum of art and design, the academic focus of the web museum is on the design history of the World Wide Web. Institutionally, it is organised as a 'museum within a museum' which is independently tasked with the research-based collection, preservation and dissemination of web material to document web design developments. At the same time, the web museum carries out

a task on behalf of the Danish Museum of Art & Design, which as a national museum of design has needed to expand its collection to include digital material.

As far as is known, Webmuseum.dk is the first of its kind in the world. So far, the only attempt at documenting web development in a museum context is the site DigitalCraft.org, which was established in 2003 under the Museum für Angewandte Kunst in Frankfurt as a collection and exhibition venue for website design, computer games and social communities. Like Webmuseum.dk, DigitalCraft.org differs from the national archives and the comprehensive Archive.org by having a curated and deliberate dissemination praxis in relation to the collected objects. The site is, however, mainly focused on contemporary website design: “fast moving trends in everyday digital culture” (Nori, 2003). There is as yet no effort to preserve older materials. By contrast, Webmuseum.dk aims to serve as a specific museum for web design history, documenting events since the web went graphic in the early 1990s and future web developments. The museum is charged with collecting, archiving and disseminating web history on a research basis to the public while also serving as a source for historians wishing to study and write about web history. Archives and metadata records make it possible to search for specific material, and the web museum’s exhibitions offer thematic documentations of technological, societal and cultural contexts for web production and use.

Collection and preservation

The museum has chosen to develop its own collection based on so-called qualitative micro archiving. The collection is handled by an editorial team, which assesses the sites critically and contributes to the museum’s knowledge production and presentation activities by recording the selected items and their context and writing about them. As most of the museum’s material is no longer available online, it has been stored in the form in which it was available. For early stages of web development, the exhibits are mostly in the form of screen dumps and scanned images from printed user manuals, how-to books, and inspiration books. In addition to this, micro storage is carried out with the software program WebDevil, which makes it possible to store entire sites and to specify how many pages should be included. In most cases, only representative components have been selected, and

few sites are stored in their full extent. Delimitation is based on URLs and includes the pages within a URL that it is considered relevant to document.

In addition to micro storage, the museum also stores short screen films of selected parts of sites. As part of the research leading up the creation of the museum, the editorial team interviewed researchers, programmers, web designers and concept developers; some of these interviews provided background material, while others are included in the museum as video interviews that serve to frame specific websites or to introduce a theme in the museum.⁷

The object concept of the collection

The web museum's association with a design museum embeds it in a design history framework. For the Danish Museum of Art & Design, the academic matrix is design studies within the larger framework of art history. In accordance with this approach, the design concept is qualitative and normative, oriented toward certain types of objects that are considered to represent an exemplary level of execution – technically, functionally and /or aesthetically-culturally. Thus, the design concept is based on an approach to objects as aesthetic objects or 'works'. In accordance with this perspective, the factors that constitute form and meaning which are interesting in a descriptive and archival sense are the design personality (the designer or crafts person that created the object/work) and the particular (artistic) processes that underpin and are materialised as traces of the creative process in the objects.

In recent years, insights from modern culture studies and anthropology have been embraced by design history studies and have expanded the field of study so that it not only includes exemplary objects and their creation but equally covers the contexts of production, technology and consumption that they enter into. The work-oriented perspectives have expanded to include studies of the cultural circuits of specific products (e.g. du Gay et al. 1997; Clarke 1999) or context-oriented documentations of everyday objects and their production of meaning in various consumer contexts (e.g. Miller 1987; Attfield 2000; Lash & Lury 2007).

⁷ The museum's considerations about other forms of archiving and technical challenges concerning the documentation of dynamic web material are described in Engholm (2010, pp. 328-332).

In developing Webmuseum.dk, the goal has been to combine a prescriptive work-oriented approach with an approach anchored in new design and material culture studies. From a historical perspective, it is considered essential to select websites that can be considered exemplary from a normative point of view in terms of technical features, user aspects and/or graphic-aesthetic properties. As a design history museum, webmuseum.dk has an obligation to document prominent website design from various periods and to present prominent examples of artistically experimental and original website design to a contemporary audience (Engholm 2010: 337).

The rationale for applying an approach based on material culture studies is based on the unique character of the web and on the desire for a contextualised and broad presentation of design history. Unlike other media, the web is an open publishing medium where both professional and private contributors provide content and design websites. By necessity, a web museum must reflect this diversity of senders and appearances. Thus, the web museum not only includes websites that are professionally exemplary from a normative point of view, it also seeks to capture the conditions for web development and distribution and for web production and consumption in popular culture. The material culture perspective is reflected in the fact that the web museum not only presents websites as isolated objects but also highlights the cultural forms that sites assume from the time of their conception until the point of distribution and use. This means that the museum's collection not only contains websites but other objects as well in the form of video, image and audio files that help contextualise and frame the story. Thus, in qualitative normative terms, the work-concept is centred partly on exemplary sites and partly on a historical category of objects that manifest aspects concerning technology, function, industry, economics and culture at a given time in web history.

Dissemination on the interface level

In establishing Webmuseum.dk, the emphasis has been on providing an interface that is both user-friendly and experience-oriented. The dissemination strategy is based on the fundamental clash between 'web' and 'museum'. The web museum

has both a curated museum mode and a free, user-oriented - and user-produced - mode.

The curated museum mode offers the visitor a mediated insight into the development of the internet through structured, thematic exhibitions. Here, as in other sections of the web museum, the user is offered a thorough presentation of a subject area in the form of text material and visual content (and in some cases audio files) of relevant web material examples. The content is presented in its most ideal form as thumbnails or screen shots. This presentation form is closely associated with traditional museum communication.

The free, user-oriented modus is a user-engaging communication form, which lets the user move flexibly between presentation levels, moving independently between the web museum's many presentations. The users are able to zoom in and out in relation to the museum material and shift their view sideways as well as up and down. This provides access to different levels of communication: From any thematic presentation, the user can zoom in on a particular exhibit, move directly from there to another exhibit from a different exhibition context, and then zoom out to the thematic presentation level of this new context.

Exhibition activities

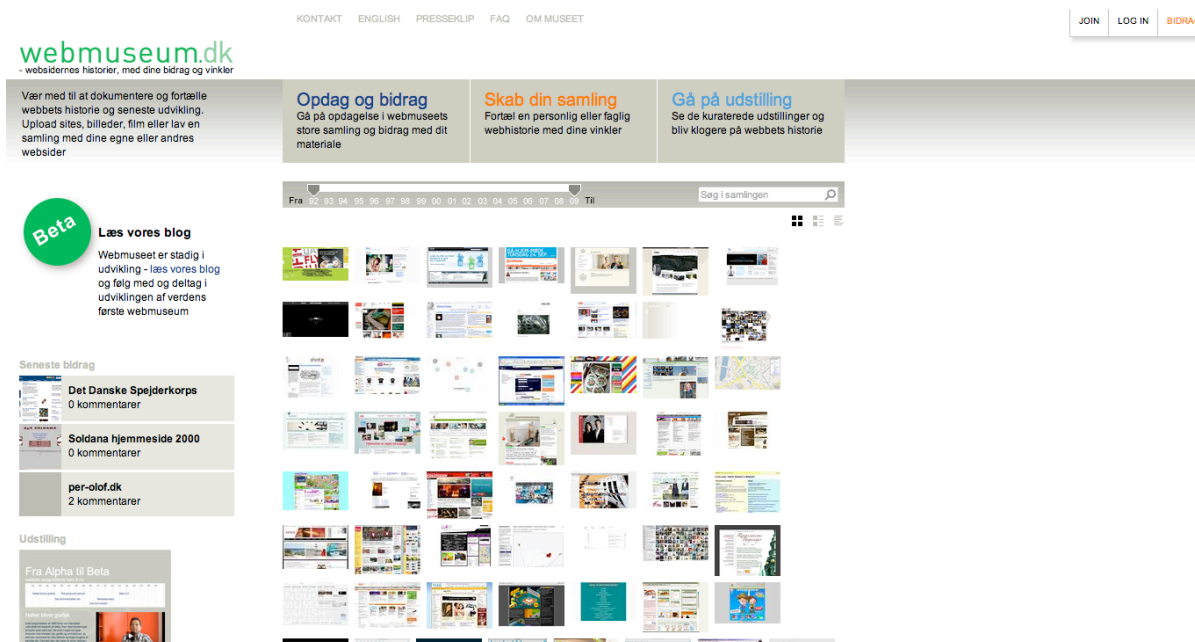
As in any museum, the core is made up of the collection, the content and extent of which is based on a selection process that is related to the communication activities. Thus, visitors to the web museum will not find an exhaustive representation of material from the first days of the internet until the present day. Instead, the collection contains the exhibitions that the editors have chosen to display based on a requirement of historical representation. As more and more communication activities are initiated, the collection will grow.

In the first version of the museum, the user can explore the content of the museum in three different modes:

Through free or thematic search functions within the collection.

In a permanent exhibition where the collection is curated and placed into thematic contexts.

In a user-driven section where social technologies enables users to create their own exhibitions and share opinions and files with other users.



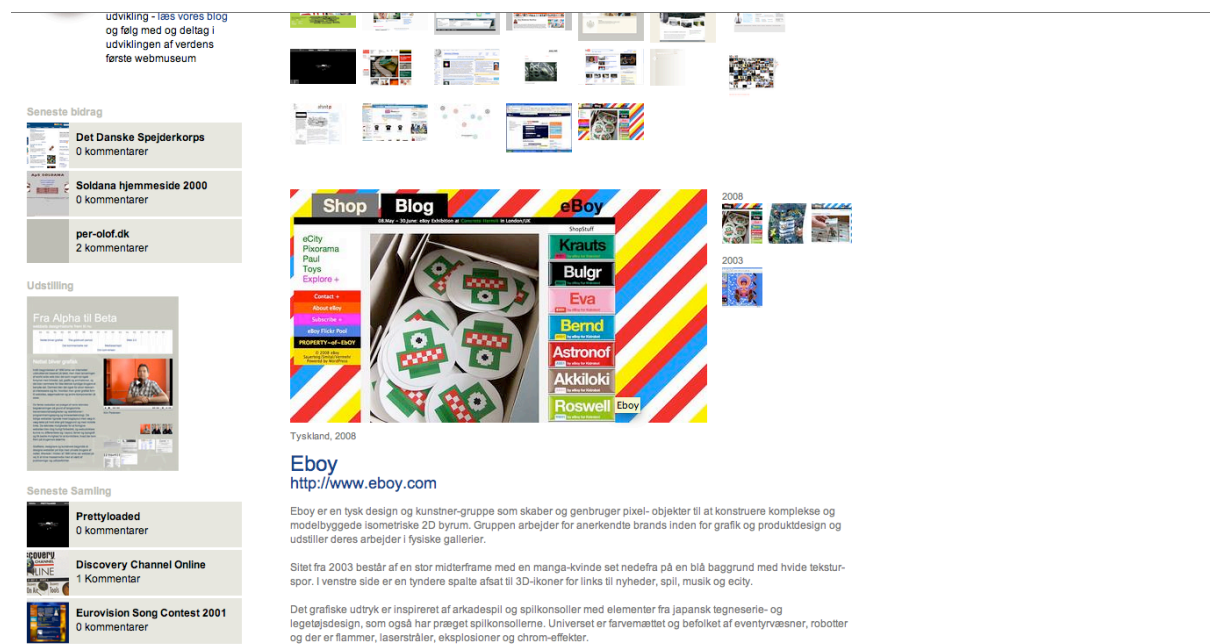
Free or thematic searches in the collection

The collection constitutes the core of the web museum as well as the entrance to the museum, as representations in the form of thumbnails of the objects in the collection make up the front page of the site. Thus, right from the start, visitors can see what the collection contains and also find links to the permanent exhibition and the user-driven section.

Currently, the collection exists in a beta-version that offers three search options: First, a free search option based on the thumbnails that are featured on the front page. They each offer access to sub-pages with additional documentation of the objects in the collection. For each exhibition item there is an exhibition text describing the production conditions, and there is metadata describing – in the cases where information was available – production, technology, production time, producer, designer and the time when it was download to the museum. An exhibition object may be an individual page within a URL, or it may be a number of pages within the URL, which document the site at a given time. When it was possible to find and

document other stages in the design development of the site, the exhibition features screen dumps of the site over time.

In addition to searching the collection directly, it is also possible to find specific sites via a free-text search function that offers direct access to a specific sub-page. This search function offers a timeline that frames particular periods and offers thumbnails representing the individual items in the collection within the given period.



In connection with the individual work presentations users can comment on the material, offer additional information, and suggest additional material that they think should be included in the museum.

In the development of the museum, the goal was to create an engaging and open mode of address in the navigational units. Therefore, traditional museum terms such as “the collection” have been replaced with a style that encourages user involvement. “Discover and contribute” is the term for the search mode on the front page, which also contains the representations of the objects in the collection, the free-text function, the timeline, and access to sub-pages with facilities for commenting and blogging.

The permanent exhibition

The permanent exhibition serves as a 'time line corridor', which the user can access through an 'exhibition poster' on the front page or through the search function "Go see the exhibition".

The exhibition is structured around particular years with entrances to a number of main and subordinate narratives that follow the corridor chronologically from the museum's first year, 1990, until today. Structurally, the exhibits are placed in 'side galleries' organised as independent main narratives. The presentation uses text, images and video clips that go behind the works and their context. The exhibitions are intended as learning and knowledge sources and aim to tell stories that give visitors insight into web history. The narratives focus on technological, societal, economic and cultural factors that affect web design development and on the particular factors that affected the development of the individual site.

There are a total of seven main narratives, which visitors can follow in a linear fashion or jump into and out of as desired.

Side Gallery 1 addresses the time when "The internet goes graphic" (1990-93). The purpose of this exhibition is to describe some of the factors that made the web a mass-medium. The essential claim is that the expansion of the web is mainly due to the introduction of a graphic user interface. With the launch of WWW and the first browser, Mosaic, in the early 1990's, the internet went from being a text- and code-based instrument to a platform that features images, sound and graphics, and which enables ordinary people to use the medium. The exhibition presents the first graphic websites and describes the technical background for their development and use. Due to the limitations of the html-code and the browsers, websites were very similar in their visual appearance and interaction, with text on a white or grey background and purple links.

Vær med til at dokumentere og fortælle webbetts historie og seneste udvikling. Upload sites, billeder, film eller lav en samling med dine egne eller andres websider

Opdag og bidrag
Gå på opdagelse i webmuseets store samling og bidrag med dit materiale

Skab din samling
Fortæl en personlig eller faglig webhistorie med dine vinkler

Gå på udstilling
Se de kuraterede udstillinger og bliv klogere på webbetts historie

Fra Alpha til Beta

webbetts designhistorie frem til nu



Udstilling

Udstillingen Fra Alpha til Beta dokumenterer webbetts designhistorie, fra www blev grafisk og frem til i dag. Udstillingen har en designvinkel på webhistorien og er udviklet i regi af Center for Designforskning. I fremtiden vil der komme flere udstillinger med andre vinkler. Kom gerne med forslag i udstillingens kommentarfelter.

Nettet bliver grafisk

Indtil begyndelsen af 1990'erne var internettet udelukkende baseret på tekst, men med lanceringen af world wide web blev det som noget nyt også forsynet med billeder, lyd, grafik og animationer, og det blev nemmere for ikke-teknisk kyndige brugere at benytte det. Dermed blev det også for alvor relevant at interessere sig for, hvordan man giver grafisk form til websites, søgemaskiner og andre komponenter på www.

De første websites var præget af store tekniske begrænsninger på grund af langsomme transmissionshastigheder og restriktioner i programmeringssprog og browser-teknologi. De tidlige websites lignede mest bog-layout med væg-til-væg-tekst på hvid eller grå baggrund og havde violette links. De tekniske muligheder for at fremvise webbetts historie blev dog hurtigt forbedret og



Ida Engholm, forskningslektor, Center for Designforskning fortæller om da nettet blev grafisk.

Side Gallery 2 focuses on the two-year period of 1994-95; the intention with this narrative is to describe the economic and business aspects that gave the web its commercial strength and to discuss the impact of these factors on the design idiom. This exhibition is entitled “The web as a commercial medium”; it describes the earliest examples of e-commerce and new forms of interaction between companies and users as well as among users. Technically, the possibilities were expanding in terms of layout, navigation and graphics. The first fashion trends arose: Black became the preferred background colour on the web, and the blue links had competition from designed ‘buttons’ that made for a more varied design expression.

Side Gallery 3 is entitled “A new profession: web designer” (1995-97); it describes how the new medium forms the basis for the new profession of web designer and explores web designers’ influence on web design developments. Graphic designers and interface designers enter the stage, web design becomes a professional discipline, art and design schools begin to offer web design as a subject, and the first web design award is handed out. In companies and organisations, the IT department is no longer in charge of developing websites, and an entire new industry of web designers and web agencies sees the light of day.

Side Gallery 4 deals with “The gold rush period – the web designer as star”

(1997-1999); it addresses the economically successful period when established companies and organisations go online, and web agencies become successful as the mediators that secure companies an online presence and thus increased success and earnings.

The exhibition illustrates how the increased competition between browsers and a growing number of plug-ins create new possibilities for differentiation through graphic elements and interaction features. The claim is that this development often leads to high levels of creativity at the cost of user-friendliness.

Side Gallery 5 describes the “Dot.com crisis” (2000-2003), where the faith in the new dot.com companies fails, and the stock market plunges. The previous experimentation and creativity with regard to graphics, animation and interaction are replaced by a growing emphasis on user-friendliness and durable business concepts. This narrative rests on the assumption that it is the dot.com crisis and the subsequent economic crisis after the attack in New York on 9-11 that caused the slow-down in design creativity and the stereotyping of design solutions and navigational conventions that is still evident today.

Side Gallery 6 looks at the many new possibilities and interaction forms that arise in website design with the “Fusion of media platforms” (2003-), including film streaming on the web, web-based news, and live TV. The main focus is on the technical and media-related factors that affect the design and use of the web, both of which are becoming ever more dynamic and interactive.

Side Gallery 7 looks at recent web trends with an emphasis on so-called “Web 2.0 technologies and social software” (2004 -) such as MySpace, Flickr, and FaceBook, where the providers do not send information or sell content but instead act as gatekeepers for community formation and user-to-user interaction. In this context, the users are the new designers.

The exhibitions reflect the museum’s communication strategy, which is not focused exclusively on works but rather at describing web history through cross-sectional synchronous perspectives that reflect curated decisions on what is considered historically essential with a view to offering a diachronous presentation of design history.

Webmuseum.dk community

The third section in the museum is the user-driven section, which is accessed via front page postings of the most recent contributions in the user section, user comments or the search function “Build your own collection”.

In the user-driven section users can upload websites, links, and files and create their own exhibitions, collections, within certain pre-determined parameters. This section of the museum deviates from the traditional style of museum disseminations in several regards. First, it is open to anyone, and exhibiting websites and joining the debate on web design and web history are not the exclusive domain of academically trained connoisseurs. Secondly, it serves as a sort of collection point for the web museum, as sites exhibited by users in principle constitute submissions for the collection. If they are included in the collection, they are registered and equipped with metadata, and they may also be featured in the museum’s own exhibitions. Thus, professional expertise links up with the knowledge of the audience in the establishment of reservoirs for the documentation of web history.

In the development of the user-driven section the issue of copyright was the object of consideration. Museums are subject to copyright law, and therefore copyright issues have been determined for all the individual sites in the collection. By contrast, the user-generated section is open, and here it is the users who upload and act as distributors of their own material within a creative-commons framework.

The screenshot shows the webmuseum.dk website interface. At the top, there are navigation links: KONTAKT, ENGLISH, PRESSEKLIP, FAQ, OM MUSEET. On the right, there are buttons for JOIN, LOG IN, and BIDRAG. The main content area is divided into several sections:

- webmuseum.dk** - websidernes historier, med dine bidrag og vinkler
- Vær med til at dokumentere og fortælle** webnets historie og senestes udvikling. Upload sites, billeder, film eller lav en samling med dine egne eller andres websider
- Opdag og bidrag** Gå på opdagelse i webmuseets store samling og bidrag med dit materiale
- Skab din samling** Fortæl en personlig eller faglig webhistorie med dine vinkler
- Gå på udstilling** Se de kuraterede udstillinger og bliv klogere på webnets historie

Below these sections, there are three collection listings:

- Min Samling**
Her kan du fortælle en personlig eller faglig webhistorie gennem din egen samling af screen dumps, videoer eller tekst. Du kan også kommentere andres bidrag og samlinger.
Opret dig som bruger og bidrag her
- overskrift.dk**
Samling arrangeret af: Paw
0 kommentarer
- Søgemaskineoptimering**
Samling arrangeret af: Paw
0 kommentarer

On the right side, there is a preview of a collection titled **Ingeniøren** by Nils Ulrik Pedersen, featuring a screenshot of the Ingeniøren.net website. Below this, there is another collection listing for **Ingeniøren** by Nils Ulrik Pedersen, with 1 comment.

Physical exhibition

In connection with the museum opening, a room is established at the Danish Museum of Art & Design, which contains computers, and where the web museum's virtual architecture is projected on the wall to allow more visitors to get an impression of the use of the museum. This option links the physical and the digital museum in what might be called, in the words of Alisa Barry from the Natural History Museum in London, "a virtuous circle between the virtual and physical space" (Barry, 2006). Webmuseum.dk aims to serve as an independent entity as well as providing a link to the Danish Museum of Art & Design as part of this museum's permanent collection of 20th and 21st century design history.

Preserving cultural legacy

The European Community declared the digital preservation of our cultural legacy a political priority, and on the level of national cultural policy this lends support to libraries and museums in their efforts to meet these objectives. For years, researchers have argued for the importance of preserving our fleeting web-based culture and establishing contexts for the objects, events and concepts that constitute this media-expanded form of human communication.

The many libraries and archives emerging these years are testimony to a growing awareness of the need to collect and disseminate web history, so that this important part of our cultural legacy can be preserved and made available to researchers and the general public.

It is, however, also important for museums to establish online institutions for the documentation of web history, contributing from their particular points of view to the documentation of specific aspects of digital history, social exchanges and culture.

Hopefully, additional museums with other purposes and tasks will establish web museums to contribute further to our common cultural memory and serve as a framework for historians to study and document web history. Webmuseum.dk is one example of how a web museum can be structured to offer a framework for web documentation and research into web history.

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