

# What's Next?



Data sharing, Attribution, and Rethinking CIS

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Let's Go Back...

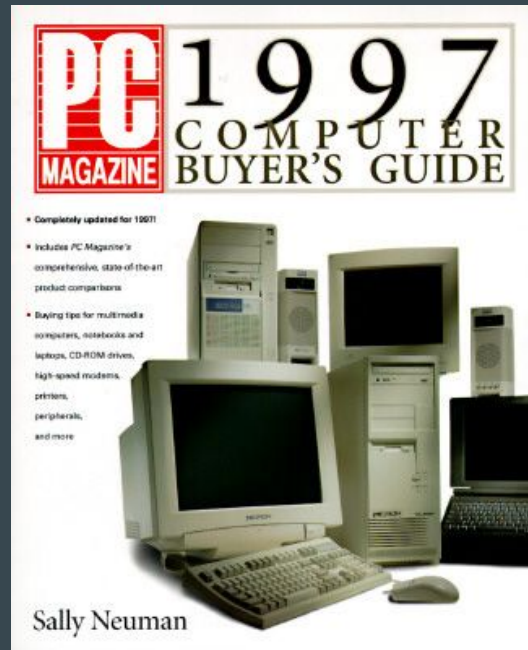
~1997

Yes, that's Times New Roman you font nerds. <3

Why 1997? That is when a large bulk of the initial design of the TexPress backend was created. Test clients out in 1998, first prod releases in 1999.

# 1997...

Your computer looked something like this:



So much beige...

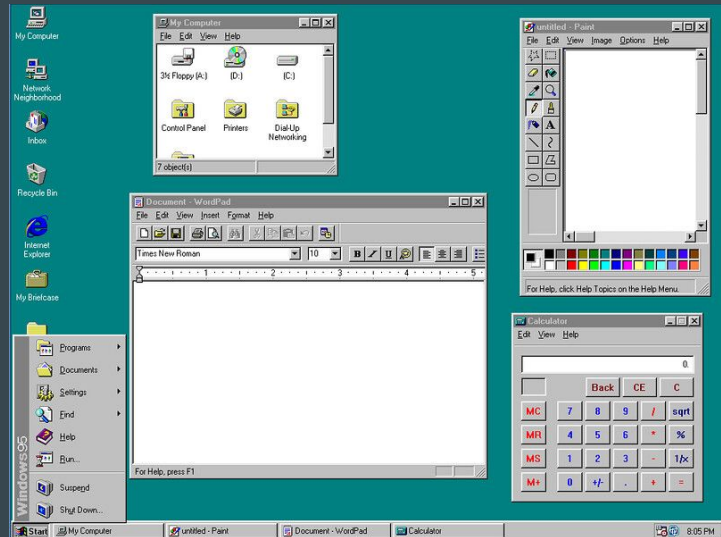
# 1997...

Windows 95 was the new “modern” OS:



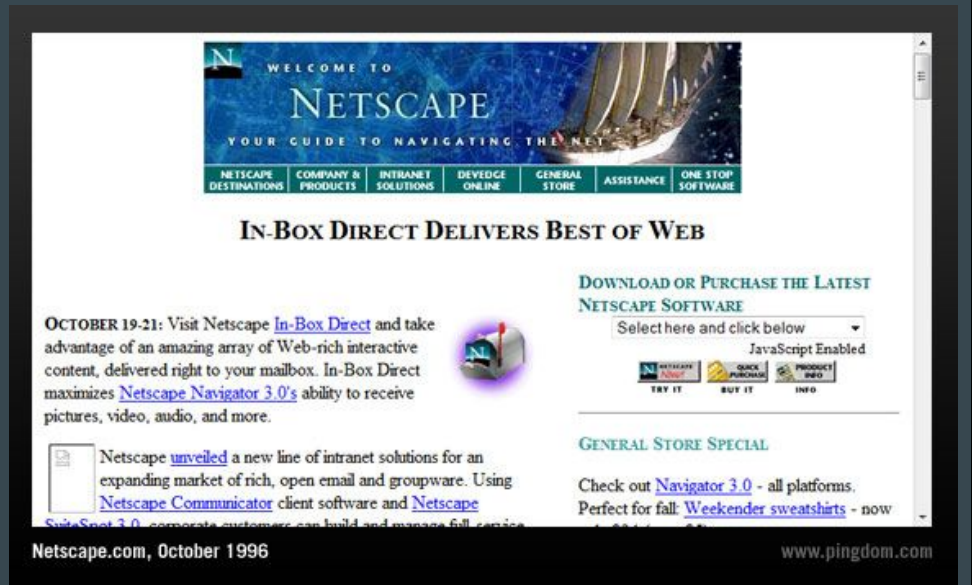
# 1997...

We were excited to  
be free of Win 3.1!



# 1997...

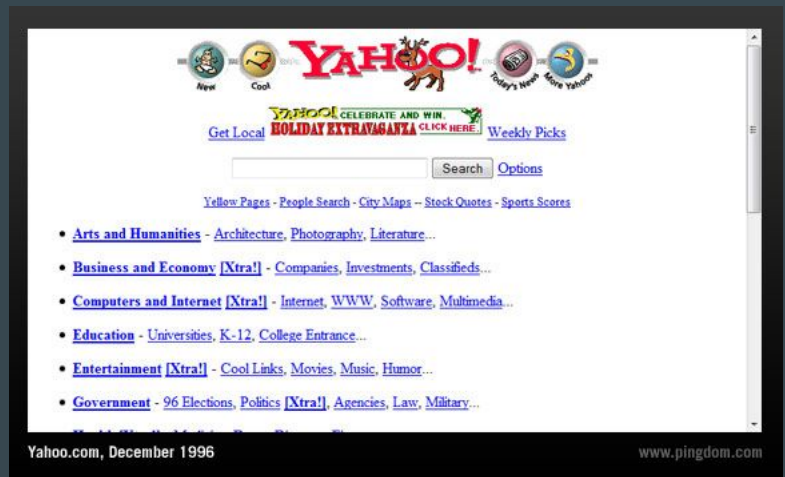
This was probably your internet browser:



IE v 4.0 was a very distant 2nd in popularity.

# 1997...

This was your search engine:



No Google till 1998, and then not widely adopted for years.

# 1997...

Or if you were cool:



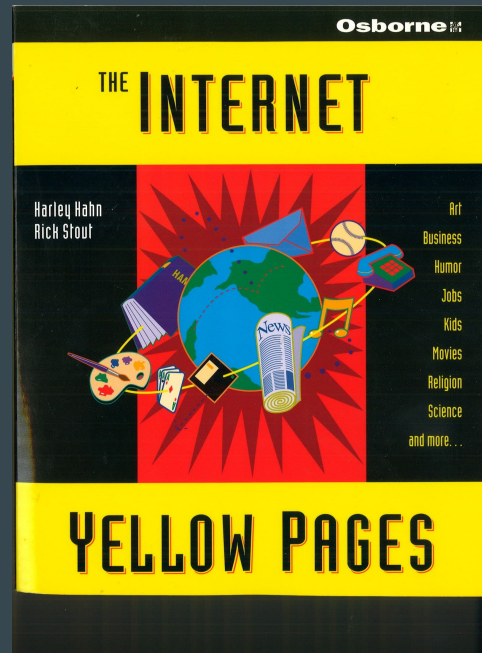


# 1997...

You could go to 1.1m websites! Much better than last year's ~250,000!

There were so many options, they made a "phonebook"! All 447 pages!

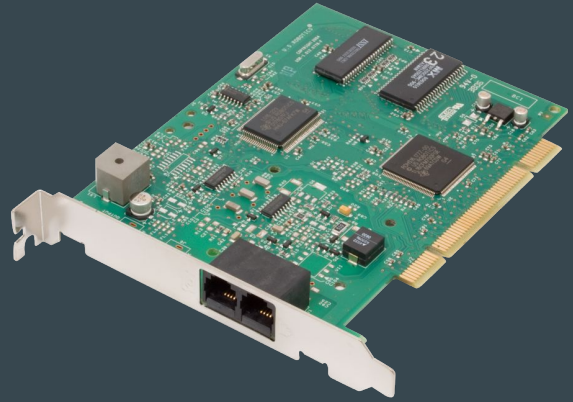
NMNH early databases and gopher sites are listed even!



# 1997...

...and with your Win 95 box, your AltaVista browser, and your brand new modem, you could visit all those websites at a whopping 56kbps! Twice as fast as last year's 28.8kbps.

**Today's 1gbps speeds are over  
150,000 times faster.**



56kb = 0.0000065gb

8589934.6kb = 1gb

1gbps is 153,391.7 times faster than 56k (in theory)

Like in the 56k days, no one ever gets max capacity 1gb.

# 1997 State of Standards

Dublin Core was only an idea 1995-1998 (and not an ISO until 2007)

The very first baby version of DarwinCore (the NSF ZBIG version) wasn't until 1998

The *long-lived* “draft standard” of DwC wasn't until 2007

The XML DwC schema wasn't even until 2009

# Why does this matter?

This is the environment the first EMu client was created in, leading up to the first official full release in 1999.

The database had to accomplish all the functionality museums needed, without being able to look outside itself for information or share with others.



Client screenshots circa 1997-1998 and graciously provided by Ian Turnbull.



The look and feel is amazingly familiar!

**KE Multimedia Manager**

File: F:\EMu Demo\PharLap\PharLap03.JPG

Type: JPEG Image

Title: Phar Lap on Race Day

Subject: The 1930 Melbourne Cup

Source: Museum of Victoria

Roles:

Role	Name
Photographer	Jim Smith

Year Published:

Use Restrictions: Copyright MoV. Permission must be sought for reproduction.

Association Hierarchy:

- Things
  - Events
    - Carlton Gardens
    - VFL Grand Final
    - Melbourne Cup
      - Phar Lap
      - (New Value)

Expertise Levels:

☐ Primary School

☒ Secondary School

☒ General Public

Image Details:

Resolution: 1200 x 1019 x 16M (Colour)

Notes:

Scanned using HP ScanJet scanner at 300 DPI.

Scanned in colour.

OK Cancel Abort Help

File 1 of 1

I remember these examples in our training clients!

# 2000's

The screenshot shows a software window titled "Multimedia (1) - Display". It features a menu bar with "File", "Edit", "Select", "View", "Tools", "Tabs", "Multimedia", "Window", and "Help". Below the menu is a toolbar with various icons. The main area contains a metadata form with the following sections:

- Subject/Keywords:** A list box containing "1", "2", and an asterisk (\*).
- Publisher:** A text input field.
- Other Contributor(s):** A text input field.
- Source:** A text input field.
- Relation:** A text input field.
- Resource Details:**
  - Date:** A text input field with an asterisk (\*) and a calendar icon.
  - Resource Type:** A dropdown menu.
  - Language:** A text input field with an asterisk (\*) and a list icon.
- Collection Name:** A text input field.
- Coverage:** A text input field.
- Rights:** A text input field.

At the bottom, there is a tabbed interface with tabs labeled "Multimedia", "Details", "Characteristics", "EXIF", "IPTC", "XMP", "Resolutions", and "Suppl...". The "Details" tab is currently selected. The status bar at the very bottom shows "Display" and "snyderr Admin nmnhlive".

Client "just got a little work done" (light facelift)

2019/2020

The screenshot shows a web application window titled "Multimedia (1) - New". The interface includes a top navigation bar with tabs for File, Home, Edit, View, Tools, and Multimedia. Below this is a toolbar with icons for New Record, Save Record, Cancel, Previous, New, Additional, View, Sort, Reports, Check Spelling, and a search icon. A sidebar on the left lists various tabs: Multimedia, Details, Characteristics, Supplementary, Notes, Security, Audit, and Admin. The main content area is a form with several sections: Subject/Keywords, Resource Details (with Date, Resource Type, and Language fields), Publisher, Other Contributor(s), Collection Name, Source, SI Rights Statement, Relation, SI Copyright Statement, and SD 609 Restrictions. Each section contains one or more text input fields. At the bottom of the window, a status bar shows "New Item 1 of 1" and "emu Admin 20081".

Major facelift: but it's still the same underlying backend structure.



# What can we do now that we couldn't before?

Let's leverage modern technology, updates to computer science and database theory to do more with less.

Let's allow our collections managers to focus on the data specifically about their specimens and outsource the periphery.

Link to trusted data resources for things like localities, known parties, bibliography, taxonomy (wouldn't it be nice to only think about "filed-as" and leave "currently accepted" and synonyms to someone else???)

All those local copy fields... with CDP we don't need them anymore!

# Data Sharing and Attribution

This can happen in a variety of ways.

With the CDP switch, we can leverage external indexes.

- EX: ITIS for taxonomy. Either use it to just expand search, or populate data
- What else could we reference? LOC terms? VIAF? ORCHID?

We could link to external data sources - with content updating live

- Linked data in an external access layer - with or without database fields
- Store attribution/data-source
- EX: Material samples data, taxonomy, what else??



## Validate Reference Tool

A screenshot of a web application window titled "Validate Reference". The window has a blue header bar with a close button (X) on the right. Below the header, there are four input fields: "Parent:" with a text box and a small icon; "Citation String:" with a text box; "DOI:" with a text box; and "Source:" with a dropdown menu. At the bottom of the window, there are three buttons: "Update" with a green checkmark icon, "Cancel" with a red X icon, and "Help" with a question mark icon.

Purpose: This tool uses web services to retrieve data from a selected online bibliographic resource [Source] and populates the record with returned data.

- Pass the value entered in CitCitingText or DOI (can only enter one or the other) to the service selected in NEW Source field.
  - **Parent** : *JouParentRef* - This value is prefilled from the underlying record if the record has been saved.
  - **Citation String** : *CitCitingText* - This value is prefilled from the underlying record if the record has been saved.
  - **DOI** : Has to be pasted in manually
  - **Source** : *NEW Field* - This value is prefilled from the underlying record if the record has been saved.
    - 1) BHL (<https://www.biodiversitylibrary.org/>)
      - API  
<https://about.biodiversitylibrary.org/tools-and-services/developer-and-data-tools/#APIs>
      - Data Elements  
<https://www.biodiversitylibrary.org/docs/api3.html#elements>

Bibliography (1) - New

File Edit Select View Tools Tabs Multimedia Window Help

Citation Source Details

Citation String:  Source:

Parent:

Citation Summary

Automatic?

Publication Details

Type:  Sub Type:

Title:

Abbreviated Title:

Authors/Contributors:  Name  Role

Publisher/Institution:  Pub. Date Range:

Publication City:  Language:

Reference (1) Electronic Notes Notes Multimedia Security Audit Ac

New Record 0 of 1 agrant Admin emufmnh

Bibliography (1) - New

File Edit Select View Tools Tabs Multimedia Window Help

Publication/Citation

Chapter:  Pages:

Volume:  Page:

Edition:  Figures/Plates:

Issue:  Scale:

Web Site Details

Web Site Identifier:

Last Access Date:

Other Numbers

Other #  Other # Source

Project

Project #

Reference (2) Electronic Notes Notes Multimedia Security Audit Ac

New Record 0 of 1 agrant Admin emufmnh

Citation String = user supplied citation  
 Source = WorldCat; BHL  
 Automatic? = yes/no (executes the Validate References tool)  
 Project = for web development and tagging projects  
 Other Numbers = Not new, but redesigned to handle multiple number types.

The rest of the fields currently exist. We've eliminated the duplicates and have chosen a single instance of that field type. All "Type" records use the same backend fields.

We are eliminating all but 2 tabs from the bibliography module. The fields in each tab can apply to any "type" of bibliography record, the the type of record is determined by the parent it is linked to.

RS: red arrow pointing to attribution element. "I got this data here. If wrong, blame them. But i still can search on it"

# What do we want to do?



Open discussion. Let's "talk amongst ourselves".

Gifs: 2001 & Mike Myers. Fair use, no copyright implied.

# System-wide Functionality

Wouldn't it be nice...?



**Sharon Grant**

Janeen Jones

Kate Webbink

Pete Herbst

Rob Zschernitz



**North American  
User Conference**

2019

Intro

# ...if my database would help me find things?



Things that would help me/us/you.




- Query methods
  - Count rows in multi-valued tables
  - Count same/different values in tables
- Sort default for queries through attached fields
- ExtendedData
  - Default Sort of Records during Data Entry
- OpenRefine like thingies native to the client
- More embedded collaborative tools - community to tool building, example Specify, github, wouldn't it be nice to have an EMu Github community that had common formats for documentation and toolsets

[The only way out lies within your mind.]

[https://docs.google.com/document/d/1LLR-5jqcsQF4qqtTBUH6EkG0EvmLBuYmTCs\\_dvk5JsKI/edit#heading=h.adtb2dl58rfh](https://docs.google.com/document/d/1LLR-5jqcsQF4qqtTBUH6EkG0EvmLBuYmTCs_dvk5JsKI/edit#heading=h.adtb2dl58rfh)



# ...if I could fix it before it breaks?

Things that would help me/us/you. 

- **Development of Help functionality**
  - Tools Help
  - Tab Help
- **Admin controlled messaging**
  - Parent Attachment Warning


[The only way out lies within your mind.]

[https://docs.google.com/document/d/1LLR-5jqcsQF4qqtTBUH6EkG0EvmLBuYmTCs\\_dvk5JsKI/edit#heading=h.l5o1txt5jg5n](https://docs.google.com/document/d/1LLR-5jqcsQF4qqtTBUH6EkG0EvmLBuYmTCs_dvk5JsKI/edit#heading=h.l5o1txt5jg5n)



# ...if I could fix things after they break?



Things that would help me/us/you. 

- Recall
  - Make it work

[The only way out lies within your mind.]

[https://docs.google.com/document/d/1LLR-5jqcsQF4qqtTBUH6EkG0EvmLBuYmTCs\\_dvk5JsKI/edit#heading=h.vfqf8bcar4jq](https://docs.google.com/document/d/1LLR-5jqcsQF4qqtTBUH6EkG0EvmLBuYmTCs_dvk5JsKI/edit#heading=h.vfqf8bcar4jq)

# ...if reporting was better?



Things that would help me/us/you.

- Pipe-delimited table-values report-option

[The only way out lies within your mind.]

[https://docs.google.com/document/d/1LLR-5jqcsQF4qqtTBUH6EkG0EvmLBuYmTCs\\_dvk5JsKI/edit#heading=h.yup7u5a56tfk](https://docs.google.com/document/d/1LLR-5jqcsQF4qqtTBUH6EkG0EvmLBuYmTCs_dvk5JsKI/edit#heading=h.yup7u5a56tfk)

# ...if fields worked more intuitively?



Things that would help me/us/you.




- Weighted ordering of hierarchy
- Multimedia tab detail list view

[The only way out lies within your mind.]

[https://docs.google.com/document/d/1LLR-5jqcsQF4qqtTBUH6EkG0EvmLBuYmTCs\\_dvk5JsKI/edit#heading=h.adrd2cvpe7bl](https://docs.google.com/document/d/1LLR-5jqcsQF4qqtTBUH6EkG0EvmLBuYmTCs_dvk5JsKI/edit#heading=h.adrd2cvpe7bl)

# ...if the registry sucked less?



Things that would help me/us/you. 

- Registry entry to create conditional mandatory based on more than one field
- Remove functionality that causes whole group box of fields to be turned off if the last field in the group box is turned off
- Give us a registry option to make whole tabs read-only for user groups

[The only way out lies within your mind.]

[https://docs.google.com/document/d/1LLR-5jqcsQF4qqtTBUH6EkG0EvmLBuYmTCs\\_dvk5JsKI/edit#heading=h.5gy97vpgkmhc](https://docs.google.com/document/d/1LLR-5jqcsQF4qqtTBUH6EkG0EvmLBuYmTCs_dvk5JsKI/edit#heading=h.5gy97vpgkmhc)

# Questions, Comments, Thought?

Yes, it would.



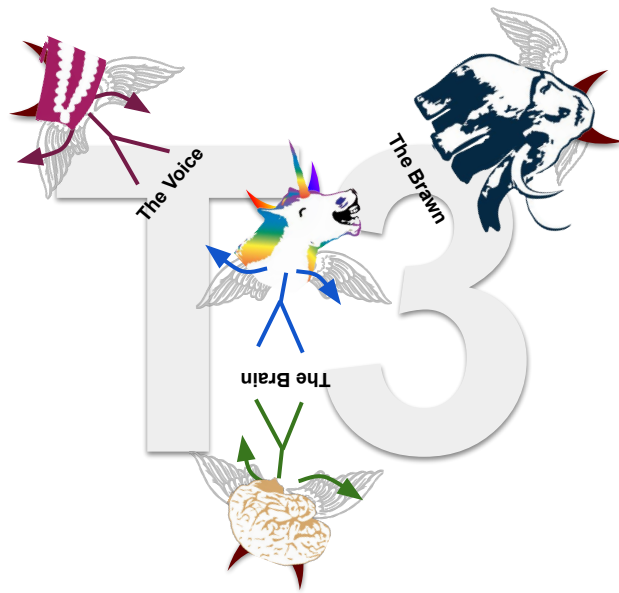
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Acknowledgements



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