

Digitalne zbirke i knjižnice u svijetu strojnog učenja i umjetne inteligencije

Radovan Vrana

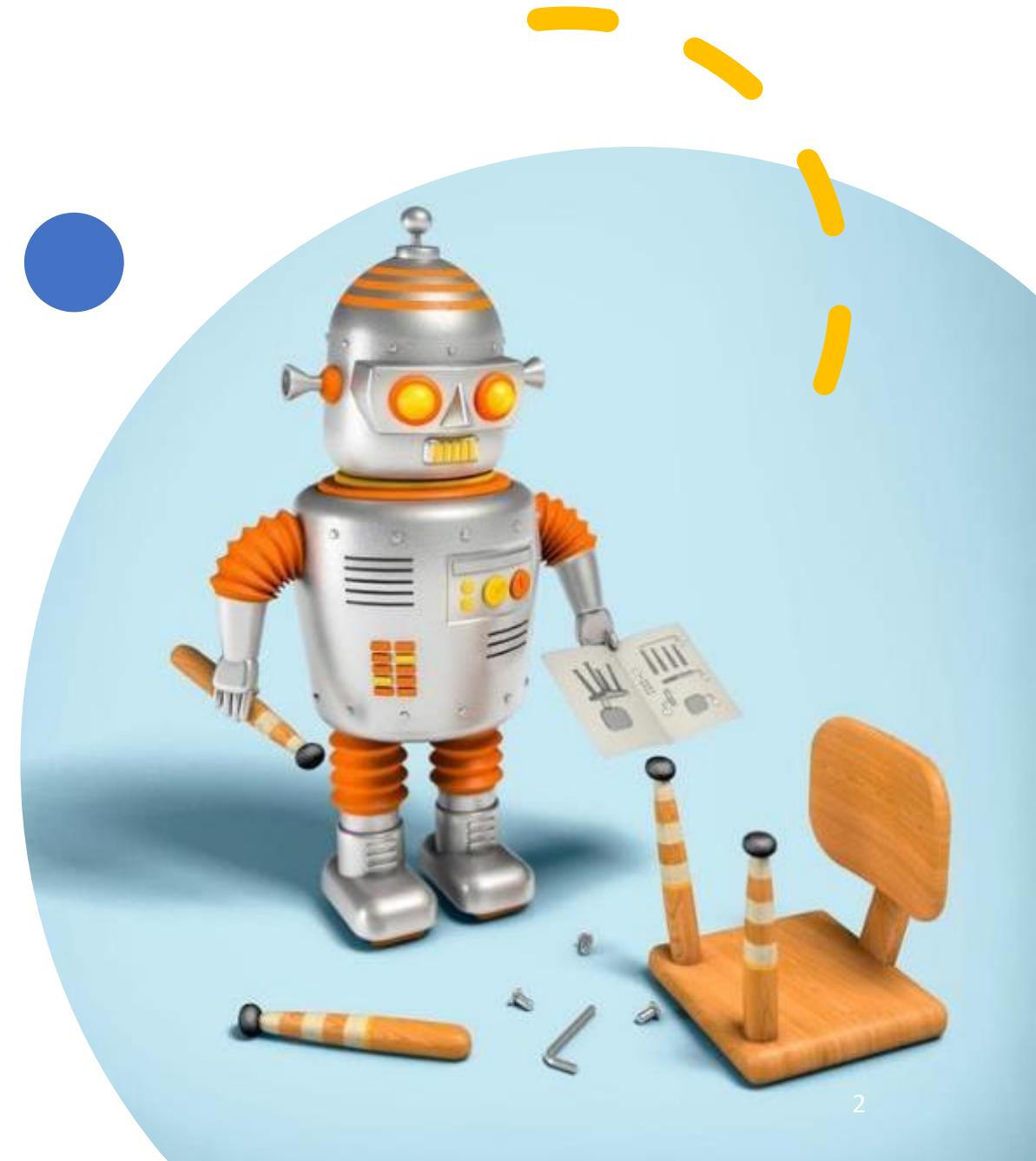
Odsjek za informacijske i komunikacijske znanosti

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Računalne tehnologije i knjižnice

- Strojno učenje – prva zamisao 1943. Pitts & McCulloch pokušali uz pomoć matematičkog modela mapirati ljudsko razmišljanje i donošenje odluka
- Umjetna inteligencija – ideje u sličnom razdoblju – prekretnica 1950. Turingov članak „COMPUTING MACHINERY AND INTELLIGENCE”
- Era uvoda u obradu velikih količina podataka (koja je već prošla)
- Izazovi razvoja i primjene strojnog učenja i umjetne inteligencije u knjižnicama



Područja primjene

Opis građe: poboljšanje postojećih opisa (metapodataka) otkrivanjem novih svojstava građe i njihovih međusobnih veza

Pretraživanje: bogatiji metapodaci za pretraživanje + pretraživanje analizom slikovne građe, analizom zvuka – pretvaranje jednog oblika u drugi (tekst u sliku i sl.)

Rad s građom: automatizacija inventure, pregled polica, dostavljanje građe iz automatiziranog spremišta i povrat građe u spremište, provjera ispravnosti oznaka građe

Korisničke usluge: proširena stvarnost, konverzacijski agenti, izrada profila korisnika i preporuka građe i usluga, povezivanje upita korisnika u knjižnici s vanjskim izvorima

Rad s podacima: „databrarianship”, hibridni poslovi (spoj više struka)



<https://149695847.v2.pressablecdn.com/wp-content/uploads/2018/01/AI-job-roles.jpg>

PixPlot



PixPlot

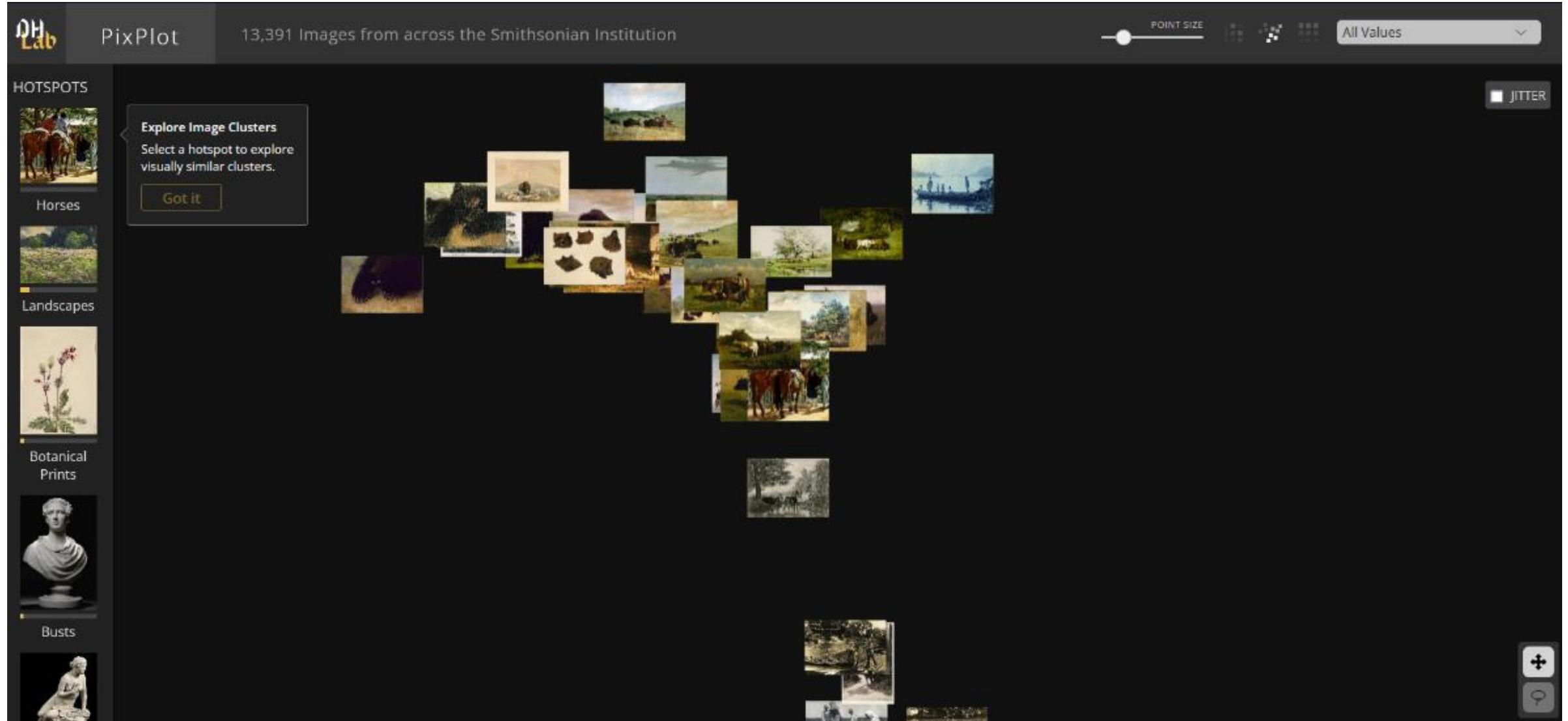
OH Lab NewsPlot Photographs from the Bain News Service, 1910-1912 umap_2d

Cars
Ships
Gowns
Fur Coats
Women in Hats
Men in Hats

36772964086.jpg
Farrar (LOC)

news image
New tags Add

PixPlot



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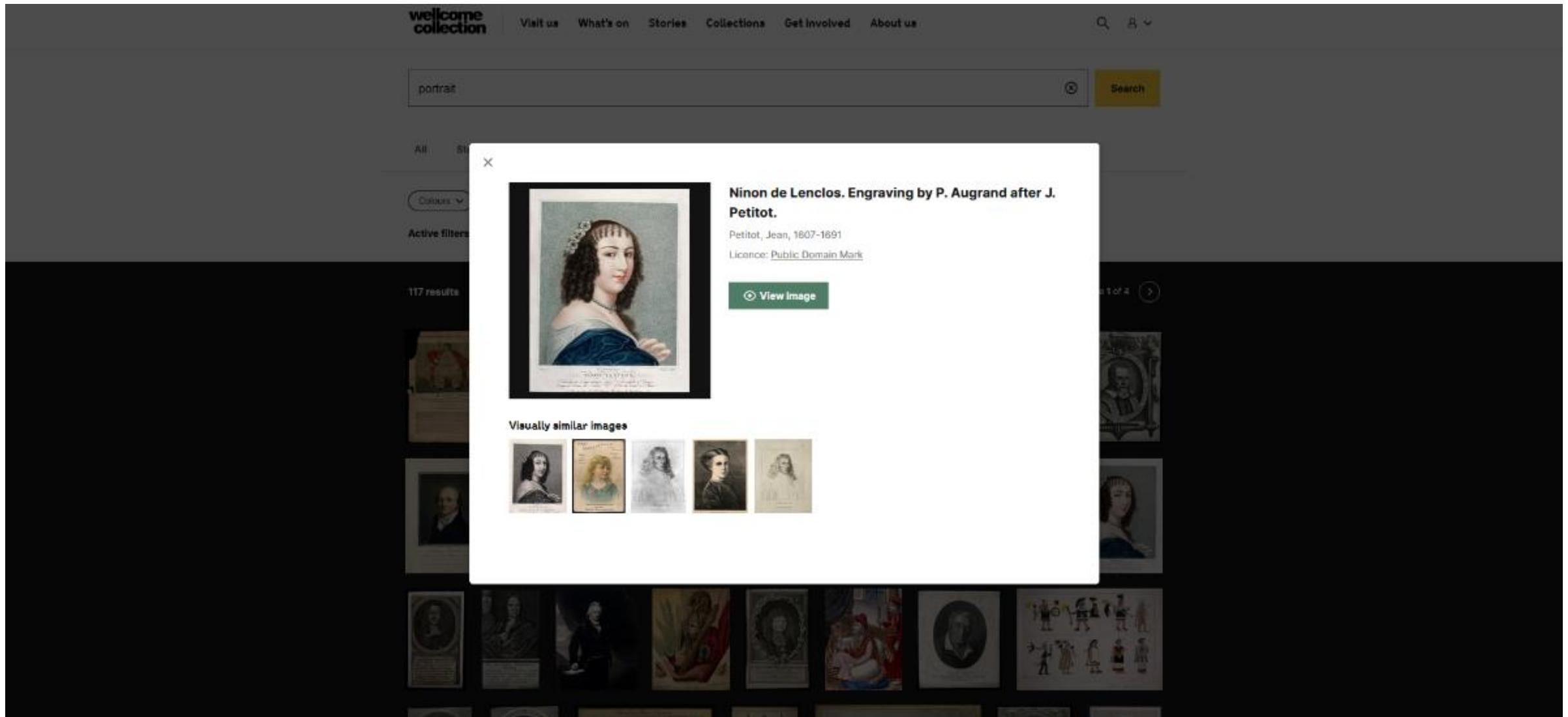
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Active filters: Blue Portrait prints

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Elizabeth Garrett Anderson. Wood engraving.

Reference: 519i

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About this work

Physical description

1 print : wood engraving

References note

R. Burgess, Portraits of doctors & scientists in the Wellcome Institute, London 1973, no. 66.1

Reference

Wellcome Collection 519i

Type/Technique

Portrait prints

Wood engravings

Languages

English

Subjects

Anderson, Elizabeth Garrett, 1836-1917

Where to find it

Library members: [sign in to your library account to request items](#)

Location

Closed stores

Status

Open

Access

Online request

Permanent link

<https://wellcomecollection.org/works/f6zp2nja>

[Copy URL](#)

Google arts & culture – x degrees of separation

What visual similarities can a computer vision algorithm find to connect a sculpture with a drawing?



Daniel Chester French, 1922
Benediction

Amon Carter Museum of American Art



Frederic Remington,
1898
The Scalp

Amon Carter Museum of American Art



Albert-Ernest Carrier-Belleuse, 1870 - 1871
The Rape of Hippodamia

Staatliche Kunsthalle Karlsruhe



Unknown
The Metropolitan Museum of Art

The Metropolitan Museum of Art



Unknown, ca. 1560
Helmet Crest for the Burgher of Storza Pallavicino (1519-1585)

The Metropolitan Museum of Art



Unknown
(Plate VII (Yak))
The J. Paul Getty Museum

The J. Paul Getty Museum



Frank Furness, ca.
1940
Pitcher

National Gallery of Art, Washington DC



Elsie Wein, ca. 1939
Pitcher

National Gallery of Art, Washington DC



Aaron Fastovsky, ca.
1938
Jar

National Gallery of Art, Washington DC



Charles Goodwin,
1941
Shaker Sugar Jar

National Gallery of Art, Washington DC

Click here to find your own paths through art space

Google arts & culture – x degrees of separation

Google Arts & Culture | Experiments | X Degrees of Separation



A random selection of artifacts - select two images and discover their visual connection:

Try searching for "Van Gogh" or "Moma"



Google arts & culture – x degrees of separation

≡ Google Arts & Culture

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Noh mask O(big)-tobide
Deme Mitsutaka 17th century

Fukuoka City Museum
福岡市早良区百道浜3-1-1, Japan

There are two forms of Kishin (fierce god) masks: "ah" mask with open mouth and "un" mask with closed mouth. A typical "ah" mask is Tobide.O-tobide is said to depict the scene of Sugawara no Michizane (Aristocrat-turned god of curse) spitting pomegranate seeds. The mask is used for the role of a thunder god or Zao-gongen (Buddhism patron god).

Details

Title: Noh mask O(big)-tobide
Creator: Deme Mitsutaka
Date: 17th century
Physical Dimensions: w15.1 x h20.6 x d9.9 cm
Provenance: There are two forms of Kishin (fierce god) masks: "ah" mask with open mouth and "un" mask with closed mouth. A typical "ah" mask is Tobide.O-tobide is said to depict the scene of Sugawara no Michizane (Aristocrat-turned god of curse) spitting pomegranate seeds. The mask is used for the role of a thunder god or Zao-gongen (Buddhism patron god).
Type: Sculpture
External Link: <http://museum.city.fukuoka.jp/>

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Get it on Google Play Download on the App Store

Recommended



Kyōgen mask Oto-goze
Created around the same time



Noh mask Shiwa (wrinkle)-jo (old...
Depicts same location



Noh mask Tsurimanako
Uses same medium



Noh mask Ko(little)-tobide
By same artist



Noh mask Helta
Depicts same object

Mask Sculpture

The viral texts project



"Nothing but a newspaper can drop the same thought into a thousand minds at the same moment..."

The viral texts project

Network of "Viral Text" Sharing, 1836-1899

This graph illustrates connections among pre-Civil-War newspapers from the Library of Congress' [Chronicling America newspaper archive](#) and Making of America magazine archive. The circles (nodes) in the graph represent individual newspapers, while the lines between them (edges) represent shared texts discovered by researchers working on the [Viral Texts project](#), sponsored by Northeastern University's [NULab for Texts, Maps, and Networks](#). For more information about the project, visit viraltexts.org.

[*i*](#) More about this visualisation

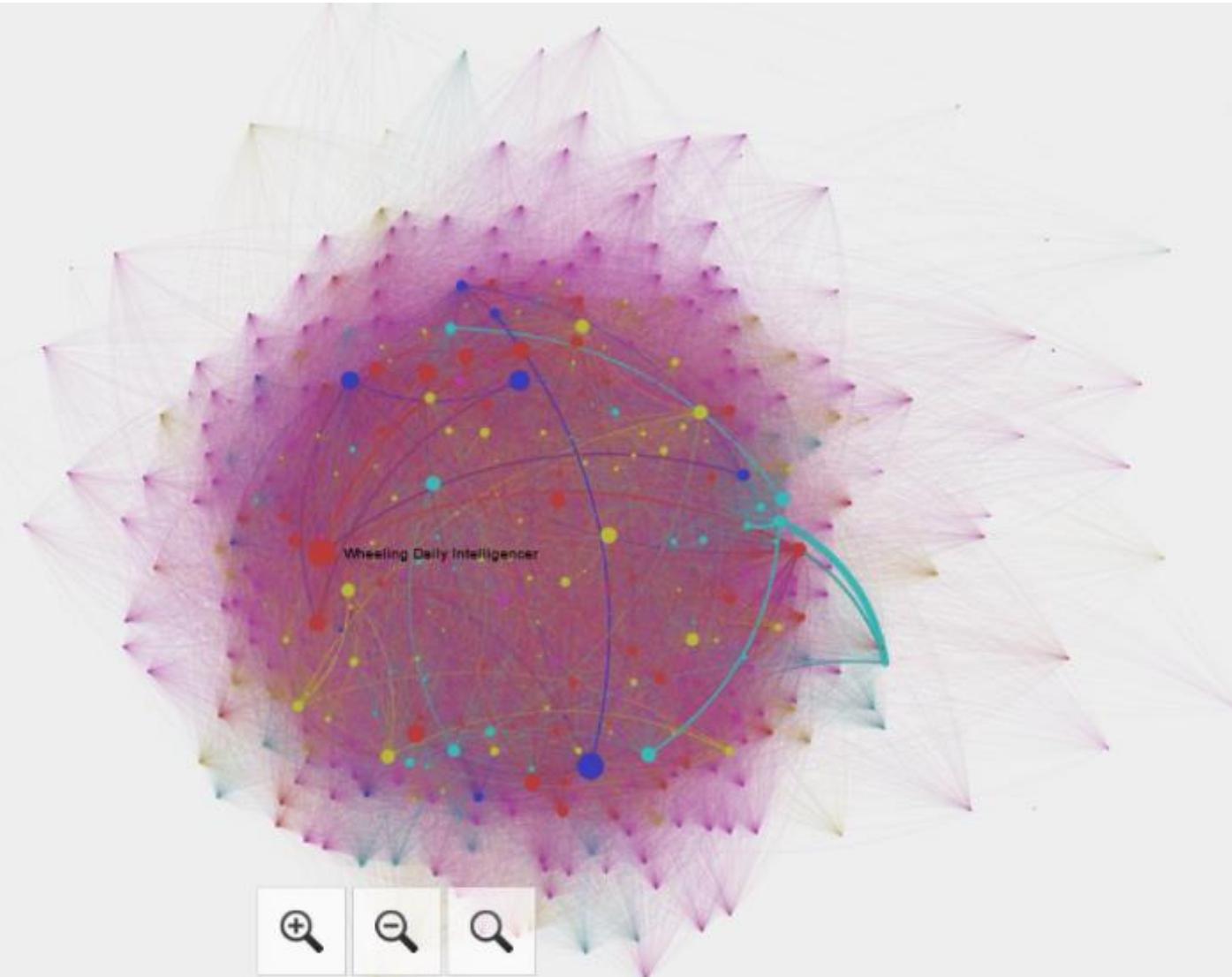
Legend:

- Newspapers or Magazines
- "Viral Texts" shared Between Publications.
A thicker line indicates more shared
reprints
- Communities of periodicals that frequently
share reprinted texts

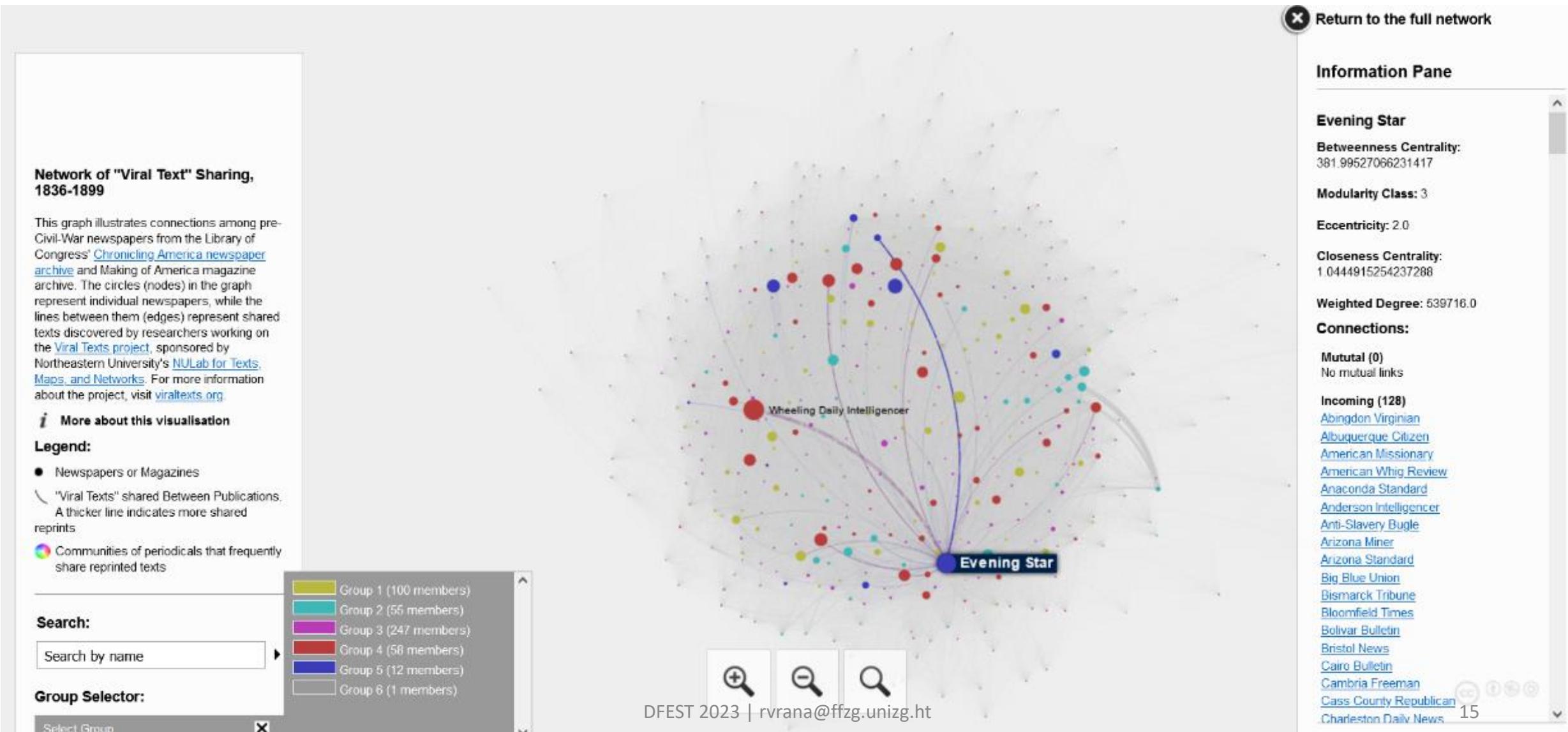
Search:

 Search by name

Group Selector:

 Select Group

The viral texts project



Dig that lick



Pattern Similarity Search

Similarity search

Pattern ⓘ

Transformation

Pattern properties

Preserve contour ↘ (concave)

Preserve pitch range (10)

Pattern elements

Pin first Pin last

Similarity options

Minimum similarity (80%) 

65 70 75 80 85 90 95 100

Maximum length difference  ⓘ

Maximum edit distance  ⓘ

General options

Minimum frequency  ⓘ

Within single phrase

Preserve pattern

Keep overlapping instances

Switch to Pattern search

New search | Searches | Documentation | Help | About | Print | Login

Databases

Dig That Lick 

Weimar Jazz Database  Metadata filter

Charlie Parker Omnibook 

EsAC Folksong Database  Metadata filter



Found 30 similar (10 unique) pattern instances:
(29) (1)

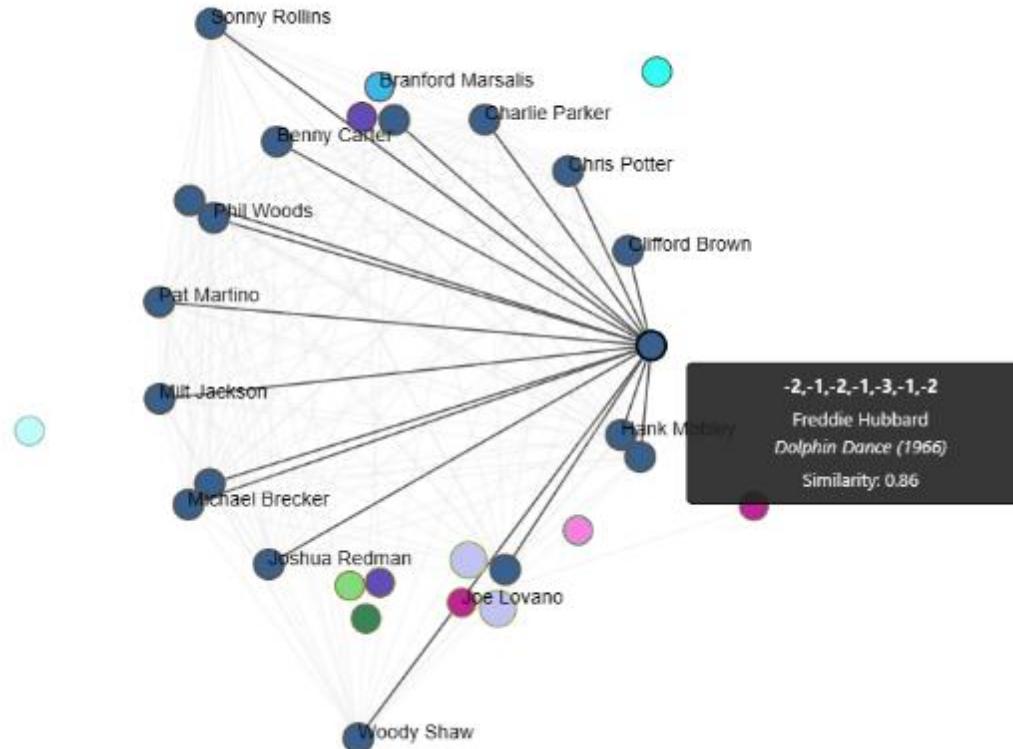
Show columns

Raw frequency Pitch range Contour Start position Duration

Group by

Pattern Performer

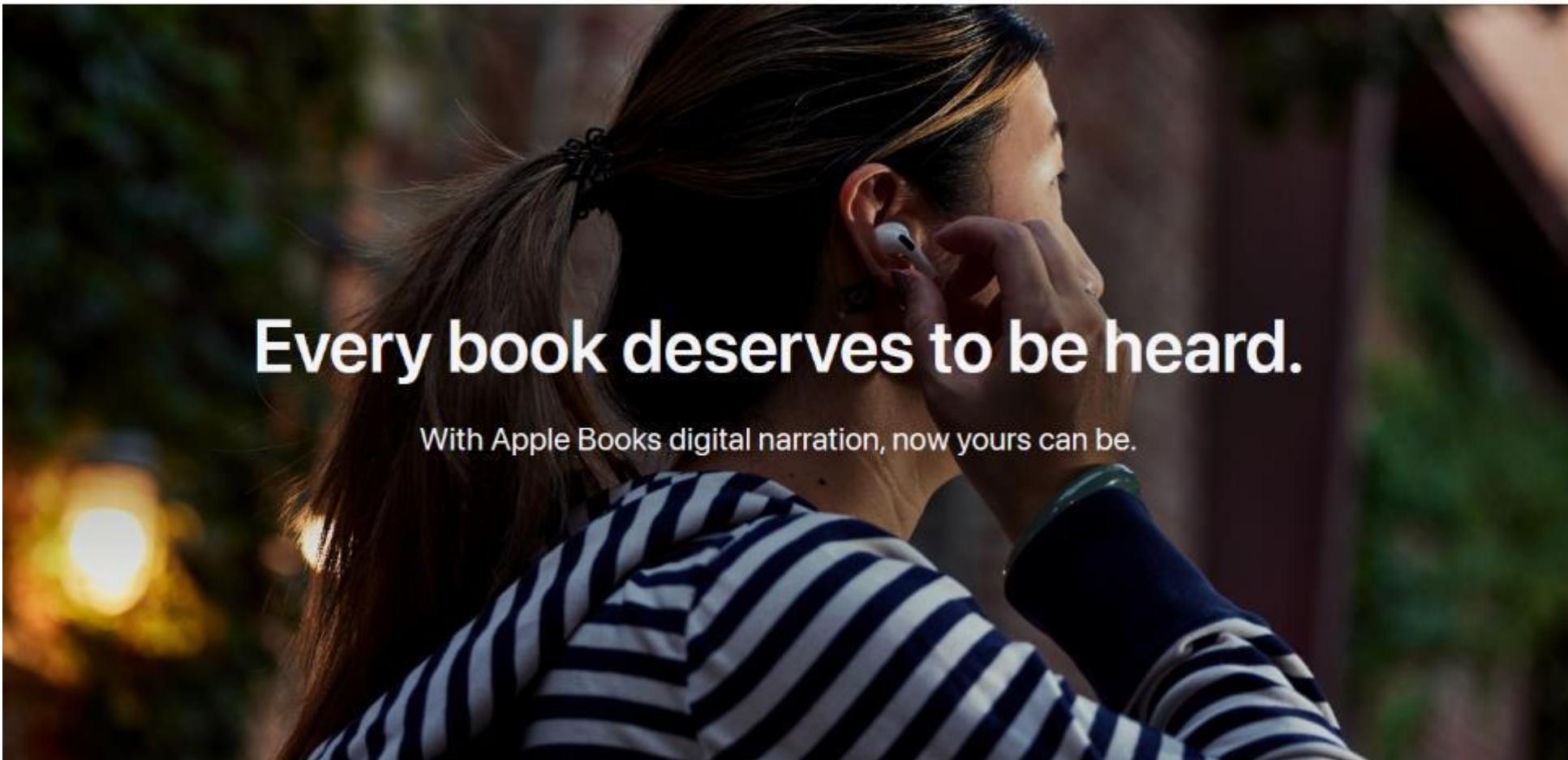
#	Pattern	Performer/Collection	Title	Recording year	Instrument	Style	Similarity	Edit distance	
1	-2,-1,-2,-1,-3,-1,8 (7)	Joe Lovano	Little Willie Leaps in	1994	Tenor saxophone	Postbop	1.00	0	i ▶ ▷
		Joe Lovano	Little Willie Leaps in	1994	Tenor saxophone	Postbop	1.00	0	i ▶ ▷
2	-2,-1,-2,-1,-3,-1,5 (7)	BALLADEN	Schoen Adelheid Es war einmal ein Kuepper gut,				0.86	1	▶
3	-2,-1,-2,-1,-3,-1,-2 (7)	Benny Carter	I Got It Bad	1952	Alto saxophone	Swing	0.86	1	i ▶ ▷
		Branford Marsalis	U.M.M.G.	1988	Tenor saxophone	Postbop	0.86	1	i ▶ ▷
		Charlie Parker	Star Eyes	1950	Alto saxophone	Bebop	0.86	1	i ▶ ▷
		Chris Potter	Anthropology	1999	Tenor saxophone	Postbop	0.86	1	i ▶ ▷
		Clifford Brown	I'll Remember April	1956	Trumpet	Hardbop	0.86	1	i ▶ ▷
		Freddie Hubbard	Dolphin Dance	1966	Trumpet	Postbop	0.86	1	i ▶ ▷
		Hank Mobley	Soul Station	1960	Tenor saxophone	Hardbop	0.86	1	i ▶ ▷
		Hank Mobley	Soul Station	1960	Tenor saxophone	Hardbop	0.86	1	i ▶ ▷
		Joe Lovano	Little Willie Leaps in	1994	Tenor saxophone	Postbop	0.86	1	i ▶ ▷
		Joshua Redman	Blues on Sunday	1992	Tenor saxophone	Postbop	0.86	1	i ▶ ▷
		Michael Brecker	Confirmation	1981	Tenor saxophone	Postbop	0.86	1	i ▶ ▷
		Michael Brecker	Peep	1990	Tenor saxophone	Postbop	0.86	1	i ▶ ▷
		Milt Jackson	Don't Get Around Much Anymore	1952	Vibraphone	Bebop	0.86	1	i ▶ ▷
		Pat Martino	Along Came Betty	1974	Guitar	Postbop	0.86	1	i ▶ ▷
		Phil Woods	Be My Love	1955	Alto saxophone	Bebop	0.86	1	i ▶ ▷
		Phil Woods	Be My Love	1955	Alto saxophone	Bebop	0.86	1	i ▶ ▷
		Sonny Rollins	Airegin	1954	Tenor saxophone	Hardbop	0.86	1	i ▶ ▷
		Woody Shaw	Dat Dere	1987	Trumpet	Postbop	0.86	1	i ▶ ▷



Digitalni prijavljajući

Apple Books for Authors

Write Prepare Publish Audiobooks Promote Measure Support



Veliki jezični modeli - ChatGPT

R

Write a short digital collection policy for a public library.



Digital Collection Policy for Public Library:



Purpose:

The purpose of this digital collection policy is to guide the selection, acquisition, management, and access to digital materials in the library's collection. The policy is designed to support the library's mission to provide access to high-quality and relevant resources in various formats to meet the needs and interests of the community.

Selection Criteria:

The selection of digital materials shall be based on the following criteria:

- Relevance and value to the library's community
- Authority and credibility of the author, publisher or provider
- Suitability of the format and technical requirements
- Availability of sufficient licensing and copyright permissions
- Compatibility with the library's current and future digital infrastructure and platforms
- Cost-effectiveness and sustainability of the acquisition

Acquisition:

The library shall acquire digital materials through various means, including purchase, subscription, donation, and licensing agreements with vendors and publishers. The library shall seek to obtain the best possible terms and conditions for acquiring and maintaining digital materials.

Management:

The library shall manage the digital collection to ensure the following:

- Regular review and evaluation of the digital materials for relevance, accuracy, and currency
- Preservation and backup of the digital materials to ensure their long-term access and availability
- Compliance with copyright laws and licensing agreements
- Promotion of digital literacy and access to digital resources through appropriate training and support to staff and users
- Security and confidentiality of personal information and data related to digital materials use
- Regular updating and maintenance of the library's digital infrastructure and platforms to ensure their compatibility and functionality

Access:

The library shall provide access to digital materials in various ways, including through the library's website, online catalogs, and digital resource management systems. The library shall ensure that access to digital materials is equitable, non-discriminatory, and complies with all applicable laws and policies. The library shall also provide appropriate guidance and support to users to access and use digital materials effectively and efficiently.

Review and Evaluation:

This digital collection policy shall be reviewed periodically to ensure its relevance and effectiveness in meeting the library's goals and objectives. The review shall take into consideration the evolving needs and interests of the library's community, the changing digital landscape and technologies, and the availability of funding and resources to support the digital collection.

R

Digitalna zbirka u knjižnici sadrži samo slike slavnih glazbenika. Kojim alatom možemo stvoriti metapodatke za te slike?



Kako bi se stvorili metapodaci za slike slavnih glazbenika u digitalnoj zbirci knjižnice, najbolje bi bilo koristiti strukturirane metapodatke. Strukturirani metapodaci pomažu u organizaciji, pretraživanju i dohvaćanju informacija o digitalnim objektima poput slika.



Postoje različiti standardi za metapodatke, poput Dublin Core, koji se mogu koristiti za opisivanje slika. Ovi standardi omogućuju dodavanje informacija poput naziva slike, autora, godine izrade, opisa i ključnih riječi koje opisuju sliku.

Za stvaranje metapodataka za slike slavnih glazbenika, mogli biste koristiti različite alate za upravljanje digitalnim zbirkama, poput Omeka, koji omogućuju jednostavno dodavanje metapodataka i organiziranje digitalnih objekata. Također, postoje alati poput Adobe Lightroom-a ili Picasa-e koji mogu pomoći u uređivanju i dodavanju metapodataka za slike.

Važno je napomenuti da bi bilo korisno uspostaviti smjernice i standarde za metapodatke u digitalnoj zbirci kako bi se osigurala dosljednost i kvaliteta informacija koje se pohranjuju. Ovo bi olakšalo pretraživanje i pronalaženje informacija u digitalnoj zbirci te bi pomoglo u njezinom boljem korištenju.

Zaključak

- Nove strategije razvoja knjižnica uskladjene s razvojem tehnologija i društva
- Nove kompetencije – jamstvo za nastavak razvoja knjižničarstva i knjižnica
- Knjižnice su usvajale znanja iz raznih struka i to je ojačavalo njihovu ulogu
- Predviđa se hibridni svijet – ljudski rad + pomoć računala uz korištenje novih alata koji će služiti za obavljanje raznih ljudskih aktivnosti
- AI za sada nije još u kategoriji opće/univerzalne AI, stoga treba koristiti one alate koji će unaprijediti rad knjižnica i olakšati rad knjižničara

