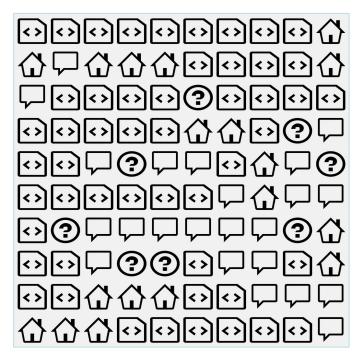
## Former Farmer Chases Traces



Herbert Van de Sompel @hvdsomp@w3c.social - https://hvdsomp.info



@hvdsomp@w3c.social - Former Farmer Chases Traces iPres2024, Ghent University, September 18<sup>th</sup> 2024





In 2009, I was invited to present a keynote at the Bielefeld Conference in, well, Bielefeld Germany. It was a special occasion because, as a child, I had lived in the German town of Arnsberg, not far from Bielefeld. And the keynote gave me the opportunity to go revisit the stomping grounds of my childhood. I felt like sharing that excitement with the audience and did so by putting up an iconic image of those days: me as a boy scout, intent on doing something meaningful with my life!











@hvdsomp@w3c.social - Former Farmer Chases Traces iPres2024, Ghent University, September 18<sup>th</sup> 2024





All materials from that 2009 Bielefeld conference are archived by the Internet Archive: program, presentation slides, audio recordings of presentations.







http://conference.ub.uni-bie 29 captures 17 Sep 2008 - 12 May 2024	elefeld.de/2009/programm	ne/ Go JAN MAR MAY O O O O O O O O O O O O O O O O O O O			
3 - 5 February 2009 in Bielefeld, Germany 9 <sup>th</sup> International Bielefeld Conference Upgrading the eLibrary: Enhanced Information Services Driven by Technology and Economics					
<ul> <li>Homepage</li> <li>Speakers</li> <li>Programme incl. presentations and audio recording</li> <li>Participants List</li> <li>Exhibitors</li> <li>Demonstrations</li> </ul>	15.30 16.00	<ul> <li>Services for the eHumanities         <ul> <li>Heike Neuroth, Max Planck Digital Library, Berlin             Laurent Romary, INRIA-Gemo, Berlin</li> <li>Abstract Slides Audio recording</li> </ul> </li> <li>eResearch, Semantic Computing and the Cloud: Towards a Smart         Cyberinfrastructure for eResearch             Lee Dirks, Education &amp; Scholarly Communication / Microsoft External             Research, Redmond, U.S.             Abstract Slides Audio recording</li> </ul>			
<ul> <li>Sponsors</li> <li>Bielefeld University Library</li> <li>Press</li> <li>Photos</li> <li>Contact</li> </ul>	16.30 Closing Keynote 17.00	Coffee and Exhibition Attempts at Innovation in Scholarly Communication Herbert Van de Sompel, Los Alamos National Laboratory, Research Library, Los Alamos, New Mexico, U.S. Abstract Slides Audio recording			
© Bielefeld University Library	17.45	Exhibition and Showroom Presentations			

9<sup>th</sup> International Bielefeld Conference: Upgrading the eLibrary: Enhanced Information Services Driven by Technology and Economics, Bielefeld, Germany, 3-5 February 2009

http://web.archive.org/web/20230330152443/http://conference.ub.uni-bielefeld.de/2009/programme/

Ghent, of course, is even more special to me. I was born here, I lived here for about 40 years of my life, I got my higher education here, and I started my career here at the Ghent University Library. So, I felt that it would be appropriate to also show an iconic image that is representative of those days. Which turned out to be significantly harder because of the wide range of experiences, events, emotions in such a long period of time.

Eventually, I settled on this image: me as an experimental musician, intent on doing something creative with my life! It's a scan of a poster that announced a concert in 1987 at Ghent's cultural temple De Vooruit (meanwhile renamed to 404, what are the chances) that is available in the image database of the Ghent University Library and preserved for the long term by Meemoo, the Flemish Institute for Archives.

Our instrument was a scaffold construction prepared with contact microphones, piano strings, guitar pickups, water tubes. In the concert advertised by the poster we performed with a drumband that had won the Belgian championship the year before.









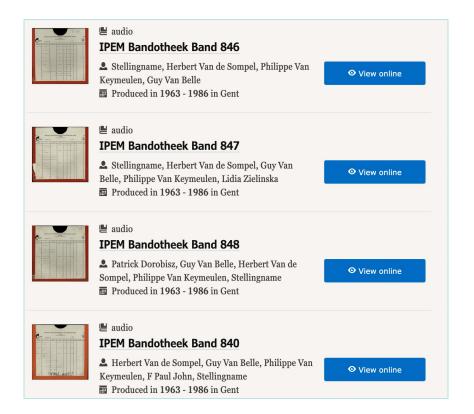
Stellingname Vooruit 4 dec.1987 : een Vooruit muziekproduktie - The Archer's paradox / foto's Michiel Hendryckx (L) & Peter Wijnendaele (R). https://lib.ugent.be/catalog/rug01:001648386 Just in case you might be interested in that kind of music: The tapes that we recorded with Stellingname at IPEM, the Institute for Psychoacoustics and Electronic Music of Ghent University, were digitized and are also available in the Ghent Library database and are preserved at Meemoo.

Listen at your own risk.





Data Archiving and Networked Services



https://lib.ugent.be/en/catalog?q=stellingname+ipem

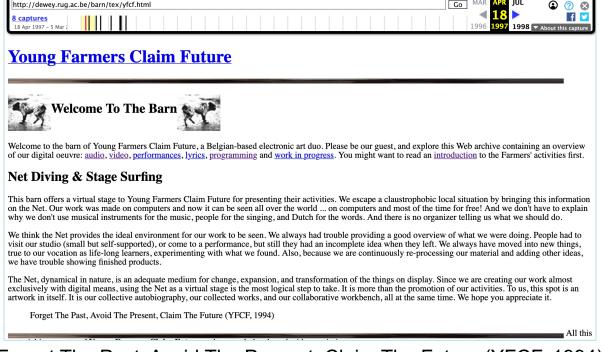
After Stellingname, I got involved in a computer music band named Young Farmers Claim Future: 2 guys and 4 networked computers. We recorded two CDs each with an extended media track, played concerts in Belgium, The Netherlands, Germany, Spain. We even had a website that is archived at the Internet Archive, be it only partly.

Our slogan, early on, was "Forget the Past, Avoid the Present, Claim the Future". A lot has changed in my perspective since then; I wonder whether age has anything to do with that.









Forget The Past, Avoid The Present, Claim The Future (YFCF, 1994)

Young Farmers Claim Future (1996) Welcome to the Barn http://web.archive.org/web/19970418042254/http://dewey.rug.ac.be/barn/tex/yfcf.html In 1996, we made a contribution to a sound installation festival in Berlin, Sonambiente: 2 computers playing rock-paper-scissors with each other using voice commands output via their built-in speaker and recognized via their built-in microphones.

We have no remnants of that installation; it's all gone. Or so I thought until a Google search led me to a miniDV recording held by the Österreichische Mediathek in Vienna, where I currently happen to live.





Data Archiving and Networked Service

	< zurü
	2010
Sonambiente 1996 MiniDV (13)	
Personen / Körperschaften	Julius, Rolf , Neuhaus, Max , Günschel, Josefine , Kubisch, Christina , Fuchs, Paul , White, Red , Hill, Gary , Anderson, Laurie , Fox, Terry , Sonambiente [Veranstalter] Young Farmers Claim Future [Gruppe]
Datumsangaben	1996 [Aufnahmedatum]
Inhalt/Annotation	Installationen 1: Julius, Claim Future, Neuhaus, Kubisch, Günschel, [?], Audio W (Huth), P. Fuchs, White (Tag), Audio W [?], Gary Hill, Anderson, Fox
Schlagwörter	, Kultur , Kulturveranstaltung , Kunstinstallationen , Medienkunst , Unveröffentlichte Aufnahme
Signatur/Art Medium	VX-10726 * Videokassette, MiniDV
Anzahl Medien	1
Orte	<u>Berlin [Aufnahmeort]</u>

Sonambiente 1996 MiniDV (13)

https://www.mediathek.at/katalogsuche/suche/detail/?pool=BIBL&uid=781471&cHash=21e348c89f1252cf5c9583284b09be9a

I got in touch with the people at the Österreichische Mediathek. They told me that I could get an MP4 file copy of the miniDV but that, unfortunately, the recording was defective from minute 40 onwards.

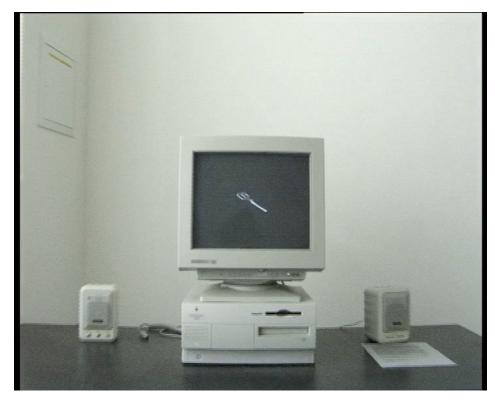
But, it turned out that YFCF's segment already started at minute 5. These are two still images taken from it.





Data Archiving and Networked Services





Sonambiente 1996 MiniDV (13) VX-10726 Österreichische Mediathek

While making music with Stellingname and YFCF, my real job was library automation, here in Ghent, at the University Library. I literally started automation by myself and from scratch. My first task was administrative automation of interlibrary loan on a PDP 11/34. To cut a long story short, over time I was able to assemble an amazing team and we became pioneers in the use of CD-ROMs to bring scientific information to our users, subscribing to databases, publishing some ourselves, and making them accessible across the campus network even when it was still running X25.

Then the Web happened. And, as was the case with most libraries, our first use of it (1996) was to advertise the availability of those databases and explaining how they could be accessed. Not via the web but using a range of access mechanisms that involved downloading software or consulting at networked PCs in Faculty Libraries.







NTIANT AXCHIVE (http://cbdata.rug.ac.be/e-dienst/tex/e-dbase-nl.html			Go OCT NOV FEB (2) 09 - f 1995 1996 1997 - About this ca	
to get a name van de databank voor informatie omtrent de inhoud. Klik op de toegangsmethode om te weten waar en hoe de databank geraadpleegd kan worden. Klik op het type om te weten over welk soort databank het gaat.				
Databank	Toegangs Methode	Databank Type	Medium	
ABI/Inform	Management	secundair	CD-ROM	
Agecon	ERL	secundair	CD-ROM	
Agricola	ERL	secundair	CD-ROM	
Agris	ERL	secundair	CD-ROM	
Antilope op CD-ROM	Bibinfo	catalogus	CD-ROM	
Antilope via WWW	WWW	catalogus	on-line	
Art Index	ERL	secundair	CD-ROM	
Arts & Humanities Citation Index	Bibinfo	secundair	CD-ROM	
Beast CD	ERL	secundair	CD-ROM	
Biological Abstracts	ERL	secundair	CD-ROM	
Boston Spa Books	Bibinfo	catalogus	CD-ROM	
Boston Spa Conferences	Bibinfo	catalogus	CD-ROM	
Boston Spa Serials	Bibinfo	catalogus	CD-ROM	
CAB	ERL	secundair	CD-ROM	
Catalogus Universiteit Gent	LIBISnet	catalogus	on-line	
CCB op CD-ROM	Bibinfo	catalogus	CD-ROM	
Corpus Christianorum	Bibinfo	primair	CD-ROM	
Compendex Plus	Bibinfo	secundair	CD-ROM	
Current Contents Agriculture	Bibinfo	secundair	CD-ROM	
Current Contents Arts & Humanities	ERL	secundair	CD-ROM	
Current Contents Clinical Medicine	Bibinfo	secundair	CD-ROM	
Current Contents Engineering, Technology & Applied Sciences	Bibinfo	secundair	CD-ROM	
Current Contents Life Sciences	Bibinfo	secundair	CD-ROM	
Current Contents Physical, Chemical & Earth Sciences	Bibinfo	secundair	CD-ROM	
Current Contents Sociological & Behavioural Sciences	Bibinfo	secundair	CD-ROM	
Econlit	ERL	secundair	CD-ROM	
Economist	Bibinfo	primair	CD-ROM	
Elsevier Science Table of Contents	WWW	secundair	on-line	
Eric	ERL	secundair	CD-ROM	
Financial Times	Bibinfo	primair	CD-ROM	
Financieel Ekonomische Tijd	Bibinfo	primair	CD-ROM	
Food Sciences & Technology Abstracts	ERL	secundair	CD-ROM	

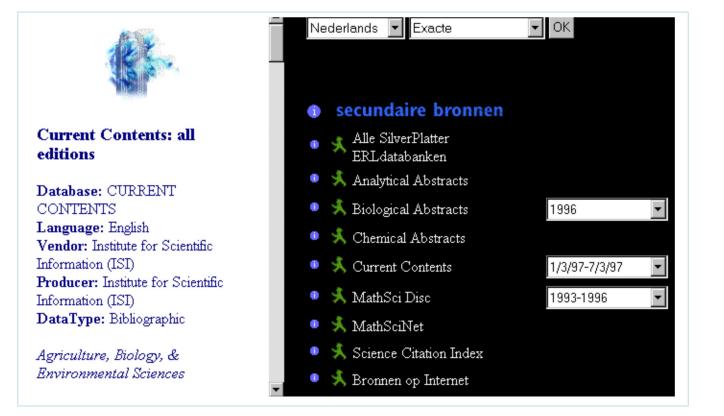
Universiteitsbibliotheek Gent (1996) https://web.archive.org/web/19961109120724/http://cbdata.rug.ac.be/e-dienst/tex/e-dbase-nl.html That all changed in 1997, when we made a big splash launching the Executive Lounge that actually provided access to most of those databases and then some via the web, using the web as a unifying access technology. A lot of European academic libraries were impressed and we even received popular culture awards for the site.

Unfortunately, very few representative remnants of that site have been preserved. Fortunately, I wrote a paper about the effort in preparation of a conference in South Africa. Well, not a paper, really. More like a blog post on PDF. But it is available in the repository of the Ghent University Library. I do not know how it got there because it was never actually published. Anyhow, this is a screenshot taken from that paper showing part of the Executive Lounge menu system.





Data Archiving and Networked Service



Van de Sompel, H., Hochstenbach, P., and De Pessemier, T. (1997) The hybrid information environment and our Intranet solution to access it (1997) Presented at Fourth South Africa Online Conference - https://hdl.handle.net/1854/LU-1056689

It is around that time that I also became obsessed with interlinking scholarly information. The Web had hyperlinks. I wanted to see those interlinking scholarly information too.

The early Executive Lounge already showed such linkages at work, the result of a collaboration with Ex Libris and SilverPlatter: dynamic links from Abstracting and Indexing databases to the library catalogue available via a "Holding at Ghent University" button.





Data Archiving and Networked Services

## Executive Lounge, Linking from A&I Database to Catalogue

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Van de Sompel, H., Hochstenbach, P., and De Pessemier, T. (1997) The hybrid information environment and our Intranet solution to access it (1997) Presented at Fourth South Africa Online Conference - https://hdl.handle.net/1854/LU-1056689

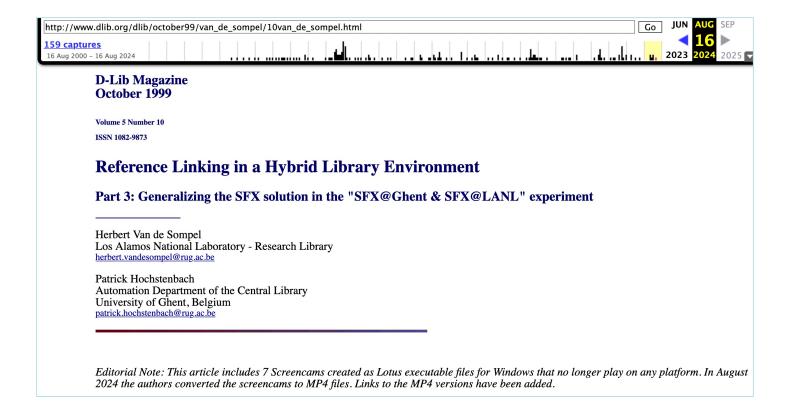
Eventually, this obsession with interlinking scholarly information led to the SFX/OpenURL library linking server work I did with Patrick Hochstenbach. It became the topic of my PhD thesis. The thesis is a bundling of papers – like this one - published in D-Lib Magazine. D-Lib Magazine has meanwhile has ceased publication but remains online. But this paper is also archived at the Internet Archive, and accessible through fatcat.

This SFX paper contained screencams that illustrated user interactions with a linking server. The screencams were provided as exe files for WinTel platforms and became obsolete quite a while ago. Thanks to advise of someone from this community – Andrew Weaver – I was recently able to migrate those screencams to a current format (Wine, CDROM image, VLC). The people at D-Lib were very helpful to make the migrated screencams accessible. And I pushed the updated version of the paper and the new screencams into the Internet Archive.









Van de Sompel, H., and Hochstenbach, P. (1999) Reference Linking in a Hybrid Library Environment. Part 3: Generalizing the SFX solution in the "SFX@Ghent & SFX@LANL" experiment.

https://web.archive.org/web/20240816072424/http://www.dlib.org/dlib/october99/van\_de\_sompel/10van\_de\_sompel.html

OpenURL became an ANSI/NISO standard, Patrick's SFX software got taken on board by Ex Libris and was commercialized. Over time, several competing library linking server products emerged.

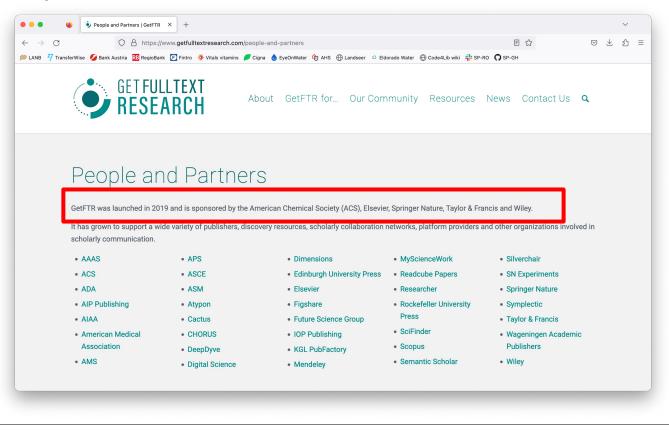
Linking servers are still used by academic libraries, worldwide, but they are meanwhile facing heads-on competition from a centralized solution sponsored by the major commercial publishers, which technically consists of a combination of SeamlessAccess and GetFTR.





Data Archiving and Networked Service

#### GetFTR: Easy Access to Content Researchers are Entitled to Read



#### GetFTR (2019) https://www.getfulltextresearch.com/people-and-partners

This is where I had planned to go off on a rant about the sorry state of the research communication system, the ongoing consolidation of publishing venues, the technical centralization that comes with it, the surveillance capability that results, the excessive profit margins, ... and the dire need for an alternative system.

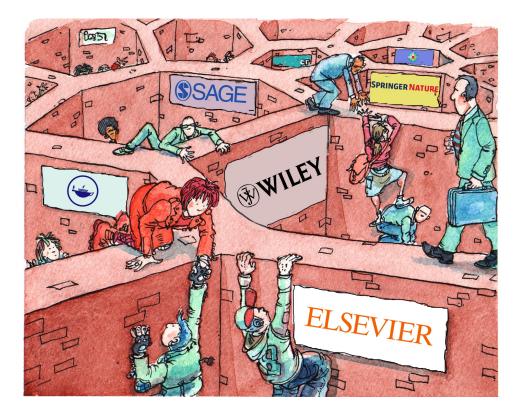
But, since I consider this talk a celebration, "the Return of the Homeboy" or a belated retirement party if you will, I eventually decided not to go there. Been there, done that. If you want to hear me reminisce about that, I can highly recommend my 2017 CNI keynote.





Data Archiving and Networked Service

#### Scholarly Communication: Deconstruct & Decentralize?



Van de Sompel, H. (2017) CNI Paul Evan Peters Award lecture - Scholarly Communication: Deconstruct & Decentralize? https://vimeo.com/248056214 So, I'm going to head in another direction here. A direction that came to me while compiling the slides so far. What we've seen thus far, using myself as an example:

- Unsurprisingly, as we go about our lives, we're leaving traces/artifacts all over the place. Some get captured as a result of the collection development policy of archives. Others, are never captured; artifacts slip between the maze although at some point they might have been important to us.
- 2. How does one know in which archives to look for our artifacts? In my examples, the Ghent Library archive is probably rather predictable. But the Österreichische Mediathek in Vienna less so.
- 3. If these artifacts are archived, how does one know that they are related, that they are traces left by the same individual? Where's the aggregate view?





Data Archiving and Networked Service

### **Archived Personal Traces**

- Some traces left by individuals get captured as a result of the collection development policy of archives, others slip between the maze although they might have been important to the individual.
- **Discovery of archived personal traces** No obvious way to determine in which archives an individual's traces can be found.
- **Inventory of archived personal traces** No aggregate resource that connects these archived traces, that makes it obvious that the archived traces available in various archives were left by a same individual.







I am going to take you on a journey in search of archival approaches that have a focus on traces left by individuals that try to address the challenges I just mentioned.

I will explore this in the narrower context of **research communication on the web**. Existing archival frameworks in research communication understandably take a systemic perspective, not a personalized perspective on archiving. **The attention is on the medium not on the messenger.** 

I will talk about two experiments that look at archiving from another perspective: the myresearch.institute experiment that takes an institutional perspective and the mycontributions.info experiment that takes an individual perspective.







#### myresearch.institute

# mycontributions.info

QMy Research Institute					All Researchers 🛶
	Researchers	Portals	Artifacts	Activities	
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PAGE CONTENTS > Herbert Van de Sompel	Herbert Van de Sompel Contributions by Herbert Van de Sompel
> Biography	Herbert Van de Sompel
> Social Media	Biography
> Contributions	Herbert Van de Sompel graduated in Mathematics and Computer Science at Ghent University (Belgium), and in 2000 obtained a Ph.D. in
TALK View Discussion	Communication Science there. He is currently Research Fellow at Data Archiving and Networked Services (DANS) in The Netherlands and Visiting Professor at the Internet Technology & Data Science Lab of Ghent University. He has previously held positions as head of Library Automation at Ghent University, Visiting Professor in Computer Science at Cornell University, Director of e-Strategy and Programmes at the British Library, information scientist at the Research Library of the Los Alamos National Laboratory, and Chief Innovation Officer at DANS. Herbert has played a major role in creating the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH C), the Open Archives
Claimbot Yesterday at 12:16 PM	Initiative Object Reuse & Exchange specifications ( <u>OAI-ORE</u> 2), the OpenURL Framework for Context-Sensitive Services (ANSI/NISO Z39.88-2004), the SFX linking server, the bX scholarly recommender service, info URI ( <u>RFC 4452</u> 2), <u>Web Annotation</u> 2, ResourceSync ( <u>ANSI/NISO Z39.99-2014</u> 2), Memento *time travel for the Web* ( <u>RFC 7089</u> 2), <u>Robust Links</u> 2, and <u>Signposting the Scholarly Web</u> 2.
	Social Media
< 8	I share and discuss research related matters on SURF's $\underline{Mastodon}$ $\boxdot$ .
	Contributions
	Reference Linking in a Hybrid Library Environment Part 3: Generalizing the SFX solution in the "SFX@Ghent & SFX@LANL" experiment. (n.d.). Retrieved August 29, 2024, from http://www.dlib.org/dlib/october99/van_de_sompel/10van_de_sompel.html
	Van de Sompel, H., Hochstenbach, P., & De Pessemier, T. (1997). The hybrid information environment and our Intranet solution to acce Fourth SA Online 1997. http://hdl.handle.net/1854/LU-1056689







But before digging into the experiments, I want to disclose the basic inspiration for both: Personal Web Observatories. What you see here is a screenshot of Amy Guy's personal web observatory. Well, a snapshot of a that observatory dating back to 2017.

Amy Guy is a computer scientist with an education from the University of Edinburgh who has been involved in a range of W3C standardization efforts and is also on the W3C TAG.

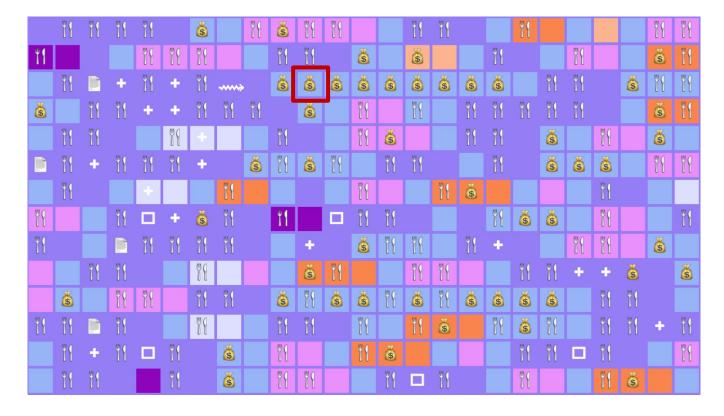
The web observatory provides a visualization of the activities that Amy conducts in a variety of portals on the web. While leaving traces in those portals, Amy's personal site provides a summarization of it all. So, for example, when I click that money bag there ...





Data Archiving and Networked Service

### Amy Guy's Personal Web Observatory



Amy Guy (2017) sloph https://rhiaro.co.uk/

I can see that Amy bought some vegan food at Luton Airport and how much was spent on that. Amy recorded this using some app or portal. Other activities are recorded using other apps and portals and eventually they all get listed in Amy's personal web observatory. Each little square in the screenshot I showed is such an activity.







#### A Personal Trace

Tuesday the 5th of September at 7:25pm (+01:00)



k

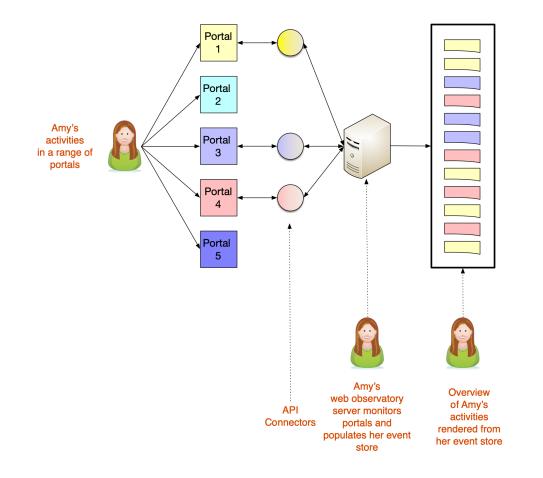
https://rhiaro.co.uk/2017/09/59aef516c7041

So, in essence, the premise of a personal web observatory is as follows:

- personal activities and conducted/recorded in variety of portals
- a personal server automatically monitors a select number of portals looking for new activities by the individual; the server uses connectors for the APIs of various portals to achieve this
- the activities recorded in those portals are collected and stored in a personal event store
- a user interface overlaying the personal store provides a crossportal overview of personal activities







based on: Amy Guy (2017) Observing the decentralised social web (one telescope at a time) https://rhiaro.co.uk/2017/personal-web-observatory The Personal Web Observatory work was a direct inspiration for the myresearch.institute experiment that was part of the Mellon-funded Scholarly Orphans project, a collaboration between my team at Los Alamos and Michael Nelson's team at Old Dominion University.

It was the last experiment I set up with my team at Los Alamos prior to leaving for DANS in The Netherlands. Martin Klein, who has meanwhile left Los Alamos himself, took over the experiment from me.

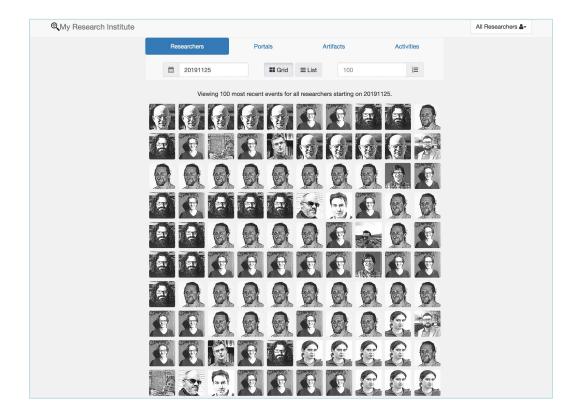
The results of the experiment are still online. The question is for how much longer, now that both Martin and I have left Los Alamos.







#### myresearch.institute





@hvdsomp@w3c.social - Former Farmer Chases Traces iPres2024, Ghent University, September 18<sup>th</sup> 2024



A core motivation for the Scholarly Orphans project was an insight that resulted from the Hiberlink project, a collaboration between the University of Edinburgh and Los Alamos led by Peter Burnhill, that focused on the archival status of web resources referenced in scholarly papers. It found that such resources, in many cases nontraditional scholarly resources, were very poorly archived.

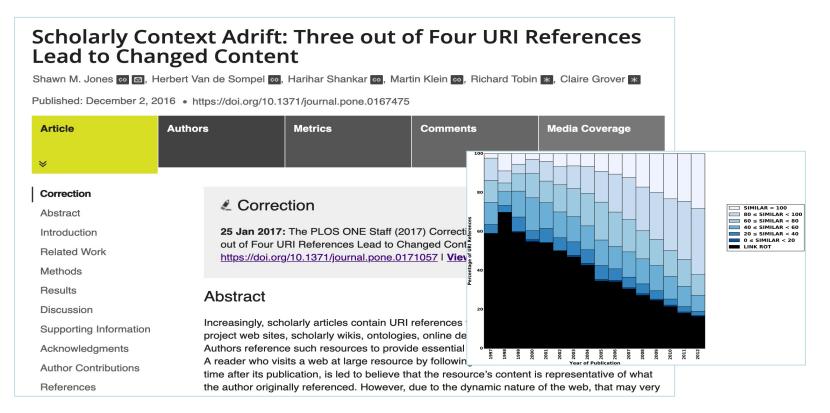
The results of the Hiberlink research were published in PLOS One and I am happy to be able to publicly thank Andy Jackson for his approach to depict link rot and content drift over time that we used in this paper.







### Hiberlink – Poorly Archived References to Web Resources



Jones, S. M,, Van de Sompel, H. Shankar, H., Klein, M., Tobin, R., and Grover, C. (2016) Scholarly Context Adrift https://doi.org/10.1371/journal.pone.0171057



Overall the considerations at the basis of the project were that:

- Researchers use a variety of web platforms for collaboration and communication
- They use platforms that are dedicated to scholarship as well as general purpose
- The researchers' institutions are not aware of contributions made in general purpose portals and many times also not of those in scholarly portals that deal with less traditional contributions.
- Although contributions are not systematically archived, institutions have an incentive to obtain broad coverage of the contributions of their researchers. After all, institutions have set up institutional repositories and/or CRIS systems to cover contributions by their researchers to the research literature. Institutions have started setting up repositories to cover research data. It seems like a logical next step for institutions to start looking into systems that can cover a broader range of their researchers' outputs.







#### myresearch.institute - Considerations

- Researchers use a variety of web platforms for collaboration and communication.
- They use platforms that are dedicated to scholarship as well as general purpose.
- The researchers' institutions are not aware of contributions made in general purpose portals.
- Contributions are not systematically archived.
- Institutions have an incentive to obtain broad coverage of the contributions of their researchers.





We decided to explore the potential of the Personal Web Observatory approach in an institutional setting, i.e. institutions operate infrastructure to automatically track contributions of researchers in web portals.

We created a fictitious research institution and populated it with 16 researchers who had given their consent to track them across a range of portals.

In our institutional observatory, the researchers were uniquely identified by means of their ORCID and in each portal they had a web identity that our observatory knew about. That is essential to be able to track them.









### myresearch.institute - Researchers

- 16 researchers
- Uniquely identified by ORCIDs
- Web identities in multiple portals
- Make a variety of contributions







We selected 11 portals in which to track our researchers. Some are general purpose portals and some are focused on research: hypothes.is, blogger, slideshare, wordpress, github, figshare, wikipedia, home page, publons, stack overflow, ...

10.187 unique contributions were tracked between August 2018 and March 2020.





# myresearch.institute - Portals

- 11 portals
- Tracking started August 2018
- Tracking ended March 2020
- 10.187 unique contributions tracked









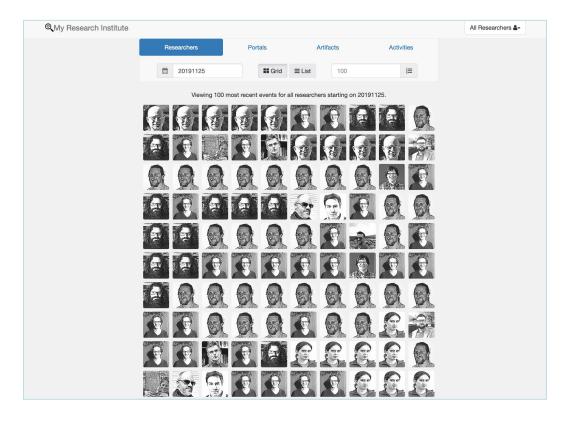
The event store was gradually populated over time and a user interface, rather inspired by Amy Guy's personal web observatory, allowed getting an overview of our researcher's contributions.

It provided ways to get a chronological overview of contributions by all researchers, organized by the researcher who made the contribution, the portal, the contribution type, and the activity type. It also allowed to zoom in on a single researcher.



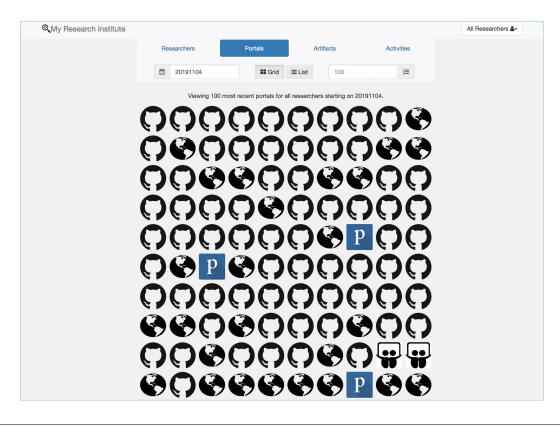


#### myresearch.institute – Contributions - Researcher View



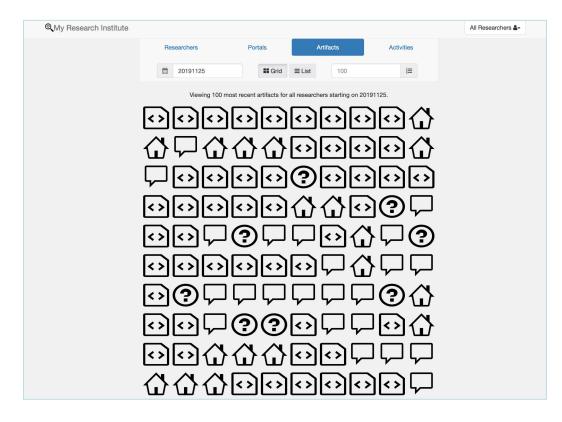
https://myresearch.institute/

#### myresearch.institute – Contributions – Portal View

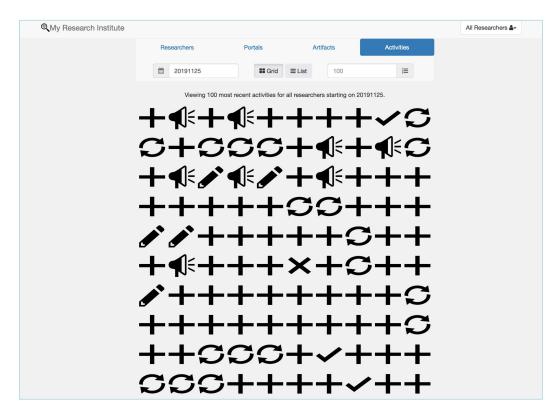


https://myresearch.institute/all/portals/

#### myresearch.institute – Contributions – Artifact Type View



#### myresearch.institute – Contributions – Activity Type View



Details about a specific contribution were presented on a sort of landing page. This page is about a contribution I made to Github.

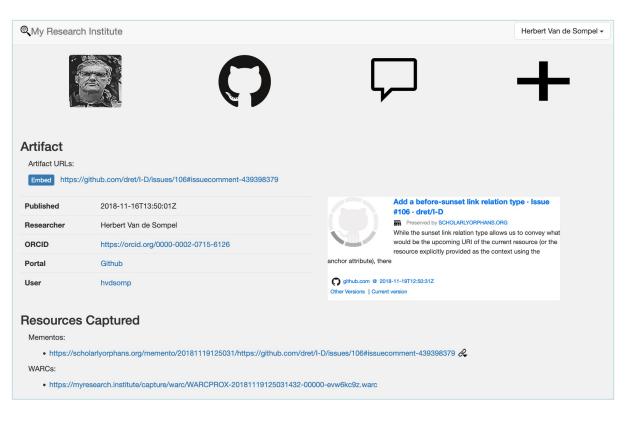
I did mention that a basic consideration of the Scholarly Orphans project was that these contributions were poorly archived. So, the event store, while useful in its own right as a means to get a broad perspective on researchers' contributions, also acted as a seed for web archiving those contributions. Contributions were captured and deposited both in the institutional observatory (as a WARC file) and in a cross-institutional scholarly web archive – scholarlyorphans.org - where it could be replayed.

The landing page provides access to these captures.

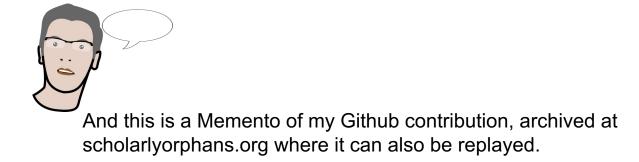




#### myresearch.institute – Landing Page for Contribution



https://myresearch.institute/event/7644e5d859e84360895d34a31573ee4f/



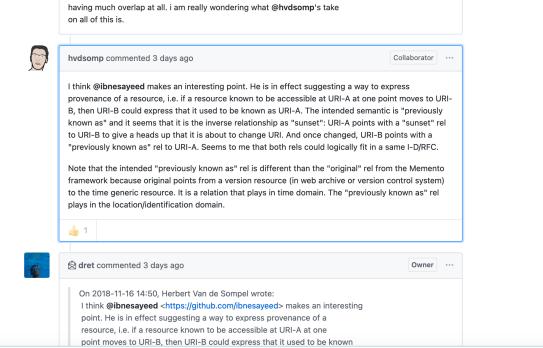






### Memento of Contribution in scholarlyorphans.org

that's not something sunset is concerned with) goes "out of business" and wants to announce this in advance. looking at it from that angle, it almost seems like these things complement each other nicely, without having much overlap at all. i am really wondering what **@hvdsomp**'s take on all of this is.



The overall architecture indeed looks very much like Amy Guy's Personal Web Observatory. But, here, multiple observatories are operated at the same time by an institution instead of by an individual.

Each observatory tracks a single researcher but populates a shared event database. The tracking techniques used are the same as in the Personal Web Observatory, i.e. API connectors continuously monitor remote portals; the web identities of researchers in each portal are essential to be able to do so.

The Institutional Web Observatory provides an overview of institutional and personal contributions.

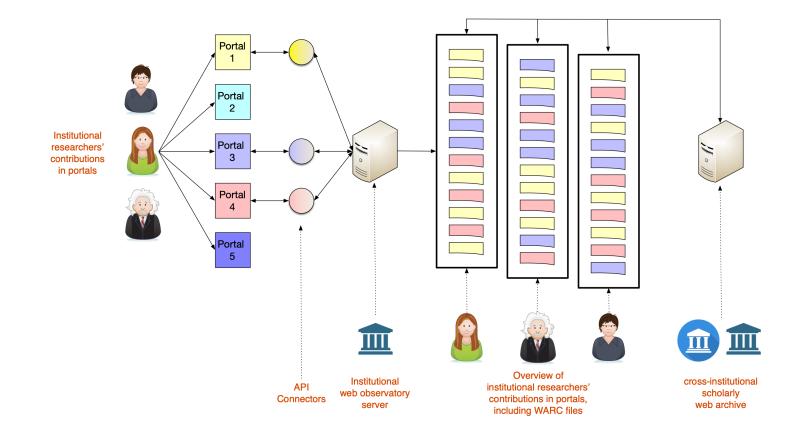
Additionally, there is the archival component. Whenever a new contribution is detected, it gets captured and deposited as a WARC at the institution and as a replay-able capture in a cross-institutional scholarly web archive.













@hvdsomp@w3c.social - Former Farmer Chases Traces iPres2024, Ghent University, September 18<sup>th</sup> 2024







I want to share a few insights gained from this effort.

First, I mentioned that web identities of researchers are essential in order to be able to efficiently monitor platforms for new contributions.

We found that all general purpose web portals support such functionality: given the unique identifier of a user in a portal, retrieve a list of contributions, or even recent contributions.

We found that, despite the significant advocacy around unique contributor identifiers in scholarly communication scholarly portals typically did not have such API features. That was, of course, quite a few years ago but a recent survey conducted by colleagues at DANS, coordinated by Ingrid Dillo, found that not much has changed with that regard.





#### myresearch.institute - Insights

• Poor support in scholarly portals for retrieving contributions by means of a contributor identifier.







This insight led to an effort to propose an API that could be supported by repositories and that can be used to list contributions by providing a contributor identifier.

It's called authorIDy, it's published under the Signposting umbrella, and is awaiting feedback. There was significant interest in it when I did a presentation at the recent Open Repositories conference in Götenburg. But we'll have to see whether anything concrete happens with it.





### authorIDy: Listing Contributions by Contributor Identifier

Signmap

authorIDv

authorIDy: Listing Contributions by Contributor Identifier

FAIR

FAIRiCat

Warning: Discussion document - Not a specification (yet)

a/Signmap/

Conventions

This version, created 20240224: https://signposting.org/authorIDy/

Check out the experimental demonstration of the authorIDy interface as described in this document

Please provide feedback in the GitHub Signposting repository, using label authorIDy

Patterns -

Increasingly, repositories allow, recommend, or require providing unique contributor identifiers, such as ORCID or ISNI, when depositing contributions. Despite this evolution, few repositories provide a machine interface that allows listing the contributions made by a researcher using their contributor identifier as a key. An interface with this capability, supported across repositories, would facilitate a range of use cases and could be an important next step towards realizing COAR's Next Generation Repositories vision. This document describes core characteristics of authorIDy, a conceptual proposal for such a machine interface. Hopefully, this description will evolve into a specification.



Adopters About

Feedback

authorIDy: Listing Contributions by Contributor Identifier https://signposting.org/authorIDv/ And there are also a few insights gained from this effort that informed the overall approach of the mycontributions.info experiment that I will talk about in a bit:

- It's not just institutions that do not know about researcher contributions in those web portals. The researchers know they make them but loose track of it all. As such, they much appreciated the overview provided in the institutional web observatory. They even asked whether our experimental setup had an API so they could get their stuff out.
- One can track only so many portals and obviously researchers will make contributions to portals that were not tracked
- Not all tracked contributions seem to be scholarly; there's definitely a mix of private and scholarly on general purpose platforms







### myresearch.institute - Insights

- Poor support in scholarly portals for retrieving contributions by means of a contributor identifier.
- Researchers don't remember all the contributions they make and as such much appreciated the overview provided in the institutional web observatory.
- Researchers make contributions to portals that were not tracked; can't track them all.
- Not all tracked contributions seem to be scholarly; there's definitely a mix of private and scholarly on general purpose platforms.





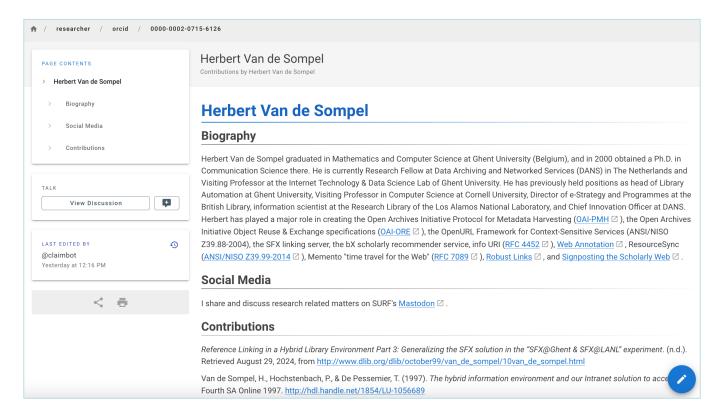
Which brings us to the mycontributions.info experiment that is currently being conducted by my long-term collaborator Patrick Hochstenbach.

That is, indeed, the same Patrick Hochstenbach who developed the first SFX linking server software 25 years ago. The mycontributions.info experiment is a collaboration with SURF and is part of Patrick's PhD research; Ruben Verborgh and I are his mentors on his PhD journey.





### mycontributions.info





@hvdsomp@w3c.social - Former Farmer Chases Traces iPres2024, Ghent University, September 18<sup>th</sup> 2024 UNIVERSITEIT GENT



Before addressing the design of the experiment, I want to provide some context. SURF is the ICT cooperative of education and research institutions in the Netherlands. SURF allocates resources to explorative innovation activities in a range of areas. Societal relevance is an important criterion to decide which innovation activities to pursue.

Last year, as part of its Innovation activities, SURF set up a Mastodon instance. It has not been successful to this date, going by the "142 active users" stat.





### SURF Mastodon Pilot

Search Q			mastodon
<b>social.edu.nl</b> is part of the decentralized social network powered by <u>Mastodon</u> .			# Explore
	social.e	Q Live feeds	
social.edu.nl	Mastodon pilot		Login to follow profiles or hashtags, favorite, share and reply to posts. You can also interact from your account on a different server.
This is the Mastodon Pilot instance run by SURF for the Dutch research and education community			Login
- more info https://surf.nl/mastodon-pilot social.edu.nl			
ADMINISTERED BY: SERVER STATS:	Decentralized social media powered by Mastodon		
	ADMINISTERED BY:	CONTACT:	
Learn more	(     @SLURF Server Admin	mastodon@surf.nl	
	@SLURF		
social.edu.nl: <u>About</u> · <u>Profiles directory</u> · <u>Privacy policy</u>	✓ About		

https://social.edu.nl/about

Earlier this year, SURF organized a brainstorm to discuss potential innovative activities in the realm of scholarly communication and the distributed web. Two main and seemingly unrelated themes/challenges emerged from the meeting.

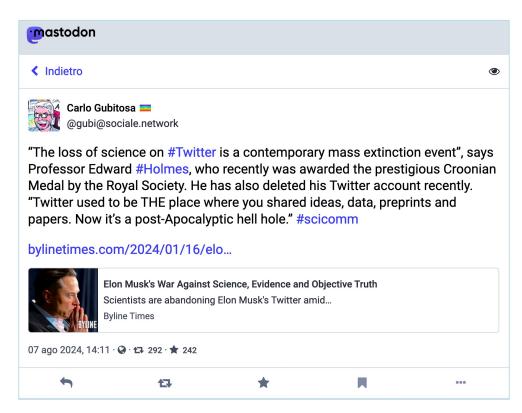
The first theme was the disappearance of informal research communication on twitter resulting from Musk's take-over. It has been characterized as a contemporary mass extinction event. The question hanging around the room was whether the Fediverse with its distributed Mastodon instances could provide an alternative.







## Theme 1: Xodus, Loss of Science Communication on Twitter



https://sociale.network/@gubi/112920672314200247

Markolin, P. (16 January 2024) Elon Musk's War Against Science, Evidence and Objective Truth https://bylinetimes.com/2024/01/16/elon-musks-war-against-science-evidence-and-objective-truth/

The SURF Mastodon instance has a very interesting feature with this regard: Users are registered and authenticated by means of SURFConext, the single sign-on service for high education in The Netherlands that leverages institutional identity providers. Meaning posts by users of the SURF Mastodon instance can be unambiguously attributed, traced back to an actual person who works or studies at a Dutch higher education institution. Which is very attractive from a research communication perspective.

But how to get them to join? What is the carrot?





#### SURFconext Used for Mastodon Registration/Authentication



#### SURFconext

#### Secure access everywhere with one set of credentials

Let your users log in to all the cloud services your institution uses with one username and password. Both for services that everyone uses and services for small specialist teams. Secure, easy and privacy-friendly.



#### ✓ One interface for all cloud services

With SURFconext, you arrange access to different services with one link instead of a separate link per service.

#### ✓ Safe and easy

Users can securely and easily access cloud services with one account, that of the institution (single sign-on).

#### ✓ Privacy-friendly

SURFconext transfers only the personal data that is really necessary to the service provider.

#### ✓ Also for own services

As an institution, you can make your own services easily accessible to your own staff and students, and those of other institutions.



Do you have a question about SURFconext? Get in touch.



Team SURFconext n.v.t. info@surfconext.nl

https://www.surf.nl/en/services/surfconext

The second theme related to the efforts in the context of Open Science to assess researchers in novel ways, to take a broad range of activities/contributions into account for assessments.

- There is global activity in this realm, for example, under the umbrella of COARA, the Coalition for Advancing Research Assessment.
- And recently I came across a UNESCO document "Principles of Open Science Monitoring" that is in request for feedback status. It actually lists Roberto Di Cosmo as one on the contributing experts.





Data Archiving and Networked Service

#### Theme 2 - Holistic Assessment of Researcher Contributions

# Coalition for Advancing Research Assessment

Our vision is that the assessment of research, researchers and research organisations recognises the diverse outputs, practices and activities that maximise the quality and impact of research. This requires basing assessment primarily on qualitative judgement, for which peer review is central, supported by responsible use of quantitative indicators.

#### Call for inputs: Global Consultation on the Draft Principles of Open Science Monitoring

As part of the ongoing efforts to advance open science monitoring in alignment with the 2021 UNESCO Recommendation on Open Science, UNESCO is calling for inputs and comments from all the regions and interested stakeholders on the Draft Principles for Open Science Monitoring.

Deadline for inputs: 30 November 2024



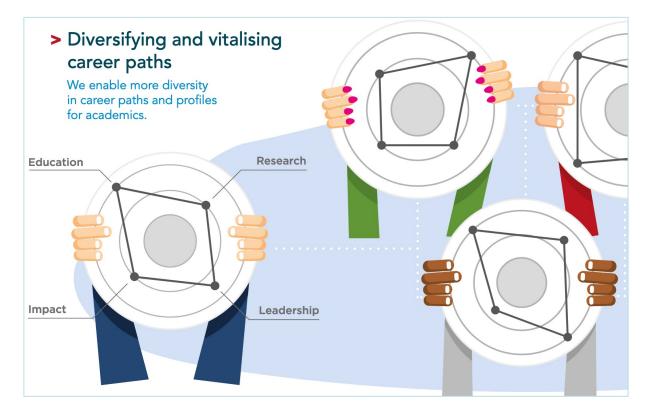
https://coara.eu/ https://www.unesco.org/en/articles/call-inputs-global-consultation-draft-principles-open-science-monitoring This desire to assess researchers in novel ways also very much exists in the Netherlands. And there is clear interest in areas that go beyond the creation of scholarly artifacts, including, under the "impact" umbrella penetration of research results into society, the media, i.e. a newspaper article about a researcher's work, an interview on the radio, an appearance on a TV program, etc.





Data Archiving and Networked Service

## Theme 2 - Holistic Assessment of Researcher Contributions



VSNU, NFU, KNAW, NWO and ZonMw (2019) Room for everyone's talent: towards a new balance in the recognition and rewards of academics https://recognitionrewards.nl/wp-content/uploads/2020/12/position-paper-room-for-everyones-talent.pdf A challenge with this regard, though, is how to get an overview of all pertinent activities/contributions in a manner that doesn't put all the burden on the researchers.

The EC-funded GRASPOS project operates in this realm and aims at generating holistic researcher profiles, for example, even including things like conference attendance. I heard OpenAIRE's Nathalia Manola talk about the project at the recent CRIS2024 conference in Vienna. She confirmed the challenge.

As we learned in the myresearch.institute perspective, one can't monitor it all. The monitoring approach can work when a select number of environments are deemed relevant but it breaks down when the environment that is to be monitored is the entire web.







### graspos – Open Research Assessment Dataspace

#### graspos Researcher Profile

#### Narrative that goes beyond research outputs

- Supported by evidence
- Using a variety of open data sources

#### How

- Different templates for different uses •
- Novel ideas for presentation ٠

#### Challenges

- How to capture information beyond research outputs
- ORCID extensions a valuable tool, but far from becoming extensively used

OpenAIRE

EuroCRIS 2024 | Vienna | May 15-17, 2024



Manola, N. (2024) Transforming the Research Landscape: The Intersection of Open Science, Open Infrastructure children and Networked Services and CRIS. Keynote at EuroCRIS2024, May 15-17, Vienna, Austria http://hdl.handle.net/11366/2599



So, one needs to turn the whole thing around. And that was a major insight of the brainstorm at SURF: instead of detecting researchers' traces by monitoring portal APIs, have researchers themselves announce them, in the case of the SURF experiment by posting about them on Mastodon.

The specific approach chosen draws inspiration from tools that had been created on Twitter, such as #ICanHazPDF to obtain a copy of a research article that sits behind a paywall and @icanhazmemento to request the creation of a Memento for a certain URL. In this case, researchers will post about resources that they consider their contributions.

The incentive for the researcher to post is to obtain holistic data that can be used for assessments but, honestly, also to just keep track of what they've been up to. And the hope is that the carrot of the contribution list will be sufficient to attract Dutch researchers to Mastodon and start informal research communication there. We will learn whether that hope is justified once SURF decides on a community in which to run a pilot.



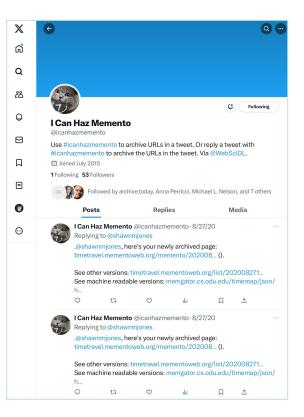




### #ICanHazPDF

WIKIPEDIA The Free Encyclopedia	Q oo Create accour	nt Log in •
≔ ICanHazPDF	文 <sub>人</sub> 8	languages
Article Talk	Read Edit View his	story Tools
From Wikipedia, the free encyclopedia		
The correct title of this article is <b>#ICanHazPDF</b> . The omission	n of the # is due to technical rea	strictions.
#ICanHazPDF is a hashtag used on Twitter to request access	Part of a series on	
to academic journal articles which are behind paywalls. <sup>[1]</sup> It	File sharing	
began in 2011 <sup>[2]</sup> by scientist Andrea Kuszewski. <sup>[3][4]</sup> The name		
is derived from the meme I Can Has Cheezburger? <sup>[4]</sup>		
Due en en		
Process [edit]	Technologies	[show
Users request articles by tweeting an article's title, DOI or	Video on demand sites	[show
other linked information like a publisher's link, <sup>[5]</sup> their email	BitTorrent sites	[show
address, and the hashtag "#ICanHazPDF". Someone who has access to the article might then email it to them. The user then	Academic/scholarly	[show
deletes the original tweet. <sup>[6]</sup> Alternatively, users who do not	File sharing networks	[show
wish to post their email address in the clear can use direct	P2P clients	[show
messaging to exchange contact information with a volunteer	Streaming programs	[show
messaging to exchange contact mornation with a volunteer		

## @icanhazmemento



Here's a high-level overview of the the design of the experimental setup that Patrick is currently working on.

I am registered with the SURF Mastodon instance.

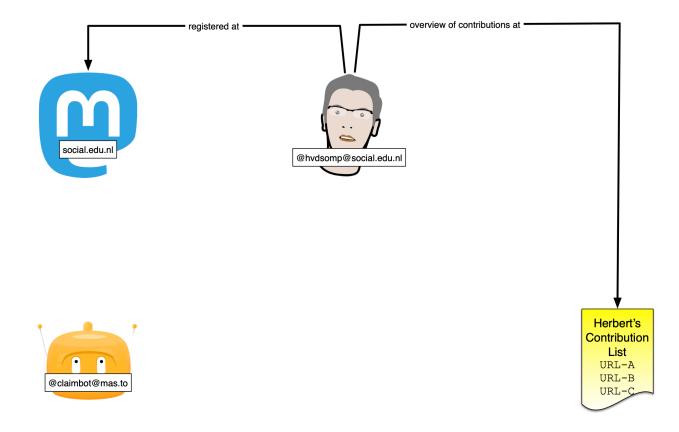
I have a Contribution List.

There's also a bot in the Fediverse – the claimbot - that accepts requests from users registered at the SURF Mastodon instance.





Data Archiving and Networked Services









To the left is my personal mastodon account on the SURF instance; you can seen the verified URL of my Contribution List there too.

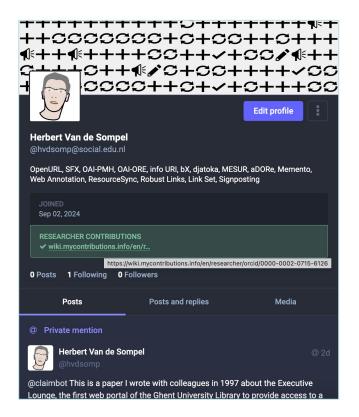
To the right is the claimbot's mastodon account.





Data Archiving and Networked Services

## mycontributions.info – Personal and Bot Mastodon Accounts



Claimbot @claimbot@mas.to @Automated Helping researchers claim of		Follow	
JOINED Aug 28, 2024			
5 Posts 3 Following 4	Followers		
Posts	Posts and replies	Media	
Claimbot @claimbot @hvdsomp I updated your researcher contributions wiki.mycontributions.info/ rese :)			
, Wiki.js	;		

https://social.edu.nl/@hvdsomp https://mas.to/@claimbot

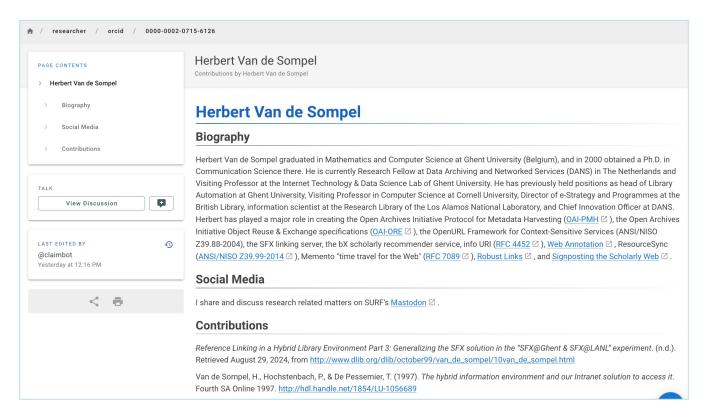
This is my Contribution List that I have prepopulated with scholarly contributions I mentioned at the beginning of my talk: the D-Lib paper and the paper/blog about the Executive Lounge.



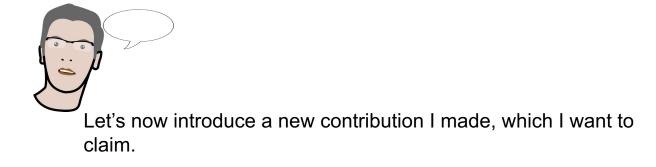




#### mycontributions.info - Contribution List



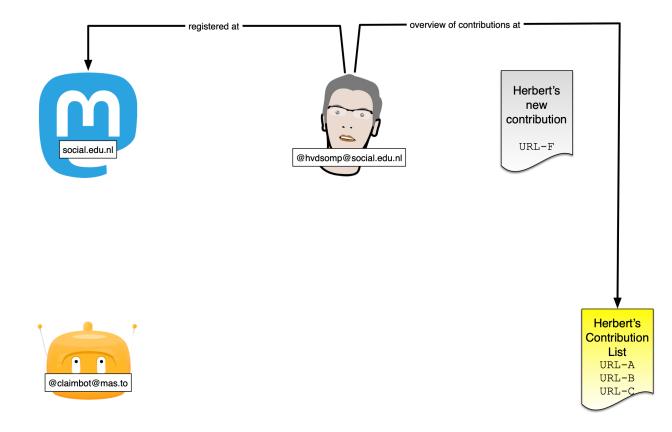
https://wiki.mycontributions.info/researcher/orcid/0000-0002-0715-6126

















In order to do so, we are going to roll back time for a moment and pretend it's 2009 again, when I was speaking at the Bielefeld Conference.

I am going to claim two new contributions with that regard:

- A page that shows that I am a speaker at the Bielefeld Conference
- The slides that I use for my talk





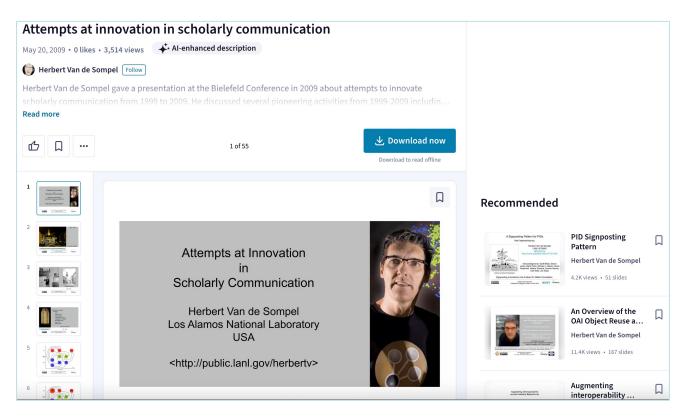
Data Archiving and Networked Services

#### Contribution 1: Speaker at Bielefeld Conference

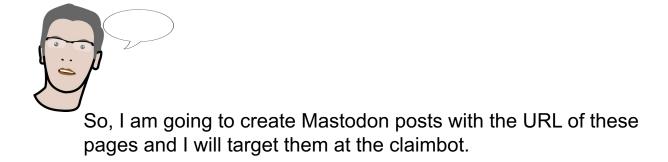
3 - 5 February 2009 in Bielefeld, Germany 9 <sup>th</sup> International Bielefeld Conference				
Upgrading the eLibrary: Enhanced Information Services Driven by Technology and Economics				
<ul> <li>Homepage</li> <li>Speakers</li> <li>Programme incl. presentations and audio recording</li> </ul>	Frank Scholze Ministry for Science, Research and the Arts Baden-Württemberg Silke Schomburg "hbz" (Academic Library Center), Cologne Hendrik Speck	Profile Profile		
<ul> <li>Participants List</li> <li>Exhibitors</li> <li>Demonstrations</li> </ul>	University of Applied Sciences Kaiserslautern, Information Architecture Lab <b>Carol Tenopir</b> University of Tennessee, U.S.	F Profile		
<ul> <li>Sponsors</li> <li>Bielefeld University Library</li> </ul>	Herbert Van de Sompel Los Alamos National Laboratory, Research Library, Los Alamos, New Mexico, U.S.	F Profile		
<ul><li>Press</li><li>Photos</li></ul>	Leo Waaijers Independent Consultant, The Netherlands	Profile		
Contact     © Bielefeld University Library	Ulli Waltinger University of Bielefeld, Faculty of Linguistic and Literature / SFB 673 Alignment in Communication	F Profile		
	Bielefeld University Library - latest update: 30 Jan 2009			

http://conference.ub.uni-bielefeld.de/2009/speakers/

## **Contribution 2: Presentation Slides for Bielefeld Conference**



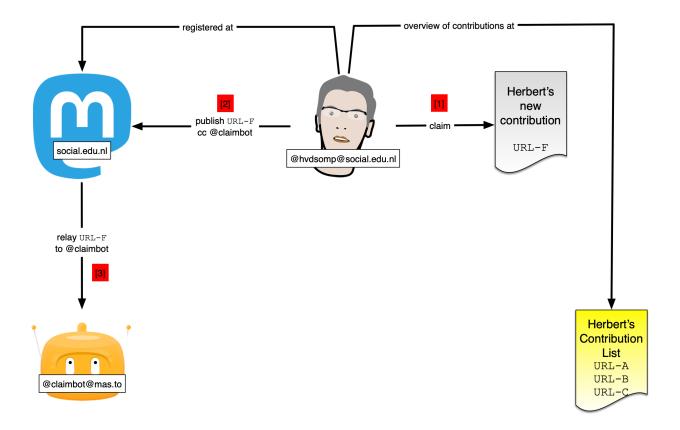
https://www.slideshare.net/slideshow/attempts-at-innovation-in-scholarly-communication/1466198













IIIII UNIVERSITEIT GENT





- Prior to the Conference, I express my excitement to be speaking
- After the talk, I share my slides

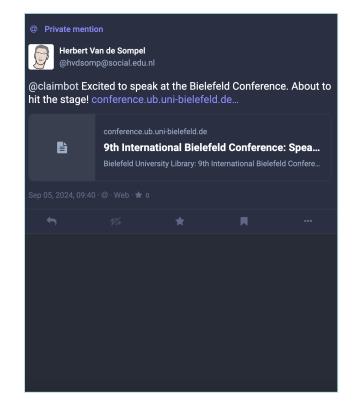
Note that I have sent these as private messages so as to not spam the SURF Mastodon instance. But in reality I would send these publicly so that any one can see my new contributions.







## mycontributions.info – Announce Contribution 1, cc @claimbot



https://social.edu.nl/@hvdsomp/113083813675476591

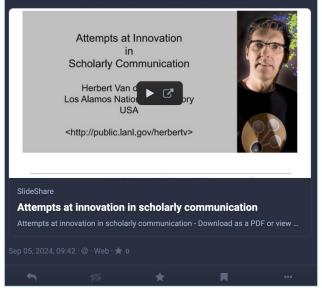
## mycontributions.info – Announce Contribution 2, cc @claimbot





Herbert Van de Sompel @hvdsomp@social.edu.nl

@claimbot Bielefeld Conference talk went really well. Here's the slides I presented slideshare.net/slideshow/attem...



https://social.edu.nl/@hvdsomp/113083819150666111

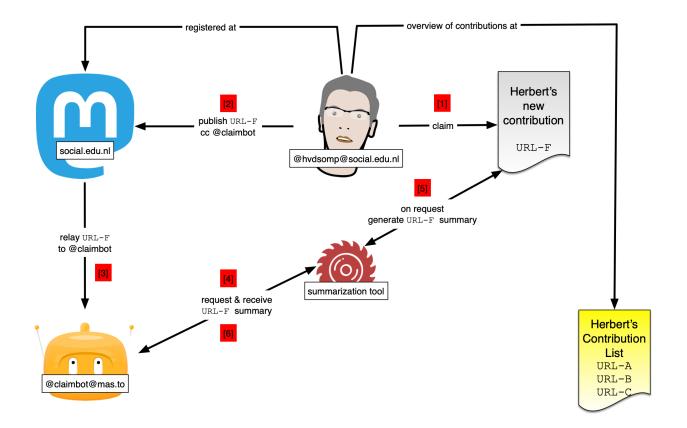
The claimbot receives the post, checks whether it originates from someone registered with the SURF Mastodon instance, and if so, calls a service that automatically extracts pertinent metadata about the contribution.

That information extraction is not conducted by calling APIs as was the case in myresearch.institute but by obtaining information via the contribution page.





Data Archiving and Networked Services





@hvdsomp@w3c.social - Former Farmer Chases Traces iPres2024, Ghent University, September 18<sup>th</sup> 2024





The communication between the claimbot and the extraction tool uses the notification approach described in the Event Notifications in Value-Adding Networks specification authored by Patrick Hochstenbach and colleagues.

The approach is itself based on Linked Data Notifications and ActivityStreams2 vocabulary and is, among others, also used in the COAR Notify project for communication between repositories and overlay peer-review services. But. the notification approach is increasingly attracting attention for other use cases such as requesting archiving of resources, requesting/announcing augmentation of metadata, registration of datasets in registries, etc.







## Event Notifications in Value-Adding Networks

#### **Event Notifications in Value-Adding Networks**

Living Document, 6 September 2023

#### This version:

https://www.eventnotifications.net

Latest published version: https://www.eventnotifications.net

Previous Versions: https://www.eventnotifications.net/0.1/

#### Feedback:

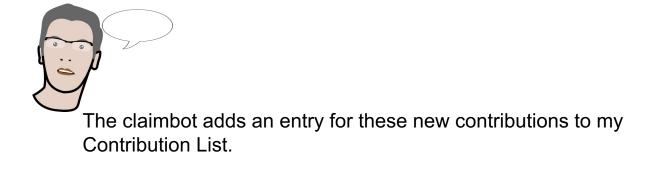
Inline In Spec

#### Editors:

Patrick Hochstenbach (Ghent University Library) Miel Vander Sande (meemoo - Flemish Institute for Archives) Ruben Dedecker (IDLab - Ghent University) Paul Walk (Antleaf) Martin Klein (Los Alamos National Laboratory) Herbert Van de Sompel (IDLab - Ghent University)



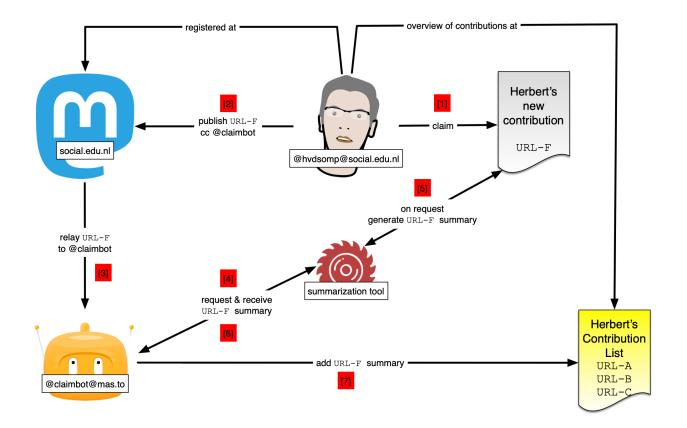
Hochstenbach, P., Vander Sande, M. Dedecker, R. et al. (2023) Event Notifications in Value-Adding Networks https://www.eventnotifications.net/













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As you can see the two new contributions were added to my Contribution List. The metadata extracted is pretty minimal in this case but there's at least an entry for the contributions.







## mycontributions.info – Updated Contribution List

PAGE CONTENTS > Herbert Van de Sompel	Herbert Van de Sompel
> Biography	Biography
<ul> <li>&gt; Social Media</li> <li>&gt; Contributions</li> </ul>	Herbert Van de Sompel graduated in Mathematics and Computer Science at Ghent University (Belgium), and in 2000 obtained a Ph.D. in Communication Science there. He is currently Research Fellow at Data Archiving and Networked Services (DANS) in The Netherlands and Visiting Professor at the Internet Technology & Data Science Lab of Ghent University. He has previously held positions as head of Library
TALK View Discussion	Automation at Ghent University, Visiting Professor in Computer Science at Cornell University, Director of e-Strategy and Programmes at the British Library, information scientist at the Research Library of the Los Alamos National Laboratory, and Chief Innovation Officer at DANS. Herbert has played a major role in creating the Open Archives Initiative Protocol for Metadata Harvesting ( <u>OAI-PMH</u> $\supseteq$ ), the Open Archives Initiative Object Reuse & Exchange specifications ( <u>OAI-ORE</u> $\supseteq$ ), the OpenURL Framework for Context-Sensitive Services (ANSI/NISO Z39.88-2004), the SFX linking server, the bX scholarly recommender service, info URI ( <u>RFC 4452</u> $\supseteq$ ), <u>Web Annotation</u> $\supseteq$ , ResourceSync ( <u>ANSI/NISO Z39.99-2014</u> $\supseteq$ ), Memento "time travel for the Web" ( <u>RFC 7089</u> $\supseteq$ ), <u>Robust Links</u> $\supseteq$ , and <u>Signposting the Scholarly Web</u> $\supseteq$ .
LAST EDITED BY @claimbot Today at 3:42 AM	Social Media I share and discuss research related matters on SURF's <u>Mastodon</u> 2.
< .	Contributions
~ <b>P</b>	Reference Linking in a Hybrid Library Environment Part 3: Generalizing the SFX solution in the "SFX@Ghent & SFX@LANL" experiment. (n.d.). Retrieved August 29, 2024, from http://www.dlib.org/dlib/october99/van_de_sompel/10van_de_sompel.html
	Van de Sompel, H., Hochstenbach, P., & De Pessemier, T. (1997). The hybrid information environment and our Intranet solution to access it. Fourth SA Online 1997. http://hdl.handle.net/1854/LU-1056689
	9th International Bielefeld Conference: Speakers. (n.d.). Retrieved September 5, 2024, from http://conference.ub.uni-bielefeld.de/2009/ speakers/
	Attempts at innovation in scholarly communication. (2009, May 20). SlideShare. https://www.slideshare.net/slideshow/attempts-at- innovation-in-scholarly-communication/1466198

https://wiki.mycontributions.info/researcher/orcid/0000-0002-0715-6126

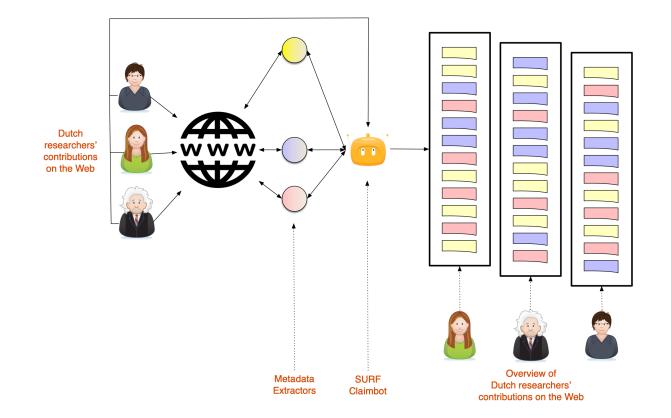
The overall approach in this case still draws inspiration from the Personal Observatory work in that overviews of contributions by researchers that reside on the web are created.

But the action radius of this approach is not just a select number of portals in which researchers are active but rather the web at large. Granted, researchers can not just sit back and relax while their contributions are automatically detected. They need to be pro-active and announce them. But in return, their Contribution Lists are updated all the while they are also informally communicating about scholarship on mastodon.





Data Archiving and Networked Service









The focus in this experiment is on novel research assessment approaches but it is obvious that Contribution Lists can also be used as seeds for archiving, just like the traces obtained by observing APIs in the myresearch.institute experiment.

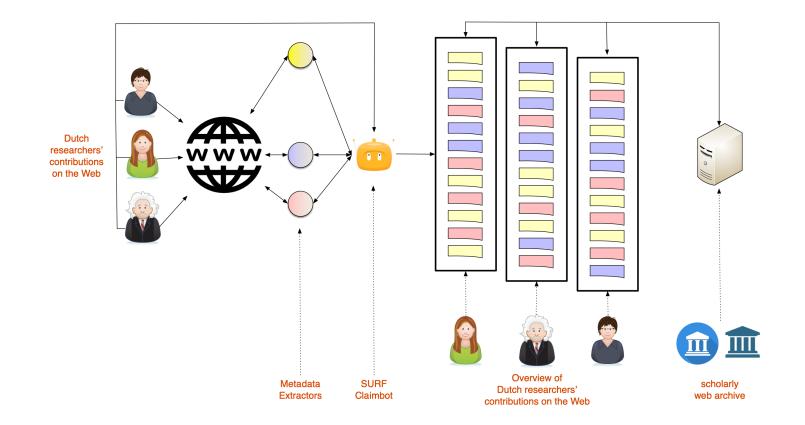
The approach could be passive, i.e. the Contribution List just sitting there, waiting, until an archival bot comes by.

Or, much better, the approach could be pro-active, for example, by using event notifications to request resources to be archived. In which case, Contribution Lists can link to Mementos of the contributions, which is beneficial to the scholarly record as such but also augments the value of Contribution Lists as sources for evaluation, indicators, etc. Because even when the contributions are gone from the live web, their nature can be checked via archives.





Data Archiving and Networked Service





@hvdsomp@w3c.social - Former Farmer Chases Traces iPres2024, Ghent University, September 18<sup>th</sup> 2024 UNIVERSITEIT GENT



I have discussed two experiments, myresearch.institute and mycontributions.info that take a different perspective on archiving the webbased scholarly record. Not a systemic but rather an institutional and personal perspective, respectively.

Both approaches, if they would be pursued in reality instead of as a mere experiments, would lead to a better archival coverage of scholarly contributions; they would complement existing archival frameworks. And, as I've shown, in both approaches, incentives are in place for these parties to invest time and effort to optimize archival coverage of research contributions.

I very much understand that there are very significant challenges involved in turning these experiments into reality. Organizational, social, economical, legal, etc., etc. But, as one can when presenting a keynote, I am going to leave those to the reader.





#### myresearch.institute

# mycontributions.info

QMy Research Institute					All Researchers 🛶
	Researchers	Portals	Artifacts	Activities	
	20191125	III Grid	≡ List 100	I	
	Viewing 100	most recent events for all	researchers starting on 201	91125.	
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r / researcher / orcid / 0000-0002-0	1715-6126		
PAGE CONTENTS > Herbert Van de Sompel	Herbert Van de Sompel Contributions by Herbert Van de Sompel		
> Biography	Herbert Van de Sompel		
> Social Media	Biography		
> Contributions	Herbert Van de Sompel graduated in Mathematics and Computer Science at Ghent University (Belgium), and in 2000 obtained a Ph.D. in		
TALK View Discussion	Communication Science there. He is currently Research Fellow at Data Archiving and Networked Services (DANS) in The Netherlands and Visiting Professor at the Internet Technology & Data Science Lab of Ghent University. He has previously held positions as head of Library Automation at Ghent University, Visiting Professor in Computer Science at Cornell University, Director of e-Strategy and Programmes at the British Library, information scientist at the Research Library of the Los Alamos National Laboratory, and Chief Innovation Officer at DANS. Herbert has played a major role in creating the Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH C), the Open Archives		
Claimbot Yesterday at 12:16 PM	Initiative Object Reuse & Exchange specifications ( <u>OAI-ORE</u> 2), the OpenURL Framework for Context-Sensitive Services (ANSI/NISO Z39.88-2004), the SFX linking server, the bX scholarly recommender service, info URI ( <u>RFC 4452</u> 2), <u>Web Annotation</u> 2, ResourceSync ( <u>ANSI/NISO Z39.99-2014</u> 2), Memento *time travel for the Web* ( <u>RFC 7089</u> 2), <u>Robust Links</u> 2, and <u>Signposting the Scholarly Web</u> 2.		
	Social Media		
< 8	I share and discuss research related matters on SURF's $\underline{Mastodon}$ $\boxdot$ .		
	Contributions		
	Reference Linking in a Hybrid Library Environment Part 3: Generalizing the SFX solution in the "SFX@Ghent & SFX@LANL" experiment. (n.d.). Retrieved August 29, 2024, from http://www.dlib.org/dlib/october99/van_de_sompel/10van_de_sompel.html		
	Van de Sompel, H., Hochstenbach, P., & De Pessemier, T. (1997). The hybrid information environment and our Intranet solution to acce Fourth SA Online 1997. http://hdl.handle.net/1854/LU-1056689		







I want to loop back to the start of the presentation where I discussed challenges with archiving personal traces.

Remember: artifacts slipping through the maze, the lack of a resource that ties all archived artifacts of an individual together, problems discovering personal traces because they reside in various archives.

There's a lot, especially in the mycontributions.info approach that I find inspiring when thinking more generally about archiving the personal traces that individuals leave on the web.









### **Archived Personal Traces**

- Some traces left by individuals get captured as a result of the collection development policy of archives, others slip between the maze although they might have been important to the individual.
- **Discovery of archived personal traces** No obvious way to determine in which archives an individual's traces can be found.
- **Inventory of archived personal traces** No aggregate resource that connects these archived traces, that makes it obvious that the archived traces available in various archives were left by a same individual.







I am going to characterize the approaches I discussed in terms of the various phases as identified by these Tips for Personal Web Archiving that are very much inspired by those for Personal Digital Archiving. And I am going to look into the Who does What in each phase.

These Tips are about getting your stuff off the web, onto your own machine, and onto redundant storage. That's not what I am after here because:

- I want the personal archive to be usable and I want it to complement other archives, which it can not do when it sits on my laptop;
- I don't want to and am not able to run my own archival infrastructure;
- I don't think I can dedicate the necessary attention to this because I am busy living my life and trying to protect myself from cyberscams.





### Personal Web Archiving Tips

	How	Who
Identify	locate your content on the web	individual
Select	select what's important to you	individual
Capture	save as ; export	individual
Organize	directories ; file names	individual
Persist	redundancy ; migration	individual

based on : Personal Archiving: Preserving your Digital Memories https://www.digitalpreservation.gov/personalarchiving/documents/PA\_websites.pdf Let's look at the mycontributions.info approach in this way too:

- Individuals identify and select the resources they deem relevant by tooting about them and creating Contribution Lists; the lists provides seeds for archival processes.
- Memory organizations take care of the last three phases and as such individuals do not need web archiving nor long-term preservation expertise.
- Using an appropriate interface between a Contribution List and a web archive, the List can be made to reflect in which archive contributions are archived. And, obviously, not all contributions would need to end up in the same archive.





### mycontributions.info

	How	Who
Identify	toot ; contribution list	individual
Select	toot ; contribution list	individual
Capture	web crawl/capture	organization
Organize	contribution list ; web archive replay	indiv ; org
Persist	redundancy ; migration	organization







Contrast this with the myresearch.institute approach in which the researcher's institution takes care of identification by choosing a set op portals to monitor but contributions slipped through the maze because one can't monitor them all.







#### myresearch.institute

	How	Who
Identify	track researchers via portal APIs	institution
Select		institution
Capture	web crawl/capture	organization
Organize	event database ; web archive replay	inst ; org
Persist	redundancy ; migration	organization







This leads us to the following perspective on Personal Web Archiving in which I reorganized the parameters of the previous tables a bit:

- The individual is in charge of Identification/Selection because the individual is keen to get specific traces archived.
- The memory organization in charge of Capture/Organize/Persist because that's its expertise and – in a best case scenario – its time horizon is longer than that of an individual.

A partnership, basically, between individuals and memory organizations for Personal Web Archiving.







# Personal Web Archiving as a Partnership?

	Individual	Memory Organization
Identify	nomination	
Select	nomination	
Capture		web crawl/capture
Organize		web archive replay
Persist		redundancy ; migration





I want to make some observations here, some technical, some organizational. First technical:

- There's something very very nice about the overviews of personal traces along with their corresponding Mementos as discussed in both myresearch.institute and mycontributions.info. They are an inventory documenting personal traces and their archival copies.
- Capture challenges (complex web pages, bots increasingly being blocked e.g. because of aggressive AI bots, authorization) may require desktop capture even though that's more demanding for the individual. Desktop capture undoubtedly has its place in web archiving but maybe the work involved may be prohibitive in the context of personal web archiving.







- There's something really attractive about the nomination approach in mycontributions.info, in which the individuals are just in their normal flow on the web, and nomination totally integrates into that flow. It did so with toots but seamlessness can be achieved in other ways, e.g. Zotero personal collection & Robust Links add-on. It would be nice if a level of seamlessness could be achieved for both the web crawl/capture and desktop capture paradigms.
- Since we're dealing with an environment with multiple archives interoperability regarding capture requests would be advantageous:
  - by-reference requests when dealing with web capture;
  - by-value requests when dealing with desktop capture;
  - responses to these requests in order to streamline management of Inventories.







### **Technical Considerations**

- Inventory of resources and their corresponding Mementos.
- Capture challenges (complex web resources, blocking of bots, authorization) may require a desktop capture approach rather than a web crawl/capture approach that is easier on the individual.
- Seamless, in-the-flow, nomination of resources to be archived for both capturing paradigms.
- Web archive interoperability for capture requests/responses:
  - By reference, to request a web archive to web crawl/capture resources;
  - By value, to transfer desktop-captured resources to a web archive;
  - Responses to these capture requests ~ management of Inventory.









This all leads us to a somehow enhanced characterization of the Personal web Archiving partnership with, as discussed, the necessary interoperability ingredients to make information flow between phases seamless.







# Personal Web Archiving as a Partnership?

	Individual	Memory Organization
Identify	in-the-flow nomination	
Select	in-the-flow nomination	
Capture	desktop capture	web crawl/capture
Organize	artifact-memento inventory	web archive replay
Persist		redundancy ; migration







I also want to share some organizational observations:

- I would very much prefer a memory organization that has a long-term horizon to be in charge of the archive instead of a commercial company that might eventually enshittify its offering and ultimately prevent individuals from exporting their archive
- I have really been wondering why personal archiving is not a more common, integral component of the collection development policy of memory organizations. This has struck me big time when everyone was scrambling to get their stuff out of twitter, as I did, and all those unusable "archives" that now sit on hard disks. It seems to me that memory organizations can play a role in this personal web archiving realm and that there is a win/win involved:
  - Memory organizations increase their coverage and do so with explicit consent of individuals.
  - Individuals get a usable long-term archive.

Bottom Line: When it comes to personal web archiving individuals could use some help. Memory organizations come to mind as parties that could be the Rescue Heroes.





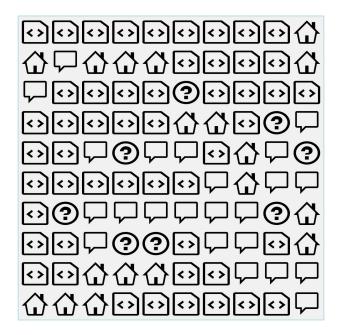
# **Organizational Considerations**

- Strong preference for memory organization with a long-term horizon; significant concerns regarding eventual enshittification of offerings by commercial players.
- Few memory organizations have Personal Web Archiving as an integral collection development approach despite what seems like a potential win/win:
  - memory organizations increase their coverage with explicit consent of individuals;
  - Individuals get a usable long-term archive.





### Former Farmer Chases Traces



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@hvdsomp@w3c.social - Former Farmer Chases Traces iPres2024, Ghent University, September 18<sup>th</sup> 2024

