I am not sure if I totally agree with the organisers policy to save the best for the last. But given that you are all still here, it seems to be not such a bad policy after all.

All joking aside, I realise I'm the last thing standing between you and refreshing Belgian beers, so I will make this worth your time and attention.
My name is Bram Luyten, and for the past 13 years of my life, I have been helping universities, ngos and companies with sharing their research papers with the world, leveraging systems known in my field as "Institutional Repositories". We build these repositories with the Open Source software DSpace.

I do this together with a team of 28 other people of Atmire, a company I co-founded together with Lieven Droogmans and Ben Bosman. We are a spin-off of KU Leuven, and their repository Lirias was the first thing we ever made. I'm very proud of my Alma mater and since I want to respect our hosts for today, I'm just going to say that like ULB, KU Leuven is pretty awesome institution as well.
In my talk today, I will first give you my view on the trends and evolutions in Scientific communication that we operate in.
Then I will give you insight into the DNA of our specific open source community, the DSpace community.
And lastly, without getting too much into the technical details, I will share how we have embarked on the largest development endeavor in the history of the project, the deprecation of the two different UIs we had for DSpace, with the goal of replacing them with a new Angular based UI in DSpace 7.
Since it's been a very long day, I would already be happy if there is just a single idea you retain from my talk:
I believe that we, not meaning Atmire or the DSpace community, but everyone in this room, can speed up scientific progress by getting the most recent results of research QUICKER in the hands of MORE people.
Communicating results

How fast are we going today?
A quick reminder of the pre-internet model, where scientific publishers essentially operated like a newsstand. There were marginal costs associated with the actual printing of each issue of a journal, and getting them shipped to libraries.

Authors submitted in their articles, they were not paid for this, nor did they have to pay for any publisher services.

Publishers covered their costs and made their margin on charging subscriptions to the libraries and individuals.
Fast forward to today
Publishers make content available for free, instantly

“All content listed on this page is free to access”

https://www.thelancet.com/coronavirus
Publishers make content available for free, instantly

https://www.elsevier.com/connect/coronavirus-information-center
Problem solved?

Can you raise your hand if you know someone who is diagnosed with the coronavirus?

Can you raise your hand if you know someone who has cancer?
If you want to download this article today, and if you're not on the network of an institution that has a digital subscription.
Bladder Using Magnetic Resonance Imaging (cineMRI)

C. Wilson †, E. Mosehli†, M. Tacey ‡‡, I. Quin §, N. Lawrentschuk †, D. Bolton †, D. L. Joon †, M. Chao †, T. Dunshea †‡, T. Kron ‡, F. Foroud †

https://doi.org/10.1016/j.clon.2019.09.056
Even though, the Journal states that it "supports open access".

Supporting open access in the context of this journal really means that they put the choice with the author: If the author wants people to download their article for free, they need to pay a fee that often goes into the thousands of dollars.
So it's not even on a journal by journal clear cut case. It's often article by article.

Research on a respiratory epidemic virus with limited fatalities like corona should be open & "free". But the latest research on the cancer that is killing your uncle, father or aunt shouldn't? I don't get that.
Luckily an increasing bigger number of disciplines are embracing preprint culture, where results are shared quicker, through preprint servers instead of journals.
With more and more funders strongly backing the Plan S initiative, that wants to get rid of embargo periods all together, it basically looks like we are really on the way where open access will become the norm, rather than the exception.

However I don’t want to be naive: Open Access itself is not a silver bullet that addresses the costs of scientific research (including communication) and global equality in the scientific community.
In this whole ecosystem, institutions, their leadership and librarians increasingly also take leadership on the stewardship of their scientific output.
Student theses is an area where increasingly more and more is being made available through repositories.
## Properties of expanding universes

**Citation**

**Description**
The thesis has been made openly available with the kind permission of Professor Stephen Hawking.

**Abstract**
Some implications and consequences of the expansion of the universe are examined. In Chapter 1 it is shown that the equations derived give a picture of the future behind the horizon of a collapsing universe. Chapter 2 deals with perturbations of an expanding homogeneous and isotropic universe. The conclusion is reached that galaxies cannot be formed as a result of the growth of perturbations that were initially small. The propagation and distortion of gravitational waves is also investigated in the approximation of Chapter 3 with the result that the distortion is negligible. The collapse of an expanding universe is considered in Chapter 4. The singularity is inevitable provided that certain very general conditions are satisfied.

**Advisors**
Hawking, Stephen

**Date**
1966-03-18

**Identifiers**

- https://doi.org/10.21785/381.1191
- https://repository.cam.ac.uk

**Alternative formats**
https://doi.org/10.21785/381.1191
Institution doesn't mean "academic" institution. The idea is catching on in any type of place that is either producing results with public funding, or sees other benefits in making content easily and quickly available.
OXFAM, WHO, The World Bank, Different agencies of the united nations, all run repositories.
The sharing goes far beyond traditional text materials. This dataset has multiple terabytes of data, neatly split into 17GB zipfiles, accessible to anyone who wants it.
Due to the reward and promotion mechanisms, most, if not all research is still being submitted to journals, preferably with high impact factors. However, versions of these papers can already be made available through repositories in a very early stage. Even though you see restricted resource and an embargo period in this example, look what happens when you click the Download button.

https://repository.helmholtz-hzi.de/
Individual researchers always have the freedom to share their work, in any stage, with a colleague in the field. So this "Request a copy" mechanism, is an effective, technological feature around this concept.

Even though the general embargo applies, you can easily get a copy sent to you straight from the author after approval.

And I haven't gotten to the best thing.
The best thing?
No need to remember the urls to these sites !!!!
You don't even have to know the repositories exist.

The repositories are the infrastructure on which Google Scholar relies to show you those PDF links on the right side. Even though you sometimes have to click that "All X versions" link in order to see the repository version.
With an installation base between 2000 and 3000 repositories, depending on how you count, DSpace is the most widely adopted repository solution.

According to me, these are some of the critical success factors that contributed to the success.

Already in very early versions of the software, there was attention for localisation. This definitely added to the success in non-English speaking countries including Taiwan, China, Japan. In some of these countries, the MIT license has allowed local forks of DSpace to flourish. In China, there's one of these around aptly named "CSpace".

The documentation also sets it apart from other solutions, especially closed source ones, that often don't have their documentation publicly available.

I'm not sure whether the meritocratic aspects of the community, where any developer who has a good idea and code for some improvements, can get it in, is unique. But it definitely helps to empower people and to grow the contributor base.
DSpace does not want to be a tool that can do everything. It's power lies in ingesting and exposing metadata and associated digital assets. Together with the fine grained access control challenges that come with it, it does this very well. It is software people like to use, which is in essence, the key aspect of uptake and growth.
Manakin vs JSPUI

**JSPUI (Java Server Pages)**
- Difficult to extend
- Monolithic interface

**XMLUI (Manakin Framework)**
- Modular design
- Multiple interface
- Metadata in native formats
Welcome to the DSpace.org demonstration/sample repository (Manakin / XMLUI interface)

This repository is currently running on DSpace version 6.3, with the following extra features enabled:

- Mirage 2 responsive theme
- Authority Control on Authors and Publishers in Submission process
- Embargo in Submission process
- Item counts in communities/collections are visible
- Community/Collection/Item Statistics are publicly visible
- OpenSearch
- Google Scholar metadata
- SWORD Client
- Mobile Theme
- Elastic Search Statistics (login as admin and browse to any community/collection/item, then choose the last 'View Usage Statistics' link from the menu)
- ORCID integration
- PDF CoverPage generation

The following Demo Users are set up in the system (all users have password equal to the lowercase name of this software):

- Demo Site Administrator = dspaceadmin-admin@gmail.com
- Demo Community Administrator = dspaceadmin-community@gmail.com
- Demo Collection Administrator = dspaceadmin-collection@gmail.com
- Demo Submitter = dspaceadmin-submit@gmail.com

WARNING: All content on this site resets automatically every Saturday at 23:59 UTC, at which point any changes are lost.
Welcome to the DSpace.org demonstration/sample repository JSPUI interface
This repository is currently running DSpace version 6.3
WARNING: All content on this site resets automatically every Saturday at 23:59 UTC, at which point any changes are lost.
Historically, DSpace has had an almost annual release cycle for major versions, where it basically combined a slate of improvements of whatever contributors could get finished before feature freeze deadline.

One of the things that happened in this fashion over the years, is that an institution contributed an alternative to the standard JSPUI, an XML User interface based on the Apache Cocoon framework. Even though this new UI had advantages over JSPUI, it did not provide feature parity with JSPUI from the start. This resulted in the community essentially getting divided across two UI camps.

With a codebase over 10 years old, doing bigger refactoring and transitions required a different approach. In order to avoid introducing a THIRD UI, we knew feature parity with the best bits of both JSPUI and XMLUI were essential and that we had to get as many people on board as possible. That's why an elaborate UI prototype challenge was used as a method, to have in-depth discussions on the pro's and cons, enabling stakeholders to fully align on the final selected candidate: Angular.
Search Demo

Search Results

New showing 1 - 10 of 10

Publications

The Diagnostic Sensitivity of Dengue Rapid Test Assays Is Significantly Enhanced by Using a Combined Antigen and Antibody Testing Approach

BACKGROUND: Serological tests for IgM and IgG are routinely used in clinical laboratories for the rapid diagnosis of dengue and can differentiate between primary and secondary infections. Dengue virus non-structural protein 1 (NS1) has been... Rapid test for NS1 and determine if it can improve diagnostic sensitivity when used in combination with a serological test.

Comparison of two dengue NS1 rapid tests for sensitivity, specificity and relationship to viremia and antibody responses

BACKGROUND: Dengue is a major public health problem in tropical and subtropical countries. Rapid and easy diagnosis of dengue can assist patient triage and care management. The detection of DDW NS1 on rapid lateral flow tests offers a fast... to a presumptive dengue diagnosis, but careful evaluations are urgently needed as more and more people are...
What is DASH?

A central, open-access repository of research by members of the Harvard community.

DASH enhances the visibility and impact of your work. Authors who deposit in DASH have access to on-demand metrics and receive monthly reports about their readership. Deposited works receive persistent URIs, are comprehensively indexed by search engines, including Google and Google Scholar, reach academic and non-academic readers who may not have access to the original publications, and are preserved by the Harvard Library.

Making your work open access in DASH is as simple as completing our upload form. We also welcome bulk deposits and offer OAI-escaping services. Simply contact OSC if you are interested. OSC will do the legal work for all submissions.

The OSC is pleased to offer a robust suite of services to support you and your scholarship. Visit our For Authors page to learn more.

https://dash.harvard.edu
Recomendaciones para la obtención de datos, el análisis y la elaboración de informes sobre indicadores antropométricos en niños menores de 5 años
Organización Mundial de la Salud, Fondo de las Naciones Unidas para la Infancia (UNICEF)
(Organización Mundial de la Salud, 2019)

Recommandations pour la collecte des données, leur analyse et la préparation des rapports sur les indicateurs anthropométriques chez les enfants âgés de moins de 5 ans
Organisation mondiale de la Santé, Fonds des Nations Unies pour l’enfance (UNICEF)
(Organisation mondiale de la Santé, 2019)

https://apps.who.int/iris/
https://openknowledge.worldbank.org/