Unlocking the power of ORCID integrations in HR systems

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ORCID | Connecting Research and Researchers

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What is ORCID?

- ORCID is an open, not-for-profit organization run by and for the research community
- We provide researchers with a unique identifier, an ORCID iD, that reliably and clearly connects them with their research contributions, affiliations, funding & facilities
- We provide open tools (APIs) that enable transparent connections between researchers, and identifiers for their activities & contributions.

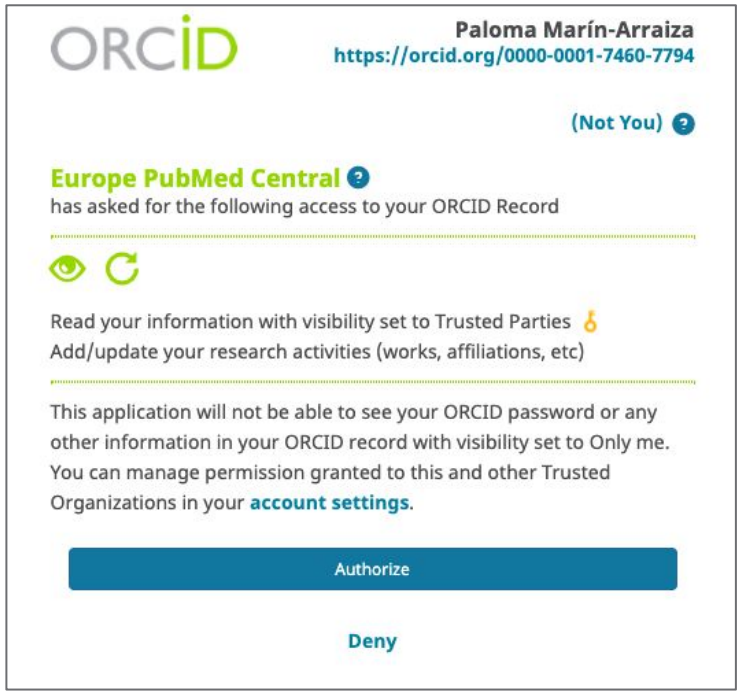
OUR COMMUNITY

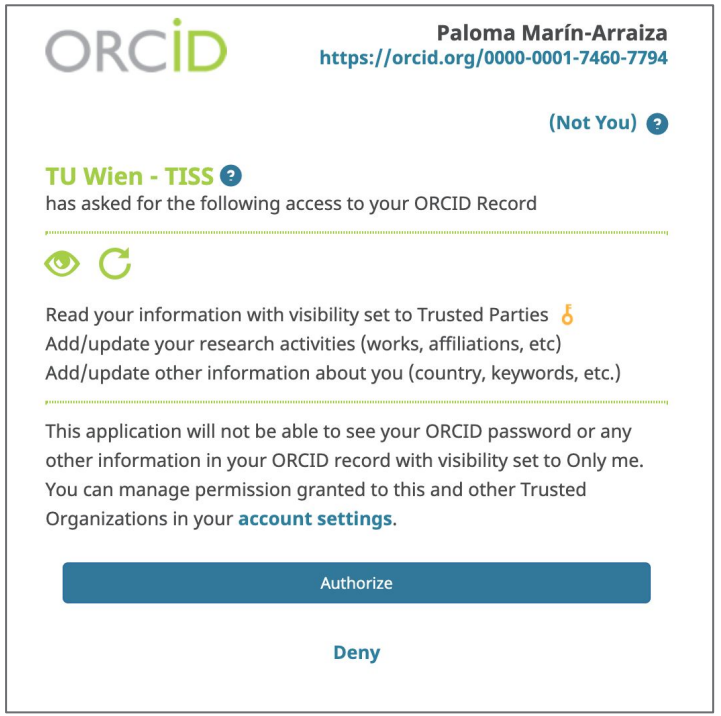
- 1100+ members from 40+ countries
- 23 consortia
- +900 system integrations: all research sectors
- Over 9M iDs connected to
  - 10M+ affiliations
  - 60M+ works
  - 22M+ unique DOIs

Enter once, reuse often

Instead of manually typing iDs, authentication allows your institution to:

- optimize the processes
- respect user privacy and consent
- avoiding manual entry and typos





ORCID APIs

➔ Sandbox (Testing)
https://orcid.org/content/register-client-application-sandbox

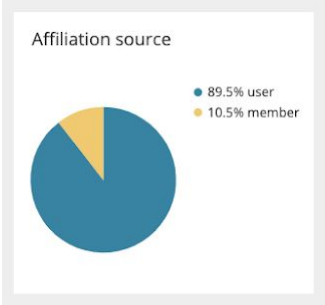
➔ **Production (Live Registry)**
https://orcid.org/content/register-client-application-production-trusted-party

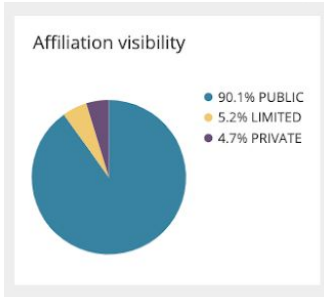
Public API Freely available	•Authenticate: Get a user's authenticated ORCID iD •Read (Public): Search/retrieve public data •Create: Facilitate creation of new ORCID records (via on-demand process)
Member API - Basic Basic membership	•Read (Limited): Search/retrieve limited-access data •Add: Post new items to a record •Update: Edit or delete items you previously added
Member API - Premium Premium & Consortium membership	•Webhooks: Receive notifications of updates •Monthly reports (including email stats) •Access to monthly public data file

https://members.orcid.org/api
https://orcid.org/about/membership/comparison

Affiliations in the Registry

Records with an affiliation	Number of affiliations	% Records with an affiliation
3,338,314	10,950,207	34.8%





POLL

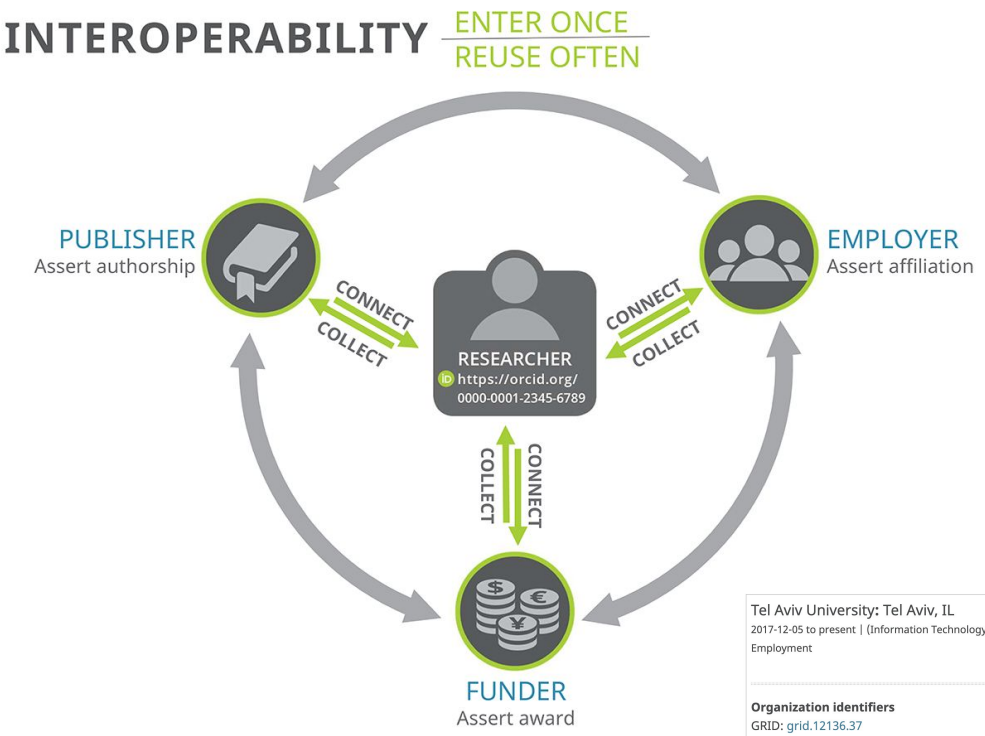
Service Providers Certification

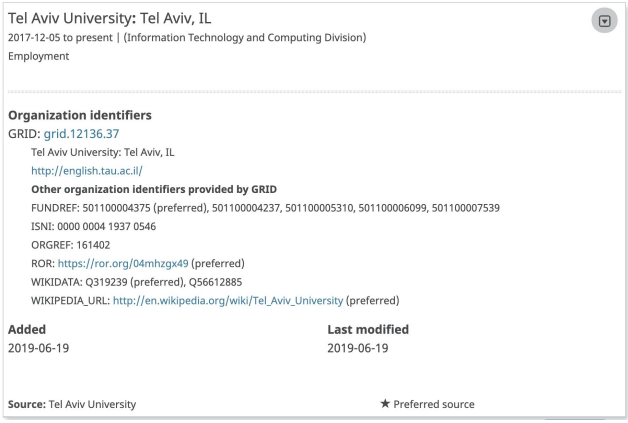
"An ORCID SP is any organization that provides a product—free or paid—that includes functionality that can authenticate ORCID iDs and update ORCID records"

Certified organizations:

- Altum
- DataCite
- Crossref
- Haplo

https://orcid.org/blog/2020/06/18/announcing-orcid%E2%80%99s-new-service-provider-certification-program





Source https://orcid.org/0000-0001-8512-9281

THANK YOU!

Find out more at https://members.orcid.org

Email g.mejias@orcid.org

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ORCID integrations in HR systems

Dror Berger, IUCC

ORCID Webinar
September 3, 2020

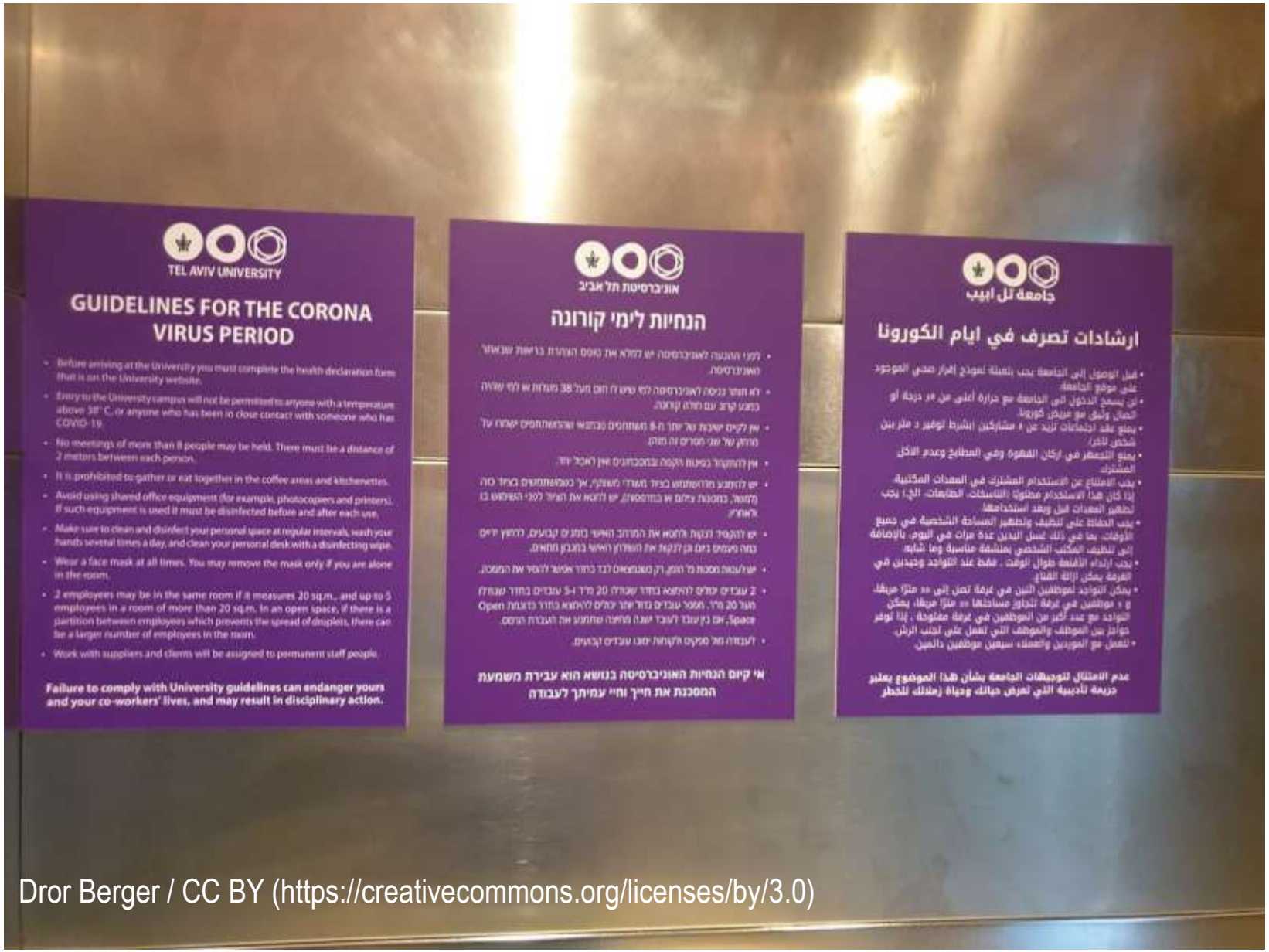
Agenda

1. Introduction
2. The Israeli CRIS project
3. Overcoming language barriers using ORCID
4. The HR system as the most suitable host for ORCID interfaces and data
5. Different methods of implementation
6. Q & (Hopefully) A

Introduction - Context

- Dror
- Inter-University Computation Centre
- The academia in Israel
  - Israel is 2nd in the world for innovation out of 138 economies
  - 3rd for quality of research institutions
  - 1st for research talent in business
  - 25% of FDA-approved drugs developed by Israelis

Introduction – Languages in Israel



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The Israeli CRIS project - Objectives

- Combining data from the 9 Israeli universities and…
- Creating a single database and public portal for all Israeli research, to promote cooperation and knowledge dissemination
- Enabling uniform benchmarking
- Making the budgeting process, based on research outputs, transparent

The Israeli CRIS project - Research funding

In order to receive funding from the PBC, publications must be:

- Published in academic journals
- Peer reviewed
- Written in English, Hebrew or Arabic

The Israeli CRIS project - Requirements

- All universities use the same system, each using their own independent CRIS instance
- An aggregated environment will collect data from all instances
- Academic publications in Hebrew & Arabic included
- Academic outputs will be correctly assigned to organizational units

The Israeli CRIS project - challenges

- All examined systems automatically harvest data from databases such as Scopus and Web of Science, which mostly include publications in Roman alphabet.
- Matching algorithms are largely based on researchers' names
- Many names in Hebrew & Arabic have variations due to vowel representation

The Israeli CRIS project - Hebrew & Arabic

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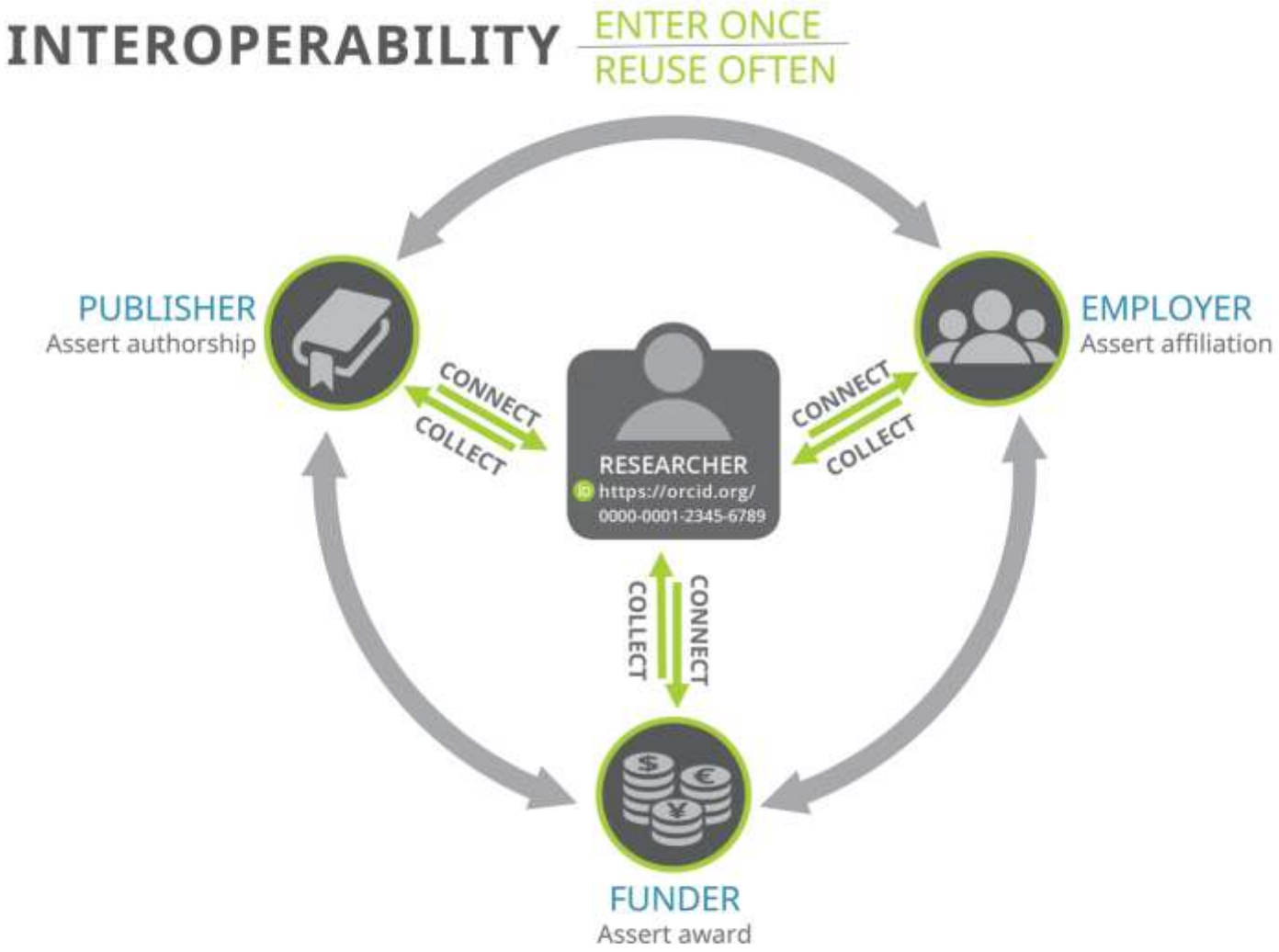
ORCID - The obvious answer

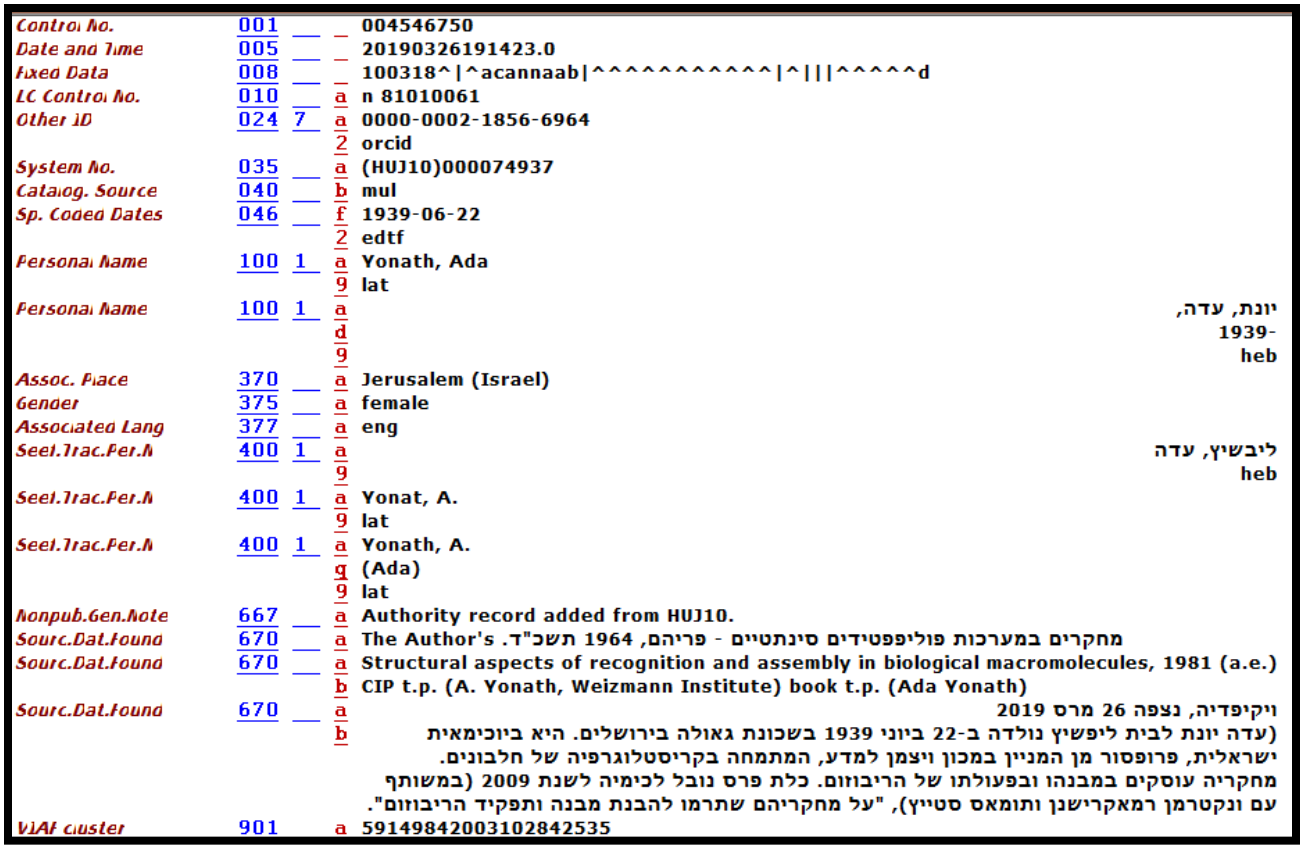
- "ORCID iD is the most widely used identification mechanism for researchers to assert online identity, eclipsing national identifiers and publisher author identifiers. In the Higher Education and Government sectors, ORCID has become a de facto standard." (Findings from the 2018 OECD International Survey of Scientific Authors)
- "For researchers, the ORCID identifier is becoming a widespread, de facto standard within the RIM ecosystem" (OCLC)

ORCID - Interoperability



ORCID in Israeli publications databases

A nation-wide effort, lead by the libraries, to register ORCID IDs in authority files, linked to publication indexes



Control No.	001			004546750
Date and Time	005			20190326191423.0
Fixed Data	008			100318^|^acannaab|^^^^^^^^^^^^|^|||^^^^^d
LC Control No.	010		a	n 81010061
Other ID	024	7	a	0000-0002-1856-6964
			2	orcid
System No.	035		a	(HUJ10)000074937
Catalog. Source	040		b	mul
Sp. Coded Dates	046		f	1939-06-22
			2	edtf
Personal Name	100	1	a	Yonath, Ada
			9	lat
Personal Name	100	1	a	יונת, עדה,
			d	1939-
			9	heb
Assoc. Place	370		a	Jerusalem (Israel)
Gender	375		a	female
Associated Lang	377		a	eng
See.Trac.Per.N	400	1	a	ליבשיץ, עדה
			9	heb
See.Trac.Per.N	400	1	a	Yonat, A.
			9	lat
See.Trac.Per.N	400	1	a	Yonath, A.
			q	(Ada)
			9	lat
Nonpub.Gen.Note	667		a	Authority record added from HUJ10.
Sourc.Dat.Found	670		a	מחקרים במערכות פוליפפטידים סינתטיים - פריהם, 1964 תשכ"ד. The Author's
Sourc.Dat.Found	670		a	Structural aspects of recognition and assembly in biological macromolecules, 1981 (a.e.)
			b	CIP t.p. (A. Yonath, Weizmann Institute) book t.p. (Ada Yonath)
Sourc.Dat.Found	670		a	ויקיפדיה, נצפה 26 מרס 2019
			b	(עדה יונת לבית ליפשיץ נולדה ב-22 ביוני 1939 בשכונת גאולה בירושלים. היא ביוכימאית ישראלית, פרופסור מן המניין במכון ויצמן למדע, המתמחה בקריסטלוגרפיה של חלבונים. מחקריה עוסקים במבנהו ובפעולתו של הריבוזום. כלת פרס נובל לכימיה לשנת 2009 (במשותף עם ונקטרמן רמאקרישנן ותומאס סטייץ), "על מחקריהם שתרמו להבנת מבנה ותפקיד הריבוזום".
VIAF cluster	901		a	59149842003102842535

ORCID in WIKIDATA

Ada Yonath (Q7426)

Israeli crystallographer edit

▾ In more languages Configure

Language	Label	Description	Also known as
English	Ada Yonath	Israeli crystallographer	
Hebrew	עדה יונת	ביוכימאית ישראלית, כלת פרס נובל לכימיה	
Arabic	عادا يونات	عالمة كيمياء إسرائيلية	
Russian	Йонат, Ада	No description defined	Ада Йонат

All entered languages

Statements

instance of — human edit

▸ 1 reference

National Library of Israel ID — 004546750 edit

▾ 0 references

+ add reference

+ add value

ORCID iD — 0000-0002-1856-6964 edit

▾ 0 references

+ add reference

+ add value

ORCID in CRIS

- The comprehensive tender was awarded to Elsevier's Pure
- Pure now uses ORCID as a unique identifier for the researchers both in the individual instances and in the aggregated environment
- ORCID is used in Pure to find and retrieve research outputs

Interfaces with ORCID

- The main goal of the interface is the approval of the university as a trusted institution by the researcher, enabling reading and writing of relevant data.
- Permissions in ORCID are:
  - Granular, enabling an item level control
  - Can be modified or revoked at any time
- Written data can be, for example:
  - Employment affiliation (most common) for correctly affiliating a researcher with the university
- Read data can be, for example:
  - ORCID number (most common) for correctly assigning a researcher with its ID.

ORCID data characteristics

- ORCID data contains personal details:
  - ORCID iD
  - Authentication tokens
  - Biographical information
  - Others
- An organization may be granted access to more personal and private details as a “Trusted Party”

HR modules' characteristics

- Built and maintained using strict methods to provide both security and privacy
- Designed to store personal information
- A central part of the organization
- Integrated with many institutional systems (Research, Library, CMS etc…)

HR systems - The obvious place

Building ORCID integration from a core system stores the data in its “natural” place and will help disseminate it to local and remote systems

Infrastructure

Some universities in Israel use Oracle ERP as a core system, including Oracle's Human Resource Management System (HRMS)

ORACLE®

Some universities in Israel use SAP as a core system, including SAP Human Capital Management (SAP HCM)

Oracle Integration - Architecture

Creating the interface directly from the HR:

ORACLE

Oracle Application Express (APEX)

ORCID

Researchers' records

Oracle Integration - Application

- The integration with ORCID is built as an integral part of the ERP, using Oracle Application Express (APEX):
  - Web-based software development environment that runs on an Oracle database
  - Used for building scalable, secure enterprise apps
  - Installed by default

Oracle integration - Database

- All relevant data is stored using the Extra Information Types (EIT) of the Oracle:
  - Descriptive Flexfields (DFF)
    - A flexfield is a flexible data field that the organization can customize to their business needs without programming.
  - Added security

Oracle integration - Reporting

- Using the APEX framework

SAP Integration - Architecture

Creating an intermediate environment:

Human Capital Management

Researchers' records

Dedicated environment
(Application + Database)

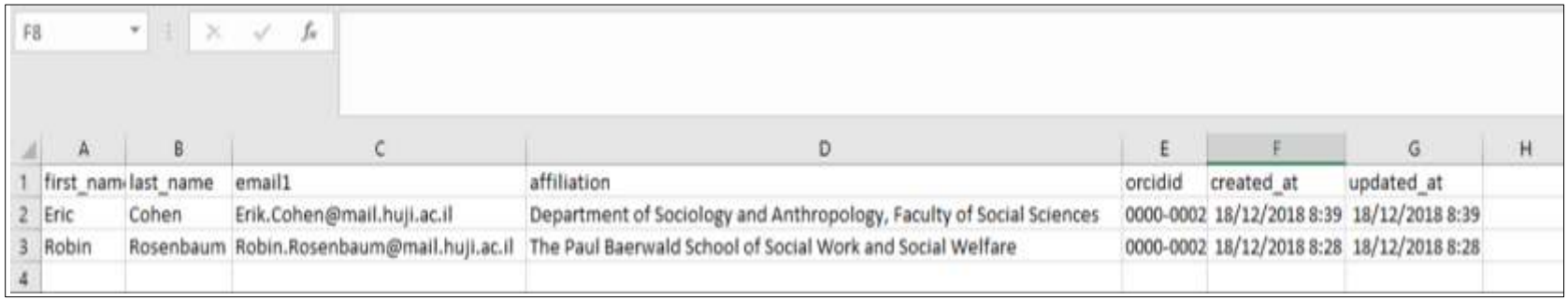
SAP Integration - Processes

Process includes:

- Obtaining personal data from SAP
  - This is not a direct interface with SAP, but files in a standard format sent via FTP to a directory on our server, for subsequent processing
- Building the interface application
- Storing data in a dedicated database
- Synchronization of changed data
  - Using Webhooks to know when the ORCID record was changed.

SAP Integration - Reporting

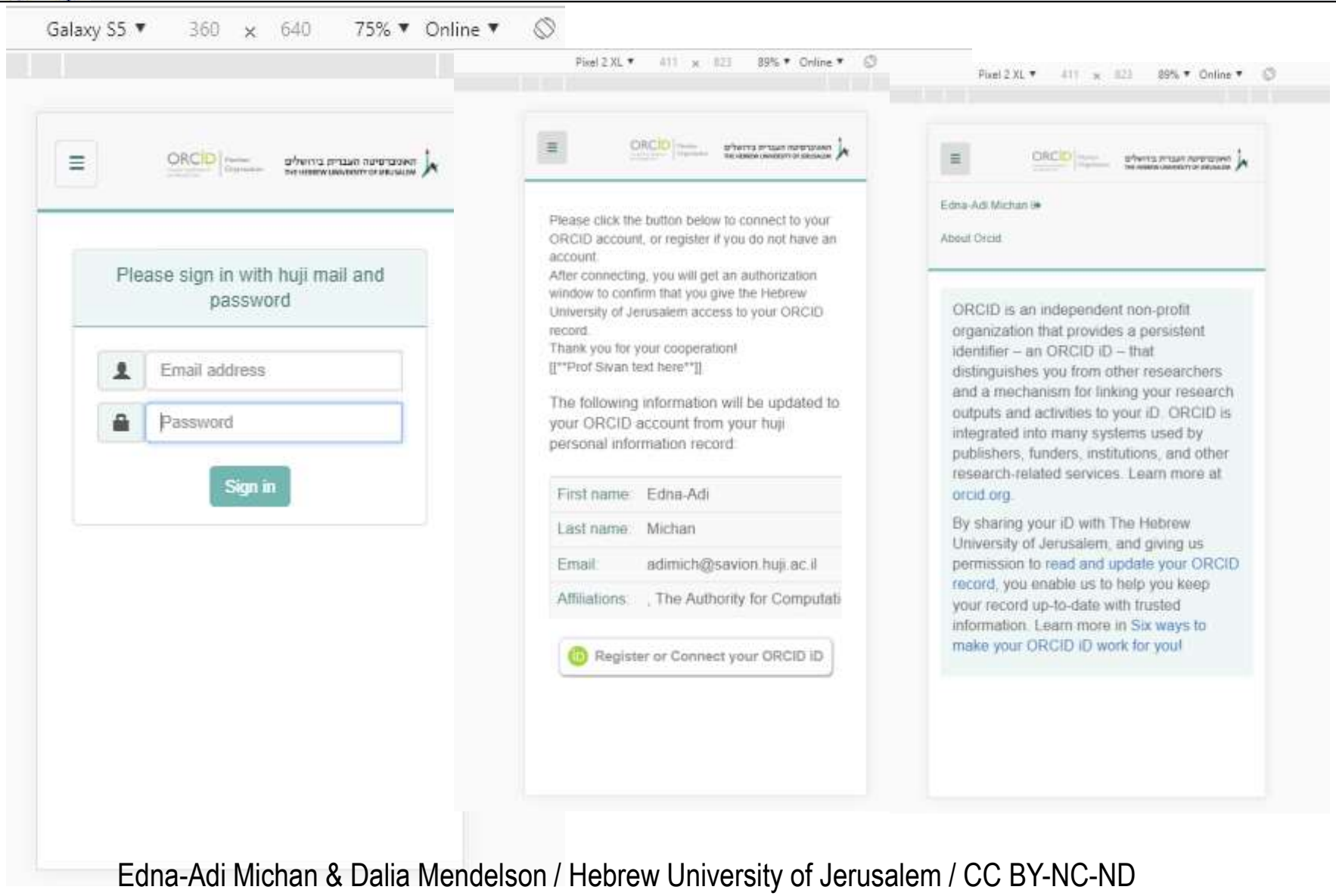
Using the dedicated database capabilities:



F8

	A	B	C	D	E	F	G	H
1	first_nam	last_name	email1	affiliation	orcidid	created_at	updated_at	
2	Eric	Cohen	Erik.Cohen@mail.huji.ac.il	Department of Sociology and Anthropology, Faculty of Social Sciences	0000-0002	18/12/2018 8:39	18/12/2018 8:39	
3	Robin	Rosenbaum	Robin.Rosenbaum@mail.huji.ac.il	The Paul Baerwald School of Social Work and Social Welfare	0000-0002	18/12/2018 8:28	18/12/2018 8:28	
4								

SAP Integration – Responsive screens



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Questions?

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