

From Data Entry to Discovery: AI-Driven Transformation in Research Information Management

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DIGITAL science

 Symplectic

 Figshare

 Altmetric

 Dimensions

 Papers

 Writefull

 Overleaf

We provide **innovative data, tools, and services across the research lifecycle**, from awarded grants all the way through to resulting intellectual property, clinical trials, and policy.

AI at Digital Science



At Digital Science we are harnessing the power of AI to help solve real business problems for our customers in new ways, helping them to:

- **Save time** for administrators and researchers
- **Provide more efficient ways** to search and interact with data
- **Increase data accuracy and completeness** for ingested data

Search & Discovery

Dimensions AI enabled search features & Dimensions research GPT

Publication summarization in
Dimensions & Symplectic Elements Discovery

Maximizing discoverability of
Symplectic Elements Discovery Profiles & Figshare outputs via AI

Data curation & enrichment

Symplectic Elements AI-Assisted Profile Curation

Dimensions data enhancement

Attention & Impact

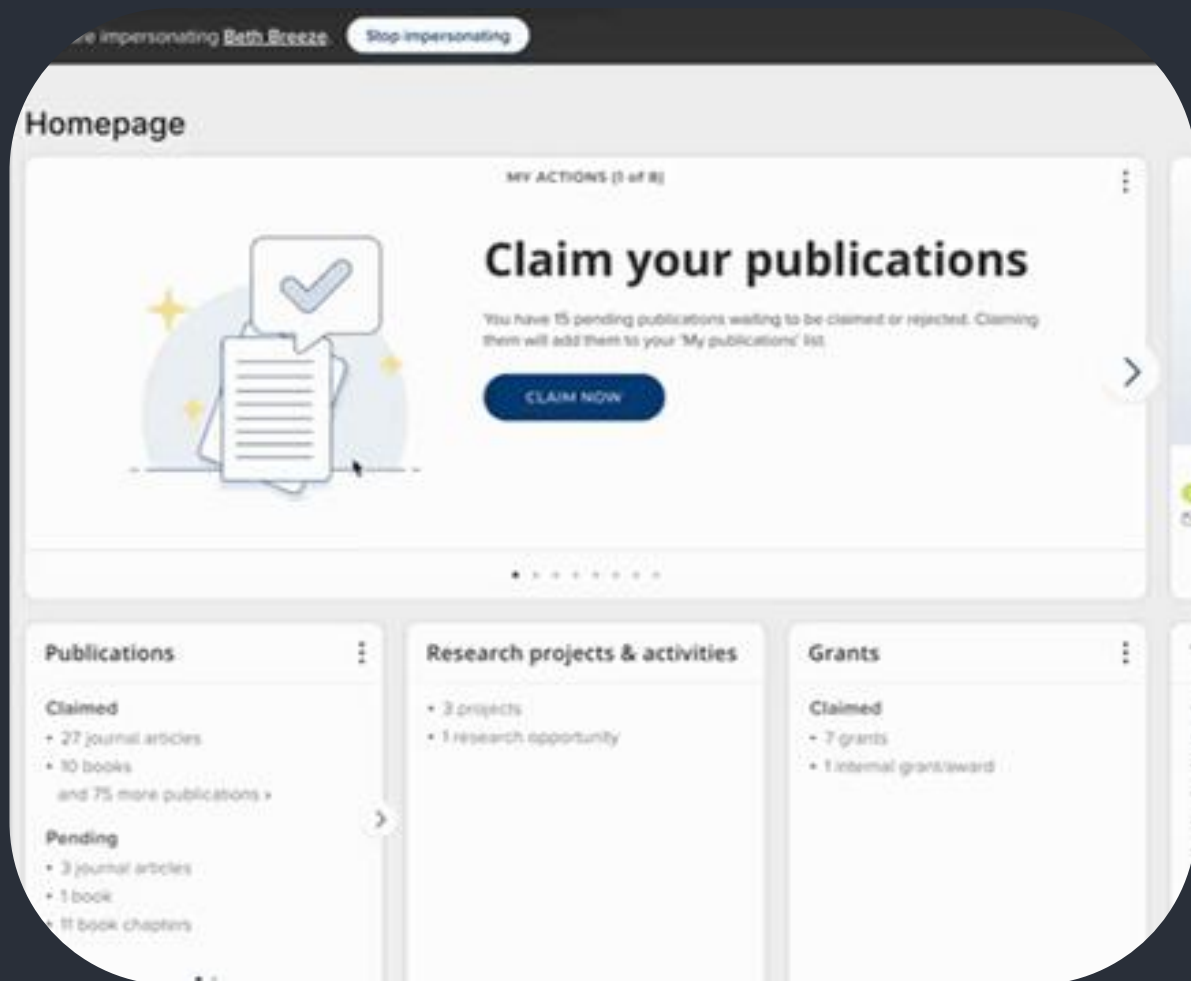
Altmetric sentiment analysis

Altmetric attention digest

The Challenge

The Manual Entry Barrier

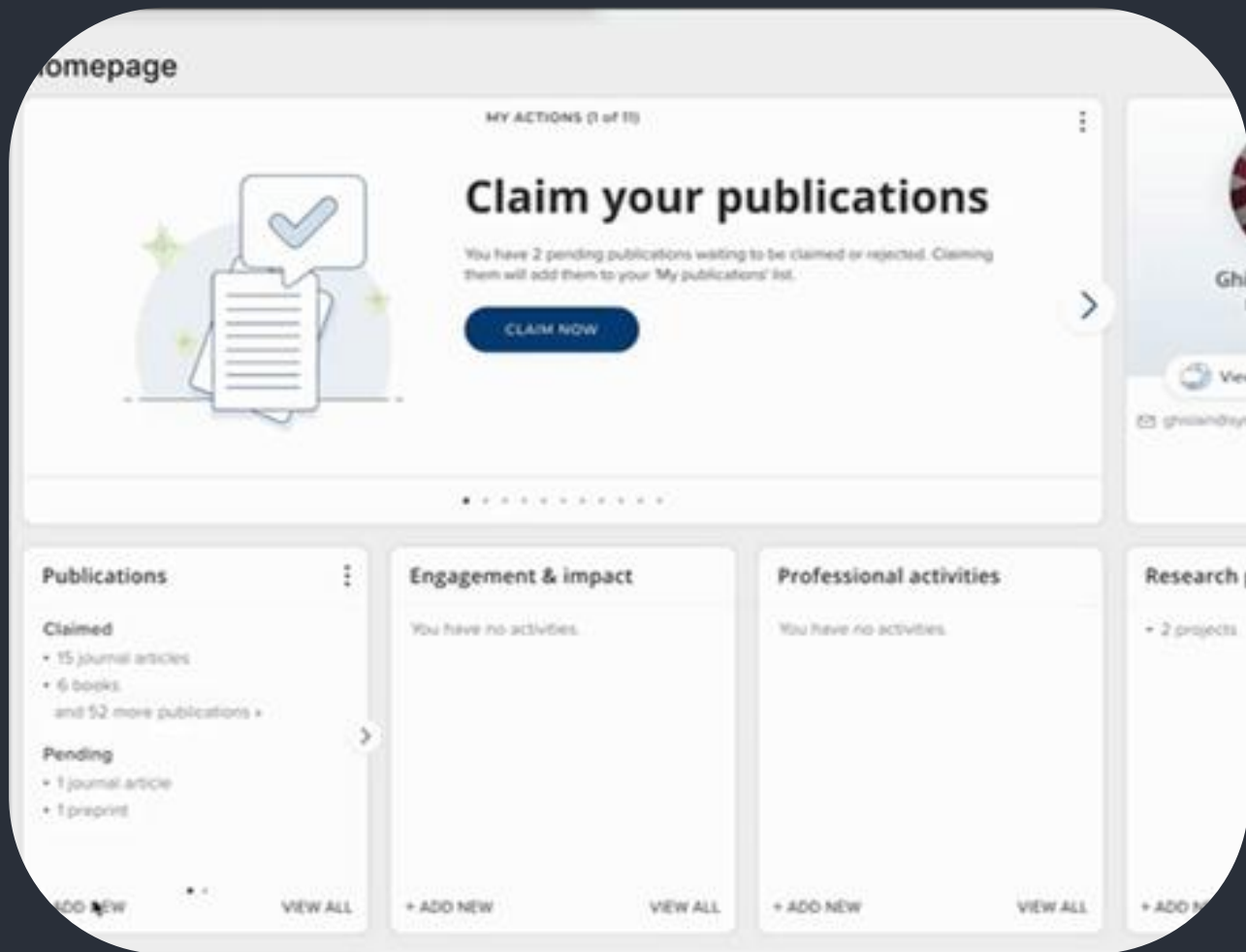
Automated Claiming



Automated Claiming challenges

- **Incomplete automated capture for non-STEM disciplines:** Faculty in non-STEM fields often produce outputs that may not be able to automatically harvested, requiring additional manual effort to maintain complete and representative profiles.
- **Unstructured documentation of activities:** Service and teaching details often exist only in CVs, making them hard to standardise.
- **Severe Information Gaps:** Critical gaps in reporting, and institutional assessment emerge when automated claiming is the only data input method.

Manual Entry



Manual data entry challenges

Some institutions report averages of 20 hours spent gathering, reviewing, and entering information to complete a profile for new faculty

- **Time-intensive profile maintenance:** manually updating profiles across activities increases workload and is error prone, leading to slow adoption and incomplete data.
- **Reliance on administrative staff or delegates:** institutions often depend on staff to manually maintain records, placing pressure on internal teams.

**These are universal
challenges and a perfect
match for an AI solution**

Introducing Symplectic Elements' AI-Assisted Profile Curation

AI-Assisted Profile Curation

AI-assisted data entry

(single-item; text only)

Add professional activity: start

✓ AI Assist

Manual entry

✦ Get started quickly by pasting text describing your professional activity, for example, text copied from your CV or public profile.
Example: e.g. "Research Data Management Steering Committee (Chair) Mar 2021 - Sep 2022"

Paste text here ✦
Max. 5000 characters (4730 remaining)

Official record for review gzxFLJ1b
Pre-publication review
Canonical URL: <https://publons.com/wos-op/review/author/gzxFLJ1b/>
Code: gzxFLJ1b
Performed for: The Journal of Sex Research (journal)
Verification: YES. Verified by journal integration
Date
Date of review: 2023

Type (optional)
[Auto select]

AI-assisted CV import

(bulk import; PDF or text)



CV Import > Review extracted items

Review extracted items

160
Total items

72
Ready to import

28
Incomplete items

0
Imported

50
Already in profile

10
Excluded

Import 72 ready items

This includes creating new items, claiming pending or external items, and linking to existing system items.

Import 72 items

Sort by: Source order Filter by category: All categories

1 - 20 of 72 items Items per page: 20

Item	Category/Type	Import status	Import method	Actions
Metabolic Pathways in Bacterial Antibiotic Resistance Found in Dimensions	Publication Research paper	Ready to import	Claim match	✓ ⌵ ⌵
Molecular Structure of Nucleic Acids: A Structure for Deoxyri...	Publication Research paper	Ready to import	Create new	✓ ⌵ ⌵
Stem Cell Differentiation and Regenerative Medicine Found in Elements	Publication Book chapter	Ready to import	Claim match	✓ ⌵ ⌵
Stem Cell Differentiation and Regenerative Medicine Found in Elements	Publication Book chapter	Ready to import	Claim match	✓ ⌵ ⌵
Stem Cell Differentiation and Regenerative Medicine Found in Elements	Publication Book chapter	Ready to import	Claim match	✓ ⌵ ⌵
Metabolic Pathways in Bacterial Antibiotic Resistance Found in Dimensions	Publication Research paper	Ready to import	Claim match	✓ ⌵ ⌵
Metabolic Pathways in Bacterial Antibiotic Resistance Found in Dimensions	Publication Research paper	Ready to import	Claim match	✓ ⌵ ⌵
Metabolic Pathways in Bacterial Antibiotic Resistance Found in Dimensions	Publication Research paper	Ready to import	Claim match	✓ ⌵ ⌵
Molecular Structure of Nucleic Acids: A Structure for Deoxyri...	Publication Research paper	Ready to import	Create new	✓ ⌵ ⌵

Release date: 28 May 2026

AI-Assisted Profile Curation: Example Use Cases

son

Onboarding new faculty

AI-Assisted Profile curation helps University Administrators create complete profiles quickly for timely reporting, assessment, and discovery

sig

n

Preparing for assessments

AI-Assisted Profile curation ensures profiles are richer with both traditional and non-traditional research outputs

gr

ou

Managing student workers

As a University Administrator, I need my student workers to curate faculty profiles in Elements faster amid tighter budgets and staffing

From manual
input to
intelligent AI
assisted data
entry

The screenshot displays a user dashboard for Ben Heartland. The interface includes a dark blue sidebar with navigation icons and a main content area. The top section features a 'Start your QA Test Exercise' card with a 'START' button. Below this, there are six activity cards: 'Scholarly works' (listing 2 books, 1 journal article, and 1 media item), 'Grants' (no claimed grants), 'Service & leadership' (no activities), 'Teaching & mentoring' (no activities), 'Records of impact' (no activities), and 'Projects' (listing 1 project and 1 development programme). Each card has an 'ADD NEW' and 'VIEW ALL' link. The right sidebar shows the user's profile, email, and a link to 'EDIT MY PROFILE'.

Homepage

MY ACTIONS (1 of 8)

Start your QA Test Exercise

Your "QA Test Exercise" exercise is ready for you to start. Please review the form and start your submission.

START

Mr Ben Heartland
Symplectic

[View my public profile](#)

[heartland@liliput.edu](#)

[EDIT MY PROFILE](#)

Scholarly works

Claimed

- 2 books
- 1 journal article
- 1 media

[+ ADD NEW](#) [VIEW ALL](#)

Grants

Claimed

You have no claimed grants.

[+ ADD NEW](#) [VIEW ALL](#)

Service & leadership

You have no activities.

[+ ADD NEW](#) [VIEW ALL](#)

Teaching & mentoring

You have no activities.

[+ ADD NEW](#) [VIEW ALL](#)

Records of impact

You have no activities.

[+ ADD NEW](#) [VIEW ALL](#)

Projects

- 1 project
- 1 development programme

[+ ADD NEW](#) [VIEW ALL](#)

DIGITAL SCIENCE

AI-assisted CV import

CV import

AI CV Import

This feature is in beta. AI scans your document to extract publications, grants, teaching and professional records. Like any AI, it can make mistakes, so please review the suggestions before you confirm the import. If you experience unexpected behaviour, give us feedback.

Select import method

Upload CV

Upload a CV or document with your academic and professional history. AI will extract your activities and publications and categorise them for you.



Drag file here or [browse](#) to choose

Supported format: PDF (max 5 MB)

Paste Text

Paste your publications, grants, teaching and professional records. You can enter raw text, citations or DOIs. Max. 100,000 characters.

1. Advani R, Rosenberg SA and Horning SJ. (2004). Stage I and II follicular non-Hodgkin's lymphoma: Longterm follow-up of no initial therapy. *J Clin Oncol* 22(8):1454-9. *PMC Journal – In Process Morales AV*.
2. Advani R, Maeda L, Lavori P, Quon A, Hoppe R, Breslin S, Rosenberg SA, Horning SJ. (2007). Impact of positive positron emission tomography on prediction of freedom from progression after Stanford V chemotherapy in Hodgkin's disease. *J Clin Oncol* 25 (25):3902-7. *PMC Journal – In Process*.
3. Advani R, Horwitz SM, Riaz N, Reddy S, Hoppe RT and H. Kim YH. (2008). Indolent primary cutaneous Bcell lymphoma: Experience using systemic rituximab. *J Am Acad Dermatol*. 59(6):953-7. *PMC Journal – In Process*.
4. Malumbres R, Chen J, Tibshirani R, Johnson NA, Sehn LH, Natkunam Y, Briones J, Advani RH, Connors JM, Byrne GE, Levy R, Gascoyne RD, Lossos IS. (2008). Paraffin-based 6-gene model predicts outcome



4 items were extracted from your CV

Some items are matched to existing records to save you time. Please check the items flagged for review to ensure they are complete. You can create new items or skip duplicates during the review.

123



Ready to import

Items ready to be added to your profile.

234



Incomplete items

Items that are missing required details or require attention.

345



Imported

Items that you've already imported in this session.

456



Already in profile

Items matched to existing claimed records.

567



Excluded

Items you previously chose to skip.

Start reviewing →

The Gains

Success Stories / Case Studies



"University of Oregon's experience using the AI-assisted entry tool has helped us implement the system quickly at the university, has particularly supported the data collection for faculty in our professional schools, and has encouraged faculty and administrator buy-in."

Katy Krieger, Ph.D., Interim Director of Faculty Personnel and Policy, **University of Oregon**

A true end-to-end workflow from a raw CV document to a fully structured institutional researcher profile

AI-Assisted Profile Curation

Structured Research Data

Extracts metadata from documents into structured records, transforming unstructured CVs into high-quality research info.

Improved Data Integrity

Intelligent matching identifies existing records, preventing duplicates and maintaining clean institutional data.

Profiles are richer

Supports capture of publications, grants, and non-traditional outputs for a complete view of researcher contributions.

Seamless Experience

Fully embedded in Elements, working within existing workflows and governance without disruption.

Onboarding Velocity

Pre-populated records reduce manual effort, enabling faster faculty onboarding and profile completion.

Trusted & Governed

Secure processing with human-in-the-loop design principles through user review controls and confirmation steps.

Responsible AI

AI as a drafter, human as the decision-maker

The Human-in-the-Loop Gateway

Draft Record



Drafting, Not Deciding:
AI proposes categorized data blocks based on document extraction.

Review & Save



The Checkpoint:
The process halts completely.
No AI-generated data is saved
or overwritten automatically.

Institutional
Database



Explicit Confirmation: The researcher
or administrator must manually click
"Save" to validate the data before
it joins the institutional record.

Responsible AI at Digital Science

Secure Processing

All data is processed securely to maintain the highest standards of safety.

Data Privacy

No information is used to train third-party models.

Control & Consent

Institutional opt-in and individual opt-out options are available.

No Automation Risks

The AI never creates, modifies, or overwrites data automatically.

Sustainability

Considering the environmental and societal impact of AI technologies.

Informed Adoption

Institutions need to make informed decisions about adoption.

Human oversight remains crucial for bulk workflows

Resolve duplicate records

Step 2 of 4

We found potential duplicates for 25 of your imported records. Review each match and decide whether to keep, claim, or mark as duplicate.

1 - 10 of 25 items Results per page: 10 Sort by: Record category

Previous 1 2 3 Next

Publication

Watson JD, Crick FHC. A Structure for Deoxyribose Nucleic Acid. Nature. 1953 Apr 25;171(4356):737-8. [Keep new record](#)

3 potential duplicates found

✓ Already in your profile 98% match [Confirm duplicate](#)

Molecular Structure of Nucleic Acids: A Structure for Deoxyribose Nucleic Acid

Published • Nature • Journal Article • Apr 1953 • DOI [DOI](#)

[Watson JD, Crick FHC](#)

> In your pending publications list 95% match [Claim](#)

> Found in Crossref 88% match [Claim](#)

Publication

Machine Learning Applications in Radiology, Smith, J., Davis, M., Radiology Research [Keep new record](#)

1 potential duplicate found

> Already in your profile 92% match [Confirm duplicate](#)

> In your pending publications list 95% match [Claim](#)

Grant

AI-Driven Medical Diagnosis Systems, Smith, J., National Science Foundation, \$250,000 [Keep new record](#)

[Previous step](#)

[Skip this step](#)

[Next](#)

Review & confirm records

Step 3 of 4

Check parsed records. AI recommends importing high-quality entries and reviewing low-quality ones to complete missing details.

Categories

Confirmed / Total

Publications 12/56

Journal articles 19/19

Book chapters 5/13

Books 1/14

Conference papers 3/5

Other publications 5/5

> Grants 2/156

> Professional activities 12/56

> Teaching activities 26/56

> Impact 50/56

> Projects 2/156

> Education history 23/56

> Work history 45/56

AI suggestions may contain mistakes. Please review all records before confirming. [X](#)

56 Publications

1 - 10 of 56 items Items per page: 10 Sort by: Title A-Z

Previous 1 2 5 Next

Filters Import suggestion Status

Bulk actions [Mark all as](#)

Deep Learning Approaches for Natural Language Processing in Academic Research

[Ready to import](#)

Journal article • Chemical Reviews • 2024 • Vol. 6, pp. 123-145 (2024)

B. Breeze, D. Wilson, E. Martinez

[Change category / type](#) [Edit details](#)

Import suggestion: [Import](#)

Deep Learning Approaches for Natural Language Processing in Academic Research

[Review recommended](#)

Journal article • Chemical Reviews • 2024

Missing key information

[Change category / type](#) [Edit details](#)

Import suggestion: [Skip](#)

Advancements in Quantum Computing and Their Applications in Data Science

[Ready to import](#)

Conference paper • Journal of Computer Science • 2024 • Vol. 12, pp. 67-89 (2024)

A. Smith, J. Doe, K. Lee

[Change category / type](#) [Edit details](#)

Import suggestion: [Import](#)

Exploring the Impact of AI on Modern Education Systems

[Ready to import](#)

Book chapter • Educational Technology Review • 2024 • Vol. 1, pp. 200-215 (2024)

R. Johnson, M. Patel, S. Kim

[Change category / type](#) [Edit details](#)

Import suggestion: [Import](#)

Confirmed: 0 of 103 records

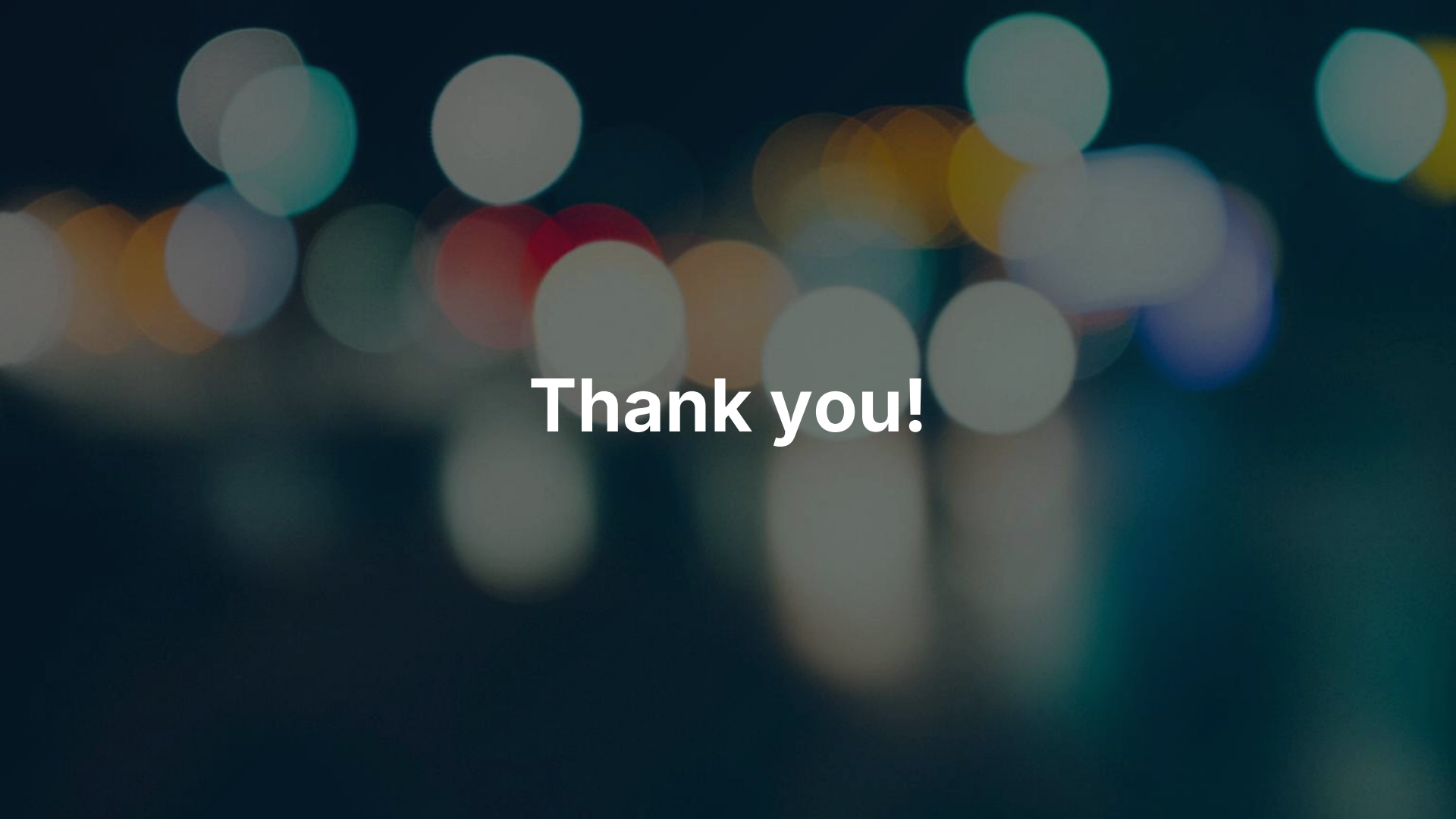
[Save progress](#)

[Continue preview](#)

Interface designs highlighting manual verification steps within the automated CV import workflow

The background of the slide is a dark blue gradient with a bokeh effect. Numerous out-of-focus light circles in various colors (white, yellow, orange, red, teal, and purple) are scattered across the upper half of the image, creating a soft, glowing effect.

Questions?

The background of the image is a dark, deep blue gradient. Scattered across the upper half are numerous out-of-focus light circles, known as bokeh. These circles vary in size and color, including shades of white, light blue, yellow, orange, and red. They appear to be light sources at different distances, creating a sense of depth and a soft, dreamy atmosphere.

Thank you!