

Speaking the Same Language

Using Generative AI to Drive Discoverability within CRIS Profiles

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Enhancing Research Discoverability in CRIS with Generative AI

- Artificial intelligence is increasingly shaping how research information is surfaced, explored, and understood.
- Within Current Research Information Systems (CRIS), AI-driven approaches are opening new avenues for enhancing the discoverability and accessibility of research outputs.
- This presentation will overview new AI-powered functionality in Symplectic Elements and the collaboration between Digital Science and the Ohio Innovation Exchange (OIEx).
- These initiatives aim to make it easier for both specialists and non-specialists to assess the relevance of scholarly work.

OIEx & Digital Science AI Project - Enhancing Search for Industry

- An ongoing collaboration between Digital Science and the Ohio Innovation Exchange (OIEx) is exploring how AI-enhanced search can further improve the discoverability of research outputs in CRIS-hosted public profiles.
- This initiative aims to make it easier for public users, particularly those in industry, to find relevant academic expertise.
- The project is integrating generative AI models to help users query public profiles data more intuitively.

The "Language" Gap - Academia vs. Industry Terminology

Looking ahead

- A key challenge is that external industry groups may use different terminology compared to academia and researchers, making it difficult to identify relevant experts.
- The project is working on a taxonomy to enable a better crosswalk between these vocabularies.
- By connecting AI to structured research data, the aim is to understand how well natural language search can interpret and respond to queries from public users, providing a more dynamic and accessible search experience.
- This can help external industry groups more easily identify academic experts working in relevant fields, effectively bridging the "language" gap.

Natural Language Search - A More Intuitive Experience & Responsible AI Adoption

- The adoption of AI-driven functionalities raises important considerations around accuracy, transparency, and institutional control.
- Digital Science is approaching AI responsibly, considering the challenges of introducing new technology and the need to make the right decisions.
- Best practices around the responsible use of AI are crucial to ensure that AI serves as an enabler rather than a disruptor in the research discovery process.
- Institutions need to make informed decisions about the responsible adoption of AI in research information systems, ensuring that new technologies support the scholarly communication landscape.

Symplectic is part of Digital Science

Digital Science is home to many well-known research tools...

We believe in better, open, collaborative and inclusive research.

Digital Science invests in, supports and nurtures innovative software teams that each support the research lifecycle.

Rooted in research, most teams have an academic research background and developed a product to help solve a self-encountered problem.



Dimensions

With Dimensions, you can search across multiple content types, ranging from publications to grants, clinical trials, patents, datasets and policy documents.



Altmetric

Altmetric tracks a range of sources to help you to monitor and report on the attention surrounding your work.



figshare

Figshare is a repository where users can make all of their research outputs available in a citable, shareable and discoverable manner.



ReadCube Papers

Our award-winning suite of web, desktop, and mobile apps will dramatically improve the way you discover, organize, read, annotate, share and cite.



Symplectic

Symplectic's flagship product, Elements, empowers organisations to collect, analyse, showcase & report on all of their scholarly activities.



Overleaf

Overleaf is an online LaTeX and Rich Text collaborative writing and publishing tool that makes the whole process of writing, editing and publishing scientific documents much quicker and easier.



Scismic

Scismic Job Seeker helps you get the career you deserve. The skills-based job matching platform for scientists by scientists.



IFI CLAIMS Patent Services

IFI CLAIMS Patent Services is a leading supplier of patent data for resellers and innovators in the research and healthcare sectors.



ripeta

Ripeta aims to make better science easier by identifying and highlighting the important parts of research that should be transparently presented in a manuscript and other materials.

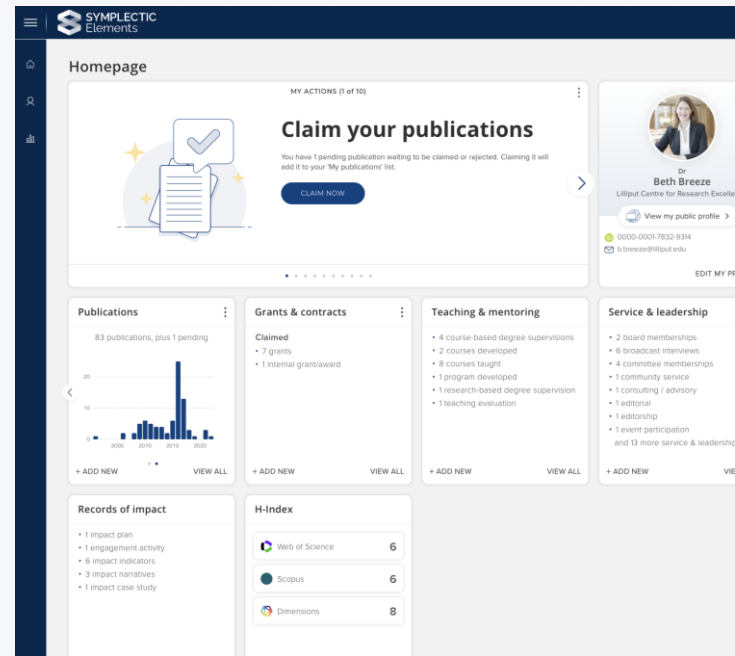
About Symplectic Elements

Powering the research ecosystem

Symplectic Elements is a highly configurable, cloud-hosted research information management system.

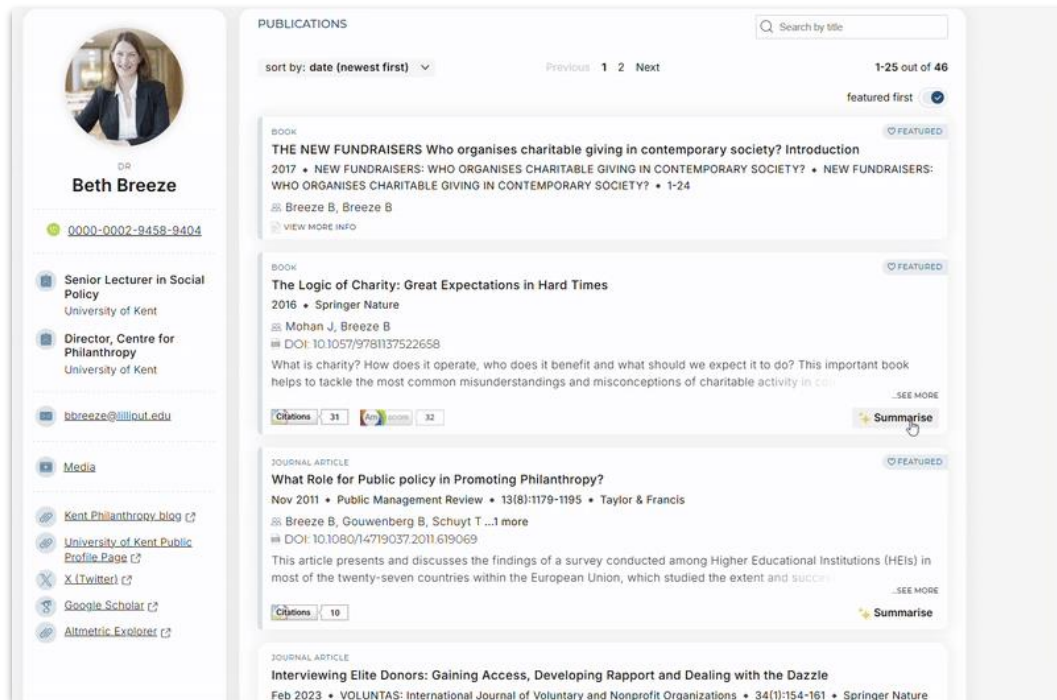
Elements is designed to help organisations capture and curate a wide range of research data from internal & external systems and then reuse it in a variety of ways.

Elements best help researchers capture a more comprehensive picture of their research and scholarly activities.



Symplectic Elements AI-Powered Functionality

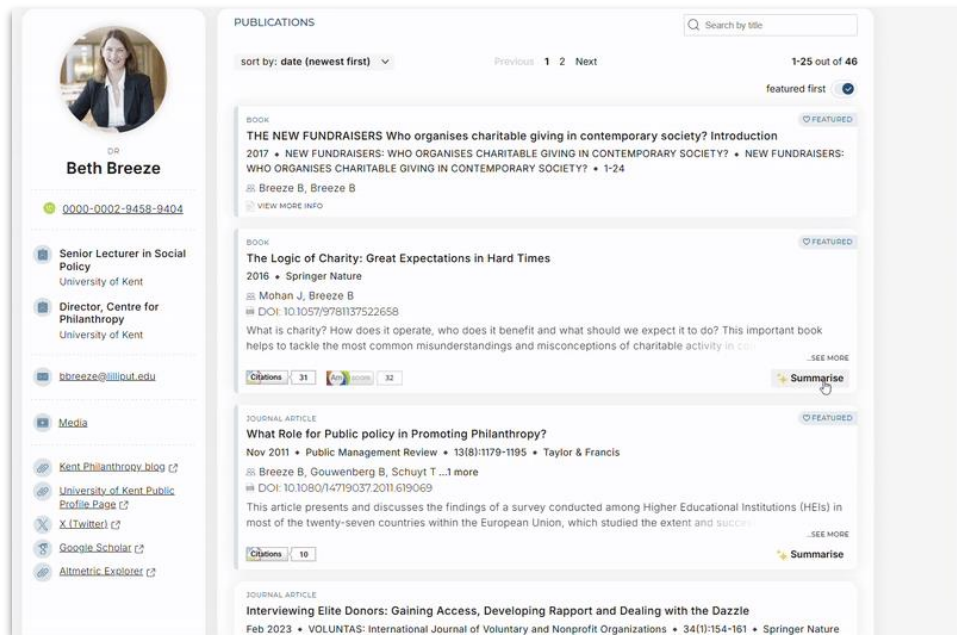
- Symplectic Elements has introduced a new AI-powered functionality to improve engagement with research within public profiles.
- These features aim to make it easier for visitors to assess the relevance of research at a glance.
- The new enhancements are part of the Discovery Module, which underpins Public Profiles.



The screenshot displays a user profile for Beth Breeze, a Senior Lecturer in Social Policy at the University of Kent. The profile includes contact information, a media section with links to her blog and university profile, and a list of publications. The publications section is titled 'PUBLICATIONS' and features a search bar and sorting options. Two publication cards are visible, each with an AI-powered 'Summarise' button. The first card is for a book titled 'THE NEW FUNDRAISERS' and the second is for a journal article titled 'What Role for Public policy in Promoting Philanthropy?'. Both cards show citation counts and a 'Summarise' button with a star icon.

Symplectic Elements AI-Powered Functionality - Surfacing Abstracts in Discovery

- Abstracts are displayed directly within public profiles, offering a richer view of publications without having to navigate away.
- Visitors get a deeper insight into a publication without leaving the page or doing additional research.
- Abstracts appear anywhere a publication card is displayed in the Discovery module.
- This includes the Scholarly & Creative Works tab for researchers, groups, and equipment.



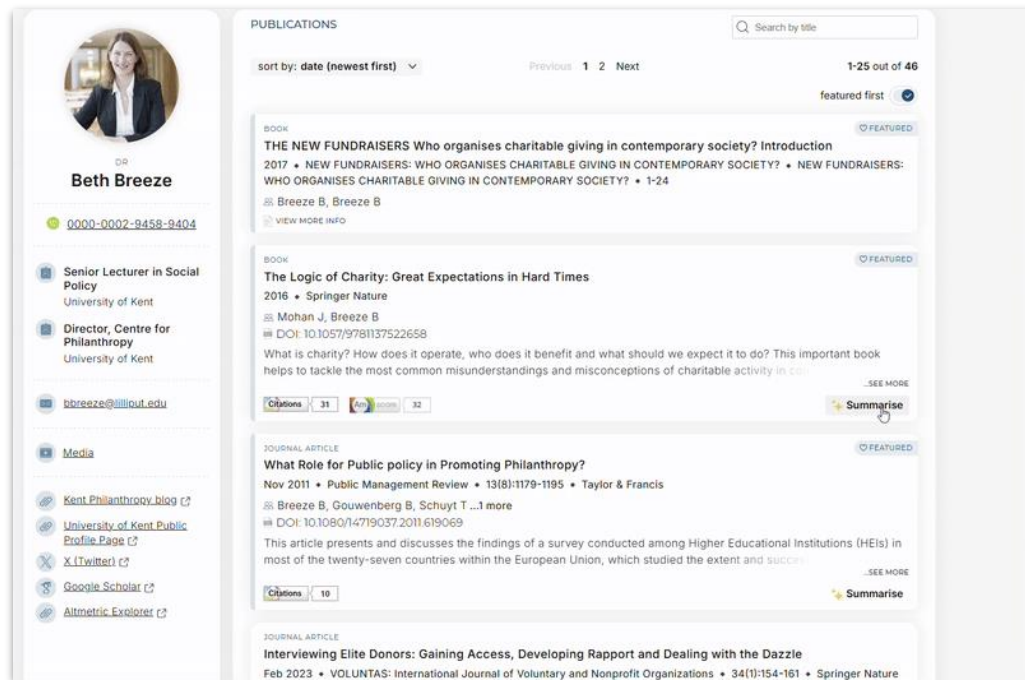
The screenshot displays a public profile for Beth Breeze, a Senior Lecturer in Social Policy and Director of the Centre for Philanthropy at the University of Kent. The profile includes contact information (ORCID, email) and a list of social media links. The 'PUBLICATIONS' section is active, showing a list of three publications with their abstracts displayed directly within the profile view. The publications are:

- THE NEW FUNDRAISERS** Who organises charitable giving in contemporary society? Introduction. 2017. • NEW FUNDRAISERS: WHO ORGANISES CHARITABLE GIVING IN CONTEMPORARY SOCIETY? • NEW FUNDRAISERS: WHO ORGANISES CHARITABLE GIVING IN CONTEMPORARY SOCIETY? • 1-24. Authors: Breeze B, Breeze B. [VIEW MORE INFO]
- The Logic of Charity: Great Expectations in Hard Times**. 2016. • Springer Nature. Authors: Mohan J, Breeze B. DOI: 10.1057/9781137522658. What is charity? How does it operate, who does it benefit and what should we expect it to do? This important book helps to tackle the most common misunderstandings and misconceptions of charitable activity in the UK. [Citations: 31, [Icons], [Icons]: 32] [Summarise]
- What Role for Public policy in Promoting Philanthropy?**. Nov 2011. • Public Management Review • 13(8):1179-1195 • Taylor & Francis. Authors: Breeze B, Gouwenberg B, Schuyt T...1 more. DOI: 10.1080/14719037.2011.619069. This article presents and discusses the findings of a survey conducted among Higher Educational Institutions (HEIs) in most of the twenty-seven countries within the European Union, which studied the extent and success of philanthropy. [Citations: 16] [Summarise]

The interface also shows a search bar, pagination (1-25 out of 46), and a 'featured first' toggle.

Symplectic Elements AI-Powered Functionality - AI-Powered Publication Summarisation (Opt-In)

- The AI-driven feature generates on-demand, easy-to-digest summaries, key highlights, and keywords.
- This aims to help visitors and non-specialists understand research at a glance.
- Using **Dimensions' AI technology**, this feature automatically generates:
 - A plain-language summary of the publication.
 - Key highlights to convey major findings.
 - Relevant keywords for easy skimming.
- AI summaries will only be generated for specific publication types: journal articles, books, book chapters, and conference proceedings.



Symplectic Elements AI-Powered Functionality - AI Summaries - Opt-In and Control

- Institutions must opt in to enable AI-driven summarisation across Public Profiles.
- Once enabled, individual researchers can opt out if they prefer not to have AI-generated summaries displayed on their personal profiles.
- If a publication appears on a group or equipment page, AI-generated summaries will be displayed if the institution has enabled the feature.

Symplectic Elements AI-Powered Functionality Benefits

Benefits for Institutional Administrators

- Abstract display is automatically enabled, requiring no configuration.
- AI-generated summaries are opt-in at the institutional level.
- No extra setup is needed beyond ensuring a valid Dimensions agreement.

Benefits for Researchers & Faculty

- Visitors will see abstracts alongside publications, making it easier to engage with your work.
- If enabled institutionally, you can opt out of AI summaries individually.
- These enhancements help increase discoverability and understanding of your research, especially for those outside your field.
- This can be beneficial for collaborations or media engagement.

Benefits for Visitors & External Users

- Simply click the '🌟 Summarise' button to auto-generate AI summaries and keywords.
- AI summaries make it easier to grasp key takeaways from complex research.
- This makes it easier for fellow researchers, potential industry partners, journalists, and the public to find and engage with relevant work.

Responsible AI



Responsible AI - A Key Consideration

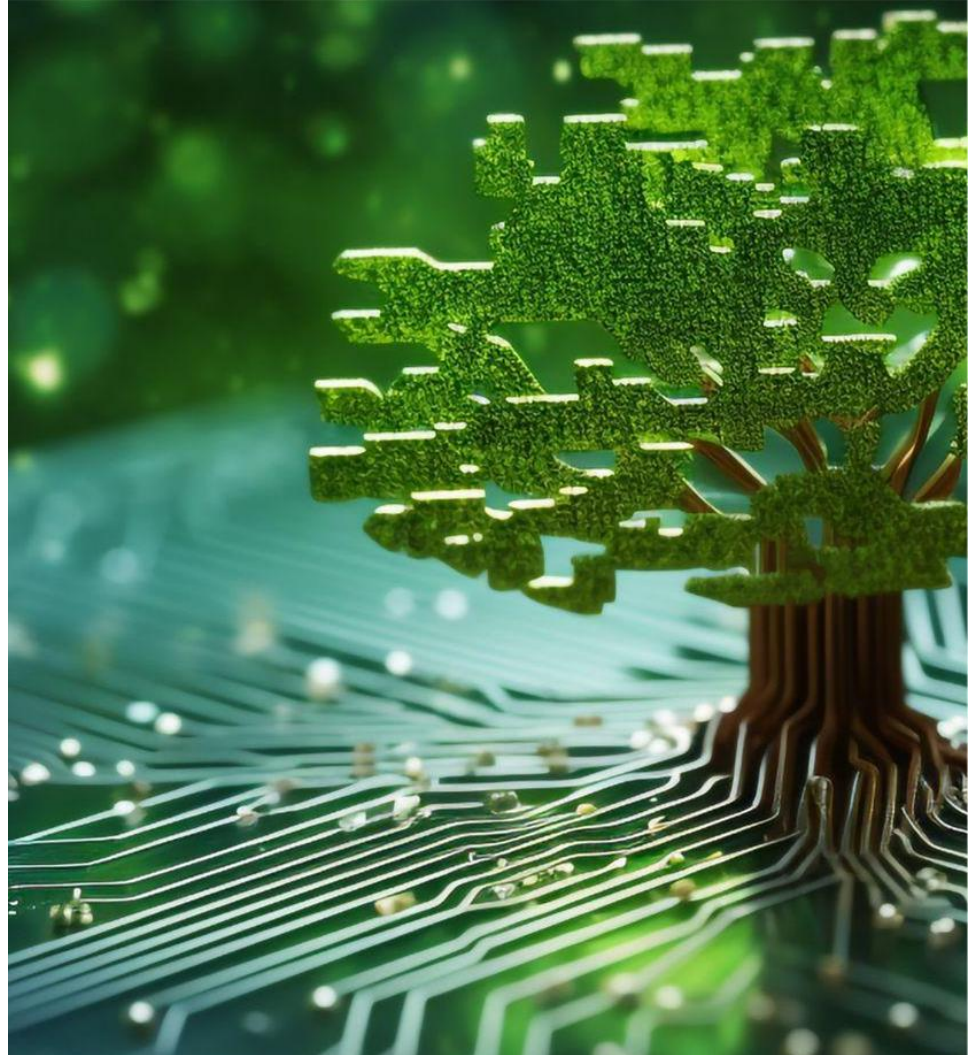
- The adoption of AI-driven functionalities raises issues around accuracy, transparency, and institutional control.
- Digital Science is approaching AI responsibly.
- It's important to consider the challenges of introducing new technology and making the right decisions.
- Best practices around responsible use of AI are needed to ensure AI is an enabler, not a disruptor.

Practical Considerations for Responsible AI

AI summarisation in Symplectic Elements

- All data is processed securely.
- No information is used to train third-party models.
- Institutional opt-in and individual opt-out options are available.
- Summaries are derived solely from titles and abstracts, committed to adhering to copyright regulations and respecting the rights of authors and publishers.
- Sustainability: taking into consideration the environmental and societal impact of AI technologies.
- Institutions need to make informed decisions about the responsible adoption of AI.

- The integration of generative AI into CRIS holds significant potential for enhancing research visibility and accessibility.
- These developments aim to make research more understandable and discoverable for a wider range of users.
- This can foster collaboration and engagement across different sectors.
- Ongoing explorations are focused on further leveraging AI to improve the onboarding experience, automate tagging, and combine different AI models for enhanced search capabilities.



Discussion and Questions



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