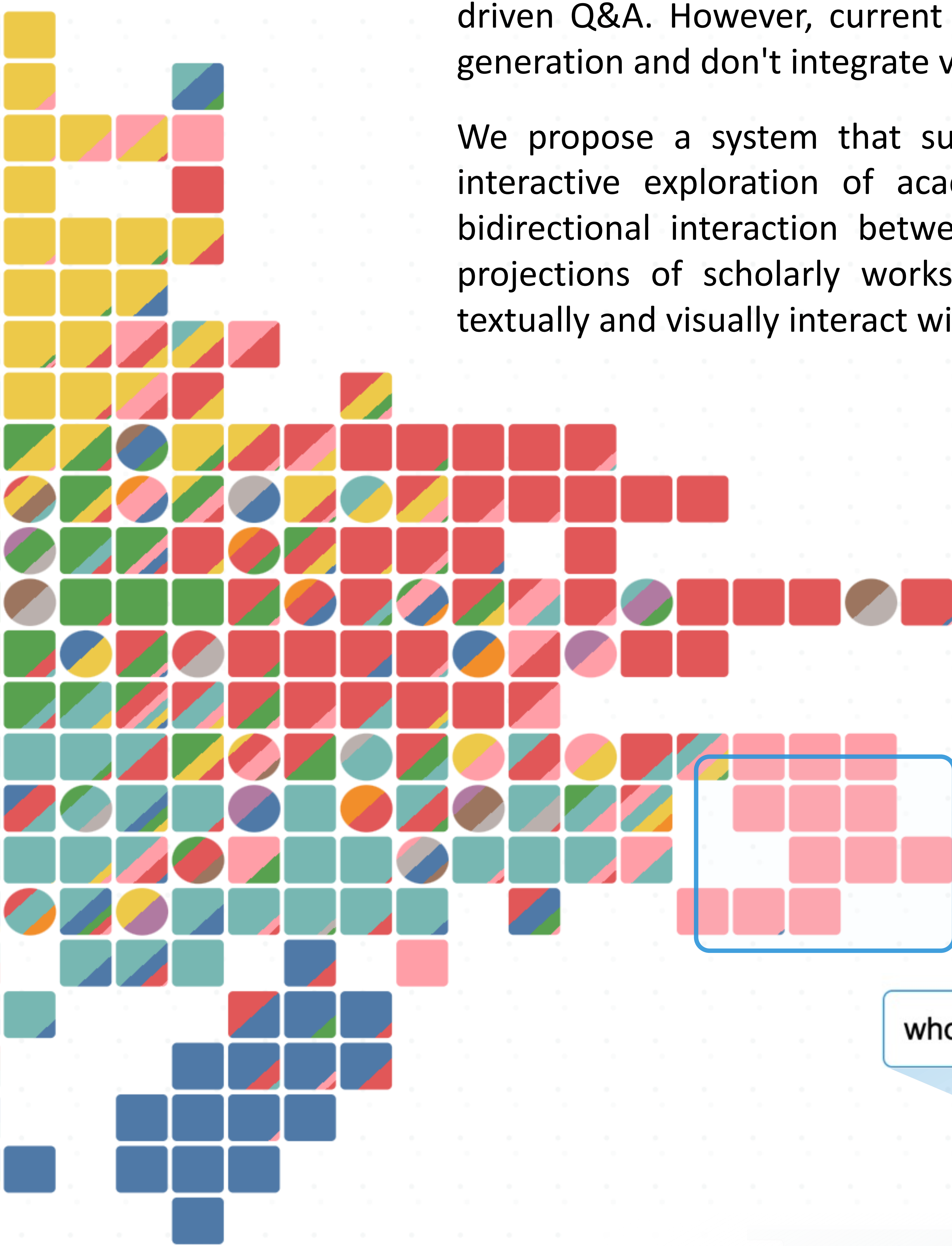


# Scholarly Exploration via Conversations with Scholars-Papers Embedding

Recent advances in retrieval-augmented generation enhance complex, context-driven Q&A. However, current methods lack user control over retrieval and generation and don't integrate visualizations with Q&A mechanisms.

We propose a system that supports contextually aware, controllable, and interactive exploration of academic publications and scholars. It enables bidirectional interaction between question-answering and **Scholets** the 2D projections of scholarly works' embeddings, our system support users to textually and visually interact with large amounts of publications.



**Semantic Search** 1

Type author names or publication titles

Bins number:

**Binning Size** 2

Choose appropriate bin size, larger bin encapsulate more data

-

**Year Filter** 3

Select period range for publications

**1 Select**  
Click to select the authors/papers you are interested in

who is doing social media related research?

**2 Ask**  
Type the question you want to ask

Bins number:

-

who is doing social media related research?

**3 Reference**  
Response to the question with reference to the bins

social media data and analysis techniques **50**;

- **Sohaib Ghani** and **Jaime Montemayor** have both explored different aspects of social media analysis. Ghani focused on visual analytics for social network analysis **1199**, while Montemayor presented **SocialRank**, a workflow for identifying social relationships in an email network **802**.
- **Siming Chen**, in the D-Map project, proposed a novel visualization method to explore social behaviors and information diffusion patterns on social media, emphasizing the mapping of user participation and interactions in a visually cohesive manner **802**.
- **Nathalie Henry** contributed by developing MatrixExplorer, a system that uses dual-representation (node-link and matrices) to explore social networks, aiming to bridge the gap between complex network analytics and user-friendly visualization techniques suitable for social media analysis **1554**. Each of these researchers has contributed distinctively understanding various facets of social media, from analyzing topic dynamics and user interactions to developing tools and methods for visualizing and extracting meaningful insights from social media data.

Author	Title	Abstract
am Perer	Visual social network analytics for relationship discovery in the enterprise	As people continue to author and share increasing amounts of information in social media, the opportunity to reflect on existing relationships as well as build new relationships in an enterprise setting.
odaio Sun	EvoRiver: Visual Analysis of Topic Cooperation on Social Media	Cooperation and competition (jointly called "coopetition") are two modes of interactions among a set...fulness of our system based on two Twitter data sets (social topics data and business topics data).
	Influence Flowers of Academic	We present the Influence Flower, a new visual metaphor for the influence profile of academic entities... data beyond

## Interacting with Scholet

1. Visualizes scholars' works and academic papers in 2D space using hierarchical binning.
2. Supports semantic searches to find relevant scholars and their works.
3. Allows exploration of the distribution of scholars and papers related to a search query.
4. Enables users to select specific scholars or papers and ask detailed questions.
5. Generates responses grounded in retrieved context, with citations linking to relevant scholars and papers.

**Johannes Knittel** Breaking news and first-hand reports often trend on social media platforms before traditional news o...

**Siming Chen** In various domains, there are abundant streams or sequences of multi-item data of various kinds, e.g... Significant events are often discussed and spread through social media, involving many people. Repos... Popular social media platforms could rapidly propagate vital information over social networks among ...

**Luke S. Snyder** Various domain users are increasingly leveraging real-time social media data to gain rapid situation...

**Shuai Chen** We propose R-Map (Reposting Map), a visual analytical approach with a map metaphor to support intera...