Motivating Online Academic Discourse

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INTRODUCTION

Large online discussions happen extensively on the web to exchange information, insights, humor, diverse opinions and others' experiences. Archiving conversations available for future retrieval or contribution allows faster and more efficient consumption of information as well as better collaborations. A lot of general-purpose discussion platforms have been developed to incorporate various complex features to facilitate online discussions such as Quora, Reddit, Wikum, Disqus, Discourse and many others. Social media platforms like Twitter and Facebook have also been actively used in different kinds of online discussions. Academically, a lot of these web-based platforms have been proven to help researchers make their research more accessible [1] and to facilitate science discussions and engagement, however, they are not tailored to the nature of academic discussions. This imposes a lot of challenges on researchers who seek online interactions such as lack of peer review of research published on social media and the potential of not finding the right audience.
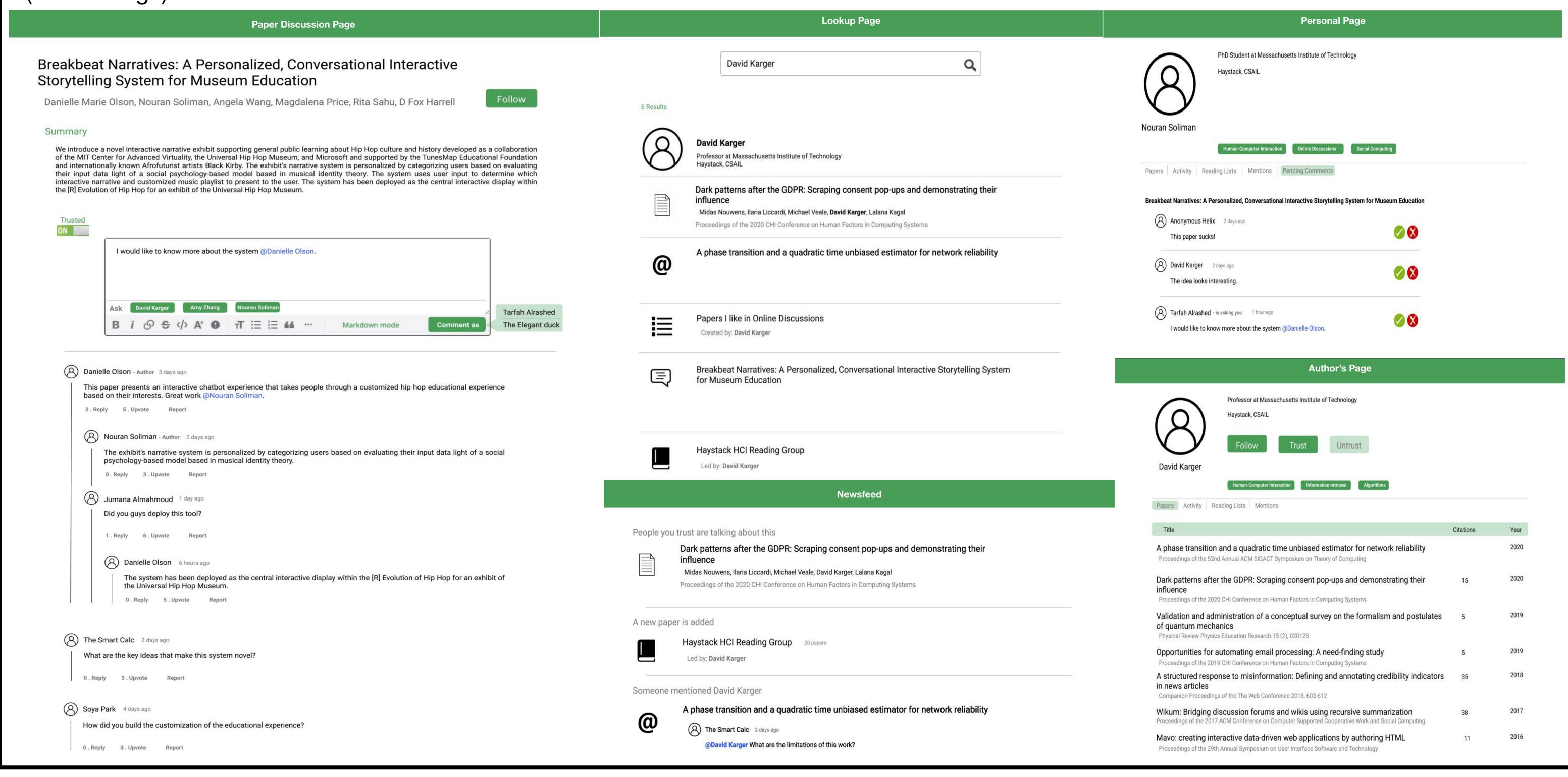
Another type of tool that is more paper-centric is academic social networking sites (ASNS) such as ResearchGate, Academic.edu and Groundai.com, where researchers can share their papers, track demand for their papers, and participate in professional discussions and information exchange. Such platforms have reflected significantly better usage for self-promotion and ego-bolstering than interaction with professionals and taking part in academic conversations [2]. With the growing number of tools and channels becoming available for researchers to engage with the public [3, 4, 5, 6], and the rising significance of online platforms like science blogs, social media and sub-communities as Reddit r/science in learning [7] and engaging with audience, developing platforms tailored to guide, encourage and archive academic conversations around research papers is very valuable. Aggregating these conversations per academic paper will gradually build a high-quality discussion repository of insights, reviews and critique that could be accessible to researchers and learners online. Such information would significantly save time and effort for future learners and could also yield more thoughtful ideas.

OBJECTIVE

In this research, we plan to explore the needs, motivations and challenges researchers face on having online conversations about their work. We will use our findings to build a system tailored to support and encourage online paper-centric discussions by possibly addressing the challenges and incorporating new enforcing functions and interactions. We will consider the exploration of concepts including moderation, anonymity, assessments and Trust.

DESIGN PROTOTYPES

Users would be able to comment on a specific paper and mention or direct questions to specific people (Paper Discussion Page), lookup for several entities: authors, papers, mentions of a certain entity, reading lists, comments and reading groups (Lookup Page), see trust-based recommendations of relevant entities (Newsfeed), moderate comments on their page (Personal Page), and access a detailed author's page (Author Page).

REFERENCES

[1] C. Estelle Smith, Eduardo Nevarez, and Haiyi Zhu. 2020. Disseminating Research News in HCI: Perceived Hazards, How-To's, and Opportunities for Innovation. 2020. CHI.

[2] Pieterse, E., & Holon, H. M. T. (2016, June). Academics' use of academic social networking sites: The case of ResearchGate and Academia. edu.

[3] Holly M Bik and Miriam C Goldstein. 2013. An introduction to social media for scientists. PLoS biology.

[4] Emily S Darling, David Shiffman, Isabelle M Côté, and Joshua A Drew. 2013. The role of Twitter in the life cycle of a scientific publication.

[5] María José Luzón. 2013. Public communication of science in blogs: Recontextualizing scientific discourse for a diversified audience.

[6] Dustin J Welbourne and Will J Grant. 2016. Science communication on YouTube: Factors that affect channel and video popularity. Public Understanding of Science.

[7] Ridley Jones, Lucas Colusso, Katharina Reinecke, and Gary Hsieh. 2019. r/science: Challenges and Opportunities in Online Science Communication. 2019. CHI.