

Consider that LIS is covered in the response from LIS program, here I will only answer these questions from the view point of my research focus: information access and retrieval.

1. *What are the major factors in your discipline that are currently shaping its long term, strategic evolution?*

Information retrieval (IR) has been an active research focus for over several decades. With the repaid development of IR technologies, the focus of IR has gradually moved to more user-centered design, more realistic tasks, and more integration with various other disciplines. Particularly, the major factors for shaping the discipline are:

- user oriented search. Search scenario is not just a single query from a faceless generic user anymore. Users' individual search history, previous interactions, identified preference all can affect the search results. In other word, search becomes user-centered and personalized.
- IR further integrates itself with other disciplines, such as machine learning (therefore, learning to rank), natural language processing (therefore, entity retrieval, question answering, semantic retrieval, scientific analytic), social networks (therefore, social-based retrieval/recommendation), scientific and academic domain (therefore, academic search, virtual search) etc.
- IR manipulates contents that are increasingly multilingual and multimedia.
- IR increasingly handles distributed and massive data, and requires parallel and distributed search environment.

2. *What is the impact of these factors? Why are they so important? What difference do they make?*

The impacts of these factors are:

- users are increasingly important in IR field. This helps to move IR closer to information science rather than pure computer science.
- IR increasingly evolves itself as a foundation support technology for modern data intensive scientific discovery for wide range of disciplines and academic tasks, more potential collaborations between IR researchers and people from other disciplines
- IR study increasingly requires more support of computational facilities to work within parallel and distributed environment.

3. *How do these factors affect the future of SIS and your program?*

Impacts to the future of SIS:

- user-centered IR helps to establish itself as a core research area in information science, its integration with other disciplines helps to make IR interdisciplinary which again is an important feature of ischool research.

Impacts to LIS:

- Users and content are two important aspects of LIS education. With IR becoming a foundational technology for various disciplines, it is important to educate IR technologies as part of LIS curriculum.

4. *How can the School respond most effectively to these factors?*

- Put IR as one of the components in the core signature areas.
- Building up critical mass of faculty and students on or around IR related areas
- Invest computational facilities for large scale, parallel and distributed IR research
- Consider training information specialists with adequate IR skills

5. *Who are the necessary partners that would need to be engaged in order to respond effectively?*

- Build collaboration with computer science, medical related schools and other schools which need search technology in their academic research.

6. *What would an effective response look like and what difference would it make?*

- Consider reshaping digital library track to train two types of graduates: content curators who are good at organizing and managing content for access, and system designers for building access systems under various tasks and disciplines. This may help to revive the digital library track.