

Back and Forth: A Model for Digital Humanities

Moshe Lavee

[1] Abstract

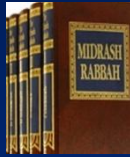
A back-and-forth research model for DH informed the establishing of a novel BSc program in Digital Humanities at the University of Haifa, Israel. The first part of the poster presents key elements from a research on Classical Rabbinic Literature, demonstrating a back and forth dynamics between computational experiments and classical philology. The second part presents the new program and the way it aspires to respond to methodological values embedded in the research.



T-S-C1.71 A Lost Rabbinic Midrash retrieved from the Cairo Genizah

[2] Basic Facts and Information

Classical Rabbinic Literature evolved in Late Antiquity (circa 0-500 CE) and gradually moved from oral to written transmission. Medieval manuscripts demonstrate significant divergence, corresponding to distinct geo-cultural branches. The divergence provoked a scholarly debate whether the manuscripts may be referred to as variants of a given work or as manifestations of distinct recensions.

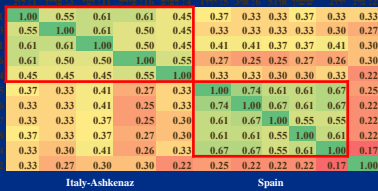


[3] The Current State of Research

The current state of digitization of Midrashic Literature (a sub-genre of Rab. Lit.) is based on manually produced line-by-line synoptic representations. This research is based on applying edit-distance algorithm on Milikowsky-Schlatter synopsis of Midrash Leviticus Rabbah (below: LR).



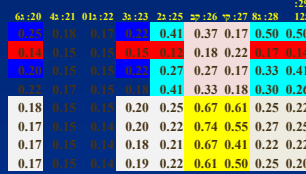
[4.1] Computation Verifies Classical Research



An automated clustering of full manuscripts verifies former observations:

- Identifying two main branches of transmission.
- Noting the stronger affinity between members of the Spanish branch, in comparison to members of the Italian/Ashkenazi branch.

[4.2] Computation Visualizes Novel Observations



Examining partial manuscripts and fragments against identified clusters of MSS reveals two kind of affinities:

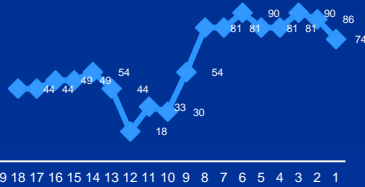
- Light blue: a set of Cairo Genizah fragments related to the Italian Ashkenazi Branch.
- Yellow: partial manuscripts that show strong affinity to the Spanish branch.

[4.3] Classical Humanities Methods Provide Explanations



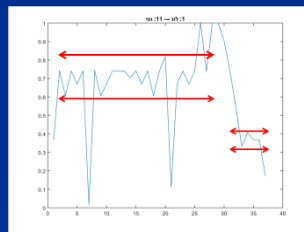
Paleographic information in a catalogue contextualizes the affinity of partial manuscripts to the Spanish branch. Written in late 16th century eastern hand these are manifestations of intra-Jewish cultural "colonialism". Following the expulsion (1492), Jewish communities in the East were subject to a cultural dominance of Spaniard immigrants. Spanish liturgy and practices became prevalent over local customs. The Spanish branch of Midrashic text also became popular.

Average Distance of Chapters Leviticus Rabbah 1- 20 London vs. Munich

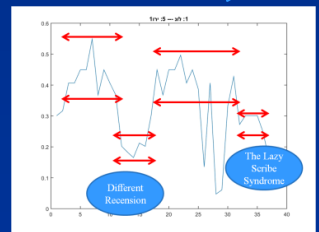


Applying the algorithm to chapter-parsed pair of manuscripts shows confirms an old observation:

- MS Munich belongs to Italian/Ashkenazi-branch up to ch. 9.
- From ch. 9 on the manuscripts reflects a unique version.



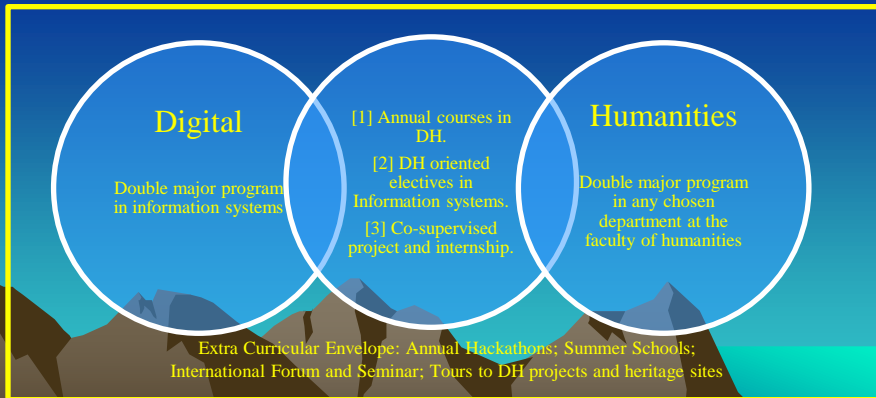
Similar parsed application of the algorithm to any given pair of manuscripts enabled revealing unknown abnormalities. This supplies a macro-reading of the relations between manuscripts, and enables identifying typical vs. deviating chapters.



Returning to classical philological methods, an examination of the synoptic charts enables analyzing the type of variations in different "deviating" chapters. For example, ch. 12 – 16 implies for the use of a different recension in Spanish mss; the deviation in the last chapters is due to frequent omissions: "The Lazy Scribe Syndrome"

The following Digital Humanities Values embedded in this study informed us in designing the new BSc in Digital Humanities at the University of Haifa:

- Collaboration
- Disciplinary immersion
- Experimentalism
- DH community



•Moshe Lavee, Co-chair of BSc in DH, Faculty of Humanities, The University of Haifa.
 •Tsvika Kuflik, Co-chair of BSc in DH, Department of Information Systems, Faculty of Social Sciences, The University of Haifa; Sinai Rusinek, Academic coordinator.
 •Research: In cooperation with E. Yom Tov, formerly IBM research labs, Haifa.
 •Schools and departments DH BSc representatives: G. Bar-Oz, J. Ben Dov (Jewish Studies); Y. Ben-Basat (Middle East); G. Gambash (Marine Studies); A. Hussein (Arabic); E. Lev (School of History); K. Omry (English Literature); A. Schab (Music and Arts); T. Zwey (Hebrew and Semitic Languages).