Hypergraph Text Encoding Protocol (HTXN)

This paper will summarize the Hypergraph Text Encoding Protocol (**HTXN**) and discuss its applications for testing, education, and the development of test and test-preparation materials.

HTXN is a new format and protocol for representing publications. The central goal of **HTXN** is to support a new generation of publishing technologies, where conventional document formats are increasingly being supplanted by digital, multi-media reader experiences. In the contemporary publishing paradigm, individual publications are often linked with other forms of digital content: multi-media resources, research data sets, machine-readable representations of document text, and domain-specific sofware applications (used to study or visualize the case-studies or research findings discussed in publications). The conventional manuscript (the "primary" resource which is cited and downloaded) is then networked with a package of supplemental (or "secondary") resources. The **HTXN** protocol is designed to rigorously document these multi-media networks, enabling e-readers and domain-specific applications to be integrated so that readers may easily access and experience multi-media content.

The generic term "multi-media content" actually encompasses multiple phenomena:

Multimedia Files Individual files representing audio, video, or 3D graphics content. These files may be linked from specific locations in the primary manuscript, or even embedded within manuscripts published in **PDF** format.

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