CONSIDERATIONS FOR A GEOMETRIC MODEL OF THE WEB.

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Abstract. The World-Wide Web may be viewed as a massive (with over a billion nodes) finite directed graph whose pages and hyperlinks form its nodes and arcs respectively. The intensive study of the structure of this graph provides new approaches to algorithmic tools and to the design of data services for the Web. We suggest a new geometric viewpoint on this graph. Namely, we regard the Web as a space with negative (or hyperbolic) curvature. This gives a finer information on the hyperlinked structure of the Web. We also outline potential applications of this analytical approach to improve on algorithms that search and mine the Web.

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