1154-C5-1473   **Jim Fowler*** (`fowler@math.osu.edu`), Columbus, OH 43210, and **Bart Snapp**, Columbus, OH 43210. *TEX in the browser.*

The author has written an open-source Pascal compiler which targets WebAssembly, meaning that Knuth's TEX source can be compiled to something which runs in a web browser. Combining this with dvi2html, the resulting DVI can be rendered to HTML, with PGF specials rendered as SVG. (This permits us to build TikzJax, i.e., a tool akin to MathJax but for rendering figures built with TikZ).

Making TEX a first-class citizen on the web yields additional benefis to OER. With "isomorphic git" the usual git commands can also be run from within a web browser, so TEX worksheets stored on GitHub can be cloned to a web browser, compiled in the web browser, and viewed and edited by students, all without involving a server. This talk will demonstrate this technology and some of the interactive Ximera features built around it. (Received September 15, 2019)