D3GL is D3 for spatial data
D3GL provides a simple API for hardware-accelerated 3D data visualization in the browser

Motivation: Spatial data in its native form
The human brain has powerful mechanisms for spatial reasoning. We want to leverage these to allow users to grasp data in a tactile and efficient way.

Problem: WebGL is powerful but unwieldy
WebGL is powerful, but it is a JS wrapper for a low-level C API. Libraries like Three.js, PhiloGL, and Facet provide a nicer interface, but are still geared to 3D games and demos, requiring a lot of manual control.

Solution: D3GL - concise API
D3GL provides a set of primitives that can be bound to data. You can make polished and interactive visualizations without dealing with cameras, lights, materials, and matrix transformations. Data binding is done in the style of D3.js.

Future Work:
Support: new 3D data primitives
Expand D3GL to support primitives other than the globe and its overlays, including arbitrary 3D meshes including CAD models.

Publish: open-source on Github
We already have demos and documentation. We want to make it easy for developers to learn and use.

First high-level view: the globe
The globe supports four primitives: points, shapes, bars, and arcs

Points
Shows points and circles. You can map each datum to a latitude, longitude, radius, color, etc.

Shapes
Renders arbitrary shapes. Like points, it supports color-coding, mouse interaction, etc.

Bars
Displays a bar char on a globe. Top view shows spatial distribution, side view allows accurate comparison. Supports color, size.

Features
Transitions & animation | Large datasets | Mouse interaction via raytracing | Multi globe | Multiple views per globe

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