

I worked with, and on internet standards committees from 1990 till 1997, through times at Pandora, WAIS, Worlds Inc, Paragraph and SGI. I no longer do this work with the internet, but would be interested in similar work with sustainability standards.

In particular some highlights have been:

- I was heavily involved in early internet standardisation. I'm credited in the RFCs (the documents that define the Internet) for being part of the [URL](#), and [HTTP](#) and the [Internet Architecture Board meeting 1994](#) and I co-authored the RFC [on the mime-type model/](#) (the first new primary mime type accepted)

- I have a tenuous claim to co-inventing the **URL**, with Brewster Kahle, Bob Tribble and Bob Schumaker at a meeting at the "Hackers Conference" in October 1991. Of course credit with actually using the idea goes to Tim Berners-Lee who Brewster shared the idea with at an IETF meeting, and who needed something like this for his new system called the World Wide Web. [More docs ...](#)

- I was co-author of the Moving Worlds proposal, which became **VRML2.0**, and was then renamed VRML 97 when it was approved by ISO. Despite the attempt by SGI to claim all the credit, this was really mostly the work of a few individuals: Gavin Bell, Rick Carey and Chris Marrin from SGI; Yasuaki Honda and Kouichi Matusda and Rodger Lee at Sony and myself. There is a historical archive of the papers I still have copies of [here](#), the spec more recently morphed into X3D, and the VRML2 spec also became part of the MPEG4 scene description language.

- My own interest, was creating community online, so I co-authored with Bob Rockwell and others at Blaxxun and Honda-san and others at Sony, the **Living Worlds** specification for multi-user shared worlds, I wrote most of the technical aspects of the paper and in particular came up with the Zones / Objects / State concept, and the term MuTech (pronounced Mew-tech) which has gone into the language to apply to the technology that links multi-user systems. I'm told this is becoming part of MPEG4 multi-user environment requirements, although I have not stayed connected with this work.

- In particular -- a tiny sideline in VRML2.0, but something that was learned from the mistakes of HTML, was to make sure that all URL's were multi-value fields allowing for pointing to multiple sources for textures. This was later exploited in the **UML standard** which I wrote the technical parts of with Chris Marrin, and which allowed textures and other files to be shipped as libraries, so that 3D environments would load much quicke