Mel Conway's Bona Fides

I have retired from a career of software-design consulting and entrepreneurship. My best work has been showing the connections between how people organize themselves purposefully and the outcomes these organizations enable or disable. Since 2020 I have been applying these insights to writing about political organization from a systems perspective.

Contact:

    Name: Melvin E. Conway

    Email: conway.mel@gmail.com

    Twitter/X: @conways_law, Bluesky: @conways-law.bsky.social

Education:

    BS Physics, Case Western Reserve University 1955. MS Physics, Caltech 1957

    PhD Mathematics, Case Western Reserve University 1961

Active Military Duty:

    Lieutenant US Air Force 1962-1963. Participated in an internal consulting group supporting major systems acquisition. Awarded the Air Force Commendation Medal.

Innovations:

- Paper: "How Do Committees Invent?" The thesis was named Conway's Law by Fred Brooks in his book "The Mythical Man-Month"; it has general applicability for describing organizations, both technical and non-technical, and is basic to design practice.
- I designed and built the first interactive video viewers for CT and PETT scanners at a time when scanners were producing Polaroid prints. I built three units using TTL/MSI technology in the 1970s and installed them at Massachusetts General Hospital, Barnes Hospital, and Brookhaven National Laboratory.
- At a time when COBOL compilers were magnetic-tape sort-merge routines, I invented and published a design of a one- or two-pass COBOL compiler. Burroughs and Honeywell went on to build it for their computers.
- Patent: "Dataflow Processing with Events". US Patent 6,272,672. 151 Claims. Describes a novel conceptual and execution model for interactive applications.
- I gave this presentation to a client that incorporated the concepts of the patent into a proposal for a novel approach to collaborative application-building based on a two-sided market that combines the work of skilled and unskilled builders.
- I developed a novel design for an interactive Pascal development/execution environment, built a prototype on an Apple II, and, with my two partners, obtained a contract to build it as an Apple-labeled product, Macintosh Pascal, which Apple used to enter the undergraduate computer-science market.

Independent Consultant, 1968-2020. Some clients:

    Brookhaven National Laboratory, Burroughs Corporation, US Department of Health Education and Welfare, Digital Equipment Corporation, Massachusetts General Hospital, Monroe Calculator Company, National Bureau of Standards, Raytheon Corporation, Rockwell International Corporation, Salesforce, US Air Force, US Veterans Administration, Washington University Medical School.

Recent writings:

    Needed: Systems Thinking in Public Affairs

    On Disrupting State Capture