

FELLOW PROFILE

Name:	John W. Senders	
Degrees, certifications, etc.:	AB, PhD	
Current status:	Professor Emeritus, University of Toronto & Professor-at-Large, University of Vermont	
Home page:	Johnwsenders.net	

Biography (How you got involved in the field, your major career activities and milestones):

My parents sent me out to Antioch College, in the small town of Yellow Springs, Ohio. It was reputed to be of reasonable academic standing and, more importantly, extremely liberal in admitting students. It accepted me as a student. I was sent home with a letter saying (to my father in those sexist days):

Dear Mr. Senders: It is rare for a student to be sent home before the end of his first year, but in the case of your son John, we are making an exception. Sincerely, etc, etc."

My father's comment was: "People will always make exceptions for you."

I never took a graduate course in anything. I was admitted to Harvard and did an A.B. in Experimental Psychology. I worked on the side (full time) and was Chief Electronics Engineer of a small firm in Boston (General Controls Co) when I graduated. I had also acquired a Pilot's License and became hooked on aviation even more than ever (I first flew in an airplane in 1928, 25 years after the Wright Brothers!)

I wanted to visit the AeroMedical Lab and the only way I could get admitted was to fill out an application for employment and be sent in to be interviewed. That led to my being classified by the U.S. Civil Service (in their moment of madness) as an "Aviation Physiological Psychologist" and being hired by the USAF AeroMedical Laboratory in 1950 to be their resident Engineer!! When I was 63, at the invitation of Andreas Sanders, I submitted a dissertation to the University of Tilburg, (Netherlands) and thus earned the PhD. In between I had moved to Bolt Beranek & Newman (BBN) in 1962 at Licklider's invitation; and to Brandeis as a Lecturer in Psychology in 1967. In 1973 I became a visiting professor at the U of Toronto and a year later, a tenured full Professor with an A.B. degree.

In brief, my father had been correct: people had always made exceptions for me.

Employment History (List top 5 positions):

Prof. Of Safety Science, Univ. of Miami Med. School; Adjunct Prof. Of Law, York Univ.; Prof. Of Ind. Eng, Univ. of Toronto; Prof of Mech. Eng. & Psychology, Univ. of Maine; Founder & President, Human Factors North, Toronto. (originally Man Machine Systems and my colleagues were Don Donderi and David Ostry, both at McGill Psychology. The name was changed to Human Factors North when Neville Moray and Alison Smiley joined the firm).

What were your significant contributions to the field?

• Made explicit the characteristics of and differences between Pursuit and Compensatory Tracking Tasks. 1952 et seq.

• Initiated and expanded the Mathematics of Attention, Control, and Visual Sampling. 1955 et seq

• Mathematical models of control and monitoring of multi-dimension tasks like aircraft piloting, automobile driving, nuclear power plant control, etc.

• The design and experimental operation of the Electronic Journal.

• Invented and demonstrated the Occlusion Method (1965-1967) for real time measurement of the Attentional Demand of the control of multi-degree-of-freedom tasks.

• Seminal work on the study and analysis of Human Error, with a special interest in Medical and Medication Error. 1979 et seq.

COMMITTEE WORK

Comm. on Bioastronautics, Nat. Res. Council, 1959-1960;

Man-in-Space Comm., Space Science Board, NAS, 1960-62;

Participant: "Summer Study and Review of Space Research", State Univ of Iowa,

Iowa City, Iowa; June 17- August 10, 1962

Committee on Hearing, Bioacoustics, and Biomechanics,

Nat.Res.Council, US 1962-1980;

Committee on Vision, Nat.Res.Council, US 1970-1980;

Communications Committee; APA, 1970-1973;

Council of Representatives, APA, 1971-1974;

Highway Safety Committee, Highway Research Board, 1965-1972;

Road User Characteristics Comm, Highway Res.Bd, US 1972-1980;

Industrial Engineering Grant Selection Committee, Nat. Res.

Council (Canada), 1974-1976; Chair, 1976-1977;

Advisory Board for Life Sciences Research, USAF Office of

Scientific Research, 1985-1990

Consortium on Infusion Management Safety, Communicore, 1992-1994

Did you receive any notable awards or recognition during your career?

Cheers Award (ISMP) for *Recognizing actions that have set a standard of excellence in the prevention of Medication Errors*. (2001)

KMDI Pioneer Award in Electronic Publishing, 2008

Franklin C. Taylor Award for *Outstanding Career contributions to the field*. 2010 Fellow: APA; HFES; APS; AAAS; ARS; Assoc. Fellow, AIAA; Ch. Mbr. Psychonomics

Society; Sen.Mbr. IEEE; Cosmos Club.

Ann agreed to marry me.

Which articles in the journal *Human Factors* would you say were the most influential to you and your research or practice? I cannot think of any of which that could be said. Moray always complained that I never read anyone else's work anyway. Shannon's Information Theory papers in the Bell System Technical Journal were very influential.

Please provide any links to your online articles, essays, blogs, Wikipedia pages, etc., that pertain to your research, publications or practice. www.johnwsenders.net

What advice would you give someone considering HF/E as a profession? Go for it!! More fun than a barrel of monkeys!