Specific Outstanding Technical and Professional Accomplishments:

- Co-Founder and Chief Technical Officer of QTL Biosystems, a start-up company based on fluorescence superquenching, a phenomenon discovered and co-developed for biosensing and chemical sensing applications by Whitten and his Co-Founder Duncan McBranch. During first five years after founding in 2000, QTL developed into a company of ~30 science and engineering professionals covering fields from Physics, Chemistry, Mechanical Engineering, Electrical Engineering, Biochemistry and Microbiology. Developed and sells commercial products for drug discovery, enzyme activity and bioagent detection. Has attracted major funding for continued operation from Department of Defense agencies in US and in UK.
- Founding Director of the National Science Foundation Center for Photoinduced Charge Transfer – a pioneering multidisciplinary research center promoting university-industrial collaborative research. In the period 1989-2000, the Center provided a unique forum for interaction among scientists in industry and academia, educated a new generation of scientists and engineers and provided a successful model for future efforts in interdisciplinary research.
- Editor-in-Chief of Langmuir from 1998-present – guiding the journal into leadership in interdisciplinary research in areas of surfaces, colloids and interfaces, during 10 years the journal has risen to third in total submissions among American Chemical Society journals, submissions have increased from ~1400 to ~5000 annually during this time. Langmuir Impact Factor increased to >4.0 in 2007 and continues to climb; Langmuir has greatly expanded its base of authors and the disciplines they represent. Langmuir has also been a pioneer in establishing editorial offices outside the US.
- Department Chair of Chemistry at University of Rochester, developed faculty with strong interdisciplinary programs, lasting interactions with faculty in Schools of Engineering and Medicine. Chemistry Department at Rochester recognized as a leader throughout the US and the world during time Whitten was Chair.
- Co-Director of start-up Center for Biomedical Engineering at University of New Mexico; Interim Director, 2009-present
- Pioneering and Advanced work in understanding photoinduced electron transfer reactions and their applications for chemical reactions and energy storage processes.
- Fundamental studies of molecular aggregation processes in solutions, colloids and at interfaces and their applications to biosensing and development of antimicrobials.
- Fundamental studies of photophysics of organic molecules, metal complexes, molecular assemblies and biomolecular systems: energy transfer, energy dissipation, energy storage and chemical conversion processes.
- Whitten's scientific publications have been highly cited; his "h" factor is 58.