George H. Collier PhD

Passionate advocate of technology change with real world impact

More than 25 years of innovative product creation. Extensive expertise with the many dimensions of technology invention and transfer.

EXPERTISE

Strategic technology introduction	Technology analysis, business case development, market sizing, business development, strategic initiatives, customer presentations, prototyping, demonstration, project planning, project management, costing, proposal writing
Product development	Product development processes, stage gate, product lifecycle management, Agile, RUP, use cases, user stories, TDD, BDD, voice of the customer, QFD, system engineering, enterprise process modeling, manual labor simulation
Converged service providers architecture	Mobile services, integration of IT and communication service provider processes, cloud computing and telecom offerings, service provider product management processes and technology, enterprise architectures
Web development	Graphic design, Inkscape, GIMP, HTML, CSS, Ruby, Rails, RSpec, Cucumber, PHP, Java, SQL, Linux, Joomla, Concrete5

CAREER SNAPSHOT

- **Cloud Computing**: Contributed key **process knowledge** and **customer presentation skills** to successful effort to interest large government customer in Telcordia systems for cloud management. Provided mapping of system functions to **ITIL processes**. Contributed presentations and white papers. Currently developing solution architecture.
  - ✓ **Impact: Helping launch new line of business**

- **Mobile Healthcare Initiative: Champion of mHealth effort** with local hospitals and research institutions. Developed and delivered a series of **innovative proposals** to the NIH and the military. This work included developing requirements, architectures, project plans and proposal documents for research trials of mobile applications. Submitted proposals included:
  - ✓ Mobile based **context aware intelligent reminder system** to support healthy behavior. Contributed **relationship, technical design, application concepts** (UMDNJ Hospital)
  - ✓ **Led effort to design and propose location aware mobile health care game** supported by activities provided by the Newark community. **Designed application** and contributed **relationship**. (UMDNJ Hospital and Newark Mayor's Office)
  - ✓ **Led effort to design and propose social networking** application for soldiers with PTSD. Contributed **key application concepts** and **developed relationship** (Kessler Rehab)
  - ✓ **Led effort to design and propose a mobile diagnostic system** to support community Healthcare workers in the third world. **Led application design** and **contributed relationship** (University of Pittsburgh)
  - ✓ Mobile **memory training application** for MS patients. Contributed to **design** and **proposal** (Kessler Rehab)
  - ✓ **Led design** of mobile based **chronic disease management system** utilizing **environmental labeling**. Contributed **key application concept** and **relationship** (Rutgers University)
  - ✓ **Led design** of SMS based **emotional support system** for depression post Traumatic Brain Injury**. Contributed key application concept and relationship** (Moss Rehab Einstein)

- **Enterprise Process Design: Cultivated relationship** with Corning Cable systems and contributed key process knowledge to **support proposal developmen**t and **system design** for software to support innovative new data center equipment. Resulted in product development sale to external company.
  - ✓ **Impact: Sale of system development work to Fortune 500 company**

- **Product Lifecycle Initiative: Led effort** to develop comprehensive approach to telecom product lifecycle management by **building alliance between four companies**. Reported to two senior presidents of Telcordia as technical project lead. Built project with a budget of more than $2M/year **spanning three Telcordia business units and three external companies**.
  - ✓ **Developed product concept** for industry wide Service Provider master equipment catalog resulting in Oracle offer to fund develop of product. Developed requirements using **voice of the customer interviews**. Results praised as "*best set of product requirements* " by Telcordia Vice President. Provided key contributions to interface design and system architecture.
  - ✓ **Technical project lead** for successful **ergonomic modeling** of Corning fiber hub which led to **key product changes** and subsequent large Corning **business wins**. Recognized by Corning as "*one the 10 most innovative engineering projects in the company history*" by senior Corning President. **Estimated ROI of $130M**.
  - ✓ **Technical project lead** for data capture and **process modeling** of Verizon's **work processes** for broadband fiber to the home installs resulting in **fundamental process changes. Cut time to install by 20% and achieved goal of 2 installs per team per day.**

- **New product creation:** Championed workflow management systems resulting in **successful development and sale** of B2B electronic commerce gateway system. Transitioned from research to development to **act as chief software architect** of new software product.
  - ✓ **Impact: creation of successful new software product for Telcordia**

- **New product creation:** Championed **application of network graphics workstations** to outside plant network design resulting in **development and sale of innovative network design system**. Development funded by 5 Regional Bell companies. Transitioned from research to development to act as **chief software architect** of the new software product.
  - ✓ **Impact: creation of successful new software product for Telcordia**

- **New product prototyping:** Developed multi-media Hypertext system which anticipated world-wide web by several years. Developed innovative graphical user interface for browsing semantic networks.
  - ✓ **Impact: Demonstrated to LA Times, Business Week, Communication Week and others. Installed in the main company lobby. Developed interface now widely used today by Google and others.**

EDUCATION and ACADEMIC POSITIONS

PhD in Cognitive Science	1984	Princeton University
MA in Cognitive Psychology	1982	Princeton University
MA in Philosophy of Science	1976	University of Chicago
BA in Philosophy	1975	Carleton College

Visiting Researcher	Courant Institute	New York University	1999
Visiting Professor	Cognitive Science Laboratory	Princeton University	1987